



PREPARED MICROSCOPE SLIDES IN SYSTEMATIC ORDER

The list of the available microscopic specimens was also revised and further essentially completed. Their systematic arrangement facilitates the finding of slides necessary to compile series for special use. A detailed list of contents is found on page 76.

Helpful for orientation are the • marked slides of important specimens which are characteristic and representative of the taxonomic group or of the subject.

Various slides are available only in small number or have a long delivery period, as their material is either rare or causes unusual difficulties in processing. This applies particularly to the slides marked with an asterisk * in the catalogue, for which we cannot guarantee delivery.

Abbreviations: t.s. transverse or cross section l.s. longitudinal section w.m. whole mount or entire specimen

PROTOZOA

Rhizopoda (Sarcodina)

- Pr112e • **Amoeba proteus**, showing nucleus, endoplasm, ectoplasm, food vacuoles, pseudopodia w.m.
- Pr113f • **Amoeba proteus**, section through specimens
- Pr114f • **Entamoeba histolytica**, causes amebic dysentery, smear from feces
- Pr1141h • **Entamoeba histolytica**, causes amebic dysentery, smear showing trophozoites (asexual forms) *
- Pr1142h • **Entamoeba histolytica**, causes amebic dysentery, smear showing cysts *
- Pr115g • **Entamoeba histolytica**, section through diseased colon showing the parasites in situ
- Pr116g • **Entamoeba coli**, nonpathogenic, smear from feces
- Pr1161h • **Entamoeba coli**, nonpathogenic, smear with trophozoites *
- Pr1162h • **Entamoeba coli**, smear showing cysts *
- Pr1165h • **Entamoeba hartmanni** trophozoites. Smear, intestinal amoeba; nonpathogenic to humans
- Pr1166h • **Entamoeba hartmanni** cysts. Smear
- Pr1168h • **Dientamoeba fragilis** trophozoites. Smear
- Pr117f • **Entamoeba invadens**, large specimens from culture, good for demonstration
- Pr1173g • **Entamoeba gingivalis**, smear with trophozoites
- Pr1174h • **Endolimax nana**, small human parasite, smear with trophozoites *
- Pr1175h • **Endolimax nana**, smear with cysts *
- Pr1177h • **Jodamoeba butschlii**, a commensal living in the human intestine, smear with trophozoites *
- Pr1178h • **Jodamoeba butschlii**, smear with uninucleate cysts *
- Pr1181v • **Pneumocystis carinii**. Smear from lung tissue stained to show cyst wall of parasites *
- Pr1182v • **Pneumocystis carinii**. Smear from lung tissue stained to show trophozoites and sporozoites *
- Pr119d • **Arcella**, shelled amoeba w.m.
- Pr1195s • **Actinosphaerium**, a fresh water actinopode w.m. *
- Pr121d • **Radiolaria**, mixed species showing different forms
- Pr122d • **Foraminifera**, mixed species showing different forms
- Pr1251d • **Foraminifera** from Mediterranean sea, mixed recent
- Pr1252d • **Foraminifera**, mixed fossil, chalk
- Pr124d • **Foraminifera**, mixed forms from the Adriatic Sea
- Pr123d • **Globigerina**, marine forms, mixed species

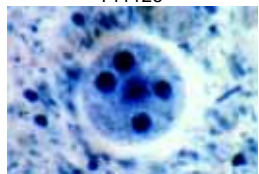
Flagellata (Mastigophora)

- Pr211c • **Euglena viridis**, a common green flagellate with eyespot and flagellum, w.m.
- Pr2112c • **Euglena gracilis**, a smaller species, w.m.
- Pr2113f • **Euglena**, a large species specially fixed and stained to show the flagella, w.m.

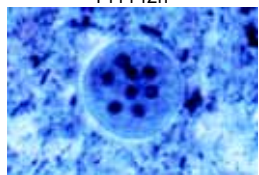
- Pr2114d • **Phacus**, flat heart-shaped cells w.m.
- Pr2115e • **Trachelomonas**, a free swimming species of the Euglenophyta
- Pr212c • **Ceratium hirundinella**, a fresh water dinoflagellate w.m.
- Pr2121c • **Ceratium**, slide showing different marine forms w.m.
- Pr2123d • **Peridinium**, a fresh water dinoflagellate w.m.
- Pr213d • **Noctiluca miliaris**, a large marine flagellate causing the phosphorescence of the sea, w.m.
- Pr225h • **Chilomastix mesnili**, flagellate found in human intestine, nonpathogenic, smear with trophozoites *
- Pr2252h • **Chilomastix mesnili**, smear with cysts
- Pr221h • **Giardia lamblia intestinalis**, human parasite, smear with trophozoites *
- Pr2212h • **Giardia lamblia intestinalis**, smear showing cysts *
- Pr223f • **Trichomonas sp.**, smear with trophozoites
- Pr2232h • **Trichomonas vaginalis**, smear *
- Pr2233h • **Trichomonas muris**, trophozoites
- Pr230f • **Trypanosoma gambiense**, a blood flagellate, causing Central African sleeping disease, blood smear
- Pr231f • **Trypanosoma rhodesiense**, causes South African sleeping disease, blood smear with parasites
- Pr232f • **Trypanosoma evansi**, causes surra in cattle, blood smear
- Pr233f • **Trypanosoma brucei**, causes nagana, blood smear
- Pr234f • **Trypanosoma congolense**, pathogenic to domestic animals, blood smear
- Pr235f • **Trypanosoma equiperdum**, dourine in horses, blood smear
- Pr236f • **Trypanosoma cruzi (Schizotrypanum)**, causes Chagas disease of man, blood smear showing trypanosomes
- Pr237g • **Trypanosoma cruzi**, section through infected heart muscle shows Leishmania forms in tissue *
- Pr2372h • **Trypanosoma cruzi**. Smear from culture showing cultured forms *
- Pr2373g • **Trypanosoma cruzi**. Leishmania forms in sec. of mouse brain *
- Pr2374g • **Trypanosoma cruzi**. Leishmania forms in sec. of mouse liver *
- Pr2375g • **Trypanosoma cruzi**. Leishmania forms in sec. of mouse heart muscle fibres *
- Pr2376g • **Trypanosoma cruzi**. Leishmania forms in sec. of mouse spleen
- Pr241f • **Trypanosoma lewisi**, a large species living in rats and mice, blood smear with parasite, heavy infection
- Pr2413g • **Trypanosoma lewisi**, blood smear, early stages of infection with division stages
- Pr2414g • **Trypanosoma lewisi**, blood smear, later stages of infection, large forms *
- Pr238f • **Leishmania donovani**, causes Kala-Azar, smear from the infected spleen showing the typical Leishman-Donovan bodies
- Pr239g • **Leishmania donovani**, section through infected spleen or liver showing the parasites within the cells



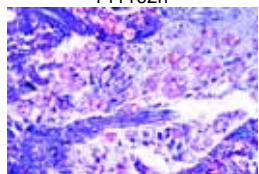
Pr112e



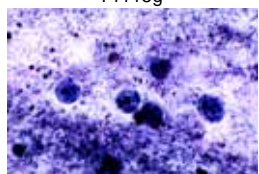
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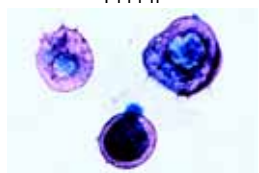
Pr1162h



Pr115g



Pr114f



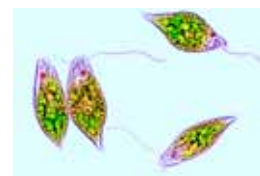
Pr119d



Pr121d



Pr122d



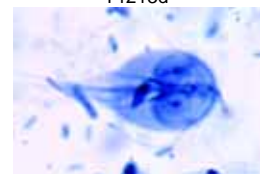
Pr211c



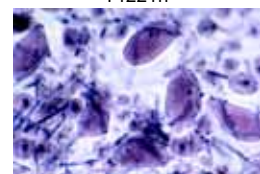
Pr212c



Pr213d



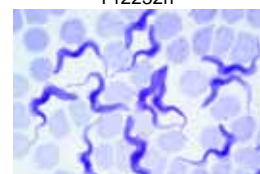
Pr221h



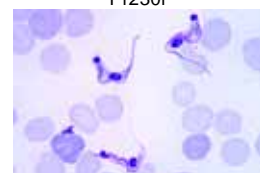
Pr223f



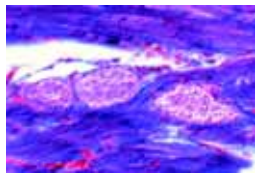
Pr2232h



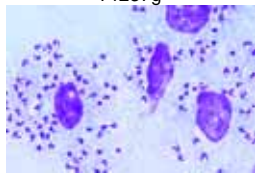
Pr230f



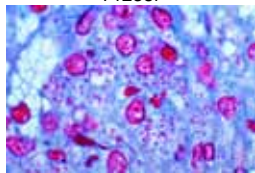
Pr236f



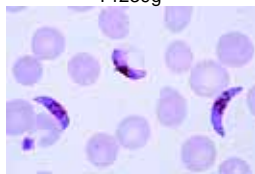
Pr237g



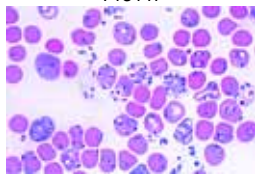
Pr238f



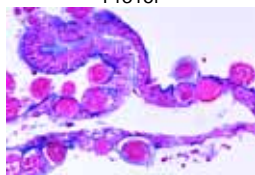
Pr239g



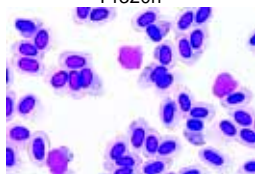
Pr311f



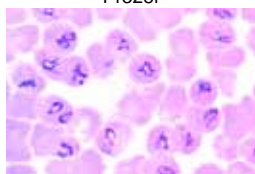
Pr315f



Pr320h



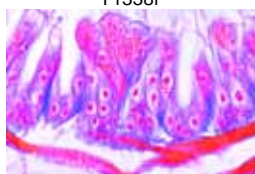
Pr328f



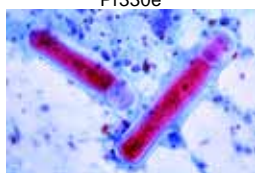
Pr337f



Pr338f



Pr330e



Pr333f

- Pr2392t **Leishmania donovani**, smear from culture showing Leishman and leptomonad forms *
- Pr2395h **Leishmania donovani**, promastigotes, smear from culture *
- Pr2396h **Leishmania donovani**, amastigotes, smear from tissue *
- Pr2397h **Leishmania mexicana**, promastigotes, smear from culture *
- Pr240f **Leishmania enrietti**, section through nasal abscess from Guinea pig. Very heavy infection
- Pr2405g **Crithidia fasciculata**, smear from intestine of Anopheles mosquito showing the typical crithidia forms *
- Pr2378g **Termite flagellates**. w.m., showing large vegetative forms *
- Pr251d • **Silicoflagellates**, various species

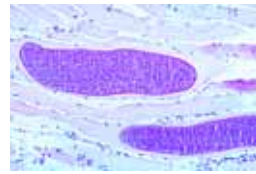
Sporozoa

- Pr311f • **Plasmodium falciparum**, malignant tertian malaria of man, blood smear with typical ring stages
- Pr3112g **Plasmodium falciparum**, blood smear with more gametocytes *
- Pr312f **Plasmodium falciparum**, thick diagnostic smear *
- Pr313h **Plasmodium vivax**, benign tertian malaria of man, blood smear *
- Pr3132h **Plasmodium vivax**, thick diagnostic blood smear *
- Pr3145h **Plasmodium malariae**, causing quartan malaria, blood smear *
- Pr315f • **Plasmodium berghei**, blood smear from experimentally infected mouse. Very heavy infection shows abundant parasites in different stages of development
- Pr320h **Plasmodium sp.**, section through infected mosquito stomach with oocysts containing sporozoites *
- Pr321i **Plasmodium sp.**, section through the salivary gland of infected mosquito with sporozoites *
- Pr322h **Plasmodium sp.**, exoerythrocytic stages in sec. of brain *
- Pr323h **Plasmodium sp.**, exoerythrocytic stages in sec. of liver *
- Pr3235g **Malaria melanemia in human spleen**, sec. showing pigment granules in endothelium and Kupffer's cells
- Pr326f **Plasmodium praecox**, avian malaria, blood smear
- Pr327f • **Plasmodium gallinaceum (Proteosoma)**, fowl malaria, blood smear from chicken *
- Pr328f **Plasmodium cathemerium**, avian malaria, blood smear *
- Pr3285s **Plasmodium circumflexum**, smear from lung or brain of bird showing exoerythrocytic schizogony *
- Pr3287s **Leukocytozoon**, smear from fowl blood with parasites *
- Pr329s • **Haemoproteus columbae**, pigeon malaria, blood smear *
- Pr3293t **Haemogregarina**, smear from frog blood with parasites *
- Pr337f • **Babesia canis**, blood smear shows heavy infection
- Pr338f • **Toxoplasma gondii**, causing toxoplasmosis, tissue smear with parasites
- Pr3381f • **Toxoplasma gondii**, section of the brain showing cysts with parasites *
- Pr330e • **Nosema apis**, honey bee dysentery, sec. of diseased intestine
- Pr331d • **Monocystis lumbrici**, in smear from earthworm seminal vesicle
- Pr332d **Monocystis lumbrici**, section with parasites in situ
- Pr333f • **Gregarina**, in smear from mealworm (Tenebrio) intestine
- Pr334d **Gregarina**, in section from mealworm intestine, parasites in situ
- Pr335d • **Eimeria stiedae**, causing coccidiosis in rabbit, section of liver shows schizogony and all developing stages
- Pr3352d **Eimeria stiedae**, coccidiosis, smear from faeces
- Pr336d **Eimeria tenella**, section of diseased chicken intestine *
- Pr339f • **Sarcocystis tenella**, section of muscle showing the parasites in Miescher's tubes

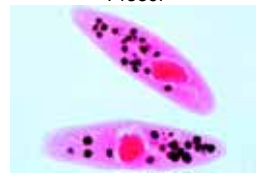
- Pr3392f **Sarcocystis tenella** in heart muscle, sec.
- Pr3365s **Myxosoma**, parasite on fish gill, sec. *

Ciliata (Infusoria)

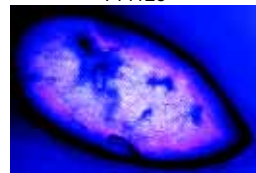
- Pr411d • **Paramecium**, macro- and micronuclei stained. The typical slide for general study of this common ciliate
- Pr412e **Paramecium**, food vacuoles and nuclei doubly stained
- Pr413e **Paramecium**, pellicle stained after Bresslau
- Pr414e **Paramecium**, silver stained to show the silver line or neuroformative system
- Pr415e **Paramecium**, specially prepared and stained to show the trichocysts
- Pr416f • **Paramecium**, in conjugation, nuclei stained *
- Pr417g • **Paramecium**, in fission, nuclei stained *
- Pr418e **Paramecium**, section through many individuals, triply stained
- Pr419f **Paramecium**, stained with Feulgen reaction
- Pr4194e **Paramecium multimicronucleatum**, w.m. nuclei stained. This species contains several micronuclei
- Pr4195e **Paramecium aurelia**, w.m. nuclei stained. This species containing one macronucleus and two micronuclei
- Pr4196e **Paramecium bursaria**, w.m. and nuclei stained, showing symbiotic zoochlorellae in endoplasm
- Pr422e • **Vorticella**, a common stalked ciliate w.m.
- Pr4222e **Vorticella**, a marine species, colonial ciliate
- Pr421d • **Stylonychia**, a common ciliate w.m.
- Pr430e • **Colpidium**, a common holotrich ciliate
- Pr427f **Spirostomum ambiguum**, a ciliate with very large nucleus
- Pr428g **Stentor**, a trumpet-shaped large ciliate *
- Pr429e • **Euplotes**, a common marine ciliate
- Pr4306f **Bursaria truncatella**, a large fresh water ciliate *
- Pr4309e **Blepharisma**, a large ciliate with pigment granules *
- Pr4305e **Didinium nasutum**, a small ciliate parasite on Paramecium *
- Pr423f **Dendrocometes paradoxus**, suctorial infusoria on the gills of Gammarus *
- Pr424f **Trichodina domerguei**, parasite living on fish gills *
- Pr4307e • **Ephelota**, a stalked marine suctorian *
- Pr4311e **Suctorina**, marine species
- Pr425f **Opalina ranarum**, smear from frog intestine
- Pr426e • **Opalina ranarum**, in section through frog intestine
- Pr4265t **Balantidium coli**, human parasite, smear with trophozoites *
- Pr4266t **Balantidium coli**, smear with cysts *
- Pr4267t **Balantidium coli**, in sec. of human intestine *
- Pr433f **Ciliates from the rumen of cow**, different species
- Pr435h **Ciliates**, specially prepared and stained to show the cilia
- Pr440f • **Mixed protozoa**, many different forms are found on this slide



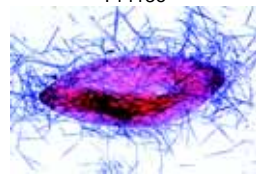
Pr339f



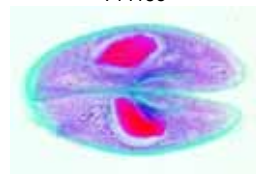
Pr412e



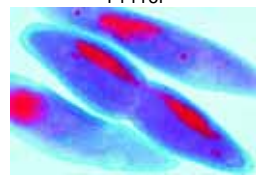
Pr413e



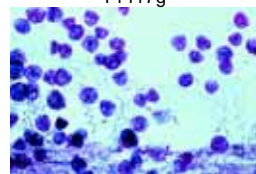
Pr415e



Pr419e



Pr422e



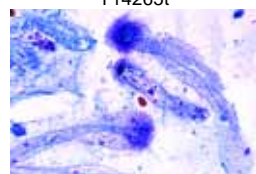
Pr426e



Pr4265t



Pr4267t



Me111f



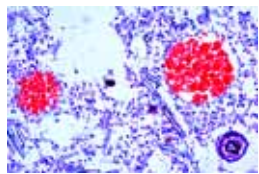
Po111d

MESOZOA

- Me111f **Dicyema**, simple animal with body and sexual cells, from smear of Sepia *

PORIFERA – SPONGES

- Po111d • **Sycon**, a small marine sponge of the sycon type, t.s. through the body
- Po112f • **Sycon**, near med. long. sec. through body and osculum
- Po113d **Sycon**, tangential long. sec.
- Po114d **Sycon**, thick t.s. with calcareous spicules in situ
- Po115b • **Sycon**, spicules isolated, w.m.
- Po116f **Sycon**, sec. showing stages of development *
- Po1165e **Sycon**, l.s. and t.s. on one slide
- Po117d **Grantia**, a marine sponge of the sycon type, t.s. through the body
- Po118f **Grantia**, near median long. sec. through body and osculum



Po116f



Po111d



Po140c



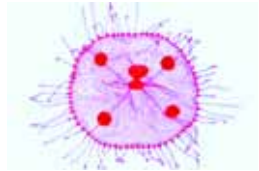
Co112f



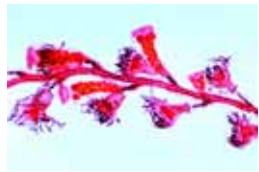
Co113d



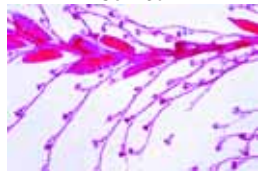
Co211d



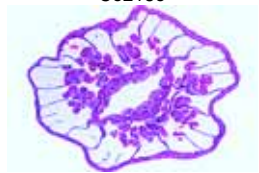
Co212e



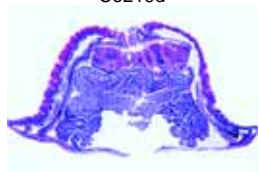
Co213d



Co218e



Co219d



Co219d

- Po119d **Grantia**, tangential long. sec.
 Po1192e **Grantia**, t.s. and l.s. on one slide
 Po1193d **Grantia**, calcareous spicules, isolated and w.m.
 Po1194e **Grantia**, thick t.s. with calcareous spicules in situ
 Po121d • **Spongilla**, fresh water sponge, t.s. showing choanocytes, incurrent and excurrent channels
 Po122d • **Spongilla**, gemmulae (winter bodies) w.m.
 Po123b • **Spongilla**, siliceous spicules isolated and w.m.
 Po125e • **Leucosolenia**, a simple marine sponge of the ascon type, stained and w.m.
 Po126d • **Leucosolenia**, t.s. through the body
 Po128c • **Euspongia**, a commercial sponge, macerated skeleton shows horny fibres, w.m.
 Po129d • **Euspongia**, typical t.s. through the body
 Po140c **Sponge spicules**, strewn slide of mixed species w.m.

COELENTERATA

- Co111e • **Hydra**, extended specimen carefully stained for general body study, w.m. showing all details
 Co112f • **Hydra** with bud, w.m. *
 Co1121f **Hydra** with bud, l.s.
 Co113d • **Hydra**, t.s. through the body in different levels showing ectoderm with nematocysts, supporting lamella and endoderm
 Co114d • **Hydra**, l.s. through body and tentacles
 Co1141g **Hydra**, median l.s. through basal disc, gastrovascular cavity, hypostome and tentacles *
 Co1143e **Hydra**, t.s. and l.s. on one slide
 Co115e **Hydra** with male gonad (testis), t.s.
 Co1151f **Hydra** with male gonad (testis), w.m. *
 Co116e **Hydra** with female gonad (ovary), t.s.
 Co1161g **Hydra** with female gonad (ovary), w.m. *
 Co1165s **Hydra**, t.s. of male and female gonads on one slide
 Co117d **Hydra**, isolated cells w.m. showing the different cell types, nematocysts
 Co118f **Hydra** with food in the digestive cavity, w.m. *
 Co119d **Hydra** with food in the digestive cavity, t.s. through body
 Co1195f **Hydra**, plain and budding, two specimens w.m.
 Co211d • **Obelia hydroid**, colony of polyps with hydrants and gonothecae, w.m. for general study
 Co212e • **Obelia medusa**, small jellyfish, w.m. for general study
 Co230g **Obelia**, sec. through budding medusae in different stages *
 Co213d **Plumularia setaceae**, colony of polyps w.m.
 Co214d • **Tubularia larynx**, colony of polyps, w.m. or l.s.
 Co233f **Tubularia larynx**, actinula larva w.m.
 Co215d **Sertularia cupressina**, colony of polyps w.m.
 Co216d • **Campanularia johnstoni**, colony of polyps w.m.
 Co235d **Hydractinia**, colony of polyps w.m.
 Co220d **Coryne sarsi**, colony of polyps showing budding and developing medusae, w.m. *
 Co217e **Jellyfish**, section through the margin of umbrella shows statocysts
 Co2175g **Aurelia**, jellyfish, planula larva w.m..
 Co2176g **Aurelia**, scyphistoma w.m. *
 Co2177g **Aurelia**, scyphistoma in strobilation, l.s.
 Co218e • **Aurelia**, ephyra w.m. *
 Co219d • **Actinia (Metridium)**, sea anemone, t.s. through entire young specimen
 Co2191d • **Actinia (Metridium)**, sea anemone, l.s. through entire young specimen
 Co2193e **Actinia**, t.s. and l.s. on one slide
 Co222d **Anemonia**, sea anemone, sec. through the tentacles shows nematocysts and zoochlorellae
 Co225e • **Alcyonium digitatum**, leathery coral, t.s. of colony
 Co2252e **Alcyonium**, coral, w.m. of colony
 Co226c • **Lime bodies of different corals**, w.m.

NEW! Microscope Slides on CD-ROM.

The new amazing CD-Program for interactive learning and teaching in school and education comprise all necessary photomicrographs of microscopic slides, which can be observed by using a „Virtual Microscope“. Beautiful color drawings matching the slides, with detailed explanations (please see pages 129 – 136).

PLATYHELMINTHES FLATWORMS

Turbellaria – Turbellarians

- Py111f • **Planaria**, selected specimen stained for general study, of the body, flat w.m.
 Py1115g **Planaria**, selected specimen specially stained to show the digestive tract and its branches and diverticula, w.m. *
 Py112c **Planaria**, t.s. through the body for general study
 Py113c • **Planaria**, t.s. through the body in region of pharynx
 Py114e **Planaria**, section selected to show the ocelli
 Py115f **Planaria**, t.s. through three regions: anterior end, region of pharynx and region of gonads
 Py1162e **Planaria**, sagittal l.s. for general structures
 Py117f **Planaria**, median l.s. through entire specimen

Trematodes – Flukes

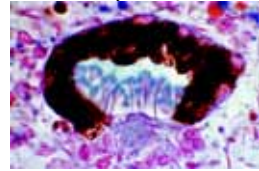
- Py211e • **Dicrocoelium lanceolatum** (D. dendriticum), sheep liver fluke, entire mount and stained for internal structures
 Py212d **Dicrocoelium lanceolatum**, t.s. of the body
 Py2121d **Dicrocoelium lanceolatum**, ova w.m.
 Py213f • **Fasciola hepatica (Distomum hepaticum)**, beef liver fluke, selected specimen flat mount and carefully stained
 Py214c • **Fasciola hepatica**, t.s. through the body
 Py2142d **Fasciola hepatica**, t.s. through two different body regions
 Py215e **Fasciola hepatica**, near median l.s. through adult specimen
 Py2152d **Fasciola hepatica**, l.s. through two different body regions
 Py216d • **Fasciola hepatica**, ova w.m.
 Py217h • **Fasciola hepatica**, miracidia (free living larvae) w.m. *
 Py2172i **Fasciola hepatica**, redia w.m. *
 Py2173i **Fasciola hepatica**, cercaria w.m. *
 Py2174i **Fasciola hepatica**, metacercaria w.m. *
 Py219f • **Fasciola hepatica**, redia and cercaria in sec. through infected snail liver
 Py220e **Fasciola hepatica**, horizontal l.s. through entire specimen
 Py2201e **Fasciola hepatica**, horizontal l.s. through entire specimen specially fixed and stained to show the excretory system
 Py2202e **Fasciola hepatica in bile ducts of liver**, t.s.
 Py2205u **Fasciolopsis buski**, large intestinal fluke, flat mount *
 Py2206e **Fasciolopsis buski**, ova w.m.
 Py2207u **Fasciolopsis buski**, miracidia w.m. *
 Py2208u **Fasciolopsis buski**, redia w.m. *
 Py2209u **Fasciolopsis buski**, cercaria w.m. *
 Py221h • **Schistosoma mansoni**, causing bilharziosis, adult male w.m.
 Py222h • **Schistosoma mansoni**, adult female w.m.
 Py223i **Schistosoma mansoni**, adult male and female in copula, w.m. and carefully stained for general study
 Py224e **Schistosoma mansoni**, t.s. of adult male and female
 Py225h **Schistosoma mansoni**, miracidia w.m. *
 Py226h **Schistosoma mansoni**, cercaria with bifurcate tail w.m. *
 Py227g • **Schistosoma mansoni**, section through infected snail liver showing cercaria
 Py228f **Schistosoma mansoni**, section through snail liver not infected, for comparison
 Py229g • **Schistosoma mansoni**, ova in section of liver or intestine *
 Py230e • **Schistosoma mansoni**, ova in faeces w.m.
 Py231e • **Schistosoma haematobium**, ova from urine sediment w.m.
 Py232e **Schistosoma japonicum**, ova from faeces, w.m. *
 Py233h **Schistosoma japonicum**, adult male w.m. *
 Py234h **Schistosoma japonicum**, adult female w.m. *
 Py2345u **Schistosoma japonicum**, miracidia w.m. *
 Py2347v **Schistosoma japonicum**, cercariae w.m. *
 Py247h **Clonorchis sinensis**, Chinese liver fluke, w.m. of adult *
 Py2472d **Clonorchis sinensis**, t.s. through the body
 Py248s **Clonorchis sinensis**, sec. of human liver with parasitic worms in the bile ducts *



Py111f



Py113c



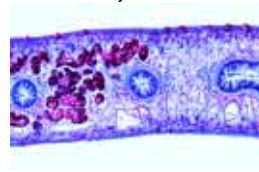
Py114e



Py211e



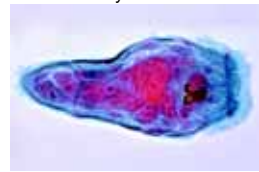
Py214c



Py217h



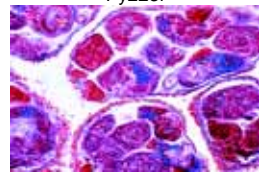
Py2205u



Py223i



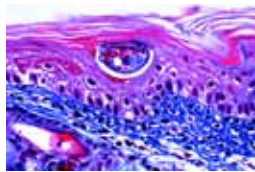
Py227g



Py226h



Py227g



Py2483h **Clonorchis sinensis**, metacercaria w.m. *
Py249e **Clonorchis sinensis**, ova w.m.
Py245h **Opisthorchis felineus**, cat liver fluke, w.m. of adult *

Py251t **Heterophyes heterophyes**, fluke parasite in human intestine, w.m. of adult specimen *

Py253h **Echinostoma revolutum**, occurring in mammals, adult w.m. *

Py254e **Echinostoma revolutum**, ova w.m.

Py255h **Echinoparyphium recurvatum**, occurring in poultry, w.m. of adult specimen

Py261e **Paragonimus**, lung fluke, ova w.m. *

Py2614i **Paragonimus**, miracidia w.m. *

Py2615i **Paragonimus**, rediae w.m. *

Py2616i **Paragonimus**, metacercariae w.m. *

Py270t **Metagonimus**, w.m., a small intestinal fluke which infests man and animals.

Py271f **Prosthogonimus macrorchis**, eggs, w.m.

Py273t **Eurytrema pancreaticum** w.m., parasite of cattle and pig *

Py236g **Leucochloridium macrostomum**, parasite of birds, section through snail tentacle with sporocysts containing cercaria

Py2553h **Hypoderma conoideum**, an echinostome occurring in ducks, w.m.

Cestodes – Tapeworms

Py321f • **Taenia pisiformis (Taenia serrata)**, tapeworm of dogs, immature proglottids w.m.

Py322f • **Taenia pisiformis**, mature proglottids w.m.

Py323f • **Taenia pisiformis**, gravid proglottids w.m.

Py3235d **Taenia pisiformis**, t.s. through proglottids

Py324i • **Taenia pisiformis**, scolex w.m. *

Py3243k • **Taenia pisiformis**, composite slide with whole mounts of scolex, immature, mature and gravid proglottids *

Py3245d • **Taenia pisiformis**, ova from faeces w.m.

Py325f • **Cysticercus pisiformis**, bladderworm of *Taenia pisiformis*, section

Py3251t **Cysticercus pisiformis**, w.m. of complete bladderworm *

Py311f • **Taenia saginata**, tapeworm, proglottids w.m. *
Py312g **Taenia saginata**, selected mature proglottids w.m. *

Py313d • **Taenia saginata**, t.s. of proglottids in different stages, the standard slide for general study

Py314d • **Taenia saginata**, ova in faeces w.m.

Py3145f • **Cysticercus bovis**, bladderworm of *Taenia saginata*, sec. through beef muscle with parasites in situ

Py3146t **Cysticercus bovis**, w.m. of bladderworm *

Py315d **Taenia solium**, human tapeworm, proglottids t.s.

Py3153i **Taenia solium**, scolex w.m. *

Py3154d **Taenia solium**, ova in faeces w.m.

Py3156f **Cysticercus cellulosae**, bladderworm of *Taenia solium*, section through pork muscle with parasites in situ

Py3157t **Cysticercus cellulosae**, w.m. of complete bladderworm *

Py3268f **Dipylidium caninum**, tapeworm of dogs and cats, immature proglottids w.m.

Py327f • **Dipylidium caninum**, mature proglottids w.m.

Py3271f **Dipylidium caninum**, gravid proglottids w.m.

Py3272t • **Dipylidium caninum**, w.m. of scolex with immature proglottids

Py3273k **Dipylidium caninum**, composite slide with whole mounts of scolex, immature, mature and gravid proglottids *

Py3275e • **Dipylidium caninum**, egg balls with 5 to 20 ova, w.m.

Py328f • **Moniezia expansa**, tapeworm of sheep, proglottids w.m.

Py3282t • **Moniezia expansa**, scolex with immature proglottids w.m.

Py3283k **Moniezia expansa**, composite slide with whole mounts of scolex, immature, mature and gravid proglottids *

Py329e **Taenia hydatigena**, tapeworm of dogs and pre-daceous animals, proglottids t.s.

Py3293f **Cysticercus tenuicollis**, bladderworm of *T. hydatigena*, sec. of scolex

Py330f • **Hymenolepis nana**, dwarf tapeworm of rats, proglottids w.m.

Py331d • **Hymenolepis nana**, ova from faeces w.m.

Py3341g • **Hymenolepis diminuta**, w.m. of mature and gravid proglottids

Py3342e **Hymenolepis diminuta**, ova w.m.

Py3343g **Hymenolepis diminuta**, cysticercoid. W.m., larval stage

Py332i **Hymenolepis fraterna**, w.m. of entire tapeworm with scolex, immature, mature and gravid proglottids *

Py335h • **Echinococcus granulosus**, tapeworm of dogs, w.m. of complete tapeworm with scolex and proglottids. Selected and carefully stained specimens *

Py336f • **Echinococcus granulosus**, scolices from cyst, w.m.

Py337f • **Echinococcus granulosus**, cyst wall and scolices t.s.

Py338e **Echinococcus granulosus**, sterile cyst t.s.

Py339e **Echinococcus granulosus**, ova in faeces of dog w.m.

Py3392f **Echinococcus multilocularis**, cyst with scolices t.s.

Py344i **Diphyllobothrium latum**, tapeworm of fishes, scolex and immature proglottids w.m. *

Py345s **Diphyllobothrium latum**, mature proglottids w.m. *

Py346e **Diphyllobothrium latum**, t.s. of mature proglottids

Py347e **Diphyllobothrium latum**, ova w.m.

Py348v **Diphyllobothrium erinacei (mansoni)**, dog and cat tapeworm, w.m., scolex and proglottids

Py349g **Diphyllobothrium erinacei**. W.m., mature proglottids

Py350e **Diphyllobothrium erinacei**, ova w.m.

Py352e **Taenia multiceps (Multiceps serialis)**, dog tapeworm, sec. of bladderworm stage (*Coenurus cerebralis*) shows several scolices *

Py354g **Cysticercus fasciolaris**. sec. of rat liver with cyst of *Taenia taeniaeformis*.

NEMATHELMINTHES ROUNDWORMS

Ne111d • **Ascaris megaloccephala**, roundworm of horses, t.s. of adult female in region of sex organs

Ne112d • **Ascaris megaloccephala**, t.s. of adult male in region of sex organs

Ne113d **Ascaris megaloccephala**, t.s. in region of oesophagus showing the triradiate lumen

Ne121f • **Ascaris megaloccephala embryology**. Sec. of uteri showing entrance and modification of sperm in ova

Ne122f • **Ascaris megaloccephala embryology**. Sec. of uteri showing maturation stages (meiosis). Polar bodies can be seen.

Ne123f • **Ascaris megaloccephala embryology**. Sec. of uteri showing ova with male and female pronuclei

Ne124f • **Ascaris megaloccephala embryology**. Sec. of uteri showing early cleavage stages (mitosis)

Ne125f • **Ascaris megaloccephala embryology**. Sec. of uteri showing later cleavage stages (mitosis)

Ne129d • **Ascaris lumbricoides**, roundworm of man, t.s. of adult female in region of gonads

Ne130d • **Ascaris lumbricoides**, t.s. of adult male in region of gonads

Ne1305e • **Ascaris lumbricoides**, t.s. of male and female in region of gonads

Ne1306d • **Ascaris lumbricoides**, t.s. in region of oesophagus

Ne131d • **Ascaris lumbricoides**, ova in faeces w.m.

Ne1312d **Ascaris lumbricoides**, infertile ova w.m.

Ne132e **Ascaris lumbricoides**, isolated muscle cells w.m.

Ne1323f **Ascaris lumbricoides**, larvae in sec. of pig lung

Ne235e **Toxocara**, roundworm of dogs, ova in faeces w.m.

Ne128f **Rhabditis**, a nematode living in earthworms, w.m. of ova showing cleavage stages

Ne135f • **Enterobius vermicularis (Oxyuris)**, pin worm, w.m. of an adult specimen (male or female, our selection)

Ne1351g **Enterobius vermicularis**, w.m. of adult male *

Ne1352f **Enterobius vermicularis**, w.m. of adult female

Ne136c • **Enterobius vermicularis**, ova from faeces w.m.

Ne1362g **Enterobius vermicularis**, sec. through human appendix with parasites in situ

Ne137e **Strongyloides**, intestinal parasite worm, w.m.

Ne1373g • **Strongyloides**, filariform larvae w.m. (infective larvae) *



Py327f



Py345s



Py331d



Py3342



Ne113d



Ne1305e



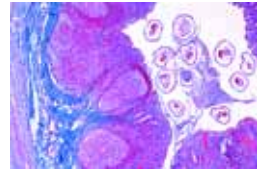
Ne129d



Ne1352f



Ne136c



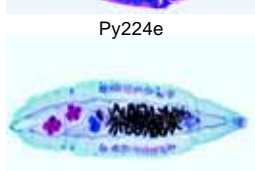
Ne1362g



Ne144h



Py229g



Py224e



Py247h



Py322f



Py312g



Py313d



Py313d



Py330f



Py335h



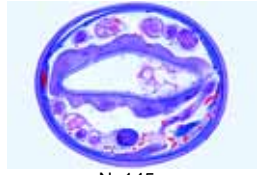
Py3272t



Py328f



Ne1512v



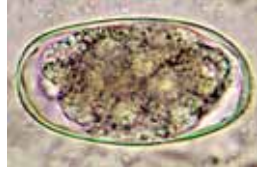
Ne145e



Ne143h



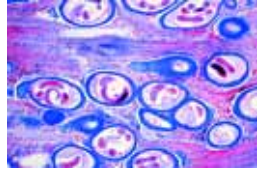
Ne1445k



Ne146e



Ne164e



Ne163d



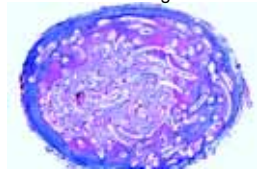
Ne155d



Ne131d



Ne1597g



Ne159f

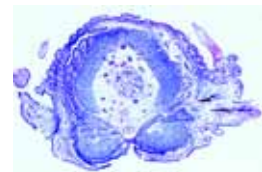
- Ne1374g **Strongyloides**, sec. through host intestine with parasites
- Ne1377g **Strongylus sp.**, lung worm, infected lung, sec.
- Ne1378g **Strongylus sp.**, isolated larvae from faeces
- Ne1392s • **Ancylostoma caninum**, dog hookworm, adult male w.m.
- Ne1393s • **Ancylostoma caninum**, adult female w.m.
- Ne1394u **Ancylostoma caninum**, adult male and female, two w.m. per slide *
- Ne1395i **Ancylostoma caninum**, male and female in copula w.m. *
- Ne1396e • **Ancylostoma caninum**, ova w.m.
- Ne1397t **Ancylostoma caninum**, rhabditiform larvae w.m. *
- Ne1398t **Ancylostoma caninum**, filariform larva w.m. *
- Ne143h • **Ancylostoma duodenale**, hookworm of man, adult male w.m. *
- Ne144h • **Ancylostoma duodenale**, adult female w.m. *
- Ne1445k **Ancylostoma duodenale**, w.m. of adult male and female per slide *
- Ne145e **Ancylostoma duodenale**, t.s. of male and female
- Ne146e • **Ancylostoma duodenale**, ova w.m.
- Ne147h **Ancylostoma duodenale**, rhabditiform larvae w.m. *
- Ne1472h **Ancylostoma duodenale**, filariform larva w.m. *
- Ne1491g **Ancylostoma braziliense**, South American hookworm, adult male w.m. *
- Ne1492g **Ancylostoma braziliense**, adult female w.m. *
- Ne1512v **Necator americanus**, adult male w.m. *
- Ne1513v **Necator americanus**, adult female w.m. *
- Ne1514f **Necator americanus**, eggs w.m.
- Ne1515h **Necator americanus**, rhabditiform larva w.m. *
- Ne1516h **Necator americanus**, filariform larva w.m. *
- Ne152f **Heterakis spumosa**, intestinal parasite of rat, w.m. of male or female
- Ne153f **Heterakis papillosa**, intestinal parasite of chicken, w.m. of male or female *
- Ne163d • **Trichinella spiralis**, section of infected muscle with encysted larvae
- Ne164e • **Trichinella spiralis**, w.m. of muscle piece with encysted larvae
- Ne1642e **Trichinella spiralis**, calcified larva in muscles, w.m.
- Ne1643f **Trichinella spiralis**, migrating in muscles, l.s.
- Ne1611t **Trichinella spiralis**, adult male from intestine, w.m. *
- Ne162t **Trichinella spiralis**, adult female from intestine, w.m. *
- Ne165g **Trichinella spiralis**, adults in section of infected intestine *
- Ne154h **Trichuris trichiura**, whip worm, w.m. of adult male or female *
- Ne155d • **Trichuris trichiura**, ova in faeces w.m.
- Ne1551f **Trichuris trichiura**, sec. of infected colon showing the parasitic worms in situ
- Ne156g **Trichostrongylus**, intestinal parasite, w.m. of adult male or female *
- Ne231f **Oesophagostomum radiatum**, roundworm of cattle, w.m. of adult specimen *
- Ne232f **Oesophagostomum columbianum**, roundworm of sheep, w.m. of adult specimen *
- Ne234f **Haemonchus contortus**, stomach worm of cattle, w.m. of adult specimen
- Ne158f • **Litomosoides carinii**, microfilaria, many specimens w.m.
- Ne1585s **Dirofilaria immitis**, heartworm, smear of blood of dog with parasitic larvae
- Ne1587k **Dipetalonema perstans**, smear of human blood with microfilariae
- Ne1597g **Microfilaria**, smear from bird lung with parasites w.m. *
- Ne159f • **Onchocerca volvulus**, sec. through host tissue with tumor containing larvae (filaria)
- Ne1592h **Onchocerca volvulus**, w.m. of microfilaria from smear of tumor *
- Ne138d • **Anguillula aceti**, vinegar eels, many stages of development in one slide, w.m.
- Ne221d **Gordius**, a parasitic nematode living in insects, t.s. through the body
- Ne222f **Gordius**, t.s. of infected insect showing the parasites in situ
- Ne250d **Nemertinea**, non-parasitic marine species, t.s. in the region of proboscis
- Ne170g • **Mixed ova** in faecal material. Slide containing eggs of parasitic worms of different species i.e. Ascaris, Ancylostoma, Trichuris, Taenia, Enterobius, Schistosoma etc. *

ACANTHOCEPHALA

- At101e **Macracanthorhynchus hirudinaceus**, from pig, sec. of head embedded in intestine *
- At103e **Macracanthorhynchus hirudinaceus**, ova w.m.

ANNELIDA ANNELIDS and DIVERSE

- An118e • **Nereis**, marine polychaete worm, w.m. of parapodium
- An119d **Nereis**, t.s. of head for general study
- An120f **Nereis**, t.s. of head showing brain and eye
- An121d • **Nereis**, typical t.s. through the body for general study
- An127d **Arenicola**, lugworm, t.s. through the body
- An128f **Sabella**, a sessile marine polychaete, t.s. through the body in different levels
- An130f **Magelona**, marine polychaete, larva w.m.
- An122d • **Tubifex**, a fresh water oligochaete, w.m. of adult worm
- An1264f **Trochophora-Larva**, w.m.
- An1265g **Trochophora-Larva in metamorphosis**, w.m.
- An124d • **Hirudo medicinalis**, medicinal leech, t.s. through the body for demonstrating general structures of a leech
- An1240d **Hirudo medicinalis**, oral sucker, t.s.
- An1241d **Hirudo medicinalis**, anterior end with ventral sucker, l.s.
- An1242f **Hirudo medicinalis**, anterior end l.s. showing eye
- An1243d **Hirudo medicinalis**, posterior end with large suckorial disc, l.s.
- An123d **Haemopsis sanguisuga**, horse leech, t.s. of the body
- An1244f • **Leech**, small entire specimen stained w.m. *
- An131c • **Lumbricus terrestris**, earthworm, t.s. of body back of the clitellum. The Standard slide for general body structure, showing intestine, nephridia, typhlosole, etc. triply stained.
- An132e **Lumbricus**, t.s. selected to show setae
- An133c • **Lumbricus**, sagittal l.s. through three or more typical segments back of clitellum
- An134c **Lumbricus**, region of mouth, t.s.
- An135e **Lumbricus**, region of the cerebral ganglia, t.s.
- An1352g **Lumbricus**, anterior end sagittal l.s. showing the cerebral and sub-pharyngeal ganglia
- An136f **Lumbricus**, frontal l.s. through ventral nerve cord
- An1365d **Lumbricus**, region of pharynx, t.s.
- An137c **Lumbricus**, region of oesophagus t.s.
- An1375d **Lumbricus**, region of hearts t.s.
- An138c • **Lumbricus**, seminal vesicle t.s.
- An1385d **Lumbricus**, seminal receptacle t.s.
- An139e **Lumbricus**, sperm funnels t.s.
- An140e **Lumbricus**, ovary with developing eggs t.s. *
- An141f **Lumbricus**, testis t.s. *
- An1415d • **Lumbricus**, crop t.s.
- An142d **Lumbricus**, gizzard t.s.
- An143c • **Lumbricus**, clitellum t.s.
- An1435e **Lumbricus**, section selected to show nephridiopore
- An1436h **Lumbricus**, nephridium dissected and w.m. *
- An1437e **Lumbricus**, showing funnel of nephridia, t.s.
- An144e • **Lumbricus**, anterior end including gonads, sagittal l.s.
- An145g **Lumbricus**, anterior end, near median sagittal l.s. with ventral nerve cord, oesophagus etc. *
- An147e **Lumbricus**, 1st – 9th segment, sagittal l.s., mouth and oesophagus
- An148e **Lumbricus**, 9th – 16th segment, sagittal l.s., sex organs
- An149e **Lumbricus**, 16th – 23rd segment, sagittal l.s., crop and gizzard
- An150d **Lumbricus**, blood smear
- An151d **Lumbricus**, sperm smear
- An1261d **Lineus sp.**, nemertine, proboscis t.s.
- An1262d **Lineus sp.**, of middle region of body t.s.
- An125d • **Sagitta**, arrow worm, entire specimen w.m.
- An1252e **Sagitta**, l.s. of specimen



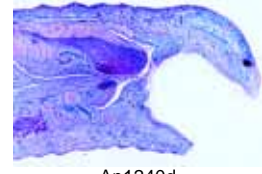
An121d



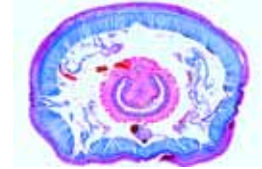
An118e



An124d



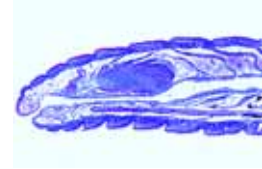
An1240d



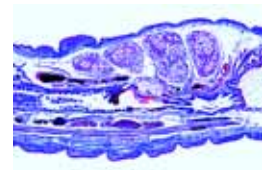
An131c



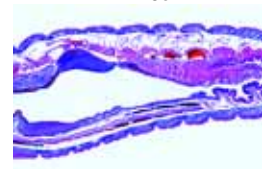
An132e



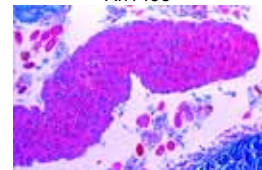
An147e



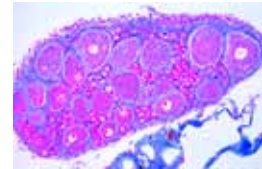
An148e



An149e



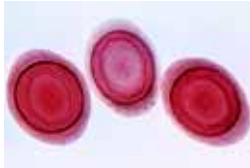
An141f



An140e



On111f



Ro212d



Ro214e



Cr113c



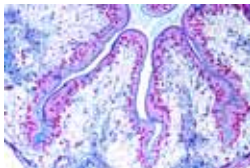
Cr115d



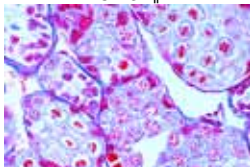
Cr128e



Cr116e



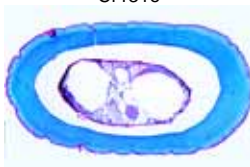
Cr134f



Cr139e



Cr131e



Cr133d

ONYCHOPHORA

- On111f **Peripatus**, connecting link between annelida and arthropoda, t.s. anterior region with leg *
- On112f **Peripatus**, region of gonads t.s. *
- On113f **Peripatus**, region of head t.s. *
- On114g **Peripatus**, anterior end sagittal l.s. *
- On115g **Peripatus**, middle part of the body, sagittal l.s. *

ROTATORIA and BRYOZOA ROTIFERS and MOSS ANIMALS

- Ro111d • **Rotatoria**, rotifers, strewn slide of mixed species w.m.
- Ro211e • **Plumatella**, moss animals, w.m. or section
- Ro212d • **Plumatella**, isolated statoblasts w.m.
- Ro213e • **Flustra foliaceae**, a marine moss animal, section of colony
- Ro215e **Flustrella hispida**, moss animal (sea-mat), section of colony
- Ro214e • **Membraniphora**, marine moss animal (sea-mat), section of colony
- Ro217e **Bugula**, moss animal, part of colony w.m.
- Ro218e **Pectinatella**, moss animal, part of colony w.m.

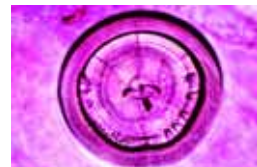
CRUSTACEA CRUSTACEANS

- Cr111c • **Daphnia**, water flea, w.m.
- Cr112c **Daphnia**, ephippia, w.m.
- Cr1123c **Daphnia**, w.m. showing winter and summer eggs
- Cr113c • **Cyclops**, fresh water copepods, w.m.
- Cr114c • **Cyclops**, nauplius larva w.m.
- Cr120c • **Small crustaceans**, mixed species of fresh water plankton strewn slide w.m.
- Cr119d **Artemia salina**, brine shrimp, various developing stages on each slide, w.m.
- Cr115d • **Balanus balanoides**, common barnacle, nauplius larva w.m.
- Cr122d **Bosmina**, small crustacean w.m.
- Cr126d **Bythotrephes**, a cladoceran w.m.
- Cr128e **Caprella**, an amphipod w.m.
- Cr117e • **Carcinus maenas**, crab, zoea larva w.m. *
- Cr118e • **Carcinus maenas**, megalopa larva w.m. *
- Cr124d **Cypris of Cirrpedia**, cocoon stage, stained and w.m.
- Cr116e **Gammarus**, fresh water amphipod, entire specimen w.m.
- Cr160f **Shrimp**, entire small specimen w.m.
- Cr161d • **Shrimp**, t.s. of small specimen for general body structures
- Cr168d • **Lepas anatifera**, barnacle, w.m. of catching leg
- Cr169e **Lepidurus apus**, branchipode, w.m.
- Cr125d **Leptodora**, a large cladoceran w.m.
- Cr167f **Lingula**, brachiopode, t.s.
- Cr163e **Mysis**, shrimp from the Arctic ocean, w.m.
- Cr123d **Podon and Evadne**, selected from marine plankton w.m.
- Cr150f **Statocyst of prawn**, organ of equilibration with sensory hairs and statolith
- Cr135d • **Astacus**, crayfish, striated muscle l.s., ideal for the demonstration of striation showing large structures
- Cr132c • **Astacus**, gills t.s.
- Cr142c **Astacus**, stomach t.s.
- Cr134c • **Astacus**, intestine t.s.
- Cr137c • **Astacus**, liver t.s.
- Cr136c **Astacus**, green gland t.s.
- Cr138d • **Astacus**, ovary t.s. showing developing eggs in various stages
- Cr139e • **Astacus**, testis t.s. with spermatogenesis
- Cr1391g **Astacus**, testis t.s. specially selected for demonstration of meiosis and mitosis, carefully stained *
- Cr144c **Astacus**, sperm duct t.s.
- Cr131e **Astacus**, eye sagittal l.s. *
- Cr141f **Astacus**, cerebral ganglion t.s. *
- Cr133d **Astacus**, antenna (decalcified) t.s.
- Cr143e **Astacus**, pincers (decalcified) t.s.
- Cr140d **Astacus**, blood smear

- Cr1445e **Astacus**, t.s. of thoracic region of small specimen
- Cr1446e **Astacus**, t.s. of abdominal region of small specimen
- Cr1447f **Astacus**, near median sagittal l.s. of small specimen
- Cr165s **Argulus foliaceus**, fish louse w.m. *

ARACHNIDA CHELICERATES

- Ar111e • **Spider**, entire young specimen, w.m.
- Ar112b • **Spider**, leg with comb, w.m.
- Ar113d • **Spider**, spinneret w.m.
- Ar114d **Araneus**, cross spider, spinneret w.m.
- Ar123e **Spider**, mouth parts of male w.m.
- Ar124e **Spider**, mouth parts of female w.m.
- Ar120f **Spider**, epigyne of adult female w.m. *
- Ar125d **Spider**, sagittal l.s. of abdomen for general study
- Ar126e **Spider**, sagittal l.s. of abdomen showing spinneret and spinning glands
- Ar127e • **Spider**, sagittal l.s. of abdomen showing the book or trachea lung
- Ar1272f • **Spider**, sagittal l.s. of abdomen with epigyne and ovary
- Ar1273g • **Spider**, sagittal l.s. of abdomen showing l.s. of the dorsal vessel
- Ar128f **Spider**, t.s. of cephalothorax showing the central nervous system
- Ar1281f **Spider**, cephalothorax with central nervous system l.s.
- Ar129g **Salticus**, spider, sec. of cephalothorax showing the telescope eyes *
- Ar130b **Spider**, portion of cobweb w.m.
- Ar171d **Opilio sp.**, shepherd spider, sagittal l.s. of the body
- Ar172e **Opilio sp.**, mouth parts w.m.
- Ar131c • **Scorpion**, t.s. through young specimen
- Ar132d **Scorpion**, sagittal l.s. through young specimen
- Ar133e • **Scorpion**, section selected to show the poison gland
- Ar134e **Scorpion**, section selected to show the book lung
- Ar138g **Scorpion**, entire young specimen w.m. *
- Ar1545g **Amblyomma americanum**, lone star tick, w.m. *
- Ar141g **Argas persicus**, fowl tick, w.m. of adult specimen *
- Ar142f **Argas**, six-legged larva w.m.
- Ar154s **Boophilus annulatus**, cattle tick, the vector of Texas fever, w.m. *
- Ar156g **Dermacentor andersoni**, Rocky Mountain wood tick, the vector of spotted fever, w.m. *
- Ar157e **Dermacentor andersoni**, ova w.m. *
- Ar158f **Dermacentor andersoni**, larva w.m. *
- Ar155s **Dermacentor variabilis**, American dock tick, w.m. *
- Ar146g • **Ixodes sp.**, tick, w.m. of adult specimen *
- Ar147e **Ixodes sp.**, larva w.m.
- Ar144g **Ornithodoros**, tick, carrier of relapsing fever, w.m. adult *
- Ar1442g **Ornithodoros**, six-legged larva w.m. *
- Ar159s • **Rhipicephalus sanguineus**, brown dog tick, w.m. *
- Ar153e • **Demodex folliculorum**, section through the skin with the parasites in situ
- Ar145d • **Dermanyssus gallinae**, chicken mite, w.m. *
- Ar1513d **Hydrachna**, mite of fresh water, w.m.
- Ar1512d **Photia**, beetle mite, w.m.
- Ar148e • **Sarcoptes scabiei (Acarus siro)**, in section of diseased skin
- Ar149f **Sarcoptes scabiei**, w.m. of selected adult specimen *
- Ar1517g **Syringophilus**, parasitic mite of poultry, w.m.
- Ar150c • **Tyroglyphus farinae**, mite from meal, w.m.
- Ar151c **Tyrollichus**, cheese mite w.m.
- Ar1515e • **Acarapis woody**, Varroa, parasitic mite of bees w.m.
- Ar161g **Pseudoscorpion**, w.m. of young entire specimen *
- Ar180s **Limulus**, swordtail, trilobite larva w.m., the trilobite shaped larva is of interest for studies in phylogeny *



Cr150f



Cr115d



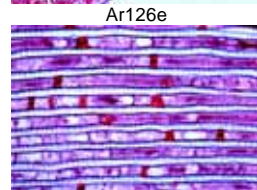
Ar111e



Ar124e



Ar126e



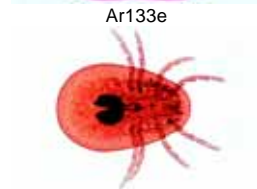
Ar127e



Ar129g



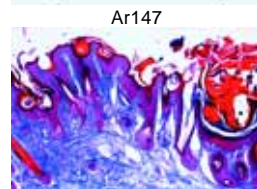
Ar133e



Ar141g



Ar147



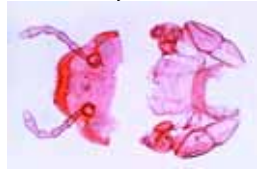
Ar148e



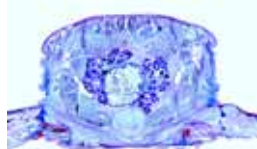
MYRIAPODA MYRIAPODS



My115f



My213f



My111d



In111d



In1123d



In1213d



In122d



In118f



In115f



In120e



In127e

- My111d **Scolopendra**, large centipede, t.s. of body segment
- My112e **Scolopendra**, head with poison glands t.s.
- My115f **Lithobius**, head with poison fangs, w.m. *
- My117e **Lithobius**, centipede, segment w.m.
- My118e **Lithobius**, head, t.s.
- My119d **Lithobius**, midbody, t.s.
- My211d **Julus**, a millipede, t.s. through the body
- My212e **Julus**, diplosegment with two pairs of legs, w.m.
- My213f **Julus**, head with mouth parts (gnathochilarium) w.m. *
- My218d **Glomeris**, sagittal l.s. of entire specimen *
- My220g **Diplopode**, sagittal l.s. through young specimen showing the zone of proliferation (anamorphose) *
- My230d **Symphyla**, entire specimen w.m. *

INSECTA – INSECTS

I. Microscopic anatomy and histology

Head and mouth parts, whole mounts

- In111d • **Musca domestica**, house fly, head and mouth parts with sucking tube, w.m.
- In112e • **Pieris sp.**, butterfly, head and mouth parts with proboscis w.m.
- In1123d • **Pieris sp.**, mouth parts of caterpillar (larva) w.m.
- In121d • **Bombyx mori**, silk moth, chewing mouth parts of adult w.m.
- In1213d • **Bombyx mori**, silkworm, mouth parts of caterpillar (larva) w.m.
- In122d • **Apis mellifica**, honey bee, mouth parts of worker w.m.
- In123e • **Apis mellifica**, rudimentary mouth parts of drone w.m.
- In114e • **Vespa vulgaris**, wasp, biting mouth parts of a carnivore, w.m.
- In118f • **Periplaneta or Blatta**, cockroach, biting mouth parts of a herbivore, dissected and w.m.
- In115f • **Carabus**, beetle, mouth parts dissected and w.m. *
- In116f • **Melolontha**, cockchafer, mouth parts dissected and w.m.
- In113e • **Gomphoceris**, grasshopper, mouth parts w.m.
- In1132g • **Gomphoceris**, grasshopper, mouth parts dissected and w.m.
- In119d • **Formica sp.**, ant, head and mouth parts w.m.
- In1193e • **Leptinotarsa**, Colorado beetle, w.m. of chewing mouth parts
- In131e • **Curculionidae sp.**, weevil, head and mouth parts w.m.
- In117e • **Pyrhocoris**, bug, piercing sucking mouth parts w.m.
- In120e • **Stomoxys calcitrans**, stable fly, piercing sucking mouth parts
- In1201e • **Tabanus bovinus**, gadfly, piercing sucking mouth parts w.m. *
- In1234d • **Volucella**, Diptera, piercing sucking mouth parts w.m.
- In124f • **Anopheles**, malaria mosquito, head and mouth parts of male w.m.
- In125f • **Anopheles**, head and mouth parts of female w.m.
- In126e • **Culex pipiens**, mosquito, head and mouth parts of male w.m.
- In127e • **Culex pipiens**, head and mouth parts of female w.m.
- In128h • **Culex pipiens**, mouth parts of female, dissected and w.m. *
- In130f • **Odonata sp.**, dragonfly, mouth parts of larva w.m. *
- In132e • **Lymantria**, gipsy, mouth parts of larva w.m.
- In1322f • **Diving beetle**, head of larva w.m. Extraintestinal digestion *
- In1323e • **Simulium**, head of larva w.m. shows filtering mouth parts

Head and mouth parts, sections

- In273e **Carausius**, sagittal l.s. of head with brain and mouth parts
- In274e **Apis mellifica**, honey bee, sagittal l.s. of head with brain and mouth parts
- In141e **Musca domestica**, house fly, mouth parts, t.s. through sucking tube
- In148e **Apis mellifica**, honey bee, mouth parts of worker t.s.
- In143e **Pieris brassicae**, butterfly, mouth parts t.s.
- In149g **Culex pipiens**, mosquito, mouth parts of female t.s. with mandibles, labrum, maxillae, labium, hypopharynx
- In142e **Tabanus bovinus**, gadfly, mouth parts t.s.
- In144e **Hemiptera spec.**, bug, mouth parts t.s.
- In145g **Aphaniptera spec.**, flea, piercing mouth parts t.s. *

Antennae

- In213b • **Pieris**, butterfly, clubbed antenna w.m.
- In206b • **Carabus**, ground beetle, filiform antenna w.m.
- In203b • **Periplaneta or Blatta**, cockroach, setaceous antenna w.m.
- In204b • **Tenebrio molitor**, meal beetle, moniliform antenna w.m.
- In214b • **Bombyx mori**, silk moth, feathered antenna w.m.
- In208b • **Chironomus**, gnat, feathered antenna of male w.m.
- In205b • **Elaeteridae sp.**, click beetle, serrate antenna w.m. *
- In207b • **Curculionidae sp.**, weevil, geniculate antenna w.m. *
- In209c • **Brachycera sp.**, fly, antenna as speed indicator w.m. *
- In211b • **Melolontha**, cockchafer, laminate antenna with sensory organs
- In212b • **Apis mellifica**, honey bee, antenna with sensory organs w.m.
- In2125b • **Musca domestica**, house fly, antenna w.m.
- In2142c **Antennae** of butterfly (clubbed) and of moth (feathered) w.m.
- In2146u **Insect antenna types**, composite slide of five kinds of antennae for comparison w.m.

Legs

- In217b • **Musca domestica**, house fly, leg with pulvilli w.m.
- In219b • **Pieris brassicae**, butterfly, walking leg w.m.
- In220c • **Melolontha**, cockchafer or other species, digging leg w.m.
- In215b • **Apis mellifica**, honey bee, anterior leg with eye brush w.m.
- In2152b • **Apis mellifica**, middle leg w.m.
- In216b • **Apis mellifica**, posterior leg with pollen basket w.m.
- In2161b • **Apis mellifica**, posterior leg of drone w.m.
- In2162f • **Apis mellifica**, composite slide of anterior, middle and posterior leg of worker, w.m.
- In218b • **Bombyx mori**, silkworm, abdominal foot of caterpillar
- In223c • **Gomphoceris**, grasshopper, stridulatory organ w.m. of leg
- In224d • **Ensifera sp.**, locust or cricket, anterior leg with tympanal organ w.m. *
- In225d • **Mantis religiosa**, praying mantis, grasping leg of larva w.m. *
- In226b • **Diving beetle or water bug**, swimming leg w.m.

Wings

- In235b • **Musca domestica**, house fly, wing w.m.
- In2351d • **Musca domestica**, house fly, wing and haltere w.m.
- In231c • **Apis mellifica**, honey bee, anterior and posterior wings w.m.
- In234b • **Culex pipiens**, common mosquito, wing w.m.
- In2342b • **Anopheles**, malaria mosquito, wing w.m.
- In228c • **Chrysopa perla**, wing of neuroptera w.m. *
- In227c • **Zygoptera sp.**, damselfly, wings w.m.
- In229e • **Periplaneta**, cockroach, upper chitinous and lower membranous wings w.m.
- In2292d • **Gomphoceris**, grasshopper, w.m. of upper and lower wing
- In2352d • **Forficula**, earwig, w.m. of upper and lower wing



In274e



In149g



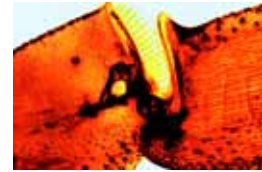
In211b



In214b



In206b



In216b



In220c



In215b



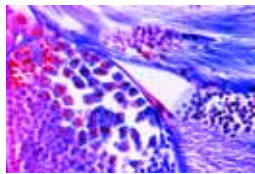
In232b



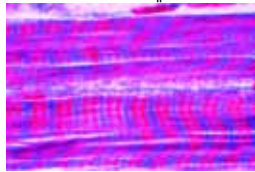
In232b Detail



In232b Detail



In238f



In246f



In241b



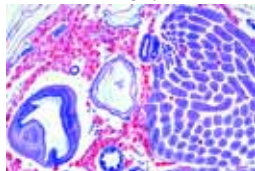
In242c



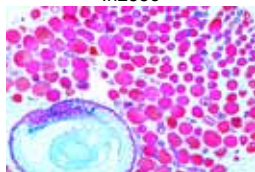
In2411h



In281d



In255e



In255e



In290f



In291f



In292f

- In230d **Ensifera sp.**, locust or cricket, wing with stridulatory organ w.m. *
- In232b • **Pieris brassicae**, butterfly, portion of wing showing arrangement of scales w.m.
- In233b **Pieris brassicae**, butterfly, isolated scales w.m.
- In2332e **Butterfly**, Brazilian species (*Morpho sp.*), w.m. of wing portion showing scales opaque
- In2334d **Lepisma**, silverfish, w.m. of scales from body

Cytology

- In238f • **Spermatogenesis with meiotic and mitotic stages**, sec. of testis of *Carausius*, grasshopper, carefully stained
- In245f • **Giant chromosomes**, smear from salivary gland of *Chironomus*, carefully fixed and stained *
- In2451e **Giant chromosomes** in section through the salivary glands of the *Chironomus* larva
- In246f **Striated muscles** of insect, fibres isolated and stained to show the striations w.m.
- In247e • **Striated muscles** of insect, sections through insect thorax with t.s. and l.s. of muscle showing the striations

Organs of metabolism

- In241b • **Trachea** from insect, w.m. showing tracheal rings
- In242c • **Spiracle** from insect (stigma), w.m.
- In248d • **Tracheal gills**, w.m. of *Cloeon sp.*, May fly nymph
- In298c **Tracheal gills of larva**, w.m. of *Odonata sp.*, dragonfly
- In285d **Rectum** of larva, respiratory organ, t.s. of *Odonata sp.*, dragonfly
- In2852d **Air tubes** of pupa of *Culex*, mosquito, w.m.
- In2411h **Trachea in insect intestine**, specially prepared and stained with cupric sulphide to show the finest branchings *
- In289e **Blood smear** with different kinds of blood cells, *Carausius*
- In254d • **Abdomen of worker** with intestine, *Apis mellifica*, t.s.
- In270d • **Abdomen with internal organs**, t.s. of *Carausius*, walking stick
- In263d **Abdomen**, t.s. *Culex pipiens*
- In266d **Abdomen**, t.s. of *Drosophila*, fruit fly
- In281d **Gizzard**, t.s. of *Carabus*, ground beetle
- In2813e **Opened gizzard**, w.m. *Locusta*, grasshopper
- In239e • **Gizzard with chitinous teeth**, w.m. of *Periplaneta*, cockroach
- In282d **Chyle** and middle intestine with Malpighian tubules, l.s. of *Periplaneta* (*Blatta*)
- In284d • **Rectum with ampulli**, t.s. of *Periplaneta*
- In287g **Fat body** stained with osmic acid, sec. of *Periplaneta*, cockroach
- In288d **Fat body** with crystals of uric acid, sec. of *Periplaneta*, cockroach
- In283d **Appendages of chyle and Malpighian tubules**, thin t.s. for finer detail

Reproductive system

- In255e • **Testis**, in t.s. of abdomen of drone, *Apis mellifica*
- In256e • **Ovary**, in t.s. of abdomen of queen, *Apis mellifica*
- In236e **Ovary**, in t.s. of *Melolontha*, cockchafer
- In2365e **Ovary**, in t.s. of abdomen of *Carausius*, walking stick
- In2367g **Aedeagus** of beetle w.m., male copulating organ
- In290f **Ovary** of insect showing panoistic egg tubules, l.s.
- In291f **Ovary** of insect showing telotrophic egg tubules, l.s.
- In292f **Ovary** of insect showing polytrophic egg tubules, l.s.
- In299e **Ovipositor** of locust or cricket t.s.
- In2912e **Incomplete metamorphosis** of insects: larva
- In2913e **Incomplete metamorphosis** of insects: imago (adult)
- In2914d **Complete metamorphosis** of insects: larva
- In2915d **Complete metamorphosis** of insects: pupa
- In2916d **Complete metamorphosis** of insects: imago (adult)

Sense organs and nervous system

- In243c **Cornea**, isolated from eye of house fly, w.m. showing facets
- In2434c • **Cornea**, isolated from eye of honey bee, w.m. showing facets
- In251e • **Compound eye**, t.s. through head of worker (*Apis mellifica*), showing the structure of the typical insect eyes and brain. Ommatidia are seen.
- In252f **Compound eye**, t.s. through head showing the large eyes of drone (*Apis mellifica*)
- In253f **Compound eye**, t.s. through head of queen (*Apis mellifica*)
- In249d **Ocelli** of *Apis mellifica*, honey bee, w.m.
- In2492e **Ocelli** of an insect, l.s.
- In275e **Compound eye**, t.s. through head of *Apis mellifica*, tangential section showing t.s. of ommatidia
- In261e **Head with eyes and brain**, t.s. of *Culex pipiens*, mosquito
- In265e **Head with eyes and brain**, t.s. of *Drosophila*, fruit fly
- In2675e **Compound eye**, t.s. of *Musca domestica*, fly
- In276f **Head and eyes**, t.s. of *Cloeon* or *Baetis*, May fly
- In2765f **Head and eyes**, t.s. of *Melolontha*, cockchafer
- In271e **Brain**, frontal l.s. of *Carausius* or *Gryllus*
- In272e **Brain**, frontal l.s. of *Vespa vulgaris*, wasp
- In277h **Pars intercerebralis** with neurosecretory cells specially stained, *Carausius*, walking stick, section of brain *
- In278h **Corpora cardiaca**, organs for storing neurosecretory, *Carausius*, section through brain *
- In2781h **Corpora allata**, neuroendocrine glands, *Carausius*, section *
- In2784f **Sensory organs** in the antenna of an insect, t.s. for finer detail
- In279k **Johnston's organ**, l.s. through insect auditory organ *
- In294f **Luminous organ**, sec. of *Phausis*, glowworm
- In295e **Tympanal organ**, sec. of *Cicada sp.* *
- In2833f **Insect larva** with non-centralized nervous system, sagittal l.s. *
- In2834f **Insect** with low centralized nervous system, sagittal l.s. *
- In2835f **Insect** with high centralized nervous system, sagittal l.s. *

Miscellaneous

- In244d • **Sting and poison sac** of honey bee, w.m.
- In260c • **Wax plate** of worker of *Apis mellifica*, w.m.
- In237d • **Silk spinning glands** and other organs, t.s. of caterpillar of *Bombyx mori*, silkworm
- In2943d **Forceps of male** of *Forficula*, earwig, w.m.
- In258d • **Larva** of *Apis mellifica*, sagittal l.s.
- In259e • **Pupa** of *Apis mellifica*, sagittal l.s.
- In262d **Thorax** of *Culex pipiens*, t.s.
- In267f • **Entire insect**, sagittal l.s. of *Drosophila*, fruit fly, showing all structures for general study
- In2993e **Parasitical larvae of microgaster**, in t.s. of infested caterpillar

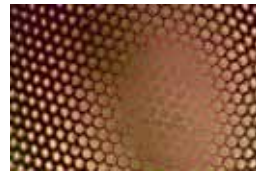
II. Whole mounts of entire insects

Apterygota and Ephemeroidea

- In348d • **Collembola**, spring tail, adult w.m.
- In3985d • **Podura**, spring tail, adult w.m.
- In3986d **Thysanura sp.**, bristle tail, adult w.m.
- In353e • **Caenis**, May fly, adult w.m.
- In354e **Caenis**, subimago w.m.
- In355d **Caenis**, larva w.m.

Diptera

- In321f • **Culex pipiens**, common mosquito, adult male w.m.
- In322f • **Culex pipiens**, adult female w.m.
- In323d • **Culex pipiens**, pupa w.m.
- In324d • **Culex pipiens**, larva w.m.
- In3242d • **Culex pipiens**, ova w.m.
- In316g • **Anopheles**, malaria mosquito, adult male w.m.
- In317g • **Anopheles**, adult female w.m.
- In318f • **Anopheles**, pupa w.m.
- In319f • **Anopheles**, larva w.m.
- In3192e • **Anopheles**, ova w.m.



In243c



In251e



In2765f



In279k



In2492e



In295e



In244d



In260c



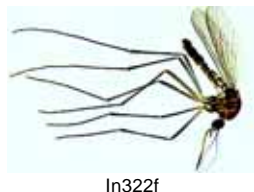
In267f



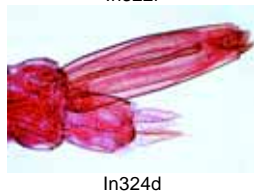
In3986d



In353e



In322f



In324d



In321f Detail



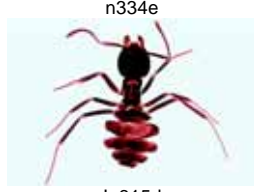
In318f



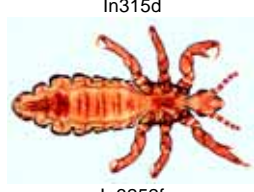
In343e



n334e



In315d



In3252f



In327e



In326g



In328f

In320g

Anopheles and Culex pipiens, both the larvae on same slide for comparison, w.m.

In311d

In312d

In313d

In314d

In317e

In340d

In341d

In389f

In390f

In391e

In392e

In393e

In397e

In398d

In394f

In395f

In3956f

In3957f

In3294f

In3341e

In333e

In334e

In3365g

In3366g

In335g

In336g

In337e

In343e

In365g

In367f

In368f

In315d

In3151e

In3152d

In385e

In325f

In3252f

In3254f

In3255e

In3256f

In3258f

In3259e

In326g

In3262s

In327e

In328f

In3282e

In3284f

In329f

In3271g

In3275f

In3272f

In3273f

In3274f

In3276f

In381e

In330f

In374d

In375d

In339c

- **Drosophila**, fruit fly, adult male w.m.
- **Drosophila**, adult female w.m.
- **Drosophila**, larva w.m.
- **Drosophila**, pupa w.m.
- **Chironomus**, gnat, w.m. of adult
- **Chironomus**, gnat, larva w.m.
- **Corethra**, gnat, larva w.m.
- **Aedes**, mosquito, adult male w.m.
- **Aedes**, adult female w.m.
- **Aedes**, pupa w.m.
- **Aedes**, larva w.m.
- **Aedes**, ova w.m.
- **Musca domestica**, house fly, larva w.m.
- **Musca domestica**, ova w.m.
- **Phlebotomus**, carrier of Leishmaniosis, male mosquito w.m. *
- **Phlebotomus**, female mosquito w.m. *
- **Culicoides**, w.m., a small vicious biter
- **Gasterophilus intestinalis**, horse bot fly, eggs attached to hair
- **Lipoptena**, deer ked, w.m. *

Aphaniptera

- **Ctenocephalus canis**, male or female specimen w.m.
- **Ctenocephalus canis**, dog flea, adult male w.m.
- **Ctenocephalus canis**, adult female w.m.
- **Pulex irritans**, human flea, adult male w.m. *
- **Pulex irritans**, adult female w.m. *
- **Xenopsylla cheopis**, rat flea, the carrier of bubonic plague, adult male w.m.
- **Xenopsylla cheopis**, adult female w.m.
- **Nosopsyllus fasciatus**, rat flea, adult w.m.
- **Ceratophyllus gallinulae**, chicken flea, w.m. of adult

Blattoidea and Hymenoptera

- **Mantis religiosa**, praying mantis, larva w.m. *
- **Isoptera sp.**, termite, w.m. of worker *
- **Isoptera sp.**, termite, w.m. of soldier *
- **Lasius**, ant, worker w.m.
- **Lasius**, winged male w.m.
- **Lasius**, winged female w.m.
- **Chalcididae**, w.m. of adult *

Anoplura and Mallophaga

- **Pediculus humanus**, louse, adult male or female w.m.
- **Pediculus humanus capitis**, human head louse, adult w.m.
- **Pediculus humanus capitis**, nymph w.m.
- **Pediculus humanus capitis**, ova w.m.
- **Pediculus humanus corporis**, human body louse, adult w.m.
- **Pediculus humanus corporis**, nymph w.m.
- **Pediculus humanus corporis**, ova w.m.
- **Phthirus pubis**, human crab louse, adult w.m. *
- **Phthirus pubis**, ova w.m.
- **Louse eggs attached to the hair**, w.m. *
- **Haematopinus suis**, pig louse, adult w.m. *
- **Haematopinus suis**, ova w.m.
- **Haematopinus eurysternus**, cattle louse, adult w.m. *
- **Haematopinus piliferus**, dog louse, adult w.m. *
- **Bovicola**, cattle louse, w.m. *
- **Trichodectes canis**, dog louse, w.m. *
- **Lipeurus variabilis**, wing feather louse, w.m. *
- **Lipeurus caponis**, wing louse, w.m. *
- **Menopon gallinae**, bird parasite, w.m. *
- **Melophagus ovinus**, wingless ectoparasite on sheep, w.m. *
- **Phthiraptera**, lice from rat, different species w.m. *

Heteroptera and Homoptera

- **Cimex lectularius**, bed bug, adult w.m.
- **Naucoridae sp.**, water bug, w.m. of small adult
- **Capsidae sp.**, plant bug, w.m. of adult
- **Aphidae sp.**, plant lice, w.m. of several per slide

In3394e

In377d

Phylloxera sp., vine louse, w.m.

Psylla, plant flea, w.m. of adult

Diverse orders

In338d

In356d

In357d

In361g

In362e

In371d

Lepidoptera sp., butterfly, young caterpillar w.m.

Nemura sp., stone fly, adult w.m.

Nemura sp., larva w.m.

Embia sp., adult w.m. *

Forficula auricularia, earwig, adult w.m.

Thysanoptera, thrips, w.m. of adult

MOLLUSCA – MOLLUSKS

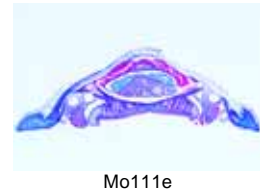
- Mo111e • **Chiton**, a primitive mollusc, t.s. through the body
- Mo112e • **Chiton**, sagittal l.s. through the entire specimen
- Mo116e • **Mya arenaria**, clam, t.s. of entire young specimen
- Mo117d • **Mya arenaria**, liver t.s.
- Mo119d • **Mya arenaria**, t.s. and l.s. of gills showing well developed ciliated epithelium
- Mo120d • **Mya arenaria**, t.s. of intestine and gonads
- Mo121d • **Mya arenaria**, adductor muscle of shell, l.s.
- Mo122d • **Mya arenaria**, siphonal tube t.s.
- Mo123f • **Mya arenaria**, mussel, filtering stomach t.s. *
- Mo191d • **Anodonta**, mussel, small specimen, complete t.s.
- Mo192d • **Anodonta**, gills w.m.
- Mo193d • **Anodonta**, gills l.s.
- Mo194d • **Anodonta**, intestinal region t.s.
- Mo195d • **Anodonta**, liver t.s.
- Mo196d • **Anodonta**, glochidia (larvae) w.m.
- Mo1131e • **Mussel embryology** (Lamellibranchiata, Bivalvia or Pelecypoda). Unfertilized and fertilized ova w.m. *
- Mo1133e • **Mussel embryology**. Zygote, two- and four-cell embryos w.m. *
- Mo1135s • **Mussel embryology**. Early zygote through late cleavage. Polar bodies, polar lobes and spiral cleavage
- Mo1137e • **Mussel embryology**. Blastula w.m. *
- Mo1138e • **Mussel embryology**. Gastrula w.m. *
- Mo1139f • **Mussel embryology**. Trochophore larva w.m. *
- Mo1141s • **Mussel embryology**. Veliger larvae developing, early and later stages w.m. *
- Mo1143e • **Mussel embryology**. Adult veliger larva w.m. *
- Mo115e • **Mussel embryology**. Glochidia larva w.m.
- Mo123e • **Pisidium**, a small fresh water mussel, section with embryos
- Mo131e • **Pecten**, clam, lens eye in section of mantle margin
- Mo185f • **Haliotis**, marine snail, l.s. of a simple pinhole camera eye *
- Mo187e • **Patella**, cup-shell. simple eye, l.s.
- Mo211f • **Patella**, trochophora larva w.m. *
- Mo212e • **Crepidula**, marine snail, veliger larva w.m. *
- Mo125f • **Alloteuthis**, cuttlefish, entire young specimen stained and w.m. *
- Mo130e • **Alloteuthis**, cuttlefish, abdomen of young specimen, t.s.
- Mo1301f • **Alloteuthis**, cuttlefish, entire young specimen, l.s. for general study
- Mo126e • **Alloteuthis**, cuttlefish, eye l.s.
- Mo127d • **Alloteuthis**, cuttlefish, tentacles t.s.
- Mo1275f • **Alloteuthis**, cuttlefish, gill heart and ink sac, l.s.
- Mo128d • **Alloteuthis**, cuttlefish, fin t.s.
- Mo129d • **Alloteuthis**, cuttlefish, tail t.s.
- Mo141c • **Sepia officinalis**, cuttlefish, skin with chromatophores, w.m. of piece
- Mo142c • **Sepia officinalis**, skin with chromatophores, horizontal section
- Mo143f • **Sepia officinalis**, sec. through the ganglion showing giant nerve fibres
- Mo132d • **Octopus**, cuttlefish, section through sucking tube
- Mo151d • **Snail**, typical t.s. of small specimen for general study
- Mo1515e • **Snail**, typical l.s. of small specimen for general study
- Mo152d • **Snail**, sagittal l.s. through the head showing the radula in situ
- Mo153e • **Snail**, radula isolated and w.m.
- Mo161c • **Helix pomatia**, snail, foot sagittal l.s.
- Mo162c • **Helix pomatia**, snail, mantle margin sagittal l.s.



In330f



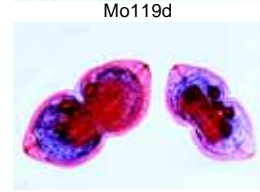
In356d



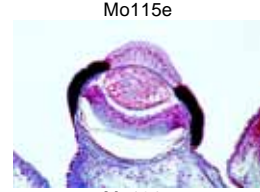
Mo111e



Mo119d



Mo115e



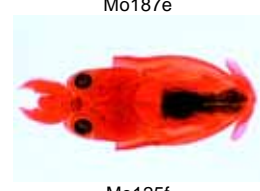
Mo131e



Mo185f



Mo187e



Mo125f



Mo1301f

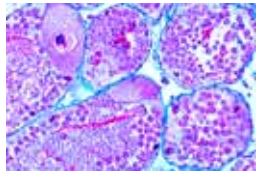


Mo132d



Mo152d

- Mo163c **Helix pomatia**, snail, esophagus t.s.
 Mo164c • **Helix pomatia**, stomach and digestive glands t.s.
 Mo165c **Helix pomatia**, intestine t.s.
 Mo166c • **Helix pomatia**, liver t.s.
 Mo167d **Helix pomatia**, albumen gland t.s.
 Mo168d • **Helix pomatia**, hermaphrodite gland (ovotestis), with ova and spermatozoa, t.s.
 Mo169d **Helix pomatia**, spermoviduct t.s.
 Mo170d **Helix pomatia**, crystalline style and glands, t.s.
 Mo171c **Helix pomatia**, penis t.s.
 Mo172c **Helix pomatia**, flagellum t.s.
 Mo173d • **Helix pomatia**, kidney and heart during the summer, t.s.
 Mo174d **Helix pomatia**, kidney and heart during the winter, t.s.
 Mo175c • **Helix pomatia**, lung t.s.
 Mo176f • **Helix pomatia**, antenna with highly developed lens eye l.s.



Mo168d



Mo172c



Mo176f



Ec111f



Ec114e



Ec113d



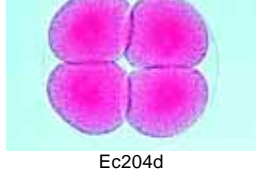
Ec117d



Ec202d



Ec203d



Ec204d

ECHINODERMATA ECHINODERMS

- Ec111f • **Asterias**, starfish, young entire specimen, stained and w.m. *
 Ec113d • **Asterias**, arm t.s., digestive gland and tube feet are shown for general study of all details
 Ec114e **Asterias**, horizontal l.s. of entire young specimen
 Ec115e **Asterias**, sagittal l.s. of entire young specimen
 Ec117d • **Asterias**, pedicellaria w.m. *
 Ec251d **Starfish embryology** (**Asterias**), ovary t.s. showing large ova in different developing stages
 Ec252d **Starfish embryology**, testis t.s. with developing sperm
 Ec254e **Starfish embryology**, sperm smear w.m.
 Ec116e • **Asterias**, bipinnaria larva w.m. *
 Ec1162f • **Asterias**, brachiolaria larva w.m. *
 Ec101h **Asterina gibbosa**, small starfish, entire specimen carefully stained and w.m. for general study
 Ec102e **Asterina gibbosa**, stages of development w.m.
 Ec103e **Asterina gibbosa**, horizontal l.s. of small specimen showing gonads
 Ec131d **Ophiura**, serpent star, arm t.s.
 Ec132d **Ophiura**, base of arm showing bursa and gonads, t.s.
 Ec133d **Ophiura**, horizontal l.s. of disc
 Ec137f **Ophiura**, ophiopluteus larva w.m. *
 Ec118d • **Echinus**, sea urchin, sagittal l.s. of entire young specimen
 Ec1183d **Echinus**, sea urchin, radial sec. of entire young specimen
 Ec1184d **Echinus**, pedicellaria, w.m.
 Ec1186f **Echinus**, sea urchin, t.s. of spine, ground thin or section *
 Ec121e **Asterioidea sp.**, larva in the stage of metamorphosis w.m. *
 Ec141d **Cucumaria**, sea cucumber, t.s. of small specimen showing the typical structures
 Ec145e **Holothurioidea sp.**, microsclerites w.m.
 Ec147f **Holothurioidea sp.**, larva w.m. *
 Ec201d • **Sea urchin embryology** (**Psammechinus miliaris**), unfertilized ova w.m.
 Ec202d • **Sea urchin embryology**, fertilized ova w.m.
 Ec203d • **Sea urchin embryology**, two cell stage w.m.
 Ec204d • **Sea urchin embryology**, four cell stage w.m.
 Ec205d • **Sea urchin embryology**, eight cell stage w.m.
 Ec206d • **Sea urchin embryology**, sixteen cell stage w.m.
 Ec207d • **Sea urchin embryology**, thirty two cell stage w.m.
 Ec208d • **Sea urchin embryology**, morula w.m.
 Ec209d • **Sea urchin embryology**, blastula w.m.
 Ec210d • **Sea urchin embryology**, beginning gastrulation w.m.
 Ec211d • **Sea urchin embryology**, progressive gastrulation w.m.
 Ec212d • **Sea urchin embryology**, pluteus larva w.m.
 Ec213e **Sea urchin embryology**, strewn slide of various stages w.m.
 Ec255e **Starfish embryology**, germinal vesicle stage w.m.
 Ec256e **Starfish embryology**, unfertilized ova w.m.
 Ec257e **Starfish embryology**, fertilized ova w.m., zygote with polar bodies

- Ec258e **Starfish embryology**, two cell stage w.m.
 Ec259e **Starfish embryology**, four cell stage w.m.
 Ec260e **Starfish embryology**, eight cell stage w.m.
 Ec261e **Starfish embryology**, sixteen cell stage w.m.
 Ec263e **Starfish embryology**, thirty-two cell stage w.m.
 Ec264e **Starfish embryology**, sixty-four cell stage or morula, w.m.
 Ec267e **Starfish embryology**, early and late blastula w.m.
 Ec268e **Starfish embryology**, early and late gastrula w.m.
 Ec271f **Starfish embryology**, early bipinnaria larva w.m.
 Ec272f **Starfish embryology**, late bipinnaria larva w.m.
 Ec276s **Starfish embryology**, brachiolaria larva w.m.
 Ec278s **Starfish embryology**, young starfish w.m.

ENTEROPNEUSTA

- Ep111g **Balanoglossus**, acorn worm, sagittal section of proto- and mesosoma *
 Ep114f **Balanoglossus**, region of gills, t.s. *
 Ep115f **Balanoglossus**, region of gonads, t.s. *
 Ep116f **Balanoglossus**, region of liver, t.s. *
 Ep117f **Balanoglossus**, abdominal region, t.s. *
 Ep130f **Balanoglossus**, tornaria larva w.m. *

TUNICATA – ASCIDIANS

- Tu105g **Ascidia**, sea squirt, swimming tadpole w.m. *
 Tu106g **Ascidia**, sea squirt, stage of early metamorphosis w.m. *
 Tu107g **Ascidia**, sea squirt, stage of late metamorphosis w.m. *
 Tu111d **Ascidia**, sea squirt, adult specimen, t.s. in region of gills
 Tu112d **Ascidia**, sea squirt, adult specimen, t.s. in region of stomach
 Tu121e **Ascidia**, t.s. of mantle to show animal cellulose
 Tu114e **Clavellina**, tunicate, l.s. of a small specimen
 Tu1142d **Clavellina**, t.s. of gill – intestine region
 Tu1143d **Clavellina**, t.s. of stomach – intestine region
 Tu116f **Botryllus schlosseri**, tunicate colony, w.m.
 Tu117d **Botryllus**, a synascidian, t.s. of colony
 Tu118e **Botryllus**, thin l.s. for fine detail
 Tu119e **Botryllus**, thick l.s. for general structures
 Tu211f **Salpa**, asexual form w.m. *
 Tu212f **Salpa**, sexual form w.m. *
 Tu131e **Kowalewskia** or **Oikopleura** (class Appendicularia), w.m.
 Tu214f **Phoronis**, Actinotrocha-larva, w.m.

ACRANIA CEPHALACORDATES

- Ac101f • **Branchiostoma lanceolatum** (**Amphioxus**), w.m. of entire specimen for general body structure, carefully stained
 Ac103d • **Branchiostoma**, typical t.s. for general study, shows gills, liver and gonads, the standard slide
 Ac105d • **Branchiostoma**, t.s. selected to show male gonads
 Ac106d • **Branchiostoma**, t.s. selected to show female gonads
 Ac107d **Branchiostoma**, mouth region t.s.
 Ac108d **Branchiostoma**, anterior pharynx showing gills and notochord t.s.
 Ac109d **Branchiostoma**, posterior pharynx showing liver t.s.
 Ac110d • **Branchiostoma**, region of intestine t.s.
 Ac111d **Branchiostoma**, region of tail t.s.
 Ac113d **Branchiostoma**, sagittal l.s. of the body
 Ac1135e **Branchiostoma**, frontal section through the spinal cord
 Ac1142d **Branchiostoma**, t.s. showing light-sensitive pigment cells
 Ac1143f **Branchiostoma**, head region, median l.s.
 Ac115f **Branchiostoma**, young larva w.m. *
 Ac117s **Branchiostoma** composite slide, showing t.s. through the regions of mouth, pharynx, intestine, and tail
 Ac151g **Branchiostoma embryology**, unfertilized ova w.m. *



Ec208d



Ec210d



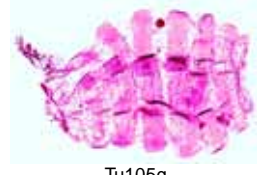
Ec212d



Ep117f



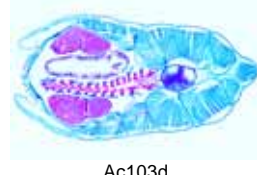
Ep130f



Tu105g



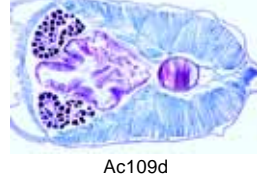
Ac101f



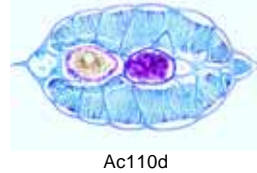
Ac103d



Ac108d



Ac109d



Ac110d



Ac156k

Branchiostoma embryology, two to sixteen cell stages, w.m. *

Ac159g

Branchiostoma embryology, thirty-two and sixty-four cells w.m. *

Ac162g

Branchiostoma embryology, blastula stage w.m. *

Ac164g

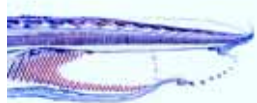
Branchiostoma embryology, gastrula stage w.m. *

Ac166g

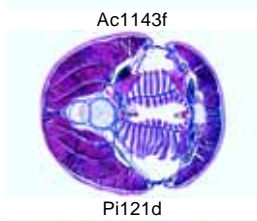
Branchiostoma embryology, early larva w.m. *

Ac168g

Branchiostoma embryology, late larva w.m. *



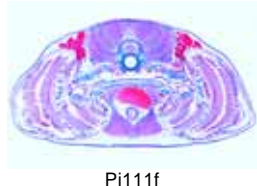
Ac1142d



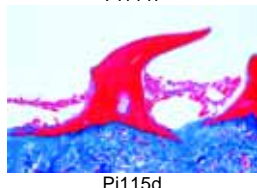
Ac1143f



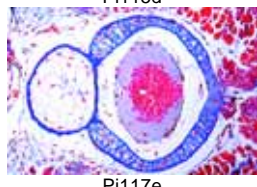
Pi121d



Pi122d



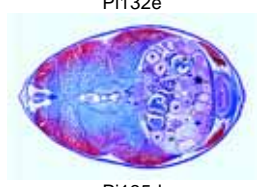
Pi111f



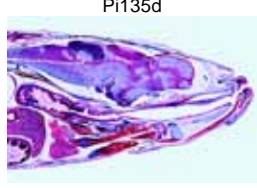
Pi115d



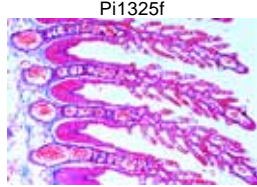
Pi117e



Pi132e



Pi135d



Pi1325f

Pi160c

Pi1271h

PISCES – FISHES

Cyclostomata – Jawless fishes

- Ammocoetes**, lamprey, larva small specimen w.m. *
- Ammocoetes**, region of head t.s.
- Ammocoetes**, region of pharynx t.s.
- Ammocoetes**, region of abdomen t.s.
- Ammocoetes**, region of tail t.s.
- Petromyzon**, lamprey, head t.s.
- Petromyzon**, region of gills t.s.
 - Petromyzon**, region of abdomen t.s.
 - Petromyzon**, region of tail t.s.
- Petromyzon**, region of head and gills, horizontal l.s. *
- Petromyzon**, chorda l.s.
- Petromyzon**, chorda t.s.
- Petromyzon**, intestine, t.s.
- Petromyzon**, region of mouth t.s.
- Petromyzon**, kidney t.s.
- Petromyzon**, ovary t.s.
- Petromyzon**, brain t.s.
- Petromyzon**, chorda and spinal cord, t.s.

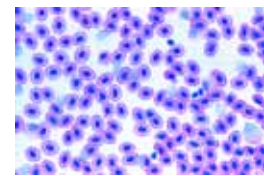
Selachii – Cartilaginous fishes

- Scyllium**, dogfish, horizontal l.s. through region of head and gills of entire young specimen *
- Scyllium**, region of head, t.s.
 - Scyllium**, gill arch t.s.
- Scyllium**, dogfish, t.s. in region of thorax and gills of entire young specimen
- Scyllium**, dogfish, t.s. in region of abdomen, with spiral intestine and liver
- Scyllium**, t.s. of fin
- Scyllium**, t.s. in region of tail
- Scyllium**, skin with placoid scales, vertical l.s.
 - Scyllium**, skin with placoid scales, w.m.
 - Scyllium**, yaw with developing tooth t.s.
 - Scyllium**, brain l.s.
 - Scyllium**, olfactory epithelium, t.s.
 - Scyllium**, lateral line organ t.s.
 - Scyllium**, cartilage t.s.
- Scyllium**, vertebral column with spinal cord and notochord, t.s.
- Scyllium**, heart sagittal l.s. *
- Scyllium**, brain sagittal l.s. *
- Torpedo marmorata**, electric ray, t.s. of electric organ

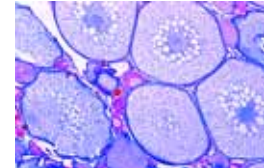
Teleostei – Bony fishes

- Fresh water fish** (small specimen), entire sagittal l.s.
- Fresh water fish**, mouth region t.s.
- Fresh water fish**, head and eyes t.s.
 - Fresh water fish**, head with brain sagittal l.s.
 - Fresh water fish**, region of gills t.s.
 - Fresh water fish**, region of heart t.s.
- Fresh water fish**, abdominal region showing kidney, liver and intestine t.s.
- Fresh water fish**, region of gonads t.s.
- Fresh water fish**, region of tail t.s.
- Fresh water fish**, horizontal l.s. through head and gills
- Fresh water fish**, retina adapted to darkness, t.s. of head
- Fresh water fish**, retina adapted to brightness, t.s. of head
- Fresh water fish**, sec. of eye showing horizontal section of the retina
- Fresh water fish**, heart sagittal l.s.
- Cyprinus**, gills t.s.
 - Cyprinus**, heart l.s.
 - Cyprinus**, blood smear

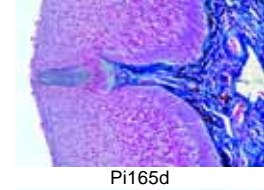
- Cyprinus**, pronephros (head kidney) t.s.
- Cyprinus**, stomach t.s.
 - Cyprinus**, small intestine t.s.
 - Cyprinus**, carp, liver t.s.
 - Cyprinus**, pancreas t.s.
 - Cyprinus**, air bladder t.s.
 - Cyprinus**, kidney t.s.
 - Cyprinus**, ovary t.s.
 - Cyprinus**, testis t.s.
 - Cyprinus**, brain t.s.
 - Cyprinus**, skin vertical l.s.
 - Cyprinus**, barb (tactile organ) t.s.
- Cyprinus**, t.s. of lateral line organ. The organ of balance *
- Trutta (Salmo)**, trout, heart l.s.
- Trutta**, gills t.s.
- Trutta**, kidney t.s.
- Trutta**, testis t.s.
- Trutta**, brain l.s., routine stained
- Trutta**, brain l.s., silvered
- Trutta**, brain, t.s. of 3 regions (Bulbi olfactorii, Tectum opticum, Cerebellum)
- Trutta**, vertebral column and spinal cord, t.s.
- Gasterosteus**, stickleback, gills w.m.
- Gasterosteus**, eye, radial l.s.
- Gadus**, codfish, brain t.s.
- Pleuronectes**, flounder, skin with chromatophores w.m.
- Syngnathus or Hippocampus**, sea horse, t.s. showing the agglomerulous kidney
- Fish**, t.s. of jaw showing teeth
- Poecilia**, fish, organ of equilibration with macula t.s.
- Anguilla**, eel, young specimen t.s.
- Cycloid scales** w.m.
 - Ctenoid scales** w.m.
 - Placoid scales** w.m.
- Ganoid (rhomboid) scales** w.m. *
- Fish scales** composite slide, shows cycloid, ctenoid and placoid scales on one slide, w.m.



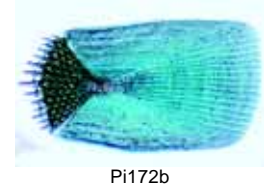
Pi162c



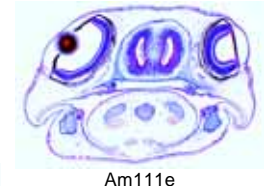
Pi153c



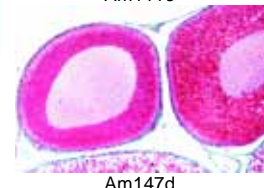
Pi165d



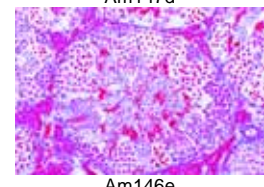
Pi172b



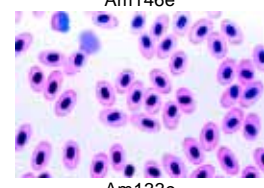
Am111e



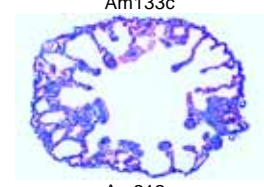
Am147d



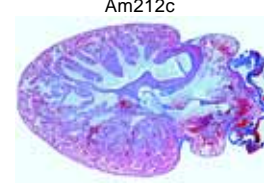
Am146e



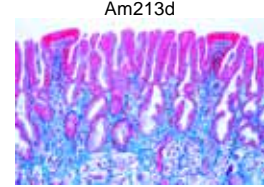
Am133c



Am212c



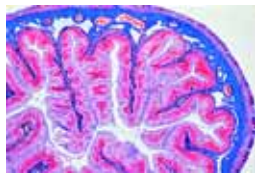
Am213d



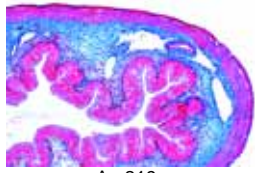
Am215c

AMPHIBIA – AMPHIBIANS

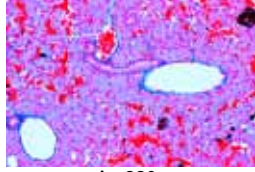
- Amphiuma**, Congo eel, blood smear
- Amphiuma**, heart t.s.
- Amphiuma**, artery t.s.
- Amphiuma**, lung t.s.
- Amphiuma**, oesophagus t.s.
- Amphiuma**, stomach t.s.
- Amphiuma**, small intestine t.s.
- Amphiuma**, large intestine t.s.
- Amphiuma**, liver t.s.
- Amphiuma**, spleen t.s.
- Amphiuma**, ovary t.s.
- Amphiuma**, oviduct t.s.
- Amphiuma**, testis t.s.
- Amphiuma**, urinary bladder t.s.
- Amphiuma**, skin vertical l.s.
- Salamandra** larva, serial sections from selected material to show mitotic stages in the skin and in other organs
 - Salamandra** larva, head with eyes t.s.
 - Salamandra** larva, region of external gills t.s.
 - Salamandra** larva, region of thorax and legs t.s.
 - Salamandra** larva, region of abdomen t.s.
 - Salamandra** larva, region of tail t.s.
 - Salamandra**, t.s. of liver for demonstration of typical animal cells with nuclei, cytoplasm and cell membranes
 - Salamandra**, testis t.s., usually many meiotic and mitotic stages can be observed
 - Salamandra**, skin with poison glands, vertical l.s.
 - Salamandra**, lung t.s.
 - Salamandra**, blood smear
 - Salamandra**, kidney t.s.
 - Salamandra**, stomach t.s.
 - Salamandra**, small intestine t.s.
 - Salamandra**, thyroid gland t.s. *
 - Salamandra**, ovary t.s.
 - Salamandra**, tail t.s.
 - Triturus**, molge, eye of adult, radial l.s.
 - Triturus**, eye of larva, radial l.s.
 - Necturus**, axolotl, gills t.s.
 - Rana**, frog, epidermis flat mount for squamous epithelium w.m.



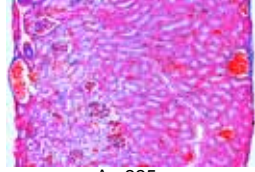
Am218c



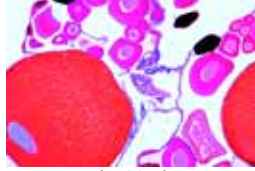
Am219c



Am220c



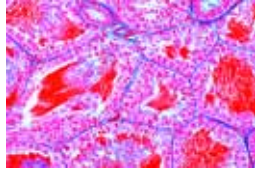
Am225c



Am227d



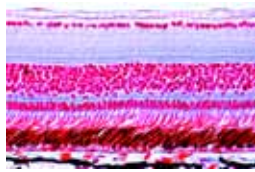
Am228c



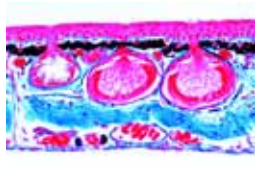
Am229d



Am232d



Am233d



Am234c



Re213c

- Am2012c **Rana**, squamous epithelium, w.m. of isolated cells
- Am2013c **Rana**, columnar epithelium, w.m. of isolated cells
- Am202d • **Rana**, roof of mouth with ciliated epithelium, t.s.
- Am2021c **Rana**, ciliated epithelium, w.m. of isolated cells
- Am203d **Rana**, compact bone decalcified, t.s.
- Am204d **Rana**, head of femur t.s. showing bone and hyaline cartilage
- Am205d • **Rana**, hyaline cartilage of sternum t.s.
- Am206d • **Rana**, striated (skeletal) muscle, l.s.
- Am207d **Rana**, striated muscle t.s.
- Am208d **Rana**, striated muscle, isolated fibres w.m.
- Am2083c **Rana**, heart muscle, isolated fibres w.m.
- Am209e • **Rana**, nerve fibres isolated, fixed and stained with osmic acid to show Ranvier's nodes w.m.
- Am210d **Rana**, adipose tissue t.s.
- Am211d **Rana**, leg t.s. shows artery, vein, bone, nerve
- Am212c • **Rana**, lung t.s., simple baglike lung with large central cavity
- Am2123e • **Rana**, contracted and expanded lung, two t.s. on same slide
- Am213d • **Rana**, heart l.s., showing l.s. and t.s. of heart muscle
- Am214c • **Rana**, blood smear
- Am215c • **Rana**, tongue t.s., with papillae, glands, muscles
- Am2155f **Rana**, head with mouth cavity and tongue l.s.
- Am216c **Rana**, oesophagus t.s., showing ciliated epithelium
- Am217c • **Rana**, stomach t.s., mucous membrane with gastric glands
- Am218c • **Rana**, small intestine t.s., showing villi
- Am219c **Rana**, large intestine (colon), t.s. with goblet cells
- Am220c • **Rana**, liver t.s., liver parenchyme and bile ducts
- Am221c **Rana**, pancreas t.s. with islets of Langerhans
- Am222c **Rana**, gall bladder t.s.
- Am223c • **Rana**, spleen t.s., lymphatic tissue
- Am224e **Rana**, thyroid gland with colloid t.s.
- Am225c • **Rana**, kidney t.s. showing Malpighian corpuscles and tubules
- Am2252c **Rana**, kidney l.s.
- Am226c **Rana**, urinary bladder t.s., smooth muscles
- Am235d **Rana**, ureter t.s.
- Am227d • **Rana**, ovary with developing eggs t.s.
- Am228c **Rana**, fallopian tube t.s.
- Am229d • **Rana**, testis showing spermatogenesis t.s.
- Am2292d **Rana**, sperm smear
- Am2295d • **Rana**, peripheral nerve t.s.
- Am230c • **Rana**, anterior part of brain t.s.
- Am2305e **Rana**, t.s. of brain in three different regions
- Am231f **Rana**, complete brain sagittal l.s.
- Am2312f **Rana**, complete brain sagittal l.s., silver stained
- Am232d • **Rana**, spinal cord t.s., of white and grey matter
- Am233d • **Rana**, posterior part of eyeball with retina, sagittal l.s.
- Am2331g **Rana**, entire eyeball sagittal l.s. for general structures *
- Am234c • **Rana**, skin with skin glands, vertical l.s.
- Am2343f **Rana**, skin, w.m. showing injected vessels and chromatophores
- Am251f **Rana**, small specimen, t.s. region of mouth
- Am252f **Rana**, small specimen, t.s. through head
- Am253f **Rana**, small specimen, t.s. region of thorax
- Am254f **Rana**, small specimen, t.s. region of abdomen
- Am261e • **Rana larva**, tadpole, head and eyes t.s.
- Am262d • **Rana larva**, tadpole, thorax with gills t.s.
- Am2622d • **Rana larva**, tadpole, region of lungs t.s.
- Am263d • **Rana larva**, tadpole, abdomen t.s.
- Am265d • **Rana larva**, tadpole, skin with pigment cells, w.m.
- Am270g **Rana larva**, l.s. of 5 tadpoles of different age
- Am291f **Rana embryology**: frog, early cleavage t.s.
- Am292f **Rana embryology**: frog, blastula t.s.
- Am293f **Rana embryology**: frog, gastrula t.s.
- Am294f **Rana embryology**: frog, neurula t.s.
- Am295f **Rana embryology**: frog, young larva t.s.

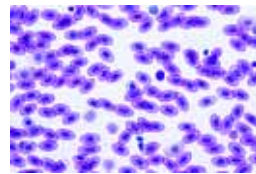
REPTILIA – REPTILES

- Re121d **Ophidia sp.**, snake, skin with scales flat mount w.m.
- Re122d **Ophidia sp.**, snake, skin with scales vertical l.s.
- Re151c **Tropidonotus**, snake, striated muscles l.s.
- Re153c **Tropidonotus**, trachea t.s.

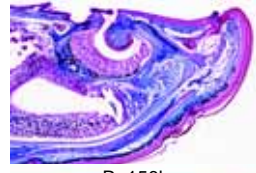
- Re154c **Tropidonotus**, lung t.s.
- Re152c **Tropidonotus**, intestine and testis, t.s.
- Re158c **Tropidonotus**, uterus t.s.
- Re155d **Tropidonotus**, brain t.s.
- Re157h **Tropidonotus**, motor nerve endings (end plates) in striated muscle of snake, w.m.
- Re156h **Tropidonotus**, Jacobson's organ (vomeronasal organ), head of snake, t.s. *
- Re161d **Anguis**, slow-worm, t.s. of embryo and placenta
- Re240f **Tarentola**, gecko, l.s. of toe adapted for climbing
- Re211c • **Lacerta**, lizard, blood smear
- Re212d **Lacerta**, trachea t.s.
- Re213c • **Lacerta**, lung t.s.
- Re214c **Lacerta**, kidney t.s.
- Re215c **Lacerta**, testis t.s. showing spermatogenesis
- Re216c • **Lacerta**, intestine t.s.
- Re217c **Lacerta**, liver t.s.
- Re2173d **Lacerta**, heart l.s.
- Re218d **Lacerta**, ovary t.s.
- Re219d **Lacerta**, adrenal gland t.s.
- Re220d **Lacerta**, t.s. of jaw showing changing of teeth
- Re221d **Lacerta**, brain t.s.
- Re231d • **Lacerta**, skin with scales vertical l.s.
- Re235f **Lacerta**, small specimen, sagittal l.s. of the head
- Re237h **Lacerta**, small specimen, sagittal l.s. of the head showing the parietal or pineal eye *
- Re236e **Lacerta**, small specimen, t.s. of the head
- Re251c **Testudo**, turtle, blood smear
- Re252c **Testudo**, heart t.s.
- Re254c **Testudo**, lung t.s.
- Re256c **Testudo**, oesophagus t.s.
- Re258c **Testudo**, stomach t.s.
- Re259c **Testudo**, small intestine t.s.
- Re260c **Testudo**, large intestine t.s.
- Re262c **Testudo**, liver t.s.
- Re264d **Testudo**, thyroid gland t.s.
- Re266d **Testudo**, ovary t.s.
- Re267d **Testudo**, oviduct t.s.
- Re268d **Testudo**, testis t.s.
- Re270c **Testudo**, urinary bladder t.s.
- Re272c **Testudo**, striated (skeletal) muscle l.s.
- Re273c **Testudo**, striated (skeletal) muscle t.s.

AVES – BIRDS

- Av132b • **Gallus**, wing or vane feather w.m.
- Av131b • **Gallus**, down feather w.m.
- Av165b **Humming bird**, down feather w.m.
- Av133b **Gallus**, plume feather (filoplume) w.m.
- Av134c **Gallus**, wing and down feather on one slide w.m.
- Av1345d **Bird feather composite** slide: wing feather, down feather and filoplume on same slide w.m.
- Av103c **Squamous epithelium**, mucous membrane of duck, t.s.
- Av161e • **Herbst corpuscles**, t.s. of beak of duck
- Av162e **Woodpecker**, tongue, t.s. showing touch corpuscles
- Av150e **Singing bird**, syrinx l.s.
- Av152c **Crop** of pigeon (*Columba*), t.s.
- Av156e **Falco**, falcon, horizontal sec. of the retina
- Av101g **Head of newly hatched bird**, sagittal l.s.
- Av102f **Head of newly hatched bird**, t.s. through region of eyes
- Av111c • **Gallus domesticus**, chicken, blood smear
- Av118c **Gallus**, heart muscle l.s.
- Av112c • **Gallus**, lung t.s. showing parabronchii
- Av1123c **Gallus**, trachea t.s.
- Av128c **Gallus**, spleen t.s.
- Av129d **Gallus**, thymus gland t.s.
- Av138d **Gallus**, adrenal gland t.s.
- Av130d **Gallus**, bursa fabricii t.s.
- Av121d • **Gallus**, tongue with thick cornified layer t.s.
- Av113c **Gallus**, oesophagus t.s.
- Av114c • **Gallus**, glandular stomach t.s.
- Av127d • **Gallus**, gizzard t.s. showing thick cornified layer
- Av115c • **Gallus**, small intestine t.s.
- Av136c **Gallus**, blind gut t.s.
- Av116c • **Gallus**, liver t.s.
- Av122d **Gallus**, pancreas t.s.
- Av117c • **Gallus**, kidney t.s.
- Av137c **Gallus**, mesonephric duct t.s.
- Av119d • **Gallus**, ovary with developing eggs t.s.
- Av120d • **Gallus**, testis showing spermatogenesis t.s.
- Av123d • **Gallus**, brain t.s.



Re211c



Re156h



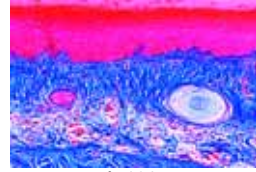
Re237h



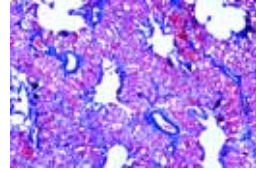
Re231d



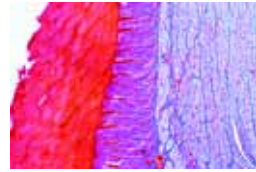
Av132b



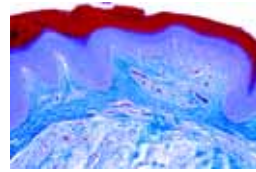
Av161e



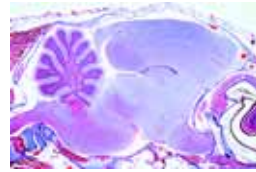
Av112c



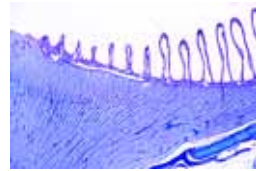
Av127d



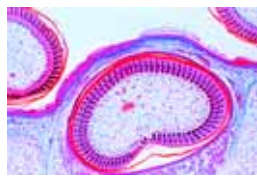
Av126d



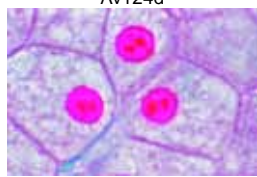
Av1245c



Av140e



- Av1245c • **Gallus**, cerebellum, t.s. routine stained
 Av1247f • **Gallus**, cerebellum, t.s. silvered
 Av139d • **Gallus**, anterior part of eye with eyelid and nictitating membrane sagittal l.s.
 Av140e • **Gallus**, posterior part of eye with retina and pecten, sagittal l.s.
 Av155e • **Gallus**, chicken, horizontal sec. of the retina
 Av135c • **Gallus**, cockscomb t.s.
 Av124d • **Gallus**, skin with developing feathers, horizontal l.s.
 Av125d • **Gallus**, skin with developing feathers, vertical l.s.
 Av126d • **Gallus**, unfeathered skin of foot, vertical l.s.
 Av211f • **Gallus embryology**: chicken embryo, 36 hour t.s.
 Av212f • **Gallus embryology**: chicken embryo, 48 hour t.s.
 Av213f • **Gallus embryology**: chicken embryo, 72 hour t.s.

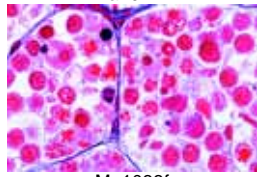


Av124d

Ma101d



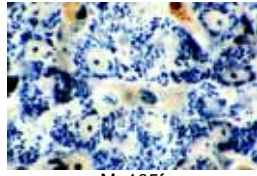
Ma1021h



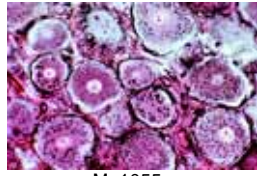
Ma1033f



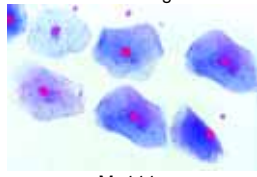
Ma104h



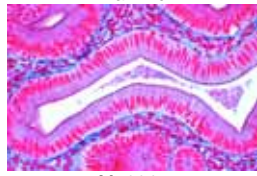
Ma105f



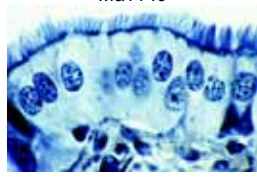
Ma1055g



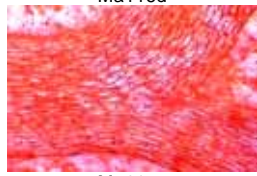
Ma111c



Ma114c



Ma116d



Ma117e

The combination of prepared microscope slides and colour photomicrographs has decisive advantages for teaching. We have a large selection of colour photomicrographs (p. 75 – 100 in this Catalogue), for use in conjunction with our prepared microscope slides

We will gladly make special offers for any slides or sets which are not listed in our catalogue. Please ask for further information.

HISTOLOGY OF MAMMALIA

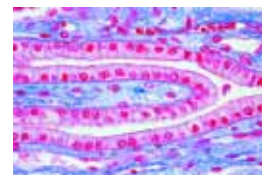
Cytology

- Ma101d • **Simple animal cells** in sec. of salamander liver showing nuclei, cell membranes and cytoplasm. For general study of the animal cell
 Ma102f • **Mitotic stages** in sec. through red bone marrow of mammal
 Ma1023f • **Mitotic stages** in smear of red bone marrow of mammal
 Ma1021h • **Mitotic stages** in sec. of whitefish blastula showing spindles *
 Ma1033f • **Meiotic (maturation) stages** in sec. through testis of salamander, selected material showing large structures *
 Ma103f • **Meiotic (maturation) stages** in testis of mouse, sec. iron hematoxyline stained after Heidenhain
 Ma1031f • **Meiotic (maturation) stages** in smear from testis of mouse, specially stained after Feulgen *
 Ma104h • **Human chromosomes** in smear from culture of blood, male *
 Ma1041i • **Human chromosomes** in smear from culture of blood, female *
 Ma1045f • **Barr bodies** (human sex chromatin) in smear from female squamous epithelium *
 Ma105f • **Mitochondria** in thin sec. of kidney or liver, specially prepared and stained
 Ma1055g • **Golgi apparatus** in sec. of spinal ganglion or other organ *
 Ma1058e • **Pigment cells** in skin
 Ma1061e • **Storage of glycogen** in liver cells, sec. stained with carmine after Best or PAS reaction
 Ma1063e • **Storage of fat** in cells of costal cartilage, sec. stained with Sudan
 Ma1065f • **Secretion of fat** in mammary gland, section Osmic acid stained
 Ma1067f • **Phagocytosis** in Kupffer's star cells of the liver, sec. of mammalian liver injected with trypan blue
- ### Epithelial tissues
- Ma111c • **Squamous epithelium**, isolated cells from human mouth, smear
 Ma1113d • **Simple squamous epithelium**, in sec. through the cornea from the eye
 Ma112c • **Stratified, non-cornified squamous epithelium**, in section through buccal gum
 Ma1121c • **Stratified, non-cornified squamous epithelium**, in section through vagina of rabbit
 Ma1124d • **Stratified, non-cornified squamous epithelium**, in section of oesophagus

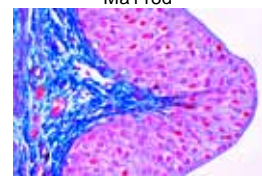
- Ma1125d • **Stratified, non-cornified squamous epithelium**, t.s. pig vagina
 Ma1127d • **Stratified, cornified squamous epithelium**, in vertical l.s. of human body skin
 Ma113d • **Columnar epithelium**, isolated cells from intestine w.m.
 Ma114c • **Simple columnar epithelium**, in t.s. of small intestine
 Ma1142e • **Simple columnar epithelium**, in t.s. of human gall bladder
 Ma1145d • **Pseudostratified columnar epithelium**, in sec. through epididymis
 Ma115d • **Ciliated epithelium**, isolated cells from trachea w.m.
 Ma116d • **Simple ciliated columnar epithelium**, in t.s. of oviduct
 Ma1162d • **Pseudostratified ciliated columnar epithelium**, in t.s. of trachea
 Ma117e • **Endothelium**, endothelial cells of small blood vessels in mesenterium, silver stained and w.m.
 Ma118d • **Cuboidal epithelium**, in sec. of kidney papilla
 Ma1182e • **Cuboidal epithelium**, in sec. of human thyroid gland
 Ma120e • **Transitional epithelium**, two section of urinary bladders showing contracted and extended epithelia
 Ma1201d • **Transitional epithelium**, in sec. of urinary bladder of sheep
 Ma1202d • **Goblet cells** in sec. of colon, stained with mucicarmine
 Ma1203e • **Mucous glands** from human intestine, colouring of goblet cells, PAS-HE
 Ma1204d • **Holocrine glands**, sebaceous glands from human skin, l.s.
 Ma1205c • **Apocrine glands**, lacteal glands of sheep, sec.
 Ma1206e • **Ecrrine glands**, salivary gland, human, sec.
 Ma1207d • **Sweat glands** in human skin, t.s.

Connective and supporting tissues

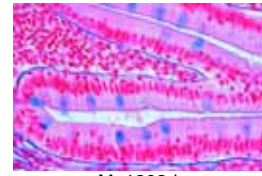
- Ma121e • **Areolar connective tissue**, w.m. and stained for fibres and cells
 Ma122d • **White fibrous tissue**, isolated fibres from tendon
 Ma123d • **White fibrous tissue**, l.s. of tendon
 Ma1231d • **White fibrous tissue**, t.s. of tendon
 Ma1234f • **Mast cells** in the Omentum majus of rat, specially stained with toluidine blue and paracarmine
 Ma124d • **Yellow elastic fibrous tissue**, l.s. of Ligamentum nuchae
 Ma1242e • **Yellow elastic fibrous tissue**, t.s. of Ligamentum nuchae
 Ma1244d • **Elastic tissue**, fibres teased and w.m.
 Ma125d • **Reticular tissue** t.s.
 Ma1252f • **Reticular fibres**, human spleen, t.s. silvered
 Ma126d • **Embryonic connective tissue** t.s.
 Ma127d • **Mucous tissue**, t.s. of navel string (umbilical cord)
 Ma1275f • **Mucous tissue**, t.s. of navel string specially stained for Wharton's jelly
 Ma1278d • **Vesicular tissue**, cellular connective tissue with no intercellular substance, sec. through notochord of dogfish
 Ma128c • **Adipose tissue**, section fat removed to show the cells
 Ma129e • **Adipose tissue**, section showing fat in situ stained by sudan
 Ma1292e • **Adipose tissue**, section or w.m. with fat in situ stained by osmic acid
 Ma1294c • **Brown adipose tissue** of monkey, sec.
 Ma130c • **Hyaline cartilage**, t.s.
 Ma1302c • **Hyaline cartilage** of cat, t.s.
 Ma1305d • **Fetal hyaline cartilage**, t.s.
 Ma131d • **Yellow elastic cartilage**, section specially stained for elastic fibres
 Ma1312d • **Yellow elastic cartilage**, ear of rabbit or pig, t.s.
 Ma132d • **White fibrous cartilage**, section
 Ma1323f • **Fibrous cartilage**, human intervertebral disc, sec.
 Ma135d • **Compact bone**, t.s. specially prepared to show the cells and canaliculi
 Ma136d • **Compact bone**, l.s. specially prepared to show the cells and canaliculi
 Ma1365d • **Cancellous (spongy) bone**, t.s.
 Ma1367g • **Compact bone**, human, non-decalcified, t.s. ground thin and mounted *
 Ma137e • **Compact bone and hyaline cartilage** t.s., two sections on one slide



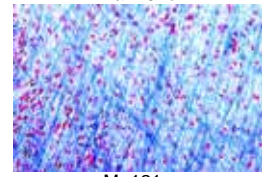
Ma118d



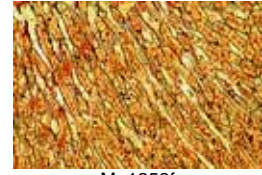
Ma1201d



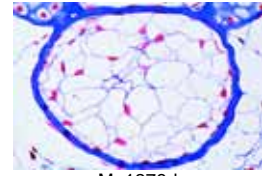
Ma1202d



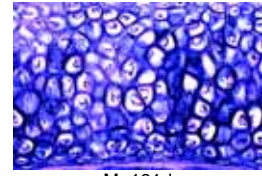
Ma121e



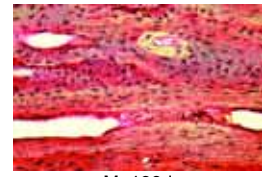
Ma1252f



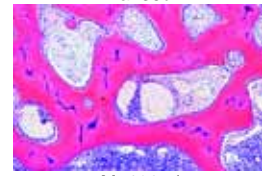
Ma1278d



Ma131d



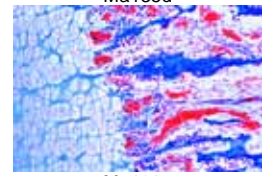
Ma136d



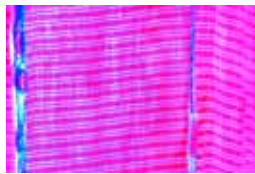
Ma1365d



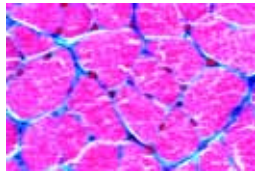
Ma135d



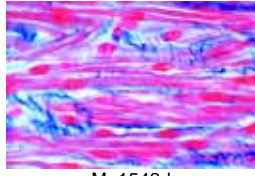
Ma138e



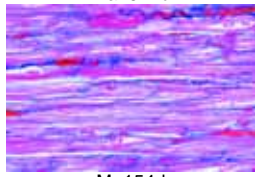
Ma151d



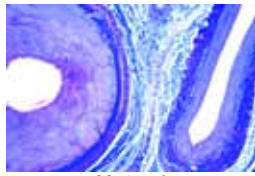
Ma152d



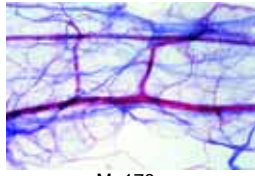
Ma1542d



Ma154d



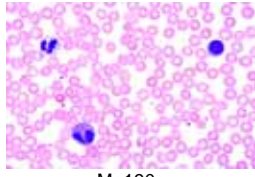
Ma175d



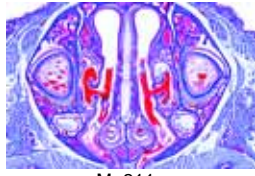
Ma178e



Ma179f



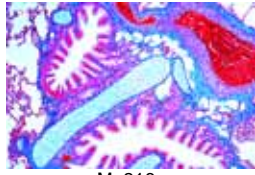
Ma190c



Ma211e



Ma212e



Ma216c

- Ma138e • **Bone development**, intracartilaginous ossification in foetal finger or toe, I.s.
 Ma139e • **Bone development**, intermembranous ossification in foetal head (cranial bone), vertical I.s.
 Ma140d • **Yellow bone marrow t.s.**
 Ma141e **Joint of finger** or toe, sagittal I.s.
 Ma142e **Foetal knee joint**, I.s. showing ossification of tendons *

Muscle tissues

- Ma151d • **Striated (skeletal) muscle** I.s.
 Ma152d **Striated (skeletal) muscle** t.s.
 Ma153d • **Striated (skeletal) muscle**, teased preparation showing isolated fibres w.m.
 Ma1535f **Striated (skeletal) muscle**, I.s. specially stained for myofibrils *
 Ma1537f **Striated (skeletal) muscle**, thin I.s. specially stained to show details of the striations
 Ma154d • **Smooth (involuntary) muscle**, I.s. and t.s.
 Ma1542d **Smooth (involuntary) muscle**, I.s. only
 Ma155d • **Smooth (involuntary) muscle**, teased preparation showing isolated fibres w.m.
 Ma1555f **Smooth (involuntary) muscle**, sec. specially stained for myofibrils *
 Ma156d • **Heart muscle**, I.s. and t.s.
 Ma158e • **Heart muscle**, teased preparation shows isolated fibres w.m.
 Ma157e **Heart muscle**, I.s. and t.s. specially stained for intercalated discs
 Ma159e **Heart muscle**, specially stained to show the Purkinje fibres *
 Ma160d **Muscle-tendon junction**, I.s.
 Ma165f **Muscle types**, composite slide with I.s. of striated, smooth and heart muscles

Circulatory system

- Ma171d **Artery** of rabbit, t.s. routine stained
 Ma172d • **Artery** of rabbit, t.s. stained for elastic fibres
 Ma1725f **Artery** of rabbit, t.s. specially stained for myofibrils *
 Ma173d **Vein** of rabbit, t.s. routine stained
 Ma174d • **Vein** of rabbit, t.s. stained for elastic fibres
 Ma182e **Valve of the vein** of rabbit, I.s. or w.m. *
 Ma175d **Artery and vein** of smaller size in one slide, guinea pig, t.s.
 Ma1752d **Artery, vein and capillary**, guinea pig, t.s.
 Ma1753e **Artery, vein and nerve**, guinea pig, t.s.
 Ma176d • **Aorta** of rabbit, t.s. routine stained
 Ma1762d **Aorta** of rabbit, t.s. stained for elastic fibres
 Ma178e • **Small blood vessels** in mesenterium of rabbit, w.m.
 Ma179f • **Heart** of mouse, entire sagittal I.s.
 Ma180d **Heart** of mouse, t.s.
 Ma181f **Pinna of the ear** of rabbit, sec. injected to show anastomosis of blood vessels
 Ma190c • **Human blood smear**, Giemsa stain
 Ma1902c **Human blood smear**, Wright's stain
 Ma195c **Rabbit blood smear**, Giemsa stain
 Ma196c **Cat blood smear**, Giemsa stain
 Ma1963c **Camel blood smear**, elliptical erythrocytes
 Ma1965c **Rat blood smear**, Giemsa stain
 Ma197c • **Frog blood smear**, nucleated erythrocytes
 Ma1973c **Amphiuma blood smear**, very large erythrocytes

Respiratory system

- Ma211e • **Nasal region** of small mammal (mouse or rat), t.s. showing respiratory and olfactory epithelium, bone etc.
 Ma212e **Larynx** of mouse, sagittal I.s.
 Ma213e **Larynx** of mouse, frontal I.s.
 Ma214d **Trachea** of cat or rabbit, t.s. with ciliated epithelium, cartilage etc.
 Ma215d • **Trachea** of cat or rabbit, I.s.
 Ma2155e **Bronchus** of cat or dog, t.s.
 Ma216c • **Lung** of cat, t.s. routine stained for all details
 Ma217d **Lung** of cat, t.s. stained for elastic fibres
 Ma218e **Lung** of cat, t.s. silver stained
 Ma2183f **Lung** of cat, sec. showing injected blood vessels
 Ma220d **Lung** of cat, thick section showing arrangement of alveoli
 Ma2185c **Lung** of rat, t.s.
 Ma219d **Lung** from human fetus, t.s. shows developing tissues
 Ma222d **Trachea and oesophagus** of rabbit, t.s.
 Ma225e • **Lung cancer**, human, carcinoma, sec.

- Ma226h **Lung pathology**, composite slide: normal human lung, lung with carbon particles, emphysema, and lung cancer, four sections

Lymphatic system

- Ma231c • **Lymph node** of pig, t.s. routine stained
 Ma232f **Lymph node** of pig, t.s. shows reticular tissue only (cells removed) *
 Ma2323c **Lymph node** of cat, t.s. routine stained
 Ma2325g **Lymphatic vessel**, w.m. from mesentery, with valve *
 Ma233e • **Tonsil**, human, t.s.
 Ma234c • **Spleen** of rabbit, t.s. showing capsula, pulp etc.
 Ma235f **Spleen** of rabbit, t.s. injected to show the blood vessels
 Ma2353c **Spleen** of guinea pig, t.s.
 Ma236d • **Red bone marrow** of cow, thin sec. quadruple stained
 Ma237d **Red bone marrow** of cow, smear specially stained
 Ma2375f **Red bone marrow**, smear showing normoblasts *
 Ma238f **Thymus** from human child, t.s. with Hassall bodies
 Ma239d • **Thymus** of young cat, t.s. with Hassall bodies
 Ma240d **Thymus gland** of cow, sec.

Endocrine glands

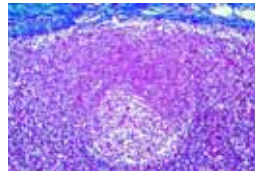
- Ma252d • **Thyroid gland** of cow, sec. showing colloid
 Ma2523d **Thyroid gland** of cat, sec.
 Ma2525e **Trachea with thyroid gland** of rat, t.s.
 Ma270f **Thyroid gland**, sec. showing insufficiency of the gland *
 Ma271f **Thyroid gland**, sec. showing over-activity of the gland *
 Ma262f **Parathyroid gland** of pig or cat, t.s.
 Ma263f **Parathyroid and thyroid gland** of mammal, t.s.
 Ma274f **Carotid body** of pig, sec.
 Ma253d • **Adrenal gland (Gl. suprarenalis)** of rabbit, t.s. through cortex and medulla
 Ma2534f **Adrenal gland** of rabbit, t.s. silver stained to show nerve fibres in the medulla
 Ma2535d **Adrenal gland** of cat, t.s.
 Ma254f • **Islets of Langerhans** in t.s. of pancreas from cat, specially stained for cellular detail
 Ma2543d **Pancreas** with islets of Langerhans of cat, t.s. routine stained
 Ma255e • **Pituitary gland (hypophysis)**, sag. I.s. of complete organ from cow or pig showing adeno- and neurohypophysis
 Ma259h **Pituitary gland**, t.s. of infundibulum specially stained to show neurosecretetes *
 Ma258g **Pituitary gland**, thin t.s. of glandular portion stained for fine cellular detail
 Ma257e • **Pineal body (Epiphysis)** of cow or pig, t.s. routine stained
 Ma2572d **Pineal body (Epiphysis)** of sheep, t.s.
 Ma2574d **Leydig's cells** in testis of mouse, t.s. special stained

Digestive system

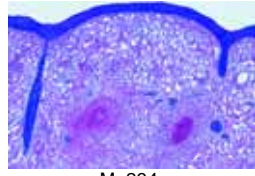
- Ma310c • **Lip** of mouse, sagittal I.s.
 Ma311d • **Tooth** human, t.s. of crown
 Ma312d **Tooth** human, t.s. of root
 Ma313f **Tooth** human, entire I.s.
 Ma314e **Gum with root of tooth** from guinea pig, sagittal I.s.
 Ma3142e **Gum with root of tooth** from guinea pig, t.s.
 Ma315e • **Tooth development** of mammal, early stage I.s.
 Ma316e • **Tooth development** of mammal, medium stage I.s.
 Ma317e • **Tooth development** of mammal, , later stage I.s.
 Ma321c **Tongue** of mouse, entire sagittal I.s.
 Ma322c **Tongue** of mouse, t.s.
 Ma323d • **Tongue** of cat, papilla with thick cornified layer, I.s.
 Ma326c • **Soft palate** of rabbit, t.s.
 Ma327c **Hard palate** of rabbit, t.s.
 Ma331c • **Esophagus** of cat or dog, t.s.
 Ma3315c **Esophagus** of cat or dog, I.s.
 Ma3316c **Esophagus** of sheep, I.s.
 Ma3318e **Esophagus – stomach junction** of cat, I.s.
 Ma333d • **Stomach** of cat, cardiac region t.s. quadruple stained



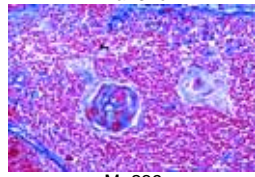
Ma231c



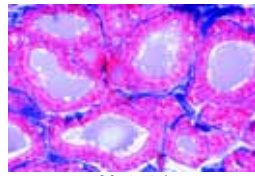
Ma2323c



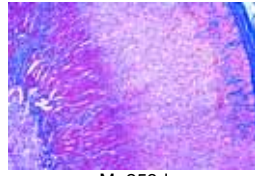
Ma234c



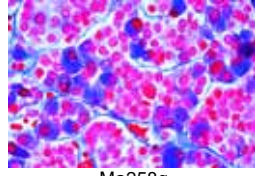
Ma239



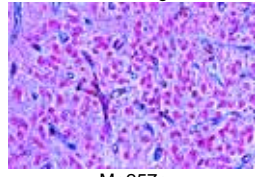
Ma252d



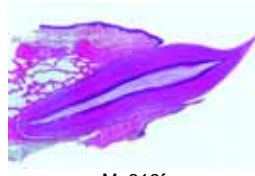
Ma253d



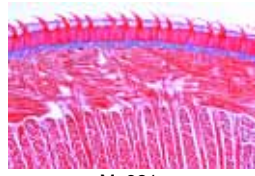
Ma258g



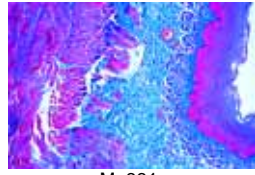
Ma257e



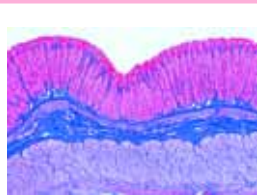
Ma313f



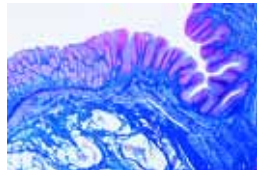
Ma321c



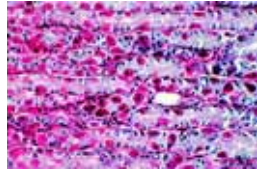
Ma331c



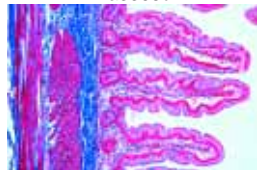
Ma334d



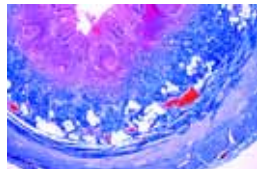
Ma3365e



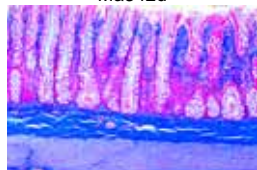
Ma3368d



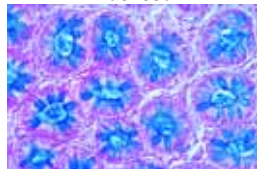
Ma338c



Ma342d



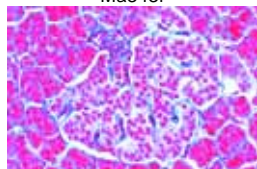
Ma3463c



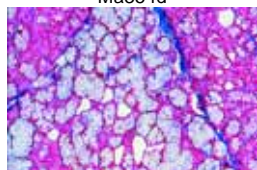
Ma346d



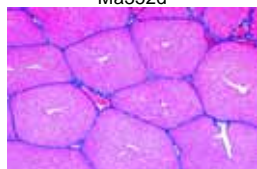
Ma352d



Ma354d



Ma362c



Ma374d

- Ma334d • **Stomach** of cat, fundic region t.s. quadruple stained
- Ma335d • **Stomach** of cat, pyloric region t.s. quadruple stained
- Ma3352s **Stomach**, composite slide of three regions: cardiac, fundic and pyloric t.s.
- Ma3361f **Stomach**, sec. through gastric glands specially stained for different cell types
- Ma332f **Stomach** of cat, injected to show the blood vessels, t.s.
- Ma336f **Stomach** of rat, sagittal l.s. through the complete organ
- Ma3368d **Stomach** of pig, cardia t.s.
- Ma3365e **Stomach – duodenum** junction of cat, l.s.
- Ma337c • **Duodenum** of cat or dog, t.s. showing Brunner's glands
- Ma3371d **Duodenum** of monkey, sec. showing glands of Lieberkühn
- Ma3373e **Duodenum**, mucous glands, section special stained with PAS-HE
- Ma338c • **Jejunum** of cat or dog, t.s.
- Ma3383e **Jejunum**, mucous glands, section special stained with PAS-HE
- Ma339c **Ileum** of cat or dog, t.s. showing Peyer's patches
- Ma3393e **Ileum**, mucous glands, sec. special stained with PAS-HE
- Ma3395s **Small intestine**, composite slide of three regions: duodenum, ileum and jejunum t.s.
- Ma343f • **Small intestine** of dog, injected to show the blood vessels and capillary network t.s.
- Ma340d **Small intestine** of rat, t.s.
- Ma3403c **Small intestine** of cat, t.s.
- Ma3405d **Small intestine** of horse, t.s.
- Ma341d • **Vermiform appendix**, human t.s.
- Ma342d **Vermiform appendix**, rabbit t.s.
- Ma344c • **Caecum (blind gut)** of rabbit, t.s.
- Ma345c • **Colon (large intestine)** of pig, t.s.
- Ma346d • **Colon**, t.s. stained with muci-carmin or PAS for demonstration of mucous cells
- Ma3463c **Colon** of cat, t.s.
- Ma3465e **Ileocecical junction** of cat, l.s.
- Ma347c **Rectum** of cat or rabbit, t.s.
- Ma3472e **Anal canal** and rectum of cat, l.s.
- Ma3474d **Anal gland** of dog t.s.
- Ma351d • **Parotid gland** of cat, t.s. of a pure serous gland
- Ma352d • **Submaxillary gland** of cat, t.s. of a mixed serous and mucous gland
- Ma353d • **Sublingual gland** of cat, t.s. of a pure mucous gland
- Ma3535f **Salivary glands**, composite slide: parotid, sublingual and submaxillary gland, t.s.
- Ma354d • **Pancreas** of pig, t.s. showing islets of Langerhans
- Ma3542d **Pancreas** of cat, sec. stained with Heidenhain's iron-hematoxiline
- Ma3543f **Pancreas** of cat, sec. showing injected vessels
- Ma357d • **Liver** of pig, t.s. showing well developed connective tissue
- Ma356d **Liver** of cat, t.s.
- Ma3562f **Liver** of cat, thick section showing injected vessels
- Ma3564f **Liver** of dog, thick section showing injected vessels
- Ma358d **Liver** from mouse embryo, t.s. showing origin of blood cells
- Ma359f • **Liver**, t.s. specially stained for Kupffer's stellate cells
- Ma360e • **Liver**, t.s. stained for glycogen
- Ma361f **Liver**, thin sec. stained for mitochondria
- Ma3613f **Liver**, t.s. special preparation to show the bile ducts *
- Ma3614f **Liver**, sec. silver stained to show the reticular fibres
- Ma362c **Bile duct (Ductus choledochus)** of rabbit, t.s.
- Ma363d • **Gall bladder** of rabbit, t.s.
- Ma3634c **Gall bladder** of sheep, t.s.
- Ma371d **Rumen** of cow, t.s.
- Ma372d **Reticulum** of cow, t.s.
- Ma373d **Omasum** of cow, t.s.
- Ma374d **Abomasum** of cow, t.s.

Excretory system

- Ma411d • **Kidney** of cat, t.s. showing cortex with Malpighian corpuscles and medulla with tubules, Mallory's stain
- Ma413e • **Kidney** of mouse, sagittal l.s. through complete organ with cortex, medulla and pelvis

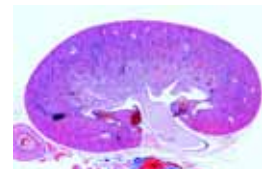
- Ma414c **Kidney** of mouse, t.s. through the complete organ
- Ma415f • **Kidney** of mouse, t.s. vital stained with trypan-blue to demonstrate storage
- Ma4156d **Kidney** of dog, t.s.
- Ma4157d **Kidney** of rabbit, t.s.
- Ma416f **Kidney**, sec. fixed and stained to show mitochondria
- Ma417f **Kidney**, sec. injected showing the blood vessels
- Ma418c **Renal papilla** of rabbit, t.s.
- Ma4183d **Renal pelvis** of cat, t.s.
- Ma419e **Cancer** of human kidney, t.s.
- Ma421c • **Ureter** of rabbit, t.s.
- Ma4214d • **Ureter** of pig, t.s.
- Ma422c • **Urinary bladder** of rabbit, t.s.
- Ma423c **Urethra** of rabbit, t.s.

Reproductive system

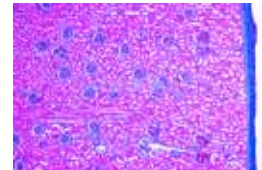
- Ma431d • **Ovary** of cat, t.s. for general study, shows primary, secondary and Graafian follicles
- Ma433g **Ovary**, sec. selected to show Cumulus oophorus with egg cell *
- Ma4332f **Ovary**, sec. selected to show Graafian follicle with detached egg cell
- Ma434d • **Ovary**, sec. selected to show the Corpus luteum
- Ma4341d **Ovary** of rabbit, t.s.
- Ma4342e **Ovary**, sec. of juvenile organ showing developing tissue
- Ma435c • **Fallopian tube** of pig, t.s.
- Ma4353c **Fallopian tube** of cat, t.s.
- Ma4354c **Fallopian tube** of rabbit, t.s.
- Ma4355d **Fallopian tube** with Infundibulum of sheep, l.s.
- Ma437d • **Uterus** of pig or rabbit, resting stage, t.s.
- Ma438d **Uterus** of pig or rabbit, pregnant stage, t.s.
- Ma439d • **Uterus** of rat with embryo in situ, t.s.
- Ma4393d **Uterus** of sheep, t.s.
- Ma4394c **Uterus**, juvenil, of cat, t.s.
- Ma440e • **Placenta**, human , t.s.
- Ma4405c **Placenta** of cat, t.s.
- Ma445f • **Embryo of mouse**, sagittal l.s. of entire specimen
- Ma446d **Embryo of mouse**, t.s. of head
- Ma447d • **Embryo of mouse**, t.s. of thoracal region
- Ma448d **Embryo of mouse**, t.s. of abdominal region
- Ma449e **Embryo of pig**, t.s.
- Ma451d • **Vagina** of pig, t.s.
- Ma4513c **Vagina** of rabbit, t.s.
- Ma452d **Vagina** and urethra of rabbit or cat, t.s.
- Ma453d • **Umbilical cord (navel string)** of cow, t.s.
- Ma454d **Umbilical cord** of pig, t.s.
- Ma461d • **Testis** of mouse, t.s. showing spermatogenesis. The slide for general study of spermatogenesis
- Ma4613d **Testis** of rat, t.s. showing spermatogenesis
- Ma4614d **Testis** of rabbit, t.s. showing spermatogenesis
- Ma462d • **Testis** of bull, t.s. showing spermatogenesis
- Ma4623f **Testis** of monkey, showing insufficiency, t.s.
- Ma4624f **Testis** of monkey, showing over-activity, t.s.
- Ma463d • **Epididymis** of bull, t.s.
- Ma4631d **Epididymis** of rat, t.s.
- Ma4632e **Testis and epididymis** of rat, t.s.
- Ma4634e **Testis and epididymis** of cat, t.s.
- Ma464d • **Sperm smear** of bull
- Ma4642d **Sperm smear** of rat
- Ma466d • **Spermatic cord (Ductus deferens)** of pig or rabbit, t.s.
- Ma467d • **Seminal vesicle (Gl. vesiculosa)** of pig, t.s.
- Ma4672d **Seminal vesicle (Gl. vesiculosa)** of rat, t.s.
- Ma468d • **Prostate gland** of monkey, t.s.
- Ma4683c **Prostate gland** of rat, t.s.
- Ma469d • **Penis** of guinea pig, t.s.
- Ma470d **Penis** of rabbit, t.s.

Nervous system

- Ma511d • **Cerebral cortex** of cat or dog, t.s. routine stained
- Ma512f • **Cerebral cortex**, t.s. Golgi's silver method to show the pyramid cells
- Ma518f **Cerebral cortex**, t.s. stained after Held to show neuroglia cells
- Ma562f **Cerebrum** of cat, sec. stained for medullated sheaths (Weigert) *
- Ma514d • **Cerebellum** of cat or dog, t.s. routine stained



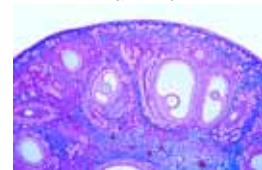
Ma413e



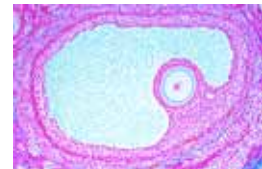
Ma4157d



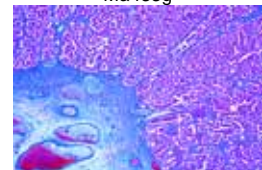
Ma4214d



Ma431d



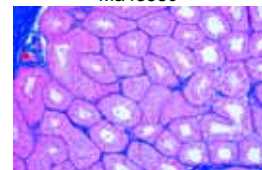
Ma433g



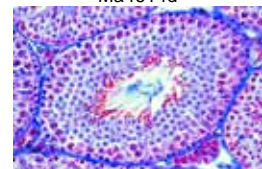
Ma4405c



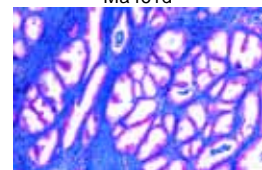
Ma445f



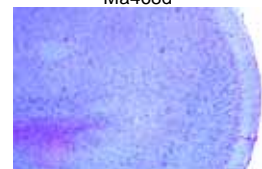
Ma461d



Ma468d



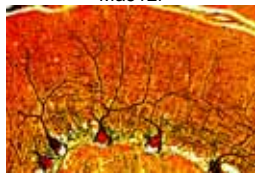
Ma511d



Ma514d



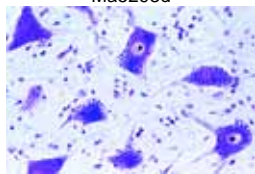
Ma512f



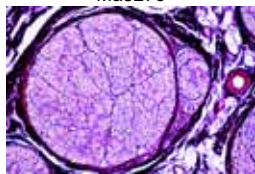
Ma515f



Ma5293d



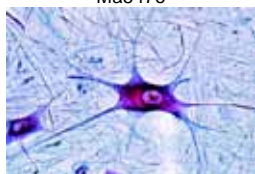
Ma527e



Ma545c



Ma547e



Ma551e



Ma552h



Ma603g



Ma601e



Ma605d

- Ma515f • **Cerebellum**, t.s. Golgi's silver method to show the Purkinje cells
- Ma5152f • **Cerebellum**, t.s. stained by Cajal's method
- Ma563f • **Cerebellum** of cat, sec. stained for medullated sheaths (Weigert) *
- Ma521e • **Brain** of mouse, horizontal l.s. of the complete organ
- Ma522e • **Brain** of mouse, sagittal l.s. of the complete organ
- Ma523f • **Brain** of mouse, t.s. of brain in three different regions
- Ma525d • **Medulla oblongata**, of rabbit, t.s.
- Ma526d • **Spinal cord** of cat, t.s. routine stained
- Ma527e • **Spinal cord** of cat, section special stained for Nissl bodies
- Ma528f • **Spinal cord** of cat, t.s. silvered for nerve cells and fibres
- Ma5285f • **Spinal cord** of cat, t.s. stained after Klüver-Barrera
- Ma529d • **Spinal cord** of cat, l.s. routine stained
- Ma5293d • **Spinal cord** of pig, t.s.
- Ma5294e • **Spinal cord** of cow, t.s. stained for Nissl bodies
- Ma5295c • **Spinal cord** of rabbit, t.s.
- Ma5296d • **Vertebra with spinal cord** of rat, t.s.
- Ma531e • **Spinal cord**, human, t.s. of cervical region
- Ma532e • **Spinal cord**, human, t.s. of thoracic region
- Ma533e • **Spinal cord**, human, t.s. of lumbar region
- Ma564f • **Spinal cord** of cat, sec. stained for medullated sheaths (Weigert) *
- Ma534e • **Spinal cord**, t.s. with dorsal root ganglion and portions of ventral and dorsal nerve roots
- Ma542e • **Sympathetic ganglion** of cow or pig, t.s. with multipolar nerve cells
- Ma543d • **Spinal ganglion** of cow, t.s.
- Ma541e • **Ganglion semilunare** (G. Gasseri), t.s. shows unipolar nerve cells *
- Ma540f • **Ganglion** of cat, t.s. fixed and stained with osmic acid
- Ma544c • **Peripheral nerve** of cow or pig, l.s. routine stained
- Ma545c • **Peripheral nerve** of cow or pig, t.s. routine stained
- Ma5453d • **Peripheral nerve** of cat, l.s.
- Ma547e • **Peripheral nerve**, teased material of osmic acid fixed material showing Ranvier's nodes and medullary sheaths
- Ma546e • **Peripheral nerve**, t.s. fixed and stained with osmic acid for medullary sheaths
- Ma548e • **Peripheral nerve**, l.s. of osmic acid fixed material shows Ranvier's nodes and medullary sheaths in section
- Ma549c • **Optic nerve (Nervus opticus)** of calf or pig, t.s.
- Ma550f • **Entrance of optic nerve** into the retina, sag. sec.
- Ma551e • **Motor nerve cells**, smear preparation from spinal cord of ox shows nerve cells and their appendages
- Ma5513f • **Motor nerve cells**, smear preparation from spinal cord of ox stained for Nissl bodies
- Ma552h • **Motor nerve endings**, muscle stained with gold chloride showing the motor end plates *
- Ma554e • **Pacini corpuscles** in mesentery or pancreas of rabbit
- Ma555e • **Grandy corpuscles** in t.s. through beak of duck
- Ma556e • **Merkel corpuscles** in section through snout of pig
- Ma557f • **Meissner's corpuscles** of monkey, sec. showing tactile corpuscles

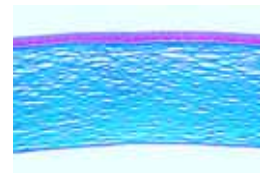
Organs of sense

- Ma601e • **Eye** of cat, posterior part with retina, sagittal l.s.
- Ma602e • **Eye** of cat, anterior part with iris, ciliary body, cornea, sagittal l.s.
- Ma603g • **Eye** of rat or guinea pig, entire organ sagittal l.s. for general study
- Ma6031h • **Eye** of rat or guinea pig, entire organ, near median sagittal l.s. passing the entrance of optic nerve *
- Ma608e • **Developing eyes** in t.s. of head from guinea pig embryo
- Ma6034d • **Retina** of cat, t.s. for general study
- Ma6035f • **Retina** of cat, section passing through the entrance of optic nerve
- Ma605d • **Retina** of pig, thin sec. special stain for details of rods and cones

- Ma606f • **Retina** of pig, section passing through the entrance of optic nerve
- Ma6062e • **Retina** of pig, horizontal sec. for fine detail, t.s. of rods and cones
- Ma6064e • **Retina**, w.m. showing pigment cells
- Ma607d • **Cornea** of eye from pig, sagittal l.s.
- Ma6066e • **Lacrimal gland** of cat, t.s.
- Ma609e • **Cochlea (internal ear)** from guinea pig, l.s. showing organ of Corti
- Ma610e • **Cochlea** from guinea pig, t.s.
- Ma6103g • **External and internal ear** with eardrum and cochlea, l.s.
- Ma6105t • **Crista ampullaris**, sec. through ear of guinea pig *
- Ma612d • **Olfactory region** from nose of rabbit, t.s.
- Ma6123d • **Olfactory epithelium**, dog, t.s.
- Ma6124d • **Olfactory epithelium**, cat, t.s.
- Ma614e • **Taste buds**, t.s. of papilla foliata in tongue of rabbit shows abundant taste buds, carefully stained
- Ma6142e • **Taste buds**, t.s. of papilla foliata in tongue of rabbit, sec. unstained special mounted for phase contrast observation
- Ma615d • **Taste buds**, t.s. of tongue of rat
- Ma617e • **Tactile hairs** with blood sinus, l.s. or t.s.

Integument (Skin)

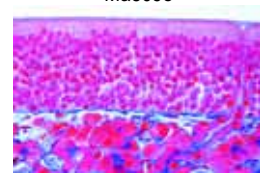
- Ma632d • **Human skin from palm**, vertical sec. showing cornified layers, sweat glands, etc.
- Ma633d • **Human skin from palm**, horizontal sec.
- Ma6334d • **Human body skin**, white, vertical sec.
- Ma6335d • **Human body skin**, negro, vertical sec.
- Ma6336f • **Human body skin**, white and negro, two vertical sec.
- Ma6337f • **Human skin**, sec. showing Pacinian corpuscles *
- Ma6338f • **Human skin**, sec. showing Meissner's corpuscles *
- Ma635d • **Human scalp**, sagittal l.s. showing l.s. of hair follicles, sebaceous glands, etc.
- Ma636d • **Human scalp**, horizontal sec. shows t.s. of hair follicles
- Ma637d • **Human skin** from foetus, vertical sec. showing hair development
- Ma638e • **Finger tip** from human foetus, sagittal l.s. of nail development
- Ma6382e • **Finger tip** from human foetus, t.s. of nail development
- Ma639f • **Foot of calf embryo**, sagittal l.s. showing hoof development
- Ma6404c • **Skin with hairs**, cat, vertical sec.
- Ma6405c • **Skin of foot**, cat, vertical sec. showing stratum corneum and stratum germinativum
- Ma641d • **Skin** of pig, vertical sec.
- Ma642d • **Skin** of pig, horizontal sec.
- Ma6427e • **Corium** of pig, horizontal sec. stained for elastic fibres
- Ma6422f • **Skin** of pig embryo, t.s. showing injected vessels
- Ma644d • **Skin** of dog, vertical sec. routine stained for comparison
- Ma643f • **Skin** of dog, vertical sec. injected to show the blood vessels
- Ma6443d • **Skin** of guinea pig, vertical sec.
- Ma6425d • **Skin** from snout of calf, horizontal sec. for fine detail of the different layers of skin
- Ma640c • **Eyelid** of rabbit, t.s.
- Ma6402c • **Eyelid** of cat, t.s. showing Meibomian gland
- Ma647b • **Human hair**, w.m.
- Ma649b • **Hair (bristle) of pig**, w.m.
- Ma6493b • **Hair of ren**, w.m.
- Ma652b • **Hair of cat**, w.m.
- Ma653b • **Hair of camel**, w.m.
- Ma651d • **Mammalian hair**, composite slide of five types, w.m.: rabbit, muskrat, mink, seal, Persian lamb
- Ma645c • **Mammary gland** of rabbit or mouse, active stage t.s.
- Ma646c • **Mammary gland** of rabbit or mouse, resting stage t.s.
- Ma6461e • **Mammary gland**, active and resting, two t.s. in one slide
- Ma6465f • **Mammary gland**, active, t.s. fixed and stained with osmic acid to show the milk fat
- Ma6468d • **Mammary gland** of cow, active t.s.
- Ma6469d • **Mammary gland** of cow, juvenile t.s.
- Ma6467e • **Nipple** of mammary gland, l.s.



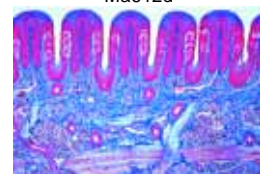
Ma607d



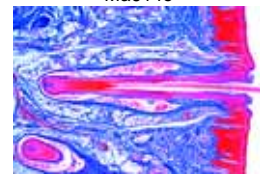
Ma609e



Ma612d



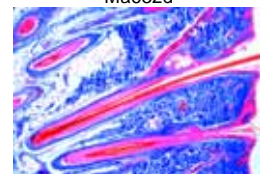
Ma614e



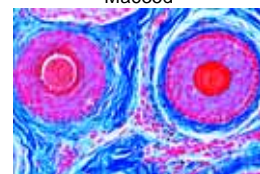
Ma617e



Ma632d



Ma635d



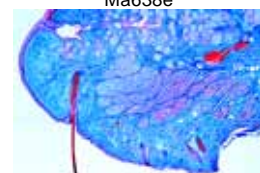
Ma636d



Ma637d



Ma638e



Ma640c



General view of mammalian histology

- Ma703g • **Young mouse**, sagittal I.s. through entire specimen passing the vertebral column
- Ma704i • **Young mouse**, median sagittal I.s. through entire specimen
- Ma705g • **Young mouse**, parasagittal I.s. through entire specimen
- Ma706g • **Young mouse**, horizontal (frontal) I.s. through entire specimen
- Ma708f • **Young mouse**, t.s. of head in region before the eyes, with nasal region, tooth development, sinus hairs etc.
- Ma709f • **Young mouse**, t.s. of head passing the eyes
- Ma710f • **Young mouse**, t.s. of head in region back to the eyes with brain
- Ma712e • **Young mouse**, t.s. of thorax with heart, lungs, etc.
- Ma713e • **Young mouse**, t.s. of abdomen with intestinal organs
- Ma714d • **Young mouse**, t.s. of leg

HUMAN HISTOLOGY

Epithelia and Cytology

- Ho111c • **Squamous epithelium**, isolated cells from human mouth, smear
- Ho1124e • **Stratified, non-cornified squamous epithelium**, section of oesophagus
- Ho1127d • **Stratified, cornified squamous epithelium**, in vertical sec. of human body skin
- Ho114e • **Simple cuboidal epithelium**, in sec. of secreting tubules of human kidney
- Ho1143e • **Columnar epithelium**, in t.s. of human gall bladder
- Ho116e • **Simple ciliated columnar epithelium**, in t.s. of oviduct
- Ho1163e • **Pseudostratified ciliated columnar epithelium**, trachea, t.s.
- Ho118e • **Simple cuboidal epithelium**, in sec. of human thyroid gland
- Ho120e • **Transitional epithelium**, in sec. of human bladder
- Ho1202e • **Glandular epithelium**, in sec. of human colon with unicellular mucous glands
- Ho1213d • **Holocrine glands**, sebaceous glands from human skin, I.s.
- Ho1214e • **Eccrine glands**, in section of human salivary gland
- Ho1215e • **Mucous glands** from human intestine, colouring of goblet cells, PAS-HE
- Ho1204e • **Mesothelium**, sec. of human mesentery
- Ho1205g • **Golgi apparatus**, section of jenunum silver stained *
- Ho104h • **Human chromosomes** in smear from culture of blood, male
- Ho1041i • **Human chromosomes** in smear from culture of blood, female
- Ho1045f • **Barr bodies** (human sex chromatin) in smear from female squamous epithelium *

Connective and supporting tissues

- Ho121e • **Areolar connective tissue**, human, stretched and w.m.
- Ho123f • **Reticular fibres** in human spleen, t.s. silver steined
- Ho126d • **Embryonic connective tissue** from human foetus, sec.
- Ho127e • **Mucous tissue**, t.s. of umbilical cord (navel string) from foetus
- Ho128e • **Adipose tissue**, human, sec. fat removed to show the cells
- Ho1282e • **Adipose tissue**, human, section stained for fat with Sudan III
- Ho1292e • **White fibrous tissue**, tendon, human, I.s.
- Ho1293e • **White fibrous tissue**, tendon, human, t.s.
- Ho1295e • **Peritoneum**, human, t.s.
- Ho130e • **Hyaline cartilage**, human t.s.
- Ho1305e • **Hyaline cartilage**, from human foetus, sec.
- Ho133e • **Sternal cartilage**, human sec.
- Ho131e • **Yellow elastic cartilage**, human, sec. stained for elastic fibres

- Ho1312e • **Yellow elastic cartilage**, from human foetus sec.
- Ho132f • **White fibrous cartilage**, human sec.
- Ho1322f • **White fibrous cartilage**, human intervertebral disc, sec.
- Ho135e • **Compact bone**, human t.s. special stained for cells and canaliculi
- Ho136e • **Compact bone**, human I.s. special stained for cells and canaliculi
- Ho1365e • **Spongy (cancellous) bone**, human t.s.
- Ho1368h • **Bone human**, ground thin, non-decalcified, t.s. and I.s. mounted in balsam *
- Ho138e • **Bone development** (intracartilaginous), I.s. of foetal finger
- Ho139e • **Bone development** (intermembranous), vertical I.s. of foetal skull-cap (cranial bone)
- Ho141e • **Joint** of human foetus, I.s.

Muscle tissues

- Ho151e • **Striated (skeletal) muscle**, human I.s.
- Ho1512f • **Striated (skeletal) muscle**, human I.s., special stain of striations
- Ho152e • **Striated (skeletal) muscle**, human t.s.
- Ho1522g • **Striated (skeletal) muscle**, isolated fibres, gold impregnation
- Ho1524e • **Striated (skeletal) muscle** from human foetus, I.s.
- Ho154e • **Smooth (involuntary) muscle**, human I.s. and t.s.
- Ho156e • **Heart (cardiac) muscle**, human I.s. and t.s.
- Ho160f • **Muscle-tendon junction**, human I.s.
- Ho165g • **Muscle types**, composite slides with I.s. of striated, smooth and heart muscles

Circulatory system

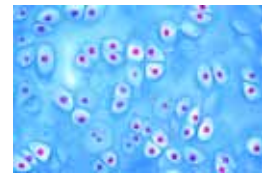
- Ho171e • **Artery**, human, t.s. routine stained
- Ho172e • **Artery**, human, t.s. stained for elastic fibres
- Ho1726e • **Coronary artery**, human t.s.
- Ho170e • **Artery with valve**, human I.s. *
- Ho173e • **Vein**, human, t.s. routine stained
- Ho174e • **Vein**, human, t.s. stained for elastic fibres
- Ho1743e • **Vena cava**, human t.s.
- Ho175e • **Artery and vein of smaller size**, human t.s. routine stained
- Ho1751e • **Artery and vein of smaller size**, human t.s. elastic fibres stained
- Ho176e • **Aorta**, human, t.s. routine stained
- Ho1762e • **Aorta**, human, t.s. stained for elastic fibres
- Ho1765e • **Aortic valve**, human or sheep, t.s. *
- Ho180c • **Blood smear**, human, Giemsa stain
- Ho1802c • **Blood smear**, human, Wright's stain

Respiratory system

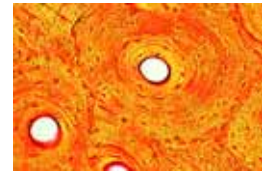
- Ho214f • **Trachea**, human t.s.
- Ho215f • **Trachea**, human I.s.
- Ho2152e • **Trachea** from human fetus t.s.
- Ho2153f • **Larynx**, human foetus, t.s.
- Ho213f • **Epiglottis**, human sec.
- Ho2134f • **Vocal cord**, human t.s.
- Ho220e • **Bronchus of lung**, human, t.s.
- Ho216e • **Lung**, human, sec. routine stained
- Ho217e • **Lung**, human, sec. special stained for elastic fibres
- Ho2183f • **Lung**, human, thick section showing injected vessels
- Ho219e • **Lung** from human foetus, sec.

Lymphatic system

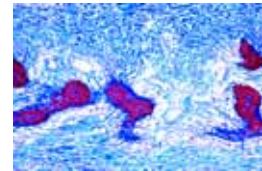
- Ho231e • **Lymph node**, human t.s.
- Ho232e • **Lymph node**, of human foetus, t.s.
- Ho233e • **Tonsil (Tonsilla palatina)**, human t.s.
- Ho234e • **Spleen**, human t.s.
- Ho2352e • **Spleen** from human foetus t.s.
- Ho236e • **Red bone marrow**, human rib t.s.
- Ho2363e • **Red bone marrow**, human fetus, t.s., Giemsa stained
- Ho237f • **Red bone marrow**, human, smear, Giemsa stained
- Ho2372e • **Developing blood cells** in sec. of liver of human foetus
- Ho2376e • **Thymus** from human foetus, sec.
- Ho238f • **Thymus** from human child, t.s.
- Ho239f • **Thymus** from human adult, t.s.



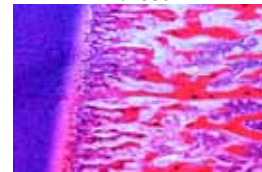
Ho130e



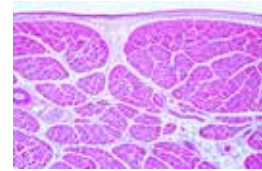
Ho135e



Ho138e



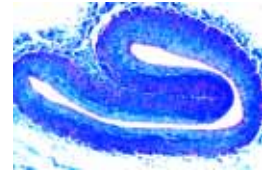
Ho139e



Ho152e



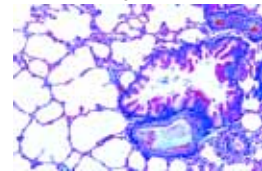
Ho171e



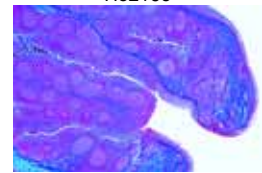
Ho173e



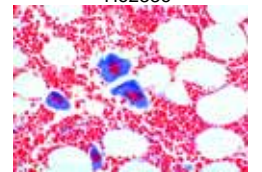
Ho214f



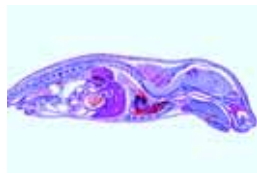
Ho216e



Ho233e



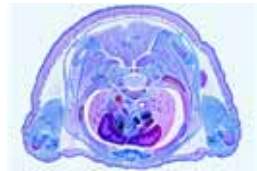
Ho236e



Ma703g



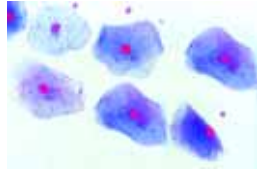
Ma708f



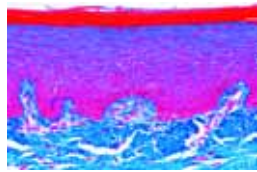
Ma712e



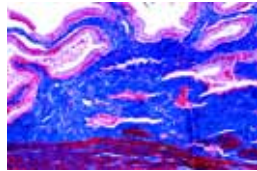
Ma713e



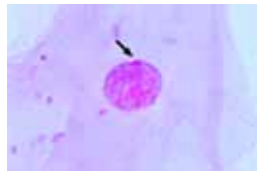
Ho111c



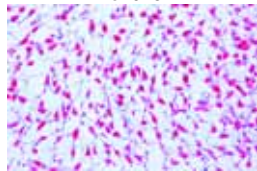
Ho1127d



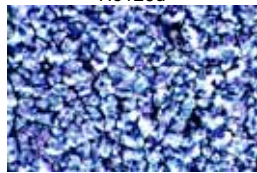
Ho1143e



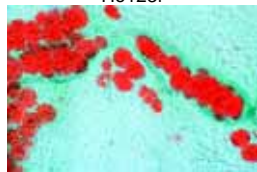
Ho1045f



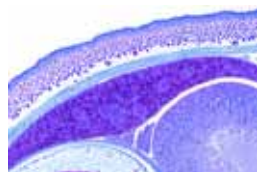
Ho126d



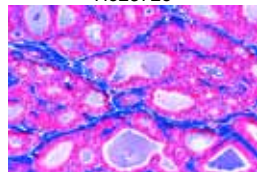
Ho123f



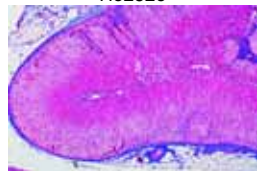
Ho1282e



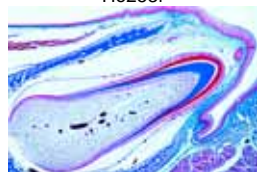
Ho2372e



Ho252e



Ho253f



Ho317f



Tooth



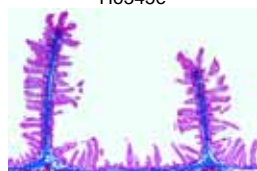
Ho331e



Ho337e



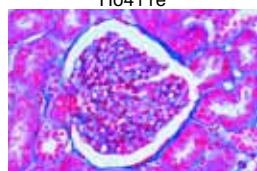
Ho345e



Ho338e



Ho411e



Ho418e

Endocrine glands

- Ho252e • **Thyroid gland (Gl. thyroidea)**, human t.s. showing colloid
- Ho2523f • **Parathyroid gland (Gl. parathyroidea)**, human t.s. *
- Ho253f • **Adrenal gland (Gl. suprarenalis)**, human t.s.
- Ho255f • **Pituitary gland (Hypophysis)**, human t.s. *
- Ho257f • **Pineal body (Epiphysis)**, human t.s. *
- Ho254f • **Pancreas** with islets of Langerhans, human, sec.

Digestive system

- Ho310f • **Lip**, human t.s.
- Ho3102e • **Lip**, human foetus, t.s.
- Ho311e • **Tooth**, human, t.s. of crown
- Ho312e • **Tooth**, human, t.s. of root
- Ho313f • **Tooth**, human, complete l.s.
- Ho3137g • **Tooth**, human, ground thin, t.s. *
- Ho3138k • **Tooth**, human, ground thin, l.s. *
- Ho315f • **Tooth development** from human foetus, early stage l.s.
- Ho316f • **Tooth development** from human foetus, medium stage l.s.
- Ho317f • **Tooth development** from human foetus, later stage l.s.
- Ho322e • **Tongue**, human, t.s.
- Ho3234f • **Tongue**, human, sec. with filiform papillae
- Ho3235f • **Tongue**, human, sec. with fungiform papillae
- Ho324e • **Tongue** from human foetus, t.s.
- Ho326e • **Soft palate**, human t.s.
- Ho327e • **Hard palate**, human t.s.
- Ho331e • **Oesophagus**, human t.s.
- Ho333e • **Stomach**, cardiac region, human t.s.
- Ho334e • **Stomach**, fundic region, human t.s.
- Ho335e • **Stomach**, pyloric region, human t.s.
- Ho3361e • **Stomach** from human foetus, t.s.
- Ho3365f • **Stomach – duodenum** junction, human, l.s.
- Ho337e • **Duodenum**, human t.s.
- Ho3373f • **Duodenum**, human t.s. mucous glands stained PAS-HE
- Ho338e • **Jejunum**, human t.s.
- Ho339e • **Ileum**, human t.s.
- Ho340e • **Small intestine** from human foetus, t.s.
- Ho341e • **Vermiform appendix**, human t.s.
- Ho345e • **Colon**, human t.s.
- Ho347e • **Rectum**, human t.s.
- Ho3472f • **Rectum-anus** junction, human l.s.
- Ho351e • **Parotid gland (Gl. parotis)**, human t.s.
- Ho352e • **Submaxillary gland (Gl. submandibularis)**, human t.s.
- Ho353e • **Sublingual gland (Gl. sublingualis)**, human t.s.
- Ho354e • **Pancreas**, human t.s.
- Ho3543e • **Pancreas** from human foetus, t.s.
- Ho357e • **Liver**, human t.s.
- Ho359e • **Liver**, human foetus, sec.
- Ho3592f • **Liver**, human foetus, sec. showing injected vessels
- Ho360f • **Liver**, human, sec. staining of glycogen
- Ho362e • **Gall bladder**, human t.s.

Excretory system

- Ho411e • **Kidney**, human t.s.
- Ho418e • **Renal papilla**, human t.s.
- Ho419e • **Kidney**, human foetus, t.s.
- Ho4195f • **Kidney**, human, t.s. showing injected vessels
- Ho421e • **Ureter**, human t.s.
- Ho422e • **Urinary bladder**, human t.s.
- Ho4225e • **Urethra**, human, t.s.
- Ho423e • **Urethra**, prostatic part, human t.s.

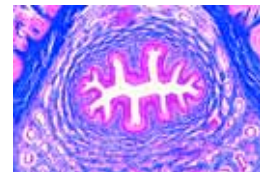
Reproductive system

- Ho428f • **Ovary**, human foetus, t.s. *
- Ho429f • **Ovary**, mature (active phase), human t.s.
- Ho430f • **Ovary**, senile (inactive phase), human t.s.
- Ho434f • **Ovary** with corpus luteum, human t.s.
- Ho4343f • **Ovary** with corpus albicans, human t.s.
- Ho435e • **Oviduct (fallopian tube)**, t.s. in region of ampulla
- Ho4352e • **Oviduct (fallopian tube)**, t.s. in region of fimbria
- Ho4365f • **Uterus**, human foetus, t.s.
- Ho4368e • **Uterus**, human, t.s. for general structure
- Ho437f • **Uterus**, human, proliferative stage t.s.
- Ho438f • **Uterus**, human, secretory stage t.s.

- Ho439f • **Uterus**, human, desquamative stage t.s.
- Ho4395f • **Uterus**, human, pregnant (gravid), t.s.
- Ho4397f • **Cervix uteri**, human l.s.
- Ho440e • **Placenta**, human t.s.
- Ho4402f • **Placenta**, implantation site, human t.s.
- Ho4404e • **Umbilical cord (navel string)**, human t.s.
- Ho445h • **Human foetus**, l.s.
- Ho450e • **Vagina**, human t.s.
- Ho460f • **Testis** from human child, t.s.
- Ho461f • **Testis** from human adult, mature stage t.s. with spermatogenesis
- Ho4628e • **Efferent tubules** of testis, human t.s.
- Ho463e • **Epididymis**, human t.s.
- Ho464e • **Sperm smear**, human
- Ho466e • **Spermatic cord (Ductus deferens)** of human t.s.
- Ho4663e • **Spermatic cord (Ampulla ductus deferens)**, human t.s.
- Ho467e • **Seminal vesicle (Glandula vesiculosa)**, human t.s.
- Ho4678e • **Prostate** of young man, t.s.
- Ho468e • **Prostate** of old man, t.s.
- Ho469g • **Penis** from human foetus, t.s. *

Nervous system

- Ho511e • **Cerebral cortex**, human, t.s. routine stained with hematoxylin-eosin
- Ho512g • **Cerebral cortex**, human, t.s. silvered
- Ho518g • **Cerebral cortex**, human, t.s. stained after Held for neuroglia cells
- Ho5125e • **Cerebral cortex** from human foetus, t.s. routine stained
- Ho5126g • **Cerebral cortex** from human foetus, t.s. silvered
- Ho514e • **Cerebellum**, human, t.s. routine stained with hematoxylin-eosin
- Ho515g • **Cerebellum**, human, t.s. silvered
- Ho5155e • **Cerebellum** from human foetus, t.s. routine stained with hematoxylin-eosin
- Ho5156g • **Cerebellum** from human foetus, t.s. silvered
- Ho5158f • **Cerebellum**, human, t.s., Weigert stained for myeline sheaths
- Ho516g • **Cerebrum and cerebellum** composite slide, human, t.s. routine stained
- Ho5163g • **Developing brain** of human foetus, sagittal sec.
- Ho517g • **Brain stem**, human t.s.
- Ho5368f • **Chiasma opticum**, human t.s. routine stained with hematoxylin-eosin
- Ho5232f • **Chiasma opticum**, human, stained after Klüver - Barrera
- Ho5233f • **Corpus callosum**, human, stained after Klüver - Barrera
- Ho5235f • **Pons**, human, t.s. routine stained with hematoxylin-eosin
- Ho5236g • **Pons**, human, t.s. silvered
- Ho5238f • **Thalamus**, human, stained after Klüver - Barrera
- Ho5239f • **Pedunculus cerebri**, human, Klüver - Barrera
- Ho525f • **Medulla oblongata**, human, t.s. routine stained with hematoxylin-eosin
- Ho5251f • **Medulla oblongata**, human, t.s. Klüver - Barrera
- Ho5252t • **Medulla oblongata**, human, t.s. silvered
- Ho5254f • **Medulla oblongata** from human foetus, t.s.
- Ho530e • **Spinal cord**, human, t.s. for general structure, routine stained with hematoxylin-eosin
- Ho534g • **Spinal cord**, human, t.s. silvered
- Ho535e • **Spinal cord**, human, l.s. routine stained with hematoxylin-eosin
- Ho531e • **Spinal cord**, human, t.s. cervical region, routine stained
- Ho5315f • **Spinal cord**, human, t.s. cervical, Klüver - Barrera
- Ho532e • **Spinal cord**, human, t.s. thoracic region, routine stained
- Ho5325f • **Spinal cord**, human, t.s. thoracic, Klüver - Barrera
- Ho533e • **Spinal cord**, human, t.s. lumbar region, routine stained
- Ho5335f • **Spinal cord**, human, t.s. lumbar, Klüver - Barrera
- Ho5365f • **Dorsal root ganglion**, human t.s. routine stained
- Ho5366g • **Dorsal root ganglion**, human t.s. silvered
- Ho542f • **Sympathetic ganglion**, human t.s. routine stained
- Ho5423g • **Sympathetic ganglion**, human t.s. silvered
- Ho543f • **Spinal ganglion**, human t.s. routine stained



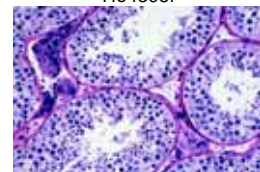
Ho4225e



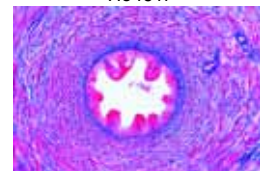
Ho429f



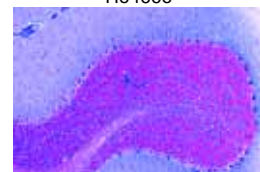
Ho4395f



Ho461f



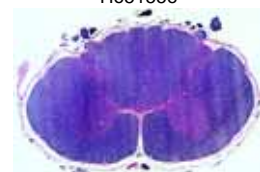
Ho466e



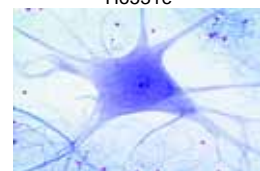
Ho514e



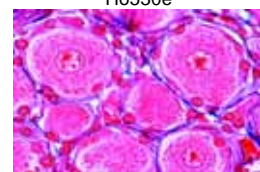
Ho5155e



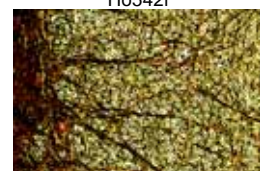
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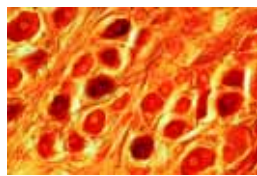
Ho530e



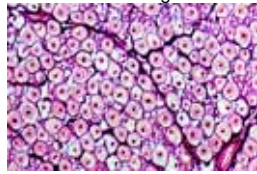
Ho542f



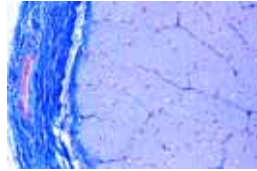
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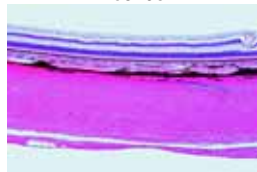
Ho5432g



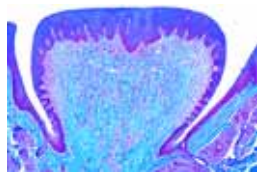
Ho544e



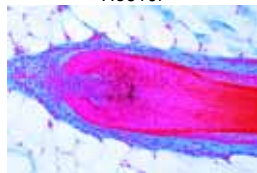
Ho549e



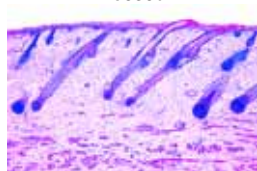
Ho605f



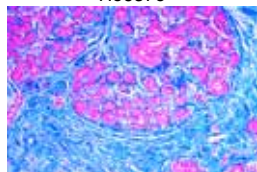
Ho610f



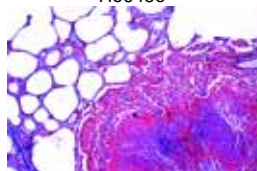
Ho635d



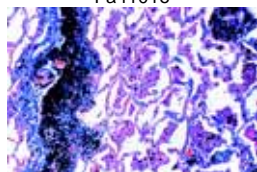
Ho637e



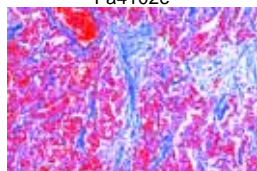
Ho645e



Pa4101e



Pa4102e



Pa4106e

- Ho5432g **Spinal ganglion**, human t.s. silvered
 Ho544e **Peripheral nerve**, human t.s. routine stained with hematoxylin-eosin
 Ho545e **Peripheral nerve**, human l.s. routine stained with hematoxylin-eosin
 Ho5453f **Peripheral nerve**, human t.s. and l.s. routine stained with hematoxylin-eosin
 Ho549e **Optic nerve**, human t.s. routine stained with hematoxylin-eosin

Organs of sense

- Ho605f **Retina** from eye, human t.s. *
 Ho607e **Cornea** from eye, human t.s.
 Ho610f **Wallate papillae** with taste buds, human t.s. *
 Ho612f **Olfactory epithelium**, human t.s.
 Ho6103g **Internal ear**, human foetus, t.s. *
 Ho5572t **Nerves and nerve endings** in sec. of skin from palm, silvered *
 Ho5573f **Touch corpuscles** in human skin, t.s. routine stained
 Ho5574t **Touch corpuscles** in human skin, t.s. silver stained *

Integument (Skin)

- Ho632e **Skin from finger tip**, human, vertical l.s. quadruple stained
 Ho633e **Skin from palm**, human, vertical l.s.
 Ho6334d **Body skin**, white, vertical l.s.
 Ho6335d **Body skin**, negro, vertical l.s.
 Ho6336f **Body skin**, white and negro, two vertical l.s.
 Ho634e **Skin from armpit** with apocrine glands, vertical l.s.
 Ho635d **Scalp**, vertical l.s. shows l.s. of hair follicles, human, quadruple stained
 Ho636d **Scalp**, horizontal l.s. shows t.s. of hair follicles, human, quadruple stained
 Ho637e **Scalp** of human foetus, vertical l.s. shows l.s. of hairs
 Ho638e **Finger tip** of human foetus, sagittal l.s. showing nail development
 Ho639f **Finger nail** l.s.
 Ho640e **Eyelid**, human, t.s.
 Ho645e **Mammary gland**, active, human t.s.
 Ho646e **Mammary gland**, resting, human t.s.
 Ho648e **Mammary gland**, senile, human t.s.

HUMAN PATHOLOGY *

Lung and trachea

- Pa4101e **Miliary tuberculosis** of lung
 Pa4102e **Anthracosis** of lung
 Pa4152e **Tuberculous coal lung**
 Pa4103e **Croupous pneumonia**
 Pa4104e **Chronic tuberculous pulmonary cavity with bacteria** *
 Pa4105e **Cyanotic induration** of lung
 Pa4106e **Chronic pneumonia**
 Pa4107e **Chronic pulmonary emphysema**
 Pa4108e **Hemorrhagic infarct** of lung
 Pa4109e **Necrotic (cheesy) pneumonia**
 Pa4110e **Influenzal pneumonia**
 Pa4180e **Pneumonia**, sec. of lung
 Pa4250e **Abscessus lumbalis**
 Pa4153e **Carcinoma** of lung
 Pa4182f **Diphtheria**, sec. of trachea *

Blood, spleen and lymph system

- Pa4112e **Infarct** of spleen
 Pa4115e **Amyloid degeneration** of spleen
 Pa4123e **Erysipelas** of spleen
 Pa4113g **Malaria melanemia** of spleen
 Pa4111e **Myeloid sarcoma** of spleen
 Pa4117e **Chronic myeloid leukemia** of spleen
 Pa4124e **Tuberculosis** of lymph glands
 Pa4121e **Lymphangio-endothelioma** of neck

- Pa4126e **Myeloid sarcoma** of lymph node
 Pa4120e **Lymphosarcoma mediastini**
 Pa4167e **Tonsillitis**, sec. of palatine tonsil
 Pa4122e **Myxoma mandibulae**
 Pa4162g **Leukaemia**, blood smear *
 Pa4163g **Anaemia**, blood smear *

Heart and vessels

- Pa4114e **Myocarditis chronica acuta recidivans**
 Pa4116e **Adiposis** of heart
 Pa4118e **Cardiac callosity**
 Pa4119e **Cor villosum**
 Pa4160e **Arteriosclerosis**

Glands

- Pa4129e **Goiter** of thyroid gland, **Struma colloides**
 Pa4165e **Struma nodosa**, thyroid gland
 Pa4164e **Adenoma** of thyroid gland, sec.
 Pa4125e **Scirrhus carcinoma** of thyroid gland
 Pa4127e **Fibroepithelial mixed tumor** of parotid gland
 Pa4128e **Carcinoma medullare glandulae**
 Pa4232e **Fibroadenoma** of breast
 Pa4237e **Fibroadenoma intracanalicular** of mamma
 Pa4234e **Scirrhus carcinoma** of breast
 Pa4247e **Carcinoma solidum simplex** of breast
 Pa4159e **Adenoma** of adrenal gland

Intestinal tract

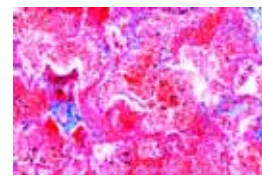
- Pa4147e **Necrotic oesophagitis**
 Pa4155e **Carcinoma** of stomach
 Pa4154e **Carcinoma** of large intestine
 Pa4137e **Adenocarcinoma** of colon
 Pa4184e **Thickening** of intestine
 Pa4185f **Bleeding** of intestine by sublimate poisoning
 Pa4166e **Inflammation** of appendix
 Pa4132e **Gelatinous carcinoma** of rectum
 Pa4138e **Colitis dysenterica** Shiga-Kruse

Liver

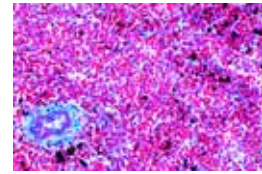
- Pa4130e **Miliary tuberculosis** of liver
 Pa4172e **Fatty degeneration** of liver
 Pa4133e **Parenchymatous and fatty degeneration** of liver
 Pa4148e **Parenchymatous degeneration** of liver
 Pa4143e **Amyloid degeneration** of liver
 Pa4203e **Liver cirrhosis**
 Pa4134e **Pigmentary cirrhosis** of liver
 Pa4141e **Cyanotic atrophy** of liver (nutmeg liver)
 Pa4144e **Brown atrophy** of liver
 Pa4142e **Hemorrhagic necrosis** of liver (eclampsia)
 Pa4135e **Hemosiderosis** of liver
 Pa4146e **Icterus hepatis**
 Pa4149e **Cavernous hemangioma** of liver
 Pa4173e **Liver carcinoma**
 Pa4140e **Carcinoma** of liver, primary
 Pa4136e **Metastasis** of liver
 Pa4174e **Peritoneal metastasis** of hepatoma
 Pa4201e **Liver metastasis** from a melanosarcoma re-
 ti
 Pa4145e **Lymphatic leukemia** of liver
 Pa4191e **Inflammation** of gall bladder
 Pa4202e **Malignant tumor** of gall bladder
 Pa4150f **Congenital syphilis** of liver (feuerstein liv-
 er) *
 Pa4131g **Congenital syphilis** of liver, silvered for spi-
 rochaetes *
 Pa4139f **Cirrhosis hepatis luetica** *

Kidney and urinary organs

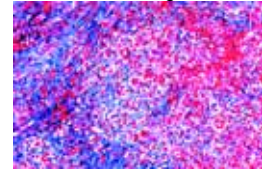
- Pa4213e **Tuberculosis** of kidney
 Pa4215e **Parenchymatous degeneration** of kidney
 Pa4207e **Amyloid degeneration** of kidney
 Pa4218e **Glycogenosis** of kidney
 Pa4216e **Acute nephritis**
 Pa4217e **Acute hemorrhagic nephritis** (bleeding of kidney)
 Pa4206e **Chronic glomerulonephritis**
 Pa4210e **Septic embolic nephritis**
 Pa4205e **Cardiac kidney** (icterus, jaundice)
 Pa4219e **Glomerularatrophy** of kidney (cirrhosis)



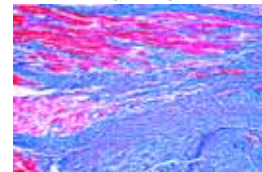
Pa4108e



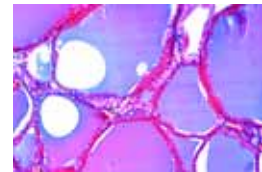
Pa4113g



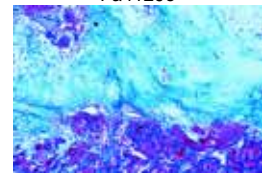
Pa4117e



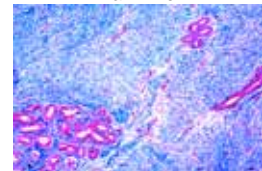
Pa4118e



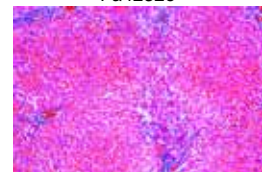
Pa4129e



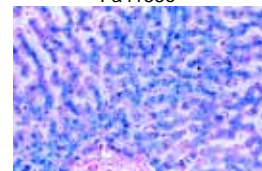
Pa4127e



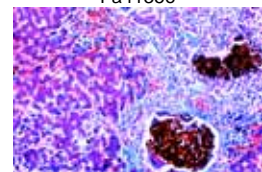
Pa4232e



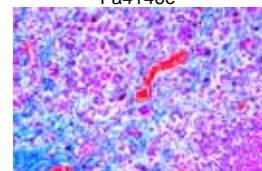
Pa4133e



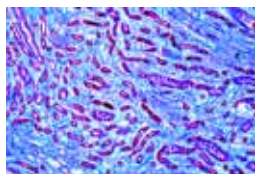
Pa4135e



Pa4146e

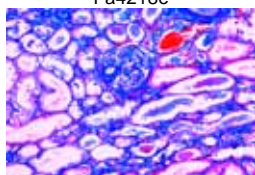


Pa4136e

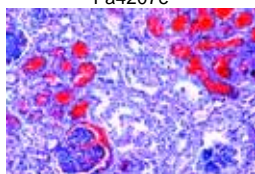


Pa4221e **Hypernephroma of kidney**
Pa4175g **Syphilis of kidney**
Pa4181e **Papilloma of urinary bladder**

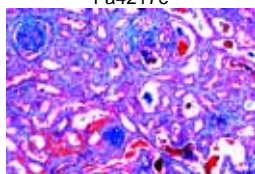
Reproductive organs



Pa4224e **Cyst of ovary**
Pa4211e **Cystadenoma papilliferum of ovary**
Pa4220e **Adenoma of ovary**
Pa4222e **Malignant ovarian tumor**
Pa4169e **Teratoma of ovary**
Pa4204e **Myoma of uterus**
Pa4226e **Fibromyoma uteri**
Pa4209e **Carcinoma cervicis uteri**
Pa4212e **Papilloma of uterine fundus**
Pa4188e **Atrophy of testis**
Pa4214f **Undescended testicle with hyperplasia of Leydig's cells**

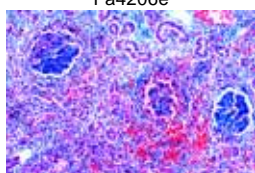


Pa4187e **Testis, icterus (jaundice)**
Pa4223e **Sarcoma of testicle**
Pa4208f **Gumma of testicle**
Pa4189f **Inhibition of spermatogenesis, testis (subject to hormone disorder) ***
Pa4225e **Hypertrophy of the prostate**
Pa4190e **Carcinoma of praeputium**



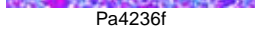
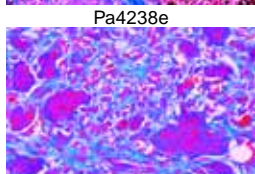
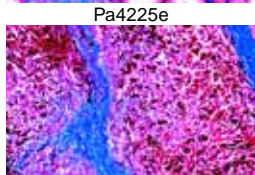
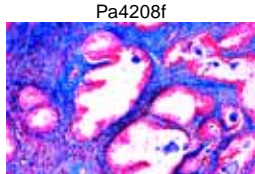
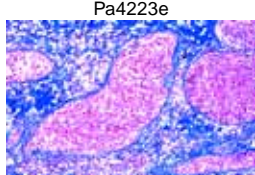
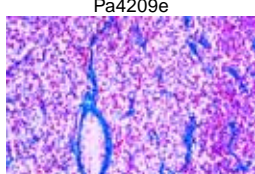
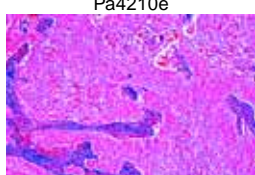
Nervous system

Pa4227e **Glioma cerebri**
Pa4228e **Ganglioneuroma myelinicum (neuroma)**
Pa4161f **Meningitis**



Skin, locomotor system

Pa4231e **Hemangioma simplex hypertrophicum subcutaneum**
Pa4230e **Foreign body granuloma with hemosiderin and giant cells**
Pa4229e **Organized venous thrombosis of muscle**
Pa4248e **Fat embolism after fracture of the leg**
Pa4244e **Zenker's degeneration of M. rectus abdominis (influenza)**
Pa4242e **Myxofibroma of abdominal wall**
Pa4241e **Myxoma of thigh**
Pa4239e **Sarcoma of thigh**
Pa4240e **Fibroma of skin**
Pa4245e **Basaloma**
Pa4235e **Chondroma of pubic bone**
Pa4238e **Melanosarcoma of skin**
Pa4156e **Carcinoma of squamous epithelium of skin**
Pa4233e **Spindle cell sarcoma**
Pa4236f **Giant cell sarcoma of maxilla ***
Pa4243e **Atheroma of head ***
Pa4249g **Pustule of variola vera ***
Pa4246e **Cicatricial tissue**



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EMBRYOLOGY

Embryology of the mussel (Bivalvia, Pelecypoda) *

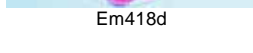
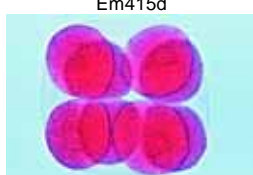
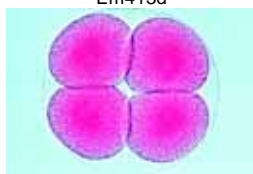
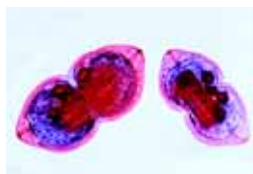
- Em211e **Mussel embryology** (Lamellibranchiata, Bivalvia or Pelecypoda). Unfertilized and fertilized ova w.m. *
- Em213e **Mussel embryology**. Zygote, two-cell and four-cell embryos w.m.
- Em215s **Mussel embryology**. Early zygote through late cleavage. Polar bodies, polar lobes and spiral cleavage *
- Em217e **Mussel embryology**. Blastula w.m. *
- Em218e **Mussel embryology**. Gastrula w.m. *
- Em219f **Mussel embryology**. Trochophore larva w.m. *
- Em221s **Mussel embryology**. Veliger larvae, early and later stages *
- Em223e **Mussel embryology**. Veliger larva w.m. *
- Em225e **Mussel embryology**. Glochidia larva w.m.

Embryology of insecta *

- Em301g **Acheta**, cricket, egg showing maturation division w.m. *
- Em302g **Acheta**, superficial cleavage *
- Em3021g **Acheta**, first cleavage w.m. *
- Em303g **Acheta**, superficial cleavage, nuclei migrating to surface *
- Em304g **Acheta**, w.m. of egg showing formation of germ layer *
- Em305g **Acheta**, w.m. of egg with young germ *
- Em306g **Acheta**, w.m. of egg shows early blastokinesis, germ starts to roll in *
- Em307g **Acheta**, w.m. of egg shows late blastokinesis, germ with limb buds *
- Em308g **Acheta**, w.m. of egg showing rolling out of the germ *
- Em309f **Insect**, t.s. of egg showing nuclei migrating to surface, cleavage
- Em310f **Insect**, t.s. of egg showing superficial cleavage in the blastoderm
- Em311f **Insect**, t.s. of egg showing young germ with primitive streak
- Em312f **Insect**, t.s. of egg showing formation of amnion and serosa
- Em313f **Insect**, t.s. of egg showing fusion of the embryonic envelopes
- Em314f **Insect**, t.s. of older germ showing process of differentiation in ectoderm and mesoderm
- Em315f **Insect**, t.s. of older germ in region of head
- Em316g **Carausius**, walking stick, w.m. of germ with primordium of head, limb buds, neural groove, coelom *
- Em317f **Carausius**, sagittal l.s. of egg with early germ
- Em318f **Carausius**, sagittal l.s. of egg with medium germ
- Em319f **Carausius**, sagittal l.s. of egg with later germ
- Em320f **Carausius**, sagittal l.s. of egg with germ ready for hatching

Embryology of the sea-urchin (Psammechinus miliaris)

- Em411d **Sea-urchin** embryology (Psammechinus miliaris), unfertilized eggs w.m.
- Em412d **Sea-urchin** embryology. Fertilized eggs w.m.
- Em413d **Sea-urchin** embryology. Two cells w.m.
- Em414d **Sea-urchin** embryology. Four cells w.m.
- Em415d **Sea-urchin** embryology. Eight cells w.m.
- Em416d **Sea-urchin** embryology. Sixteen cells w.m.
- Em417d **Sea-urchin** embryology. Thirty two cells w.m.
- Em418d **Sea-urchin** embryology. Morula w.m.
- Em419d **Sea-urchin** embryology. Blastula w.m.
- Em420d **Sea-urchin** embryology. Beginning gastrulation w.m.
- Em421d **Sea-urchin** embryology. Progressive gastrulation w.m.
- Em422d **Sea-urchin** embryology. Pluteus larva w.m.





Em418d



Em419d



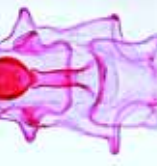
Em420d



Em421d



Em422d



Em425f



Em528g



Em603f



Em604f



Em606f



Em608f

Embryology of the starfish (*Asterias rubens*) *

- Em431d **Starfish** embryology (*Asterias rubens*). Ovary t.s. showing ova of large size
 Em432d **Starfish** embryology. Testis t.s. with developing sperm
 Em434e **Starfish** embryology. Sperm smear
 Em435e **Starfish** embryology. Germinal vesicle stage w.m.
 Em436e **Starfish** embryology. Unfertilized ova w.m.
 Em437e **Starfish** embryology. Fertilized ova w.m. Zygote with polar bodies
 Em438e **Starfish** embryology. Two cell stage w.m.
 Em439e **Starfish** embryology. Four cell stage w.m.
 Em440e **Starfish** embryology. Eight cell stage w.m.
 Em441e **Starfish** embryology. Sixteen cell stage w.m.
 Em443e **Starfish** embryology. Thirty-two cell stage w.m.
 Em444e **Starfish** embryology. Sixty-four cell stage w.m.
 Em447e **Starfish** embryology. Early and late blastula w.m.
 Em448e **Starfish** embryology. Early and late gastrula w.m.
 Em451f **Starfish** embryology. Early bipinnaria larva w.m.
 Em452f **Starfish** embryology. Late bipinnaria larva w.m.
 Em456s **Starfish** embryology. Brachiolaria larva w.m.
 Em458s **Starfish** embryology. Young starfish w.m.

Embryology of the Amphioxus (*Branchiostoma lanceolatum*)

- Em511g **Branchiostoma** embryology. Unfertilized ova w.m. *
 Em516k **Branchiostoma** embryology. Two to sixteen cells stage w.m. *
 Em519g **Branchiostoma** embryology. Thirty-two and sixty-four cells stage w.m. *
 Em522g **Branchiostoma** embryology. Blastula stage w.m. *
 Em524g **Branchiostoma** embryology. Gastrula stage w.m. *
 Em526g **Branchiostoma** embryology. Early larva w.m. *
 Em528g **Branchiostoma** embryology. Late larva w.m. *

Embryology of the frog (*Rana* sp.)

- Em601f **Frog**, uncleaved egg, t.s.
 Em602f **Frog**, egg, two cell stage (first cleavage) l.s.
 Em603f **Frog**, egg, four cell stage (second cleavage) t.s.
 Em604f **Frog**, egg, eight cell stage (third cleavage) l.s.
 Em6045f **Frog**, egg, sixteen cells l.s.
 Em605f **Frog**, morula l.s. with micro- and macromeres
 Em606f **Frog**, blastula l.s. showing blastocoel
 Em607f **Frog**, early gastrula, sagittal l.s. shows formation of germ layers and dorsal lip
 Em608f **Frog**, later gastrula (yolk plug stage), sagittal l.s. with germ layers, yolk plug, blastocoel, primary intestinal cavity
 Em609f **Frog**, early neurula, t.s. showing the neural plate
 Em610f **Frog**, medium neurula, t.s. showing the neural groove
 Em611f **Frog**, late neurula with neural tube, t.s. through the intestinal region
 Em612f **Frog**, late neurula with neural tube, t.s. through the frontal region
 Em613f **Frog**, late neurula stage with neural tube, sagittal l.s.
 Em614f **Frog**, early tail bud stage, t.s. through the head region
 Em615f **Frog**, early tail bud stage, t.s. through the body region
 Em616f **Frog**, early tail bud stage, sagittal l.s.
 Em617g **Frog**, early tail bud stage, near median sagittal l.s. with forebrain, neural tube, notochord, digestive tract *
 Em618f **Frog**, late tail bud stage, t.s. through the head region
 Em619f **Frog**, late tail bud stage, t.s. of body region with processes of differentiation in mesoderm
 Em6195f **Frog**, late tail bud stage, t.s. in region of pronephros

- Em620f **Frog**, late tail bud stage, frontal l.s. with differentiation of coelom sacs
 Em621f **Frog**, hatching stage, t.s. of head with developing eyes
 Em622f **Frog**, hatching stage, t.s. through region of heart, gills
 Em623f **Frog**, hatching stage, t.s. through the mid-body
 Em624f **Frog**, hatching stage, sagittal l.s.
 Em625e **Frog**, young tadpole, t.s. through the region of the head
 Em626e **Frog**, young tadpole, t.s. through the region of gills
 Em627e **Frog**, young tadpole, t.s. through the region of abdomen
 Em628f **Frog**, young tadpole, sagittal section of entire specimen
 Em629f **Frog**, young tadpole, frontal (horizontal) section of entire specimen
 Em630e **Frog**, older tadpole, t.s. through the region of head
 Em631e **Frog**, older tadpole, t.s. through the region of gills
 Em632e **Frog**, older tadpole, t.s. in region of heart and lungs
 Em633e **Frog**, older tadpole, t.s. through the region of abdomen
 Em6333f **Frog**, older tadpole, sagittal sec. through the entire specimen
 Em634f **Frog**, older tadpole, section through the limb bud

Embryology of the chicken (*Gallus domesticus*)

- Em701f **Chicken**, 12 hour, t.s. through the primitive streak
 Em702g **Chicken**, 12 – 24 hour, l.s. through the primitive streak *
 Em703f **Chicken**, 12 – 24 hour, t.s. with neural plate
 Em704f **Chicken**, 24 hour, t.s. with neural groove, notochord, germinal layers, somites
 Em7042f **Chicken**, 24 hour, t.s. through the head fold region
 Em7043f **Chicken**, 24 hour, t.s. through the intestinal region
 Em7044f **Chicken**, 24 hour, t.s. through the pericardial region t.s.
 Em7047f **Chicken**, 24 hour, l.s. through the entire specimen
 Em705f **Chicken**, 36 hour, t.s. with neural tube, notochord, differentiation of mesoderm (myotom, nephrotom and splanchnotom)
 Em706f **Chicken**, 36 hour, t.s. of anterior region with developing heart (pericardial region)
 Em708g **Chicken**, 36 – 48 hour, sagittal l.s., formation of the somites *
 Em709f **Chicken**, 48 hour, t.s. through the region of the head
 Em710f **Chicken**, 48 hour, t.s. through the region of heart
 Em711f **Chicken**, 48 hour, t.s. showing neural tube, mesoderm
 Em712g **Chicken**, 48 hour, sagittal l.s. through primitive node, formation of coelom, Vena terminalis *
 Em713g **Chicken**, 48 – 60 hour, horizontal l.s. with brain, heart, and somites *
 Em714f **Chicken**, 60 hour, t.s. through the region of head
 Em715f **Chicken**, 60 hour, t.s. through the region of heart
 Em716f **Chicken**, 60 hour, t.s. through the region of abdomen
 Em717f **Chicken**, 72 hour, t.s. through the region of brain
 Em718f **Chicken**, 72 hour, t.s. through the region of heart and eyes
 Em719f **Chicken**, 72 hour, t.s. through the caudal region of heart
 Em720f **Chicken**, 72 hour, t.s. through the abdominal region
 Em722g **Chicken**, 72 hour, horizontal l.s. of entire specimen
 Em723f **Chicken**, 4 – 5 days, t.s. through the region of head



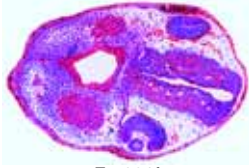
Em609f



Em615f



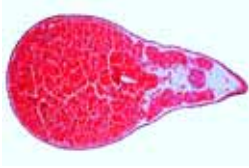
Em617g



Em621f



Em622f



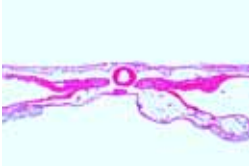
Em623f



Em625e



Em628f



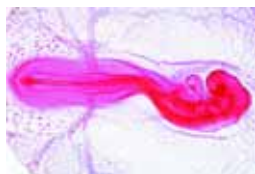
Em705f



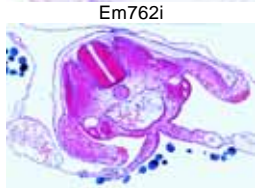
Em706f



Em711f

Em724f **Chicken**, 4 – 5 days, t.s. through region of heart and eyesEm725f **Chicken**, 4 – 5 days, t.s. through the abdominal regionEm726g **Chicken**, 4 – 5 days, sagittal l.s. of entire specimen*Em727f **Chicken**, 8 days, t.s. through the region of brainEm728f **Chicken**, 8 days, t.s. through the region of eyesEm729f **Chicken**, 8 days, t.s. through the region of gill slitsEm730f **Chicken**, 8 days, t.s. in region of heart and lungsEm731f **Chicken**, 8 days, t.s. in region of intestine and liverEm732f **Chicken**, 8 days, t.s. in region of intestine and kidneyEm733g **Chicken**, 8 days, sagittal l.s. of the entire specimen*Em751h **Chicken**, 16 hour, w.m. showing primitive streak*Em752h **Chicken**, 18 hour, w.m. of the entire specimen*Em753i **Chicken**, 21 hour, w.m. of the entire specimen*Em754i **Chicken**, 24 hour, w.m. showing neural groove*Em756g **Chicken**, 28 hour, w.m. showing heart and blood vessels*Em758i **Chicken**, 33 hour, w.m. showing the formation of the somites*Em760g **Chicken**, 40 hour, w.m. flexion of the anterior end*Em761i **Chicken**, 43 hour, w.m. *Em762i **Chicken**, 48 hour, w.m. showing the formation of the coelom*Em764h **Chicken**, 56 hour, w.m. the gill arches can be seen*Em766t **Chicken**, 66 hour, w.m. progression of gill arches and other structures*Em768k **Chicken**, 72 hour, w.m. with well developed limb buds*Em770t **Chicken**, 80 hour, w.m. more advanced stage of organ development*Em772k **Chicken**, 96 hour, w.m. allantois outside the body*

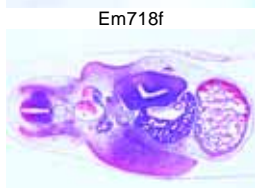
Embryology of the pig (*Sus scrofa*)

Em811h **Pig embryo**, 4 mm, sagittal l.s. *Em813g **Pig embryo**, 4 mm, typical t.s. *Em821h **Pig embryo**, 6 mm, sagittal l.s. *Em823g **Pig embryo**, 6 mm, typical t.s. *Em831h **Pig embryo**, 8 mm, sagittal l.s.Em833g **Pig embryo**, 8 mm, typical t.s.Em841g **Pig embryo**, 11 – 12 mm, sagittal l.s.Em843k **Pig embryo**, 11 – 12 mm, near median sagittal l.s. *Em845g **Pig embryo**, 11 – 12 mm, frontal l.s.Em846f **Pig embryo**, 11 – 12 mm, typical t.s.Em847h **Pig embryo**, 11 – 12 mm, three typical t.s. through head, thorax and abdomenEm848k **Pig embryos**, 6, 8, and 11 mm, three typical t.s. *Em849k **Pig embryos**, 6, 8, and 11 mm, three typical sagittal l.s. *Em851g **Pig embryo**, 15 mm, sagittal l.s.Em852k **Pig embryo**, 15 mm, near median l.s. *Em853g **Pig embryo**, 15 mm, frontal l.s.Em854f **Pig embryo**, 15 mm, head t.s.Em855f **Pig embryo**, 15 mm, thorax t.s.Em856f **Pig embryo**, 15 mm, abdomen t.s.Em858i **Pig embryo**, 15 mm, three typical t.s. through head, thorax, and abdomenEm861g **Pig embryo**, 20 – 25 mm, sagittal l.s.Em862i **Pig embryo**, 20 – 25 mm, near median sagittal l.s.Em863g **Pig embryo**, 20 – 25 mm, frontal l.s.Em865f **Pig embryo**, 20 – 25 mm, head t.s.Em866f **Pig embryo**, 20 – 25 mm, thorax t.s.Em867f **Pig embryo**, 20 – 25 mm, abdomen t.s.Em869i **Pig embryo**, 20 – 25 mm, three typical t.s. through head, thorax, and abdomen

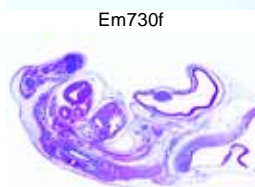
Em762i



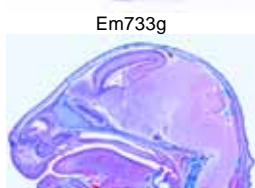
Em720f



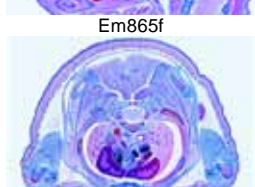
Em718f



Em730f



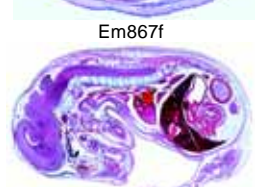
Em730f



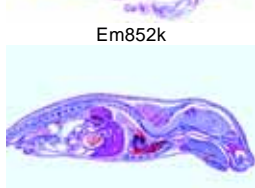
Em865f



Em865f



Em867f



Em852k



Em862i

Ma5296d

BACTERIA

Spherical bacteria, cocci

- Ba117e • **Diplococcus pneumoniae**, causing croupous pneumonia, smear
 Ba118d • **Gaffky tetragena**, occurring as tetrads, smear from culture
 Ba113d • **Micrococcus roseus**, smear from culture
 Ba110e • **Neisseria catarrhalis**, smear from culture
 Ba111f • **Neisseria gonorrhoeae**, causing gonorrhoea, smear *

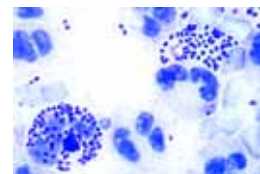
Ba1113e • **Neisseria meningitidis (intracellularis)**, causing epidemic meningitis, smear from culture *Ba114d • **Sarcina lutea**, chromogenic rods occurring in packetsBa112d • **Staphylococcus aureus**, pus organism, smear from cultureBa1123d • **Staphylococcus epidermidis**, smear from cultureBa1163d • **Streptococcus faecalis**, smear from cultureBa116d • **Streptococcus lactis**, milk souring organism, smear from culture showing short chainsBa115e • **Streptococcus pyogenes**, smear from pus showing long chainsBa1151d • **Streptococcus pyogenes**, smear from culture showing short chainsBa1165f • **Hemolytic streptococci**, blood poisoning, blood smear

Rod-shaped bacteria, non spore-forming, gram-positive

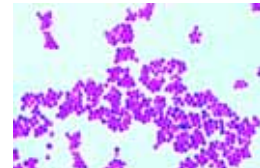
- Ba136d • **Corynebacterium diphtheriae**, smear from culture
 Ba137f • **Corynebacterium diphtheriae**, stained to show the polar bodies
 Ba127d • **Lactobacillus bulgaricus (Thermobacterium)**, Yoghurt bacteria (Bulgarian soured milk), from culture
 Ba1272e • **Lactobacillus casei**, cheese and other milk products
 Ba135h • **Mycobacterium leprae**, causing leprosy, smear or tissue section *
 Ba131d • **Mycobacterium tuberculosis**, smear from culture
 Ba132e • **Mycobacterium tuberculosis**, smear from positive sputum stained after Ziehl-Neelsen
 Ba133g • **Mycobacterium tuberculosis**, section of infected tissue, bacteria stained *

Rod-shaped bacteria, non spore-forming, gram-negative

- Ba153d • **Acetobacter aceti**, manufacture of vinegar, smear
 Ba1385d • **Aerobacter aerogenes**, smear from culture
 Ba155d • **Azotobacter**, rods from soil, smear
 Ba139e • **Bacterium erysipelas** (*Erysipelothrix rhusiopathiae*), smear *
 Ba151d • **Bacterium prodigiosum** (*Serratia marcescens*), formation of red pigment, smear
 Ba1502d • **Brucella abortus**, causing abortion in cattle (Bang disease), smear
 Ba144d • **Eberthella typhi**, causing typhoid fever, smear
 Ba1416e • **Erwinia amylovora**, occurring in short chains, causing pear blight, smear
 Ba1417e • **Erwinia caratovora**, causing soft rot in vegetables, smear
 Ba1418e • **Erwinia caratovora**, section showing bacterial infection of tissue
 Ba143d • **Escherichia coli**, colon bacteria, smear
 Ba150d • **Hemophilus influenzae (Pfeiffer)**, smear
 Ba138e • **Klebsiella pneumoniae (Friedlander)**, causing pneumonia smear
 Ba158f • **Pasteurella (Yersinia) pestis**, bubonic plague, smear
 Ba1505d • **Pasteurella pseudotuberculosis**, smear from culture
 Ba142d • **Proteus vulgaris**, putrefaction, smear
 Ba1425d • **Pseudomonas aeruginosa**, smear from culture
 Ba1426e • **Pseudomonas solonacearum**, causes tobacco bacterial wilt, smear
 Ba1427e • **Pseudomonas solonacearum**, t.s. stem with bacteria in tissue *
 Ba141d • **Rhizobium radicola**, smear from culture



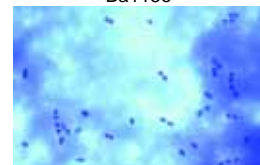
Ba111f



Ba112d



Ba115e



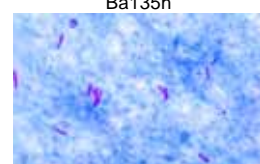
Ba116d



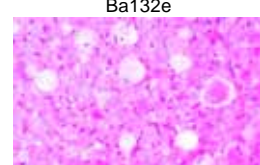
Ba136d



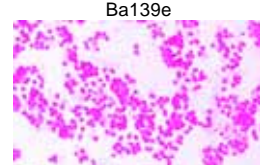
Ba135h



Ba132e



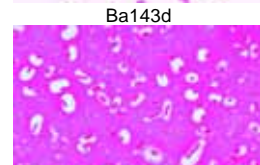
Ba139e



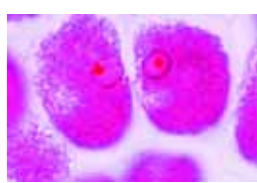
Ba151d



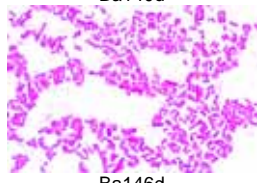
Ba143d



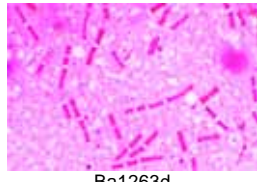
Ba138e



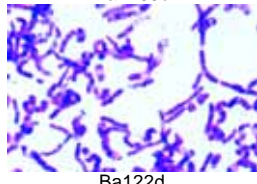
Ba140d



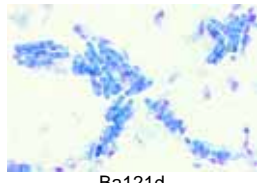
Ba146d



Ba1263d



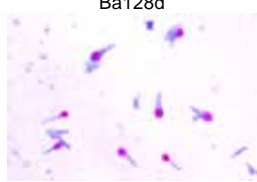
Ba122d



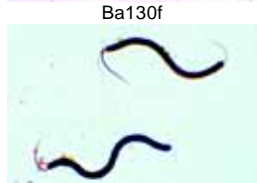
Ba121d



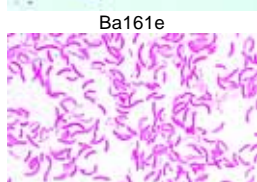
Ba128d



Ba161e



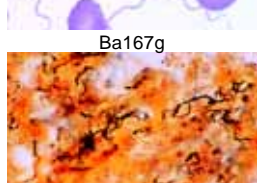
Ba167g



Ba165d



Ba190d



Ba170h

- Ba140d **Rhizobium radicola**, nitrogen fixing organisms, section through root nodule of lupin showing bacteria in situ
- Ba146d • **Salmonella enteritidis**, causes meat poisoning, smear
- Ba145d • **Salmonella paratyphi**, paratyphoid fever, smear
- Ba147d **Salmonella pullorum**, chicken disease, smear
- Ba149d • **Shigella dysenteriae**, causes bacillary dysentery, smear
- Ba1493d **Shigella sonnei**, smear from culture
- Ba1428e **Xanthomonas phaseoli**, causing bacterial bean blight, sec. through the infected tissue

Rod-shaped bacteria, spore-forming (bacilli)

- Ba1263d • **Bacillus anthracis**, smear from culture
- Ba125f **Bacillus anthracis**, causes wool sorter's disease, smear from infected spleen. Olt's capsule stain
- Ba1265f **Bacillus anthracis**, spores stained *
- Ba126g **Bacillus anthracis**, in section through infected tissue *
- Ba120d **Bacillus cereus**, bacteria from soil, smear from culture
- Ba1202f **Bacillus cereus**, spores stained
- Ba134d **Bacillus larvae**, bee disease, smear
- Ba124d **Bacillus megaterium**, from soil, smear from culture
- Ba123d • **Bacillus mesentericus**, smear from culture
- Ba122d • **Bacillus mycoides**, large soil organisms growing in chains
- Ba121d • **Bacillus subtilis**, hay bacillus, smear showing bacilli and spores doubly stained
- Ba1303e • **Clostridium botulinum**, causing food poisoning, smear
- Ba1285d **Clostridium perfringens**, causing gas gangrene, smear
- Ba1287f **Clostridium perfringens**, smear stained to show spores
- Ba128d **Clostridium septicum**, smear from culture
- Ba130f • **Clostridium tetani**, special stained to show the terminal spores by the Ziehl-Neelsen method
- Ba129e **Clostridium tetani**, causing lockjaw, smear

Spiral bacteria and spirochaetes

- Ba164f • **Vibrio comma**, causing Asiatic cholera, smear
- Ba161e • **Spirillum volutans**, a very large spirillum, smear *
- Ba162d **Spirillum serpens**, from putrid water, smear
- Ba163d **Spirillum undula**, in stagnant water, smear
- Ba165d • **Rhodospirillum rubrum**, chromogenic rods, smear
- Ba167g • **Borrelia duttoni (Spirochaeta recurrentis)**, causes Central african relapsing fever, blood smear with organisms *
- Ba170h • **Treponema pallidum (Spirochaeta pallida)**, section through syphilitic lesion stained by Levaditi's silver method *

Miscellaneous groups

- Ba1528d **Actinomyces alni**, sec. of root nodule showing mycorrhiza of alder
- Ba1526f **Actinomyces bovis**, causing lumpy jaw, section through infected tissue
- Ba1525e **Actinomyces**, causing lumpy jaw, smear
- Ba157e **Caulobacter**, stalk bacterium, smear
- Ba193d **Galionella**, iron bacteria, smear
- Ba191d **Methanobacterium**, forming methane, smear
- Ba190d • **Sphaerotilus natans**, from putrid water, long chains with sheaths
- Ba152d • **Streptomyces griseus**, streptomycin antibiotic, smear
- Ba192d **Thiocystis or Lamprocystis**, sulphur bacteria, smear
- Ba250e **Tobacco mosaic**, a virus disease, sec. of infected leaf *

Typical bacteria, composite slides

- Ba171d • **Bacteria from mouth**, Gram positive and negative bacteria can be observed in this slide, ideal for demonstration
- Ba201e • **Typical bacteria**: three smears on one slide, cocci, bacteria and spirilli are shown, carefully stained

- Ba203e • **Mixed bacteria**: slide showing mixed species from a number of different pure cultures
- Ba2061d **Typical coccus**, round-shaped, Gram-negative, smear
- Ba2062d **Typical coccus**, round-shaped, Gram-positive, smear
- Ba2071d **Typical cocci in chains** (streptococci), smear
- Ba2072d **Typical cocci in clumps** (staphylococci), smear
- Ba2051d **Typical bacillus**, rod-shaped, Gram negative, smear
- Ba2052d **Typical bacillus**, rod-shaped, Gram-positive, smear
- Ba2065d **Typical bacilli in chains** (streptobacilli), smear
- Ba209d **Typical spirilli**, spiral- or comma-shaped, smear
- Ba181d **Bacteria from bread**, direct smear
- Ba182d **Bacteria from cheese**, smear or section
- Ba183d **Bacteria from sour milk**, smear
- Ba184d **Bacteria from human intestine**, smear
- Ba185d **Bacteria from yoghurt**, smear
- Ba186d **Bacteria from sauerkraut**, smear
- Ba187d **Bacteria from hay infusion** causing decomposition, smear

Cytological slides, special staining techniques

- Ba2081d **Typical mixed bacteria**, including Gram-positive and Gram-negative rods, smear
- Ba210g **Lophotrichous flagella** on Spirillum, specially stained *
- Ba212g **Monotrichous flagella** on Vibrio or Pseudomonas, spec. stained *
- Ba211g **Peritrichous flagella** on Salmonella or Proteus, spec. stained *
- Ba221f **Capsule stain** (Klebsiella pneumoniae), smear specially stained
- Ba224g **Nuclear stain** (Bacillus cereus), smear specially stained for nuclear material (DNA) *
- Ba225t **Cell division** (Bacillus cereus), smear with Feulgen stain *
- Ba229f **Metachromatic granules** or polar bodies (Corynebacterium diphtheriae), smear specially stained
- Ba226f **Spore stain** (Bacillus subtilis), smear doubly stained with central spores
- Ba228f **Spore stain** (Clostridium botulinum), smear doubly stained with subterminal spores

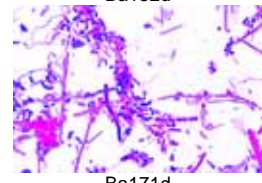
ALGAE

Cyanophyceae – Blue-Green Algae

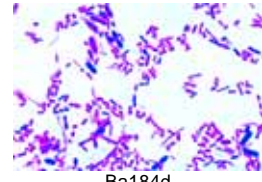
- Ag111c • **Oscillatoria**, a blue-green filamentous alga w.m.
- Ag112d **Oscillatoria**, thin sections specially stained to show the nuclear material
- Ag1123c **Oscillatoria**, mucous sheath stained, w.m.
- Ag113c • **Nostoc**, w.m. shows filaments and heterocysts
- Ag114d **Nostoc**, section for finer details of filaments and sheaths
- Ag1146f **Nostoc** or other blue-green alga, special preparation for nuclear material, Feulgen stain *
- Ag1145d **Nostoc gunnerae**, symbiotic algae living in the stem of Gunnera, section
- Ag1147c **Nostoc zetterstettii**, a gelatinous alga, unbranched filaments, w.m.
- Ag1148c **Nostoc caeruleum**, unbranched filaments, w.m.
- Ag1151f **Anabaena or Oscillatoria**, nuclear stain
- Ag115c • **Anabaena**, thread shaped blue-green algae with heterocysts w.m.
- Ag1156d **Aphanizomenon**, single filaments of various length w.m.
- Ag1157d **Aphanothece**, small single cells in colonies
- Ag1153d **Arthrospira**, filaments in regular spirals w.m.
- Ag1205c **Beggiatoa**, a colourless alga showing lack of chlorophyll
- Ag117c • **Chroococcus**, large single celled blue-green algae w.m.
- Ag1162d **Cylindrospermum**, with heterocysts and spores w.m.
- Ag1152d **Fischerella (Hapalosiphon)**, branched filaments w.m.
- Ag116c • **Gloeocapsa**, small colonies within sheaths
- Ag119c **Gloeotrichia**, forming akinetes w.m.
- Ag1166d **Lyngbya**, filamentous algae within sheaths
- Ag1164d **Merismopedia**, flat colonies w.m.



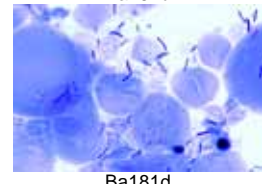
Ba152d



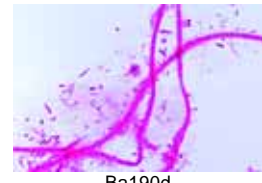
Ba171d



Ba184d



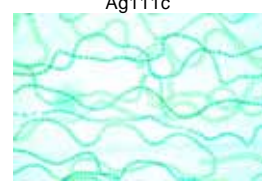
Ba181d



Ba190d



Ag111c



Ag113c



Ag115c



Ag117c



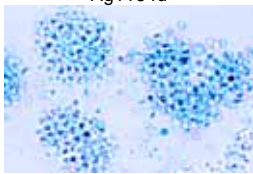
Ag116c



Ag118c



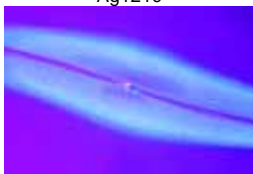
Ag1164d



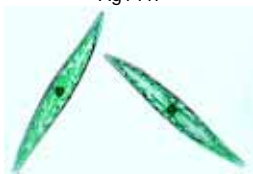
Ag1176c



Ag121c



Ag141f



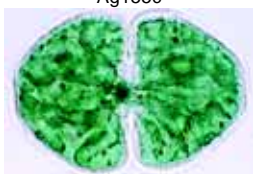
Ag1321d



Ag151c



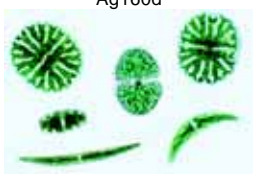
Ag155c



Ag158d



Ag160d



Ag165e



Ag182c

- Ag1176c • **Microcystis**, irregular colonies w.m.
 Ag1207d • **Ophridium versatile**, a gelatinous alga, filaments with heterocysts
 Ag118c • **Rivularia**, with basal heterocysts w.m.
 Ag120c • **Scytonema**, trichomes with false branchings
 Ag1172d • **Spirulina**, unicellular spirals w.m.
 Ag1174d • **Stigonema**, branched thallus w.m.
 Ag1155c • **Tolypothrix**, a blue-green alga with false branchings w.m.
 Ag1201d • **Mixed blue-green algae**, many different species in one slide for comparison w.m.

Diatomeae

- Ag121c • **Diatoms**, recent from fresh water, mixed species
 Ag122c • **Diatoms**, fossil from fresh water, mixed species
 Ag123c • **Diatoms**, recent marine, mixed species
 Ag124c • **Diatoms**, fossil marine, mixed species
 Ag131d • **Diatoms**, fixed and stained to show the chromatophores
 Ag1321d • **Diatoms** from fresh water, fixed and stained to show the chromatophores
 Ag1322d • **Diatoms** marine, fixed and stained to show the chromatophores
 Ag133c • **Diatomeous earth**, a mixture of various fossil diatoms
 Ag141f • **Pleurosigma angulatum**, for testing microscope resolution, nD 1,0
 Ag142f • **Surirella gemma**, for testing microscope resolution, nD 1,0
 Ag143d • **Synedra ulna**, species from fresh water
 Ag144e • **Arachnoidiscus**, central marine diatoms
 Ag1441e • **Coscinodiscus**, central marine diatoms, mixed species
 Ag1442e • **Triceratium and Tricnaria**, triangular marine diatoms
 Ag149d • **Silicoflagellates**, *Distephanus* and others,

Conjugatae

- Ag151c • **Spirogyra**, a common alga with spiral chloroplasts, w.m. of vegetative filaments, carefully stained. The standard slide for general study
 Ag1512d • **Spirogyra**, vegetative w.m., a large species with several chloroplasts in each cell
 Ag1513d • **Spirogyra**, vegetative w.m., a small species with single chloroplast in each cell
 Ag152e • **Spirogyra**, in scalariform conjugation and after the stage of conjugation, w.m.
 Ag153e • **Spirogyra**, showing formation of zygotes w.m.
 Ag154e • **Spirogyra**, in lateral conjugation w.m. *
 Ag1542e • **Spirogyra**, in scalariform conjugation showing zygotes w.m., a large species with several chloroplasts in each cell
 Ag155c • **Zygnema**, vegetative filaments with stellate chloroplasts w.m.
 Ag156e • **Zygnema**, in conjugation and after conjugation with zygotes w.m.
 Ag1565c • **Mougeotia**, a filamentous alga with flat chloroplasts w.m.
 Ag158d • **Cosmarium**, a common desmid with isthmus
 Ag157d • **Closterium**, a crescent-shaped desmid w.m.
 Ag159d • **Mesothaenium**, a small rod-shaped desmid
 Ag160d • **Micrasterias**, large plate-shaped desmids w.m.
 Ag161d • **Staurastrum**, double cells with spines w.m.
 Ag162d • **Hyalotheca**, a filamentous desmid w.m.
 Ag165e • **Mixed desmids** of various forms, strewn slide w.m.

Chlorophyceae – Green Algae

- Ag1923e • **Acetabularia**, a marine species with an umbrella-shaped thallus w.m.
 Ag1925d • **Bryopsis**, marine green algae w.m.
 Ag1722d • **Bulbochaete**, sessile filaments w.m.
 Ag1725d • **Carteria**, unicellular algae with four flagella w.m.
 Ag1907d • **Chaetophora**, thallus with many branches w.m.
 Ag171c • **Chlamydomonas**, small biflagellate algae w.m.
 Ag1711f • **Chlamydomonas**, specially stained to show the flagella *
 Ag191c • **Chlorella**, small unicellular green algae, w.m.
 Ag1902d • **Chlorococcus**, living on ground, hollow-sphere-shaped chloroplasts
 Ag182c • **Cladophora**, branching filaments with multinucleate cells w.m.
 Ag1904d • **Coelastrum**, cell colonies w.m.
 Ag1908d • **Coleochaete**, a soil species w.m.

- Ag183c • **Draparnaldia**, main filaments and clusters of branches w.m.
 Ag1723d • **Dysmorphococcus**, flagellate algae with shells
 Ag192d • **Enteromorpha**, seaweed, inflated narrow frond
 Ag1757d • **Eremosphaera**, large unicellular green algae
 Ag174d • **Eudorina**, spherical colonies of thirty-two cells w.m.
 Ag172d • **Gonium pectorale**, plate-like colonial forms w.m.
 Ag1721f • **Gonium sp.**, specially stained to show the flagella *
 Ag1715c • **Haematococcus**, unicellular red biflagellate algae w.m.
 Ag180d • **Hydrodictyon**, water net alga, w.m.
 Ag184c • **Oedogonium**, a common filamentous green alga without branches, vegetative filaments
 Ag188d • **Oedogonium**, macrandrous with oogonia w.m.
 Ag189d • **Oedogonium**, nannandrous with dwarf males w.m.
 Ag173d • **Pandorina**, spherical colonies of sixteen cells or smaller w.m.
 Ag177d • **Pediastrum**, star-shaped flat colonies w.m.
 Ag1724d • **Pithophora**, branched tropic green algae w.m.
 Ag1743d • **Platydorina**, horseshoe-shaped coenobium showing the flagella w.m.
 Ag1742d • **Pleodorina**, colonies with cells of different size
 Ag179c • **Pleurococcus (Protococcus)**, small colonies growing on bark, w.m.
 Ag1905d • **Protosiphon**, living on ground, with rhizoids w.m.
 Ag178d • **Scenedesmus**, colonies of four cells w.m.
 Ag1832d • **Stigeoclonium**, main filaments and simple branches w.m.
 Ag1756d • **Tetracystis**, earth algae, groups of four cells
 Ag1755d • **Tetraspora**, cells in a gelatinous layer w.m.
 Ag181c • **Ulothrix**, simple filaments with girdle-shaped chloroplasts w.m.
 Ag185d • **Ulva**, sea lettuce, a marine green alga, w.m. of thallus
 Ag1852d • **Ulva**, w.m. of thallus with developing gametes
 Ag1862e • **Vaucheria geminata**, sexual stages on lateral branches w.m.
 Ag186d • **Vaucheria sessilis**, showing sexual stages
 Ag175e • **Volvox**, spherical colonies with daughter colonies and sexual stages w.m.
 Ag1752f • **Volvox**, flattened and specially stained to show flagella
 Ag1916d • **Mixed flagellates**, many different species for comparison w.m.
 Ag1915d • **Mixed green algae**, many different species for comparison w.m.

Chrysophyceae – Golden Algae

- Ag195d • **Dinobryon**, a golden alga forming colonies
 Ag197d • **Hydrurus**, golden alga in a gelatinous matrix
 Ag199d • **Ochromonas**, a flagellate golden alga w.m.
 Ag198d • **Tribonema**, a filamentous golden alga w.m.

Charophyceae – Stoneworts

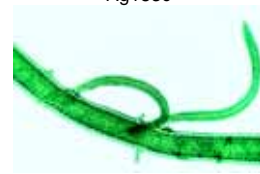
- Ag211d • **Chara**, stonewort, thallus with reproductive organs w.m.
 Ag212c • **Chara**, thallus t.s.
 Ag2121e • **Chara**, thallus and reproductive organs l.s.
 Ag2122e • **Chara**, w.m. of mature antheridia showing spermatogenous filaments
 Ag2125f • **Chara**, thallus with apex l.s. *
 Ag213d • **Nitella**, thallus with reproductive organs w.m.

Phaeophyceae – Brown Algae

- Ag221d • **Fucus vesiculosus**, seaweed, male conceptacle with antheridia, t.s.
 Ag222d • **Fucus vesiculosus**, female conceptacle with oogonia t.s.
 Ag2224e • **Fucus vesiculosus** composite slide, t.s. of male and female conceptacles of a dioecious species on same slide
 Ag223d • **Fucus platycarpus**, hermaphrodite conceptacle with antheridia and oogonia, t.s.
 Ag2234d • **Fucus serratus**, male branch with antheridia, t.s.
 Ag2235d • **Fucus serratus**, female branch with oogonia t.s.
 Ag2236e • **Fucus serratus**, male and female branches, two t.s.
 Ag237g • **Fucus**, l.s. through apical region with apical cell *
 Ag239d • **Ascophyllum nodosum**, c.s. of male conceptacle



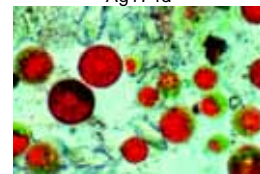
Ag183c



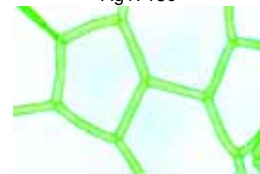
Ag192d



Ag174d



Ag1715c



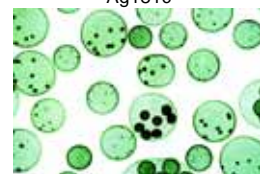
Ag180d



Ag177d



Ag181c



Ag175e



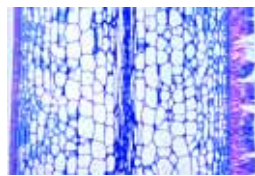
Ag211d



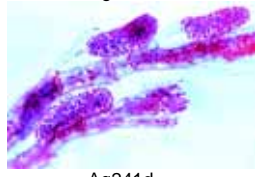
Ag221d



Ag222d



Ag228c



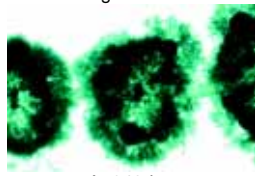
Ag241d



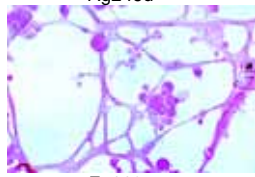
Ag242d



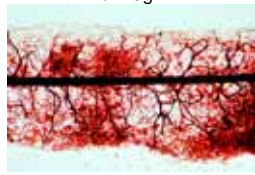
Ag243d



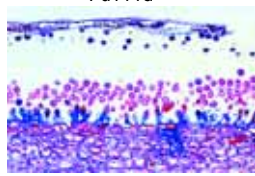
Ag246d



Fu119g



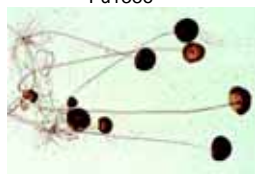
Fu111d



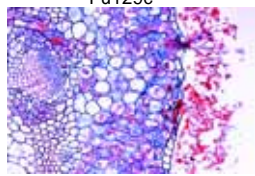
Fu127d



Fu138e



Fu129c



Fu124d

- Ag233e **Dictyota**, thallus with tetraspores t.s. *
- Ag234e **Dictyota**, thallus with oogonia t.s. *
- Ag235e **Dictyota**, thallus with antheridia t.s. *
- Ag238g **Dictyopteris**, apical region showing more apical cells *
- Ag225d • **Ectocarpus**, plurilocular gametangia or sporangia w.m.
- Ag2252d • **Ectocarpus**, unilocular sporangia w.m. *
- Ag2393d • **Elachista fucicola**, epiphytic living, w.m. of unilocular sporangia
- Ag231d **Himantalia lorea**, male conceptacle with antheridia t.s.
- Ag232d **Himantalia lorea**, female conceptacle with oogonia t.s.
- Ag228c • **Laminaria saccharina**, thallus with sporangia t.s.
- Ag230d **Pylaiella littoralis**, uni- and plurilocular sporangia w.m.
- Ag2302d **Pylaiella littoralis**, w.m. showing formation of swarms-cells
- Ag229d **Sargassum**, gulfweed, thallus with conceptacles t.s.
- Ag2395d **Sphacelaria sp.**, thallus with bulbs, w.m.

Rhodophyceae – Red Algae

- Ag241d • **Polysiphonia** (or Rhodomela), marine red alga, male plant with antheridia w.m.
- Ag242d • **Polysiphonia** (or Rhodomela), female plant with cystocarps w.m.
- Ag243d • **Polysiphonia** (or Rhodomela), tetraspores w.m.
- Ag250d **Audouinella**, a mat-forming fresh water red alga, w.m.
- Ag251d **Bangia**, a ligamentous fresh water red alga, w.m.
- Ag246d • **Batrachospermum**, a fresh water red alga, w.m.
- Ag244d **Ceramium**, thallus with tetraspores w.m.
- Ag2445d **Corallina**, a marine calcareous red alga w.m.
- Ag254d **Dasya**, a marine red alga with irregular branchings w.m.
- Ag255d **Furcellaria**, marine species w.m.
- Ag253d **Lemanea**, a fresh water red alga with tubular cortical layer w.m.
- Ag245d • **Nemalion**, thallus with reproductive organs
- Ag252d **Porphyridium**, gelatinous layer with algal cells, t.s.
- Ag256c **Porphyra**, marine red alga, w.m. of one cell layer thallus

FUNGI

Myxomycetes – Slime Fungi

- Fu112d **Arcyria**, slime mold with cylindrical fruiting bodies w.m.
- Fu1182e **Ceratomyxa**, primitive slime mold with external spores, w.m. *
- Fu118e **Dictydium**, fruiting body w.m.
- Fu115e • **Fuligo**, slime mold, section through the fruiting body *
- Fu113d **Hemitrichia**, slime mold with bell-shaped fruiting bodies w.m. *
- Fu114d **Lycogola**, slime mold with bean-shaped fruiting bodies w.m.
- Fu119g **Myxoflagellatae**, myxamoebae and young plasmodia w.m. *
- Fu117e **Physarum**, fruiting body w.m.
- Fu116e • **Spongospora subterranea**, potato powdery scab, section with spore balls
- Fu111d • **Stemonitis**, slime mold, entire capillitium with spores w.m.

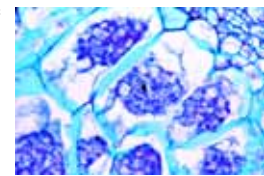
Phycomycetes – Algalike Fungi

- Fu1253e **Achlya**, water mold, with oogonia, antheridia, and zoosporangia
- Fu127d • **Albugo candida (Cystopus candidus)**, white rust of crucifers, t.s. of Capsella tissue showing conidia
- Fu128d **Albugo candida**, t.s. of Capsella tissue showing oogonia and zygotes
- Fu140d **Candida albicans**, thrush fungus infective to man, from culture w.m.
- Fu138e • **Empusa muscae**, parasite of insects, sec. through insect showing mycelium and conidia
- Fu129c • **Mucor mucedo**, black mold, sporangia and mycelium w.m.
- Fu1291e • **Mucor mucedo**, formation of zygospores w.m.

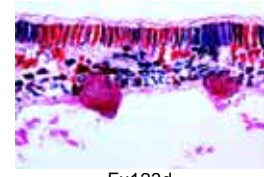
- Fu124d • **Peronospora parasitica**, downy mildew of crucifers, host tissue with conidia t.s.
- Fu1242e **Peronospora tabacina**, blue mold of tobacco, leaf pieces with sporangia w.m.
- Fu135d • **Phytophthora infestans**, late blight of potato, t.s. of infected tissue
- Fu133e **Pilobolus**, mycelium, spongiophore and sporangia w.m. *
- Fu121c • **Plasmodiophora brassicae**, clubroot, host cells with spores t.s.
- Fu123d • **Plasmopara viticola**, downy mildew of grapes, leaf with conidia t.s.
- Fu130c • **Rhizopus**, bread mold, sporangia and mycelium w.m.
- Fu131d • **Rhizopus**, formation of zygospores w.m.
- Fu132f **Rhizopus**, sporangia and zygospores on same slide w.m.
- Fu136e **Rhizophydium pollinis**, living on pollen grains of pine, w.m. *
- Fu125d • **Saprolegnia**, water mold, showing sexual stages w.m.
- Fu122d • **Synchytrium endobioticum**, potato black scab, t.s. of infected tissue

Ascomycetes – Sac Fungi

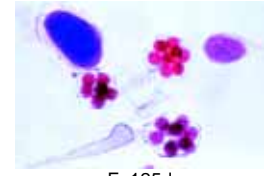
- Fu163c • **Aspergillus**, brown mold, conidiophores and conidia w.m.
- Fu1631d **Aspergillus**, perithecia (cleistothecia)
- Fu172c **Botrytis allii**, grey mold of onions, t.s. of infected tissue
- Fu180d **Cladosporium**, deuteromycet, destruction of textile goods, w.m.
- Fu149c • **Claviceps purpurea**, ergot, mature sclerotium t.s.
- Fu150e • **Claviceps purpurea**, stroma with perithecia and asci i.s.
- Fu142e • **Erysiphe pannosa**, rose mildew, t.s. of rose leaf or stem with conidia
- Fu144e **Erysiphe sp.**, w.m. of perithecia
- Fu1441d **Erysiphe sp.**, t.s. of infected leaf showing perithecia *
- Fu154c **Lachnea**, a small cup fungus, i.s. of apothecium with asci
- Fu158c • **Morchella edulis**, morel, fruiting body with asci and spores, t.s.
- Fu177c **Morchella**, teased preparation of mature hymenium with w.m. of asci with the typical eight ascospores
- Fu161c • **Penicillium**, blue mold, mycelium and conidiophores, w.m.
- Fu162d **Penicillium**, t.s. of host tissue showing mycelium and conidiophores
- Fu153c • **Peziza**, cup fungus, i.s. of apothecium showing typical asci very clearly
- Fu143d **Podosphaera leucotricha**, apple mildew, t.s. with conidia
- Fu171c • **Rhizisma acerinum**, tar-spot of maple, t.s. of leaf with sclerotia
- Fu164b • **Saccharomyces cerevisiae**, yeast, with budding cells w.m.
- Fu1643d **Saccharomyces octosporus**, yeast showing asci and ascospores w.m. *
- Fu1644d **Saccharomyces sp.**, yeast, sexual phase, meiosis and meiospores w.m. *
- Fu179e **Molds**, composite slide of three types: Aspergillus, Rhizopus and Penicillium, w.m.
- Fu155c • **Sclerotinia fructigena (Monilia albicans)**, plum rot, sec. through yeast-like conidia on surface of host tissue
- Fu178e **Sordaria fimicola**, showing the wild type. Perithecia and spores
- Fu1781e **Sordaria fimicola**, showing the mutant tan. Perithecia and spores
- Fu1782e **Sordaria fimicola**, showing the mutant gray after crossing wild type with mutant tan, hybrid asci with 4 dark and 4 light ascospores
- Fu148d **Sphaerotheca mors uvae**, gooseberry mildew, t.s. with perithecia
- Fu141d • **Taphrina pruni (Exoascus pruni)**, plum pockets, t.s. of host tissue with haustoria and asci
- Fu1413e **Taphrina deformans**, peach leaf curl, infected leaf with asci and ascospores t.s.
- Fu1415d **Taphrina sp.**, infected leaf c.s.
- Fu152c • **Tuber rufum**, truffle, fruiting body with hymenium and asci, t.s.
- Fu146d • **Uncinula necator (Oidium Tuckeri)**, grape mildew, t.s. of leaf
- Fu145d **Uncinula salicis**, willow mildew, t.s. of infected leaf



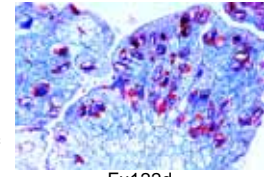
Fu121c



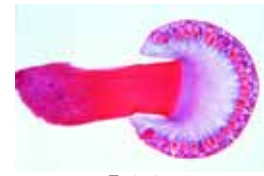
Fu123d



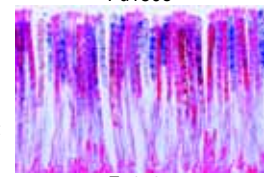
Fu125d



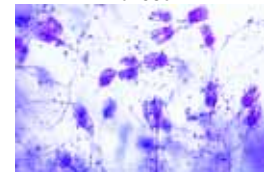
Fu122d



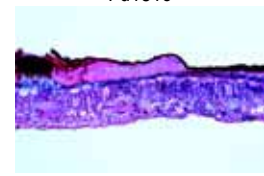
Fu150e



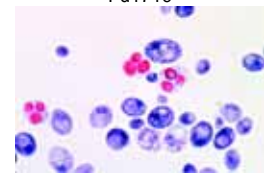
Fu158c



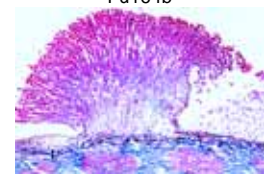
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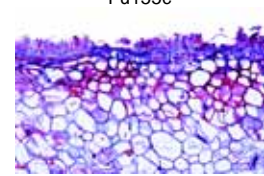
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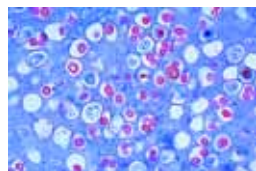
Fu164b



Fu155c



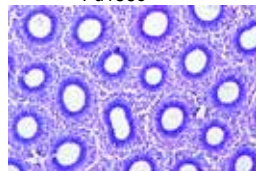
Fu141d



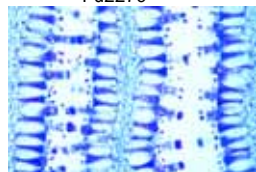
Fu156c



Fu157d



Fu227c



Fu228c



Fu230c



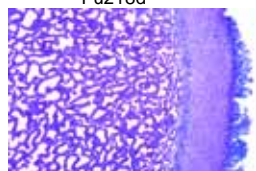
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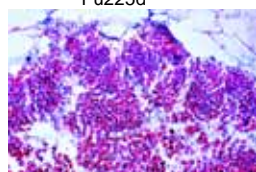
Fu221d



Fu211d



Fu212b



Fu213b



Fu214b

Fu156c • **Venturia pirinum (Fusicladium)**, pear scab, sec. conidia

Fu157d • **Venturia sp.**, leaf with perithecia *

Basidiomycetes – Club Fungi

Fu227c • **Boletus edulis**, pore fungus, horizontal sec. of pileus showing c.s. of pores

Fu2271c • **Boletus edulis**, vertical sec. of pileus showing l.s. of pores

Fu233d • **Coleosporium tussilaginis**, aecia on coltsfoot leaf t.s.

Fu228c • **Coprinus**, ink cap, t.s. of pileus showing typical basidia and spores

Fu229d • **Coprinus**, l.s. of entire specimen

Fu2461e • **Cronartium ribicola**, pine blister rust, sec. of pine bark with pycnidia

Fu2462e • **Cronartium ribicola**, sec. of Ribes leaf with telia

Fu2463e • **Cronartium ribicola**, sec. of Pinus stem with aecia

Fu236d • **Cryptomyces pteridis**, infecting ferns, sec. of infected tissue

Fu240d • **Geaster**, earth star, sec. of fruiting body

Fu222d • **Gymnosporangium sabinae**, sec. of teleutospores on Juniperus

Fu223d • **Gymnosporangium sabinae**, pear rust, section of pycnidia on pear leaf

Fu224d • **Gymnosporangium sabinae**, section of aecidia on pear leaf

Fu2242f • **Gymnosporangium sabinae**, section of aecidia and pycnidia on same slide

Fu245d • **Hydnum**, prickly fungus, sec. of basidiocarp showing spores

Fu230c • **Lycoperdon bovista**, bovist, t.s. of fruiting body

Fu231c • **Lycoperdon gemmatum**, puff-ball, t.s. of fruiting body

Fu2452d • **Phragmidium**, sec. with teleutospores

Fu244d • **Polyporus**, pore fungus, sec. of fruiting body

Fu226c • **Psalliota campestris (Agaricus)**, mushroom, gill fungus, t.s. of pileus

Fu2263d • **Psalliota**, l.s. of complete young fruiting body

Fu215d • **Puccinia graminis**, wheat rust, sec. of uredinia on wheat causing red rust

Fu216d • **Puccinia graminis**, sec. of telia on wheat causing black rust

Fu217e • **Puccinia graminis**, sec. of uredinia and telia on same slide

Fu218d • **Puccinia graminis**, sec. of aecidia and pycnidia on barley leaf

Fu2195s • **Puccinia graminis**, composite slide of four stages, sections of uredinia, telia, aecia and pycnidia

Fu221d • **Puccinia coronifera**, crown rust of oats, sec. with telia

Fu225d • **Sclerotinia vulgare**, sec. of young fruiting body

Fu250d • **Sclerotinia sp.**, sporogenous mycelium isolated to show formation of basidia clearly *

Fu235d • **Uromyces pisi**, pea rust, sec. of host tissue with parasitic fungus

Fu211d • **Ustilago zeae**, corn smut, t.s. of pustule with spores

Fu212b • **Ustilago zeae**, spores w.m.

Fu213b • **Ustilago tritici**, spores w.m.

Fu214b • **Ustilago avenae**, loose smut of oats section showing spores

Fu2141d • **Ustilago avenae**, infected stem, c.s.

Fu243f • **Wood rot fungus**, sec. through rotted wood showing detail of hyphae and mycelium specially stained

Fu219f • **Germinating teleutospores** show basidia and basidiospores w.m. *

LICHENES – LICHENS

Li103d • **Physcia**, sec. through thallus of a typical lichen showing the fungus and the embedded algae, doubly stained

Li104d • **Physcia**, sec. through apothecium showing asci and spores

Li105d • **Xanthoria**, sec. of thallus showing hyphae with symbiotic algae

Li106d • **Xanthoria**, sec. of apothecium showing asci and spores

Li124d • **Cladonia**, reindeer moss, sec. of thallus showing hyphae with symbiotic algae

Li125d • **Cladonia**, sec. of apothecium

Li115d • **Usnea barbata**, a shrubby lichen, t.s. of stem-like thallus

Li117d • **Usnea barbata**, sec. of apothecium with asci

Li112d • **Lobaria pulmonaria**, a foliose lichen, sec. of thallus with algae

Li114d • **Peltigera**, sec. of thallus or apothecium

Li120c • **Lichen sp.**, w.m. of soredia

Li121e • **Lichen sp.**, sec. through soredia

Li130d • **Lichen sp.**, teased preparation of thallus showing detail of hyphae and spherical algae *

Li131d • **Lichen sp.**, teased preparation of thallus showing detail of hyphae and filamentous algae *

BRYOPHYTA

Hepaticae – Liverworts

Br101f • **Anthoceros**, l.s. of sporophyte

Br102e • **Anthoceros**, l.s. of thallus with antheridia *

Br1025c • **Anthoceros**, t.s. of thallus

Br108d • **Conocephalum**, t.s. of thallus

Br1085e • **Conocephalum**, l.s. of antheridia *

Br109e • **Conocephalum**, l.s. of sporophyte showing spores with elateres

Br120c • **Jungermanniales sp.**, stem with leaves w.m.

Br1193g • **Pellia epiphylla**, liverwort, antheridia l.s. *

Br1194h • **Pellia epiphylla**, archegonia l.s. *

Br1195f • **Pellia epiphylla**, sporogon l.s.

Br1093f • **Porella**, antheridial branch l.s.

Br1094f • **Porella**, archegonial branch l.s.

Br1095e • **Porella**, young sporophyte l.s. *

Br1096e • **Porella**, mature sporophyte l.s. *

Br104d • **Riccia natans**, w.m. of thallus

Br105e • **Riccia natans**, thallus with antheridia *

Br106g • **Riccia natans**, thallus with archegonia *

Br107e • **Riccia natans**, l.s. of sporophyte *

Br1075e • **Ricciocarpus**, c.s. of thallus showing sexual organs

Br1076e • **Ricciocarpus**, c.s. of thallus showing sporophytes

Br111c • **Marchantia**, liverwort, thallus with air chambers, t.s.

Br118c • **Marchantia**, rhizoids w.m.

Br112d • **Marchantia**, cupule with gemmae, l.s.

Br113d • **Marchantia**, isolated gemmae w.m.

Br114d • **Marchantia**, l.s. of archegonial branch showing archegonia

Br1141h • **Marchantia**, median l.s. of a young archegonium showing egg cell, neck canal cells and ventral canal cells *

Br1142g • **Marchantia**, median l.s. of an archegonium after fertilization *

Br115d • **Marchantia**, l.s. of antheridial branch showing antheridia

Br1151g • **Marchantia**, median l.s. of antheridium through opening *

Br1152d • **Marchantia**, horizontal sec. of antheridial branch

Br1153f • **Marchantia**, l.s. of antheridial and archegonial branches

Br1154e • **Marchantia**, sperm w.m., stained for flagella *

Br116d • **Marchantia**, young sporophyte with developing spores l.s.

Br117d • **Marchantia**, older sporophyte with mature spores l.s.

Br1171f • **Marchantia**, median l.s. of older sporophyte *

Br1185g • **Marchantia**, liverwort. composite slide of four stages: cupule with gemmae l.s., antheridial branch l.s., archegonial branch l.s., and sporophyte l.s.

Musci – Mosses

Br129d • **Mnium**, t.s. of stem with primitive central stele and peripheral tissue

Br130d • **Mnium**, l.s. of stem through central stele

Br131d • **Mnium**, t.s. of leaves showing large chloroplasts

Br132d • **Mnium**, w.m. of leaf stained to show large chloroplasts

Br125e • **Mnium**, moss, l.s. of antheridia

Br1251g • **Mnium**, median l.s. of antheridium *

Br1252e • **Mnium**, teased preparation of antheridia w.m.

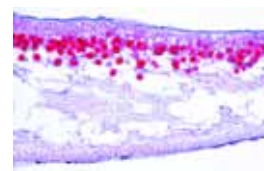
Br1254e • **Mnium** or other moss, sperm w.m. stained for flagella *

Br126e • **Mnium**, l.s. of archegonia

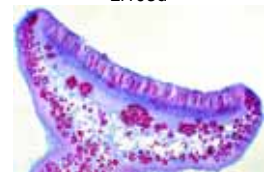
Br1261g • **Mnium**, median l.s. of archegonium *

Br1262e • **Mnium**, teased preparation of archegonia w.m.

Br1265d • **Mnium**, l.s. of sporophyte with spores



Li103d



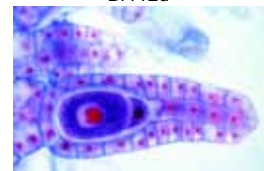
Li104d



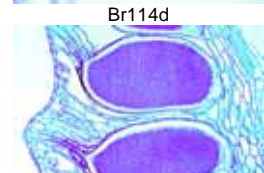
Br111c



Br112d



Br114d



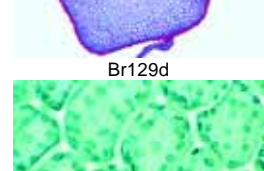
Br115d



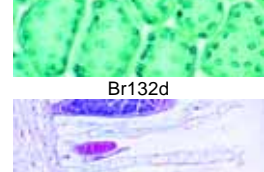
Br115d



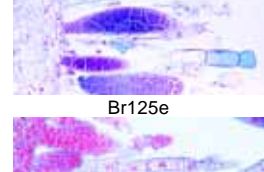
Br117d



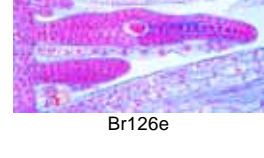
Br129d



Br132d



Br125e



Br126e



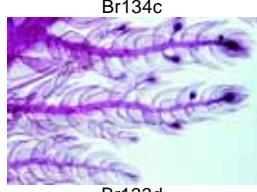
- Br1266d • **Mnium**, t.s. of sporophyte with spores
 Br127d • **Mnium**, protonema w.m.
 Br1275e • **Mnium**, young gametophyte w.m. young leafy shoot with protonema *



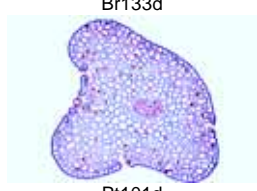
- Br1325t • **Mnium**, moss, composite slide of four stages: antheridial branch l.s., archegonial branch l.s., sporogon with spores l.s., and protonema w.m.
- Br121c • **Polytrichum**, moss, t.s. of stem
 Br1212d • **Polytrichum**, l.s. of stem with leaves
 Br1214c • **Polytrichum**, t.s. of seta
 Br122d • **Polytrichum**, t.s. of leaves showing photosynthetic lamellae on the upper side
 Br1223e • **Polytrichum**, l.s. of antheridial branch
 Br1226e • **Polytrichum**, l.s. of archegonial branch
 Br123d • **Polytrichum**, l.s. of sporophyte with spores
 Br124d • **Polytrichum**, t.s. of sporophyte with spores
 Br1242d • **Polytrichum**, l.s. of young sporophyte with developing spores



- Br1244c • **Polytrichum**, w.m. of peristome
 Br1246d • **Polytrichum**, w.m. of protonema
 Br134c • **Sphagnum**, peat moss, w.m. of leaf showing chlorophyll bearing and hyaline cells
 Br135d • **Sphagnum**, t.s. of stem and leaves
 Br136e • **Sphagnum**, l.s. of antheridia *
 Br137f • **Sphagnum**, l.s. of archegonia *
 Br138d • **Sphagnum**, l.s. of young sporophyte
 Br133d • **Tortula**, moss, w.m. of gametophyte and young sporophyte
 Br1331d • **Tortula**, gametophyte and older sporophyte with peristome w.m.



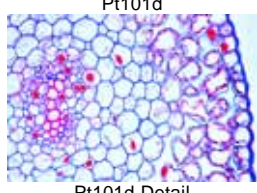
- Br135d • **Sphagnum**, t.s. of stem and leaves
 Br136e • **Sphagnum**, l.s. of antheridia *
 Br137f • **Sphagnum**, l.s. of archegonia *
 Br138d • **Sphagnum**, l.s. of young sporophyte
 Br133d • **Tortula**, moss, w.m. of gametophyte and young sporophyte
 Br1331d • **Tortula**, gametophyte and older sporophyte with peristome w.m.



PTERIDOPHYTA

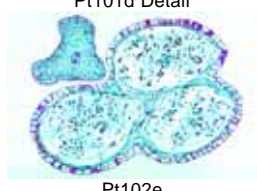
Psilotales – Psilopsids

- Pt101d • **Psilotum**, t.s. of stem showing exarch protostele and leaflets
 Pt102e • **Psilotum**, t.s. of three-lobed sporangium
 Pt103e • **Psilotum**, l.s. of stem and sporangium
 Pt1032d • **Psilotum**, t.s. of rhizome
 Pt1034d • **Tmesipteris**, aerial stem t.s.
 Pt1035d • **Tmesipteris**, leaves t.s.
 Pt1036e • **Tmesipteris**, sporangium t.s.



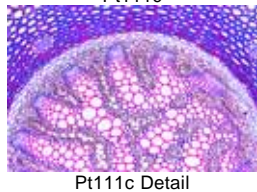
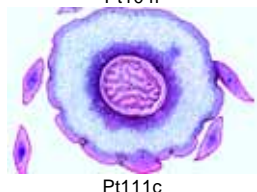
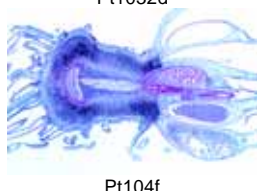
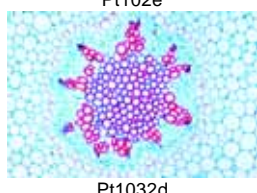
Lycopodiatae – Clubmosses

- Pt101d • **Psilotum**, t.s. of stem showing exarch protostele and leaflets
 Pt102e • **Psilotum**, t.s. of three-lobed sporangium
 Pt103e • **Psilotum**, l.s. of stem and sporangium
 Pt1032d • **Psilotum**, t.s. of rhizome
 Pt1034d • **Tmesipteris**, aerial stem t.s.
 Pt1035d • **Tmesipteris**, leaves t.s.
 Pt1036e • **Tmesipteris**, sporangium t.s.
- Pt104f • **Isoetes**, quillwort, l.s. of entire plant with corm, leaves, sporangia and rhizophores
 Pt105e • **Isoetes**, l.s. of microsporophyll *
 Pt106e • **Isoetes**, l.s. of macrosporophyll *
 Pt107d • **Isoetes**, t.s. of stem
 Pt110d • **Lycopodium**, club moss, l.s. of stem showing stele
 Pt111c • **Lycopodium**, t.s. of stem showing typical actinostele
 Pt1115d • **Lycopodium**, t.s. of rhizome
 Pt112e • **Lycopodium**, t.s. of mature sporophyll showing isospores
 Pt113e • **Lycopodium**, l.s. of young sporophyll showing developing spores
 Pt114b • **Lycopodium**, spores w.m.
 Pt1145d • **Lycopodium**, young sporophyll w.m.
 Pt115f • **Lycopodium**, stem with apical region l.s.
 Pt116c • **Selaginella**, t.s. of stem
 Pt1163c • **Selaginella**, t.s. of rhizophore
 Pt117e • **Selaginella**, l.s. of strobilus with micro- and megasporangia
 Pt118f • **Selaginella**, w.m. of strobilus *
 Pt119d • **Selaginella**, l.s. of stem and leaves
 Pt1193c • **Selaginella**, c.s. of leaves



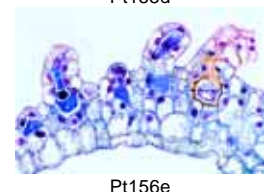
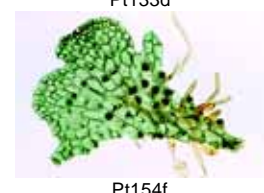
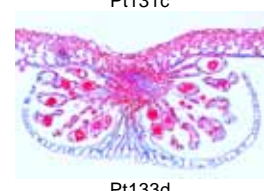
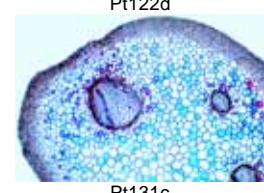
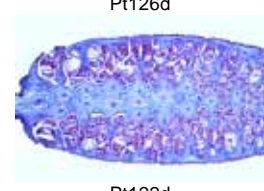
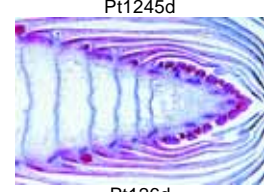
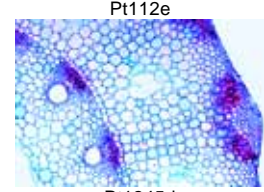
Equisetatae – Horse-tails

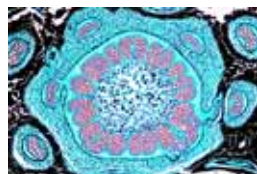
- Pt104f • **Isoetes**, quillwort, l.s. of entire plant with corm, leaves, sporangia and rhizophores
 Pt105e • **Isoetes**, l.s. of microsporophyll *
 Pt106e • **Isoetes**, l.s. of macrosporophyll *
 Pt107d • **Isoetes**, t.s. of stem
 Pt110d • **Lycopodium**, club moss, l.s. of stem showing stele
 Pt111c • **Lycopodium**, t.s. of stem showing typical actinostele
 Pt1115d • **Lycopodium**, t.s. of rhizome
 Pt112e • **Lycopodium**, t.s. of mature sporophyll showing isospores
 Pt113e • **Lycopodium**, l.s. of young sporophyll showing developing spores
 Pt114b • **Lycopodium**, spores w.m.
 Pt1145d • **Lycopodium**, young sporophyll w.m.
 Pt115f • **Lycopodium**, stem with apical region l.s.
 Pt116c • **Selaginella**, t.s. of stem
 Pt1163c • **Selaginella**, t.s. of rhizophore
 Pt117e • **Selaginella**, l.s. of strobilus with micro- and megasporangia
 Pt118f • **Selaginella**, w.m. of strobilus *
 Pt119d • **Selaginella**, l.s. of stem and leaves
 Pt1193c • **Selaginella**, c.s. of leaves
- Pt125d • **Equisetum**, root t.s.
 Pt1245d • **Equisetum**, rhizome t.s.
 Pt124c • **Equisetum**, stem t.s.
 Pt126d • **Equisetum**, l.s. of stem tip showing apical region and developing leaves
 Pt120d • **Equisetum**, horse tail, young strobilus showing developing spores l.s.
 Pt121d • **Equisetum**, mature strobilus t.s.
 Pt122d • **Equisetum**, mature strobilus l.s.
 Pt1223e • **Equisetum**, l.s. and t.s. of mature strobilus on one slide
 Pt123b • **Equisetum**, spores and elaters w.m.
 Pt127e • **Equisetum**, prothallium w.m. *



Filicatae – Ferns

- Pt1835d • **Adiantum**, maiden-hair fern, leaf with sori and sporangia w.m.
 Pt1836d • **Adiantum**, leaf with sori and sporangia t.s.
 Pt1837d • **Adiantum**, rhizome t.s., amphiphloic siphonostele
 Pt1831d • **Angiopteris**, root t.s.
 Pt1832d • **Angiopteris**, rhizome with dictyostele t.s.
 Pt130c • **Aspidium (Dryopteris)**, male fern, root t.s.
 Pt132c • **Aspidium**, rhizome t.s.
 Pt131c • **Aspidium**, stem with bundles t.s.
 Pt133d • **Aspidium**, leaves with sori showing indusia, sporangia and spores, section showing l.s. of sori
 Pt134d • **Aspidium**, leaflet with kidney-shaped indusia w.m.
 Pt136d • **Aspidium**, sec. of leaves with young sori showing spore development
 Pt135b • **Aspidium**, isolated sporangia and spores w.m.
 Pt1841d • **Athyrium**, leaf with sori and sporangia w.m.
 Pt1776c • **Blechnum**, macerated xylem elements w.m.
 Pt1851d • **Botrychium**, fern, stem t.s.
 Pt1852d • **Botrychium**, sporangium t.s.
 Pt1861d • **Dennstaedtia**, rhizome with amphiphloic siphonostele t.s.
 Pt1863d • **Dennstaedtia**, leaf with sori and sporangia t.s.
 Pt151d • **Fern prothallium**, young filamentous stage w.m.
 Pt152e • **Fern prothallium**, with antheridia w.m.
 Pt153e • **Fern prothallium**, with archegonia w.m.
 Pt154f • **Fern prothallium**, selected to show antheridia and archegonia w.m. *
 Pt155d • **Fern prothallium**, section with antheridia
 Pt156e • **Fern prothallium**, section with archegonia *
 Pt157g • **Fern prothallium**, older stage with young sporophyte and root w.m. *
 Pt1353d • **Fern**, germinating spores of *Aspidium* or *Pteridium*, w.m.
 Pt1575e • **Fern**, sperm w.m. and stained for flagella *
 Pt159t • **Fern**, composite slide of four stages: leaflet with sori and sporangia t.s., rhizome t.s., prothallium with sex organs w.m., prothallium with young sporophyte w.m.
 Pt1871d • **Gleichenia**, tropical fern, rhizome t.s.
 Pt191f • **Huperzia**, l.s. of sporangia on leaf bases
 Pt1875d • **Lygodium**, leaf with sori and sporangia w.m.
 Pt175c • **Marattia**, tropical fern, root t.s.
 Pt176c • **Marattia**, rhizome t.s.
 Pt177e • **Marattia**, syngonium t.s.
 Pt1881d • **Marsilea**, nardoo, rhizome with amphiphloic siphonostele, t.s.
 Pt1882c • **Marsilea**, petiole t.s.
 Pt1883d • **Marsilea**, leaflet t.s.
 Pt1884e • **Marsilea**, sporocarp t.s.
 Pt1672d • **Ophioglossum**, root t.s.
 Pt167c • **Ophioglossum**, rhizome t.s.
 Pt165c • **Ophioglossum**, adders tongue fern, stem t.s.
 Pt1675c • **Ophioglossum**, leaf t.s.
 Pt1676e • **Ophioglossum**, sporocarp with spores t.s.
 Pt166e • **Ophioglossum**, sporocarp with spores l.s.
 Pt1673c • **Ophioglossum**, macerated xylem elements w.m.
 Pt181c • **Osmunda**, root t.s.
 Pt180c • **Osmunda**, royal fern, rhizome with ectophloic siphonostele t.s.
 Pt1803c • **Osmunda**, stem, l.s.
 Pt1824c • **Osmunda**, stem t.s.
 Pt1825c • **Osmunda**, leaf t.s.
 Pt182d • **Osmunda**, sporangia and spores t.s.
 Pt1821d • **Osmunda**, leaf with sori and sporangia w.m.
 Pt1822c • **Osmunda**, macerated xylem elements w.m.
 Pt161d • **Phyllitis scolopendrium**, hart's tongue fern, leaf with sori and sporangia t.s.
 Pt1612d • **Phyllitis scolopendrium**, rhizome t.s.
 Pt147c • **Platycerium**, epiphytic fern, sterile and fertile leaves t.s.
 Pt1891d • **Polypodium**, rhizome with dictyostele t.s.
 Pt1893d • **Polypodium**, leaf with sori and sporangia w.m. shows lack of indusia
 Pt1894c • **Polypodium**, t.s. of leaf showing modification of epidermis (water pit)
 Pt1895d • **Polystichum**, Christmas fern, leaf with sori and sporangia w.m. showing shield-shaped indusia
 Pt144d • **Pteridium**, root t.s.
 Pt140d • **Pteridium**, l.s. of rhizome showing scalariform vessels
 Pt141d • **Pteridium**, t.s. of rhizome with dictyostele
 Pt139d • **Pteridium (Pteris)**, bracken fern, macerated rhizome with scalariform vessels w.m.





- Pt142c **Pteridium**, stem t.s.
Pt143c **Pteridium**, leaves with sori and sporangia, section shows l.s. of sori within inrolled margins of the leaves
Pt1433d • **Pteridium**, w.m. of leaf with sori and sporangia
Pt1422c **Pteridium**, macerated xylem elements w.m.
Pt145c • **Salvinia natans**, waterfern, leaf t.s.
Pt146d • **Salvinia natans**, sporocarp t.s.

Pt180c



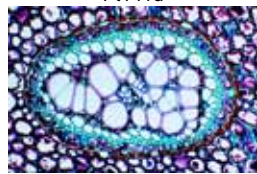
Pt1837d



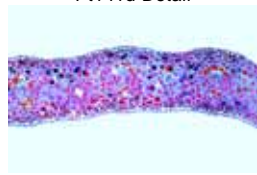
Pt161d



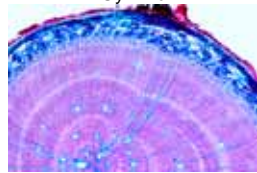
Pt141d



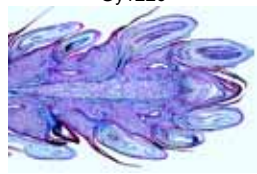
Pt141d Detail



Gy111c



Gy122c



Gy123e



Gy125c



Gy126d

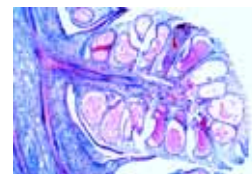


Gy127c

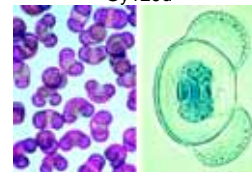
- Gy1041e **Cycas**, three sections of wood, t.s., r.l.s., t.l.s.
Gy1042d **Cycas**, leaf t.s.
Gy1048f **Cycas**, seed, t.s.
Gy101d **Zamia (cycad)**, root t.s.
Gy102e **Zamia**, stem t.s.
Gy1021d **Zamia**, leaf t.s.
Gy1022e **Zamia**, male cone t.s. showing microsporophyll with spores *
Gy103f **Zamia**, young female cone showing ovules l.s. *
Gy1031g **Zamia**, ovule with archegonia l.s. *
Gy112c **Ginkgo biloba**, stem t.s.
Gy1116c **Ginkgo biloba**, young sprout, t.s.
Gy1114d **Ginkgo biloba**, shoot apex, l.s.
Gy1124e **Ginkgo biloba**, three sections of wood, t.s., r.l.s., t.l.s.
Gy1123c **Ginkgo biloba**, macerated xylem elements w.m.
Gy111c **Ginkgo biloba**, leaf t.s.
Gy105d **Ginkgo biloba**, male cone t.s. showing microsporophyll
Gy1051d **Ginkgo biloba**, male cone l.s. showing microsporophyll
Gy1055e **Ginkgo biloba**, young female cone showing growing ovules l.s.
Gy106f **Ginkgo biloba**, archegonium before fertilization, l.s. *
Gy107f **Ginkgo biloba**, archegonium after fertilization l.s. *
Gy108e **Ginkgo biloba**, ovule l.s. for general study, free nuclear stage
Gy109g **Ginkgo biloba**, archegonium showing proembryo l.s. *
Gy110f **Ginkgo biloba**, later stage of embryo l.s. *
Gy113c **Taxus baccata**, yew, young stem t.s.
Gy114c **Taxus baccata**, root t.s.
Gy115c **Taxus baccata**, leaves t.s.
Gy121c • **Pinus**, pine, young root from seedling t.s.
Gy122c • **Pinus**, older woody root t.s.
Gy123e **Pinus**, stem apex shows meristematic tissue and leaf origin l.s.
Gy1234c **Pinus**, young sprout with needles, t.s.
Gy124c • **Pinus**, one year stem t.s.
Gy125c • **Pinus**, older stem with annual rings, resin ducts t.s.
Gy1255d **Pinus**, one and two year stem, t.s.
Gy126d • **Pinus**, three sections of wood: cross, radial and tangential sections
Gy1265c **Pinus**, wood, tangential sec. stained for tracheids with pits
Gy127c • **Pinus**, leaves (needles), t.s. for general study of gymnosperm leaves
Gy1271c **Pinus monophylla**, single-leaf pine, leaves t.s.
Gy1272c **Pinus nigra**, Austrian pine, the two-needle type, leaves t.s.
Gy1273c **Pinus australis**, long-leaf pine, the three-needle type, leaves t.s.
Gy1274c **Pinus strobus**, white pine, the five-needle type, leaves t.s.
Gy128d **Pinus**, male cone with pollen t.s. (staminate cone)
Gy129d • **Pinus**, male cone with pollen l.s.
Gy1291d **Pinus**, young male cone with developing pollen l.s.
Gy1295e **Pinus**, l.s. and t.s. of male (staminate) cone on one slide
Gy130b • **Pinus**, mature pollen grains w.m.
Gy1301d **Pinus**, germinating pollen tubes with pollen tubes w.m.
Gy131d • **Pinus**, young female (ovulate) cone, entire l.s. for general study
Gy132e **Pinus**, young female cone at time of pollination, l.s. with pollen grains and micropyle

GYMNOSPERMAE

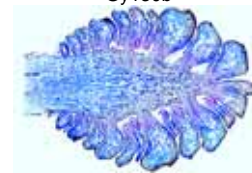
- Gy1322g **Pinus**, ovule l.s. showing megaspore mother cell *
Gy1324k **Pinus**, ovule l.s. showing meiosis of megaspore mother cell, 2 to 4 haploid daughter cells *
Gy133f • **Pinus**, ovule l.s. showing growing female gametophyte at the free nuclear stage
Gy134h **Pinus**, young archegonium before separation of egg nucleus and ventral canal nucleus l.s. *
Gy135f • **Pinus**, ovule l.s. showing archegonia, the standard slide for general study
Gy1351h **Pinus**, archegonium median l.s. with egg nucleus and neck cells *
Gy1355k **Pinus**, archegonium l.s. with zygote cell in division. As available *
Gy1357i **Pinus**, archegonium l.s. showing free proembryonic nuclei in the center of the archegonium *
Gy136g **Pinus**, archegonium l.s. with early stage of proembryo
Gy1361h **Pinus**, young proembryo median l.s. showing four-cell stage *
Gy1362h **Pinus**, young proembryo median l.s. showing eight-cell or sixteen-cell stage.
Gy137g **Pinus**, archegonium l.s. with later stage of proembryo
Gy138e **Pinus**, young embryo l.s.
Gy139e • **Pinus**, mature embryo with endosperm l.s.
Gy1391f **Pinus**, mature embryo with endosperm, near median l.s.
Gy140e • **Pinus**, mature embryo with endosperm t.s.
Gy141f **Pinus**, germinating seed l.s.
Gy145d **Pinus**, older stem, t.s. and l.s. on one slide showing annual rings, resin ducts, bark
Gy146b **Pinus**, wood cells macerated and w.m.
Gy147c **Pinus**, leaf bud t.s.
Gy1478e **Pinus**, composite slide of three kinds: stem t.s., leaves t.s. and young ovulate cone on one slide
Gy151c • **Abies**, fir, leaves t.s.
Gy1514d **Abies**, shoot apex, l.s.
Gy1515d **Abies**, three sections of wood, t.s., r.l.s., t.l.s.
Gy1512c **Abies grandis**, leaves t.s.
Gy152c • **Picea**, spruce, leaves t.s.
Gy153c **Picea**, shoot apex with leaves t.s.
Gy1520e **Picea**, endosperm with embryo t.s.
Gy1536c **Picea asperata**, leaves t.s.
Gy1533c **Picea breweriana**, leaves t.s.
Gy1535c **Picea glauca**, leaves t.s.
Gy1537c **Picea orientalis**, leaves t.s.
Gy1532c **Picea polita**, leaves t.s.
Gy1534c **Picea pungens**, leaves t.s.
Gy251c • **Larix**, larch, leaves t.s.
Gy253d **Larix**, l.s. of male cone
Gy255e **Larix**, l.s. of female cone with ovules
Gy211c **Ephedra**, stem t.s.
Gy215e **Ephedra**, male flower t.s.
Gy216e **Ephedra**, female flower t.s.
Gy2165f **Ephedra**, mature female cone l.s.
Gy217c **Ephedra**, macerated xylem elements w.m.
Gy221c **Gnetum**, leaf t.s.
Gy2213c **Gnetum**, macerated xylem elements w.m.
Gy1549c **Arbor-vitae**, leaves l.s.
Gy1565c **Cedrus deodora**, cedar, leaves t.s.
Gy156c **Cephalotaxus fortunei**, leaves t.s.
Gy157c **Chamaecyparis nootkatensis**, leaves t.s.
Gy155c **Cryptomeria japonica**, leaves t.s.
Gy1582c **Juniperus communis**, juniper, leaves t.s.
Gy158c **Juniperus virginiana**, leaves t.s.
Gy159c **Librocedrus decurrens**, leaves t.s.
Gy1595c **Metasequoia**, leaves t.s.
Gy160c **Pseudotsuga menziesii**, leaves t.s.
Gy1575c **Taxodium distichum**, cypress, leaves t.s.
Gy162c **Thuja plicata**, leaves t.s.
Gy161c **Tsuga canadensis**, leaves t.s.



Gy129d



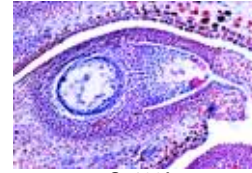
Gy130b



Gy131d



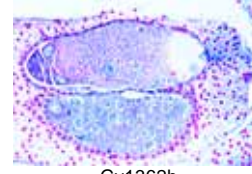
Gy132e



Gy133f



Gy135f



Gy1362h



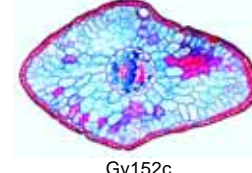
Gy139e



Gy139e



Gy151c



Gy152c

NEW! Microscope Slides on CD-ROM.

The new amazing **CD-Program** for interactive learning and teaching in school and education comprise all necessary **photomicrographs of microscopic slides**, which can be observed by using a „**Virtual Microscope**“. Beautiful **color drawings** matching the slides, with detailed **explanations** (please see pages 129 – 136).



ANGIOSPERMAE

I. CYTOLOGY AND TISSUES

Cell nucleus, cell division, chromosomes

- As111c • **Epidermal cells** of *Allium cepa* (onion), flat mount shows typical plant cells with nuclei, cytoplasm and cell walls
- As1125d • **Epidermal cells** of *Allium cepa*, w.m. of bulb scale epidermis, unstained preparation special mounted for phase contrast observation
- As1127s • **Epidermal cells** of *Allium cepa*, plasmolysis, w.m. turgid piece and plasmolized piece of onion epidermis for comparison
- As114d • **Mitosis**, l.s. from *Allium* root tips showing all stages of plant mitosis carefully stained with iron-haematoxyline after Heidenhain
- As1141d • **Mitosis**, l.s. from *Allium* root tips showing all stages of plant mitosis carefully stained with a quadruple stain
- As1142e • **Mitosis**, l.s. from *Allium* root tips showing all stages of plant mitosis, specially stained with fuchsin and fast green
- As115d • **Mitosis**, t.s. from *Allium* root tips showing all stages of plant mitosis in polar view
- As1155g • **Mitosis**, squash preparation from *Allium* root tip, shows intact mitotic stages, Feulgen stain *
- As1157f • **Mitosis**, l.s. from *Allium* root tips showing all stages of plant mitosis stained by the Feulgen stain *
- As1158g • **Mitosis**, squash preparation from *Allium* root tip, shows intact mitotic stages, orceine stained
- As1159h • **Mitosis**, squash preparation from *Allium* root tip, treated with colchicine for metaphase stages, orceine stained *
- As116d • **Mitosis**, l.s. from *Vicia faba* (bean) root tips showing all mitotic stages
- As1165g • **Mitosis**, squash preparation from *Vicia faba* root tips, showing intact mitotic stages, Feulgen stain *
- As1166e • **Mitosis**, l.s. from *Hyacinthus* root tips showing all stages of plant mitosis carefully stained with a quadruple stain. Specially large chromosomes, for demonstration of plant mitosis
- As1169g • **DNA and RNA**, thin l.s. from *Allium* root tips, specially fixed and stained with methylgreen and pyronine to show DNA and RNA in different colours *
- As117f • **Meiosis**, t.s. of *Lilium* anthers showing different stages of meiotic divisions

Cell organelles

- As112g • **Epidermal cells** of *Allium cepa*, specially fixed and stained to show the mitochondria *
- As119g • **Mitochondria**, thin l.s. of *Allium* root tips specially fixed and stained to show the mitochondria clearly
- As148d • **Chloroplasts**, w.m. of leaf of *Elodea* or *Spinacia* showing detail of large chloroplasts
- As1481d • **Chloroplasts**, in sec. of *Tradescantia* shoot
- As1485c • **Chromoplasts**, w.m. of petal of *Viola* (violet)
- As1486c • **Chromoplasts**, t.s. of root of *Daucus carota* (carrot)
- As1487c • **Chromoplasts**, in w.m. of piece of petal from *Tropaeolum*
- As1488e • **Plasmodesmata**, in t.s. of palm seed (*Phytelphas*)

Inclusions: Reserve and storage substances

- As131c • **Aleurone grains**, sec. of *Ricinus* endosperm
- As6611d • **Aleurone grains**, t.s. of seed and cotyledons of *Evonymus*
- As132c • **Starch grains**, sec. of tuber of *Solanum tuberosum* (potato)
- As1321c • **Starch grains**, t.s. cotyledons of *Vicia faba* (bean)
- As1322c • **Starch grains**, t.s. of semen (grain) of *Avena* (oat)

- As1323b • **Starch grains**, smear from *Euphorbia* (spurge)
- As1324b • **Starch grains**, different kinds of mixed species w.m.
- As1325b • **Corroded starch grains**, w.m. from potato
- As133d • **Fat**, t.s. of endosperm of *Corylus* (hazel) stained for fat
- As146d • **Reserve cellulose**, t.s. seed of *Phoenix* (date)

Inclusions: Crystals and metabolic products

- As135d • **Inulin crystals**, t.s. of tuber of *Dahlia*
- As136d • **Acid tannic**, t.s. bark of *Rosa*
- As137b • **Calcium oxalate crystals** in w.m. of dry *Allium* scale
- As138c • **Raphides**, t.s. of *Impatiens* leaf
- As1381c • **Raphides**, t.s. of *Oxalis* leaf
- As1382d • **Raphid cells** with growing raphids, l.s. root tips of *Hyacinthus*
- As1383c • **Crystal sand**, t.s. of *Solanum tuberosum* (potato) leaf
- As1384d • **Clustered crystals**, t.s. stem of *Opuntia*
- As459c • **Cystoliths**, t.s. leaf of *Ficus elastica*, India rubber plant

Meristematic tissues

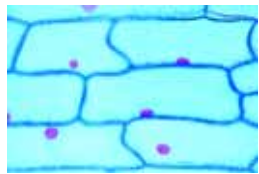
- As121e • **Stem apex** and meristematic tissue of *Elodea*, l.s. showing growing zone and leaf origin
- As1215f • **Stem apex** and meristematic tissue of *Elodea*, median l.s. showing growing point *
- As122d • **Stem apex** and meristematic tissue of *Asparagus* l.s.
- As123e • **Stem apex** and meristematic tissue of *Hippuris* l.s.
- As124e • **Stem apex** and meristematic tissue of *Coleus* l.s.
- As1145e • **Allium cepa**, median l.s. of root tip to show the meristematic tissue *
- As1146f • **Hyacinthus**, median l.s. of root tip showing meristematic tissue and growing point *

Supporting tissues

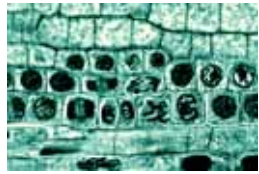
- As140c • **Wood cells**, macerated and w.m.
- As141e • **Thylosis**, t.s. and l.s. of *Robinia* (black locust) wood
- As1431c • **Sclerids**, t.s. of semen, (seed) of *Phaseolus* (bean) with palisade sclerids
- As145c • **Angular collenchyma**, t.s. stem of *Lamium* or *Salvia*
- As1451c • **Lamellar collenchyma**, t.s. stem of *Sambucus*
- As1452c • **Lacunar collenchyma**, t.s. stem of *Petasites* or *Lactuca*
- As147b • **Sclerenchyma fibres**, isolated and w.m.
- As1471d • **Sclerenchyma fibres of phloem**, t.s. and l.s. of stem of *Linum* (flax)
- As1472d • **Sclerenchyma fibres of xylem**, t.s. and l.s. of stem of *Hypericum*
- As150b • **Bast cells** from coconut, isolated and w.m.
- As1505b • **Bast cells** from *Cinchona*, isolated and w.m.

Conducting tissues

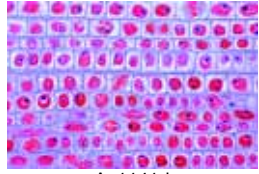
- As151d • **Annular and spiral vessels**, l.s.
- As1525d • **Annular and spiral vessels**, isolated and w.m.
- As153d • **Scalariform vessels**, l.s.
- As1535d • **Scalariform vessels**, isolated and w.m.
- As154d • **Pitted vessels**, l.s.
- As1545d • **Pitted vessels**, isolated and w.m.
- As1547d • **Tracheids with bordered pits**, wood of *Pinus* l.s. stained with thionine
- As155d • **Reticulate vessels**, l.s.
- As1554d • **Reticulate, annular, and spiral vessels**, isolated and w.m.
- As160d • **Sieve tubes, sieve plates and vessels**, l.s. of stem of *Cucurbita pepo*
- As161c • **Sieve plates** in top view, t.s. of *Cucurbita* stem showing large structures
- As162d • **Callose** on sieve plates of *Vitis vinifera* (grape) during the winter
- As142c • **Lactiferous vessels**, l.s. stem of *Euphorbia* (spurge)
- As1423c • **Lactiferous vessels**, tangential l.s. of *Taraxacum* root
- As489c • **Lactiferous vessels**, t.s. of *Asclepias*, milkweed
- As493d • **Netted venation**, portion of dicot leaf w.m. showing venation only



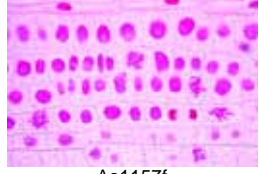
As111c



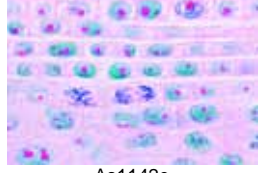
As114d



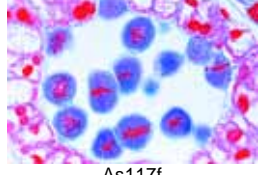
As1127s



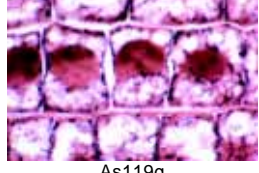
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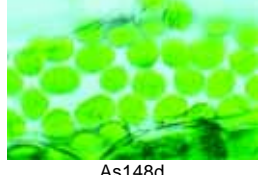
As1142e



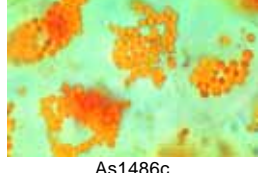
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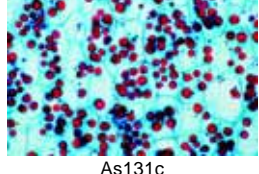
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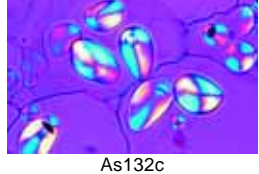
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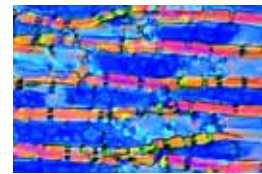
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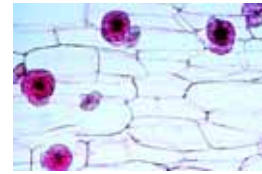
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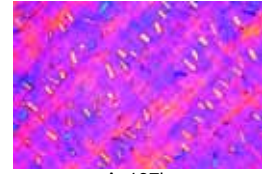
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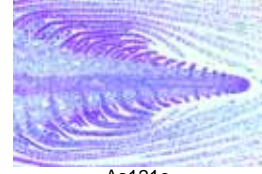
As146d



As135d



As137b



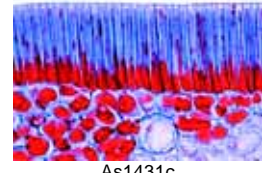
As121e



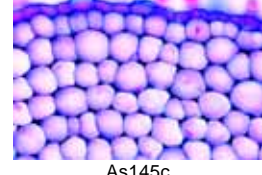
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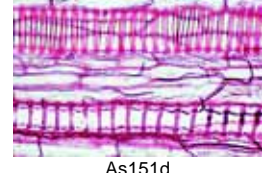
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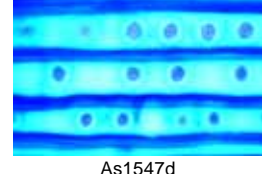
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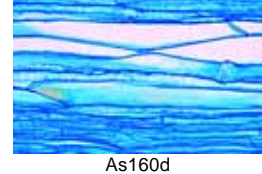
As145c



As151d



As1547d



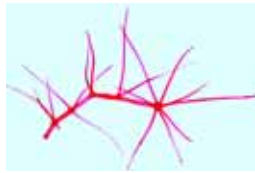
As160d



As139b

As139b
As1392c

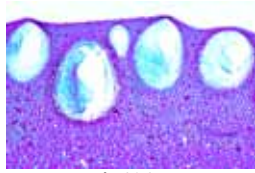
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As1344c
As149b

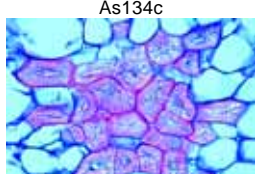
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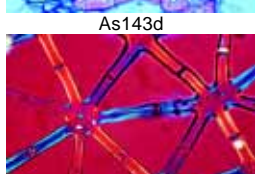
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As1494c

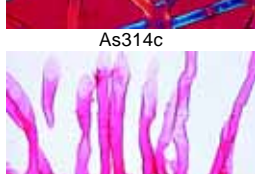
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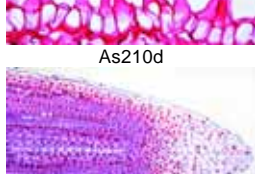
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As144b
As1435d
As314c

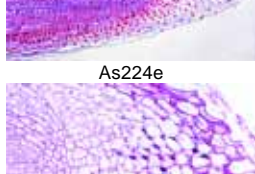
As314c

As144b
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As314c

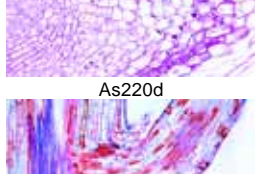
As210d

As1493c
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As224e

As1495d
As1496b
As621d

As224e

As1495d
As1496b
As621d

As224e

As1495d
As1496b
As621d

As254d

As1495d
As1496b
As621d

Epidermal tissues

- **Cork cells**, t.s. bark of *Quercus suber* (oak)
- **Cork cambium development**, t.s. young stem of *Sambucus* (elderberry)
- **Lenticells**, t.s. stem of *Sambucus* (elderberry)
- **Glandular hairs**, t.s. petiole of *Primula*
- **Branched leaf hairs**, isolated and w.m. from *Verbascum* (mullein)
- **Scale-like stellate hairs**, isolated and w.m. from *Elaeagnus* (olive tree)
- **Scale-like stellate hairs**, in t.s. of *Elaeagnus* leaf
- **Hooked hairs**, t.s. of leaf of *Humulus* (hop)
- **Absorbent hairs**, w.m. of epidermis from *Tillandsia*
- **Absorbent hairs**, t.s. of leaf from *Tillandsia*
- **Seed hairs**, w.m. from *Gossypium* (cotton)
- **Viola**, violet, t.s. of petal with hairs

Special cells and tissues

- **Lysigenous oil glands**, t.s. rind of *Citrus* fruit
- **Stone cells**, t.s. leaf of *Hypericum*
- **Leaf with oil sacs**, t.s. *Lavandula*, lavender
- **Glandular cells**, t.s. leaf of *Thymus*
- **Stone cells**, t.s. fruit of *Pyrus communis* (pear)
- **Sclerids**, t.s. of leaf of *Camellia* with stellate sclerids
- **Parenchyme cells**, t.s. of marrow of *Sambucus niger* (elderberry)
- **Aerial tissue**, t.s. leaf of *Canna indica*
- **Juncus**, bulrush, stem with internal stellate cells t.s.
- **Nectary with glands**, *Fritillaria*, t.s.

II. ROOTS

Typical roots in comparison

- **Monocot and dicot roots**, two t.s. on one slide for comparison
- **Herbaceous and woody roots**, two t.s. on one slide
- **Young (primary) and older (secondary) roots**, two t.s. on one slide
- **Fleshy and woody roots**, two t.s. on one slide

Root tips, root development

- **Root tip and root hairs**, t.s. to show epidermal origin of root hairs
- **Root tip and root hairs**, w.m.
- **Hydrocharis**, root tip with central pith and root hairs, t.s.
- **Vicia faba**, bean, t.s. of root tip
- **Monstera**, philodendron, l.s. through root tip
- **Asparagus**, root t.s. to show epidermal origin of root hairs
- **Sinapis**, cross sections through young roots
- **Zea mays**, l.s. of root tip specially stained for statolith starch
- **Hyacinthus**, l.s. of root tips showing all stages of mitosis
- **Salix**, willow, l.s. of root showing origin of lateral roots
- **Salix**, t.s. of root showing origin of lateral roots
- **Vicia faba**, bean, l.s. of root showing origin and early development of lateral roots
- **Phaseolus**, bean, young root t.s. showing beginning secondary growth
- **Phaseolus**, l.s. showing transition root-stem

Typical monocot roots

- **Zea mays**, corn, root t.s., a polyarch root
- **Iris**, typical monocot root t.s. showing all structures
- **Convallaria**, lily of the valley, t.s. of root shows endodermis, pericycle, phloem, xylem very clearly
- **Allium cepa**, onion, t.s. of root tip showing epidermis, exodermis, endodermis and central pith

As222c
As227c

Lilium, lily, t.s. of monocot root

As228c

Hordeum, barley, young root t.s. shows development of vascular bundles

As229c

Triticum, wheat, young root t.s., primary xylem and central vessel

Bromus, brome-grass, t.s. of a grass root

Typical dicot roots

As241c

● **Ranunculus**, buttercup, t.s. of a typical dicot root for general study showing all structures very clearly

As2411d

Ranunculus, young and older roots on one slide, t.s.

As2419d

Helianthus, sunflower, young root t.s.

As242d

Helianthus, sunflower, older woody root t.s.

As245c

● **Raphanus**, radish, t.s. of root showing secondary growth and several cambium rings

As247c

Medicago, alfalfa, root t.s. showing secondary growth

As266c

Beta vulgaris, beet, root showing anomalous secondary growth t.s.

As244c

● **Tilia**, lime, older woody root t.s.

As258c

Rheum, rhubarb, root with crystals t.s.

As267c

Cannabis sativa, hemp, root t.s.

As268c

Clivia miniata, t.s. of root showing polyarch central bundle

As269c

Quercus robur, oak, young root from seedling t.s.

As270c

Quercus robur, older woody root t.s.

As280c

Nicotiana tabacum, tobacco, t.s. of root showing primary and secondary xylem

As281c

Actaea, baneberry, young root with primary xylem t.s.

As282c

Sambucus, elderberry, root t.s.

Adaptation to water: Hydrophytes and hydrophytes

As212d

● **Lemna**, duckweed, root tip and cap (calyptra) w.m.

As213d

Lemna, l.s. of root tip and cap

As225c

● **Elodea**, Canadian waterweed, t.s. of an aquatic root

As283d

Nymphaea, water-lily, t.s. of root showing branch root origin

As2415d

● **Caltha palustris**, t.s. of primary root showing endodermis and the Casparian strips

As253c

● **Monstera**, aerial root t.s.

As2535c

Avicennia, mangrove, breathing root (pneumatophore) t.s.

As259c

● **Dendrobium**, orchid, aerial root with velamen t.s.

As287c

Taxodium distichum (Cypressaceae), t.s. of aerial root for respiration

As286c

Rhizophora, mangrove, t.s. of adventitious root

Adaptation to dry habitat: xerophytes

As216c

● **Smilax**, carrion flower, t.s. of root shows thickened endodermis

As288c

Pelargonium, t.s. of root for succulence

As284c

Sarothamnus, broom, t.s. through woody root

Adaptation to unusual modes of nutrition

As248c

● **Taraxacum**, dandelion, taproot with lactiferous vessels t.s.

As260c

● **Scorzonera**, black salsify, root with lactiferous vessels l.s.

As249c

Lupinus, lupin, root t.s.

As250d

● **Lupinus**, root nodules with nitrogen fixing bacteria (*Rhizobium radicicola*) t.s.

As2502d

Pisum sativum, pea, t.s. of nodule with nitrogen-fixing bacteria

As2505d

Vicia faba, bean, t.s. of nodule with nitrogen fixing bacteria

As251d

● **Alnus**, alder, root nodules with symbiotic actinomycetes (*Streptomyces alni*) t.s.

As265d

● **Ranunculus ficaria**, root storing starch grains, t.s.

As246c

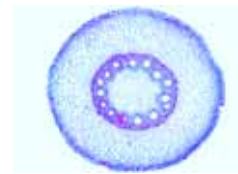
● **Daucus carota**, carrot, storage root t.s.

As255d

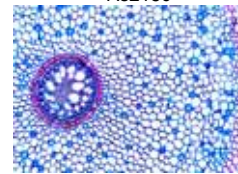
● **Fagus**, beech, root with ectotrophic mycorrhiza, t.s.

As256d

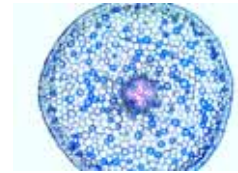
● **Neottia nidus avis**, orchid, root with endotrophic mycorrhiza, l.s.



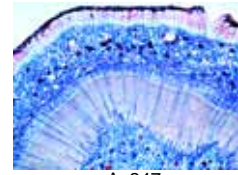
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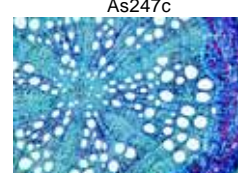
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As214c



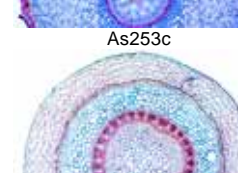
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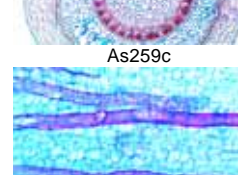
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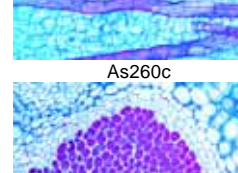
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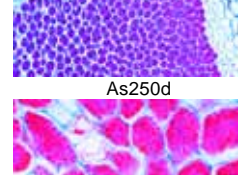
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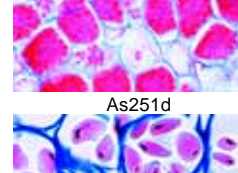
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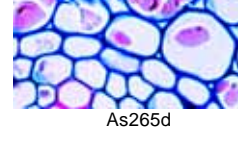
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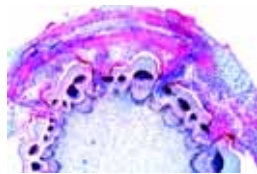
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As259c

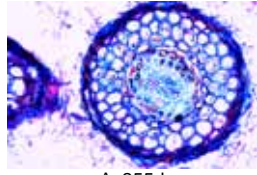


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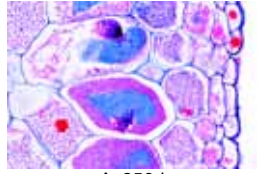


- As2417d **Orchid**, root t.s.
 As2475c **Convolvulus**, twining plant, older root with compressed endodermis t.s.
 As252c **Hedera helix**, ivy, aerial climbing root t.s.
 As355d • **Cuscuta**, dodder, t.s. through stem of host showing the haustoria of the parasite
 As285e • **Viscum album**, mistletoe, sec. showing parasitic root in wood of apple tree

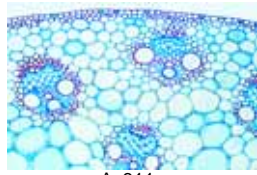
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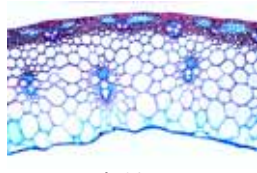
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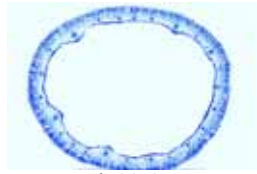
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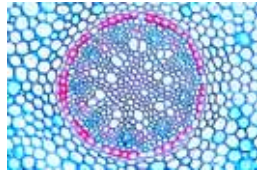
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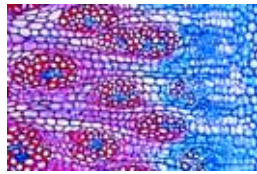
As315c



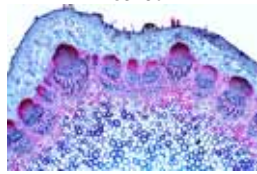
As3172c



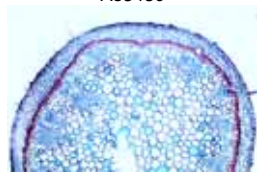
As321c



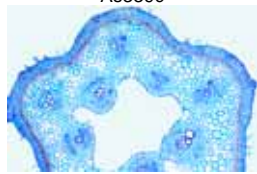
As325d



As343c



As339c



As345d

III. STEMS

Typical stems in comparison

- As305e **Monocot and dicot stems**, two t.s. on one slide for comparison of the different structures
 As3052e **Monocot and dicot stems**, two l.s. on one slide
 As3054e **Dicot and monocot stem**, t.s. of Helianthus and Canna, on same slide
 As3055e **Dicot and monocot stem**, t.s. of Ranunculus and Zea, on same slide
 As306e **Stems of annual and perennial plants**, two t.s. on one slide
 As3065e **Sun and shadow stems**, two t.s. on one slide
 As307e **Herbaceous and woody stems**, two t.s. on one slide
 As3942f **Dicot stem**, Aristolochia, t.s. of one year stem with widely separate bundles, two years stem and older stem with anomalous structure all 3 in on slide
 As3944e **One year stem** with active cambium and older stem with secondary structures, Tilia, two t.s.
 As3432e **Helianthus**, young and older stem, two t.s. on one slide
 As3424e **Helianthus**, of older stem, t.s. and l.s. on one slide

Typical monocot stems

- As311c • **Zea mays**, typical monocot stem with scattered bundles, t.s., a standard slide for general study
 As310c **Zea mays**, corn, young undifferentiated stem t.s.
 As3115c **Zea mays**, stem with leaf sheaths t.s.
 As312c **Zea mays**, stem with vascular bundles l.s.
 As3941e **Zea mays**, t.s. and l.s. of monocot stem on one slide
 As317c • **Lilium**, lily, t.s. of stem showing assimilating parenchyma
 As3203c **Tulipa**, tulip, t.s. of stem
 As3989c **Allium**, l.s. of a subterranean bulb
 As3172c **Allium sativum**, stem t.s.
 As3988c **Asparagus**, t.s. of stem
 As3204c **Dianthus**, pink, t.s. of stem
 As315c • **Triticum**, wheat, t.s. through the stem of a gramineous plant with pith cavity and the ring-shaped arrangement of vascular bundles
 As316d **Triticum**, l.s. transition node – internode
 As3162c **Secale**, rye, t.s. of typical grass stem
 As323c • **Holcus lanatus**, grass, stem t.s.
 As320c **Acorus calamus**, sweet flag, rhizome t.s.
 As321c • **Convallaria**, lily of the valley, t.s. of rhizome with concentric vascular bundles
 As322c • **Iris**, rhizome t.s. showing storage of starch
 As325d **Dracaena**, dragon tree, stem t.s., secondary growth in a monocot plant
 As3813c **Saccharum**, sugarcane, stem t.s.
 As3986c **Phragmites**, reed, t.s. of monocot stem
 As3987c **Alisma plantago**, t.s. of stem

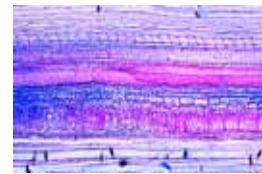
Typical dicot stems: Herbaceous plants

- As343c • **Helianthus**, sunflower, typical dicot herbaceous stem t.s. showing open vascular bundles and all structures very clearly
 As3432e **Helianthus**, young and older stem, two t.s. on one slide
 As3424e **Helianthus**, older stem, t.s. and l.s. on one slide
 As3943c **Helianthus**, young sprout t.s.
 As376b **Helianthus**, sunflower, t.s. of marrow shows large parenchyma cells
 As339c **Pelargonium**, geranium, t.s. through young stem of an annual plant
 As340c **Pelargonium**, geranium, t.s. through older stem of an annual plant showing phellogen and fascicular cambium

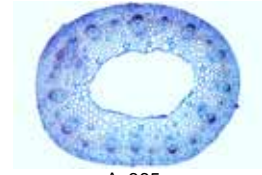
- As344d • **Cucurbita**, pumpkin, l.s. of stem with sieve tubes and vascular bundles
 As345d • **Cucurbita**, t.s. of stem showing large sieve tubes and vascular bundles
 As3451e **Cucurbita**, pumpkin, t.s. and l.s. of stem
 As365c **Ranunculus**, buttercup, t.s. of stem with open vascular bundles, no interfascicular cambium
 As354c • **Lamium**, deadnettle, square stem with well developed collenchyma and continuous vascular cylinder t.s.
 As3542c **Galium**, t.s. of typical square stem showing collenchyma cells
 As367c • **Salvia**, sage, t.s. of a square stem
 As368c **Coleus**, t.s. of a square stem showing collenchyma clearly
 As3877c **Amaranthus**, stem t.s.
 As375c **Arctium lappa**, burdock, stem t.s.
 As3876d **Atriplex**, orache, stem t.s. with bladder hairs
 As374c **Bryonia**, t.s. of stem showing large sieve plates
 As385c • **Cannabis sativa**, hemp, t.s. of stem showing woody sclerenchyma fibres
 As3985c **Chelidonium**, celandine, t.s. of stem
 As3872c **Chenopodium**, goosefoot, stem t.s.
 As382d **Coleus**, stem with leaf base and axillary bud l.s.
 As380c **Digitalis**, foxglove, stem with continuous circular stele t.s.
 As358c • **Euphorbia**, spurge, stem with lactiferous vesicles l.s.
 As3949c **Fuchsia**, t.s. of stem
 As352c **Hedera helix**, ivy, stem with crystals t.s.
 As359c **Hoya carnosa**, wax flower, stem with stone cells t.s.
 As387c **Hydrangea**, stem t.s.
 As3946c **Impatiens**, t.s. of stem
 As3565c **Lactuca**, lettuce, stem t.s.
 As3566c **Lactuca**, lettuce, stem l.s.
 As3752c **Lonicera**, t.s. of young stem
 As3753c **Lonicera**, t.s. of older stem
 As357c • **Medicago**, alfalfa, young stem t.s.
 As3571d **Medicago**, alfalfa, old stem t.s. with secondary growth
 As3982c **Mercurialis**, t.s. through monopodial rhizome
 As3983c **Mercurialis**, t.s. of stem
 As3878d **Ononis**, restharrow, stem t.s.
 As3866c **Passiflora**, passion flower, stem t.s.
 As3972c **Primula**, primrose, t.s. of stem
 As381c **Trifolium**, clover, stem t.s.

Typical dicot stems: Shrubs and trees

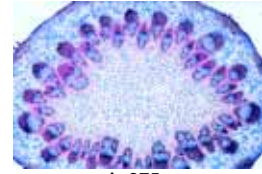
- As341c • **Aristolochia**, one year stem t.s. for general study
 As342c • **Aristolochia**, older stem t.s. for general study
 As3422e **Aristolochia**, one year and older stem, two t.s. on one slide
 As3423c • **Aristolochia**, older stem l.s. for general study
 As3426c **Aristolochia**, meristematic stem t.s. showing developing vascular bundles
 As3428c • **Aristolochia**, macerated xylem elements w.m.
 As363c • **Aesculus hippocastanum**, chestnut, petiole t.s.
 As369c **Aesculus hippocastanum**, chestnut, young stem (shoot) t.s.
 As386d • **Aesculus hippocastanum**, chestnut, twig with leaf scar t.s.
 As346c • **Clematis**, young hexagonal stem t.s., collenchyma
 As347c • **Clematis**, older stem t.s., phelloderm, phellogen, phellem
 As3767c **Fagus silvatica**, beech, stem t.s.
 As3945c **Fagus**, beech, t.s. of mature wood
 As377c **Fagus**, beech, macerated wood cells w.m.
 As3772e **Fagus**, three sections of wood: t.s., r.l.s., t.l.s.
 As3505c **Fraxinus excelsior**, ash, one year stem t.s.
 As3506d **Fraxinus excelsior**, ash, three sections of wood; t.s., r.l.s., t.l.s.
 As3882d **Hibiscus tiliaceus**, stem t.s.
 As3899d **Liquidambar**, sweetgum, woody stem t.s.
 As3783d **Liriodendron**, three sections of wood; t.s., r.l.s., t.l.s.
 As3784c **Liriodendron**, stem t.s.
 As3785c **Liriodendron**, stem l.s.
 As3781c **Magnolia**, stem, l.s.
 As3895e **Magnolia**, stem t.s. and l.s. in one slide
 As3782c **Magnolia**, macerated xylem elements w.m.



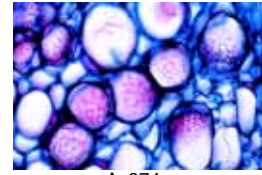
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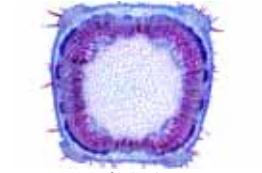
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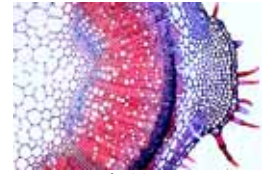
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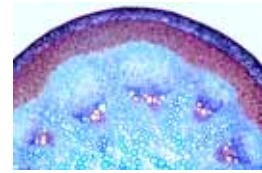
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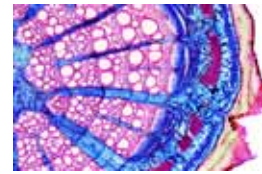
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As342c



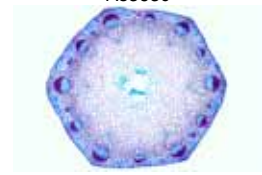
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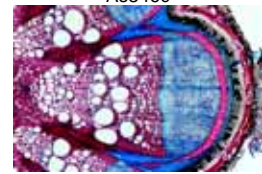
As342c



As363c



As346c



As347c



As3502d **Prunus avium**, cherry, one year, two year and three year stems, three t.s. on same slide for comparison

As3475c **Quercus robur**, oak, young stem t.s.

As3476c • **Quercus robur**, older woody stem t.s., annual rings

As3477d **Quercus robur**, three sections of wood, t.s., r.l.s., t.l.s.

As3388d **Rhus**, poison ivy, stem t.s.

As3522d **Salix nigra**, willow, three sections of wood: t.s., r.l.s., t.l.s.

As3523c **Salix**, macerated xylem elements w.m.

As360c • **Sambucus**, elderberry, stem with lenticells t.s.

As3603d **Sambucus**, three sections of wood: t.s., r.l.s., t.l.s.

As3896f **Sycamore**, three sections of wood: t.s., r.l.s., t.l.s.

As348c • **Tilia**, lime, older woody stem t.s.

As349c • **Tilia**, older woody stem l.s.

As3492d **Tilia**, older woody stem t.s. and l.s. on one slide

As3494c **Tilia**, one year stem during the summer t.s., showing active cambium, ring-shaped primary vascular tissue

As3495c **Tilia**, one year stem during the winter t.s., showing resting cambium

As3496c **Tilia**, two year stem t.s., showing primary and secondary vascular tissues

As3497c **Tilia**, three year stem t.s.

As3498e **Tilia**, one year, two year and three year stems, three t.s. on same slide for comparison

As3499c **Tilia**, young stem l.s.

As350d • **Tilia**, three sections of wood: t.s., r.l.s., t.l.s.

As378c **Tilia platyphyllos**, lime, macerated wood cells w.m.

As351c • **Vitis vinifera**, grape, stem with medullary rays t.s.

As3512d **Vitis**, three sections of wood: t.s., r.l.s., t.l.s.

As3884d **Wisteria sinensis**, stem t.s.

Stems of selected useful plants

As3947c **Anthriscus**, t.s. of stem

As3948c **Asperula odorata**, woodruff, t.s. of stem

As3715c **Beta**, beet, t.s. of a superterrestrial storage root

As3911d **Brassica**, cabbage, stem with leaf traces t.s.

As3897c **Coffea arabica**, coffee, stem t.s.

As3851c **Linum**, flax, t.s. of stem showing husk fibres

As3898d **Nicotiana tabacum**, tobacco, stem t.s.

As3874d **Persea**, avocado, stem t.s.

As356c **Piper nigra**, pepper, dicot stem with scattered bundles t.s.

As362c **Ribes**, currant, t.s. of stem showing cork cambium (phellogen)

As3891c **Ricinus**, castor oil bean, young stem t.s. with separate bundles

As3892c **Ricinus**, older stem t.s. with secondary xylem cylinder

As371c **Solanum tuberosum**, potato, t.s. of tuber with starch grains and cork

As3713c **Solanum tuberosum**, aerial stem t.s.

As3514c **Vicia faba**, stem t.s.

Adaptation to water: Hydrophytes and hydrophytes

As3146d **Bamboo**, stem t.s.

As3984c • **Caltha**, march-marigold, t.s. of stem

As3123c **Canna**, t.s. of monocot stem showing scattered bundles

As3662c **Ceratophyllum**, hornwort, stem t.s.

As3285d • **Eichhornia**, water hyacinth, rhizome t.s.

As313c • **Elodea**, waterweed, t.s. of aquatic stem showing primitive bundle

As3132c **Hippuris**, t.s. of stem showing typical aquatic stem with large central pith

As314c • **Juncus**, bulrush, stem with internal stellate cells t.s.

As366c • **Myriophyllum**, water-milfoil, t.s. of aquatic stem

As353c • **Nymphaea**, water lily, stem with idioblasts t.s.

As3145c **Potamogeton**, pondweed, stem with aerial chambers t.s.

As3133c **Sagittaria**, t.s. monocot stem of a hydrophytic plant

Adaptation to dry habitat: xerophytes

As327d **Aloe**, stem t.s. showing secondary growth in a monocot plant

As383d • **Opuntia**, cactus, succulent stem t.s.

As3734d **Leaf thorn** on stem of Berberis (barberry), l.s.

As3735d **Stem thorn** on stem of Crataegus (hawthorn), l.s.

As373d **Prickle** on stem of Rosa (rose), l.s.

As3585c • **Nerium**, oleander, t.s. stem to show lactiferous ducts

As3586c **Nerium**, oleander, l.s. stem to show lactiferous ducts

As328d • **Smilax**, carrion flower, stem t.s.

As3854d **Bauhinia**, tropical liana, climbing stem t.s.

As3852d **Thunbergia**, liana, stem t.s. shows vascular bundles with enclosed phloem

As326d **Yucca**, stem t.s., formation of bark in a monocot plant

Adaptation to unusual modes of nutrition

As355d • **Cuscuta**, dodder, t.s. through stem of host showing the haustoria of the parasite

As370d **Dentaria**, toothwort, l.s. through bulbil

Petioles and miscellaneous

As4646c • **Acer platanoides**, maple, petiole t.s.

As4647c **Acer platanoides**, maple, l.s. stem and petiole leaf abscission

As363c • **Aesculus hippocastanum**, chestnut, petiole t.s.

As4794d **Canna indica**, petiole t.s.

As4674d **Eichhornia**, petiole t.s.

As4795d **Fragaria**, strawberry, petiole t.s.

As4671c • **Nymphaea**, petiole t.s.

As4798d **Passiflora**, passion flower, petiole with nectaries t.s.

As479c **Plantago**, plantain, petiole t.s.

As4797d **Portulak**, petiole t.s.

As4793d **Vitis vinifera**, petiole t.s.

As3971c **Drymis**, t.s. of stem with bark

As395e **Wound healing** on stem, early stage, t.s.

As396e **Wound healing** on stem, later stage, t.s.

As398e **Graft scion** on stem t.s.

IV. LEAVES

Typical leaves in comparison

As4005e **Monocot and dicot leaf epidermis** with stomata, two w.m. in one slide for comparison

As4118d **Monocot and dicot leaves**, two t.s. in one slide for comparison

As4119e **Leaf types**, composite slide of three t.s. through hydrophytic, mesophytic, and xerophytic leaves

Leaf epidermis and stomata

As411c • **Tulipa**, tulip, leaf epidermis with stomata w.m., showing large stomata and guard cells for general study

As410c **Calla**, leaf epidermis with stomata w.m.

As4102d **Sedum**, epidermis with stomata w.m.

As4103d **Saccharum (blade)**, epidermis with stomata w.m.

As4108d **Allium cepa**, onion, leaf epidermis with stomata w.m.

As4109d **Lilium**, lily, leaf epidermis with stomata w.m.

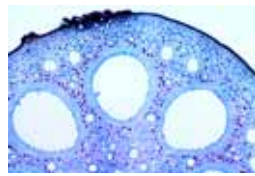
As4112c • **Iris**, leaf epidermis w.m. showing stomata in rows

As4113d **Grass**, leaf epidermis w.m. or horizontal sec. showing stomata of a gramineous plant

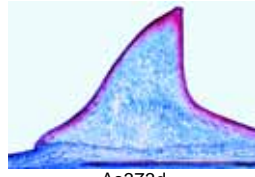
As4114d **Saxifraga**, leaf epidermis w.m. or horizontal sec. showing stomata without accessory cells

As4115d **Begonia or Sedum**, leaf epidermis w.m. showing scattered stomata with many accessory cells

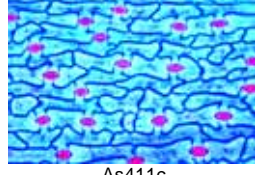
As4116d **Dianthus**, leaf epidermis w.m. showing stomata with two accessory cells



As353c



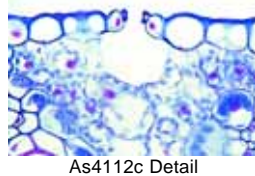
As373d



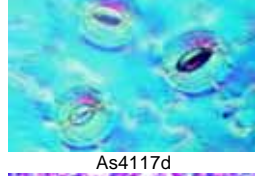
As411c



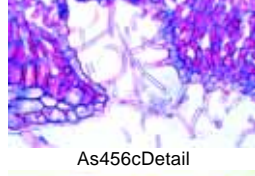
As410



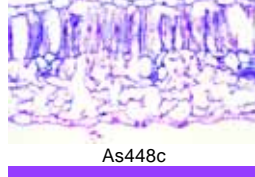
As4112c Detail



As4117d



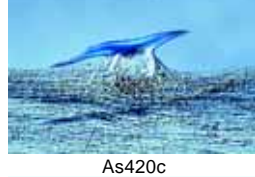
As456cDetail



As448c



As464d



As420c



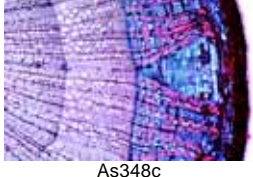
As412c



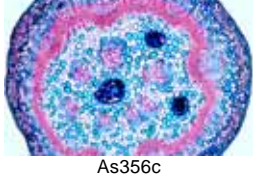
As3772e



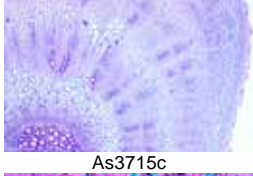
As3477d



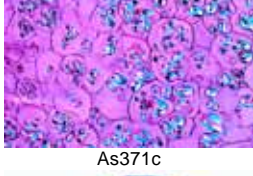
As360c



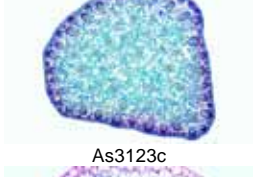
As348c



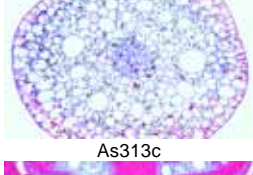
As356c



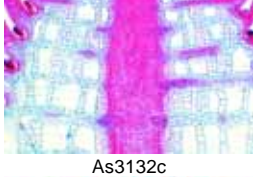
As3715c



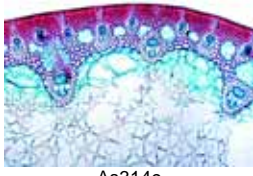
As371c



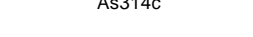
As3123c



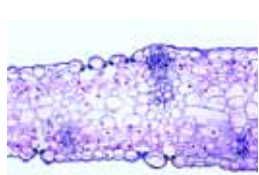
As313c



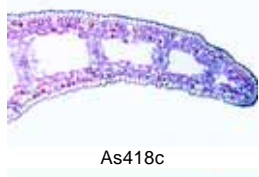
As3132c



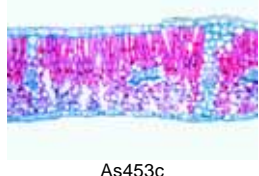
As314c



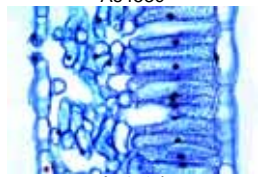
As4117d



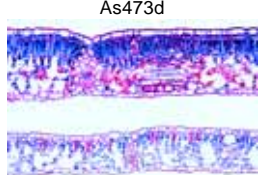
As448c



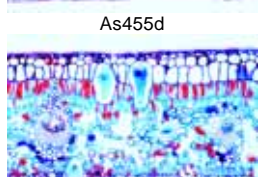
As456c



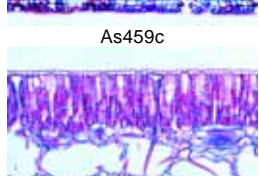
As4953c



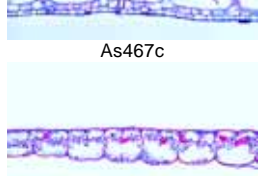
As420c



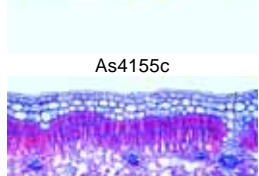
As421c



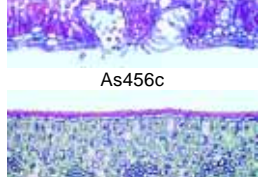
As422c



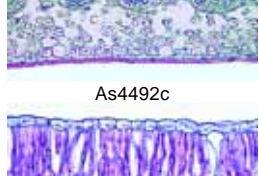
As464d



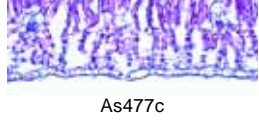
As471c



As478c



As4955c



As4642d

Helleborus niger, leaf epidermis w.m. with stomata

As448c • **Solanum tuberosum**, potato, leaf t.s. showing raised stomata

As456c • **Nerium**, oleander, leaf with sunken stomata t.s., showing the typical structures of a xerophytic leaf

As4953c • **Ruellia**, t.s. of leaf showing raised stomata

Leaf hairs and emergences

As420c • **Elaeagnus**, olive tree, scale-like stellate hairs w.m.

As421c • **Verbascum**, mullein, branched leaf hairs w.m.

As422c • **Verbascum**, leaf with branched hairs t.s.

As464d • **Urtica**, stinging nettle, stinging hairs with poison ducts

As471c • **Pelargonium**, geranium, t.s. of leaf with multicellular glandular hairs

As478c • **Nicotiana tabacum**, tobacco, leaf with glandular hairs t.s.

As4955c • **Galium**, w.m. of leaf showing climbing hairs

As4642d • **Aesculus hippocastanum**, chestnut, leaf bud scales with colleteres t.s.

Typical monocot leaves

As412c • **Zea mays**, corn, monocot gramineous leaf t.s.

As415c • **Iris**, typical isobilateral leaf t.s.

As414c • **Lilium**, lily, leaf t.s. showing arm palisade cells

As429c • **Allium schoenoprasium**, chive, t.s. of an unifacial folding leaf

As4166d • **Aloe**, leaf t.s.

As4799c • **Canna indica**, leaf t.s.

As4962c • **Festuca**, grass, t.s. of leaf

As418c • **Galanthus**, snowdrop, leaf t.s.

As4967c • **Hyacinthus**, t.s. of leaf

As4167d • **Musa**, banana, leaf t.s.

As4968c • **Narcissus**, daffodil, t.s. of leaf

As413c • **Poa annua**, meadow grass, leaf t.s.

As4172d • **Saccharum**, sugarcane, leaf t.s.

As4961c • **Secale**, rye, t.s. of stem enclosed in sheath leaves

As417c • **Triticum**, wheat, t.s. of leaf showing stomata

As4183c • **Tulipa**, tulip, t.s. of leaf

Typical dicot leaves

As453c • **Syringa**, lilac, t.s. of a typical mesophytic dicot leaf for general study, showing all structures very clearly

As4535c • **Syringa**, paradermal l.s. through all leaf layers

As454c • **Ligustrum**, privet, t.s. of dicot leaf

As4541c • **Ligustrum**, paradermal (horizontal) l.s. through all leaf layers

As455d • **Fagus**, beech, sun and shadow leaves t.s. on same slide for comparison of the different structures

As473d • **Helleborus**, t.s. of a typical mesophytic dicot leaf for general study, showing large cellular structures

As476c • **Helianthus**, sunrose, t.s. of dorsiventral dicot leaf

As4964c • **Ranunculus**, buttercup, t.s. of dicot leaf

As489c • **Asclepias**, milkweed, leaf with lactiferous vesicles t.s.

As449c • **Begonia**, leaf t.s.

As488c • **Belladonna**, deadly nightshade, leaf t.s.

As4676c • **Beta vulgaris**, beet, leaf t.s.

As4971c • **Brassica**, cabbage, t.s. of leaf

As4787d • **Camellia (Thea) sinensis**, tea plant, leaf t.s.

As4785c • **Coffea arabica**, coffee, leaf t.s.

As4965c • **Dictamnus**, t.s. of leaf showing crystals

As446c • **Eucalyptus**, an isobilateral foliage leaf t.s.

As459c • **Ficus elastica**, India rubber plant, leaf with cystoliths t.s.

As4912c • **Gossypium**, cotton, leaf t.s.

As4958c • **Hedera**, ivy, t.s. of evergreen leaf

As4782c • **Lycopersicum**, tomato, leaf t.s.

As490c • **Medicago sativa**, alfalfa, leaf t.s.

As4918c • **Populus**, poplar, leaf with calcium oxalate crystals t.s.

As4944c • **Quercus**, oak, t.s. of leaf showing stomata

As477c • **Rosa**, rose, leaf with several palisade layers t.s.

As423c • **Sagittaria**, arrowhead, leaf t.s.

As4792d • **Vitis vinifera**, grape, leaf t.s.

As493d • **Netted venation**, portion of dicot leaf w.m. showing venation only

Adaptation to water: hydrophytes and hygrophytes

As4155c • **Elodea**, t.s. of leaf showing the simple structure of an aquatic leaf

As416d • **Elodea**, w.m. of leaf showing large chloroplasts

As4946c • **Calla palustris**, t.s. of leaf of a typical marshy plant

As4673c • **Eichhornia**, water hyacinth, aquatic leaf t.s.

As4595c • **Impatiens**, hydrophytic foliage leaf t.s.

As4948c • **Lemma**, duckweed, t.s. of leaf

As4949c • **Myosotis palustris**, w.m. of leaf showing hairs for water reservoir

As467c • **Nymphaea**, water lily, floating leaf of an aquatic plant with air chambers t.s.

As425c • **Potamogeton**, pondweed, leaf t.s.

As457d • **Tropaeolum**, nasturtium, showing hydathodes, w.m. or t.s.

As419c • **Vallisneria**, tape grass, leaf of an aquatic plant t.s.

Adaptation to dry habitat: Xerophytes

As456c • **Nerium**, oleander, leaf with sunken stomata t.s., showing the typical structures of a xerophytic leaf

As4165d • **Agava**, xerophytic leaf with thick epidermis t.s.

As4567c • **Ammophila**, xerophytic leaf t.s.

As475c • **Calluna**, ling, revolute leaves t.s.

As4564d • **Cistus**, leaf of an evergreen xerophytic shrub t.s.

As4492c • **Clivia nobilis**, leaf t.s. showing typical xerophytic thick epidermis

As4752c • **Erica**, xerophytic leaf t.s.

As4914c • **Hakea**, a proteacean, leaf t.s.

As4563d • **Ilex**, holly, leaf t.s.

As4959c • **Sempervivum**, t.s. of leaf for succulence

As4565d • **Larea tridentata**, creosote bush, leaf of a desert plant t.s.

As4566c • **Lavandula**, lavender, leaf with oil sacs, t.s.

As4916d • **Olea**, olive tree, leaf t.s.

As458c • **Sedum**, stonecrop, a typical succulent leaf t.s.

As4969c • **Sempervivum**, t.s. of succulent leaf

As4963c • **Stipa capillata**, t.s. of revolute grass leaf

Adaptation to unusual modes of nutrition

As469c • **Dionaea**, Venus flytrap, t.s. of leaf with digestive glands

As4957f • **Dischidia**, t.s. of pitcher leaf showing cauline root

As462d • **Drosera**, sundew, leaf with glandular hairs w.m.

As463c • **Drosera**, leaf with glandular hairs t.s.

As4951c • **Lathraea squamaria**, t.s. of leaf without chloroplasts

As470d • **Nepenthes**, pitcher plant, t.s. of pitcher with digestive glands

As460c • **Pinguicula**, butterwort, leaf with glandular cells t.s.

As4703d • **Sarracenia**, pitcher plant, leaf t.s.

As465d • **Utricularia**, bladderwort, w.m. of bladder

As466c • **Utricularia**, t.s. through leaves and bladders

As4941d • **Viscum album**, mistletoe, t.s. of leaf showing chloroplasts

Leaf buds, leaf joints, leaf abscission

As451c • **Fagus**, beech, leaf bud t.s. showing leaf development

As452d • **Fagus**, beech, leaf bud l.s. showing leaf development

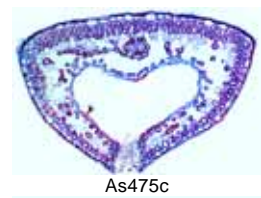
As4524d • **Aesculus hippocastanum**, t.s. of leaf bud showing bud squama and embedded, folded leaves

As474d • **Mimosa pudica**, sensitive plant, l.s. of leaf joint

As485d • **Robinia pseudacacia**, black locust, leaflets with pulvini l.s.

As487d • **Aesculus**, leaf base with leaf abscission l.s.

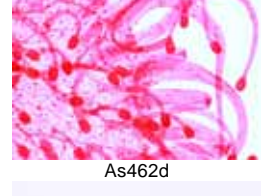
As361c • **Acer platanoides**, maple, t.s. of petiole



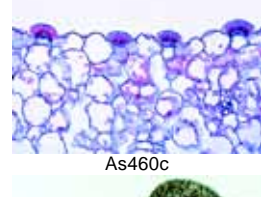
As475c



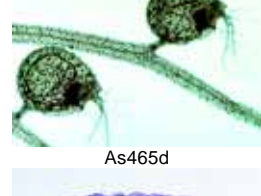
As469c



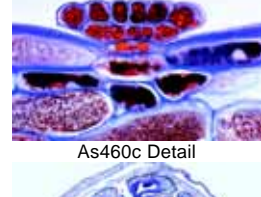
As462d



As460c



As465d



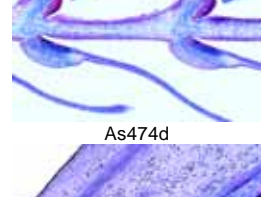
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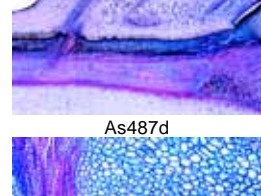
As451c



As452d



As474d



As487d



As487d Detail



V. FLOWERS AND FRUITS

Microspore development in *Lilium*

- As521e **Lilium, anther** t.s., very young with microspore mother cells and tapetal layers
- As522e **Lilium, anther** t.s., early prophase for general study
- As523e **Lilium, anther** t.s., late prophase for general study
- As5232e • **Lilium, anther** t.s., microspore mother cells in leptotene
- As5233e • **Lilium, anther** t.s., microspore mother cells in zygotene
- As5234e • **Lilium, anther** t.s., microspore mother cells in pachytene
- As5235e • **Lilium, anther** t.s., microspore mother cells in diplotene
- As5236e • **Lilium, anther** t.s., microspore mother cells in diakinesis
- As524f • **Lilium, anther** t.s., microspore mother cells showing metaphase and anaphase of first (heterotypic) division (meiosis)
- As5242f **Lilium, anther** t.s., microspore mother cells showing telophase of first and prophase of second (homeotypic) division
- As525f • **Lilium, anther** t.s., microspore mother cells showing metaphase and anaphase of second (homeotypic) division (mitosis)
- As526f • **Lilium, anther** t.s., microspore mother cells in tetrad stage
- As5262e • **Lilium, anther** t.s., uninucleate (haploid) microspores after the separation of the daughter cells
- As5264f **Lilium, anther** t.s., third division *
- As5266e • **Lilium, anther** t.s., binucleate mature pollen grains at the time of shedding with tube cell and generative cell
- As527d • **Lilium, anther** t.s. for general study showing pollen chambers and pollen grains
- As5271d **Lilium, anther** l.s. for general study

Pollen types

- As528b • **Lilium**, mature pollen grains w.m.
- As577d • **Tulipa**, anthers with pollen and pollen chambers t.s.
- As625b • **Helianthus**, sunrose, pollen grains w.m.
- As6252b • **Ambrosia**, ragweed, pollen grains w.m.
- As626b • **Corylus**, hazel, pollen grains w.m.
- As6262b • **Oenothera**, pollen w.m. showing viscin filaments
- As6263b • **Helianthus and Cucurbita**, pollen grains w.m.
- As630c • **Mixed pollen types**, showing various forms of many different species

Fertilization

- As529d **Lilium**, t.s. of stigma before pollination
- As530e • **Lilium**, l.s. through pistil and stigma with pollen and pollen tubes
- As531e **Lilium**, germinating pollen grains with pollen tubes w.m.
- As609e • **Oenothera**, evening primrose, stigma with pollen grains and pollen tubes l.s.
- As655e • **Stigma of Eschscholtzia**, w.m. showing penetrating pollen
- As656e • **Stigma of Eschscholtzia**, l.s. showing penetrating pollen
- As6571e **Vicia**, bean, stigma and anthers, w.m.
- As583d • **Fritillaria**, nectary with glands t.s.

Megaspore development in *Lilium*

- As541e **Lilium, ovary** t.s., very young, showing the developing tissue before the formation of the megaspore mother cell. Abundant mitotic figures can be observed
- As5412f **Lilium, ovary** t.s., with megaspore mother cell
- As542f • **Lilium, ovary** t.s., showing uninucleate embryo sac with megaspore mother cell

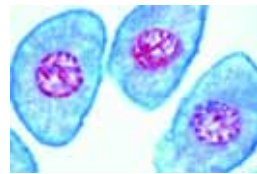
- As543g **Lilium, ovary** t.s., uninucleate embryo sac with first (heterotypic) division of megaspore mother cell *
- As544h **Lilium, ovary** t.s., binucleate embryo sac *
- As545k **Lilium, ovary** t.s., showing second (homeotypic) division with two division figures *
- As546h **Lilium, ovary** t.s., first four-nucleate stage *
- As547h **Lilium, ovary** t.s., showing migration of three nuclei to the chalazal end of the embryo sac while one nucleus remains in the micropylar end
- As5472k **Lilium, ovary** t.s., showing third division after the three chalazal nuclei have fused *
- As548g • **Lilium, ovary** t.s., second four-nucleate stage, a vacuole can be seen between the nuclei
- As549i **Lilium, ovary** t.s., showing fourth division *
- As550g **Lilium, ovary** t.s., showing the stage of eight-nucleate embryo sac for general study, not all nuclei present
- As551k • **Lilium, ovary** t.s., eight-nucleate embryo sac showing all the nuclei in one or more serial sections *
- As5514k **Lilium, ovary** t.s., embryo sac showing double fertilization in one or more serial sections *

Ovaries, formation of ovules and embryos (monocot)

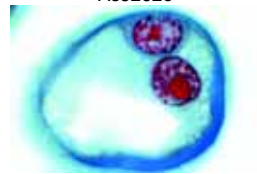
- As560d • **Lilium**, ovary t.s., showing arrangement of ovules and all structures for general study
- As561d • **Lilium**, ovary l.s., showing arrangement of ovules and all structures for general study
- As553f **Lilium**, ovary t.s., early embryonic stage
- As554f • **Lilium**, ovary t.s., mature embryo
- As555f • **Lilium**, ovary t.s., mature seed with embryo and endosperm
- As571d • **Tulipa**, tulip, t.s. of ovary showing arrangement of ovules and all structures for general study
- As572d • **Tulipa**, l.s. of ovary showing arrangement of ovules
- As573d **Tulipa**, l.s. of ovary showing development of embryos
- As574d **Iris**, t.s. of ovary showing arrangement of ovules
- As575e **Iris**, t.s. of ovary showing later stage of embryo and endosperm
- As582d **Fritillaria**, fritillary, ovary with embryo sac t.s.
- As584d **Hyacinthus**, ovary t.s.
- As586d **Epipactis**, orchid, ovary with ovules t.s.
- As564d **Ovary**, t.s. showing orthotropic attachment of ovules
- As565d **Ovary**, t.s. showing anatropic attachment of ovules
- As566d **Ovary**, t.s. showing kampylotropic attachment of ovules
- As568s **Ovary types**, composite slide with four t.s. through various typical types of ovaries

Ovaries, formation of ovules and embryos (dicot)

- As662d **Helleborus**, l.s. of atropine ovary
- As664d • **Hyoscyamus**, t.s. of young ovary
- As665d • **Hyoscyamus**, t.s. of older ovary
- As663d **Impatiens**, t.s. of ovary
- As615d **Lathraea**, toothwort, ovary of a parasitic plant t.s.
- As6151d **Lathraea**, t.s. of young ovary
- As6152d **Lathraea**, t.s. of elder ovary
- As614d **Monotropa**, Indian pipe, ovary t.s. with developing embryosacs
- As616d **Rosa**, rose, ovary t.s.
- As6132d • **Solanum**, potato, t.s. of ovary with formation of embryos
- As619d • **Capsella bursa pastoris**, shepherd's purse, l.s. of ovule with embryos in situ for general study
- As6192f **Capsella**, l.s. of embryo in precotyledon stage
- As6193f **Capsella**, l.s. of embryo in early cotyledon stage
- As6194f **Capsella**, l.s. of embryo in later cotyledon stage
- As6195f **Capsella**, l.s. of embryo with curving cotyledons (mature)



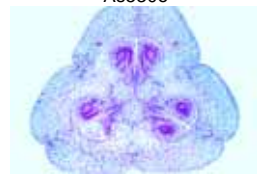
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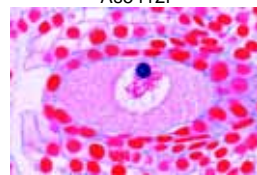
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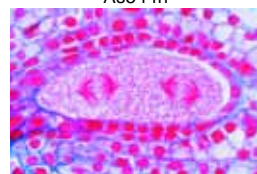
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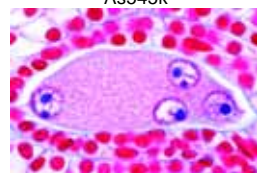
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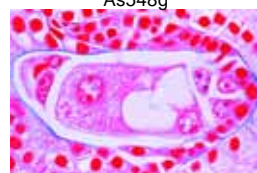
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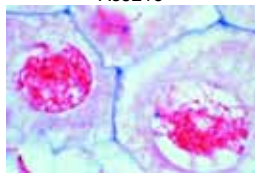
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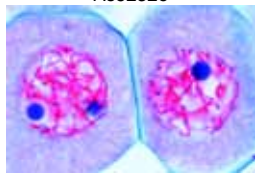
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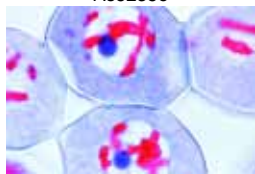
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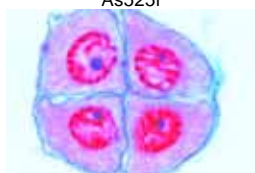
As5236e



As524f



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As525f



Flowers and floral diagrams (monocot)

- As501e **Monocot and dicot flower buds** t.s. on same slide for comparison
- As511d • **Lilium candidum**, lily, t.s. of flower bud showing floral diagram of a monocot
- As512d • **Lilium**, l.s. of flower bud
- As653d • **Galanthus**, snowdrop, t.s. of flower
- As5778d • **Secale**, rye, t.s. of a typical gramineous flower
- As5798d • **Zea**, t.s. of male flower
- As588d • **Anthurium**, flamingo plant, pedicel with flowers t.s.
- As590e • **Arum maculatum**, cuckoopint, l.s. of flower, insect trap
- As657d • **Arum maculatum**, t.s. of flower bud showing ovary

Flowers and floral diagrams (dicot)

- As651d • **Bellis**, l.s. of a composite flower bud
- As652d • **Caltha palustris**, l.s. of flower
- As658d • **Cheirantus**, wallflower, t.s. of flower bud with marginal-parietale placentation
- As593d • **Corylus avellana**, hazel, diclinous male flower l.s.
- As594d • **Corylus avellana**, diclinous female flower l.s.
- As6551d • **Cucurbita**, pumpkin, t.s. of female flower
- As654d • **Linum**, flax, t.s. of flower
- As601d • **Lycopersicum**, tomato, t.s. of flower bud shows floral diagram and axile placentation
- As602d • **Lycopersicum**, l.s. of flower bud
- As6521d • **Magnolia**, t.s. of flower bud showing anthers with microspore mother cells
- As606d • **Papaver**, poppy, t.s. of flower shows parietal placentation
- As607d • **Papaver**, poppy, t.s. of older flower, formation of embryos
- As599d • **Pyrus malus**, apple, flower bud with hypogynous ovary l.s.
- As6561d • **Primula**, primrose, t.s. of flower
- As600d • **Prunus avium**, cherry, flower bud with perigynous ovary l.s.
- As595d • **Ranunculus**, buttercup, l.s. of flower
- As659d • **Rhododendron**, t.s. of flower showing bud scales
- As603d • **Ribes**, currant, l.s. of flower bud
- As6522d • **Senecio**, t.s. of a composite flower
- As613d • **Solanum tuberosum**, potato, t.s. flower bud for floral diagram
- As604d • **Taraxacum**, dandelion, l.s. of composite flower with tubular florets and ligulate florets
- As605d • **Taraxacum**, t.s. of composite flower

Simple fruits

- As576d • **Iris**, t.s. of mature seed
- As639d • **Cruzifera sp.**, mustard or other, t.s. of silique with seed
- As627c • **Cocos nucifera**, coconut, endosperm t.s.
- As631d • **Lycopersicum**, tomato, young fruit t.s.
- As632d • **Prunus domestica**, plum, young drupe (stone fruit) t.s.
- As634d • **Juglans regia**, walnut, young drupe (stone fruit) t.s.
- As6375d • **Corylus avellana**, hazelnut, young stone fruit t.s.
- As640d • **Citrus**, lemon, young fruit t.s.
- As644d • **Aesculus hippocastanum**, chestnut, young fruit l.s.

Aggregate fruits

- As596d • **Ranunculus**, l.s. of fruit
- As597d • **Ranunculus**, t.s. of fruit
- As633d • **Pyrus malus**, apple, young pome t.s., a fleshy, many seeded fruit
- As6165d • **Rosa**, syncarpous fruit l.s.
- As641d • **Rubus idaeus**, raspberry, young aggregate fruit l.s.
- As642d • **Fragaria**, strawberry, young aggregate fruit l.s.

- As6035d • **Ribes**, l.s. of a simple berry fruit
- As643d • **Morus**, mulberry, young multiple fruit l.s.
- As645e • **Ficus carica**, fig, young fruit t.s.

Seeds

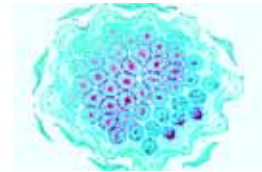
- As578d • **Triticum**, wheat, grain (seed), t.s. showing embryo and endosperm
- As579e • **Triticum**, grain (seed), sagittal l.s. showing embryo and endosperm
- As580d • **Zea mays**, corn, grain (seed) l.s. showing embryo and endosperm
- As6641d • **Zea mays**, young corn cob t.s.
- As5809e • **Zea mays or Triticum**, germinating seed l.s.
- As581d • **Secale**, rye, grain (seed) t.s.
- As6621d • **Asparagus**, t.s. of seed
- As585d • **Hyacinthus**, mature seed t.s.
- As623d • **Helianthus**, sunflower, t.s. of achene fruit
- As638d • **Phaseolus**, bean, t.s. of pod showing pericarp and seed
- As622d • **Tropaeolum**, nasturtium. semen (seed) t.s.
- As635d • **Amygdalus**, almond, endosperm t.s.
- As636d • **Myristica**, nutmeg, endosperm t.s.
- As661c • **Ricinus**, t.s. of seed showing aleurone grains in endosperm with cotyledons
- As628d • **Juglans**, walnut, mesocarp with stone cells t.s.
- As629b • **Populus**, poplar, hairs from seed w.m.

NEW! Microscope Slides on CD-ROM.

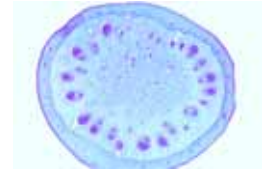
The new amazing CD-Program for interactive learning and teaching in school and education comprise all necessary photomicrographs of microscopic slides, which can be observed by using a „Virtual Microscope“. Beautiful color drawings matching the slides, with detailed explanations (please see pages 129 – 136).



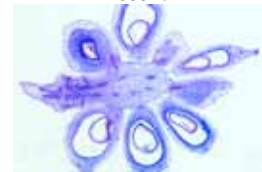
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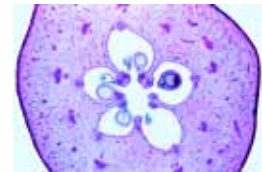
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As631d



As596d



As633d



As641d



As642d



As578d



As579e



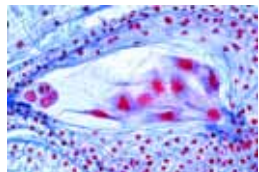
As579e Detail



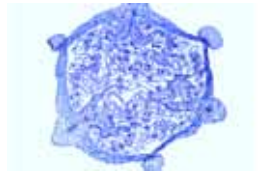
As623d

ULTRATHIN SECTIONS *

Our ultrathin sections of animal and plant tissue are cut at 1,5 μm (micrometers) as compared to 5–10 μm for conventional sections. This augments the possibilities for exploration of animal and plant cells without special microscopes. The eminent clarity of cells makes visible a lot of cell details which up to now could not be investigated in standard tissue sections. Depending on the extremely short depth of field ultrathin sections are very easy focusing on for students. – Availability upon request.



As553f



As586d



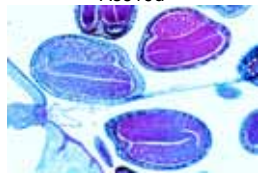
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As6132d



As619d



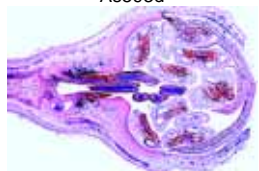
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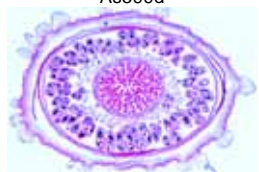
As590e



As593d



As599d



As606d



As595d



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