

Summary report on research accreditation

I. General information

Name of organization	Institute of Emergency Medicine
Organization type (<i>to underline</i>)	Research institute High education institution <u>Ministerial research institute</u>
Research direction (s) of organization	<ul style="list-style-type: none"> - Organization of specialized service for multiple and associated trauma on the pre-hospital and hospital stage; - elaboration of “damage control” principles for abdominal trauma and acute abdominal surgical pathology; - elaboration of diagnostic and management methods for acute abdominal pathology; - implementation of telemedicine and creating of a national advisory center at the distance; - enhancement of the intervention capacity and emergency medical assistance in disaster situations; - improvement of noninvasive and neurosurgical management of ischemic stroke in the Republic of Moldova.
Correlation with strategic research direction (s) of activity in the field of science and innovation for 2013-2020	- Health and Biomedicine
Evaluated period	2010 - 2014
Web of organization	www.urgenta.md

II. Research capacity (annual average for evaluated period)

Total number of employees	28					
Number of scientific researches	28					
Number of researches who possess honorific titles, scientific degrees, scientific and scientific-didactical titles	ASM full members 2	ASM corresp. members -	Professor 4	Associated professor 9	Dr.hab. 5	Dr. (PhD) 19
Number of researches involved in international projects	European Commission programs -	United Nations programs and funds 2		Bilateral programs financed from the national budget -	Others 1	
Number of young researches (under 35 years old)	PhD students 4			Others -		
Financial resources - revenues (thousand MDL)	Public budget 625,1			Special means 372,6		
Categories of special means (thousand MDL)	National 372,6			International -		

Distribution of expenditures (thousand MDL)	Salary	Procurement of scientific equipment	Traveling for scientific purposes (travel, accommodation, per-diems, etc.)	Other
	342,3	642,8	1,04	90,6
List of 3 basic research methods, installations, technologies (per accredited field)	<ul style="list-style-type: none"> - Computer-based tomograph Toshiba Prime Aquilon TSX-303 A (2014); - Stryker Pressure Monitor System (2011); - Electroencephalograph NIC- 1CP, NicoletOne Clinical EEG System (2014); - Automatic hematology analyzer Sysmex KX-21N (2013); - Automatic biochemical analyzers Dirui CS T-240 (2012), Siemens Dimension RxL (2013), etc. 			
List of provided scientific services	<ul style="list-style-type: none"> - Various surgical procedures; - tomography, angiography, magnetic resonance imaging, endoscopy; - analyzes: biochemical, general, clinical, immunological, hematologic, cytological. 			
List of editorial activities	Co-founder of the journal "Buletinul Academiei de Științe a Republicii Moldova. Științe medicale", ISSN 1857-0011, category B+, http://www.bsl.asm.ms			

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

ASM institutional projects	2010 1	2011 1	2012 1	2013 1	2014 1
ASM projects in the frame of State Programs	2010 -	2011 -	2012 -	2013 -	2014 -
ASM technological transfer projects	2010 -	2011 1	2012 1	2013 1	2014 -
ASM projects for equipment procurement	2010 -	2011 -	2012 -	2013 -	2014 -
ASM projects for young researches	2010 -	2011 -	2012 -	2013 -	2014 -
ASM projects in the frame of bilateral programs	2010 -	2011 -	2012 -	2013 -	2014 -
International projects/grants	2010 1	2011 1	2012 1	2013 -	2014 1
List of 3 representative international projects/grants	<p>1) <i>"Project for improving medical and public health system by introducing new medical equipment performance."</i> Japanese International Cooperation Agency (JICA). Duration: 2014. Financing amount: 1034097600,00 Japan Yen</p> <p>2) <i>"Implementation of the World Health Organization Surgical Safety Checklist, Including Introduction of Pulse Oximetry, in a Resource-Limited Setting"</i>. WHO project. 2012. Financing amount: centralized system for Pulse Oximetry, US \$ 15 000</p> <p>3) <i>"Medical Triage multiple accidents and disasters casualty"</i>. WHO project, Elaboration of National Guide. 2010 – 2011. Financing amount:</p>				

	US \$ 3 000				
Research contracts	2010 1	2011 2	2012 2	2013 2	2014 -
List of 3 representative research contracts	1) 09.12.2010 - Bioghen Idec Limited, Innovation Hous,70 Norden Road, Maidenhead, Berkshire, SL6 4AY, United Kingdom, TVA GD5031018 2) Nr. 1-1110, 2011 – 3S- Pharmacological Consultation & Research GmbH, Konigsbergerstrasse 1, 27243 Harpstedt – Germany 3) 22.01.2013 – Pharm Research Associates (U.K), 500 South oak Way, Green Park, Reeding, Berkshire, RG2 6AD, United Kingdom				

IV. Scientific publications

Total number of publications abroad	Books -	Chapters in books 1	Journal papers 93
Total number of publications in ISI journals and books	Books -	Chapters in books -	Journal papers 11
Total number of publications in the country	Books 8	Chapters in books 2	Journal papers 166
Total number of conference abstracts	International abroad 155	International in the country 9	National 15
List of 5 representative publications (per accredited field)	<p>Books:</p> 1. CIOBANU Gh. <i>Resuscitarea cardiorespiratorie și cerebrală</i> . Volumul 1. Chișinău, “Nova-Imprim”. 2014: 772 p. (ISBN 978-9975-4396-9-5) 2. CIOBANU Gh. <i>Resuscitarea cardiorespiratorie și cerebrală</i> . Volumul 2. Chișinău, “Nova-Imprim”. 2014: 1094 p. ISBN 978-9975-4396-9-5 3. CIOBANU, Gh. <i>Managementul serviciului de urgență în sistemul sănătății publice al Republicii Moldova</i> . Ch., Î.S. F.E“Tipografia Centrală”, 2011, 540p. (ISBN 978-9975-53-004-0) 4. GROPPA S., POSTOLACHI R., BURUNSUS V. <i>Katatraumatismele craniocerebrale asociate</i> . Ch. Combinatul poligrafic. 2012: 184 p. 5. CIOBANU, Gh. <i>Șocul</i> . Ch.,SRL“Nova-Imprim”, 2011:424 p. (ISBN 978-9975-4224-1-3) <p>ISI/journals:</p> 1. KWOK A.C, FUNK L.M., BALTAGA R., LIPSITZ S.R., MERRY A.F., DZIEKAN G., CIOBANU Gh., BERRY W.R., GAWANDE A.A. <i>Implementation of the World Health Organization Surgical Safety Checklist, including introduction of pulse oximetry, in a resource-limited setting</i> . Ann Surg.2013;257(4):633-9.ISSN 0003-4932 ISI IF (2012):7.188 2. MISHIN, I.; GHIDIRIM, Gh.; DOLGHII, A.; BUNIC, G.; ZASTAVNITSKY, Gh. <i>Implantation of self-expanding metal stent in the treatment of severe bleeding from esophageal ulcer after endoscopic band ligation</i> . Diseases of the Esophagus. 2010; 23(7): 35-38. ISSN 1442-2050 ISI IF (2013):2.057		
List of 5 citations	1. MISHIN, I.; GHIDIRIM, Gh.; DOLGHII, A.; BUNIC, G.; ZASTAVNITSKY, Gh. <i>Implantation of self-expanding metal stent in the</i>		

	<p>treatment of severe bleeding from esophageal ulcer after endoscopic band ligation. <i>Diseases of the Esophagus</i>. 2010; 23(7): 35-38. ISSN 1442-2050 ISI IF(2013):2.057 <u>18 citations</u></p> <p>2. KWOK A.C, FUNK L.M., BALTAGA R., LIPSITZ S.R., MERRY A.F., DZIEKAN G., CIOBANU Gh., BERRY W.R., GAWANDE A.A. <i>Implementation of the World Health Organization Surgical Safety Checklist, including introduction of pulse oximetry, in a resource-limited setting</i>. <i>Ann Surg</i>.2013;257(4):633-9.ISSN 0003-4932 ISI IF(2012):7.188 <u>35 citations</u></p> <p>3. GHIDIRIM, Gh.; MISHIN, I.; ZASTAVNITSKY, Gh. <i>Pseudomyxoma peritonei presenting with inguinal hernia</i>. <i>Chirurgia (Bucur.)</i>, 2011; 106(4): 527-529. ISSN 1221-9118. ISI IF(2011): 0.56 <u>4 citations</u></p> <p>4. MISHIN I., GHIDIRIM Gh., ZASTAVNITSKY Gh., POPA C. <i>Torsion of an appendiceal mucinous cystadenoma. Report of a case and review of literature</i>. <i>Ann Ital Chir</i>. 2012; 83(1):75-8. ISSN 0003-469XISI IF(2013):0.683 <u>6 citations</u></p> <p>5. MISHIN, I.; GHIDIRIM, Gh.; VAZIAN, M. <i>Acute spontaneous chylous peritonitis</i>. <i>Journal of Gastrointestinal and Liver Disease</i>. 2010; 19(3): 333-335. ISSN 1842-1121 ISI IF(2013):1.849 <u>4 citations</u></p>
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V. Innovation outputs

Total number of patents	Registered in the country 17	Registered abroad 5	Implemented 18
Total number of new developed methods and technologies	Registered 30	Non-registered -	Implemented 30
Total number of new scientific products	Registered 54	Non-registered -	Implemented 54
List of 5 representative innovation outputs (per accredited field)	<p>1. CIOBANU GH., PROCOPENCO O., TOPAL O., ȘIRBU D. MD. Method of zygomatic complex fractures osteosynthesis. Z ISD558 patent registration date 2013.06.30</p> <p>2. BOROVIĆ E., CIOBANU GH., LISI D. Manipulator for fixing and moving of multiform objects. Nr. 1537 Certified Agency 2014 2:17</p> <p>3. GHIDIRIM GH.; MISHIN I., ISTRATE V.; BODRUG N. Method of endoscopic papilectomy. date ISD patent registration 180 Z 2010.04.3031</p> <p>4. BOROVIĆ E., BOROVIĆ E. <i>Device with external adjustable element for osteosynthesis tubular long bones</i>. ISD 1359 patent registration date 2011.10.11</p> <p>5. GHIDIRIM GH.; MISHIN I., ISTRATE V.; BODRUG N. Method of closure defect of duodenal mucosa. Patent ISD 181 Z 2010.04.30</p>		

VI. Other outputs

Total number of scientific outputs for central and local authorities (draft of law, strategies etc.)	5		
Total number of scientific outputs for educational	Handbooks for high education 2	Handbooks for pre-university institutions -	Number of researchers – supervisors of license and master theses 24

institutions			
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VII. Major scientific and innovation achievements

<p>Short description of main scientific results and its confirmation (by awards, citations, development of international projects etc.)</p>	<p>1) In the frame of the WHO project “Implementation of the World Health Organization Surgical Safety Checklist, Including Introduction of Pulse Oximetry, in a Resource- Limited Setting” it was demonstrated that the successful hospital-wide Surgery Safety Checklist implementation can be achieved in a resource-limited setting and can significantly reduce the surgical hazards and complications. The project results were published in the ISI journal <i>Annals of Surgery</i> (USA) (KWOK A.C, FUNK L.M., BALTAGA R.,LIPSITZ S.R.,MERRY A.F.,DZIEKAN G.,CIOBANU Gh., BERRY W.R.,GAWANDE A.A. <i>Implementation of the World Health Organization Surgical Safety Checklist, including introduction of pulse oximetry, in a resource-limited setting</i>. Ann Surg. 2013; 257(4): 633-9. ISSN 0003-4932 ISI IF (2012):7.188) and have a high level of citing (35).</p> <p>2) The algorithm TRAMIN was tested in the frame of the WHO project “Medical Triage multiple accidents and disasters casualty” and a national guide was elaborated, which defines the general terms, purpose, types and methods of the medical triage in the context of medical care for the population in the mass casualty incidents or disasters. The result were presented at the European exhibition of creativity and innovation EURO invent 2011, Iași (CIOBANU GH., PÎSLA M., OSTAFICIUC R. <i>Triage medical tag</i>) and appreciated with a gold medal.</p> <p>3) The scientific results formed the ground for the development of the “National program for the development of emergency medical assistance for 2011 – 2015” (approved by resolution Nr. 945 of 13.12.2011 of the Government of Moldova, Published: 23.12.2011 in the Official Gazette no. 227-232 art. No. 1032), which is a policy planning document of the Government in the medium term, drawn to the strengthening and modernization of continuous emergency service, expanding public access to services emergency healthcare quality in order to reduce surgical emergencies impact on health.</p>				
<p>Number of researchers invited as speakers at international conferences</p>	<p>2010 24</p>	<p>2011 6</p>	<p>2012 9</p>	<p>2013 37</p>	<p>2014 7</p>
<p>Short description of technological transfer and innovation results and its certification by implementation</p>	<p>The technological transfer:</p> <ul style="list-style-type: none"> • "<i>Distributed information system</i>" <i>DICOM Network</i> “. Project: 14.824.02.186T, Duration: 01.01.2014-31.12.2015 • "<i>Appreciation of functional neural structures and efferent and afferent transmission to the central and peripheral nervous system through complex examination method</i>". Project 14.824.04.189T, Duration: 2014-2015 • "<i>Implementation of transcranial magnetic stimulation in neurological practice in RM</i>". Contract no. 150 / T, Duration: 2011 - 2012 				
<p>Number of defended dr./dr. hab. theses per year</p>	<p>2010 1</p>	<p>2011 -</p>	<p>2012 2</p>	<p>2013 -</p>	<p>2014 -</p>

VIII. Present/further involvement in the Horizon 2020 (FP7)

Grant Contract: "Performance in neuroscience through access and collaboration with European research platforms" (In the Grant Contract "Nr. 2014 / 346-992 European Commission's" financial support for Moldova's participation in the European Union's Framework Program for research and innovation HORIZON 2020 ") 01/04/2015 - 04/01/2016

Subject: maintaining and developing cooperation with the European Research Centre of Excellence Supervisor - Acad. Stanislav Groppa

IX. Accredited research field and its evaluation by the National Council for Accreditation and Attestation of the Republic of Moldova (very good/good/satisfactory)

Emergency Medicine - good

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

Category B

XI. Institutional development actions planned for the next 5 years (maximum ½ page).

- Research of clinical polymorphism, pathogenic mechanisms and specific features of therapy of patients with ischemic stroke by applying the transcranial magnetic stimulation (TMS) in the acute period of time in evolutionary aspect.
- Research of efficiency of patient recovery through physical therapy and transcranial magnetic stimulation.
- Developing the protocol for the use of TMS and a physical therapy protocol for patients with ischemic stroke in the acute period.
- Research of the impact of thrombolytic therapy on the average length of stay, lethality, recurrence rate, repeated hospitalization, temporary disability and evolutionary aspect of disabilities in time.
- Establishing a national protocol in the field of ischemic stroke surgery, assessment of surgical treatment perspectives of patients with ischemic stroke in the acute period.
- Optimization of diagnostic and treatment algorithm for of ACS, stroke and UH. Implementation of standardized triage records for minimally invasive thrombolytic therapy in the ER, ER-S / UPU for ACS and stroke.
- Assessment of efficacy parameters of emergency care of patients with stroke, ACS (acute coronary syndrome) and HE (hypertensive emergency).
- Determining the tactics of surgical treatment of multiple locomotor fractures of patients with chest and abdominal trauma.