

## CERTIFICAT DE ÎNRECISTRARE

Societatea cu Răspundere Limitată "BIOSISTEM MLD"
ESTE ÎNREGISTRATĂ LA CAMERA ÎNREGISTRĂRII DE STAT

Numărul de identificare de stat - codul fiscal 1010600028048

Data înregistrării

Data eliberării

12.08.2010

12.08.2010

Svirepova Ludmila, registrator

Funcția, numele, prenumele persoanei care a eliberat certificatul S. Sizes

MD 0101250





#### AGENTIA SERVICII PUBLICE

Departamentul înregistrare și licențiere a unităților de drept

#### **EXTRAS**

din Registrul de stat al persoanelor juridice

Nr. 531522 data 15.09.2023

Denumirea completă: Societatea cu Răspundere Limitată "BIOSISTEM MLD"

Denumirea prescurtată: "BIOSISTEM MLD" S.R.L.

Forma juridică de organizare: Societate cu răspundere limitată,

Numărul de identificare de stat și codul fiscal (IDNO): 1010600028048

Data înregistrării de stat: 12.08.2010

Sediul: MD-2001, str. Albişoara, 16/1, ap. 7, mun. Chişinău, Republica Moldova.

Obiectul principal de activitate:

- 1. Activitatea farmaceutică; importul și (sau) producerea articolelor de parfumerie și cosmetică
- 2. Fabricarea, comercializarea, asistenta tehnică, repararea și verificarea articolelor de tehnică și optică medicală
- 3. Acordarea asistenței medicale de către instituțiile medico-sanitare private
- 4. Comerțul cu ridicata al calculatoarelor, echipamentelor periferice și software-ului
- 5. Întreținerea și repararea masinilor de birou și a tehnicii de calcul
- 6. Consultații în domeniul sistemelor de calcul

Capitalul social: 5400 lei.

Administrator: POIATA VITALIE, IDNP 0983103892591,

#### Asociatii:

- 1. POIATA VITALIE, IDNP 0983103892591, cota 1803,60 lei, ce constituie 33,4% Beneficiar efectiv:
- 1.1. POIATA VITALIE, IDNP 0983103892591.
- 2. NASEDCHIN ALEXANDR, IDNP 2002001070747, cota 1798,20 lei, ce constituie 33,3% Beneficiar efectiv:
- 2.1. NASEDCHIN ALEXANDR, IDNP 2002001070747,
- 3. KOJEVNIKOV DMITRII, IDNP 0972305012362, cota 1798,20 lei, ce constituie 33,3% Beneficiar efectiv:
- 3.1. KOJEVNIKOV DMITRII, IDNP 0972305012362

Prezentul extras este eliberat în temeiul art.34 al Legii nr.220-XVI din 19 octombrie 2007 privind înregistrarea de stat a persoanelor juridice și a întreprinzătorilor individuali și confirmă datele din Registrul de stat la data de: 15.09.2023.

Registrator în domeniul Digitally signed by Rusu Diana Înregistrării de stat Date: 2023.09.15 16:44:17 EEST Reason: MoldSign Signature Location: Moldova





## BC "MOLDINDCONBANK" S.A. Filiala "Invest"

Republica Moldova, MD-2068 mun. Chişînău, bd. Moscovei, 14/1 Tel.: (373-22) 43-44-81, 43-46-24

Fax: (373-22) 43-44-22 cod: MOLDMD2X329

Data 14. IAN. 2016 Nr. 03/2 - 19/23 Республика Молдова, MD-2068 мун. Кишинэу, бул. Московей, 14/1 Тел.: (373-22) 43-44-81, 43-46-24

Факс: (373-22) 43-44-22 код: MOLDMD2X329

Filiala "Invest" BC "Moldindconbank" SA confirmă existența contului curent in moneda nationala al "BIOSISTEM MLD" S.R.L. (c/f 1010600028048), cu IBAN MD95ML000000002251429243.

1 Balney

Codul băncii MOLDMD2X329.

Director

Director financia

Nina Turcan

Nina Balmuş

Ex. Diana Brinza Tel. 43-45-96 c/f 1010600028048; adresa: or. Chişinău, str. Albişoara 16/1 of.7 tel.+373-22-808-517, +373-22-808719, fax: +373-22-808-519. Web: www.biosistem-mld.com; e-mail: biosistem.mld@gmail.com

## Lista fondatorilor Biosistem-mld SRL

Nr.	Nume, Prenume	IDNP
1.	Vitalie Poiata	0983103892591
2.	Alexandr Nasedchin	2002001070747
3.	Dmitrii Kojevnikov	0972305012362



# EXTERNAL QUALITY ASSESSMENT



FOR A TOTAL QUALITY IMPROVEMENT

## Who we are

Quality System since 1999 is a valuable tool for assessing the diagnostic quality of a laboratory.

Quality System is the EQA brand of **Bio Group Medical System**, involved in the diagnostic sector since 1985.

Quality System offers a wide range of scheme, in total 16 programs.

Different frequency options are available for most of the available schemes.

Bio Group Medical System has been **ISO 17043:2010** accreditated as **Proficiency Testing Provider** by **ACCREDIA** (certificate n.17/P and related attachment that can be download from http://pa.sinal.it/PA2254ARO.PDF).



Bio Group Medical System is member of The European Organisation For External Quality Assurance Providers in Laboratory Medicine (EQALM).

Statistical Elaboration procedures have been validated in cooperation with **Urbino University**.



### Introduction

The clinical analysis laboratory has as its ultimate goal the generation of data about the health of the patient, data that will be used later in the diagnostic process. For this purpose, it plays a leading role in defining the behaviour that a clinician should follow to deal with a diagnosis or a follow-up treatment or a condition.

Therefore, the work carried out in a clinical analysis laboratory must follow a series of quality procedures in order to obtain a final data that meets the required precision and accuracy criteria.

Each laboratory must be able to work in compliance with the quality rules to ensure that the generated reports are as accurate as possible. In fact, that data output by clinical analysis is subjected to systematic and random errors. If the operator knows the magnitude of these errors, this will compensate system errors and provide experimental data as close as possible to reality.

## **Aim of Quality System**

The purpose of the QS is to allow a comparison between independent laboratories.

The external quality assessment statistically examines the final result of the entire work process, taking into consideration the pre-analytical phase, the entire phase involving the laboratory and also the final data transmission.

The control results allow making deductions on the good functioning of both the process itself as an organised structure and the various phases of which it is composed; in some cases, they also allow obtaining suggestions on the type of problem that prevents it from obtaining a good result.

In other words, the participation in QS programs is a valuable tool for assessing the diagnostic quality of a laboratory.

 $The periodic control obtained \textit{via}\,QS allows the operator to assess \textit{his}\,analytical system by comparing the results obtained with those of the daily IQC, thus validating the latter and the entire organisation.$ 

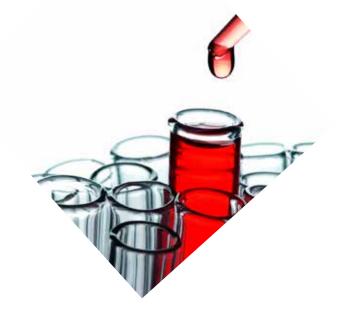
The QS offers precise indications on any possible anomaly and is, therefore, a powerful tool for the constant improvement of the "Total Quality" and data quality assurance.



## **Vision & Mission**

An experienced team working on the diagnostic field since 1985, providing to participants high standard quality samples.

"We trust it is important to give to all patients the right diagnosis."



## 02.

## **Our Schemes**

#### CLINICAL CHEMISTRY

34 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### **ELECTROPHORESIS**

5 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### **HEMOSTASIS**

7 Parameters - Lyophilized Plasma 1 Level - Yearly / Quaterly / Monthly

#### CARDIAC MARKERS

10 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### INFECTIVOLOGY

29 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly

#### **URINE CHEMISTRY**

13 Parameters - Liquid Sample 1 Level - Yearly / Quaterly

#### DRUGS OF ABUSE

12 Parameters - Liquid Sample 1 Level - Yearly / Quaterly

#### **ERYTHROCYTE SED. RATE**

Liquid Sample 1 Level - Yearly / Quaterly

#### **IMMUNOASSAY**

35 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### SPECIFIC PROTEINS

9 Parameters - Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### **HEMATOLOGY**

8 Parameters - Liquid Sample 1 Level - Yearly / Quaterly / Monthly

#### HBA1C

Lyophilized Sera 1 Level - Yearly / Quaterly / Monthly

#### **MICROBIOLOGY**

1 Lyophilized Sera 1 Level - Yearly / Quaterly

## URINE SEDIMENTATION

Liquid Sample 1 Level - Yearly / Quaterly

#### FECAL OCCULT BLOOD

Liquid Sample 1 Level - Yearly / Quaterly

#### **BLOOD SMEAR**

Electronic File

#### Scheme: CLINICAL CHEMISTRY

#### Sample material:

The proficiency testing item is Human Lyophilized Serum simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose Serums which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

ALBUMINE	CHOLINESTERASE	LDH	TOTAL CHOLESTEROL
ALP	CK NAK	LDL CHOLESTEROL	TOTAL PROTEINS
ALT	COPPER	LIPASE	TRIGLYCERIDES
AMYLASE	CREATININE	LITHIUM	UIBC
AST	DIRECT BILIRUBIN	MAGNESIUM	UREA
BICARBONATE	GAMMA GT	PHOSPHORUS	URIC ACID
BILE ACIDS	GLUCOSE	POTASSIUM	ZINC
CALCIUM	HDL CHOLESTEROL	SODIUM	

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearly, Quaterly or Montlhy

#### **Product Code:**

MSEQSCH1 - MSEQSCH4 - MSEQSCH12

#### Level:

1 level per assay

#### Scheme: IMMUNOASSAY

#### Sample material:

The proficiency testing item is **Human Lyophilized Serum** simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose Serums which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

25 OH VITAMIN D	CORTISOL	IgE	T4
ALPHAPROTEIN	DHEA Sulfate	INSULIN	TESTOSTERONE
B-HCG	DIGOXIN	INTACT PTH	TG AB
C PEPTID	ESTRADIOL	LH	THYROGLOBULIN
CA 125	FERRITIN	PROGESTERONE	TMAB
CA 15-3	FOLATE	PROLACTIN	TPO AB
CA 19-9	FSH	PSA FREE	TSH
CARBAMAZEPINE	FT3	PSA TOTAL	VITAMIN B12
CEA	FT4	T3	

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearly, Quaterly or Montlhy

Product Code:

MSEQSI1 - MSEQSI4 - MSEQSI12

#### Level:

1 level per assay

#### Scheme: ELECTROPHORESIS

#### Sample material:

The proficiency testing item is **Human Lyophilized Serum** simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose Serums which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

ALBUMINE BETA GLOBULINE

ALFA 1 GLOBULINE GAMMA GLOBULINE

ALFA 2 GLOBULINE

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearly, Quaterly or Montlhy

#### **Product Code:**

MSEQALITYEF - MSEQSEF12 - MSEQSEF1

#### Level:

1 level per assay

#### Scheme: SPECIFIC PROTEINS

#### Sample material:

The proficiency testing item is **Human Lyophilized Serum** simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose Serums which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### **Parameters:**

ASO C4
PCR IGA
RF IGG
TRANSFERRINA IGM

C3

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearly, Quaterly or Montlhy

#### **Product Code:**

MSQEQUALITYPS - MSEQSPS12 - MSEQSPS4

#### Level:

1 level per assay



### Scheme: HEMOSTASIS

#### Sample material:

The proficiency testing item is **Human Lyophilized Plasma** simulating the biological findings usually measured by the participants. These Plasma will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose plasma which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

PT PROTROMBINIC ANTITHROMBIN III APTT TIME

PT INR FIBRINOGEN ANTITHROMBIN III ACTIVITY

PROTEIN C APTT
PROTEIN S D DIMER

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearyly, Quaterly or Montlhy

#### **Product Code:**

MSEQSC1 - MSEQSC4 - MSEQSC12

#### Level:

1 level per assay

#### Scheme: HEMATOLOGY

#### Sample material:

The proficiency testing item is **Human Blood** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

RDW/IDR-SD RBC/GR RDW/IDR

MCHC HGB PLT/PLQ

MPV MCV/VMG HCT

WBC/GB MCH/TCMH

#### Statistical Elaboration:

Quantitative

#### Frequency:

Yearly, Quaterly or Montlhy

Product Code:

MSEQSE1 - MSEQSE4 - MSEQSE12

**Level:** 1 level per assay



#### Scheme: CARDIAC MARKERS

#### Sample material:

The proficiency testing item is Human Lyophilized Serum simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose Serums which aive measurements can be referred to both physiological and pathological intervals. Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensurina the requirements of uniand formity stability according to the goals required for the test. Tests will be carried out on a number of statistically significant rates according to the instructions contained in the reference standard ISO 13528:2015.

#### Parameters:

BNP CKMB HS CRP NT PRO BNP TROPONIN T CARDIAC D DIMER HOMOCYSTEINE MYOGLOBIN PROCALCITONIN TROPONIN I

**Statistical Elaboration:** Quantitative **Frequency:** Yearly, Quaterly or Montlhy

Product Code: MSEQSCM1 - MSEQSCM4 - MSEQSCM12

Level: 1 level per assay. During the cycle we send different levels to analyze,

#### Scheme: HbA1C

#### Sample material:

The proficiency testing item is **Human Lyophilized Blood** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants. The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material tested Division is by the QS based the Cooron before dinator distribution to the participants. ensuring the requirements of uniformity and stability according to the goals required for the test. Tests will be carried out on a number of statistically significant rates according to the instructions contained in the reference standard ISO 13528:2015.

#### Parameters:

#### HBA<sub>1</sub>C

**Statistical Elaboration:** Quantitative **Frequency:** Yearly, Quaterly or Montlhy



#### Scheme: INFECTIVOLOGY

#### Sample material:

The proficiency testing item is **Human Lyophilized Serum** simulating the biological findings usually measured by the participants. These Serums will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose Serums which give measurements that can be referred to both physiological and pathological intervals

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

CHLAMYDIA IGG	HBCAB	HCV	ROSOLIA IGM
CHLAMYDIA IGM	HBCAB IGM	H. PYLORI IGG	SYPHILIS IGG
CYTOMEGALOVIRUS IGG	HBCAG	HERPES VIRUS I IGG	SYPHILIS IGM
CYTOMEGLOVIRUS IGM	HBEAB	HERPES VIRUS II IGG	TOXOPLASMA IGG
EPSTEIN BARR VCA IGG	HBEAG	HIV	TOXOPLASMA IGM
EPSTEIN BARR VCA IGM	HBSAB	HIV 1-2	TREPONEMA IGG
HAV IgG	HBSAG	ROSOLIA IGG	TREPONEMA IGM

#### Statistical Elaboration:

Qualitative

**HAV IGM** 

#### Frequency:

Yearly, Quaterly

Product Code:

MSEQSSE1 - MSEQUALITYS

#### Level:

1 level per assay. During the cycle we send different levels to analyze



## Scheme: MICROBIOLOGY

#### Sample material:

The proficiency testing item is **Lyophilized Bacterial Strain** simulating the biological findings usually measured by the participants. These samples will present a range of bacterail strains completely comparable with those found in the working routine of the participants.

Test samples must be treated in the same manner as that applied for the samples tested in the routine procedure. For each test parameter is required a single determination.

#### **Statistical Elaboration:**

Qualitative

#### Frequency:

Yearly, Quaterly

Product Code:

MSEQSB1 - MSEQUALITYB

#### Level:

1 bacterial strain per assay





### Scheme: URINE CHEMISTRY

#### Sample material:

The proficiency testing item is **Synthetic Urine** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions contained in the reference standard ISO 13528:2015.

#### Parameters:

ALBUMINE BLOOD LEUKOCYTES UROBILINOGEN
ASCORBIC ACID GLUCOSE MICROALBUMIN PROTEIN / PH
BILIRUBIN KETONES NITRITE SPECIFIC GRAVITY

Statistical Elaboration: Quantitative/Qualitative

Frequency: Yearyly, Quaterly

Product Code: MSEQSU1 - MSEQUALITYU

Level: 1 level per assay. During the cycle we send different levels to analyze

## Scheme: URINE SEDIMENTATION

#### Sample material:

The proficiency testing item is **Synthetic Urine** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

#### Parameters:

RED BLOOD CELLS WHITE BLOOD CELLS CASTS CRYSTAL

Statistical Elaboration: Qualitative

Frequency: Yearly, Quaterly

Product Code: MSEQSUS1 - MSEQUALITYUS

Level: 1 level per assay. During the cycle we send different levels to analyze

#### Scheme: DRUGS OF ABUSE

#### Sample material:

The proficiency testing item is **Synthetic Urine** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

AMPHETAMINE
AMPHETAMINE/METAMPHETAMINE
BARBITURATES
BENZODIAZEPINE

BUPRENORPHINE CANNABINOIDS COCAINE EXTASY

METAMPHETAMINE METHADONE MORPHINE OPIATES

Statistical Elaboration: Qualitative

Frequency: Yearyly, Quaterly

Product Code: MSEQSD1 - MSEQUALITYD

**Level:** 1 level per assay. During the cycle we send different levels to analyze,

#### Scheme: FECAL OCCULT BLOOD

#### Sample material:

The proficiency testing item is **Synthetic Stool** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the COP before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions

contained in the reference standard ISO 13528:2015.

#### Parameters:

#### FECAL OCCULT BLOOD

Statistical Elaboration: Quantitative

Frequency: Yearly, Quaterly



#### Scheme: ERYTHROCYTE SEDIMENTATION RATE

#### Sample material:

The proficiency testing item is **Human Blood** simulating the biological findings usually measured by the participants. These samples will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose samples which give measurements that can be referred to both physiological and pathological intervals.

Each test material is tested by the QS Division based on the Coordinator before distribution to the participants, ensuring the requirements of uniformity and stability according to the goals required for the test.

Tests will be carried out on a number of statistically significant rates according to the instructions contained in the reference standard ISO 13528:2015.

#### **Parameters:**

ESR 1 HOUR ESR 2 HOURS K. INDEX

Statistical Elaboration: Quantitative/Qualitative

Frequency: Yearly, Quaterly

Product Code: MSEQSEES1 - MSEQUALITYES

Level: 1 level per assay. During the cycle we send different levels to analyze,

## Scheme: BLOOD SMEAR

#### Sample material:

The proficiency testing item is **an Electronic File** simulating the biological findings usually measured by the participants. These files will present a range of values completely comparable with those found in the working routine of the participants.

The coordinator will choose files which give measurements that can be referred to both physiological and pathological intervals.

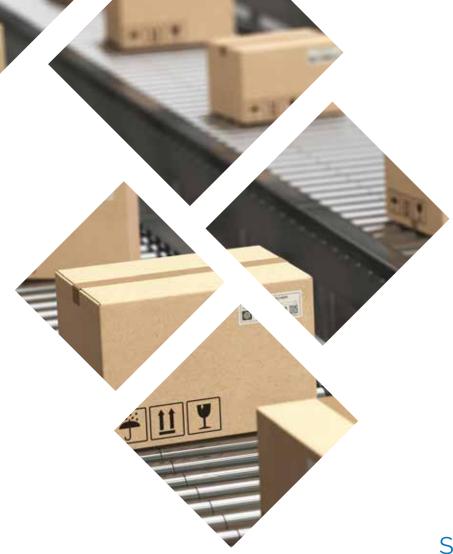
Statistical Elaboration: Qualitative

**Frequency:** Yearly, Quaterly MSEQSSM1 - MSEQUALITYSM

**Level:** 1 file per assay

03.

## Schedule



## SHIPMENT SCHEDULE

	JAN	FEB	MAR	APR	MAY	JUN	jUL	AUG	SE	СТ	NOV	DEC
CLINICAL CHEMISTRY	QS	QS	QS/QS									
HEMOSTASIS	QS	QS	QS/QS									
IMMUNOASSAY	QS	QS	QS/QS									
SPECIFIC PROTEINS	QS	QS	QS/QS									
ELECTROPHORESIS	QS	QS	QS/QS									
HEMATOLOGY	QS/QS	QS	QS									
INFECTIVOLOGY	QS			QS			QS			QS		
MICROBIOLOGY	QS			QS			QS			QS		
URINE	QS			QS			QS			QS		
DRUG OF ABUSE	QS			QS			QS			QS		
FECAL OCCULTBLOOD	QS			QS			QS			QS		
HBA1C	QS/QS	QS	QS									
CARDIAC MARKERS	QS/QS	QS	QS									
ESR	QS			QS			QS			QS		
URINE SEDIMENTATION	QS			QS			QS			QS		
SMEAR	QS			QS			QS			QS		

## 04. Web Site





- Website available in multiple language
- Hypertext Transfer Protocol Secure
- Requirment: web access, Adobe Reader
- No additional software required
- Password data protection regulation



- User friendly dashboard
- Easy data entry
- Report Download Area
- Reports available for 4 years
- View, print or store reports

05.

## **Statistical Elaboration**

The test report represents the final result of the external quality control and is the reference document for the participating laboratory.

Quality System elaborates **two types of Reports**: Quantitative Report, where the data is a numerical result Qualitative Report, where the data is a positive, negative or doubtful result

In each test report model, both the statistical and performance indexes and graphical representations are shown to make the participant immediately understand the possible presence of errors and their possible origins.

#### **QUANTITATIVE REPORT - INDEX**

#### Consensus Value:

CV is the target value of the test or expected value. It is calculated according to algorithm A of ISO 13528: 2015: all the measurements sent by the participants converge. The algorithm excludes aberrant measurements in order to calculate a robust average of the measurements sent. This average, poorly influenced by aberrant values is the target value of the test.

#### **Standard Deviation:**

SD is the dispersion of data sampled in the test. It is calculated according to the requirements of algorithm A of ISO 13528: 2015 and is also a robust marker that is not influenced by too aberrant data.

#### **Assigned DS:**

It is the standard deviation assigned to the test, calculated by the provider on the basis of the parameter's historical data.

The provider calculates the average of the analyte standard deviations in recent years and expresses the relative standard deviation or RDS.

The standard deviation is the consensus average multiplied by RDS. The standard deviation will be used to calculate the Z and Z 'performance indices. This allows a fairer evaluation of the performance without the low number of participants or excessive mistakes among the participants could give rise to too severe performance indexes.

#### **Standard Uncertainity**

S.U. is the estimate linked to a test result that characterizes the excursion of the values within which the true value is assumed to fall. In calculating the performance index it represents a fundamental discriminant:

if it is less than 30% of the assigned standard deviation then it is considered negligible and only the standard deviation participates in the calculation of the Z Score performance index; if it is more than 30% of the assigned standard deviation then it is no longer negligible and must be considered in the calculation of the performance index which will become Z 'Score.

#### Z Score

Performance index calculated as the ratio between the absolute error (difference between measured value and consensus average) and the assigned standard deviation.

If the value of Z is between -2 and 2, the performance will be acceptable; if the value is between -3-2 and between 2 and 3 the performance will be questionable, if the value is less than -3 or greater than 3 the performance will be unacceptable.

#### Z' Score

If the measurement uncertainty is not negligible, it is responsible for calculating this performance index. For the interpretation the considerations expressed for the Z Score are valid.

#### CV

Expresses variance of data distribution in percent.

#### Difference

Esprime l'errore assoluto della prestazione cioè la differenza tra misura e media di consenso.

#### **D**%

Absolute error expressed as a percentage.

#### QUANTITATIVE REPORT - GRAPHIC



#### **CLINICAL CHEMISTRY MONTHLY CYCLE 2019**

Scheme: : MSQSCH12/MSEQSCH12/MSEQSCH1

Unit of measurment

RdP: Final Revision ZKN170\_16\_2019\_4.p df

Issued on 03/05/2019 Signatory of EA, IAF and ILAC Hubushbecognition Agreements

RDS

Participants

**ACCREDIA** 

0,0600

66

Participant : ZKN170 Sample Lot : CH-1904

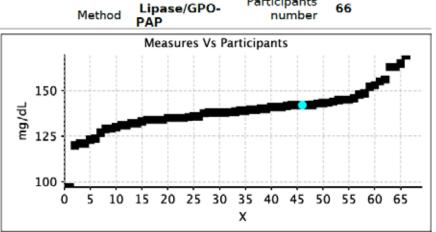
TRIGLYCERID

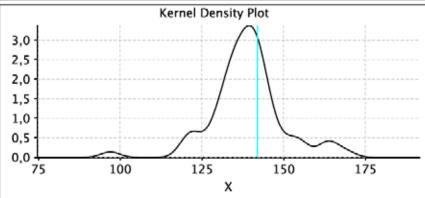
Authorized by RQS Paolo Cocci

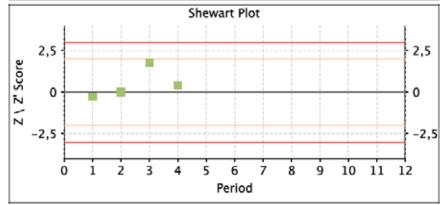
ES

Analit

Measure	142,0
Z Score	0,41
Standard Deviation	7,43
Assigned Value (robustus mean)	138,62
Assigned DS	8,32
Standard Uncertainty	1,14
CV%	5,36
Difference	3,38
D%	2,44





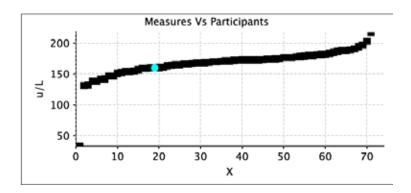




#### **Measures Vs Participants**

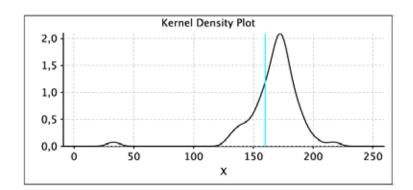
The graph represents the distribution of the measurements of the individual participants ordered by size.

This graph allows to identify at a glance the normality of the distribution and the possible magnitude of the measurement error committed.



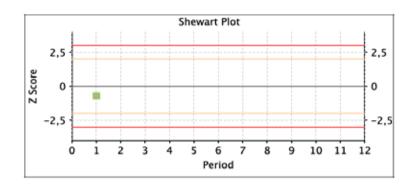
#### **Kernel Density Plot**

It represents the distribution of results in probability density: it is useful to understand how any mistake made is not due to imprecision of method / instrument or to uneven statistical data.



#### **Shewart Plot**

Graph showing in time order the Z scores obtained on the single analyte. Very useful to verify the performance over time of the services and especially useful for the verification of the effectiveness of any corrective actions carried out following a questionable or acceptable performance. It is the most important graph for the management of laboratory control charts.



## **QUALITATIVE REPORT - GRAPHIC**



#### **SEROLOGY JANUARY 2019**

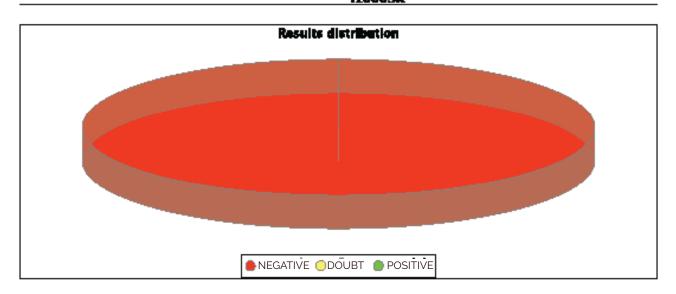
RdP: Reissue ZKN032\_9\_2019\_1.pdf

Participant:XC032 Sample Lot : SI-1901 Issued on 64/03/2019 Authorized by RQS Paolo Cocci

Analyle HCV

Analyzer - Abbott
Analyzer ARCHITECT
i1000SR

Method Chemiflex



Participants	112		
Negative results percentage	100,00 %	Measure	NEGATIVE
Positive results percentage	0,00 %	Assigned value	NEGATIVE
Doubt results percentage	0,00 %	Performance index	Acceptable

January 2019 Acceptable

Mad 51 13

#### **QUANTITATIVE REPORT - INDEX**

The qualitative report expresses particularly synthetic data and performance indices.

#### Negative results percentage

This index is the number of negative results found by the participants.

#### Positive results percentage

This index is the number of positive results found by the participants.

#### Doubt results percentage

This index is the number of doubt results found by the participants.

#### **Assigned value**

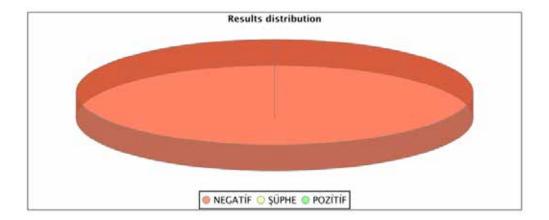
It is the expected result of the test: it is defined as the most frequent of the results provided.

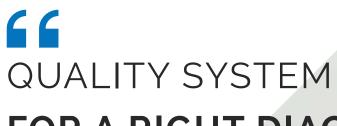
#### **Performance index**

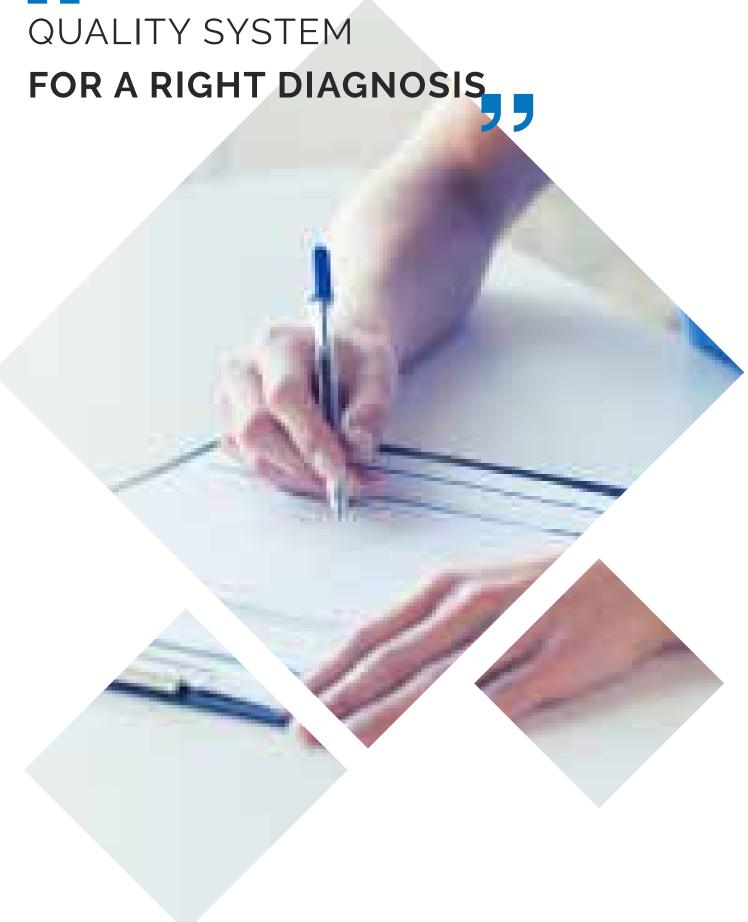
If the value provided by the participant corresponds to the assigned value, the performance index will be defined as acceptable; if it does not correspond it will be defined as unacceptable.

#### **Results distribution**

Partitioning graph that identifies the percentages of responses received









## **Bio Group Medical System**

Loc. Campiano 9/B 47867 - Talamello (RN) - Italy Phone: +39 0541 920686 (Ext. 5) Fax: +39 0541 922130 qs@biogroupmedicalsystem.com www.biogms.it







#### BIO GROUP - MEDICAL SYSTEM SrI Strumentazione e Diagnostici

Loc. Campiano, 9/B - 47867 Talamello (RN) e.mail: info@biogroupmedicalsystem.com

Tel. +39 0541 920686 Fax +39 0541 922130

Declaration of conformity certificate

We: Bio Group Medical System Srl Loc. Campiano 9/B, Talamello (RN) 47867 Italy Ensure and declare with sole responsibility that the products

Internal code: MSEQUALITYCH-MSEQSCH12- MSEQSCH4	Commercial name: QS Clinical Chemistry
EDMA Code: 38220000	First lot introduced in market: 112-NB
Internal code: MSEQUALITYPS	Commercial name: QS Specific Protein
EDMA Code: 38220000	First lot introduced in market: 220-NB
Internal code: MSEQUALITYEF	Commercial name: QS Electrophoresis
EDMA Code: 38220000	First lot introduced in market: 220-NB
Internal code: MSEQUALITYE8-MSEQSE12	Commercial name: QS Hematology
EDMA Code: 30021095	First lot introduced in market: 2020-EN
Internal code: MSEQUALITYC-MSEQSC12- MSEQSC4	Commercial name: QS Coagulation
EDMA Code: 38220000	First lot introduced in market: 084
nternal code: MSEQUALITYI-MSEQSI12-MSEQSI4	Commercial name: QS Immunology
EDMA Code: 38220000	First lot introduced in market: 360
Internal code: MSEQUALITYB	Commercial name: QS Bacteriology
EDMA Code: 38220000	First lot introduced in market: 326
Internal code: MSEQUALITYS	Commercial name: QS Serology
EDMA Code: 38220000	First lot introduced in market: 1020-SI
Internal code: MSEQUALITYU	Commercial name: QS Urine
EDMA Code: 38220000	First lot introduced in market: 002-U
Internal Code: MSEQUALITYH-MSEQSHB12	Commercial name: QS HBA1C
EDMA Code: 38220000	First lot introduced in market: 001-H
Internal Code: MSEQUALITYD	Commercial name: QS Drug of Abuse
EDMA Code: 38220000	First lot introduced in market: 330-D
Internal Code: MSEQUALITYSO	Commercial name: QS FOB
EDMA Code: 38220000	First lot introduced in market: 110-F
Internal Code: MSEQUALITYESR	Commercial name: QS ESR
EDMA Code: 30021095	First lot introduced in market: 001-V
Internal Code: MSEQUALITYCM	Commercial Name: QS Cardiac Marker
EDMA Code: 38220000	

meet the provisions of Council Directive 98/79/CE, annex I, as expected according to Council Directive 98/79/CE, annex III, concerning In Vitro Medical-Diagnostic Devices, which apply to us.

To this purpose, we guarantee and declare, on our own responsibility, what follows:

Subsequent lots will be consistent with technical specification of the first lot. This conformity will be attested on the quality control certificate.

The specified item satisfy the all dispositions applicable of Directive 98/79/CE

- We undertake in storing and placing to the competent Authority disposal the technical dossier of the product, as required by Council Directive 98/79/CE, annex III, as well as the production and control registrations for a period of at least 5 years after the last production date of the last lot.
- The specified device is designed, manufactured, and commercialized with date of first release not preceding the present

The present conformity declaration has validity of a maximum of 5 years.

Moreover, the manufacturer declare to have established and to maintain an appropriate procedure to guarantee the post-sale surveillance, as requested by Council Directive 98/79/CE.

alamello, anuary the 29th, 2019

MEDICAL SYSTE Loc. Camplane 9/B - 4 Cap. Soc. € 75.300,00 i.v. - Reg. Trib. Pesaro 7163 C.C.I.A.A. 98204 - IP.NetA G. Risot. 00964 170419







Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC Signatory of EA, IAF and ILAC Mutual Recognition Agreements

### **CERTIFICATO DI ACCREDITAMENTO**

#### Accreditation Certificate

ACCREDITAMENTO N. ACCREDITATION N.

0017P REV. 00

EMESSO DA ISSUED BY **DIPARTIMENTO LABORATORI DI PROVA** 

SI DICHIARA CHE WE DECLARE THAT

**BIO-GROUP MEDICAL SYSTEM S.r.I.** 

Sede/Headquarters:

- Loc. Campiano 9/b - 47867 Talamello RN

È CONFORME AI REQUISITI **DELLA NORMA** 

UNI CEI EN ISO/IEC 17043:2010

MEETS THE REQUIREMENTS OF THE STANDARD

ISO/IEC 17043:2010

OUALE

Organizzatori di prove valutative interlaboratorio

**Proficiency Testing Provider** 

Data di 1ª emissione 1st issue date

14-11-2018

Dott.ssa Silvia Tramontin

Il Direttore di Dipartimento

The Department Director

Data di modifica Modification date

14-11-2018

Dott. Filippe Trifiletti

Il Direttore Generale The General Director

Data di scadenza Expiring date 13-11-2022

Ing. Giuseppe Rossi Il Presidente The President

L'accreditamento attesta la competenza tecnica dell'Organizzazione relativamente al campo di accreditamento riportato nell'Elenco Schemi allegato al presente certificato di accreditamento.

Il presente certificato non è da ritenersi valido se non accompagnato dagli Elenchi Schemi, che possono variare nel tempo. La vigenza dell'accreditamento può essere verificata sul sito web (www.accredia.it) o richiesta al Dipartimento di competenza.

The accreditation certifies the technical competence of the organisation limited to the scope detailed in the attached Enclosure. The present certificate is valid only if associated to the annexed schedule, that may vary in the time.

Confirmation of the validity of accreditation can be verified on website www.accredia.it or by contacting the relevant Department.

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