

Curriculum Vitae and Bibliography

Vitaly Herasevich, MD, PhD, MSc

Last edited: Sep 1, 2020

1. PERSONAL INFORMATION

Place of Birth: Belarus
Citizenship: USA.

Work Address: Mayo Clinic
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Rochester, MN 55905
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2. PRESENT ACADEMIC RANK AND POSITION

Professor of Anesthesiology - Mayo Clinic College of Medicine and Science	04/2019 – Present
Professor of Medicine - Mayo Clinic College of Medicine and Science	05/2019 – Present
Consultant - Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota	04/2018 – Present
Full Faculty Privileges in Clinical & Translational Science - Mayo Graduate School, Mayo Clinic College of Medicine and Science, Mayo Clinic Enterprise	05/2013 – Present
Affiliate Faculty , Institute of Health Informatics, University of Minnesota, Minneapolis, Minnesota	04/2014 - Present
Affiliate Faculty , Department of Biomedical Informatics, Arizona State University, Phoenix, Arizona	07/2015 - Present

3. EDUCATION

Brest Medical College. Brest, Belarus. Physician Assistant	1991 – 1994
Belarusian State Medical University, Minsk, Belarus. M.D.	1994 – 2000
Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus. Non-interventional Cardiology Fellowship	2000 – 2003

Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus. Ph.D. in applied cardiology – Thesis: "Reaction of a Vascular Wall and Hemostasis System on the Arterial "BY-S-Stent" Stent Implantation".	2003
Department of Physiology and Biomedical Engineering, Mayo Clinic College of Medicine, Rochester, Minnesota, USA Postdoctoral Research Fellow – Cardiac imaging	2006 – 2007
Mayo Graduate School, Rochester, Minnesota, USA Masters of Science, Clinical Research. – Thesis: Syndrome surveillance in the intensive care unit: development of customized rules (data "sniffers") for detecting adverse events and specific time-sensitive patient problems in the ICU.	2007 – 2011
Division of Pulmonary and Critical Care Medicine, Department of Internal Medicine, Mayo Clinic, Rochester, Minnesota, USA Postdoctoral Research Fellow – Clinical Informatics Focus	2007 – 2011
Biomedical Informatics. – AMIA 10 by 10 Biomedical Informatics Course. Oregon Health & Science University, Oregon, USA	2008

Other education

SAS "Data Mining Techniques: Theory and Practice". 3-days course	2009
"Electronic Health Record (ERH) Usability and Interface Design". 3-days course. National Center for Cognitive Informatics & Decision Making, Houston, TX	2011
Research Commercialization Introductory Online Course by Research Commercialization and SBIR Center (http://center.ncet2.org/) May 2011	2011
SCCM Fundamental Critical Care Support Course, Rochester, MN	2011
Agile and Scrum for Professionals, Project Management Institute, Online	2014
Lean Six Sigma Black Belt, Project Management Institute, Online	2014

4. CERTIFICATION(S)

CPHIMS

Certified Professional in Healthcare and Management Systems	03/2013 – 03/2022
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Mayo Certification(s)

Mayo Clinic Quality Academy

Mayo Clinic Quality Fellow: Bronze Level Certification	03/10/2012
Mayo Clinic Quality Fellow: Gold Level Certification	08/18/2020

5. LICENSURE

6. HONORS/AWARDS

Best research project. Diploma 2-nd Degree. Russian State Medical University, Moscow, Russia.	1998
Diploma 3-rd Degree. National Medical University, Kiev, Ukraine. 54 th Scientific Conference of the Student and Young Scientists.	1999
Best research project. Diploma 2-nd Degree. Ministry of Education Republic of Belarus.	1999
Appreciation Diploma for organization of students and young scientists' international conferences 1997-2000 with participation of more than 30 universities. Belarus Science Center. Minsk, Belarus	2000
Best research project. Diploma 1-st Degree. Ministry of Education Republic of Belarus.	2000
Diploma 3-rd Degree. Young Scientists Scientific Conference. Minsk State Medical Institute. Belarus.	2000
Full year stipend award. President and Government of the Republic of Belarus.	2003
Clinical Research Scholar , Mayo Clinic Center for Translational Science Activities. National Institute of Health. KL2 (K12) grant award.	2007 – 2010
Best presentation delivery , Voted by audience, Smart Monitoring 2010	2010
Fellow in Critical Care Medicine , American College of Critical Care Medicine	2016 -
Karolinska Institutet - Mayo Clinic Travel Award	2017

7. MILITARY SERVICE, COMMUNITY

Board Member. Olmsted County Zoning Board of Adjustment, Olmsted County, MN	2020
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8. PREVIOUS PROFESSIONAL POSITIONS AND MAJOR APPOINTMENTS

Physician Assistant. High School #14, Brest, Belarus.	1994
Computer technician/IT analyst. Part-time. IT Department. Belarusian State Medical University, Minsk, Belarus.	1996 – 2000
Cardiology Fellowship. Department of Cardiology. Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus.	2000 – 2003
Research Assistant. Department of Cardiothoracic Surgery. University of Maryland, Medical Center, Baltimore, Maryland. Voluntary.	2003
Research Trainee. Division of Pulmonary and Critical Care Medicine, Mayo Clinic College of Medicine, Rochester, Minnesota, USA	07/2006 – 09/2006
Research Fellow. Department of Physiology and Biomedical Engineering, Mayo Clinic College of Medicine, Rochester, Minnesota, USA	09/2006 – 07/2007
Research Fellow. Senior Research Fellow. Division of Pulmonary and Critical Care Medicine, Mayo Clinic College of Medicine, Rochester, Minnesota, USA	07/2007 – 10/2009
Research Associate. Division of Pulmonary and Critical Care Medicine, Mayo Clinic College of Medicine, Rochester, Minnesota, USA	11/2009 – 03/2011
Associate Consultant – Research - Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota	04/2011 – 06/2014

Teaching/Examining Privileges in Clinical & Translational Science - Mayo Graduate School, College of Medicine, Mayo Clinic, Rochester, Minnesota	10/2012 – 05/2013
Assistant Professor of Medicine - Mayo Clinic College of Medicine	11/2009 – 11/2014
Assistant Professor of Anesthesiology - Mayo Clinic College of Medicine	02/2012 – 11/2014
Senior Associate Consultant I - Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota	07/2014 – 12/2015
Senior Associate Consultant II - Department of Anesthesiology, Mayo Clinic, Rochester, Minnesota	12/2015 – 04/2018
Associate Program Director – Clinical Informatics Fellowship, Mayo School of Graduate Medical Education, Mayo Clinic, Rochester, Minnesota	05/2013 – 07/2017
Associate Professor of Anesthesiology - Mayo Clinic College of Medicine and Science	12/2014 – 03/2019
Associate Professor of Medicine - Mayo Clinic College of Medicine and Science	12/2014 – 04/2019

9. PROFESSIONAL & COMMUNITY MEMBERSHIPS, SOCIETIES AND SERVICES

Professional Memberships

Student Scientific Society of the Belarusian State Medical University	
*Lifetime membership	1996 –
American Medical Informatics Association (AMIA)	
*Member	2006 –
Society Critical Care Medicine (SCCM)	
*Member	2009 –
*Fellow	2016 –
IEEE	
*Member	2009 –
*Senior Member	2020 -
IEEE Engineering in Medicine and Biology Society (IEEE EMBS)	
*Member	2009 –
HIMSS - Healthcare Information and Management Systems Society	
*Member	2011 –
HIMSS Minnesota Chapter	
*Member	2011 –
Board Member (Programs Elect)	2020 -
Minnesota Medical Association	
*Member	2012 –
Zumbro Valley Medical Association	
*Member	2012 –
IARS - International Anesthesia Research Society	
*Member	2011 – 2012
American Association for the Advancement of Science (AAAS)	
*Member	2007 – 2008
Association of the Belorussian Physicians	
*Member	2000 – 2007
Russian Society of the Interventional Cardioangiologists	
*Member	2000 – 2007

ASA - American Society of Anesthesiologists *Member	2011 –2017
MSA – Minnesota Society of Anesthesiologists *Member	2011 –2017
Society for Technology in Anesthesia (STA) *Member	2012 – 2015
Professional Services	
IEEE EMBS Industry Relation Committee * Committee Member	2009
AMA-IEEE Medical Technology Conference * Program Committee Member	2011
AMIA Clinical Research Informatics Working Group Member * Member-at-large.	2009 - 2009 – 2011
AMIA 2012 * Scientific Program Committee (SPC) Member	2011 – 2012
AMIA Intensive Care Informatics Working Group * Founding Chair, Re-elected 2015-2016 Member	2012 - 2018 2012 –
AMIA Membership and Outreach Committee * Member	2012 – 2015
AMIA Education Committee * Member	2012 – 2015
AMIA 2013 Summit on Clinical Research Informatics (CRI) * Scientific Program Committee (SPC) Member	2012 - 2013
2nd annual IEEE International Conference on Healthcare Informatics, Imaging and Systems Biology * Scientific Program Committee (SPC) Member	2012
AMIA 2013 * Scientific Program Committee (SPC) Member	2012 – 2013
AMIA Clinical Information Systems Working Group Member	2014 -
HIMSS Physician Committee * Member	07/2013 – 07/2014
HIMSS Physician Committee Usability Workgroup * Member	11/2013 – 07/2014
ARRA HITECH Hospital eMeasures project - ICU Readmission Clinical Workgroup * Member	07/2013 – 07/2014
HIMSS 2014 physician Symposium Planning Committee Member	2013
AMIA 2014 * Scientific Program Committee (SPC) Member	2013 – 2014
HIMSS 2015 * Scientific reviewer	2014 – 2015
College of St. Scholastica HIIM Graduate Program Advisory Committee * Committee Member	2014 -
HIMSS Physician Community New to Informatics Workgroup * Member	2014 -
HIMSS 2016 * Scientific reviewer, assigned to presenters mentor	2015 – 2016
SCCM * Telemedicine committee member	2015 -
Vice-Chair	2017 - 2018
Chair	2018 – 2019

Past Chair	2019 – 2020
AMIA Academic forum	2014 - 2016
Mayo Clinic designated representative	
CMS Lung Protective Ventilation Expert Workgroup	2015
Member	
HIMSS 2017	2016 – 2017
* Scientific reviewer	
AMIA 2017	2016 – 2017
* Scientific Program Committee (SPC) Member	
HIMSS	2017 - 2019
Quality, Cost and Patient Safety Committee	
Member	
HIMSS 2018	2017 – 2018
* Scientific reviewer	
NSF	06/2018
Scientific review panel member	
NSF	07/2018
Scientific review panel member	
SCCM	2018 -
Quality and Safety Committee Member	
SCCM	2018 -
Discovery Computational CCM Workgroup Member	
SCCM	2018 -
Discovery Data, Outcomes and Definitions Workgroup	
HIMSS	2018-2020
Global Conference Education Committee (GCEC) Member	
HIMSS	2018 -
TIGER International Taskforce Member	
SCCM	2019 -
Discovery, Steering Committee Member	
SCCM	2019-2022
Data Science Programming Task Force Member	
NIH/ NHLBI	05/2019
Scientific review panel add-hock member	

Journal Review & Editorial Activities

Belorussian Medical Scientific Journal "Medicine".	2001 – 2003
*Associate Editor	
Critical Care Medicine	2009 –
Reviewer	
Applied Clinical Informatics	2009 –
Reviewer	
Respiratory Care	2010 –
Reviewer	
Journal of Critical Care	2011 –
Reviewer	
Journal of Clinical Monitoring and computing	2011 –
Reviewer	
BMC Research methodology	2011 –
Reviewer	
International Journal of Critical Illness and Injury Science	2012 –
Reviewer	
BMJ Quality & Safety	2012 –
Reviewer	
BMC Medical informatics and decision making	

Reviewer	2012 –
Associate Editor	2013 – 2014
Medical technologies. Assessment and choice Editorial Board Member	2014 –
Computer Methods and Programs in Biomedicine Reviewer	2014 –
HIMSS Clinical Informatics Insights Editorial Board Member	2014 –
Computers in Biology and Medicine Reviewer	2015 –
Journal of Biomedical Informatics Reviewer	2016 –
Critical Care Nurse Reviewer	2016 –
Journal of American Medical Informatics Association Reviewer	2012 –
International Journal of Medical Informatics Reviewer	2016 –
American journal of medical sciences Reviewer	2016 –

10. EDUCATIONAL ACTIVITIES

A. Curriculum/Course Development

Co-creator of computer database for microbiology, virology and immunology teaching course. Belarusian State Medical University, Minsk, Belarus.	1996
Founder and system operator of first in the republic medical board bulletin system (BBS) - Cito! BBS. Belarusian State Medical University, Minsk, Belarus.	1996 – 2000
Founder and editor-in-chief of the university newspaper "Medical Networks" for staff and students about computer education. Belarusian State Medical University, Minsk, Belarus.	1997 – 1999
Co-creator of printed and multimedia version of teaching materials for pathophysiology course. "Pathophysiology of the tumor growth". Belarusian State Medical University, Minsk, Belarus.	1997
Founder and editor-in-chief of the university newspaper "News of Student Scientific Society". Research opportunities, education news. Belarusian State Medical University, Minsk, Belarus.	1997 – 2000
Creator of "Medical CD". Series compact disks for patients' health education. Belarusian State Medical University, Minsk, Belarus.	1998 – 1999
Founder and operational manager of regional computer network for interchange medical information BelMedNet. Belarusian State Medical University, Minsk, Belarus.	1998 – 2000
Founder and director of web server "Belorussian medical server" Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus.	2000 – 2004
Founder and owner of web site PTCA.us – Daily Angioplasty and Stenting digest. Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus.	2003 – 2006
Introduction in medical informatics, "Computer for physicians" course. Belarusian Medical Academy of Postgraduate Education, Minsk, Belarus.	2002 – 2003

Educational intranet web-site for Critical Care literature acquisition. Mayo Clinic, Rochester, Minnesota	2007 – 2009
CMS-driven collaborative web-site for Multidisciplinary Epidemiology and Translational Research in Intensive Care (M.E.T.R.I.C.) Mayo Clinic, Rochester, Minnesota	2007 – 2014
Introduction in academic and evidence-based medicine 5 days (35 hours) course for last year medical students Belarusian State Medical University, Minsk, Belarus.	2012 – 2016
CTSC 5961, a one credit class entitled “Health Information Technology Evaluation: Clinical Informatics Methods”, Mayo Clinic, Rochester, Minnesota	2014 - 2017
Clinical Informatics Grand Rounds, AMA CME credit approved. Course director	2014 -
Mayo Medical School Expansion project. Science Healthcare Delivery Domain. Medical informatics curriculum developer	2014 - 2017
CTSC 5960, a 2 credit class entitled “Introduction in Biomedical Informatics”, Mayo Clinic, Rochester, Minnesota	2016 - 2017
Introduction in academic and evidence-based medicine 2 days (16 hours) course for physicians Ministry of Health Republic of Belarus, Minsk, Belarus.	2017 -
Clinical informatics Fellowship. Rotation Director	2018 -

B. Teaching

Mayo Graduate School: (CTSA 5960) Medical Informatics for the Clinical Researcher. Lecture: Clinical informatics (every year beginning 2010) Mayo Clinic, Rochester, Minnesota	2010 - 2016
Critical Care Core Curriculum. Lecture: Clinical informatics in intensive care. (every year beginning 2011) Mayo Clinic	2011 - 2015
Critical Care Fellows’ Boot Camp. Lecture: Optimal Internet Search Strategy (every year beginning 2011) Mayo Clinic	2011 - 2014
Mayo Graduate School: (CTSA 5910) Clinical Research Protocol Development Small group tutor (every year beginning 2012)	2012 - 2018
Introduction in academic and evidence-based medicine 5 days (35 hours) course for last year medical students (every year beginning 2012) Belarusian State Medical University, Minsk, Belarus.	2012 - 2016
Mayo Graduate School: (CTSC 5961) “Health Information Technology Evaluation: Clinical Informatics Methods”, 1 credit (two times per year beginning 2014) Mayo Clinic, Rochester, Minnesota	2014
Postgraduate course PG21 – Intensive Care Unit Monitoring. American Thoracic Society. Lecture: Help, I’m Drowning in Data! (Information Overload)	05/2011
Critical Care Fellows’ Boot Camp. Lecture: AWARE as modern EMR viewer for ICU	2011 - 2017
AMIA WG tutorial (half day). Intensive Care Informatics, Washington, DC	11/2012

Workshop: Health technology assessment Society Complexity in Acute Illness, Budapest, Hungary	08/2013
AMIA WG tutorial (whole day). Medical informatics and decision support systems in intensive care. Washington DC	11/2013, 11/2014
Mayo Medical School. Medical informatics.	2015 – 2019
Mayo Graduate School: (CTSA 5960) Introduction to Medical Informatics	2017 – 2018
Mayo Clinic, Rochester, Minnesota 2 days course for practicing physicians. Academic and evidence-based medicine	2017 – Present
Ministry of Health, Minsk, Belarus CERTAIN course.	2017 - Present
Lecture “Introducing to clinical informatics” Mayo Clinic School of Continuous Professional Development, Mayo Clinic, Rochester, Minnesota CERTAIN course.	06/2019
Lecture “Introducing to clinical informatics” CERTAIN Workshop, Ljubljana, Slovenia	

C. Mentorship

Individual and Position	Timeframe & Description	Outcomes	Current Status (LFU)
Li, Man Informatics Fellow	2007 - Present	Mentoring on the research component of applied medical informatics. Multiple abstracts published.	Lead Programmer HRBS, Mayo Clinic (2014)
Vedre, Jayanth MD Clinical Fellow	2009 - 2010	Research career advisor.	Physician, Marshfield Clinic (2011)
Harrison, Andrew Mayo M.D./Ph.D. Student, Research fellow	2010 - Present	PhD Mentor, chair of PhD committee	PhD graduated, MD/PhD student, Mayo Medical School (2014)
Chandra, Subhash. MBBS Research Fellow	2010 - 2011	Mentored on the number of research projects, abstracts, publications	Resident, Internal Medicine, New York (2014)
Trivedi, Naman, MBBS Research Fellow	2010 - 2011	Mentored on the research project. Abstract published.	Resident, Internal Medicine, New York (2013)
Kuo, Daniel Mayo Medical Student	2011 - 2012	Advised on research career	MD Student, Mayo Medical School (2012)

Palaniappan, Senthilkumar Informatics Fellow	2011 - 2012	Mentored on the research component of applied clinical informatics	Contractor Programmer, Mayo Clinic (2014)
Ahmed, Adil, MBBS Research Associate	2012 - 2018	Mentored as secondary mentor on MSc and PhD projects. Career advisor. 12 peer reviewed papers published together with 3 of them as mentee.	Geriatrics Clinical Fellow, Duke University (2018)
Kashiouris, Markos, MD Clinical Fellow	2012 - 2013	Mentoring on the number of projects. One peer reviewed manuscript and number of abstracts published.	Assistant professor, Attending, VCU, Richmond, VA (2018)
Velagapudi, Venu, MBBS Clinical Fellow	2012 - 2013	Serving as mentor and formal advisor, meeting with fellow at least quarterly to provide professional and career advice.	Critical Care Fellow, Mayo Clinic (2013)
O'Horo, Jack, MD Clinical Fellow	2013 - 2015	Mentoring on the number of projects, advisor on certificate program. Career advisor. Number of manuscripts and abstracts.	Infection disease, Consultant, Mayo Clinic (2018)
Gwen Thompson, MD Internal medicine resident	2013 - 2015	Mentoring on the research project. One peer-reviewed manuscript.	Internal medicine resident, Mayo Clinic (2013)
Perliveh Carrera, MD Clinical Fellow	2013 - 2015	Serving as mentor and formal advisor, meeting with fellow at least quarterly to provide professional and career advice.	Critical Care Fellow, Mayo Clinic

Charat Thongprayoon, MD Research fellow	2013 - 2015	Mentoring on the number of projects, advisor on certificate program. One first author peer-reviewed article, 3 abstracts.	Research fellow, Mayo Clinic
Marc Ellsworth, MD Clinical Fellow	2013 - 2016	Mentoring on the number of projects. Career advisor. 3 peer reviewed manuscripts and number of abstracts.	Neonatology Critical Care Physician, Arizona
Vitali Fiadosau, MD, PhD, Research Fellow	2013 - Present	Mentoring on the number of informatics projects. One first author publication. Disclosures to Mayo Medical Venture.	Research associate, Mayo Clinic
Aakre, Chris, MD, Internal medicine resident, Clinical informatics fellow	2014 - 2017	Mentoring on the number of research projects resulted in 5 peer reviewed articles. Primary mentor on the Master thesis.	Consultant, Mayo Clinic (2017)
Tomas Benzo, Student	2013 - 2014	Mentoring as summer student 2013, 2014. Worked on the methodological aspects of research program	University of Wisconsin-Eau Claire Undergrad student (2014)
Essien Ekong, MD, Research Trainee	2014 - 2015	Mentoring on the research project. Abstract published.	Resident, internal medicine (2015)
Alexander Kogan, MD Critical Care Fellow	2014	Mentoring on number of research projects. Career advisor.	Private Practice Physician, Denver
Mikhail Dziadzko, MD, PhD Research Fellow	2014 – 2016	Published 6 peer reviewed articles as mentee.	Attending physician, France
Matt Nolan, MD Internal Medicine Resident, Pulmonary fellow	2014 – 2018	Mentored on research projects and as career advisor. Resulted in 3 peer-reviewed publications and Disclosure to Mayo Medical Venture.	Faculty, Critical Care, University of Madison, WI
David Brown, MD Anesthesia resident	2014 – 2015	Mentored on research project. Abstract prepared.	Anesthesiologist, Lone Tree, CO

Mohamed Seisa, MD Research Fellow	2016 – 2017	Mentored on industry sponsored project. Full article prepared, abstract published.	Research Fellow, HSR
Andrey Oleinik, MD Research Fellow	2016 – 2017	Mentored as research fellow on the industry sponsored collaborative project. One abstract published and technical report to company produced.	Physician, Moscow, Russia
Bo Wang, MD Visiting Scientist	2016 – 2017	Contributed to number of projects. No first author publication.	Attending physician, China
Rizwan Siwani, MD Research Trainee	2016 – 2018	One abstract published, full manuscript submitted.	Pediatrician, Olmsted Medical Center
Blake Stephens, Summer student	2017	Abstract prepared. Currently re-connected for future mentoring.	Medical student. University of Kentucky
Prabij Dhungana, MD, Research Trainee, Research Fellow	2017 - 2018	Mentored on Applied Clinical informatics projects. Resulted in number of internal technical documentations, one published abstract and number of collaborative abstracts with other investigators.	Internal Medicine Resident
Jun Guo, MD Visiting Scientist	2017 - 2018	Presentation at professional conference.	Attending physician, China
Julia Pinevich, MD Research Fellow	2018 -	Mentored on the number of research projects	
Hong Bo, MD Visiting Scientist	2018 - 2019	Mentored on Applied Clinical informatics projects. Presentation at professional conference.	Attending physician, China
Gordon Ye, Summer student	2019 -	Mentored on research project and systematic review	UCSD undergrad student

Elizabeth Glancova, MD Research trainee	2019 -2020	Mentored on the number of research projects
Matt Jonston, MD Anesthesiology resident	2019-2020	Mentored on research rotation, received small departmental grant
Kirill Lipatov, MD Pulmonary resident	2019 -	Mentoring on research projects

D. Education Scholarship

Presentations

Internet technology as an instrument for establishment and maintenance international students' cooperation. WEB-server SSS MSMI International symposium "Experience and difficulties in organization of scientific work between students", Minsk, Belarus.	1999, 12 – 15 Oct
International symposium "Organization of the student scientific work", Minsk, Belarus.	2000, 25 – 28 Apr
"ICU of the Future": Informatics Infrastructure for Syndrome Surveillance, Decision Support, Data Mining and Modeling of Critical Illness. METRIC Conference Mayo Clinic Rochester, Minnesota	07/2008
Internet power search: for practice and research, METRIC Conference Mayo Clinic Rochester, Minnesota	01/2009
Ventilator induced lung injury electronic surveillance system METRIC Conference Mayo Clinic Rochester, Minnesota	08/2009
"Syndrome Surveillance in the Intensive Care Unit: Development of Customized Rules (Data "Sniffers") for Detecting Adverse Events and Specific Time-Sensitive Patient Problems in the ICU" METRIC Conference Mayo Clinic Rochester, Minnesota	03/2011
"Enhanced information search" METRIC conference, Mayo Clinic Rochester, Minnesota	6/2011
"Data mining and data visualization: ingredients" METRIC conference, Mayo Clinic Rochester, Minnesota	11/2011
"ICU and OR Data Marts: Past, Present and Future" Pulmonary Critical Care Medicine research conference, Mayo Clinic Rochester, Minnesota	12/2011

<p>“Ingredients of clinical informatics in ICU” Pulmonary Critical Care Medicine research conference, Mayo Clinic Rochester, Minnesota</p>	01/2013
<p>“Step toward patient centered EMR” Surgical Team Group Day, Mayo Clinic, Rochester, MN</p>	03/2013
<p>Decision making in ICU with AWARE. The smart EMR platform Chief Technology Office (CTO) Seminar Series, Mayo Clinic, Rochester, MN</p>	05/2014
<p>“Nuts and Bolts of meaningful quality reports” Pulmonary Critical Care Medicine research conference, Mayo Clinic Rochester, Minnesota</p>	10/2014
<p>“Meaningful clinical quality reports. A starter pack.” Health Science Research Grand Round Mayo Clinic Rochester, Minnesota</p>	03/2015
<p>“Practice quality reports” Pulmonary Critical Care Medicine research conference, Mayo Clinic Rochester, Minnesota</p>	10/2016
<p>“Intelligent alerts in Critical Care” METRIC conference, Mayo Clinic Rochester, Minnesota</p>	1/30/2017
<p>Clinical informatics. Things to know. Anesthesia Critical Care Keyword Lecture Mayo Clinic Rochester, Minnesota</p>	10/26/2017
<p>What “Big data” can and cannot do in clinical medicine Anesthesia Critical Care Keyword Lecture Mayo Clinic Rochester, Minnesota</p>	3/29/2018
<p>Pragmatic Health Information Technologies Evaluation. Do we need another "app"? Pragmatic Health Information Technologies Evaluation. Do we need another "app"? Mayo Clinic, Rochester, MN</p>	1/18/2019
<p>“Promises and hope of artificial intelligence in medicine” Pulmonary Critical Care Medicine research conference, Mayo Clinic Rochester, Minnesota</p>	1/25/2019
<p>“Health Information Technologies Evaluation” METRIC conference, Mayo Clinic Rochester, Minnesota</p>	6/26/2019
<p>Healthcare in transition: Addressing the COVID-19 Patient Surge Ambient Clinical Analytics, Panel webinar</p>	4/9/2020
<p>Artificial intelligence, Panelist Multi-professional Education, Translation & Research in Intensive Care (METRIC-2020): Spring 2020 Virtual Critical Care Conference</p>	4/1/2020

Memberships

E. Honors and Awards for Education

F. Academic Career Development

Psychologic aspects of continue medical education Belarusian State Medical University, Minsk, Belarus.	2002
Career and Leadership Development (CALD 1B) Personal Development: Myers-Briggs Type Indicator (MBTI) and Professionalism, Rochester, MN	2011
Career and Leadership Development (CALD 1C) Crucial Conversations, Rochester, MN	2011
Career and Leadership Development (CALD 1D) Research Staff Orientation, Rochester, MN	2011
Emotional intelligence Career and Leadership Development (CALD) module, Rochester, MN	2014
Publications skills Career and Leadership Development (CALD) module, Rochester, MN	2014
Presentation skills Career and Leadership Development (CALD) module, Rochester, MN	2015

11. INSTITUTIONAL/DEPARTMENTAL ADMINISTRATIVE RESPONSIBILITIES, COMMITTEE MEMBERSHIPS AND OTHER ACTIVITIES (* indicates office held)

Belorussian State Medical University Board of the Student Scientific Society Chair of the Board	1997 – 2000
Mayo Clinic Mayo Research Fellows Association Executive Committee Member	2007 – 2011
Mayo Clinic Rochester Mayo Epidemiology and Translational Research in Intensive Care (M.E.T.R.I.C.) Member DOM QUEST Interest Group Member GDMS /AMALGA Oversight and Steering Group Member MICS Viewing and Navigation Subgroup Member Population Management and Decision Support Oversight and Steering Group Member Practice Improvement Committee, Department of Anesthesiology Member Elemental Data Collection & Reporting WG Member Critical Care Fellowship Education Committee Member	2007 – Present 2007 – 2011 2011 - 2013 2011 - 2014 2011 - 2014 2012 - 2015 2012 2013 - 2014

Mayo Office of Health Disparities Research (OHDR) review panel.	2013
FHIR Steering Group Meeting Member	2014 - 2016
CDR Oversight Group Member	2014 - 2016
Sepsis MTR RST Bundle Compliance Workgroup Member	2014 - 2016
CCaTS Curriculum Committee Member	2015 - 2017
Enterprise API and FHIR Steering Group Member	2016 -
Safety & Quality Executive Committee, Department of Anesthesiology and Perioperative Medicine Member	2017 -
Research Committee, Department of Anesthesiology and Perioperative Medicine Member	2017 -
Research Committee Mayo Clinic School of Medicine Member-at-large	2018 - 2020
Applied Clinical Informatics Advisory Group Member	2018 -
Mayo Clinic Risk Score Calculators & Scoring Tools Optimization (RSCSTO) workgroup	2020 -
Non-Mayo Clinic	
Academic Advisory Committee, The College of St. Scholastica, Duluth Member	2014 -

12. PRESENTATIONS

International

Development and testing of arterial stent By-S-Stent. Belarus-Poland scientific and practical conference of development the innovation technologies, Brest, Belarus.	2002, Oct 9 – 11
Investigation of characteristic of arterial stent By-S-Stent. International scientific and practical conference "New technology in medicine: diagnostic, treatment, rehabilitation", Minsk, Belarus.	2002, Nov 21 – 22
Functional characteristics of vasa vasorum perfusion territories in coronary arterial wall. 8th World Congress for Microcirculation, Milwaukee, WI, USA.	2007, Aug 15 – 19
"ICU of the future": informatics infrastructure for syndrome surveillance, decision support, data mining, and modeling of critical illness. 6th International Conference on Complexity in Acute Illness, Long Beach, CA, USA.	2007, Oct 5 – 7
Rule base system for identification of patients with specific critical care syndromes: The "sniffer" for acute lung injury. AMIA 2007 Annual Symposium, Chicago, IL.	2007, Nov 10 – 14
Validation of Computerized System for Identifying Acute Lung Injury CHEST, Philadelphia, PA	2008, Oct 25 – 30

Designing and testing computer based screening engine for severe sepsis/septic shock AMIA 2008 Annual Symposium, Washington DC	2008, Nov 8 – 12
Electronic alert for detecting potentially injurious ventilator settings in patients with acute lung injury 38th Critical Care Congress, Nashville, TN	2009, Jan 31 – Feb 4
Automatic Mapping of Acute Physiology and Chronic Health Evaluation (APACHE) IV Diagnostic Categories Using Natural Language Processing. American Thoracic Society 2009 International Conference, San Diego, CA	2009, May 15 – 20
Enrollment to time sensitive clinical trial in the critical care setting: results from computerized septic shock sniffer implementation AMIA 2009 Annual Symposium, San Francisco, CA	2009, Nov 14 – 18
Automatic mapping of free text clinical notes to structured APACHE diagnoses 39th Critical Care Congress, Miami Beach, FL	2010, Jan 8 – 13
Feasibility Study of Automated Surveillance of Septic Shock Outside of the Intensive Care Unit American Thoracic Society 2010 International Conference, New Orleans, LA	2010, May 14 – 20
Development of an electronic surveillance system for Acute Kidney Injury in the Intensive Care Unit: an “AKI sniffer” AMIA 2010 Annual Symposium, Washington, DC	2010, Nov 13 – 17
"Failure to rescue" concept in clinical diagnostic alerts 10th International Conference on Complexity in Acute Illness, Bonn, Germany	2011, Sep 8 – 11
Information needs for Rapid Response Team (RRT) mobile application AMIA 2011 Annual Symposium, Washington, DC	2011, Oct 22 – 26
S65 – Papers: Data Management and Analysis, Session Chair AMIA 2012 Annual Symposium, Chicago, IL	2012, Nov 3 – 7
Transformative strategies for quality and safety: Re-Engineering Critical Care: AWARE and CERTAIN to prevent DEATH 42th Critical Care Congress, San Juan, PR	2013, Jan 18 – 23
Clinical Informatics and modern EMR Innovative technologies in healthcare. International conference. Minsk, Belarus	2013, May 31
Validation of Computerized Sniffer for Monitoring Perioperative Normothermia MEDINFO 2013, Copenhagen, Denmark	2013, Aug 20-23
Interpretation of graphical icons in a critical care EMR interface AMIA 2013, Washington DC	2013, Nov 16-20
Comparing the Usability of Two Patient Information Systems: The Implications for User Training WorldCIST '14 Madeira, Portugal	2014, Apr 15-18

Smart clinical alerts in Intensive Care Unit and hospital 2016 International Health Conference London, UK	2016, Jun 18-23
Evaluation of Clinical Score Calculator Programmability within the Electronic Health Record AMIA 2016 Annual Symposium, Chicago, IL	2016, Nov 12-16
Tutorial session: Smart Alerts in Healthcare: Real as Never Before HIMSS 2017 Orlando, FL	2017, Feb 19-23
Clinical informatics for predictive and prognostic modeling in the ICU IARS 2019 Montreal, Quebec, Canada	2019, May 18

National

Evaluation of diagnostic methods of rheumatoid arthritis. Republican scientific student conference "Current problems of modern medicine", Minsk, Belarus.	1997, Apr 24 – 26
Blood panel evaluation in children, living in areas contaminated with radionuclides. Republican scientific student conference "Current problems of modern medicine", Minsk, Belarus.	1998, Apr 23 – 25
Experience in development of regional network of exchanging medical information BelMedNet (BMN) "Telemedicine - establishment and development", Saint-Petersburg, Russia.	1999, May 28 – 29
Automatic system in conduction the medical records: creation the computer medical card for learning and scientific purposes Symposium: Problems of Telemedicine, Moscow, Russia.	2000, Mar 12 – 13
Scientific medical conference of students and young scientists, National Medical University, Kiev, Ukraine.	2000, Apr 20 – 23
Some characteristic of arterial stents. International conference "Creative Cardiology. New technology in diagnostic and treatment hearth disease", Moscow, Russia.	2002, Mar 29 – 30
A New Way of Keeping Up to Date in Your Field Mayo conference of quality. Rochester, MN.	2007, Apr 10 – 11
ICU Data Mart: Informatics Infrastructure for Automatics Calculation of Critical Care Prognostic Scores. AMIA Summit on Translational Bioinformatics, San Francisco, CA.	2008, Mar 10 – 12
Development and validation of computer "sniffer" for septic shock. National KL2/K12/K30 Clinical Research Scholars Annual Meeting, Washington DC.	2008, Mar 25 – 26
Electronic alert for detecting potentially injurious ventilator settings. National KL2/K12/K30 Clinical Research Scholars Annual Meeting, Washington DC.	2009, Apr 14 – 15
Enrollment to time sensitive clinical trial in the critical care setting: results from computerized septic shock sniffer implementation. National KL2/K12/K30 Clinical Research Scholars Annual Meeting, Washington DC.	2010, Apr 4 – 6

From threshold based alerts to "smart" rule based syndrome surveillance systems in ICU. Smart Monitoring 2010, St. Pete Beach, FL	2010, Aug 14 – 15
Ventilator-induced lung injury electronic medical record surveillance. 15th Quality Academy conference, Rochester, MN.	2011, May 3 – 4
Mobile rules based decision support tool for rapid response team. Smart Monitoring 2011, Fort Lauderdale, FL	2011, Aug 14 – 15
Toward meaningful use of the EMR: Development of an anesthesia data warehouse for quality improvement, administrative report and research – the Operation Room (OR) Datamart STA 2012, Palm Beach, FL	2012, Jan 18 – 21
Clinical Alerts Beyond Simple Detection: Electronic Surveillance of Failure to Rescue in Septic Shock HIMSS 2012 Physicians Symposium, Las Vegas, NV	2012, Feb 20 – 24
Information Technology Can Reduce Time Spent for Data Gathering in ICU HIMSS 2013 Physicians Symposium, New Orleans, LA	2013, Mar 3 - 7
Electronic Checklist in Intensive Care Unit: The Effect Provider Workload, Errors, and Performance HIMSS 2014 Physicians Symposium, Orlando, FL	2014, Feb 23-27
Needs for training: Usability of Two Patient Information Systems HIMSS 2014 Physicians Symposium, Orlando, FL	2014, Feb 23-27
The Use of EHR Data in Quality Improvement Reports and Clinical Automatic Calculators in ICU 10th Anniversary Minnesota e-Health Summit St. Louis Park, MN	2014, Jun 11-12
Checklist compliance: Impact Of Implementation Efforts HIMSS 2015 Physicians Symposium, Chicago, IL	2015, Apr 12
Needs for training: Usability of Two Patient Information Systems HIMSS 2015 Physicians Symposium, Chicago, IL	2015, Apr 12
Embedding Quality Reports in Clinical Workflow & EMR Innovation through knowledge delivery symposium 2015, Rochester, MN	2015, Nov 2
Panels sessions participant: 1) Perspectives on Effective Knowledge Delivery at Point of Care; 2) Leveraging Smart Solutions for Enhanced Clinical Usability & Workflow Innovation through knowledge delivery symposium 2015, Rochester, MN	2015, Nov 2
Before-after implementation of the sniffer for the detection of failure to recognize and treat severe sepsis. HIMSS 2016 Physicians Symposium, Las Vegas, NV	2016, Feb 29
Mapping APACHE IV Reason for Intensive Care Admissions• Classification to SNOWMED CT HIMSS 2016 Physicians Symposium, Las Vegas, NV	2016, Feb 29
Meaningful quality reports with support of clinical workflow 12th Anniversary Minnesota e-Health Summit Brooklyn Park, MN	2016, Jun 7
Automation of clinical scores within the electronic medical record HIMSS 2017 Physicians Symposium,	2017, Feb 18

Orlando, FL

EMR Focused on Clinical Care - How to Deal with Information Overload MN HIMSS, Webinar online (120 attendees)	2018, May 3
Time Wasted: A simulated observational study of time taken for ICU Patient Data to Load in EPIC Hyperspace application HIMSS19 AMDIS/HIMSS Physicians Executive Symposium, Orlando, FL	2019, Feb 11
Designing the Electronic Medical Record to Maximize Quality and Safety in the ICU SCCM 2019 San Diego, CA	2019, Feb 18
Virtual Critical Care: State of the Art and Technical Considerations SCCM 2019 San Diego, CA	2019, Feb 19
TeleICU and other databases for analytics SCCM 2019 San Diego, CA	2019, Feb 19
Use Artificial Intelligence in EMR Minnesota M-Health Minneapolis, MN	2019, Jun 13
Maximizing the Value of the Electronic Health Record SCCM 2020 Orlando, FL	2020, Feb 17
Clinical Informatics and Artificial Intelligence in Critical Care: The Scientific Literature SCCM 2020 Orlando, FL	2020, Feb 19

13. INVITED PRESENTATIONS AND VISITING PROFESSORSHIPS

Invited Presentations

Investigation of adhesive capability arterial stent material Russian Symposium "Coronary intervention" 2002, Moscow, Russia.	2002, Mar 4 – 6
Clinical Data: From Medical Institutions to Industrial Research – IP Protection Approaches. Special symposia (panel) session at EMBS 2009 Minneapolis, MN	2009, Sep 5
Toward a Meaningful Clinical Alerts in Intensive Care. CTSA Grand Round, Mayo Clinic, Rochester, MN	2010, Jul 9
"Smart" Alerts: More Meaning – Less Noise. Anesthesia Grand Round, Mayo Clinic, Rochester, MN	2011, Jan 10
Finding the evidence. Search skills toolkit. Anesthesia Grand Round, Mayo Clinic, Rochester, MN	2011, Nov 17
The Evolution of Smart Alerts in the ICU. More Meaning - Less Noise Critical Care Medicine Grand Round, Mayo Clinic, Rochester, MN	2011, Dec 8
Datamarts. Acute care experience SHARPh summit "secondary use", 3rd annual face-to-face Mayo Clinic, Rochester, MN	2012, Jun 11

More AWARE with less noise Medical Grand Round, Mayo Clinic, Jacksonville, FL	2012, Jun 20
The Perioperative Data Mart Enhancing Patient Care and Facilitating Clinical Research Anesthesia Grand Round, Mayo Clinic, Rochester, MN	2012, Nov 12
Embedding Quality Reports within EMR and Clinical Workflow for Intensive Care Units 8th Annual Observation Patient Management Congress Chicago, IL	2014, Sep 22-23
The smart EMR platform for Clinical Decision Making in ICU SHARP - Symposium on Healthcare and Analytics in Research and Practice Chattanooga, TN	2014, Oct 16-17
Enhanced EMR platform for Clinical Decision Making in ICU IHI AHC Informatics Grand Rounds University of Minnesota, Minneapolis, MN	2015, Mar 5
The smart EMR platform in ICU. Decision making with AWARE Smarter Hospitals, Safer Patients, Better Outcomes: meeting at MITRE Corp, Baltimore, MD	2015, Apr 2
Smart alerts and electronic surveillance in the ICU 7th annual BH-ICU symposium, Brcko, Bosnia and Herzegovina	2015, Apr 24
Embedding quality reports in clinical workflow and EMR Kansas HIMSS Spring Conference Wichita, KS	2015, Apr 30
Building Data Warehouse for Research, Reporting and Quality: 6 Years of ICU Datamart Experience CIO/HIT + Revenue Cycle Summit Chicago, IL	2015, Jul 20
The Ambient Warning and Response Evaluation (AWARE): implementing best practice in the ICU 21th Mayo Clinic – Karolinska Institute Symposium Stockholm, Sweden	2015, Sep 12-13
Clinical informatics in intensive care: Smart EMR platform 11th International symposium on respiratory diseases & ATS in China Forum Chengdu, Sichuan, China	2015, Oct 8-11
Sepsis detection in clinical operational databases 14th International conference on Complexity in Acute Illness Cologne, Germany	2015, Sep 25
Meaningful alerts in ICU: myth or reality? Missouri Informatics Symposium 2016 Columbia, Missouri	2016, Apr 2
Smart alerts in ICU 2016 Symposium of Anesthesiologists and Critical Care Physicians of Belarus Minsk, Belarus	2016, May 21
Information technologies in critical care 15 th Symposium of Anesthesiologists and Critical Care Physicians of Russia Moscow, Russia	2016, Sep 17

Intelligent systems in Critical Care: future is available today 15 th Symposium of Anesthesiologists and Critical Care Physicians of Russia Moscow, Russia	2016, Sep 19
The Challenges/Downsides with using Learning Analytics – take into account implications and considerations Mayo Clinic Education and Technology Forum 2017 Rochester, Minnesota	2017, Jan 18
Applied Clinical Informatics: Past, present, future CCaTS Grand Round Mayo Clinic Rochester, Minnesota	2017, Mar 3
The Smart EMR Platform. Decision Making in ICU with AWARE SG-ANZICS 2017, Singapore	2017, Apr 22
Building a Data Warehouse for Research, Reporting and Quality SG-ANZICS 2017, Singapore	2017, Apr 24
Roundtable: Building data warehouse for research, reporting and quality - 9 years of ICU Datamart experience 8th Serbian Diaspora Medical Conference Belgrade, Serbia	2017, Jun 21 - 23
Applied Clinical Informatics: Past, present, future 2nd Annual Conference of Computational Medicine, Beijing, China	2017, Oct 14
Health Information Technology evaluation. From Meaningful Use to Meaningful Outcomes CCaTS Grand Round Mayo Clinic Rochester, Minnesota	2018, Jan 12
Will big data and artificial intelligence in healthcare live up to its promise? NCHICA Chapel Hill, NC (presented remotely)	2018, Jun 19
Limitations of Data Mining in Healthcare Becker's 4th Annual Health IT + Revenue Cycle 2018 Chicago, IL	2018, Sep 20
Smart Healthcare Management System MedxTech Summit Asia at 2018 Healthcare expo Taipei, Taiwan	2018, Nov 30
Can artificial intelligence help doctors and patients? Mayo Clinic Midwest Quality Conference 2019 Mayo Clinic, Rochester, MN	2019, Mar 20
Demystifying Artificial Intelligence. Future of EMR. "Human Diseases at The Crossing of Science, Engineering & Medicine" University of Illinois, Urbana-Champaign, IL	2019, April 13
How to Evaluate Artificial Intelligence in Clinical Care Bio-IT World: AI in Healthcare Boston, MA	2019, Apr 18
AI and Advanced Algorithms in Healthcare from the Investor's Perspective Panel Session Bio-IT World: AI in Healthcare Boston, MA	2019, Apr 18
Embedding Quality Reports in Clinical Workflow and EMR Becker's 5th Annual Health IT + Revenue Cycle 2019 Chicago, IL	2019, Oct 11

Putting Medicine Back Into Medicine: Ongoing Problems of Technology Misuse, Patient Care and Physician Burnout (panel). Becker's 5th Annual Health IT + Revenue Cycle 2019 Chicago, IL	2019, Oct 10
AWARE and Sepsis DART history Rochester Entrepreneurship week 2019 Rochester, MN	2019, Oct 22
Visiting Professorships	
Medical informatics in ICU: tool for science of healthcare delivery. Biomedical Informatics Seminar Series, Marshfield Clinic, Marshfield, WI	2010, Jan 6
Science of healthcare delivery in ICU: Medical informatics approach School of Biomedical Informatics Research Seminars The University of Texas, Houston, TX http://webcast.shis.uth.tmc.edu/20110119-115442-1/msh.htm	2011, Jan 19
Data warehouse in ICU: Non-IT driven approach U.S. Army Institute of Surgical Research San Antonio, TX	2011, Jul 20
Clinical informatics in intensive care: a introduction Department of Biomedical Informatics seminars Arizona State University, AZ	2012, Jan 12
Electronic environment in ICU Harvard Medical School, Boston, MA	2012, Nov 30
West China Hospital and Medical School Chengdu, Sichuan, China	2015, Oct 7-12
AWARE - ICU EMR platform for better outcome John Hopkins, Department Anesthesiology Baltimore, MD	2017, Apr 13
Implementation and evaluation of clinical informatics applications: journey of "AWARE" and "Sepsis Sniffer" University California San Diego, Bioinformatics Department, San Diego, CA	2018, Jan 19
Applied Clinical Informatics in Intensive Care Mount Sinai, New York, NY	2019, Jun 6

14. CLINICAL PRACTICE, INTERESTS, AND ACCOMPLISHMENTS

Applied clinical informatics. Novel electronic medical records interfaces and clinical decision support tools in intensive care. Development, implementation and validation.

Major innovations includes:

- Architect of ICU and OR datamarts. Resulted in more than 200 publications, supported over 300 protocols.
- ICU reports introduced to practice in 2009 canceled Cerner APACHE software and save \$250K per year.
- Co-inventor and informatics architect of AWARE – EMR platform that routinely used by 1200+ clinicians at all Mayo sites from 2012. In 2012 Center of Medicare and Medicaid Service granted METRIC research group large 16 mil grant to advance AWARE and build, implement and test cloud version of application in 3 outside hospitals. CMS grant estimated saving of \$81m. Principal co-investigator on this grant. AWARE software becomes FDA 510k approved product licensed to Mayo owned commercial company.

- Sepsis sniffer is surveillance tool for most costly hospital condition in US. Patent on the solution technology. It used for MTR project at all Mayo sites with saving over \$1m. Patent licensed to company.

15. RESEARCH INTERESTS

Medical informatics in anesthesia and critical care.

- Smart alerts and Decision support systems for Septic Shock and Acute Lung Injury.
- EMR visualization, real-time clinical dashboards
- Datamarts in support of practice

Quality improvement and health services delivery research in acute setting.

- Clinical reporting
- Outcome research
- Information retrieval and presentation.

Artificial intelligence for diagnostic and treatment

- Video recognition
- Data security

16. RESEARCH GRANTS AWARDED

Active Grants

Federal

PI	Implementation of the AWARE system to support virtual critical in a MEDCEN and CSH. Funded by Department of Defense	2017 - 2019
PI	4TDS: Trauma Triage, Treatment, and Training Decision Support. Funded by Department of Defense	2018 - 2020
Co-Investigator	Acute Care Learning Laboratory – Reducing Threats to Diagnostic Fidelity in Critical Illness. Funded by Agency for Healthcare Research and Quality. HS 26609. PI: Pickering	2018 - 2022

Mayo Clinic

PI	EHR-based real-time identification of moderate sedation cases outside operation room - SGP - Small Grants Program <\$10K	2019-2020
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Industry

Completed Grants

Site Co-PI	Prevention of Severe Acute Respiratory Failure in Patients with PROOFCheck - an Electronic Checklist to Prevent Organ Failure (UH2HL125119) Gong (PI), Gajic (Site PI)	2014 - 2019
Co-Investigator	Characterizing high-risk patients for postoperative hypercarbic respiratory failure using cluster analysis. Funded by SGP - Small Grants Program <\$10K	2017 - 2019

Co-PI	Charter. Enterprise Practice Portfolio. Improving Diagnostic Fidelity for Patients--Control Tower. \$715K	2017-2019
PI	Sepsis prediction model. Intensix LTD	2016 - 2017
Co-PI	Predicting Readmission Risk for ICU, Medial Research LTD	2016 - 2017
Co-Investigator	Disparities in decision making and medical care at the end of life in the intensive care. Funded by Office of Health Disparities Research	2016 - 2016
Co-PI	Enhancement of AWARE electronic environment to reduce error, omission and waste within the ICU (\$300K), Pickering (PI)	2013 – 2014
Co-Program Director / Principal Investigator	Enhancement of AWARE electronic environment to reduce error, omission and waste within the ICU. Funded by Mayo Medical Venture	2013 - 2014
Co-Investigator	Patient-centric electronic environment for improving acute care performance. Funded by Department of Health and Human Services. (1C1CMS330964-01-00) \$16M total budget Gajic (PI)	2012 - 2015
Co-Investigator	CASE CONTROL STUDY OF PATIENTS RECEIVING NALOXONE WITHIN 48 HOURS OF ANESTHESIA. Funded by SGP - Small Grants Program <\$10K.	2012 - 2014
Co-Leader	AWARE-ICU system. Funded by Mayo Foundation Strategic Initiative Budget (SIB). (Project #11041)	2012 - 2013
Co-Investigator	1RC1LM010468-01 GAJIC (PI) In Silico Model for Acute Lung Injury Prediction and Clinical Trial Design.	2010 – 2011
Principal investigator	Is ICU room dangerous? Mayo MIDAS. Funded by Department of Internal Medicine, Mayo Clinic	2010 – 2010
Scholar	Mayo Clinic Center for Clinical and Translational Research Scholars KL2 RR 24151 Rizza (PI)	2007 – 2010
Co-Investigator	Development construction and technology manufacturing coronary stents for endovascular therapy patients with coronary artery disease Government science project # 19994701. Belarus Adzericho I.E. (PI)	2000 – 2003

17. PATENTS, INVENTIONS

Title	Patent number	Date filed	Date issued
Method of detection adhesive capability implant materials in the arterial vessels system	Republic of Belarus #5066	2001	2003
<u>Method of manufacturing intravascular stent</u>	Republic of Belarus #8078	2002	2006
Technical operating procedures “Arterial Stents”	TU RB 100185131.001-2003	2002	2003
Presentation of Critical Patient Data	US Patent No. 10,460,408	02/01/2010	10/29/2019

Ventilator Monitoring and Control	US Patent No. 10,426,906	3/18/2009	10/01/2019
Sepsis Monitoring and Control (Sepsis "Sniffer": A Computerized Severe Sepsis "Failure to Rescue" Surveillance System.)	US Patent No. 8527449	11/05/2010	09/03/2013
System for Detection Critically Ill Patients and Abnormalities	MMV disclosure	08/2012	
AWARE 360 – Multipatient viewer	MMV disclosure	02/2013	
e-CERTAIN: Electronic Checklist for Early Recognition and Treatment of Acute Illness	MMV disclosure	10/2014	
EMR Technology Platform in Support of Operating Room, Anesthesia and Perioperative Practice	MMV disclosure	2014	
AWARENESS - AWARE Needs Evaluation Score	MMV disclosure	2015	
Visual Charts - A Longitudinal Data View	MMV disclosure	2016	
Clinical Scores and Calculators. Enterprise Wide Engine for Automatic Calculation.	MMV disclosure	2016	
SOFA Score Automatic Calculator	MMV disclosure	2016	
MeRLin: An Interactive Medical Record Timeline	MMV disclosure	09/2016	
Improving Diagnostic Fidelity in the Hospital Setting (Clinical Control Tower)	MMV disclosure	05/2017	
Accurate Prediction Of Prolonged Ventilation Score (APPROVE)	MMV disclosure	2017	
A Complex Adaptive System Modeling of Acute Illness and Injury	MMV disclosure	2017	
C2D2-Critical Care Data Dictionary: Data Standardization and Automation for Clinical Trials and Public Health Emergency Responses	MMV disclosure	2019	

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Peer-reviewed articles

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3. **Herasevich VA.** Application of computer technologies in medicine. Medicine, 2001 (4): 10–14.
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Last edited: Sep 1, 2020