OIE Collaborating Centres Reports Activities

Activities in 2019

This report has been submitted: 2020-01-13 11:27:45

<table>
<thead>
<tr>
<th><strong>Title of collaborating centre:</strong></th>
<th>Diagnosis and Control in Eastern Europe, Central Asia and Transcaucasia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Address of Collaborating Centre:</strong></td>
<td>Ministry of Agriculture of the Russian Federation 600901 Yur'evets Vladimir RUSSIA</td>
</tr>
<tr>
<td><strong>Tel.:</strong></td>
<td>+7-0922 26.38.77</td>
</tr>
<tr>
<td><strong>Fax:</strong></td>
<td>+7-0922 26.38.77</td>
</tr>
<tr>
<td><strong>E-mail address:</strong></td>
<td><a href="mailto:mail@arriah.ru">mail@arriah.ru</a></td>
</tr>
<tr>
<td><strong>Website:</strong></td>
<td><a href="http://www.arriah.ru/portal/en">www.arriah.ru/portal/en</a></td>
</tr>
<tr>
<td><strong>Name of Director of Institute (Responsible Official):</strong></td>
<td>Mikhail N. Shtyrev</td>
</tr>
<tr>
<td><strong>Name (including Title and Position) of Head of the Collaborating Centre (formally OIE Contact Point):</strong></td>
<td>Dmitry A. Lozovoy, Deputy Director for Research and Development</td>
</tr>
<tr>
<td><strong>Name of writer:</strong></td>
<td>Anatoly M. Rakhmanov, Prof., Expert</td>
</tr>
</tbody>
</table>
ToR: To provide services to the OIE, in particular within the region, in the designated specialty, in support of the implementation of OIE policies and, where required, seek for collaboration with OIE Reference Laboratories

ToR: To identify and maintain existing expertise, in particular within its region

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

<table>
<thead>
<tr>
<th>Disease control</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of activity</strong></td>
</tr>
<tr>
<td>Diagnostic activities for infectious diseases</td>
</tr>
<tr>
<td>Diagnostic activities for infectious diseases in other countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zoonoses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of activity</strong></td>
</tr>
<tr>
<td>Monitoring activities for rabies</td>
</tr>
<tr>
<td>Monitoring activities for BSE</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Avian diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of activity</strong></td>
</tr>
<tr>
<td>Monitoring activities for Newcastle disease</td>
</tr>
<tr>
<td>Monitoring activities for avian influenza</td>
</tr>
<tr>
<td>Monitoring activities for basic avian diseases in foreign countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aquatic animal diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Title of activity</strong></td>
</tr>
<tr>
<td>Diagnosis activities for spring viraemia of carp</td>
</tr>
<tr>
<td>Diagnostic activities for infectious haematopoietic necrosis</td>
</tr>
<tr>
<td>Diagnostic activities for viral haemorrhagic septicaemia</td>
</tr>
<tr>
<td>Diagnostic activities for infectious pancreatic necrosis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title of activity</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic activities for spring viraemia of carp</td>
<td>A total of 400 tests of pathological materials from 13 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for infectious haematopoietic necrosis</td>
<td>A total of 300 tests of pathological materials from 7 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for viral haemorrhagic septicaemia</td>
<td>A total of 300 tests of pathological materials from 7 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for infectious pancreatic necrosis</td>
<td>A total of 300 tests of pathological materials from 7 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
</tbody>
</table>

**Diagnosis, biotechnology and laboratory**

<table>
<thead>
<tr>
<th>Title of activity</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic activities for bluetongue</td>
<td>A total of 3,696 tests of pathological materials from 8 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for classical swine fever</td>
<td>A total of 5,730 tests of pathological materials from 27 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for African swine fever</td>
<td>A total of 10,259 tests of pathological materials from 51 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for lumpy skin disease</td>
<td>A total of 1,000 tests of pathological materials from 8 RF Subjects were performed using ELISA, PCR and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for FMD in the Russian Federation</td>
<td>A total of 183,863 tests of pathological materials from 81 RF Subjects were performed using ELISA, NSP-ELISA, PCR, CFT and virus isolation</td>
</tr>
<tr>
<td>Diagnostic activities for peste des petits ruminants</td>
<td>A total of 28,502 tests of pathological materials from 81 RF Subjects were performed using ELISA</td>
</tr>
<tr>
<td>Diagnostic activities for sheep and goat pox</td>
<td>A total of 245 tests of pathological materials from 5 RF Subjects were performed using ELISA</td>
</tr>
<tr>
<td>Diagnostic activities for contagious bovine pleuropneumonia</td>
<td>A total of 28,011 tests of pathological materials from 82 RF Subjects were performed using ELISA</td>
</tr>
</tbody>
</table>

**ToR : To propose or develop methods and procedures that facilitate harmonisation of international standards and guidelines applicable to the designated specialty**

2. **Proposal or development of any procedure that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases, food safety or animal welfare**

<table>
<thead>
<tr>
<th>Proposal title</th>
<th>Scope/Content</th>
<th>Applicable area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnostic activities for peste des petits ruminants</td>
<td>A total of 28,502 tests of pathological materials from 81 RF Subjects were performed using ELISA</td>
<td></td>
</tr>
<tr>
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<tr>
<td>Diagnostic activities for contagious bovine pleuropneumonia</td>
<td>A total of 28,011 tests of pathological materials from 82 RF Subjects were performed using ELISA</td>
<td></td>
</tr>
</tbody>
</table>
Control of infectious avian diseases

The diagnostica and vaccines were supplied to Azerbaijan, Republic of Belarus, Kazakhstan, Uzbekistan, Tajikistan, Georgia, Egypt, Bangladesh, Pakistan for early diagnosis and prevention of basic infectious avian diseases

Control of sheep and goat pox and peste des petits ruminants, lumpy skin disease

The diagnostica and vaccines were supplied to Armenia, Georgia, Egypt, Iraq, Kazakhstan, Kyrgyzstan, Kuwait, Pakistan

Control of porcine and bovine infectious diseases

Vaccines were supplied to the Republic of Belarus for prevention of parvovirus disease in pigs, infectious bovine rhinotracheitis, parainfluenza 3 and bovine viral diarrhea

FMD control

The diagnostica and vaccines were delivered to Armenia, Afghanistan, Egypt, Jordan, Iraq, Kazakhstan, Kyrgyzstan, Kuwait, Morocco, UAE, Pakistan, South Korea, Bangladesh, Saudi Arabia, Mongolia, Syrian Arab Republic for early diagnosis and prevention

ToR: To establish and maintain a network with other OIE Collaborating Centres designated for the same specialty, and should the need arise, with Collaborating Centres in other disciplines

ToR: To carry out and/or coordinate scientific and technical studies in collaboration with other centres, laboratories or organisations

3. Did your Collaborating Centre maintain a network with other OIE 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 OIE CC/RL/other organisation(s)</th>
<th>Location</th>
<th>Region of networking Centre</th>
<th>Purpose</th>
</tr>
</thead>
</table>
| Institute for Animal Health | Pirbright, Great Britain | Africa
Americas
Asia and Pacific
Europe
Middle East | Disease control, training |
| S.N. Vyshelessky Institute of Experimental Veterinary Medicine | Minsk, Belarus | Africa
Americas
Asia and Pacific
Europe
Middle East | Animal disease control |
<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Regions</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Istituto Zooprofilattico Sperimentale della Venezia (IZSVe)</td>
<td>Padova, Italy</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Avian disease control</td>
</tr>
<tr>
<td>Centro de Vigilancia Sanitaria Veterinaria (VISAVET), Facultad de Veterinaria HCV Planta sotano, Universidad Complutense de Madrid (USM)</td>
<td>Madrid, Spain</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease control (ASF)</td>
</tr>
<tr>
<td>Finnish Food Safety Authority Evira</td>
<td>Finland</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease control</td>
</tr>
<tr>
<td>Institute for Veterinary Disease Control</td>
<td>Austria</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease diagnosis</td>
</tr>
<tr>
<td>Community Reference Laboratory (CRL) for Rabies</td>
<td>France</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Zoonoses</td>
</tr>
<tr>
<td>Lanzhou Veterinary Research Institute (LVRI)</td>
<td>Lanzhou, China</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease control</td>
</tr>
<tr>
<td>Veterinary Specialized Institute &quot;Kralevo&quot;</td>
<td>Serbia</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease control</td>
</tr>
<tr>
<td>Scientific Veterinary Institute &quot;Novi Sad&quot;</td>
<td>Serbia</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease diagnosis</td>
</tr>
<tr>
<td>Veterinary Institute of Tajik Academy of Agricultural Sciences</td>
<td>Tadjikistan</td>
<td>Africa, Americas, Asia and Pacific, Europe, Middle East</td>
<td>Animal disease control</td>
</tr>
<tr>
<td>Uzbek National Research Laboratory for Veterinary Drug Control</td>
<td>Uzbekistan</td>
<td>Animal disease control</td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
</tr>
<tr>
<td>Kazakh Scientific-Research Veterinary Institute of the Ministry of Agriculture of the Republic of Kazakhstan</td>
<td>Kazakhstan</td>
<td>Animal disease diagnosis</td>
<td></td>
</tr>
<tr>
<td>State Organization “Food Safety Risk Assessment and Analysis Centre” of the Republic of Armenia</td>
<td>Republic of Armenia</td>
<td>Animal disease control</td>
<td></td>
</tr>
<tr>
<td>Kimron Veterinary Institute</td>
<td>Israel</td>
<td>Animal disease diagnosis</td>
<td></td>
</tr>
</tbody>
</table>

4. Did your Collaborating Centre maintain a network with other OIE Collaborating Centres, Reference laboratories, or organisations in other disciplines, to coordinate scientific and technical studies?

Yes

<table>
<thead>
<tr>
<th>Name of OIE 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>Africa Americas Asia and Pacific Europe Middle East</td>
<td>Use of tissue samples from migratory wild waterfowl to detect avian influenza viruses and identify bird species simultaneously, and feather samples to determine bird migrations using stable isotope analysis</td>
</tr>
<tr>
<td>International Atomic Energy Agency (IAEA)</td>
<td>Austria</td>
<td>Africa Americas Asia and Pacific Europe Middle East</td>
<td>Infrared spectroscopy as a rapid method to verify the authenticity of milk and vegetable oils</td>
</tr>
</tbody>
</table>

ToR: To place expert consultants at the disposal of the OIE.

5. Did your Collaborating Centre place expert consultants at the disposal of the OIE?

No
6. Did your Collaborating Centre provide scientific and technical training, within the remit of the mandate given by the OIE, to personnel from OIE Member Countries?

Yes
a) Technical visits: 94
b) Seminars: 335
c) Hands-on training courses: 27
d) Internships (>1 month): 2

<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>b) Seminars</td>
<td>2 seminars on highly dangerous animal disease diagnosis, monitoring and prevention</td>
<td>RF</td>
<td>335</td>
</tr>
<tr>
<td>c) Hands-on training courses</td>
<td>5 hands-on training courses “Current epidemiology, diagnosis prevention and control of CSF and ASF, rabies, FMD, lumpy skin disease” were provided</td>
<td>RF</td>
<td>82</td>
</tr>
<tr>
<td>Webinars</td>
<td>12 webinars on highly dangerous animal disease epidemiology, diagnosis, prevention and control were provided</td>
<td>RF</td>
<td>2782</td>
</tr>
</tbody>
</table>

7. Did your Collaborating Centre organise or participate in the organisation of scientific meetings on behalf of the OIE?

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>XXIst World Veterinary Poultry Association Congress</td>
<td>WVPAC</td>
<td>September, 2019</td>
<td>Thailand</td>
<td>4</td>
</tr>
<tr>
<td>International</td>
<td>Meeting of OIE Reference Laboratories</td>
<td>OIE</td>
<td>December, 2019</td>
<td>Republic of Korea</td>
<td>2</td>
</tr>
<tr>
<td>International</td>
<td>31st OIE Regional Commission</td>
<td>OIE</td>
<td>September, 201</td>
<td>Japan</td>
<td>1</td>
</tr>
</tbody>
</table>
ToR: To collect, process, analyse, publish and disseminate data and information relevant to the designated specialty

8. Publication and dissemination of any information within the remit of the mandate given by the OIE that may be useful to Member Countries of the OIE

a) Articles published in peer-reviewed journals: 52
1. Amelin V.G., Bolshakov D. S.
Sample preparation, identification, and determination of twelve macrolides in raw food materials and food products using high-resolution mass spectrometry // Moscow University Chemistry Bull., 2019. - Vol. 74, No. 2. - p. 63-69
2. Dimitrov K. M., Abolnik C., Afonso C. L. [et al.]
3. Amelin V.G., Bolshakov D. S.
5. Kletikova L.V., Lobkov V.Yu., Pronin V.V.
Heavy metals content in poultry eggs // Ptitsevodstvo, 2019. - No. 2. - p. 46-49
A real-time PCR screening assay for the universal detection of lumpy skin disease virus DNA // BMC Research Notes, 2019. - Vol. 12, No. 1. - P. 371
Complete genome sequence of the lumpy skin disease virus recovered from the first outbreak in the Northern Caucasus region of Russia in 2015 / Microbiol. Resour. Announc., 2019. - Vol. 8, No. 8. - p. 1-2; URL: https://mra.asm.org/content/8/8/e01733-18
PCP test-systems for detection of capripox virus genome and lumpy skin disease virus / Agricultural Biology, 2019. - V. 54, No. 2. - p. 347-458
15. Akimova T.P., Semakina V.P.


32. Lozovoy D.A., Zakharov V.M., Rahmanov A.M., Mischenko A.V. Veterinary rules for FMD control – a tool for ensuring freedom of the country from the infection // Veterinary Medicine 2019. - No. 10. - p. 3-8


37. Nikiforov V. V, Vadopolas T. V., Lozovoy D. A. [et al.] Foot-and-mouth disease epizootological surveillance in wild animal population in the Zabaikalsky Krai (Russia) as
40. Rusaleyev V. S., Pruntova O. V., Vasilyev D. A.
41. Sarsbasov A. B., Manin B. L., Yashin R. V. [et al.]
42. Semakina V.P., Akimova T. P., Mitrofanova M.N.
43. Semakina V.P., Akimova T. P., Karaulov A. K.
44. Sharypova D. V., Kapustina O. V., Zhukov I.Yu. [et al.]
45. Shibayev M.A., Oganesyan A.S., Belchikhina A.V. [et al.]
Retrospective assessment of control results with regard to completeness and quality of implementation by Veterinary Services of the Subjects of the Russian Federation of powers transferred to them // Veterinary Science Today, 2019. - No. 2 (29). - p. 50-55
46. Volkov M.S., Irza V. N., Varkentin A.V.
50. Volkov M.S., Varkentin A.V., Irza V.N.
52. Yegorova T.A., Irza V. N.

b) International conferences: 27
1. Achievements of early career scientists - into veterinary practice: materials of the 5th International Scientific Conference (Vladimir, December 5-6, 2019) - 2019
Viral infections in birds significant for poultry industry // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Modern scientific developments and advanced technologies for industrial poultry farming", Svetlogorsk, Kaliningrad oblast, 2019
Rabies and prion diseases under contemporary conditions // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Round table discussion "Rabies", Svetlogorsk, Kaliningrad Oblast, 2019
8. Igolkin A.S., Fedoseyeva D.N., Mazlum A. [et al.]
Molecular genetic studies as a tool for analyzing ASF spread // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Actual Veterinary Problems in Pig Production", Svetlogorsk, Kaliningrad Oblast, 2019
9. Igolkin A.S.
Measures for prevention and eradication of African swine fever outbreaks in domestic pigs and wild boars. Diagnosis // ASF Seminars under the Veterinary Services of Taiwan umbrella. -Taiwan, 2019. - p. 1-50
10. Irza V.N., Volkov M.S., Varkentin A.V.
Highly pathogenic avian influenza. A brief analysis of the current situation // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Modern scientific developments and advanced technologies for industrial poultry farming." Svetlogorsk, Kaliningrad region, 2019
11. Karaulov A.K.
ASF & FMD and some epidemiology // ASF Seminars under the Veterinary Services of Taiwan umbrella. -Taiwan, 2019. - p. 51-103
12. Kononov A.V.
Special characteristics of the diagnosis and prevention of lumpy skin diseases (nodular dermatitis) in cattle // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Actual veterinary aspects of dairy and beef husbandry" Svetlogorsk, Kaliningrad region, 2019
Economic feasibility of using emulsion vaccines against foot and mouth disease in Russia under current conditions // Scientific grounds for production and ensuring quality of biologicals for agro-industrial complex: materials of the International Research-to-Practice Conference devoted to the 50th anniversary of VNITIBP. - Shchelkovo, 2019. - p. 59-64
Foot and mouth disease epidemic situation in the world from 2013 to 2019. // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Actual veterinary aspects of dairy and beef husbandry," Svetlogorsk, Kaliningrad region, 2019
17. Mishchenko A. V., Semakina V. P., Mishchenko V. A. [et al.]
Passive control of foot and mouth disease as an element of disease freedom // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Actual veterinary aspects of dairy and beef husbandry," Svetlogorsk, Kaliningrad region, 2019
18. Pronin V.V., Chupina O.A., Kamalova N.E.
Preclinical studies of drugs for veterinary use according to GLP ORCD standards // IX International Veterinary Congress "One World - One Health", April 17-20. 2019 Conference "Actual issues of circulation and production of medicinal products in the EAEU and foreign countries." Svetlogorsk, Kaliningrad Oblast, 2019

A way to increase the accumulation of immunogenic components of the master seed foot and mouth disease virus using a BHK-21 monolayer cell line // Scientific grounds for production and ensuring quality of biologicals for agro-industrial complex: materials of the Intern. Research-to-Practice Conference devoted to the 50th anniversary of VNITIBP. -Shchelkovo, 2019. -- p. 72-77
Genetic properties of the influenza virus A/duck/Altai/469/14 H5N1, Russia // XXI World Veterinary Poultry Association Congress (WVPAC 2019), Bangkok, Thailand. -Bangkok, Thailand, 2019. - St.PA-21. - p. 236
24. Vlasova N.N., IgoIenk A.S., Gruzdev K.N.
Prospects for development of ASF vaccine based on the attenuated virus strain (review) // IX International Veterinary Congress "One World - One Health", April 17-20, 2019 Conference "Actual Veterinary Problems in Pig Production", Svetlogorsk, Kaliningrad Oblast, 2019
25. Volkov M.S., Varkentin A. V., Irza V. N.
Probable causes of highly pathogenic avian influenza virus (H5NX clade 2.3.4.4. group B) spread in the Russian Federation in years 2016-2018 // XXIth World Veterinary Poultry Association Congress (WVPAC 2019), Bangkok, Thailand. -Bangkok, Thailand, 2019. - St.PA-12. - p. 231
27. Zinyakov N. G., Osipova O. S., Andriyasov A. V. [et al.]
c) National conferences: 6
1. Doronin M.I., Starikov V. A., MikhaliShin D. V.
2. Lozovoy D.A., Doronin M.I., Starikov V.A. [et al.]
Development of a method for determining the amount of complete FMDV (SAT-1 and SAT-2) particles using real-time RT-PCR // Biotechnology in crop production, animal husbandry and agricultural microbiology: 19th All-Russian Conference of Early Career Scientists; Collection of Thesis Reports-M., 2019. -- p. 217-219
Characteristics of influenza A / H9N2 virus isolates as antigens for production of HI kits // Actual problems of diseases common to humans and animals: materials of the III All-Russian research-to-practice conference with international participation -Stavropol, 2019. -- p. 281-282
Use of full genome sequencing in the process of studying newly isolated avian influenza viruses // Actual problems of diseases common to humans and animals: materials of the III All-Russian research-to-practice conference with international participation -Stavropol, 2019. -- p. 158-159.
d) Other
(Provide website address or link to appropriate information): 10
1. Chernyaeva T.Yu., Menshchikova A.E.
Hemorrhagic enteritis of turkeys and its role in the problems of turkey farming in Russia // Agrarnik, 2019. - No. 1. - p. 34-37
The problem of antiviral vaccine contamination in the world and in Russia // Veterinariya Kubani, 2019. - No. 3. - p. 3-6
9. The catalog of established cell lines and subcultures stored in the FGBI “ARRIAH”/FGBI “ARRIAH” cryobank.- 2019

9. Additional comments regarding your report: