

NCDC / Lugar Center Capacities and Current Activities

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NCDC

**Is a central public health and research institution under the authority
of MoLHSA**

Established in 1996 on the basis of CDC / Atlanta Structure

- 1937** Establishment of the Anti-Plague Station in Georgia
- 1992** Research Center of Especially Dangerous Pathogens (*EDPs*)
- 1996** National Center for Disease Control
- 2003** Integration of Center of Medical Statistics
- 2007** Large-scale reorganization: Integration of MoH Public Health Department into the NCDC
- 2013** Integration of R. Lugar Center for Public Health Research into the NCDC



**Ministry of Internally Displaces Persons from the
Occupied Territories, Health, Labor, and Social Affairs**

**Multi-sectoral Supervisory Board:
MOIDPOTLHSA, MoEP&A, MoES, MIA, MoD, MoF**

National Center for Disease Control and Public Health

**Lab Part
Richard G. Lugar Center
“One World – One Health”**

**Non-Lab/Office
Part of NCDC&PH**

**Immunization
Cold Chain Infrastructure**



Vision: Our Knowledge – for Public Health

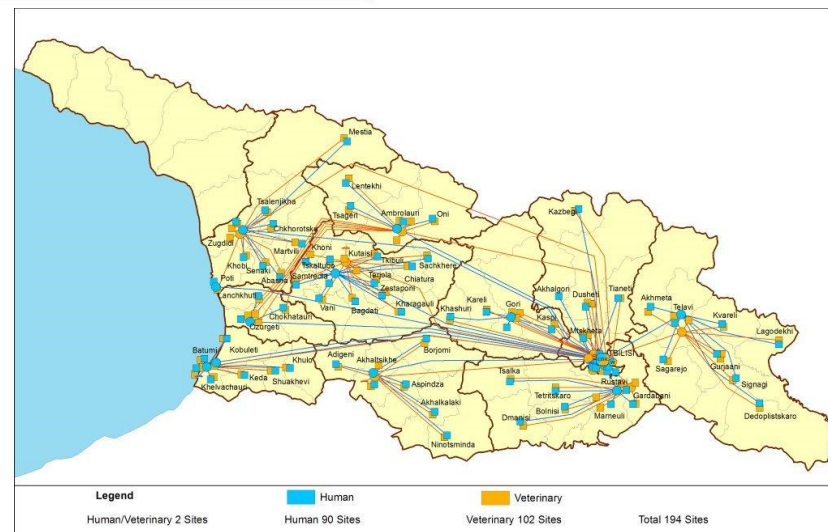
Mission: Protection and improvement of the health of Georgia's population through scientific evidence-based prevention of diseases, preparing for and timely responding to threats of public health

საქართველოს საზოგადოებრივი ჯანმრთელობის ქსელი

შრობის ჯანმრთელობის და სოციალური დაცვის სამინისტრო
დამკვეთი ონკნული
დაჯერებული ლაბორატორიები
და ლაბორატორიების საფუძველი
საზოგადოებრივი ჯანდაცვის ცენტრები
ფარ-ის რეგიონების
სტრატეგიული სამუშაოს
ლაბორატორიები
ვებსაიტები
რა ლეგაციის სახელის ცენტრი

თბილისის ქსელი

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Non-Laboratory Part of NCDC

State Public Health Programs:

- Immunization
- Blood Safety
- TB
- HIV/AIDS
- Screening
- Surveillance
- MCH
- Occupational diseases
- Health promotion
- HCV Screening

Epid-surveillance of Infectious Diseases:

- VPD
- Diarrheal
- Vector borne
- Air borne
- EDP - Zoonoses
- STI/HIV/TB

Surveillance of NCD:

- CVD
- Cancer
- Diabetes
- CRD
- Risk factors
- Health promotion
- Behavioral Health

GF Programs
Recipient

Environ-
mental Health

Public Health
Preparedness
and Response

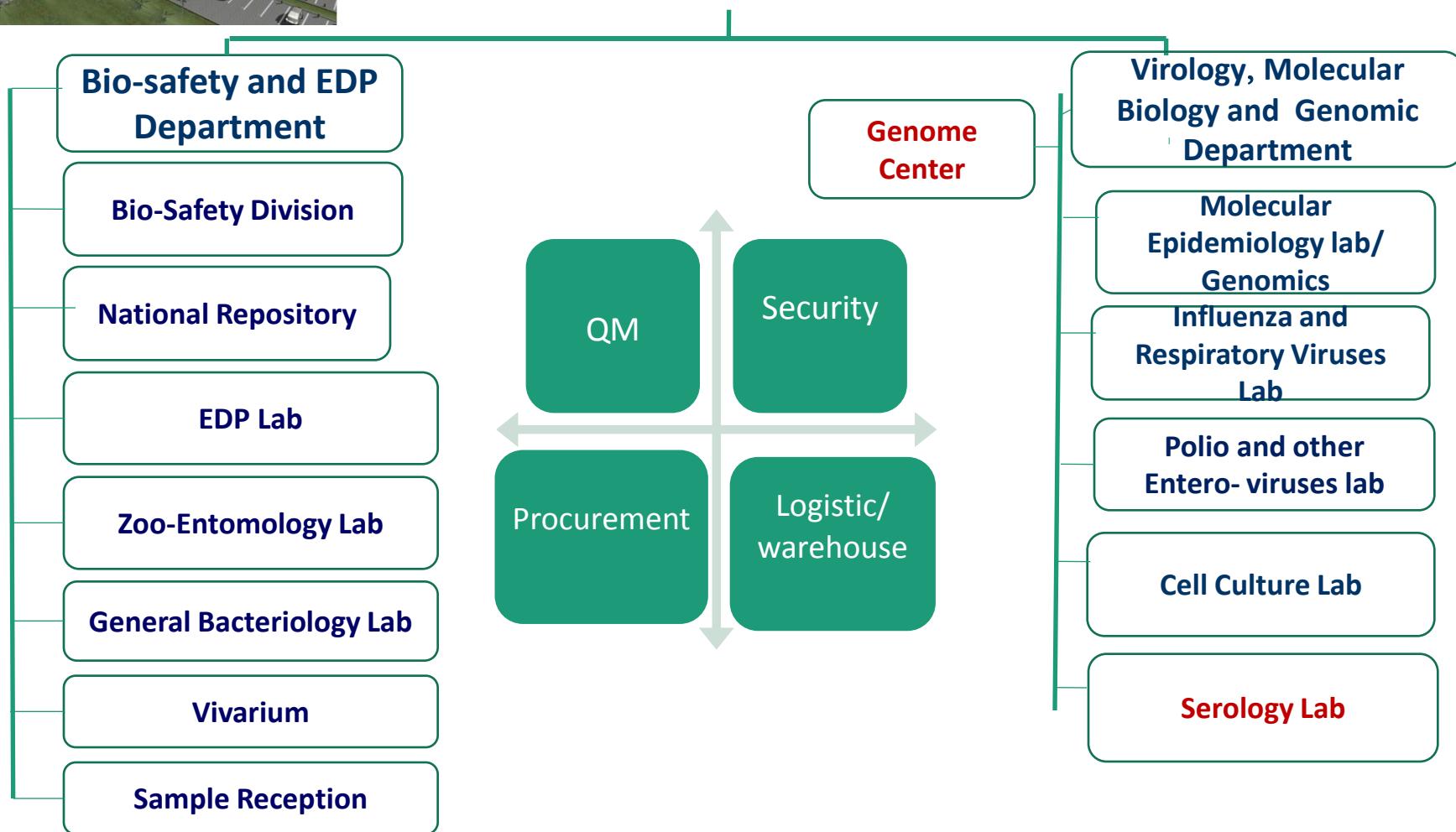
Medical
Statistics

Training Center





R. Lugar Center for Public Health Research



Laboratory and human Capacity

- **2-floor building with total laboratory floor area - 2119 sqM**
 - BSL2 labs – 1727 sqM
 - BSL3 labs – 392 sqM

- **Total number of personnel - 75 employees, including:**
 - Scientists – 61
 - Engineers and technicians – 11 (1 engineer; 10 technicians)
 - Administrative and support staff – 3

- **Outsource services:**
 - Facility engineering and technical support provided by LLC Industrial Commercial Residential Systems Service (ICRS). Total 21 staff, among them: 14 bio-engineers, 5 technicians and 2 administrative and support staff
 - Facility physical security provided by the State Security Police of Georgia. Total number of staff - 33 security guards.

Additional Spaces Designed as a BSL 3

❑ Vivarium / Animal BSL 3

- **Did not pass certification due to: Cage washing facility; Joints on the floor; Walls covers; Containment seals;**
- **Needs additional re-constructions for BSL 3**
- **Is used for: Serology and Field material preparation**

❑ Block C, 1st floor rooms

- **Facility is used for: General bacteriology; Rotavirus serology; Field material DNA/RNA extraction; PCR rooms for Polio / Influenza labs**

❖ No need in additional BSL 3 space in the nearest future

Funding level for programme areas 2017

Distribution of funds allocated for the NCDC/Lugar centre are on:

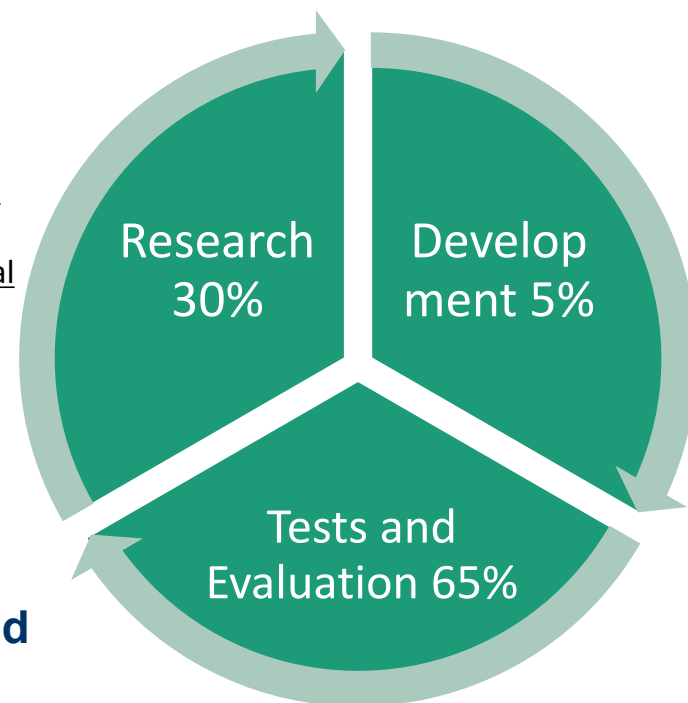
➤ **Research – scientific and research work**

More than 45 collaborative programs/projects are running currently under the different donor organizations such as:

US CDC, US DoD Defence Threat Reduction Agency (DTRA), EU projects, German Federal Foreign Office- GIZ, International Science and Technology Center (ISTC), Science and Technology Center in Ukraine (STCU), GRDF, Shota Rustaveli National Science Foundation, etc

➤ **Development – new methods on testing and diagnostics**

➤ **Tests and Evaluation - routine bacteriological and molecular diagnostics, reference testing**



In 2017 total amount of annual funding of CPHRL is 3 790 885,5 USD.

Funds and costs	GEL	USD
Security Service	420 000,00	168 000,00
Laboratory Supply	394 565,88	157 826,40
Operational cost	1 412 400,00	564 960,00
Salary	1 613 894,00	645 557,80
Projects funds	5636350,91	2 703 552.5
Total	9477211,00	3 790 885,5

Accreditation & Certification – NCDC/Lugar Center

3 Labs accredited by WHO

- Polio
- Influenza
- Measles/Rubella



CERTIFICATE OF ACCREDITATION

ANSI-ASQ National Accreditation Board
500 Montgomey Street, Suite 625, Alexandria, VA 22314, 877-344-3044

This is to certify that

LEPL “National Center for Disease Control and
Public Health” / Richard Lugar Center for Public Health
Research

0109, Alexeevka Settlement #3
Kakheti Highway 16
Tbilisi, Georgia

has been assessed by ANAB
and meets the requirements of international standard

ISO 15189:2012

while demonstrating technical competence in the field of

Medical and Clinical Laboratories

Refer to the accompanying Scope of Accreditation for information regarding the types of
materials to which this accreditation applies.

AM-2542
Certificate Number

ANAB Approval

Certificate Valid 01/05/2018-01/05/2020
Version No. 001 Issued: 01/05/2018



National Center for Disease Control & Public Health

5 Labs Connected to WHO Lab Network with EQA

- Rota
- Invasive Meningitis
- Malaria
- Salmonellosis
- AMR



CERTIFICATE OF REGISTRATION

This is to certify that:
**National Center for disease Control and
Public Health LEPL**

9 M. Asatiani Street, Tbilisi, 0177, GEORGIA

operates a
QUALITY MANAGEMENT SYSTEM

which complies with the requirements of
ISO 9001:2015

for the following scope
Laboratory tests.

Scope Exclusions: None.

Certificate No: QMS41351

Issued: 29 March 2018

Expires: 12 May 2021

Originally Certified: 13 May 2015

Current Certification: 29 March 2018

Nicole Grantham

General Manager SAI Global Certification Services



Registered by:
SAI Global Certification Services Pty Ltd (ACN 110 714 880) 480 George Street, Sydney, NSW, 2000 Australia with SAI Global
Pty Limited 680 George Street Sydney NSW 2000 Australia ("SAI Global") and subject to the SAI Global Terms and Conditions
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www.ncdc.ge

Mission and Main Functions of the Lugar Center

- Provision of laboratory-based surveillance in compliance with IHR and GHSA
- Rapid detection of biological threats, confirmation and respond
- Lead facility responsible for biological safety and security
- *EDPs* consolidated in a secure place
- Zooentomological surveillance
- Provision of lab support to Public Health State Programs
- Participation in Global Health Security Agenda (GHSA) - real-time bio-surveillance, laboratory and zoonotic diseases action packages
- Development of bio-medical research potential in the country

Exclusive Capacity (1)

- Diagnostics of especially dangerous pathogens (**Anthrax, Tularemia, Brucellosis, Botulism, Plague, Crimea Congo, Ebola, Hanta and other hemorrhagic fever**), as well as rare and exotic diseases (etc.) **Diphtheria, Malaria, Bartonella, Leptospirosis, Pertussis, Zika, Dengue, Chikungunya**
- **Influenza** – Virology and Molecular Surveillance
- **Respiratory, diarrheal and enteroviruses** surveillance with Multiplex PCR
- **Polio** - virology and molecular surveillance; referral for Armenia
- **Rotavirus**- surveillance and genotyping
- **Measles, Rubella** – surveillance and genotyping

Exclusive Capacity (2)

- **Diagnostics of Especially Dangerous Pathogens, according to international standards in compliance with national and international legislation, takes place at BSL 3 (approx. 550-750 times annually)**
- **National Collection of Microorganisms is protected by international standards**
- **Full genome sequencing**

National Repository of Bacteria and Viruses

The National Repository of Bacteria and Viruses was established on 27 September 1971 on the basis of the Anti-plague Station of Georgia.

The repository stores EDP and Non-EDP Strains on regularly inspection-audit basis.

The inventory audit of EDP strains are performed once in a year and Non–EDP strains twice in a year.

Last inventory audit on non-EDPs was performed in September 2018.

✓ total number of microorganisms - 1857 (2423 cryovials)

Inventory Audit on EDP collection was conducted in February, 2018. Among them are:

- ✓ *Y. pestis*-46 (250 cryovials)
- ✓ *F. tularensis* - 104 (351 cryovials)
- ✓ *B. anthracis* - 580 (1461 cryovials)
- ✓ *Brucella* - 119 (419 cryovials)
- ✓ *C. botulinum* - 96 (192 vials)

All Data on Pathogens Are Registered

- In logs
- In the Pathogen Asset Control System (PACS)

The Pathogen Asset Control System (PACS) is an electronic system designed for accounting and control of the biological agents' collections.

PACS provides a secure, reliable, and timely method of accounting and monitoring the movement of biological agents, and provides ample opportunities for data auditing and reports' generating.



Performed Works at the Lugar center in 2017 (1)

Prepared and delivered to -

- **bacteriological laboratory:** *Shigella* - 36 , *L. pneumophila* - 2 , reference strains - 188 (total 226 strains)
- **Molecular epidemiology lab:** *F. tularensis* -13 and *B. anthracis* strains - 59
- **EDP lab** for quality control and test - ATCC and vaccine strains (Anthrax, Tularemia, Plague and Brucellosis). Total 12 strains

Total tested samples in the department of EDP within the state programs and research projects/grants -

- ✓ Soil – 1030 samples
- ✓ Ectoparasite – 878 (117 by research projects) example
- ✓ Rodent – 1365 (80 by research projects) samples
- ✓ Food product samples – 5 samples
- ✓ Clinical samples – 145 samples

Confirmed EDP cultures - 18

Performed Works at the Lugar center in 2017 (2)

- ✓ **Collected types of ticks:** *Dermacentor marginatus*, *Hyalomma marginatum*, *Haemaphysalis punctata*, *Haemaphysalis sulcata*, *Haemaphysalis parva*, *Haemaphysalis warburtoni*, *Rhipicephalus sanguineus*, *Rhipicephalus bursa*, *Ixodes ricinus*, *Rhipicephalus (Boophilus) annulatus*, *Hyalomma aegyptium*;
- ✓ **Total number of samples** - 12 838 examples (27% from the research projects)
- ✓ **Total number of vectors (phlebotomies)** - 111 examples (Ph.(Larroussius) kandelakii, Ph. balcanicus, Ph. sergenti, Ph. halepensis)
- ✓ **Total number of vectors (Mosquito)** - 5 390 examples (Ae. albopictus, Ae. aegypti, Ae. caspius, Ae. vexans, Ae. geniculatus, An. maculipennis, An. claviger, An. plumbeus, An. pulcherrimus, An. sacharovi, An. hyrcanus, Cx. pipiens). One example of Anopheles is taken; 2 100 examples of Cx. pipiens and 3 examples Ae. Geniculatus sent from Batumi ZDL are identified
- ✓ Total 192 samples were analysed in polio and other enteroviruses laboratory, from isolated 43 strains 14 were polio virus, which farther examination confirmed vaccine-origination.
- ✓ From total 981 samples collected to analyse on influenza, 238 were positive on Real-Time PCR (3 - A/H1p, 54 - A/H3, 181 – B); to detect other respiratory viruses 446 samples were tested using of multiplex PCR, among them 294 sampis were positive on one or several respiratory viruses

Performed Works at the Lugar center in 2017 (3)

Test type	Positive	Suspicious	total
CCHF IgM	3	0	54
CCHF IgG	6	1	52
Hanta (puumala) IgM	47	15	166
Hanta (puumala) IgG	14	6	158
Hanta (WB) IgM	8	2	10
Hanta (WB) IgG	1	0	1
TBEV IgM	6	3	29
TBEV IgG	2	1	28
Leptospira IgM	114	64	561
Leptospira IgG	20	27	536
Brucella IgM	67	66	515
Brucella IgG	74	48	526
Borrelia IgM	214	141	725
Borrelia IgG	96	65	725
Borrelia (WB) IgM	55	22	118
Borrelia (WB) IgG	34	6	48
Borrelia (IFA) IgM	5	0	9
Borrelia (IFA) IgG	5	0	5
Coxiella burnetii IgM	10	10	164
Coxiella burnetii IgG	5	3	160
EBV IgM	7	1	13
EBV IgG	11	1	15
Leishmania Ab	8	5	157
Entamoeba histolitica IgG	0	0	0
Enterovirus IgM	6	3	20
Enterovirus IgG	1	0	3
Zika IgM	0	0	1
Zika IgG	0	0	1
HAV IgM	0	0	4
HAV IgG	0	0	1

Performed Works at the Lugar center in 2017(4)

Test type	Positive	Suspicious	total
Mumps IgM	0	1	6
Mumps IgG	3	2	6
Measles IgM	51	5	159
Rubella IgM	1	7	152
Measles IgG	5	0	5
Rubella IgG	6	0	7
Dengue IgM	6	2	28
Dengue IgG	5	0	28
Chikungunya IgM	1	0	2
Chikungunya IgG	1	0	3
B. Anthracis IgG	1	0	1
VZV IgM	1	0	6
VZV IgG	3	1	6
F. tularensis IgM	32	21	116
F. tularensis IgG	18	11	114
F. tularensis Ab	10	0	70
Riketsia Spotted Fever IgM	1	0	16
Riketsia Spotted Fever IgG	1	0	16
Bordetela pertusis IgM	122	30	199
Bordetela pertusis IgG	19	14	110
Bartonella Henselae/Quintana IgG	23	0	91
Parvovirus B19 IgM	16	5	26
Parvovirus B19 IgG	14	2	25
Leginella pneumophila IgM	0	3	3
Leginella pneumophila IgG	0	0	3
Yellow fever IgM	0	0	2
Yellow fever IgG	1	0	2
West Nile IgM	0	1	1
West Nile IgG	0	0	1
Salmonella IgG	0	0	1

Achievements (1)

First time:

In the World:

- A new specie of Orthopox virus discovered (Published in New England Journal of Medicine)
- Brucellosis pathogens were found in bats
- *Bartonella taylorii* was detected as a human pathogen in patients with HIV / AIDS
- *Janibacter hoylei* PVAS-1 isolated from endocarditis clinical sample

In Georgia:

- Cowpox detected in West Georgia
- The Results of the suspected but unconfirmed samples 41% of Anthrax turned out to be caused by the viral infection of Parapox
- Data on AMR was processed and published on the CAESAR and GLASS
- Gram-negative bacteria was detected as high resistant (CRE, ESBL)
- The mechanism of resistance was studied of Neisseria gonorrhea and revealed resistant strains
- Unknown Etiology pneumonia cases turned out to be caused by the Bacterial infection of Streptococcus pneumonia in 50% of samples by molecular method



Achievements (2)

First time :

In Georgia:

- Anthrax in soil active foci detection increased to 15% (10% historically). Correspondently, increased the risk of disease, as in animals, as well as in humans
- Tularemia new foci was detected in Kvemo Kartli and Imereti (Tkibuli district)
- *Cl. difficile* was isolated from clinical samples
- Algorithm towards Shiga toxin producing Escherichia coli (STEC) detection and further culture isolation is adjusted and applied for each suspect acute diarrheal diseases case identification
- STEC is confirmed as a major cause of bloody diarrhea disease complicated with HUS in Georgia
- National Pulse field gel electrophoresis (PFGE) database is established for *Shigella sonnei* , *Shigella spp.* , *E. coli* non-0157, *Shigella flexneri* and *Salmonella* at NCDC
- Atypical Shigella serotype is identified from Shigella outbreak from 2014
- Sequencing of measles / rubella was introduced. Cases revealed measles genotype - D8
- Through GARP (Genetic Algorithm for Rule-set Production) it became possible to forecast and ecologically model of vectors; GIS database started to be developed

GHSA Action Packages

Prevent

1. Antimicrobial Resistance
2. **Zoonotic Disease – Georgia contributing**
3. Biosafety and Biosecurity
4. Immunization

Detect

1. **National laboratory System – Georgia contributing**
2. **Real-Time Surveillance – Georgia together with Norway Leading**
3. GHSA Reporting
4. Workforce Development

Respond

1. EOC
2. Linking Public Health Law and Multisectoral Rapid Response
3. Medical Countermeasures and Personnel Deployment

CDC / Atlanta



WRAIR



WRAIR
Walter Reed Army
Institute of Research
Biomedical Research

NIH



WB

FII



GIZ-Bundeswehr
Institute of Microbiology



**Principal Recipient of
GFTAM Grants**



DTRA



NCDC

WHO



UNFPA



UNICEF



USAID



FOA / OIE

GAVI

BMJ

Universities & Research Centers:

**University of Florida, University of Maryland, Emory University, Johns
Hopkins University, North Arizona University, University of Oslo, etc.**



National Center for Disease Control & Public Health

www.ncdc.ge

Research Projects of Public Health Importance at NCDC

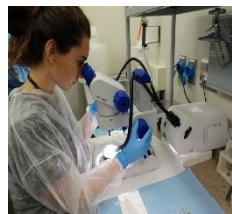
In 2017 NCDC/Lugar center has implemented more than 45 international projects and research grants

- Tularemia Epidemiology and Ecology in Georgia GG 19
- Study of Anthrax Ecology in Georgia and Azerbaijan – GG27
- Characterization of NCDC Strain Repository by Next Generation Sequencing BAA
- Poxvirus project: HDTRA1-15-1-006
- Enhancing capacity for case detection and diagnosis of febrile zoonotic-related cutaneous lesions in Georgia –DTRA BAA
- Human diseases epidemiology and EDPs surveillance in Georgia CBR/DTRA, GG-21
- Establishing enterovirus surveillance in Georgia (GDD)
- Laboratory capacity building of molecular genotyping technology for surveillance improvement of vaccine preventable diseases (GDD)
- Strengthening surveillance to assess real burden of viral Hepatitis in Georgia (GDD)
- Genetic characteristic of hepatitis C virus in Georgia: implications for hepatitis C elimination program
- Surveillance and Response to Avian and Pandemic Influenza (CDC)



Research projects and collaborative scientific work in 2018

- Establishment of a Western Asian Network for the Improvement of Biosecurity in the Caucasus Region
- *Mycobacterium bovis* infection in South Caucasus and its Health Burden, ISTC # 2312
- Epidemiology of Carbapenem- resistant *Enterobacteriaceae* in Georgia. ISTC/G-2229
- Evaluation study of Rapid Diagnostic Tests (RDTs) detecting antibodies against hepatitis C virus
- Evaluation of the diagnostic performance of the Xpert® Fingerstick HCV Viral Load (VL) Assay
- Molecular Epidemiology and Ecology of *Yersinia* Species in the Transboundary Plague Endemic Territory in Georgia and Azerbaijan
- Understanding the Risk of Bat-Borne Zoonotic Disease Emergence in Western Asia (DTRA)
- Characterization of NCDC Strain Repository by Next Generation Sequencing (DTRA/BAA) HDTRA1-15-1-0062
- Collaborative Genetic Characterization of NCDC Collections of *Bacillus anthracis*, *Francisella tularensis*, *Yersinia pestis* and *Brucella* species CBM.DIAGB.03.10.WR.002



Professional Development within the local and international collaboration

- NCDC/Lugar Center has up to 30 young scientists, among them 17 are Doctoral Students, who are given the opportunity to develop professional skills at the basis of EU and US universities/research institutions, (Bundesweher Institute of Microbiology, Baltimore University, Livermore and Los Alamos National Laboratories, CDC and etc.)
- In 2017 one young scientist defended doctoral thesis “Molecular-genetic study of *Br.melitensis* strains isolated in Georgia”
- NCDC/Lugar Center serves the laboratory base for the local universities. University doctoral, master and bachelor students have opportunity to pass internship:
 - 3 Doctoral Student from TSU
 - 7 Microbiologist (professional Practice)
- NCDC/Lugar Center offers trainings and professional practice to representatives of neighbouring counties as well as other Middle east or Central Asian Countries

Publications in Peer Review journals:

- Within 2017 total publications issues under NCDC in various national as well as international journals are 144, among them:
 - more then 20 publications from the Lugar Center
 - 1 joint with LMA



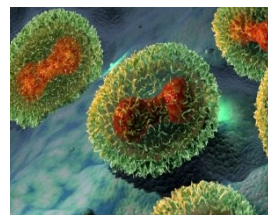
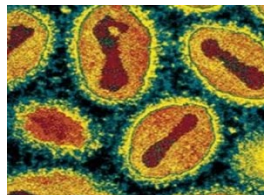
Selected Publications

- Bai Y., **Urushadze L.**, Osikowicz L., McKee Cl., Kuzmin Iv., Kandaurov A., **Babuadze G.**, Natradze I., **Imnadze P.**, Kosoy M. ***Molecular Survey of Bacterial Zoonotic Agents in Bats from the Country of Georgia (Caucasus)***. PLOS ONE DOI:10.1371/journal.pone.0171175 January 27, 2017, p.1-12;
- Lewis Z T., **Sidamonidze K.**, Tsaturyan V., **Tsereteli D.**, Khachdze N., PepoyanAstghik , **Zhgenti E.**, **Tevzadze L.**, Manvelyan A., e Balayan M., **Imnadze P.**, Torok T., Lemay D.G., Mills D.A . ***The Fecal Microbial Community of Breast-Fed Infants from Armenia and Georgia***. Scientific Repots /7:40932 / DOI:10.1038/srep40932, 2 February 2017, pp. 1-11, www.nature.com/scientificreports;
- **Sidamonidze K.**, Hahg J., Javashvili G., Ekaterine Zhgenti, Trapaidze N., **Imnadze P.**, Nikolich M. P. ***Genome Sequences of Human and Livestock Isolates of Brucella melitensis and Brucella abortus from the Country of Georgia***. American Society for Microbiology, Volume 5, Issue 6, e01518-16, Downloaded from [http:// genomea.asm.org/](http://genomea.asm.org/)on February 15. 2017 by guest, genomea.asm.org, p.1-3;
- KoiavaT. , GonçalvesD., Palmeira J., **Arobelidze K.**, Tediashvili M., Akhvlediani L., Ferreira H. ***NDM arrived to Republic of Georgia” Journal of Global Antimicrobial Resistance***. March 2017, Volume 8, p. 157-158; Publisher Elsevier journal, thomson reuters impact factor 1.087 [http://www.jgaronline.com/article/S2213-7165\(17\)30014-0/abstract](http://www.jgaronline.com/article/S2213-7165(17)30014-0/abstract);
- **Urushadze L.**, Bai Y., Osikowicz L., McKee C., **Sidamonidze K.**, Putkaradze D., **Imnadze P.**, Kandaurov A., Kuzmin I., Kosoy M. ***Prevalence, diversity, and host associations of Bartonella strains in bats from Georgia (Caucasus)***. PLoS Negl Trop Dis 11(4): e0005428. April 11, 2017,pp.1-12; <https://doi.org/10.1371/journal.pntd.0005428>;
- V. Picot, A. Rasuli, A. Abella-Rider, M. Saadatian-Elahi, A. Aikimbayev, A.Bakia, S. Benmais, Z. Bouslama, K. De Balogh, A. Dehove, F. Davlyatov, F. Farahatay, G. Congal, A. Cholami, **P. Imnadze**, M. Issad, S. Khoufi, V. Nedasedov, A. Rafila, H. Rich, A. Soufi, J. Tuychiev, N. Vrangles, R. Vodopija, I. Zaouia, L. Nel. ***The Middle East and Eastern Europe rabiens Expert Bureau (MEEREB) third meeting: Lyon-France (7-8 April, 2015)***. Journal of Infection and Public Health (2017), JIPH -726 No of Pages 7. <http://dx.doi.org/10.1016/j.jiph.2017.03.005>;
- **Sidamonidze K.**, Su W., Zhgenti E., Buyuk F., Sahin M., **Trapaidze N.**, et al. ***Molecular Typing of Brucella Species Strains from Georgia and Turkey***. Journal of Bacteriology and Mycology, Volume 4 Issue 3 - 2017 ISSN : 2471-0172 ; 1054. www.austinpublishinggroup.com; 7 p.;
- **Khmaladze E.**, Su W., Zhgenti E., Buyuk F., Sahin M., Nicolich MP., et al. ***Molecular Genotyping of Bacillus anthracis Strains from Georgia and Northeastern Part of Turkey***. Journal of Bacteriology and Mycology, Volume 4 Issue 3 - 2017 ISSN : 2471-0172; 1053. www.austinpublishinggroup.com; 5 p.;
- **Kotorashvili A.**, Meparishvili G., Gogoladze G. , **Kotaria N.**, Muradashvili M., **Zarandia M.**, **Tsaguria D.** ***Three Draft Genome Sequences of the Bacterial Plant Pathogen Ralstonia solanacearum Isolated in Georgia***. Genome Announcements, 2017, Volume 5 Issue 23 e00480-17, p 2.;

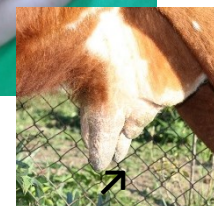


Outstanding Finding

Poxvirus project: HDTRA1-15-1-006



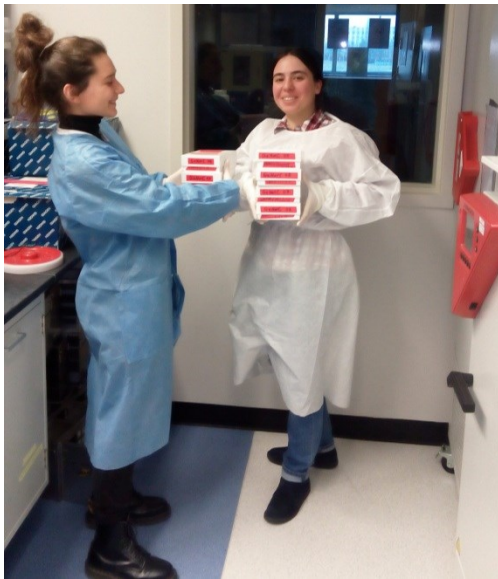
- In 2013, first time in Georgia, in Akhmeta region orthopox virus infection was identified in human and animal; Modern molecular diagnostic tools (virus isolation, Whole Genome Sequencing) revealed novel, genetically different virus that does not belong to any known OPXV species. Virus is named as Akhmeta virus.
- In 2016, in Abasha region another case of Orthopoxvirus in human and animal (cow) was confirmed. For species differentiation gene sequencing was applied; as a result, first human cowpox virus infection was determined in Georgia



Training Capacity

Training of Interns from Georgian Universities 2016-18

- 47 students were trained at Lugar Center and more advanced ones prepared their Bachelor / Masters thesis using data generated at the Lugar Center
- 9 of them were hired under scientific projects, had trainings at different international institutions and attended international conferences



Training Capacity

International Trainings and Workshops

- Pathogen Detection Capability Development Collaboration and Training Workshop had a place in August 2017 for the colleagues from different institutions of Egypt organized by Los Alamos National Laboratory, USA



Training Capacity

International Trainings and Workshops

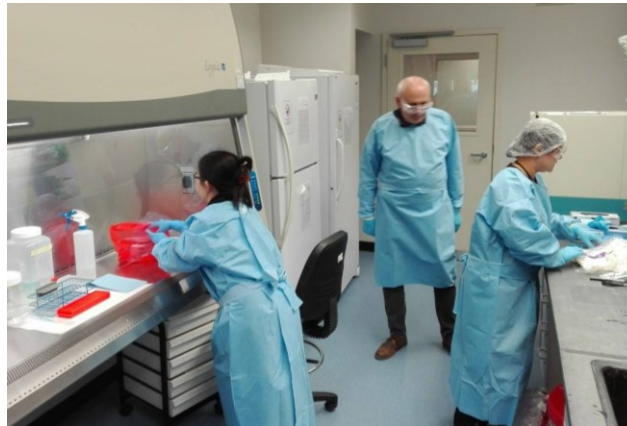
- Bacterial Meningitis PCR Detection and Serotyping new method demonstration workshop organized by WHO had a place at Lugar Center in 2017. Colleagues from the laboratories involved in meningitis surveillance from Kirgizia, Ukraine, Armenia, Russia, Azerbaijan, Belorussia, Uzbekistan and Georgia participated in the workshop



Training Capacity

Biosafety and Biosecurity Trainings for local as well as for foreign lab personnel

- Training and Resource Center in Biosafety and Biosecurity established under the EU/UNICRI funded project (2013-2015) more than 35 lab officers from Armenia, Azerbaijan Georgia and Turkey were prepared on the basis of Lugar Center.
- In October 2017 under the TB Myanmar program 3 laboratory personnel passed ToT training in Biosafety and Biosecurity (10 days).



Peer Review Transparency Exercise under BWC Compliance Building

- On 14-15 November 2018 Georgia hosted 17 UN member States by opening the door of state of art laboratory “Lugar Center for Public Health Research”
- Participating countries: Austria, Bosnia, Cameroon, Columbia, Chile, Hungary, Iraq, Italy, Germany, Malaysia, Mali, Myanmar, Montenegro, Kazakhstan, Uganda, UK, US.
- Total 23 delegates took part in the exercise, from which 12 were Subject-matter experts, 10 – diplomats, 2 from EU and BWC ISU, and one from Civil Society representative from the King College London.
- The event was conducted under the Auspices of MFA and MOH of Georgia and by support of German Government.
- Experience shared by Bundersweher Military Institute of Microbiology during the preparation phase greatly assisted in well organization and performance.
- PRE visit was publicly announces by local and international Media.



Thank you!

R. Lugar Center for Public Health Research



New Administrative Building

