

Summary report on research accreditation

I. General information

Name of organization	NATIONAL CENTRE of PUBLIC HEALTH
Organization type (<i>to underline</i>)	Research institute High education institution <u>Ministerial research institute</u>
Research mission of organization	1. Determinants of health through hygiene problems on non- communicable diseases, prevention and control measures. 2. Epidemiology of communicable diseases priority; control and response measures; develop and implement local antiviral drugs in medical practice.
Strategic research direction (s)	Biomedicine, pharmaceuticals, health care and strengthening
Evaluated period	2005-2009
Web of organization	www.cnsp.md

II. Research capacity (annual average for evaluated period)

Total number of employees	110					
Number of scientific researches	65					
Number of researches who possess honorific titles, scientific degrees, scientific and scientific-didactical titles	ASM full members 0	ASM corresp. members 1	Professor 6	Associated professor 17	Dr.hab. 7	Dr. (PhD) 19
Number of researches involved in international projects	FP7 0	STCU 0		Bilateral 0	Others 4	
Number of young researches (under 35 years old)	Dr. (PhD) 1		PhD students 9		Others 6	
Financial resources (thousand MDL)	Public budget 3467,2		International projects/grants 28,0		Research contracts 0	
Distribution of expenditures (thousand MDL)	Salary 2828,2		Infrastructure development 52,2		Other 316,3	
Expenditures for infrastructure development (thousand MDL)	Equipments 115,1 <i>Note. In addition to budget allocations, allocations have been used in special funds derived from contracts extra budget</i>		IT infrastructure 0		Endowment of experimental resorts 0	
List of 3 basic research methods, installations, technologies (per accredited field)	1.PCR: The polymerase chain reaction (PCR) is a scientific technique in molecular biology to amplify a single or a few copies of a piece of DNA across several orders of magnitude, generating thousands to millions of copies of a particular DNA sequence .					

	<p>2.ELISA: Enzyme-linked immunosorbent assay (ELISA), is a popular format of a "wet-lab" type analytic biochemistry assay that uses one sub-type of heterogeneous, solid-phase enzyme immunoassay (EIA) to detect the presence of a substance in a liquid sample or wet sample.</p> <p>3.Cell culture method of diagnosis: is the complex process by which <u>cells</u> are grown under controlled conditions, generally outside of their natural environment. In practice, the term "cell culture" has come to refer to the culturing of cells derived from multi-cellular <u>eukaryotes</u>, especially <u>animal</u> cells. However, there are also cultures of <u>plants</u>, <u>fungi</u> and <u>microbes</u>, including <u>viruses</u>, <u>bacteria</u> and <u>protists</u>. The historical development and methods of cell culture are closely interrelated to those of <u>tissue culture</u> and <u>organ culture</u>.</p>
List of provided scientific services	Toxicological evaluation of new plant protection preparations
List of editorial activities	Co-founder of scientific journals: „Public health, economics and management in medicine " (rom.) "Bulletin of the Academy of Sciences. Medical Sciences " (rom.)

III. Distribution of number of research projects and themes during evaluated period

Institutional projects	2005 15	2006 16	2007 17	2008 17	2009 17
Projects in the frame of State Programmes	2005 0	2006 0	2007 0	2008 0	2009 2
Technological transfer projects	2005 0	2006 0	2007 0	2008 0	2009 0
Projects for equipment procurement	2005 0	2006 0	2007 0	2008 0	2009 0
Projects for young researches	2005 0	2006 0	2007 0	2008 2	2009 0
Projects in the frame of bilateral programmes	2005 0	2006 0	2007 0	2008 0	2009 0
International projects/grants	2005 1	2006 0	2007 0	2008 3	2009 1
List of 3 representative international projects/grants	<ol style="list-style-type: none"> 1.Moldova Demographic and Health Survey, 2005. 2.Measures to the control and response to avian influenza, 2008-2009. 3. Fourth WHO-coordinated survey on human milk for persistent organic pollutants in cooperation with UNEP", 2008-2009. 				
Research contracts	2005 0	2006 1	2007 3	2008 3	2009 1
List of 3 representative research contracts	<ol style="list-style-type: none"> 1.Evaluation of mutagenic and carcinogenic potential of the preparation "Azofos" in short-term test systems, 2005 - 2006. 2.Toxicological evaluation of new plant protection preparations containing copper, 2007. 3.Toxicological evaluation of new plant growth regulator "Mestim", 2008. 4.Experimental Evaluation of properties teratogenic, embryotoxic and mutagenic action of the new plant growth regulator "Reglalg", 2007 - 2008. 				

IV. Scientific publications

Total number of publications abroad	Books 0	Chapters in books 1	Journal papers 32
Total number of publications in ISI journals and books	Books 0	Chapters in books 0	Journal papers 1
Total number of publications in the country	Books 47	Chapters in books 7	Journal papers 169
Total number of conference abstracts	International abroad 194	International in the country -	National 120
List of 5 representative publications (per accredited field)	<ol style="list-style-type: none"> 1. Bahnarel I., Corețchi L., Chiruța Iu. Some aspects of quality assurance in radiation medicine in the Republic of Moldova. In: International Conference on Quality Assurance and New Techniques in Radiation Medicine [QANTRM] 13-15 November 2006, Vienna, Austria. 2. Gr. Friptuleac, S. Cebanu, V. Bernic The quality of the drinking water-the main factor into the socio-hygienic monitoring. L. Semionov and E. Chirla (eds) Chemicals as Intentional and Accidental Global Environmental Threats, 447-450, 2006. 3. Corețchi L., Bahnarel I. Medical and biological aspects of the Chernobyl nuclear accident influence on the population of the Republic of Moldova. In: 6th LOWRAD International Conference on Low Dose Radiation Effects on Human Health and Environment, Budapest, Hungary, October 17-20, 2007 Under the auspices of the International Journal of Low Radiation, WONUC and the Hungarian Biophysical Society. 4. Gheorghiuța Stela, Chicu Valeriu, Nistreanu Victoria et all. The role of micromammals in the maintenance of leptospirosis foci in the Republic of Moldova. Materialele Sesiunii științifice internațională "Muzeul și Cercetarea Științifică". Craiova, România, 24-26 septembrie 2009. Studii și comunicări. Științele naturii, Tom.XXV/2009, ISSN 1454-6914, 291-296 p.p. 5. K.I . Spanu, P. Skoferts, I.K. Spanu et al. Pakovirin new home-use medical products for the prevention of influenza and ARI International scientific-practical conference "Problems of improving intergovernmental cooperation in preparing for an influenza pandemic," Novosibirsk, Russia, October 9-10, 2008, p. 60-62 (Russian) 		
List of 5 citations	<ol style="list-style-type: none"> 1. <i>Rotavirus Burden among Children in the Newly Independents States of the Former Union of Soviet Socialist Republics: Literature Review and First-Year Results from the Rotavirus surveillance Network. Radmila Mirzaeva, Margaret M. Cortese, Liudmila Mosina, Robin Biellik. The Journal of Infectious Diseases 2009;200:S203-14, pag.203-213 cit. from Problems of Virology 1991, Spinu K.I. and alt. The results of a study of the contamination of bodies of water by rotaviruses against a background of gastroenteritis morbidity.</i> 		

V. Innovation outputs

Total number of patents	Registered in the country 13	Registered abroad 0	Implemented 13
Total number of new developed methods and technologies	Registered 11	Non-registered 0	Implemented 11
Total number of new scientific products	Registered 3	Non-registered 0	Implemented 3

Total number of scientific outputs for central and local authorities (draft of law, strategies etc.)	73		
Total number of scientific outputs for educational institutions	Handbooks for high education 13	Handbooks for pre-university institutions 0	Delivered university courses 6
List of 5 representative innovation outputs (per accredited field)	<ol style="list-style-type: none"> Patent: Method for assessing the immune status, MD C2 2005.01.31 BOPI 2667 No.1/2005 (Bahnarel I., Corețchi L., Samotîia E., Moldovan M.) Patent: Fungal strain <i>Mucor Mich. vulgaris</i>. for solubilizing insoluble compounds of cobalt, MD 3212 G2 BOPI nr.12/2006 2006.12.31 (Corețchi L., Emnova E., Bahnarel I., Spînu C., Cechirlan N.) Patent: Average growing human and animal cells, MD 3569, No. BOPI. 2008/4 (Spînu C., Spînu I., Rosca A., Bîrca L., Chintea P., Cojuhari L.) Patent: Method of treatment of the breakdown of cellular immunity induced by ionizing radiation, MD 27 Z BOPI nr.5/2009 2009.05.31 (Bahnarel I., Spînu C., Corețchi L., Birca L., Chintea P., Vutcariov V., Spînu I., Corețchi L.) Patent: Method of revaccination of children against hepatitis B, 2010.06.30, BOPI nr.6/2010 (Vrînceanu-Benes A., Spînu C., Iarovoi P., Pantea V.) 		

VI. Major scientific and innovation achievements

Short description of main scientific results and its confirmation (by awards, citations, development of international projects etc.)	<p><i>Main scientific results:</i></p> <p>Quantification of natural and technogen radionuclide concentrations in air, soil and human biological substrates allowed to develop a new concept based on ambient environmental bioremediation using nonpathogenic strains: <i>Mucor viride</i> <i>Penicillium vulgaris</i> and two with increased activities on accelerating degradation of radioactive compounds in soil.</p> <p>To develop and implement the "National anti-hepatitis B, C and D in Moldova for the years 2007 - 2011". Preliminary calculations show that implementation of this program is socio-economic impact of about 4.8 million annually.</p> <p>Epidemiological surveillance study influenza and acute respiratory viral infections (IRVA) helped trigger the elaboration and practical implementation of a system of epidemiological surveillance, control and response to avian and viral respiratory infection. In the first clinical features were found - epidemiology of the pandemic of influenza A (H1N1) in Moldova, using standard methods of clinical and paraclinical diagnosis of last generation, connected to the requirements of WHO, ECDC, CDC. Information system was developed to monitor the epidemiological situation in real time, which allowed fully to intervene promptly stop the spread of influenza A (H1N1) Community.</p> <p>For the first time in Moldova was considered the level of infection of women of childbearing age with hepatitis viruses B, C and D in different geographical areas and their vaccination against hepatitis B. The study was exploited by the original patent and implement methods perfecting laboratory diagnosis of viral hepatitis in children and optimization of viral hepatitis B epidemiological surveillance system by issuing contingent immunization of high risk of infection.</p> <p>During the reporting period (2005-2009) collaborators subdivisions of National Center of Public Health reports and communications from 82 national and international scientific forums. In various periodicals and thematic collections, 458 were published materials, including monographs, textbooks,</p>
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	thematic, practice guidelines - 27; guidelines and recommendations, methodical national reports - 22 articles in peer-reviewed - 286 of them international editions - 84, theses and abstracts - 261 of them international - 168. Were filed 18 patent applications AGEPI, obtained 15 patents. Innovative elaborations exposed to various national and international exhibitions (Moscow, Sevastopol, Brussels, Bucharest, Cluj-Napoca, Iasi, Chisinau, Geneva, Seoul and Begging) were highly appreciated: diplomas, special awards dozens of gold, silver and bronze. Recovery results obtained by carrying out national programs, national clinical protocols, guidelines, orders and ordinances, guidelines and methodical recommendations, trainings, workshops.				
Number of organization' invited speakers at international conferences	2005 0	2006 4	2007 4	2008 18	2009 6
Short description of technological transfer and innovation results and its certification by implementation	<p>Have been studied and evaluated the physicochemical properties and antiviral a new version of "Pacovirina-Plus" obtained after upgraded technology, which allows the final product to contain 92.8% biologically active substance. In the version obtained was developed an original method for the prevention of respiratory infections caused by etiologic agent's non influenza, which showed a higher protection index against the application of traditional remedies.</p> <p>It was developed and implemented an original method for correcting cellular immunity disorders, immunomodulatory and antioxidant remedy using vegetable "Pacovirina-Plus" in people exposed to ionizing radiation.</p> <p>The results obtained were developed following documents:</p> <ul style="list-style-type: none"> • Law of Moldova No.10-XVI of 03.02.2009 "On State Supervision of Public Health". • Law on the safe deployment of nuclear and radiological activities, 111-XVI from 11.05.2006. • Law on HIV /AIDS no. 23-XVI from 16.02.2007. • National Immunization Program for 2006-2010, approved by Government Decision No. 523 of May 16, 2006. • National Program for fighting viral hepatitis B, C and D RM for 2007-2011. • Government Decision on approval of rules and regulations of the State Sanitary-Epidemiological on location, equipment and operation of medical institutions, 2008. • Government Decision on Regulation on State Supervision Service of Public Health nr.384 of 12.05.2010. 				
Number of defended dr.hab. and dr. theses per year	2005 0	2006 0	2007 0/2	2008 0/1	2009 1/3

VII. Present/further involvement in the Seventh Framework Programme (FP7): specific programmes (Cooperation, Ideas, People, Capacities) of interest and its sub-divisions. *Health*

VIII. Accredited research field and its evaluation by the National Council for Accreditation and Attestation of the Republic of Moldova (very good/good/ satisfactory) *National Center for Public Health was accredited research profile „Hygiene and Epidemiology” with accreditation certificate series P nr.041 by decision nr.AC-08/1-2 of the National Council for Accreditation and Attestation of 15.12.2010, (good).*

IX. Category (A/B/C) attributed by the National Council for Accreditation and Attestation of the Republic of Moldova to the organization

X. Institutional development actions planned for the next 5 years

1. Addressing complex public health priority issues of national and international significance of the realization of research and development themes.
2. Providing scientific support in developing and implementing national programs for prevention and control of communicable diseases and non-communicable diseases.
3. Assist in the consultative-methodical research and development in public health concerns the implementation of the achievements and advanced experience;
4. Continue collaboration with national and international organizations specialized in the execution of joint projects and technology transfer (PC 7) public health.
5. Strengthen logistical support for training, improvement and recycling staff, including PhD and postdoctoral studies.
6. Engaging and supporting young scientists in research and development.
7. To enhance the activity of publishing scientific results in national and international magazines, including ISI and electronic.