## Centre Information

<table>
<thead>
<tr>
<th>Title of WOAH Collaborating Centre</th>
<th>WOAH Collaborating Centre for Diagnosis and Control of Viral Animal Diseases in Eastern Europe, Central Asia and Transcaucasia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address of WOAH Collaborating Centre</td>
<td>Federal State Financed Institution “Federal Centre for Animal Health” (FGBI “ARRIAH”) 600901 Yurevets Vladimir RUSSIA</td>
</tr>
<tr>
<td>Tel:</td>
<td>+7(4922) 26 06 14</td>
</tr>
<tr>
<td>E-mail address:</td>
<td><a href="mailto:arriah@fsvps.gov">arriah@fsvps.gov</a>.</td>
</tr>
<tr>
<td>Website:</td>
<td><a href="http://www.arriah.ru">www.arriah.ru</a></td>
</tr>
<tr>
<td>Name Director of Institute (Responsible Official):</td>
<td>Roman N. Rybin, Director of FGBI ‘ARRIAH’</td>
</tr>
<tr>
<td>Name (including Title and Position) of Head of the Collaborating Centre (WOAH Contact Point):</td>
<td>Ilya Chvala, Deputy director for research</td>
</tr>
<tr>
<td>Name of the writer:</td>
<td>Anna Irza, Head of Sector for Cooperation with International Veterinary Organizations Information Analysis Center Department for Veterinary Surveillance</td>
</tr>
</tbody>
</table>

## TOR1 AND 2: SERVICES PROVIDED

1. Activities as a centre of research, expertise, standardisation and dissemination of techniques within the remit of the mandate given by WOAH

<table>
<thead>
<tr>
<th>Category</th>
<th>Title of activity</th>
<th>Scope</th>
</tr>
</thead>
</table>
| Disease control (true) | 1) Infectious disease diagnosis in the Russian Federation 2) Infectious disease diagnosis in other | 1) Missions (57) of the FGBI ‘ARRIAH’ experts for advisory assistance in animal disease diagnosis, collection of pathological samples, arrangement and implementation of anti-epidemic measures: For control/prevention of bovine, ovine and caprine diseases (9): FMD, lumpy skin disease, sheep and goat pox (Vladimir Oblast, Zabaykalsky Krai, Republic of Khakassia, Republic of Udmurtia) For control/prevention of porcine diseases (30), including: 16 – ASF (Saratov Oblast, Vologda Oblast, Voronezh Oblast, Belgorod Oblast, Republic of Khakassia, Krasnodar Krai, Krasnoyarsk Krai, Stavropol Krai, Primorsky Krai); 14 – Other porcine diseases: pneumatic pasteurellosis, atrophic rhinitis, Glasser’s disease, PRRS, Aujeszky’s disease, parvovirus infection, influenza, circovirus infection, enzootic pneumonia, actinobacillus pleuropneumonia (Oryol Oblast, Kursk Oblast, Penza Oblast, Kaliningrad Oblast, Ulyanovsk Oblast, Republic of Mordovia, Republic of Bashkortostan, Republic of Tatarstan, Republic of Crimea, Altai Krai and Perm Krai. For control/prevention of avian diseases - 30 Stavropol Krai, Tyumen Oblast (2),}
<table>
<thead>
<tr>
<th>Zoonoses (true)</th>
<th>Avian diseases (true)</th>
<th>Aquatic animal diseases (true)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) 1,091 rabies tests of samples from 20 RF Subjects were performed: fluorescent antibody technique (FAT) – 555 tests; virus isolation in cell culture – 536 tests. 2) 18,827 ELISA tests for BSE were carried out on pathological materials from 75 RF Subjects. 3) 744 tests for COVID-19 were performed: PCR – 445 samples (foxes, raccoon dogs, mice, wild birds, hares and rabbits, zoo monkeys); ELISA - 302 samples (rabbits, sables).</td>
<td>1) 45,103 tests for Newcastle disease were carried out on samples from 76 RF Subjects - real-time RT PCR – 6,120 tests; - ELISA – 32,828 tests; - HI – 6,095 tests; - virus isolation – 70 tests; - nucleotide sequencing – 160 tests. Newcastle disease test of samples submitted from foreign countries: - 10 diagnostic tests of samples delivered from the Republic of Belarus (PCR); - 4 tests of samples delivered from the Republic of Kazakhstan (PCR); - 4990 tests of samples submitted from the Republic of Belarus (ELISA); - 108 tests of samples submitted from the Republic of Kazakhstan (ELISA).</td>
<td>1) 414 diagnostic tests of samples from 31 RF Subjects were performed: - 190 ELISA tests; - 224 virus isolations. 2) 626 diagnostic tests of samples from 34 RF Subjects were performed: - 371 ELISA tests; - 42 PCR tests; - 213 virus isolation in CC. 3) 623 diagnostic tests of samples from 35 RF Subjects were performed: - 372 ELISA tests; - 39 PCR tests; - 212 virus isolations in CC. 4) 621 diagnostic tests of samples from 35 RF Subjects were performed: - 370 ELISA tests; - 39 PCR tests; - 212 virus isolations in CC. 5) 338 diagnostic PCR tests of samples from 35 RF Subjects were performed: - 375 PCR tests; - 338 virus isolation in CC.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Diagnosis, biotechnology and laboratory (true)</th>
<th>Food safety (true)</th>
</tr>
</thead>
<tbody>
<tr>
<td>in salmonids 8) Diagnosis of infection with koi herpesvirus</td>
<td>Feed safety (true)</td>
</tr>
<tr>
<td>RF Subjects were performed 6) 255 diagnostic tests of samples from 16 RF Subjects were performed: - 4 virus isolations in CC; - 251 PCR tests. 7) 37 diagnostic tests of samples from 6 RF Subjects were performed: - 4 virus isolations in CC; - 33 PCR tests. 8) 5 diagnostic PCR tests of samples from 2 RF Subjects were performed</td>
<td>59,151 tests of samples from 58 RF regions were carried out. Test methods: physico-chemical, microbiological, radiological, ELISA, real-time PCR</td>
</tr>
<tr>
<td>1) 9,659 tests of samples from 45 RF Subjects were performed (8,233 ELISA tests of bovine/ovine and caprine sera for bluetongue virus; 1,426 PCR tests of biological samples) 2) 6,066 tests of samples from 53 RF Subjects were performed: - 3,244 ELISA tests; - 2,812 real-time RT PCR tests for CSFV genome; - 10 virus isolations in CC. 3) 25,062 diagnostic tests of samples from 71 RF Subjects were performed: - 17,642 real-time RT PCR tests for ASFV genome; - 6,074 ELISA tests for Abs to ASFV; - 1,346 virus isolations in CC. 4) 1,839 tests of samples from 13 RF Subjects were performed - 175 sera samples were tested for antibodies with ELISA; - 1,664 PCR tests. 5) 9,575 tests of samples from 67 RF Subjects were performed - 1,324 samples by ELISA; - 8,251 samples by PCR. 6) 311,159 samples from 85 RF Subjects were tested: Indirect diagnostic tests: - Liquid phase blocking indirect ELISA (LPB ELISA) – 219,958 tests of sera for FMDV NSP antibodies; - Virus neutralization test (VNT) – 14,053 tests of sera; - Indirect ELISA-NSP – 71,737 tests of sera for FMDV NSP antibodies; - Antigenic matching by MNT – 131 tests. Direct diagnostic tests: - Virus isolation in CC – 474 tests; - Indirect double sandwich ELISA – 474 tests of biological samples; - CFT – 474 tests; - real-time RT-PCR, 3D gene – 1,929 tests; - real-time RT-PCR, 5’HTO gene – 1,929 tests. 7) 1,426 tests of samples submitted from foreign countries (Jordan, Uganda) were performed. Indirect diagnostic tests: - Liquid phase blocking indirect ELISA (LPB ELISA) – 570 tests of sera for FMDV NSP antibodies; - Virus neutralization test (VNT) – 570 tests of sera; - Indirect ELISA-NSP – 190 tests; - Antigenic matching by MNT – 12 tests. Direct diagnostic tests: - Virus isolation in CC – 15 tests; - Indirect double sandwich ELISA – 5 tests of biological samples; - real-time RT-PCR, 3D gene – 20 tests; - real-time RT-PCR, 5’HTO gene – 20 tests; - RT-PCR, VP1 gene – 12 tests; - VP1 gene sequencing – 12 tests. 8) 20,199 tests of samples from 85 RF Subjects were performed: - 20,048 sera were tested in ELISA; - 124 biological samples were tested by PCR; - 27 samples were tested by VNT. 9) 1,335 tests of samples from 14 RF Subjects were tested: -726 samples were tested with PCR; - 609 samples were tested with ELISA. 10) 23,718 tests of samples from 83 RF Subjects were tested. -2,025 samples were tested by PCR; - 21,693 samples were tested by ELISA.</td>
<td>59,151 tests of samples from 58 RF regions were carried out. Test methods: physico-chemical, microbiological, radiological, ELISA, real-time PCR</td>
</tr>
</tbody>
</table>

**TOR3: HARMONISATION OF STANDARDS**

2. Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the main focus area for which you were
<table>
<thead>
<tr>
<th>Proposal title</th>
<th>Scope/Content</th>
<th>Applicable area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methodical Guidelines for assessment of indoor-keeping poultry holdings biosecurity system for its effectiveness</td>
<td>Avian disease surveillance and prevention</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for assessment of pig holding biosecurity system for its effectiveness within the framework of contagious porcine disease introduction and spread risk audit</td>
<td>Porcine disease surveillance and prevention</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for differentiation of laboratory-attenuated and field African swine fever virus strains by polymerase chain reaction with electrophoretic detection</td>
<td>Classical swine fever surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for detection of African swine fever virus genome with nested PCR with electrophoretic detection</td>
<td>African swine fever surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for lumpy skin disease virus genome editing using overlap-extension PCR and CRISPR-CAS9 technology</td>
<td>Lumpy skin disease surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for detection of antibodies against contagious bovine pleuropneumonia agent with competitive ELISA in cattle sera</td>
<td>Contagious bovine pleuropneumonia surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical guidelines for collection, storage and transportation of probang samples for FMD tests</td>
<td>FMD surveillance including FMD surveillance in wildlife</td>
<td>Laboratory expertise, health management, Wildlife health and biodiversity</td>
</tr>
<tr>
<td>Methodical Guidelines for detection of subtype N3 avian influenza virus RNA with real-time RT-PCR</td>
<td>Avian influenza surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for indirect determination of infectivity titre of canine alphacoronavirus in vaccine production seed with reverse transcription and real-time polymerase chain reaction</td>
<td>Pet animal disease laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for detection of antibodies against peste des petits ruminants virus with indirect enzyme-linked immunosorbent assay in small ruminant sera</td>
<td>Peste des petits ruminant surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
<tr>
<td>Methodical Guidelines for detection of antibodies against rabies virus with competitive enzyme-linked immunosorbent assay</td>
<td>Rabies surveillance and laboratory diagnosis</td>
<td>Laboratory expertise, health management</td>
</tr>
</tbody>
</table>
### Methodical Guidelines for detection of classical swine fever virus genome using multiplex real-time RT-PCR with internal control

- **Classical swine fever surveillance and laboratory diagnosis**
- **Laboratory expertise**
- **Health management**

---

3. In exercising your activities, have you identified any regulatory research needs* relevant for WOAH?

- **No**

4. Did your Collaborating Centre maintain a network with other WOAH Collaborating Centres (CC), Reference Laboratories (RL), or organisations designated for the same specialty, to coordinate scientific and technical studies?

- **Yes**

<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>IAEA Zoonotic Disease Integrated Action (ZODIAC) initiative</td>
<td>Austria</td>
<td>Europe</td>
<td>Strengthening of the preparedness and capabilities of Member States to rapidly detect and timely respond to outbreaks of zoonotic diseases</td>
</tr>
<tr>
<td>FMD WRL</td>
<td>Pirbright Institute, UK</td>
<td>Europe</td>
<td>Molecular epidemiology of FMD outbreaks Exchange of FMDV genomic sequences according to the MoU on the WOAH/FAO FMD Reference Laboratory Network</td>
</tr>
<tr>
<td>Onderstepoort Veterinary Institute (Pretoria, RSA)</td>
<td>RSA</td>
<td>Africa</td>
<td>Coordination of joint research activities</td>
</tr>
<tr>
<td>OFFLU Secretariat</td>
<td>-</td>
<td>Africa Americas Asia and Pacific Europe Middle East</td>
<td>Provision of genomic sequences of H5/H7/H9 avian influenza viruses for WOAH/FAO/WHO international network every 6 months</td>
</tr>
<tr>
<td>Bureau of Animal Husbandry and Veterinary Services, Ministry of Agriculture and Rural Affairs, PRC; Veterinary and Animal Breeding Agency, Mongolia</td>
<td>China Mongolia</td>
<td>Asia and Pacific</td>
<td>Interaction in case of dangerous disease emergency, including FMD Agreement between China, Mongolia and Russia on transboundary trade and transboundary disease risk mitigation</td>
</tr>
<tr>
<td>European Commission for the Control of Foot-and-Mouth Disease (EU FMD)</td>
<td>Rome, Italy</td>
<td>Americas Asia and Pacific Europe Middle East</td>
<td>Exchange of information on disease outbreaks, animal vaccination Cooperation between Transcaucasian countries, Russia and Iran for prevention and control of FMD and other transboundary animal diseases (GF-TADs)</td>
</tr>
</tbody>
</table>

---

*Information regarding regulatory research needs relevant for WOAH was not explicitly asked for in the survey. The responses are based on the provided options and the context of the questions. *
<table>
<thead>
<tr>
<th>Name of WOAH CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Atomic Energy Agency (IAEA)</td>
<td>Austria</td>
<td>Europe</td>
<td>Study of the virus ecology and bird migrations through testing biological materials from wild waterfowl for avian influenza virus detection and bird species genetic identification, and for determination of stable isotope content in feathers</td>
</tr>
<tr>
<td>Intergovernmental Council for Cooperation in the Field of Veterinary Medicine</td>
<td>Armenia, Belarus, Kazakhstan, Kyrgyzstan, Tadjikistan, Uzbekistan</td>
<td>Asia and Pasific Europe</td>
<td>Joint measures of CIS members for prevention and control of FMD, rabies, high pathogenicity avian influenza and Newcastle disease</td>
</tr>
</tbody>
</table>

**TOR6: EXPERT CONSULTANTS**

6. Did your Collaborating Centre place expert consultants at the disposal of WOAH?

No

**TOR7: SCIENTIFIC AND TECHNICAL TRAINING**

7. Did your Collaborating Centre provide advice/services to requests from Members in your main focus area?

WOAH Collaborative Centre Reports Activities 2023
Yes

The Centre provided consultation and diagnostic services in control and prevention of avian diseases in the Republic of Belarus, Republic of Kazakhstan, Republic of Uzbekistan.
- 10 biological samples submitted from the Republic of Belarus were RT-PCR tested and 4,990 samples were ELISA tested for avian influenza and ND.
- 4 biological samples submitted from the republic of Kazakhstan were RT-PCR tested and 108 samples were ELISA tested for avian influenza and ND.

The Centre is the provider of the inter-laboratory proficiency tests:
- Specificity of the FMD diagnostic tests: Name of the Test - LPB ELISA; 10 participating laboratories (ARMENIA, AZERBAIJAN, BELARUS, KAZAKHSTAN, KYRGYZSTAN, MOLDOVA, MONGOLIA, RUSSIA);
- Validation of ND diagnostic methodology: Name of the Test - Detection ND virus antibodies (ELISA test); 24 participating laboratories (RUSSIA);
- Validation of AI diagnostic methodology: Name of the Test - Detection RNA of AI virus Detection virus antibodies (ELISA test); 24 participating laboratories (RUSSIA).

The Centre provided consultations and services for bovine infectious disease control:
- Workshop 'Strategy of FMD prevention and control', National Veterinary Laboratory, Islamabad, Pakistan
- 5 biological samples submitted from Jordan were tested (ELISA, virus isolation, RT-PCR, sequencing);
- 15 biological samples submitted from the Republic of Uganda were tested (virus isolation, RT-PCR, sequencing).

Marketing of avian influenza diagnostic test-kits and vaccines:
Avian influenza vaccine
- Avian Influenza H9N2 + Newcastle Disease associated killed oil-based vaccine: Belarus, Kazakhstan, Egypt
- Avian Influenza H5N1 + Newcastle Disease associated killed oil-based vaccine: Egypt
- Avian Influenza H5N1 killed oil-based vaccine «AviFluVac»: Kazakhstan, Egypt

Diagnostic test-kits were supplied to the following countries:
- Kit for detection of avian influenza virus subtype H9 antibodies in HI test: Belarus, Kazakhstan,
- Kit for detection of avian influenza virus subtype H5 antibodies in HI test: Belarus, Kazakhstan
- Kit for detection of avian influenza virus subtype H5&H7 antibodies in HI test: Belarus
- Kit for detection of avian influenza virus antibodies in one dilution immunoassay test: Russia, Belarus

Marketing of ND diagnostic test-kits and vaccines:
- Avian Influenza H9N2 + Newcastle Disease associated killed oil-based vaccine: Belarus, Kazakhstan, Egypt
- Avian Influenza H5N1 + Newcastle Disease associated killed oil-based vaccine: Egypt

Diagnostic test-kits were supplied to the following countries:
- Kit for detection of Newcastle disease virus antibodies in HI test: Russia, Belarus, Kazakhstan
- Kit for detection of Newcastle disease virus antibodies in one dilution immunoassay test: Russia, Belarus

Marketing of FMD diagnostic test-kits and vaccines:
FMD vaccine
- Adsorbed FMD vaccine was supplied to the following countries: Kazakhstan, Morocco, Syria, Afghanistan, Pakistan, Iran, Lebanon, Armenia, Jordan, Saudi Arabia, Egypt, Kuwait, Bangladesh, Oman, United Arab Emirates
- ARRIA-VAC emulsion FMD vaccine was supplied to the following countries: Kazakhstan, Mongolia, Republic of Korea, Pakistan

Diagnostic test-kits were supplied to the following countries:
- ELISA test-kit for detection of FMDV antibodies (LPB ELISA) – Belarus
- ELISA test-kit for detection of FMDV antigen (ELISA Ag detection) – Kyrgyzstan
- FMD-NSP-ELISA (NSP-ELISA) – Indonesia
- anti-FMDV type-specific serum (FMDV sera) – Kazakhstan

8. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by WOAH, to personnel from WOAH Members?
Yes
a) Technical visit : 24
b) Seminars : 224
c) Hands-on training courses: 68
d) Internships (>1 month) : 0

<table>
<thead>
<tr>
<th>TYPE OF TECHNICAL TRAINING PROVIDED (A, B, C OR D)</th>
<th>CONTENT</th>
<th>COUNTRY OF ORIGIN OF THE EXPERT(S) PROVIDED WITH TRAINING</th>
<th>NO. PARTICIPANTS FROM THE CORRESPONDING COUNTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Visit of a delegation of representatives of the Veterinary Department of the Ministry of Agriculture of the Islamic Republic of Iran</td>
<td>Republic of Iran</td>
<td>3</td>
</tr>
<tr>
<td>A</td>
<td>Visit of the delegation of the Republic of Gambia to get familiarized with the FGBI “ARRIAH” activities</td>
<td>Gambia</td>
<td>4</td>
</tr>
<tr>
<td>A</td>
<td>Technical assistance on diagnosis, prevention and control of highly dangerous diseases</td>
<td>Republic of Korea</td>
<td>3</td>
</tr>
<tr>
<td>A</td>
<td>Visit of representatives of the National Agricultural Research Organization (NARO) on scientific cooperation and cooperation in the field of veterinary product supplies</td>
<td>Republic of Uganda</td>
<td>5</td>
</tr>
<tr>
<td>A</td>
<td>Veterinary surveillance system in the Russian Federation</td>
<td>The Republic of Iran</td>
<td>8</td>
</tr>
<tr>
<td>B</td>
<td>Epizootology, diagnosis and control of animal rabies</td>
<td>Republic of Belarus</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>Epizootology, diagnosis, prevention and control measures of FMD SAT-2</td>
<td>Republic of Kazakhstan, Republic of Armenia, Republic of Belarus, Kyrgyz Republic</td>
<td>62</td>
</tr>
<tr>
<td>B</td>
<td>FMD prevention and control strategy</td>
<td>Pakistan</td>
<td>100</td>
</tr>
<tr>
<td>B</td>
<td>Foot-and-mouth disease virus SAT-2</td>
<td>Armenia, Georgia, Azerbaijan, Russia</td>
<td>61</td>
</tr>
<tr>
<td>C</td>
<td>Methods of microbiological control of food products. Validation and verification of microbiological test methods</td>
<td>Republic of Belarus</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Physico-chemical methods for testing milk and dairy products</td>
<td>Republic of Belarus</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Inspection of establishments for compliance with the requirements of China, Vietnam and Mongolia. Export certification of animal products</td>
<td>Republic of Belarus</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Foot-and-mouth disease: epizootology, diagnosis, prevention and control measures</td>
<td>Republic of Armenia</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Physico-chemical methods for testing meat and meat products</td>
<td>Republic of Belarus</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Quantification of medicinal product residues in food, mixed feed, animal biological material using HPLC-MS/MS</td>
<td>Republic of Kazakhstan</td>
<td>3</td>
</tr>
<tr>
<td>Code</td>
<td>Activity Description</td>
<td>Country</td>
<td>Count</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>C</td>
<td>Laboratory tests of feed</td>
<td>Republic of Belarus</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Microbiological tests of meat and meat products</td>
<td>Republic of Belarus</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Basic necropsy for different animal species</td>
<td>Kyrgyz Republic</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>Physico-chemical methods for testing milk and dairy products</td>
<td>Republic of Belarus</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Quality control methods (physico-chemical) of feed, mixed feed, feed raw materials</td>
<td>Kyrgyz Republic</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Determination of antibiotics in meat, honey and milk using chemiluminescent enzyme</td>
<td>Kyrgyz Republic</td>
<td>5</td>
</tr>
<tr>
<td>C</td>
<td>biochip-based immunoassay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Physico-chemical methods of food testing</td>
<td>Republic of Belarus</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Veterinary and sanitary assessment of food products of animal and plant origin</td>
<td>Kyrgyz Republic</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>Current zoonotic diseases</td>
<td>Republic of Belarus</td>
<td>1</td>
</tr>
<tr>
<td>C</td>
<td>Preparation of nutrient media. Methods and procedures for quality control of nutrient</td>
<td>Kyrgyz Republic</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Microbiological tests of milk and dairy products</td>
<td>Iran</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>Determination of drug residues in food products of animal origin</td>
<td>Iran</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>Mycological tests of feed and pathological material</td>
<td>Kyrgyz Republic</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Determination of the active substance mass fraction in dry and liquid (emulsion)</td>
<td>Kyrgyz Republic</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>pesticide products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>Microbiological tests of milk and dairy products</td>
<td>Kyrgyz Republic</td>
<td>2</td>
</tr>
</tbody>
</table>

WGIAH Collaborative Centre Reports Activities 2023
Diagn and Control viral animal diseases East Euro etc.

| C | Foot-and-mouth disease: epizootology, diagnosis, prevention and control measures | Republic of Armenia | 3 |

**TOR8: SCIENTIFIC MEETINGS**

9. Did your Collaborating Centre organise or participate in the organisation of scientific meetings related to your main focus area on behalf of WOAH?

Yes

<table>
<thead>
<tr>
<th>NATIONAL/INTERNATIONAL</th>
<th>TITLE OF EVENT</th>
<th>CO-ORGANISER</th>
<th>DATE (MM/YY)</th>
<th>LOCATION</th>
<th>NO. PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>International</td>
<td>FMD Roadmap meeting for West Eurasia countries and Consultations on peste des petits ruminants (PPR) control plan for Economic Cooperation Organisation (ECC)</td>
<td>-</td>
<td>2023-04-27</td>
<td>Baku, Republic of Azerbaijan</td>
<td>40</td>
</tr>
<tr>
<td>National</td>
<td>PVC training</td>
<td>WOAH Regional Representation for Europe</td>
<td>2023-09-19</td>
<td>WOAH/FAO</td>
<td>57</td>
</tr>
<tr>
<td>International</td>
<td>International Scientific and Practical Conference “Veterinary Medicine in Food Security and Biological Safety” dedicated to the 65th anniversary of the establishment of the Federal Center for Animal Health</td>
<td>-</td>
<td>2023-12-07</td>
<td>Vladimir, Russia</td>
<td>150</td>
</tr>
<tr>
<td>International</td>
<td>WOAH/FAO Foot-and-Mouth Disease Reference Laboratory Network Meeting</td>
<td>WOAH/FAO</td>
<td>2023-10-12</td>
<td>WOAH/FAO</td>
<td>16</td>
</tr>
</tbody>
</table>

**TOR9: DATA AND INFORMATION DISSEMINATION**

10. Publication and dissemination of any information within the remit of the mandate given by WOAH that may be useful to Members of WOAH

a) Articles published in peer-reviewed journals:


b) International conferences:

1. The 25th seminar of Asia-Pacific countries (on-line). Organized by the WOAH representation in Japan and Hokkaido University.


4. OFFLU Pre VCM Meeting, on-line, 17.09.23.


8. The VIII-th All-Russian GMP Conference devoted to approaches to medicinal product circulation (Yekaterinburg).


10. FAQ Webinar, report on AI, ARRIAH, on-line, 17.05.2023.

11. Indo Livestock 2023 Expo & Forum, Republic of Indonesia, reports on the topics: “Vaccination and diagnosis of lumpy skin disease and peste des petits ruminants”, “FMD vaccines and diagnostic test kits”.


14. International Annual Scientific and Practical Conference on Agriculture and Biotechnology (IACAB 2023), Samarkand (Uzbekistan) 17-18 October. “Comparative evaluation of the ARRIAH PPR vaccine effectiveness by challenging goats with the "Mongolia/2021" field isolate”.


17. International scientific and practical conference “Actual problems of treatment and prevention of diseases in young animals”, Belarus.


19. International scientific and practical conference “Veterinary medicine achievements and problems in the Far North of the Russian Federation”.


25. International scientific and practical conference “Topical issues of diagnosis, prevention and treatment of cattle and pig diseases”, organized by the Republican Unitary Enterprise Institute of Experimental Veterinary Medicine named after S.N. Vyshevelsky, Belarus (Minsk, October 27, 2023). Topics of the reports: “Clinical and post-mortem signs in sheep par-affectted animals”; “PCR and HRM for differentiation of the SPV NISKhI vaccine strain and field isolates”.


27. International Seminar on Animal and Plant Health (SISA 2023), organized by the National Center for Animal and Plant Health (CENSA) in Varadero, Cuba.

28. International Symposium on LSD and ASF, Guangzhou, Guangdong Province, China.


30. Scientific and practical conference “Veterinary medicine in food and biological security”, dedicated to the 65th anniversary of the FGBI ARRIAH.


32. Scientific and practical seminar on genetic technologies at the University of Foshan, PRC.


34. Fifth workshop on PPR thermostable vaccines, India.


36. A symposium on biological safety assurance in animal husbandry, 14.12.23, Foshan University, Foshan, Guangdong Province, China.

37. OFFLU Pre VCM Meeting, on-line, 30.01.23.
11. What have you done in the past year to advance your area of focus, e.g. updated technology?

Methodological guidelines
23. Methodical guidelines for indirect determination of infectivity titre of canine distemper causative agent in vaccine production seed with reverse transcription and real-


Patents for test-kits

1. Test-kit based on a liquid-phase blocking indirect sandwich-type variant of ELISA for determining the antibody titer against FMDV strain A No.2269/ARRIAH/2015, genotype A/ASIA/G-VII in sera of animals after immunization.

2. Test-kit based on a liquid-phase blocking indirect sandwich-type variant of ELISA for determining the antibody titer against FMDV strain O.

3. Test-kit for quantitative assessment of animal humoral immunity against FMDV type A antigen, strain No.2205/G-IV, genotype A/AFRICA/G-IV using a liquid-phase blocking indirect sandwich-type variant of ELISA.

4. Test-kit for determining the antibody titer against FMDV antigen genotype A/ASIA/SEA-97 using a liquid-phase blocking indirect sandwich-type variant of ELISA.
7. Method for indirect determination of infectivity titer of canine alpha-coronavirus (Rich production strain) in vaccine production seed using real-time RT-PCR
8. Synthetic dinucleotide primers and method for using the Newcastle disease virus as an internal control sample for RT-PCR to identify the rabies virus genome

Patents for strains
1. Yamal strain of avian influenza virus belonging to genus Alphainfluenzavirus, species Influenza A virus of the H5N1 subtype for manufacture of biologicals for specific prevention of avian influenza A subtype H5
2. Rich strain of canine coronavirus enteritis virus for manufacture of biologicals for the diagnosis and specific prevention of canine coronavirus enteritis
3. SA-21 strain of bacteria of Streptococcus genus, Streptococcus agalactiae species for manufacture of biologicals for specific prevention of mastitis in cows
4. Neethling-ARRIAH strain of the lumpy skin disease (LSD) virus of the genus Capripoxvirus for manufacture of biologicals for specific prevention of lumpy skin disease
5. SK strain of the classical swine fever virus (Pestivirus) for manufacture of biologicals for the specific prevention of classical swine fever
6. Fauna strain of feline calicivirus for manufacture of biologicals for the diagnosis and specific prevention of feline calicivirus
7. Unity strain of the canine mastadenovirus A of serotype 2 canine adenovirus for manufacture of biologicals for the diagnosis and specific prevention of serotype 2 canine adenovirus
8. Borz strain of porcine reproductive and respiratory syndrome virus Betaarterivirus suid 1 of the genus Arterivirus for manufacture of biologicals for specific prevention of porcine reproductive and respiratory syndrome
9. Lavr strain of alphaherpesvirus 1 of feline infectious rhinotracheitis for manufacture of biologicals for the diagnosis and specific prevention of feline infectious rhinotracheitis
10. Sheba strain of carnivore protoparvovirus 1 of feline panleukopenia for of biologicals for the diagnosis and specific prevention of feline panleukopenia
13. FMDV strain Aphtae epizooticae for manufacture of biologicals for the diagnosis and specific prevention of foot-and-mouth disease genotype SAT-2/VII

Patents for vaccines
1. Culture inactivated emulsion vaccine against foot-and-mouth disease genotype O/SEA/Mya-98 based on strain O No.2383/Primorskiy/2019
2. Combined vaccine against canine distemper, parvovirus and coronavirus enteritis, canine adenovirus infection
3. Culture inactivated adsorbed vaccine against foot-and-mouth disease genotype SAT-1/NWZ
4. Culture inactivated adsorbed vaccine against FMDV genotype O/ME-SA/PanAsiaZANT-10 based on strain O

12. Additional comments regarding your report: