Curriculum Vitae
Indra Neil Sarkar, PhD, MLIS, FACMI, ACHIP

1. Name, Position, & Academic Departments

Name: Indra Neil Sarkar

Positions: President and Chief Executive Officer, Rhode Island Quality Institute
Associate Professor of Medical Science, Warren Alpert Medical School of Brown University
Associate Professor of Health Services, Policy, and Practice, Brown University School of Public Health

2. Office Address

RIQI: 315 Iron Horse Way, Suite 102, Providence, RI 02908 USA
Brown: Box G-R, Providence RI 02912 USA

3. Education, Degrees, & Certifications

1999	BSc	Microbiology Capstone Project: "*Biocomputing: Addressing the Black-Box Syndrome."*	Michigan State University
2002	MPhil	Biomedical Informatics	Columbia University
2004	PhD	Biomedical Informatics Advisor: David H. Figurski, PhD Dissertation: "*Automated Techniques for the Identification and Classification of Evolutionarily Significant Genomic Features*."	Columbia University
2008	MLIS	Library and Information Science	Syracuse University
2008	Certificate	Digital Libraries	Syracuse University
2016	ScM	Ad eundem	Brown University
2022	Certificate	AMIA Certified Health Information Professional Diplomate	AMIA

4. Professional Appointments

2004-2006	Bioinformatics Associate, Invertebrate Zoology	American Museum of Natural History
2004-2006	Instructor, Biomedical Informatics	Downstate Medical Center, State University of New York
2006-2008	Informatics Manager, MBLWHOI Library	Marine Biological Laboratory
2007-2008	Assistant Research Scientist, MBLWHOI Library	Marine Biological Laboratory
2009-2015	Assistant Professor Microbiology and Molecular Genetics	University of Vermont
2009-2015	Assistant Professor, Clinical and Translational Science	University of Vermont
2009-2015	Director of Biomedical Informatics, Center for Clinical and Translational Science	University of Vermont
2009-2019	Adjunct Assistant Professor, Computer Science	University of Vermont
2015-2019	Adjunct Assistant Professor, Microbiology and Molecular Genetics	University of Vermont
2015-2016	Assistant Professor, Medical Science	Brown University
2015-2016	Assistant Professor, Health Services, Policy and Practice	Brown University
2015-2020	Director, Brown Center for Biomedical Informatics	Brown University
2016-Pres.	Associate Professor (tenured), Medical Science	Brown University
2016-Pres.	Associate Professor, Health Services, Policy, and Practice	Brown University
2019-2020	Interim President & Chief Executive Officer	Rhode Island Quality Institute
2020-Pres.	President & Chief Executive Officer	Rhode Island Quality Institute

5. Grants

5.a. Current Grants

2021-2023 RADx-UP: Expanding a Statewide Realtime Monitoring System and Program to Improve Testing and Vaccination for High Risk Children
NIH / NIGMS & OD U54GM115677-05S3
MPI & Program Director ($2,381,669)
This project will develop a population level decision support system that leverages Health IT to identify SARS-CoV-2 testing and COVID-19 patterns aligned with social factors that that impact health equity. The system will enable targeted increase of testing and vaccine uptake among high-risk children in Rhode Island through partnerships with community clinics.

2021-2026 RI-Center for Clinical and Translational Science
NIH / NIGMS U54GM115677
Co-Director, Biomedical Informatics Core ($19,949,519)
This core supports the development of biomedical informatics infrastructure to serve the clinical and translational science community of Rhode Island.

2020-2023 RADx-UP: Developing a Realtime Monitoring System and Program to Improve COVID-19 Testing and Vaccine Access for Hispanic/Latinx Populations
NIH / NIGMS & OD U54GM115677-05S1 & U54GM115677-05S2
MPI & Program Director ($4,670,457)
This project is developing a population level decision support system that leverages Health IT to identify SARS-CoV-2 testing and COVID-19 vaccination patterns aligned with social factors that that impact health equity. The system will enable targeted increase of testing in the Rhode Island Hispanic/Latinx community through partnerships with community clinics.

5.b. Completed Grants

2004-2007 Virtual Center for Plant Evolutionary Genomics
NSF
Investigator
The goal of this project was to develop systematic approaches for organizing and curating plant genomes using high-throughput data (e.g., ESTs). Particular emphasis was placed in the advancement of phylogenetic techniques and guiding the development of automated techniques to facilitate high-throughput phylogenetic analyses.

2006-2007 Bridging Biomedical and Biodiversity Knowledge via Taxonomic Information
Medical Library Association (Donald A.B. Lindberg Fellowship)
PI ($25,000)
The goal of this project was to organize taxonomic literature from biomedical and biodiversity resources into a form that can be browsed from a centralized Web interface.

2004-2010 Development of New Digital Library Applications in the Context of a Basic Ontology for Biosystematics Information Using the Literature of Entomology (Ants).
NSF/IIS 0241229 & 0943395
PI [2008-2010] ($52,699); Co-PI [2006-2008] ($559,245); Investigator [2004-2006]

As part of an international collaboration (Germany and the United States), the goal of this project was to digitize a museum collection and develop ontology driven methods for its organization, focusing on literature pertaining to ants.

2007-2011 Encyclopedia of Life: Accelerating Analysis of the Biology of Aging
Ellison Medical Foundation
Consultant [2008-2011]; Program Director [2007-2008] ($1,954,885)
The goal of this project was to develop an informational portal for consumers and experts in the molecular biology of aging that interfaces with the Encyclopedia of Life project.

2008-2012 Enhancing Organism Based Disease Knowledge Via Name Based Taxonomic Intelligence
NIH/NLM R01LM009725
PI ($725,754)
The goal of this project was to develop linkages between biodiversity and biomedical knowledge through semantic technologies to identify plausible hypotheses within the context of infectious diseases.

2008-2010 Mental Health Intergovernmental Service System Interactive Online Network for Vermont
SMSHA H79SM05880
Co-Investigator
Through an intergovernmental partnership that strove to build infrastructure for mental health, the goal of this project was to address the needs of Vermont veterans and adults with trauma spectrum illness.

2010 Create Decision Support Systems, Quality and Cost Data Analysis to Support State Sponsored and Other Program Beneficiaries In Receiving the Highest Quality and Most Cost Effective Services
Vermont Department of Health
PI, Biomedical Informatics ($1,074,307)
This 9-month project established infrastructure for a research data warehouse that served researchers and government officials for the State of Vermont. The initial data included vital record data, claims, and clinical data from Fletcher Allen Health Care.

2010-2012 Informatics for Zoonotic Disease Surveillance: Combining Animal and Human Data
NIH/NLM R00LM009825
Co-Investigator
The goal of this project was to develop an infrastructure for zoonotic disease surveillance.

2010-2013 CMS Children's Quality Demonstration Grant
Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA): Maine & Vermont
Co-Investigator
This project aimed to (1) allow research and evaluation of new evidence-based measures to provide an opportunity to identify the challenges in gathering and reporting data to providers and consumers; (2) promote health information technology in children's health care delivery; and, (3) evaluate of provider-based models that improve delivery of children's health care.

2010-2013 Identifying the Intersection of Informatics and Comparative Effectiveness Research Literature
AHRQ (EDM Forum/AcademyHealth)
Consultant
This project involved reviewing and refining search strategies for performing systematic literature search of the intersection of biomedical informatics and comparative effectiveness literature, as well as providing expertise on coding and classification of retrieved articles.

2014 Developing Automated Methods for Identifying the Intersection of Informatics and Comparative Effectiveness Research Literature
AHRQ (EDM Forum/AcademyHealth)
Consultant
This project aimed to develop a semi-automated approach to facilitate the identification of biomedical literature that is at the intersection of biomedical informatics and comparative effectiveness literature.

2013-2015 A Knowledge Base for Clinically Relevant Genes and Variants
NIH/NHGRI U01HG007437
Co-Investigator
The goal of this project was to develop a national resource for the identification and dissemination of consensus information on genetic variants relevant for clinical care through collaboration across nine US partners: UNC (lead), ACMG, Geisinger, Washington University, Emory, Brigham & Women's, Georgetown, UVM, and University of Utah.

2013-2015 Data Abstraction Project
Vermont Oxford Network
PI ($295,252)
This project leveraged data that are collected as part of the Vermont Oxford Network Very Low Birth Weight database in combination with data within electronic health records (EHRs) to support quality improvement reporting activities of the Vermont Oxford Network membership.

2014-2015 Leveraging Big Data in Health Care for Pre-Term Birth
IBM (Faculty Award)
PI ($35,000)
This project explored the potential of data mining techniques to develop a comprehensive map of comorbidities associated with pre-term birth from a range of electronic biological and health data.

2016-2017 Empiric Testing and Enhancement of Web-based Abstract Screening Tool (Abstrackr)
AHRQ R03HS024812
Co-I ($99,999)
This project: (1) Empirically measured the efficiency and accuracy of the prediction algorithms in Abstrackr in the computer-assisted semi-automated screening of citations for eligibility in systematic reviews; and (2) Improved and added to the functionality of the Web-based Abstrackr software, based in part on enhancements suggested by a panel of identified heavy users.

2012-2017 Leveraging the EHR to Collect and Analyze Social, Behavioral & Familial Factors
NIH/NLM R01LM011364
Co-Investigator ($1,358,951)
The overall goal of this project was to develop and evaluate computational methods for generating knowledge regarding the relationships between diseases and social, behavioral, and familial factors from EHR data. This project was a collaborative effort between the University of Vermont and University of Minnesota.

2014-2017 In Silico Identification of Phytotherapies
NIH/NLM R01LM011963
PI ($1,229,881)
The overall goal of this project was to develop a computational infrastructure to support the identification of potential plant-based therapies from legacy and contemporary sources of biomedical and ethnobotanical knowledge. Multi-PI with Wayne Law from NYBG.

2015-2017 Developing Resources and Curriculum for Teaching Biomedical Informatics and Data Science to Medical Students
Informatics Education
PI ($5,000)
This project developed a set of resources to support the deployment of a new immersion course, entitled "Biomedical Informatics and Data Science for Medical Students."

2015-2018 Assignment between CDC and Brown University
CDC/NCEZID 16IPA1609413
Health Scientist ($25,144)
This was a mobility assignment to provide immediate support for specialized biomedical informatics methods and tools to the National Healthcare Safety Network data collection and reporting processes in ways to assist the CDC Division of Healthcare Quality Promotion efforts to expedite automation of surveillance

2016-2020 RI-Center for Clinical and Translational Science
NIH / NIGMS U54GM115677
Core Director ($19,500,000)
This core supported the development of biomedical informatics infrastructure to serve the clinical and translational science community of Rhode Island.

2017-2020 Transforming Training and Teaching for Transforming Big Data to Knowledge
NIH / NIMH R25MH116440
PI ($296,498)
This initiative developed an educational program that incorporates pragmatic research experiences for biomedical researchers of tomorrow with the development of essential skills for best leveraging electronic biological and health data, including those from personal genomes, electronic health record systems, disease registries, and claims databases.

2019-2021 Building an Infrastructure and Dynamic Dataset for Alzheimer Disease Assessment
NIH / NIGMS & NIA U54GM115677-04S1
MPI ($413,394)
The major goals of this study are to build a multi-disciplinary team with biostatistics, biomedical informatics, neuropsychology, and neuroscience expertise, to develop a

sustainable, collaborative database of AD risk markers, and to generate a risk algorithm that will identify individuals at early risk for AD using machine learning techniques.

2020-2021 COVID Vaccine Adverse Event Monitoring
NIH / NIA U54AG063546-02S5
Co-Investigator / Site PI
This project designed and built an updated system for near real-time identifying, flagging, and highlighting of nursing home resident changes in clinical status, including development of indicators specifically focused on the population of residents with dementia or significant cognitive impairment.

2021-2022 Connect Health Data to Support Public Health Emergency Response Activities
ONC STAR HIE 90C30011
PI ($123,809)
This Strengthening the Technical Advancement and Readiness of Public Health via Health Information Exchange Program (STAR HIE Program) project is establishing an infrastructure and framework to leverage statewide COVID-19 vaccination data alongside longitudinal health data to support vaccination event monitoring.

2020-2022 IDeA Clinical and Translation Research Units Join the National COVID Cohort Collaborative
NIH / NIGMS U54GM104942-055S2
Co-Investigator / Site PI
The overall goal of this supplement is to support robust collaboration among CD2H, NCATS, and IDeA-CTRs, enabling rapid contribution of COVID-19 patient data to N3C while enabling a CTR consortium to address COVID-19 data projects among IDeA states.

2020-2022 RAPID: Information Retrieval and Graph Mining Techniques to Enable Self-Assessment and Clinical Monitoring of Emergent Infectious Diseases
NSF / CISE / IIS 2027892
Co-PI ($200,000)
This project is developing a system for enabling patients to enter and monitor possible symptoms associated with COVID-19. The system will also enable patients to compare their symptoms to others in Rhode Island. The system will eventually provide automated guidance on whether and individual should (1) seek immediate clinical assessment; (2) manage symptoms at home; or (3) continue monitoring symptoms. The system will be part of a web portal that makes clinical data available to patients from medical providers across the Rhode Island healthcare system. Data from the system will be used to develop computer models that can be used to better predict potential subsequent COVID-19 outbreaks. The resulting system and computer models will be designed to better predict other potential infectious disease outbreaks in the future.

2021-2022 Connect Health Data to Support Public Health Emergency Response Activities
ONC STAR HIE 90C30011
PI ($123,809)
This Strengthening the Technical Advancement and Readiness of Public Health via Health Information Exchange Program (STAR HIE Program) project is establishing an infrastructure and framework to leverage statewide COVID-19 vaccination data alongside longitudinal health data to support vaccination event monitoring.

6. Service

6.a. Service to University

1999-2003	Graduate Student Advisory Committee 1999-2002 2001 2002 2003	Columbia University *Member* *Vice-Chair* *Chair* *Ex-officio*
2000-2002	Student Representative, Department of Biomedical Informatics	Columbia University
2002-2003	Columbia Speakers Fund	Columbia University
2009	Public Health Working Group, Transdisciplinary Research Initiative	University of Vermont
2009-2010	Clinical Epidemiologist Faculty Search Committee, Department of Surgery	University of Vermont
2009-2015	*Chair*, Microbiology and Molecular Genetics Retreat Committee	University of Vermont
2010-2011	Director of Health Economics Search Committee, Center for Clinical and Translational Science	University of Vermont
2010-2012	Gund Professor for Ecological Economics & Director of the Gund Institute for Ecological Economics Search Committee, Rubenstein School of Environment and Natural Resources	University of Vermont
2010-2012	*Co-Chair*, Ad Hoc Committee on Scholarly Communication	University of Vermont
2010-2012	Animal Genetics/Genomics Faculty Search Committee, Department of Animal Science	University of Vermont
2011-2012	Health Economics Faculty Search Committee, Center for Clinical and Translational Science	University of Vermont
2010-2012	Work Group on Privacy, Information Security and Data Retention	University of Vermont
2010-2011	Professional Standards Committee	University of Vermont
2011-2013	Family Medicine Research Director Search Committee, Department of Family Medicine	University of Vermont
2010-2015	Committee on Human Research in the Medical Sciences (Institutional Review Board)	University of Vermont
2011-2015	Microbiology and Molecular Genetics Seminar Committee	University of Vermont
2013-2015	Primary Care Internal Medicine Research Director Search Committee, Department of Medicine	University of Vermont
2014-2015	Vermont Advanced Computing Center Advisory Committee	University of Vermont
2014-2015	Department Chair Search Committee, Department of Microbiology and Molecular Genetics, College of Medicine	University of Vermont
2014-2015	Distinguished Undergraduate Research Award Committee, College of Agriculture and Life Sciences	University of Vermont
2014-2015	Department Chair Search Committee, Department of Animal Science, College of Agriculture and Life Sciences	University of Vermont
2016-2020	IT Advisory Board, Computing and Information Services	Brown University

2017-2020	Advisory Board, Executive Master in Science and Technology Leadership, School of Professional Studies	Brown University
2017-Pres.	Institutional Review Board, Office of Research Protections	Brown University
2018-Pres.	Research Computing Advisory Committee, Office of the Vice President for Research	Brown University

6.b. Service to Profession

Committees

2002-2005	Advisory Committee	Wiley Interscience
2006-2007	Data Curation Education Program	University of Illinois Urbana-Champaign
2007-Pres.	*Chair*, Data Analysis Working Group	Barcode of Life Initiative, Consortium for the Barcode of Life
2007-Pres.	Implementation Board	Barcode of Life Initiative, Consortium for the Barcode of Life
2006	*Symposium Session Chair*, AAAS Annual Symposium	American Association for the Advancement of Science
2007	*Track Chair*, PSB 2007	Pacific Symposium on Biocomputing
2007-2008	*Founding Track Chair*, Scientific Program Committee, AMIA Summit on Translational Bioinformatics	American Medical Informatics Association
2008	*Workshop Organizer*, Data Analysis Working Group 2008 Hack-a-thon at EOL BioSync	Barcode of Life Initiative, Consortium for the Barcode of Life
2008-2010	*Track Chair*, Scientific Program Committee, AMIA Summit on Translational Bioinformatics	American Medical Informatics Association
2008-2009	Technical Implementation Board, Third International Conference for the Barcode of Life	Barcode of Life Initiative, Consortium for the Barcode of Life
2009	Vermont Delegation	National Governors Association for Health Information Technology and Implementation
2009-2013	Electronic Health Record - System, Vital Records Functional Work Group, HL7 EHR Technical Committee	National Center for Health Statistics, Centers for Disease Control and Prevention
2010	Program Committee, IEEE ICDM-2010 workshop on Biological Data Mining and its Applications in Healthcare	Institute of Electrical and Electronic Engineers
2010-Pres.	Program Committee, Bio-Ontologies Special Interest Group	International Society for Computational Biology
2009-2012	EHR Cause of Death Working Group, National Center for Health Statistics	Centers for Disease Control and Prevention

2010-2011	Program Committee, Fourth International Meeting for the Barcode of Life	Barcode of Life Initiative, Consortium for the Barcode of Life
2010-2011	*Chair*, Scientific Program Committee, AMIA Summit on Translational Bioinformatics.	American Medical Informatics Association
2011-Pres.	*Member*, Biomedical Informatics External Advisory Board	Georgetown-Howard University CTSA
2011	*Workshop Organizer*, Data Analysis Working Group 2011 Meeting	Barcode of Life Initiative, Consortium for the Barcode of Life
2011-2012	Program Committee, ICIBM 2012	International Conference on Intelligent Biology and Medicine
2012	Program Committee, DILS 2012	Data Integration in the Life Sciences
2011-2012	Program Committee, 2012 AMIA Annual Symposium	American Medical Informatics Association
2011-2012	Program Committee, 2012 International Conference on Systems and Informatics	Institute of Electrical and Electronic Engineers
2013	Program Committee, DILS 2013	Data Integration in the Life Sciences
2013	Program Committee, ACM Conference on Bioinformatics, Computational Biology, and Biomedical Informatics	Association for Computing Machinery
2013-2014	*Vice Chair for Foundations*, Scientific Program Committee, AMIA Annual Symposium	American Medical Informatics Association
2014	Steering Committee, 2014 AMIA Policy Invitational on Personalized Medicine	American Medical Informatics Association
2015	*Track Chair*, Scientific Program Committee, AMIA Summit on Clinical Research Informatics	American Medical Informatics Association
2014-2015	*Chair*, Editorial Committee, The 15th World Congress on Health and Biomedical Informatics (MEDINFO 2015)	International Medical Informatics Association
2016-2017	*Chair*, Scientific Program Committee, AMIA 2017 Annual Symposium	American Medical Informatics Association

Professional Societies

2004-2010	International Society for Infectious Diseases
2005-2011	Computer Society, Institute of Electrical and Electronics Engineers
2011	*Chair*, Green Mountain Chapter
2005-2010	Association for Computing Machinery
2007-2009	Gerontological Society of America
1995-Pres.	American Association for the Advancement of Science

2000-Pres.	American Medical Informatics Association	
	2009-2011	*Member*, Meetings Committee
	2009-2012	*Member*, Public Policy Committee
	2010-2015	*Member*, Student Paper Award Committee
	2011-2012	*Founding Chair*, Regional Informatics Action Working Group
	2011-2016	*Chair*, Education Committee
	2014	*Member*, CTS-AMIA Task Force
	2016-2021	*Founding Member,* LEAD Fund Advisory Committee
	2017-2019	*Founding Member,* Doctoral Dissertation Award Selection Committee
	2014-Pres.	*Member (Treasurer, 2019-Pres.)*, Board of Directors
	2017-Pres.	*Member (Chair, 2017)*, Audit Committee
	2018-Pres.	*Member,* Publications Committee
2000-Pres.	International Society for Computational Biology	
	2005-Pres.	*Member*, Conferences Committee
2005-Pres.	Medical Library Association	
2022-Pres.	CIVITAS	*Member*, Nominating Committee

Grant Review Activities

2007	*Ad hoc Member*, Information and Intelligent Systems/Information Integration and Informatics, Directorate for Computer and Information Science and Engineering	National Science Foundation
2008	*Ad hoc Member*, Information and Intelligent Systems/Cyber Enabled Discovery and Innovation	National Science Foundation
2009	*Ad hoc Member*, Emerging Technologies and Training in Neurosciences	National Institutes of Health
2009	*Ad hoc Member*, Bioengineering Sciences and Technologies	National Institutes of Health
2010	*Ad hoc Member*, Revisionary Syntheses in Systematics, Division of Environmental Biology, Directorate for Biological Sciences	National Science Foundation
2010	*Ad hoc Member*, Assembling the Tree of Life, Directorate for Biological Sciences	National Science Foundation
2011	*Ad hoc Member*, Institutional Clinical and Translational Science Award	National Institutes of Health
2011	European Translational Information and Knowledge Management Services	European Commission & European Federation of Pharmaceutical Industries and Associations
2012	*Ad hoc Member*, Healthcare Delivery and Methodologies Integrated Review Group	National Institutes of Health

2012	*Ad hoc Member*, Bioengineering Sciences & Technologies Integrated Review Group	National Institutes of Health
2012	*Ad hoc Member*, Aides à la Formation-Recherche Review Committee	Luxembourg National Research Fund
2012	*Ad hoc Member*, Discovery Grant Proposal Review Committee	National Sciences and Engineering Research Council of Canada
2012	*Ad hoc Member*, Stand-alone Project Review Committee	Austrian Science Fund
2013	*Ad hoc Member*, Biobehavioral and Behavioral Processes	National Institutes of Health
2013	*Ad hoc Member*, Special Emphasis Panel: Biobehavioral and Behavioral Processes	National Institutes of Health
2013	*Ad hoc Member*, Risk, Prevention & Health Behavior	National Institutes of Health
2013	*Ad hoc Member*, Smart and Connected Health, Informatics, Directorate for Computer and Information Science and Engineering	National Science Foundation
2013	*Ad hoc Member*, Healthcare Delivery and Methodologies	National Institutes of Health
2014	*Ad hoc Member*, NIAID Investigator Initiated Program Research Resource	National Institutes of Health
2014	*Ad hoc Member*, Healthcare Delivery and Methodologies	National Institutes of Health
2015	*Ad hoc Member*, Healthcare Delivery and Methodologies	National Institutes of Health
2015	*Ad hoc Member*, Biomedical Computing and Health Informatics	National Institutes of Health
2015	*Ad hoc Member*, Risk, Prevention & Health Behavior	National Institutes of Health
2015	*Ad hoc Member*, NIAID Investigator Initiated Program Research Resource	National Institutes of Health
2016-2019	*Member*, Biomedical Computing and Health Informatics	National Institutes of Health
2018	*Ad hoc Member*, NIAMS Rheumatic Diseases P30 Review	National Institutes of Health
2018-2020	*Ad hoc Member*, Directors New Innovator Award Program (DP2)	National Institutes of Health
2020	*Chair,* NIDDK Special Emphasis Panel	National Institutes of Health
2021	*Member*, NIAID Resource Related Research Projects	National Institutes of Health
2019-2021	*Chair*, Biomedical Computing and Health Informatics	National Institutes of Health
2021	*Chair,* Clinical Data Management and Analysis	National Institutes of Health
2021	*Member,* Data Coordination, Mapping and Modeling	National Institutes of Health

Editorial Activities

Ad hoc Reviewer

AMIA Association Annual Symposium
AMIA Summit on Translational Bioinformatics
AMIA Summit on Clinical Research Informatics
Applied Clinical Informatics
Artificial Intelligence in Medicine
Association for Computational Linguists: BioNLP
Bioinformatics
BMC Bioinformatics
BMC Genomics
BMC Source Code for Biology and Medicine
Briefings in Bioinformatics
Computers in Biology and Medicine
Drug Discovery Today
eGEMS
Elsevier/Academic Press
FASEB Journal
Genome Medicine
IMIA Yearbook of Medical Informatics
International Symposium on Languages in Biology & Medicine
Journal of Biomedical Informatics
Journal of Parasitology
Journal of the American Medical Informatics Association
Journal of Translational Medicine
Methods of Information in Medicine
Molecular Biology and Evolution
Molecular Phylogenetics and Evolution
Neoplasia
Network Tools and Applications in Biology
Pacific Symposium on Biocomputing
Parasitology
PLOS ONE
Plant Systematics and Evolution
World Scientific Press

Other Editorial Roles

2005-2007	Guest Editor (Phylogenetics)	*Journal of Biomedical Informatics*
2007-Pres.	Editorial Board Member	*Recent Patents in Computer Science*
2009-2012	Editorial Board Member	*Journal of Biomedical Informatics*
2009-2017	Editorial Board Member	*International Knowledge Discovery in Bioinformatics*
2009-2017	Editorial Board Member	*Briefings in Bioinformatics*
2008	Guest Editor (Selected Papers from the 2008 AMIA Summit on Translational Bioinformatics [TBI 2008])	*BMC Bioinformatics*
2009	Guest Editor (Selected Papers from TBI 2009)	*BMC Bioinformatics*
2009	Guest Editor (Biodiversity Informatics)	*BMC Bioinformatics*

2010	Guest Editor (Education in Bioinformatics)	*Briefings in Bioinformatics*
2011-2012	Guest Co-Editor (Standards in Practice)	*Journal of Biomedical Informatics*
2011-2012	Guest Editor (Selected Papers from TBI 2011)	*Journal of Biomedical Informatics*
2011-2013	Editorial Board Member	*Journal of the American Medical Informatics Association*
2011-2017	Associate Editor	*Methods of Information in Medicine*
2011-2017	Academic Editor	*PLOS ONE*
2011-2017	Editorial Board Member	*Journal of Personalized Medicine*
2013	Associate Editor (NETTAB 2012 Supplement)	*BMC Bioinformatics*, *Journal of Biomedical Semantics*, & *Journal of Clinical Bioinformatics*
2017-Pres.	Editor-In-Chief	*Journal of the American Medical Informatics Association Open*

6.c. Service to Community

1999-2008	Lyman Briggs Alumni Association 1998-2008 2003-2004 2004-2008	Michigan State University *Member*, Board of Directors *Assistant Treasurer* *Vice President*
2009	Health Care Payment Reform Committee (Convened by Senator Bill Carris and Representative Anne O'Brien, Co-Chairs)	State of Vermont
2009-2012	Center for Clinical and Translational Science – Agency for Human Services Advisory Committee	State of Vermont
2009-2012	Regional Health Information Technology Advisory Board	State of Vermont
2009-2012	Health Information Technology Higher Education Advisory Group	State of Vermont
2009-2012	Informatics Advisory Group	Fletcher Allen Health Care
2014-2015	Data Integration and Management Group	Fletcher Allen Health Care
2014-2015	Clinical Research Advisory Group	Fletcher Allen Health Care
2018-2020	*Member*, Rhode Island Long Term Health Planning Committee	Rhode Island Foundation
2019	*Member*, Special Legislative Commission to Study the Impact of Insurer Payments to Health Care (2019-S 1038; Convened by Senator Joshua Miller)	Rhode Island Senate
2021-Pres.	*Member*, Rhode Island Long Term Health Plan Steering Committee (Affordability and Reducing Waste Subcommittee)	Rhode Island Foundation

7. Honors

1999	Medical Informatics Training Fellowship	National Library of Medicine, National Institutes of Health
2001	Summer Research Fellowship	Lister Hill Center for Biomedical Communications, National Library of Medicine, National Institutes of Health
2003	International Lipari School Scholarship	Italian Ministry of Research and

		Universities
2006	Donald A.B. Lindberg Research Fellowship	Medical Library Association
2007	Membership (top 10% of graduate class)	The Honor Society of Phi Kappa Phi
2008	Award of Recognition for "Outstanding Contributions to the Launch and Success of the Encyclopedia of Life Project"	Alfred P. Sloan Foundation
2009	Membership (GPA > 3.75 & top 25% of MLIS class)	Beta Phi Mu (International Society for Librarianship and Information Science)
2011	Distinguished Paper Award (2 awards for 2 papers)	AMIA Annual Symposium
2014	IBM Faculty Award	IBM
2014	Elected Fellow	American College of Medical Informatics (ACMI)
2019	Leadership Award	AMIA

8. Teaching

Courses

1994	Chemistry	Educational Studies Program, Massachusetts Institute of Technology
	Accelerated High School Students	3 hour lecture per week for 10 weeks
1994	Calculus I (AB)	Educational Studies Program, Massachusetts Institute of Technology
	Accelerated High School Students	3 hour lecture per week for 10 weeks
1997-1999	Biocomputing	Lyman Briggs School, Michigan State University
	Lower Classmen	1 hour lecture per week for 6 weeks
2004-2006	Introduction to Medical Informatics	Downstate Medical Center, State University of New York
	Graduate Students	3 hour lecture per week for 15 weeks
2004-2006	Clinical Decision Support Systems	Downstate Medical Center, State University of New York
	Graduate Students	3 hour lecture per week for 15 weeks
2004-2006	Internet Integration into Health Care	Downstate Medical Center, State University of New York
	Graduate Students	3 hour lecture per week for 15 weeks
2009-2015	Introduction to Biomedical Informatics	University of Vermont
	Upper Classmen and Graduate Students	3 hour lecture per week for 15 weeks
2010-2015	Programming for Bioinformatics	University of Vermont
	Upper Classmen and Graduate Students	3 hour lecture per week for 15 weeks
2010-205	Methods in Bioinformatics	University of Vermont
	Upper Classmen and Graduate Students	3 hour lecture per week for 15 weeks
2010-2015	Undergraduate Colloquium	University of Vermont
	First Year Undergraduates	75 minute lecture per semester
2011,2015	Microbial Genomics	University of Vermont
	Graduate Students	75 minute lecture per semester
2012-2015	Genetics	University of Vermont
	Lower Classmen	75 minute lecture per semester
2014	First Year Seminar for Computer Science Majors	University of Vermont
	First Year Undergraduates	50 minute lecture

2017	Programming Concepts IMSD Module for Graduate Students	Brown University 3 hour lecture for 5 sessions
2016-Pres.	Health Care in the United States Under Classmen	Brown University 50 minute lecture
2016-Pres.	Preclinical Elective: Biomedical Informatics and Data Science Skills for Medical Students PLME & M1 Students	Brown University 3 hour lecture for 10 sessions
2016-Pres.	Summer@Brown: Biomedical Informatics and Data Science Skills for Biomedicine and Health PLME & M1 Students	Brown University 3 hour lecture for 10 sessions
2017-Pres.	Methods in Biomedical Informatics Upper Classmen and Graduate Students	Brown University 3 hour lecture per week for 15 weeks
2017-Pres.	Programming for Health Data Science Upper Classmen and Graduate Students	Brown University 3 hour lecture per week for 15 weeks
2017-Pres.	Survey of Biomedical Informatics Upper Classmen and Graduate Students	Brown University 3 hour lecture per week for 15 weeks

Formal Teaching of Residents, Clinical Fellows and Research Fellows (post-docs)

2010-2012	Translational Bioinformatics: Guiding Bench Side Innovations to the Clinic Medicine Fellows	University of Vermont 1 hour lecture
2015	5 x 5 Clinical Informatics Elective: 5 Core Competencies of Clinical Informatics in 5 Days Residents	University of Vermont 1.5 hour lecture + 2 hour workshop
2017-Pres.	5 x 5 Clinical Informatics Elective: 5 Core Competencies of Clinical Informatics in 5 Days Residents, Fellows, Junior Faculty	Brown University 1.5 hour lecture + 2 hour workshop

Laboratory and Other Research Supervisory and Training Responsibilities [4 MSc; 14 PhD]

2009-2011	MSc (Biology) Committee for Violet Roskens / University of Vermont	Committee Chair
2009-2010	MSc (Computer Science) Committee for Sasi Kunta / University of Vermont	Committee Member
2009-2011	PhD (Computer Science) Committee for Saurav Acharya / University of Vermont	Committee Member
2011-2012	PhD (Cellular, Molecular, and Biomedical Sciences) Committee for Pamela Lescault / University of Vermont	Committee Member
2010-2013	PhD (Clinical and Translational Science) Committee for W. Gabe Tharpe / University of Vermont	Committee Member
2012	PhD (Comparative Biology) Committee for Sebastian Kvist / American Museum of Natural History	Committee Member

2013	PhD (Computer Science and Engineering) Committee for Emanuel Weitschek / Roma Tre University	External Reader
2010-2014	PhD (Cellular, Molecular, and Biomedical Sciences) Committee for Adam Sateriale / University of Vermont	Committee Member
2012-2014	MSc (Biology) Committee for Anne McHugh / University of Vermont	Committee Chair
2011-2015	PhD (Animal, Nutrition, and Food Science) Committee for Suzanne Ishaq / University of Vermont	Committee Chair
2014	MSc (Computer Science) Committee for Yucan Zhang / University of Vermont	Committee Member
2010-2015	PhD (Clinical and Translational Science) Committee for Peter Durda / University of Vermont	Committee Member
2011-2015	PhD (Biology) Committee for Frederico Lopez-Osorio / University of Vermont	Committee Chair
2011-2015	PhD (Animal, Nutrition, and Food Science) Committee for Mital Pandya / University of Vermont	Committee Member
2013-2016	PhD (Plant Biology) Committee for Meghan Mckeown / University of Vermont	Committee Member
2013-2016	PhD (Animal, Nutrition, and Food Science) Committee for Laura Cersosimo / University of Vermont	Committee Member
2013-2016	PhD (Biology) Committee for Amanda Northrop / University of Vermont	Committee Chair
2018-Pres.	PhD (Biomedical Informatics) Katherine Brown (PhD)	Committee Member

Formally Supervised Trainees [8 High School; 20 Undergrad; 4 Post-Bac; 2 MD; 7 PhD; 2 Post-Doc]

2004-2006	Atin Saha (High School Student) Advisor as part of New York Academy of Sciences high school STEM educational programs; worked on developing bioinformatics skills.
2005-2006	Judy Ri (High School Student) Advisor as part of New York Academy of Sciences high school STEM educational programs; worked on developing bioinformatics skills.
2005-2006	Subashis Paul (High School Student) Advisor as part of New York Academy of Sciences high school STEM educational programs; worked on developing bioinformatics skills.
2005-2006	Lakshman Sankar (High School Student) Advisor as part of New York Academy of Sciences high school STEM educational programs; worked on developing bioinformatics skills.
2005-2006	Tanu Chauhan (High School Student) Advisor as part of New York Academy of Sciences high school STEM educational programs; worked on developing bioinformatics skills.
2009-2010	Patrick Benson (Pre-Medical Post-Baccalaureate) / MD Student at University of Vermont Studied the history and evolution of the Problem List in Electronic Health Records.
2010	Benjamin Earle (Pre-Medical Post-Baccalaureate) / MD Student at University of Vermont Developed Natural Language Processing techniques for organizing microbiome data.

2011-2013 Emily Bates (BS; Business Administration) / Intern at Dealer.com
Developed programming skills to analyze GenBank data for supporting microbiome studies.

2010-2013 Ahmed Nabhan (PhD; Computer Science) / Senior Software Engineer, Sears Holdings
Published three manuscripts that focused on the development of graph mining techniques in a range of biomedical contexts; awarded funding from the Egyptian Cultural and Education Bureau.

2011-2013 Marianne Burke (PhD; Clinical and Translational Science) / Transferred to another advisor
Worked to develop strategies for gathering background information to support doctoral research project; transferred to another advisor due to change in research interest.

2011-2014 Brian Nielsen, MD (Obstetric Fellowship Research) / Obstetrician at FAHC
Developed computational approach for searching biomedical literature for knowledge pertaining to potential model species for studying pre-term birth.

2011-2014 Vivekanand Sharma (PhD; Microbiology and Molecular Genetics) / Post-doc at University of Vermont
Published three manuscripts focused on identifying potential phyto-therapeutic knowledge in biomedical literature.

2012-2013 Matthew McAvoy (BS; Molecular Genetics) / MS Student at Brown University
Developed programming skills to analyze prokaryotic genomic data according to clusters of orthologous genes.

2012-2013 Alyssa Humphrey (BS; Molecular Genetics) / Product Coordinator at FoodScience Corp
Developed a computational process for identifying motifs of interest within adhesome proteins.

2012-2014 Joseph Romano (BS; Molecular Genetics) / PhD Student at Columbia University
Developed phylogenetic pipeline to analyze complex disease genes resulting in a manuscript currently under review.

2013-2015 Christina Yu (BS; Biochemistry) / PhD Student at The Ohio State University
Developing computational approaches to study the hologenome of life as well as techniques to validate phytotherapeutic knowledge within biomedical literature

2014 Joseph Friedman (BA; Anthropology) / Graduate Student at University of Washington
Developed a computational methodology to apply syndemic theory to identify potential correlations of interest from hospital discharge administrative data.

2014-2016 Ian Johnson (BS; Biology)
Developing a census of plant knowledge across publicly accessible resources.

2014-2016 William Stone Robinson (BS; Biochemistry)
Developing techniques to automatically identify medicinal plant usage

2015 Matthew Vanderloo, MD (Internal Medicine Resident) / Applying to Informatics Fellowship Programs
Developed biomedical informatics education curriculum for residents and submitted one manuscript for peer-review consideration.

2016 Anastassia Gorvitovskaia (ScB; Computational Biology)
Explored discharge data for patterns related to preterm birth.

2016 Catherine Chu (High School Student)
Inferring Disease Information from Direct-To-Consumer Test Results

2016 Elliott Nam (High School Student)
Predicting asthma using social, behavioral, and environmental factors

2016 Chi Nguyen (High School Student)
Summarizing and comparing drug adverse events for Parkinson Disease and Diabetes Mellitus

2016-2017 Ian Pan (MD)
Analyzing cost models associated with complications associated with preterm birth.

2016-2017 Thomas Martin (ScB)
Studying information flow between prehospital and hospital encounters.

2016-2017	Alice Chu (ScB) Using machine learning techniques to identify drug usage patterns.
2017-2020	Shanti Mechery (ScB) Analyzing GenBank Metadata to Support Comparative Microbiome Studies
2017-2019	Priyanka Roy (ScB) Studying ED Bed Turnover / Comparative Intronic Analysis
2018-2019	Carly Kabelac (ScB) Network Analysis of Preterm Birth Knowledge
2018-2019	Ishaani Khatri (ScB) Correlative Analysis of Preterm Birth Knowledge
2018-2019	Katie Hsia (MD) Network Analysis of Late Onset Sepsis in Neonates
2019-2020	William Patterson (ScB) Prediction of Bacterial STIs Among MSM in Rhode Island: A Machine Learning Approach
2017-2022	Jiaying Lai (PhD) Phylogenetic Approaches to Identify Comorbid Genetic Patterns
2020-2022	Riya Dulepet (ScB) Utilizing unsupervised clustering approaches to identify social determinants of health
2021-2022	Madhav Ramesh (ScB) Analyzing Trends in Medical Adverse Events Over Time
2021-2022	Souradeep Bhattacharya (Pre-Med Post-Baccalaureate) Developing a predictive model for pregnancy complications
2021-2022	Philip Jordache (Pre-Med Post-Baccalaureate) Evaluating the impact of COVID-19 on maternal health
2016-Pres.	Sudheesha Perera (ScB & MD) Data Driven Approaches to Address Maternal-Child Challenges in Global Settings
2018-Pres.	Aaron Eisman (MD/PhD) Population-Based Approach to Calculate Cardiovascular Risk
2019-Pres.	Dilum Aluthge (MD/PhD) Developing Actionable Clinical Decision Support Using Machine Learning
2020-Pres.	Vivek Ramanan (PhD) Impact of Microbiome on Complex Disease
2021-Pres.	Katelin Ferreira (ScB) Developing Data-driven Interventions to Support EMS to ED Transition of Care

9. Completed Publications

9.a. Books [n=2]

1. **Sarkar IN**, editor. *Methods in Biomedical Informatics: A Pragmatic Approach*. Academic Press 2013.
2. **Sarkar IN**, Georgiou A, Mazzoncini de Azevedo Marques P, editors. *MEDINFO 2015: eHealth-enabled Health*. IOS Press 2015.

9.b. Chapters in Books [n=6]

1. Hoyt RE, **Sarkar IN**. "Bioinformatics." In *Health Informatics: Practical Guide for Healthcare Information Technology Professionals* (5th Edition; RE Hoyt, A Yoshinhashi, N Bailey, Eds.). 2012.
2. **Sarkar IN**. "Translational Bioinformatics: Bridging the Biological and Clinical Divide." In *Translational Medicine: The Future of Therapy?* (J Mittra & C Milne, Eds.). CRC Press. 2013.
3. Chen ES, **Sarkar IN**. "Mining the Electronic Health Record for Disease-Specific Knowledge." In *Methods in Molecular Biology* (VD Kumar & HJ Tipney, Eds.). Humana Press. 2014.

4. Hoyt RE, **Sarkar IN**. "Bioinformatics." In *Health Informatics: Practical Guide for Healthcare Information Technology Professionals* (6th Edition; RE Hoyt, A Yoshinhashi, N Bailey, Eds.). 2014.
5. **Sarkar IN**. "Mining the Bibliome." In *Translational Informatics: Realizing the Promise of Knowledge Driven Healthcare* (P Payne & P Embi, Eds.). Springer. 2014.
6. **Sarkar IN**. "Challenges in Identifying Potential Phytotherapies in Biomedical Literature." In: *Evidence Based Validation of Herbal Medicine* (P Mukherjee, Ed.). Elsevier. 2015.

9.c. Articles in Refereed Sources [n=133]

1. Planet PJ, DeSalle R, Sidall ME, Bael T, **Sarkar IN**, Stanley SE. "Systematic Analysis of DNA Microarray Data: Ordering and Interpreting Patterns of Gene Expression." Genome Research Jul;11(7):1149–1155. 2001.
2. **Sarkar IN** and Rindflesch TC. "Discovering Protein Similarity Using Natural Language Processing." AMIA Annu Symp Proc 677–681. 2002.
3. Lussier YA, **Sarkar IN**, Cantor MN. "An Integrative Model for In–Silico Clinical Genomics Discovery Science." AMIA Annu Symp Proc 469–473. 2002.
4. **Sarkar IN** and Starren JB. "Desiderata for Personal Electronic Messaging in Clinical Systems." Journal of the American Medical Informatics Association May/Jun;9:209–216. 2002.
5. **Sarkar IN**, Thornton J, Planet PJ, Schierwater B, and DeSalle R. "A systematic method for classification of novel homeoboxes." Molecular Phylogenetics and Evolution Sep;24(3):388–399. 2002.
6. **Sarkar IN**, Planet PJ, Bael TE, Stanley SE, Siddall M, DeSalle R, Figurski DH. "Characteristic Attributes in Cancer Microarrays." Journal of Biomedical Informatics Apr/May;35(2):111–122. 2002.
7. **Sarkar IN**, Cantor MN, Gelman R, Hartel F, Lussier YA. "Linking Biomedical Language Information and Knowledge Resources: GO and UMLS." Pacific Symposium Biocomputing 8:427–450. 2003.
8. **Sarkar IN**, Cantor MN, Hartel F, Bodenreider O, Lussier YA. "An Evaluation of Hybrid Methods for Matching Biomedical Terminologies: Mapping the Gene Ontology to the UMLS." Stud Health Technol Inform 95:62–7. 2003.
9. **Sarkar IN**, Rosenfeld JA, Planet PJ, Figurski DH, DeSalle R. "ORFcurator: Molecular Curation of Genes and Gene Clusters in Prokaryotic Organisms." Bioinformatics 20: 3462–3465. 2004.
10. Koning D, **Sarkar IN**, Moritz TD. "TaxonGrab: Extracting Taxon Names from Text." Journal of Biodiversity Informatics 2;79–82. 2005.
11. **Sarkar IN**, Cantor MN, Bodenreider O, Lussier YA. "GenesTrace: Phenomic Knowledge Discovery Via Structured Terminology." Pacific Symposium Biocomputing 10:103–114. 2005.
12. Planet PJ, **Sarkar IN**. "mILD: A Tool for Constructing and Analyzing Matrices of Pairwise Character Incongruence Tests." Bioinformatics 21:4423–4224. 2005.
13. **Sarkar IN**. Phylogenetics in the modern era. J Biomed Inform. 2006 Feb;39(1):3-5. Epub 2005 Dec 9.
14. **Sarkar IN**, Agrawal A. "Literature Based Discovery of Gene Clusters Using Phylogenetic Methods." AMIA Annu Symp Proc 689–693. 2006.
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16. Kelly RP, **Sarkar IN**, Eernisse DJ, DeSalle R. "DNA Barcoding Using Chitons (genus Mopalia). Molecular Ecology Notes. 2007 7(2): 177–183.
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18. Leary PR, Remsen DP, Norton CN, Patterson DJ, **Sarkar IN**. "uBioRSS: Tracking Taxonomic Literature Using RSS." Bioinformatics. 2007 23(11):1434–1436.

19. **Sarkar IN**. "Biodiversity Informatics: Organizing and Linking Information Across the Spectrum of Life." Briefings in Bioinformatics. 2007 8(5):347–57.
20. Rach J, DeSalle R, **Sarkar IN**, Schierwater B, Hadrys H. "Character–based DNA barcoding allows discrimination of genera, species, and populations in Odonata." Proceedings of the Royal Society B: Biology. 2008 275(1632):237–47.
21. **Sarkar IN**, Egan MG, Coruzzi GM, Lee EK, DeSalle R. "Automated Simultaneous Analysis Phylogenetics (ASAP): An Enabling Tool for Phylogenomics." BMC Bioinformatics. 2008 19;9:103.
22. Garcia–España A, Chung PJ, **Sarkar IN**, Stiner E, Sun TT, Desalle R. "Appearance of new tetraspanin genes during vertebrate evolution." Genomics. 2008 91(4):326–34.
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24. **Sarkar IN**, Planet PJ, DeSalle R. "CAOS Software for Use in Character Based DNA Barcoding." Molecular Ecology Resources. 2008;8(6):1256-1259.
25. Miller H, Norton CN, **Sarkar IN**. "GenBank and PubMed: How connected are they?" BMC Res Notes. 2009 Jun 9;2(1):101.
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30. Lienau EK, DeSalle R, Allard M, Brown EW, Swofford D, Rosenfeld JA, **Sarkar IN**, Planet PJ. "The mega-matrix tree of life: using genome-scale horizontal gene transfer and sequence evolution data as information about the vertical history of life." Cladistics. 2010 August 26; 26: 1-11.
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96. Sharma V, Law W, Balick MJ, **Sarkar IN**. Harnessing Biomedical Natural Language Processing Tools to Identify Medicinal Plant Knowledge from Historical Texts. AMIA Annu Symp Proc. 2018 Apr 16;2017:1537-1546.
97. Sharma V, **Sarkar IN**. Identifying Supplement Use Within Clinical Notes: An Applicationof Natural Language Processing. AMIA Jt Summits Transl Sci Proc. 2018 May 18;2017:196-205. eCollection 2018.
98. Zhang PM, **Sarkar IN**. Exploring the Potential of Direct-To-Consumer Genomic Test Data for Predicting Adverse Drug Events. AMIA Jt Summits Transl Sci Proc. 2018 May 18;2017:247-256. eCollection 2018.
99. Anand RS, Stey P, Jain S, Biron DR, Bhatt H, Monteiro K, Feller E, Ranney ML, **Sarkar IN**, Chen ES. Predicting Mortality in Diabetic ICU Patients Using Machine Learning and Severity Indices. AMIA Jt Summits Transl Sci Proc. 2018 May 18;2017:310-319. eCollection 2018.
100. Durand WM, Stey PC, Chen ES, **Sarkar IN**. Trend Analysis of Aggregate Outcomes in Complex Health Survey Data. AMIA Jt Summits Transl Sci Proc. 2018 May 18;2017:349-358. eCollection 2018.
101. Jain SS, **Sarkar IN**, Stey PC, Anand RS, Biron DR, Chen ES. Using Demographic Factors and Comorbidities to Develop a Predictive Model for ICU Mortality in Patients with Acute Exacerbation COPD. AMIA Annu Symp Proc. 2018 Dec 5;2018:1319-1328. eCollection 2018.
102. Kimmel HJ, Brice YN, Trikalinos TA, **Sarkar IN**, Ranney ML. Real-Time Emergency Department Electronic Notifications Regarding High-Risk Patients: A Systematic Review. Telemed J E Health. 2018 Aug 21. doi: 10.1089/tmj.2018.0117.
103. Martin TJ, Ranney ML, Dorroh J, Asselin N, **Sarkar IN**. Health Information Exchange in Emergency Medical Services. Appl Clin Inform. 2018 Oct;9(4):884-891. doi: 10.1055/s-0038-1676041. Epub 2018 Dec 12.
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105. Chang J, **Sarkar IN**. Using Unsupervised Clustering to Identify Pregnancy Co-Morbidities. AMIA Jt Summits Transl Sci Proc. 2019 May 6;2019:305-314. eCollection 2019.
106. Goddard B, Chang J, **Sarkar IN**. Using Self Organizing Maps to Compare Sepsis Patients from the Neonatal and Adult Intensive Care Unit. AMIA Jt Summits Transl Sci Proc. 2019 May 6;2019:127-135. eCollection 2019.
107. Sharma V, Restrepo MI, **Sarkar IN**. Solr-Plant: efficient extraction of plant names from text. BMC Bioinformatics. 2019 May 22;20(1):263.
108. Coppersmith NA, **Sarkar IN**, Chen ES. Quality Informatics: The Convergence of Healthcare Data, Analytics, and Clinical Excellence. Appl Clin Inform. 2019 Mar;10(2):272-277.
109. **Sarkar IN**, Law W, Balick MJ. Identifying Phytochemicals from Biomedical Literature Utilizing Semantic Knowledge Sources. Stud Health Technol Inform. 2019 Aug 21;264:278-282.
110. Kim IE Jr, **Sarkar IN**. Racial Representation Disparity of Population-Level Genomic Sequencing Efforts. Stud Health Technol Inform. 2019 Aug 21;264:974-978.
111. Biron DR, Sinha I, Kleiner JE, Aluthge DP, Goodman AD, **Sarkar IN**, Cohen E, Daniels AH. A Novel Machine Learning Model Developed to Assist in Patient Selection for Outpatient Total Shoulder Arthroplasty. J Am Acad Orthop Surg. 2020 Jul 1;28(13):e580-e585. doi: 10.5435/JAAOS-D-19-00395.

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117. Brown KA, **Sarkar IN**, Chen ES. Mental Health Comorbidity Analysis in Pediatric Patients with Autism Spectrum Disorder Using Rhode Island Medical Claims Data. AMIA Annu Symp Proc. 2021 Jan 25;2020:263-272.
118. Eisman AS, Shah NR, Eickhoff C, Zerveas G, Chen ES, Wu WC, **Sarkar IN**. Extracting Angina Symptoms from Clinical Notes Using Pre-Trained Transformer Architectures. AMIA Annu Symp Proc. 2021 Jan 25;2020:412-421.
119. Karagounis S, **Sarkar IN**, Chen ES. Coding Free-Text Chief Complaints from a Health Information Exchange: A Preliminary Study. AMIA Annu Symp Proc. 2021 Jan 25;2020:638-647.
120. Lai J, **Sarkar IN**. A Phylogenetic Approach to Analyze the Conservativeness of BRCA1 and BRCA2 Mutations. AMIA Annu Symp Proc. 2021 Jan 25;2020:677-686.
121. Bardenheier BH, Gravenstein S, Blackman C, Gutman R, **Sarkar IN**, Feifer RA, White EM, McConeghy K, Nanda A, Mor V. Adverse events following mRNA SARS-CoV-2 vaccination among U.S. nursing home residents. Vaccine. 2021 Jun 29;39(29):3844-3851. doi: 10.1016/j.vaccine.2021.05.088.
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123. Akiki RK, Anand RS, Borrelli M, Sarkar IN, Liu PY, Chen ES. Predicting open wound mortality in the ICU using machine learning. J Emerg Crit Care Med. 2021 Apr;5:13. doi: 10.21037/jeccm-20-154. Epub 2021 Apr 25. PMID: 34765871; PMCID: PMC8579960.
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130. Ramanan V, Mechery S, **Sarkar IN**. GenBank as a Source to Monitor and Analyze Host-Microbiome Data. Bioinformatics. 2022 Jul 8:btac487. doi: 10.1093/bioinformatics/btac487. PMID: 35801940.
131. Cersonsky TEK, Mechery S, Thompson L, Lee A, Alber J, **Sarkar IN**, Brick LAD. Related amyloid burden and cortical atrophy in individuals with subtle cognitive decline. J Neuroimaging. 2022 Nov;32(6):1075-1079. doi: 10.1111/jon.13055. Epub 2022 Sep 23. PMID: 36151065; PMCID: PMC9903200.
132. **Sarkar IN**. Transforming Health Data to Actionable Information: Recent Progress and Future Opportunities in Health Information Exchange. Yearb Med Inform. 2022 Aug;31(1):203-214. doi: 10.1055/s-0042-1742519. Epub 2022 Dec 4. PMID: 36463879; PMCID: PMC9719753.
133. **Sarkar IN**. Health Information Exchange as a Global Utility. *CHEST* (in press; 2023)

9.d. Non-Refereed Articles

(none)

9.e. Book Reviews

(none)

9.f. Abstracts

1. **Sarkar IN**, Koslowsky DJ. "Mitochondrial Cleavage mRNA Cleavage/Polyadenylation Regulation in Pathogenic African Trypanosomes." Michigan State University 1997 Undergraduate Research Forum, East Lansing, Michigan. 1997.
2. **Sarkar IN**, Luckie DB. "Biocomputing: Learning How to Write Programs to Solve Problems." Michigan State University Undergraduate Research Forum, East Lansing, Michigan. 1998.
3. **Sarkar IN**, Malesewski JJ, Luckie DB. "Biocomputing in the Undergraduate Classroom." AAAS Annual Meeting and Innovation Exposition, San Francisco, California. 2001.
4. **Sarkar IN**, Planet PJ, DeSalle R, Figurski DH. "Knowledge Aggregation and Separation Through a Novel Classification Algorithm." AAAS Annual Meeting and Innovation Exposition, San Francisco, California. 2001.
5. **Sarkar IN**, Planet PJ, DeSalle R, Figurski DH. "Knowledge Acquisition of Organized Sets (KAOS) of Clinical Data." AMIA Annual Meeting, Washington, DC. 2001.
6. **Sarkar IN**, Cantor MN, DeSalle R, Lussier YA. "Exploring SNOMED Using Phylogenetic Analysis Tools." AMIA Annual Meeting, Washington, DC. 2002.
7. Cantor MN, **Sarkar IN**, Gelman R, Lussier YA. "Hybrid Lexical Methods for Mapping the Gene Ontology to the UMLS." Pacific Symposium on Biocomputing, Kaua'i, HI. 2003.
8. **Sarkar IN**, Cantor MN, Bodenreider O, Lussier YA. "GenesTrace: Biological Knowledge Discovery via Structured Terminology." MedInfo 2004: 11th World Congress on Medical Informatics, San Francisco, CA. 2004.

9. **Sarkar IN**, Planet PJ, DeSalle R. "TEPC: Total Evidence Phylogenetic Correlation of Microbial Phenotypes and Genotypes." ISMB 2005: 13th Annual International Conference on Intelligent Systems for Molecular Biology, Detroit, MI. 2005.
10. Catapano T, Agosti D, Sautter G, Koning D, Boehm K, Johnson NF, Heidorn PB, Moritz TD, **Sarkar IN**, Stephenson C. "TaxonX: A Lightweight and Flexible XML Schema for Markup of Taxonomic Treatments." TDWG, St Louis, MO. 2006.
11. Rach J, DeSalle R, **Sarkar IN**, Schierwater B, Hadrys H. "Character Based DNA–Barcoding for Identifying Conservation Units in Odonata." CBoL DAWG, National Museum of Natural History, Paris, France. 2006.
12. **Sarkar IN**, DeSalle R. "Automated Barcoding Using the Characteristic Attribute Organization System." CBoL DAWG, National Museum of Natural History, Paris, France. 2006.
13. **Sarkar IN**, Remsen DP. "Enabling Biological Knowledge Integration Through Scientific Nomenclature." International Society for Phylogenetic Nomenclature Conference, Yale University, New Haven, CT. 2006.
14. Umejei C, **Sarkar IN**. "zMedline: A Medline–Based Content Management System." AMIA Annual Meeting, Washington, DC: 469–473. 2006.
15. **Sarkar IN**, Leary PR, Norton CN. "A Customizable 'Mash–up' for Model and Disease Organisms." Medical Library Association Annual Meeting, Philadelphia, PA. 2007.
16. **Sarkar IN**. "Public Health Through the Lens of Biodiversity." AMIA Spring Congress, Orlando, FL. 2007.
17. **Sarkar IN**. "Deriving and Using Barcode Based Diagnostics for Information Retrieval." Second International Barcode of Life Conference, Taipei, Taiwan. 2007.
18. **Sarkar IN**. "Using Biomedical Ontologies To Enable Morphology Based Phylogenetics: A Feasibility Study for Fishes." Bio-Ontologies Special Interest Group 2010, Intelligent Systems for Molecular Biology, Boston, MA. 2010.
19. Payne PRO, **Sarkar IN**. "The Joint Summits on Translational Science: Reflections and Aspirations." 2011 AMIA Annual Symposium. Washington, DC.
20. Bhavnani S, Bassler K, **Sarkar IN**, Shaikh A. "Can Network Visualization and Analysis Accelerate Medical Discoveries? Theoretical, Applied, and Funding Perspectives." 2011 AMIA Annual Symposium. Washington, DC.
21. **Sarkar IN**. "A Vector Space Model Based Approach to Identify Genetically Related Diseases." 2011 AMIA Annual Symposium. Washington, DC.
22. McFarland CJ, Nickl CK, Osborne BW, **Sarkar IN**, Dostmann WR. "cGMP-dependent protein kinase from Toxoplasma gondii: functional expression in E. coli and molecular characterization. 5th International Conference on cGMP, Halle (Saale), Germany. 2011.
23. Payne PRO, **Sarkar IN**, Tarczy-Hornoch P, Tonellato PJ. "Knowledge Synthesis for in silico Science: Lessons Learned and Future Directions." AMIA Summit on Translational Bioinformatics. San Francisco, CA. 2012.
24. **Sarkar IN**. "Identification of Potential Model Organisms for Disease Using A Vector Space Model Approach." AMIA Summit on Translational Bioinformatics. San Francisco, CA. 2012
25. **Sarkar IN**, Chen ES, Kappel SJ. "Resolving and Standardizing Providers within Administrative Data." AMIA Annual Symposium. Washington, DC. 2013
26. Chen ES, Carter EW, Winden TJ, **Sarkar IN**, Melton GB. "Development of a comprehensive family health history information model." AMIA Annual Symposium. Washington, DC. 2013
27. Hanley JP, Jackson E, Morrissey LA, Rizzo DM, Sprague BL, **Sarkar IN**, Carr FE. "Geospatial and Temporal Analysis of Thyroid Cancer Incidence in a Rural Population." ENDO 2015. San Diego, CA. 2015.

9.g. Invited Lectures

Local

2007 Informatics Meets Biodiversity: Introductions / Invited Seminar

Bay Paul Center, MBL

2010 Biomedical Informatics Across the University and State of Vermont / Grand Rounds
Center for Clinical and Translational Science, University of Vermont

2010 An Overview of UVM CCTS Biomedical Informatics Activities / Grand Rounds
Department of Obstetrics and Gynecology, University of Vermont

2013 Leveraging Electronic Health Data for Next Generation Clinical Research / Retreat Keynote
Department of Obstetrics and Gynecology, University of Vermont

2015 Exploring Collaborative Opportunities: Lifespan Psychiatry and Behavioral Health & Brown Center for Biomedical informatics / Invited Presentation
Department of Psychiatry, Brown University

2016 Brown-Care New England Data Access and Sharing Initiative
Care New England Academic Council

2016 Partnering Around Data Science for Biomedicine: BCBI & CIS
Academic Council for Computing and Information Technology, Brown University

2016 Collaborating Around Small, Medium, and Large Data with the Brown Center for Biomedical Informatics
Diagnostic Imaging, Rhode Island Hospital

2016 Deciphering Disease: Big Data Analytic Skills for the Doctor of Tomorrow
Alpert Medical School Family Day, Brown University

2016 Harnessing Electronic Health Data for Clinical Research
Department of Cardiology, Rhode Island Hospital

2016 Biomedical Informatics at Brown
Center for Computational Molecular Biology, Brown University

2016 Brown – Care New England Data Access and Sharing Initiative
Legal and Compliance, Care New England

2016 Brown – Lifespan Data Access and Sharing Initiative
Research IT Council, Lifespan

2016 Brown – Care New England Data Access and Sharing Initiative
Academic Council, Care New England

2016 Treating (Big) Data With Respect
Responsible Conduct of Research Training Series, Brown University

2017 Biomedical Informatics at Brown
Center for Biomedical Engineering, Brown University

2017 Biomedical Informatics, Electronic Health Records, and Maternal-Fetal Health
Brown Medical Alumni Association, Brown University

2017 Unified Research data Sharing and Access (URSA) Initiative
Institutional Review Board, Brown University

2017 Unified Research data Sharing and Access (URSA) Initiative
Institutional Review Board, Lifespan

2017 Using Data Well
University Research Magazine Association, Brown University

2017 Unified Research data Sharing and Access (URSA) Initiative
Data Governance Committee, Lifespan

2017 Treating (Big Data) with Respect
Responsible Conduct of Research Training, Brown University

2017 Biomedical Informatics at Brown
Department of Biostatistics, Brown University

2017 Translational Science and Biomedical Informatics for Prematurity
MedMates After Hours Networking Event, MedMates

2018 Biomedical Informatics in the Ocean State
Division of Pulmonary, Critical Care, and Sleep Medicine, Brown Medicine

2018 Treating (Big Data) with Respect
BEARCORE Responsible Conduct of Research Training, Brown University

2018 Biomedical Informatics and Cyberinfrastructure Advancement Core: URSA and REDCap Updates
Institutional Review Board, Brown University

2018 Biomedical Informatics: Doing Scalable Data Science in the Ocean State
Department of Dermatology, Brown University

2018 Treating (Big Data) with Respect
Responsible Conduct of Research Training for Faculty, Brown University

2018 A metric for me, a metric for you, a metric for everyone (measuring research impact)
Transforming Research, Brown University

2018 Biomedical Informatics at Brown
Cancer Care and Research Committee Meeting, Lifespan

2019 Identifying Top Billed Diagnoses in Rhode Island
Rhode Island Special Legislative Commission (S1038), RI Senate

2019 Electronic Health Data Across the Ocean State
Brown Cancer Center, Brown University

2019 From Electronic Health Record Data to Actionable Clinical Knowledge
Brown-China Health Seminar, Brown University

2019 A Centralized High-Risk Registry for Rhode Island
Care Transformation Collaborative of Rhode Island

2020 Bridging Informatics and Implementation Science for Learning Health Systems
Informatics and Implementation Science Series Seminar, Brown University

2020 Using Data to Illuminate Health Disparities in Vulnerable Populations
Love Data Week, Brown University

Regional

2005 Contemporary Topics in Bioinformatics: Organizing and Curating the Genome Deluge / Invited Presentation
Quantitative Biology Symposium, City University of New York, New York, NY

2007 Biomedical Insights Through the Lens of Biodiversity / Invited Speaker
MITRE Corporation, Bedford, MA

2007 A Fish By Any Other Name: Organizing and Navigating Taxonomic Content From Literature / Invited Speaker
National Marine Fisheries Service, National Oceanic and Atmospheric Administration (NOAA)

2008 Biodiversity Informatics: Information Integration Across the Spectrum of Life / Invited Speaker
Harvard Medical School, Boston, MA

2008 Harnessing the Power of the Semantic Web to Manage Biodiversity Data / Invited Speaker
Cambridge Semantic Web Group, Cambridge, MA

2011 The UVM Integrated Research Information System / Invited Speaker
Green Mountain Care Board, Montpelier, VT

2016 Biomedical Informatics in the Ocean State / Invited Speaker
University of Rhode Island, Kingston, RI

2020 The "State" of Health Information Exchange (HIE) in New England: A Glimpse into Connecticut, Maine, and Rhode Island
NEHIMSS & UConn Health, Farmington, CT

National

2002 Physiognomonics / Alumni Guest Speaker
35th Anniversary of Lyman Briggs School, Michigan State University, East Lansing, MI

2002 Fall Commencement Address / Invited Speaker
Lyman Briggs School, Michigan State University, East Lansing, MI

2003 The Characteristic Attribute Organization System / Invited Presentation
Training Directors' Meeting, National Library of Medicine, Washington, DC

2003 Linking Biomedical Language Information and Knowledge Resources: GO and UMLS / Paper Presentation
Pacific Symposium on Biocomputing, Lihue, Hawaii

2003 Enabling Resources for Biomedical Discovery / Invited Panelist
Pacific Symposium on Biocomputing, Lihue, Hawaii

2005 Organizing and Understanding the Biological Data Deluge through Phylogenetics / Invited Tutorial Speaker
IEEE Computational Systems Bioinformatics Conference, Stanford, CA.

2005 Using the Existing Biomedical Infrastructure to Guide the Design and Development of Biological Ontologies / Invited Panelist
ACM Joint Conference on Digital Libraries (JCDL 2005), Denver, CO

2006 Literature Based Discovery of Gene Clusters Using Phylogenetic Methods / Paper Presentation
AMIA Annual Symposium, Washington, DC

2006 Bridging Biomedical and Biodiversity Knowledge Through Literature / Invited Speaker
TeleNature Workshop on Refactoring Natural History Literature, University of Illinois Urbana–Champaign, Urbana–Champaign, IL

2006 Enabling Biological Knowledge Integration Through Scientific Nomenclature / Invited Speaker
International Society for Phylogenetic Nomenclature, Yale University, New Haven, CT

2006 Reflections on Careers in Biomedical Informatics / Invited Alumni Speaker
Department of Biomedical Informatics Retreat, Columbia University, Hudson Valley, NY

2007 A Customizable 'Mash-up' for Model and Disease Organisms / Podium Presentation (abstract)
Medical Library Association Annual Meeting, Philadelphia, PA

2007 New Frontiers in Natural Language Processing / Invited Panelist
Pacific Symposium on Biocomputing, Maui, HI

2007 Biodiversity Informatics and Assembly of the Encyclopedia of Life / Alumni Invited Speaker
40th Anniversary of Lyman Briggs School, Michigan State University, East Lansing, MI

2007 Biodiversity Informatics: Managing Knowledge Beyond Humans and Model Organisms / Invited Tutorial Speaker
Pacific Symposium on Biocomputing, Maui, HI

2007 Briefing: The Biodiversity Heritage Library / Invited Speaker
Coalition for Networked Information, Washington, DC

2008 Towards Developing Practical Taxonomic Ontologies / Invited Speaker
Plant and Animal Genome XVI Conference, San Diego, CA

2008 Enabling a Systems View of the Biology of Aging through Semantic Technologies / Invited Speaker
Systems Biology of Aging, Phoenix, AZ

2008 Development of an Automated Framework to Identify Biology of Aging Literature / Podium Presentation (abstract)
Gerontological Society of America Annual Meeting, National Harbor, MD

2009 LigerCat: Using "MeSH Clouds" from Journal, Article, or Gene Citations to Facilitate the Identification of Relevant Biomedical Literature / Paper Presentation
AMIA Annual Symposium, Washington, DC

2010 Biomedical Informatics Approaches for Exploring Biodiversity Knowledge / Invited Speaker
Department of Biomedical Informatics, University of Utah, Salt Lake City, UT

2010 Piecing Together Health Care Reform: The Vermont Story / Invited Speaker
National Association of Health Data Organizations, Salt Lake City, UT

2010 Leveraging Biomedical Ontologies and Annotation Services to Organize Microbiome Data from Mammalian Hosts / Paper Presentation
AMIA Annual Symposium, Washington, DC

2011 Developing Biodiversity Knowledge Bases for Use in Disease Surveillance / Invited Speaker
Department of Biomedical Informatics, Arizona State University, Phoenix, AZ

2011 Challenges and Opportunities with the Biomedical Data Deluge / Invited Presentation
iSchool, Syracuse University, Syracuse, NY

2011 Unstructured Documentation in the Current Clinical Practice / Invited Feature Presentation
Cerner Physician Community, Cerner Corporation, Kansas City, MO

2011 Leveraging Secondary Data Analyses to Cross the Translational Divide / Invited Speaker
Department of Biomedical Informatics, Columbia University, New York, NY

2011 The Joint Summits on Translational Science: Reflections and Aspirations / Panel Presentation (abstract) / Panelist
AMIA Annual Symposium, Washington, DC

2011 Can Network Visualization and Analysis Accelerate Medical Discoveries? Theoretical, Applied, and Funding Perspectives / Panel Presentation (abstract) / Panelist
AMIA Annual Symposium, Washington, DC

2011 A Vector Space Model Based Approach to Identify Genetically Related Diseases / Podium Presentation (abstract)
AMIA Annual Symposium, Washington, DC

2012 Introduction to Translational Bioinformatics / Invited Tutorial Speaker
AMIA Summit on Translational Bioinformatics, San Francisco, CA

2012 Identification of Potential Model Organisms for Disease Using A Vector Space Model Approach / Podium Presentation (abstract)
AMIA Summit on Translational Bioinformatics, San Francisco, CA

2012 Knowledge Synthesis for *in silico* Science: Lessons Learned and Future Directions / Panel Presentation (abstract) / Panelist
AMIA Summit on Translational Bioinformatics, San Francisco, CA

2012 Determining Compound Comorbidities for Heart Failure from Hospital Discharge Data / Paper Presentation
AMIA Annual Symposium, Chicago, IL

2013 Transforming Biomedical Data for Health
Geisel School of Medicine, Dartmouth College, Lebanon, NH

2013 Resolving and Standardizing Providers within Administrative Data / Podium Presentation (abstract)
AMIA Annual Symposium, Washington, DC

2014 (Re)Characterizing Disease: Transforming Biomedical Data into Wisdom
Department of Biomedical Informatics, The Ohio State University, Columbus, OH

2014 Transforming Biomedical Data into Actionable Knowledge for Health
Brown University, Providence, RI

2014 The Future is Now! Automating VON Data From Your EHR
Vermont Oxford Network Annual Quality Congress, Chicago, IL

2014 Using Arden Syntax to Identify Registry-Eligible Very Low Birth Weight Neonates from the Electronic Health Record / Paper Presentation

AMIA Annual Symposium, Washington, DC

2014 High School Scholars: Building New Paths (to Biomedical Informatics Education) / Panel Moderator (abstract)
AMIA Annual Symposium, Washington, DC

2014 Translational Bioinformatics: Highlights from the Summits / Panel Moderator
AMIA Annual Symposium, Washington, DC

2014 ACMI History II / Invited Panelist
AMIA Annual Symposium, Washington, DC

2015 Transforming Biomedical Data Into Knowledge About Disease / Invited Speaker
Center for Biomedical Informatics, Harvard Medical School, Boston, MA

2015 Imputing Knowledge from Biological and Health Data / Invited Speaker
Brown University, Providence, RI

2015 Informatics Approaches for Crossing the Chasms of Translational Science / Invited Keynote
Rhode Island NIH IDeA Symposium, Providence, RI

2015 High School Scholars: Building New Paths (to Biomedical Informatics Education) / Session Moderator
AMIA Annual Symposium, San Francisco, CA

2015 Developing Leadership Within AMIA: Pathways to Success / Invited Panelist
AMIA Annual Symposium, San Francisco, CA

2016 Building Educational Pathways for Sustaining the Science and Practice of Biomedical Informatics / Invited Presentation
ACMI Winter Symposium

2016 High School Scholars: Building New Paths (to Biomedical Informatics Education) / Session Moderator
AMIA Annual Symposium, Chicago, IL

2016 Biomedical and Health Informatics Baccalaureate (BHIB) Informational Panel / Invited Panelist
AMIA Annual Symposium, Chicago, IL

2018 Publishing Today for Tomorrow
Friends of the National Library of Medicine, Bethesda, MD

2019 Creating an Educational Curriculum for AI in Medicine
Artificial Intelligence Symposium, Mayo Clinic, Rochester, MN

2019 CUREing Biomedical Informatics Education for Undergraduates
AMIA Informatics Educators Forum, St. Louis, MO

2020 Transforming Health Data Into Clinical Actions
Great Plains IDeA-CTR Seminar, University of Nebraska, Omaha, NE

2020 Health Data to Knowledge: Where's the Action?
Institute for Informatics and Department of Medicine Grand Rounds
Washington University in St. Louis, MO

2020 Crossing Chasms of Health Data in Pursuit of Clinically Actionable Knowledge
Stony Brook University, Stony Brook, NY

2021 Supporting COVID-19 Information Needs Through Health Information Exchange
SHIEC 2021 Annual Symposium, Phoenix, AZ

2021 High School Scholars: Building New Paths (to Biomedical Informatics Education) / Session Moderator
AMIA Annual Symposium, San Diego, CA

International

2006 Automated Barcoding Using the Characteristic Attribute Organization System / Invited Speaker

Data Analysis Working Group Meeting for the Consortium for the Barcode of Life, National Museum of Natural History, Paris, France

2007 Deriving and Using Barcode Based Diagnostics for Information Retrieval / Invited Speaker
Second International Barcode of Life Conference, Taipei, Taiwan

2008 Gaz – an open source community–developed Gazetter / Invited Speaker
Genome Standards Consortium (GSC) Workshop, Cambridge, UK

2008 Biomedicine Through the Lens of Biodiversity Informatics / Invited Speaker
University of Pavia, Pavia, Italy

2008 Biodiversity Informatics: Enabling a Macroscopic View of Biology / Keynote Speaker
20th EMBnet Anniversary European Molecular Biology Network, Martina Franca, Italy

2009 Introduction to Biodiversity Informatics / Invited Speaker
Annelid Tree of Life – Clitellata Lecture Series, Gothenburg, Sweden

2009 Finding Needles in the Biodiversity Haystack: Secondary Uses of Biological Information / Invited Speaker
Annelid Tree of Life – Clitellata Lecture Series, Gothenburg, Sweden

2009 Informatics and Data Analytics for DNA Barcoding: Wherefrom, Where now, and Whereto? / Invited Plenary Address
Third International Barcode of Life Conference, Mexico City, MX

2011 Translational Bioinformatics: Unifying the Spectrum of Biomedicine / Invited Speaker
50th Anniversary for *Methods of Information in Medicine*, Heidelberg, Germany

2011 -Omics Data Integration for (Personalized) Molecular Medicine / Invited PhD Seminar
University of Pavia, Pavia, Italy

2015 How to Prepare a MEDINFO Submission / Invited Panelist
MEDINFO 2015, São Paulo, Brazil

2017 ChemGrab: Identification of Chemical Names Using a Combined Negative-Dictionary and Rule-Based Approach
BioCreative V.5: CEMP Task, Madrid, Spain

2017 Biomedical Informatics and Preterm Birth
King's Together, King's College London, UK

2019 Encouraging Rigor and Reproducibility through FAIRness
ISMB 2019, Geneva, Switzerland

2019 Identifying Phytochemicals from Biomedical Literature Utilizing Biomedical Knowledge Sources
MEDINFO 2019, Lyon, France