CURRICULUM VITÆ

FULL NAME: Joseph Daniel Romano, PhD

CURRENT POSITION: Postdoctoral Researcher

INSTITUTION: University of Pennsylvania

CURRENT EMAIL: Joseph.Romano *[at]* pennmedicine.upenn.edu

ADDRESS: A201 Richards Building
3700 Hamilton Walk
University of Pennsylvania
Philadelphia, PA 19104–6116

LAST UPDATED: Saturday 22nd June, 2019

EDUCATION

2014–2019 **Doctor of Philosophy** (Biomedical Informatics)
Dissertation title: Computational Toxinology
Dissertation advisor: Nicholas Tatonetti, PhD
Columbia University; New York, NY

2014–2017 **Master of Philosophy** (Biomedical Informatics)
Columbia University; New York, NY

2014–2016 **Master of Arts** (Biomedical Informatics)
Columbia University; New York, NY

2010–2014 **Bachelor of Science** (Molecular Genetics)
Research Advisor: Neil Sarkar, PhD, MLIS, FACMI
University of Vermont; Burlington, VT

2011–2012 International Student Exchange Program
C.I.E.L.D. (国際関係学部国際教育センター)
Nihon University; Mishima, Shizuoka prefecture, Japan

PEER-REVIEWED PUBLICATIONS

1. **Romano J.D.**, Tharp W.G., & Sarkar I.N. (2014). Exploring Complex Disease Gene Relationships Using Simultaneous Analysis. *UVM Honors College Theses*, 35.
2. **Romano J.D.**, Tharp W.G., & Sarkar I.N. Adapting Simultaneous Analysis Phylogenomic Techniques to Study Complex Disease Gene Relationships. (2014). *Journal of Biomedical Informatics, 54*, 10-38.
3. **Romano J.D.**, & Tatonetti N.P. (2015). VenomKB, a new knowledge base for facilitating the validation of putative venom therapies. *Scientific Data, 2*, 150065.
4. Boland M.R., Jacunski A., Lorberbaum T., **Romano J.D.**, Moskovitch R., & Tatonetti N.P. (2016). Systems Biology Approaches for Identifying Adverse Drug Reactions and Elucidating Their Underlying Biological Mechanisms. *WIREs Systems Biology and Medicine, 8*(2), 104-122.
5. **Romano J.D.**, & Tatonetti N.P. (2016). Using a Novel Ontology to Inform the Discovery of Therapeutic Peptides from Animal Venoms. *AMIA Summits on Translational Science Proceedings, 2016*, 209-218. (Second place; TBI Student Paper Competition)

6. **Romano J.D.**, Bernauer M., McGrath S., Nagar S.D., & Freimuth R. (2019). A Decade of Translational Bioinformatics: A Retrospective Analysis of "Year-in-Review" Presentations. *AMIA Informatics Summit Proceedings, 2019*.

7. **Romano J.D.** & Tatonetti N.P. (2019). Informatics and computational methods in natural product drug discovery: A review and perspectives. *Frontiers in Genetics, 30*, 368.

PREPRINTS (NON-REFEREED)

1. **Romano J.D.**, Nwankwo V., & Tatonetti N.P. (2018). VenomKB v2.0: A knowledge repository for computational toxinology. *bioRxiv*, 295204.

MANUSCRIPTS IN PREPARATION

1. **Romano J.D.**, Li H., Realubit R., Karan C., & Tatonetti N.P. VenomSeq: Discovery of drug candidates from animal venoms.

2. **Romano J.D.**, Saint-Mézard M., & Tatonetti N.P. An ontology-aware semantic API for computational toxinology.

CONFERENCE PRESENTATIONS and INVITED TALKS

2019 **Analyzing Whole Exome Sequencing: Unstructured Data to Variant Interpretation** (workshop), *AMIA 2019 Informatics Summit*, San Francisco, CA.

2018 **Engineering Innovative Informatics Solutions to Support Venom-Based Drug Discovery**, *2018 GRC on Venom Evolution, Function and Biomedical Applications*, West Dover, VT.

2018 **VenomSeq—A platform for drug discovery from animal venoms using differential gene expression**, *AMIA 2018 Informatics Summit*, San Francisco, CA.

2018 **Computational Resources for Personalized Genomics: High Performance Clusters and Bioinformatics Resources for Analysis and Functional Interpretation of Next-Generation Sequencing Data** (workshop), *AMIA 2018 Informatics Summit*, San Francisco, CA.

2017 **Deep recurrent neural networks identify transgender patients**, *2017 AMIA Annual Symposium*, Washington, DC.

2017 **High-sensitivity Stroke Phenotyping using Recurrent Neural Networks**, *AMIA Joint Summits on Translational Science 2017*, San Francisco, CA.

2016 **Building a Centralized Resource for Computational Venom Research**, *National Library of Medicine Informatics Training Conference 2016*, Columbus, OH.

2015 **Venom Peptides as Therapeutic Agents: Can we use Phylogenetics to Inform Drug Discovery?**, *13th Annual Rocky Mountain Bioinformatics Conference*, Aspen, CO.

2015 **Data-Driven Clinical Research Generalizability Assessment and Improvement**, *8th Annual Mid-Atlantic Healthcare Informatics Symposium*, Philadelpha, PA.

2015 **Computational Prediction of Therapeutic Uses for Venom Compounds**, *Research Seminar Series in Biomedical Informatics*, Columbia University Department of Biomedical Informatics; New York, NY.

2015 **Observational Health Data Sciences and Informatics (OHDSI)**, *Innovation and Application @ Columbia*, New York, NY.

TEACHING EXPERIENCE

Summer 2018 *World Scholars SAT+ summer program* (Guest Lecturer).
Yale Divinity School; New Haven, CT.

Spring 2018 *BINF G4003 — Symbolic Methods in Biomedical Informatics* (Guest Lecturer).
Columbia University; New York, NY.

Spring 2017 *BINF G4003 — Symbolic Methods in Biomedical Informatics* (Teaching Assistant).
Columbia University; New York, NY.

Fall 2016 *BINF G4006 — Translational Bioinformatics* (Guest Lecturer—2 lectures).
Columbia University; New York, NY.

Fall 2016 *BINF G4000 — Acculturation to Programming and Statistics* (Teaching Assistant).
Columbia University; New York, NY.

Spring 2014 *Linux and UNIX Operating Systems.*
UVM Enterprise Technology Services, UVM TechTeam; Burlington, VT.

Spring 2012 *MMG 104 — Introduction to Recombinant DNA Technology* (Teaching Assistant).
University of Vermont; Burlington, VT.

Fall 2011 English Language Teaching Assistant.
Nihon University College of International Relations; Mishima, Japan.

PROFESSIONAL SERVICE

2019 **Scientific Program Committee Member**, AMIA Informatics Summit.

2018–present **Chair**, *AMIA Student Working Group*, American Medical Informatics Association.

2016, 2018 **Committee Member**, *Translational Bioinformatics Year-in-Review committee*, AMIA Translational Bioinformatics Summit.

2015–present **Communications and Social Media Coordinator**, *AMIA Genomics and Translational Bioinformatics Working Group*, American Medical Informatics Association.

2015 **Assistant Editor**, *Editorial Committee*, 15th World Congress on Health and Biomedical Informatics; São Paulo, Brazil.

2014 **Committee Member**, *"Year In Review: Informatics in the Media 2014" Student Review Committee*, American Medical Informatics Association Annual Symposium; Washington, D.C.

GRANT SUPPORT

2015–2017 **Training in Biomedical Informatics at Columbia University**. T15 LM007079 National Library of Medicine. (PI: Hripcsak).

2014–present **Drug Effect Discovery Through Data Mining and Integrative Chemical Biology**. R01 GM107145 National Institute for General Medical Sciences. (PI: Tatonetti).

HONORS, AWARDS, and FELLOWSHIPS

2015–2017 **Biomedical Informatics Research Fellow**, US National Library of Medicine
2010–2014 **Honors Scholar**, University of Vermont Honors College
2010–2014 **Vermont Scholar**, University of Vermont
2009 **AP Scholar with Honors**, College Board
2009 **National Merit Scholar**, National Merit Scholarship Corporation
2009 **Eagle Scout**, Boy Scouts of America

REVIEW ACTIVITIES (JOURNALS and CONFERENCE PROCEEDINGS)

AMIA Annual Symposium
AMIA Joint Summits on Translational Science
BioData Mining
IEEE International Conference on Healthcare Informatics
Nature Communications
Nature Scientific Reports
Pacific Symposium on Biocomputing
Scientific Data
World Congress on Health and Biomedical Informatics

PROFESSIONAL MEMBERSHIPS and AFFILIATIONS

2017–present American Society of Clinical Pharmacology and Therapeutics
2016–present International Society on Toxinology
2014–present International Society for Computational Biology
2014–present New York Academy of Sciences
2014–present American Association for the Advancement of Science
2012–present American Medical Informatics Association (AMIA)
2011–2014 Alpha Zeta academic honors fraternity
2011–2014 UVM Biochemistry Society

PRIOR WORK EXPERIENCE

2010–2014 **Level IV Lead Technician**, *University of Vermont Enterprise Technology Services*; Burlington, VT.
Student management position at a walk-in software support clinic and telephone computing helpline serving all students, faculty, and staff at the University of Vermont.

2007–2014 **Front Desk Manager**, *Cedarbrook at Killington / North Star Lodge*; Killington, VT.
Oversaw all aspects of customer service at a timeshare resort. Includes answering phone calls, checking in/out guests, auditing the resort, and overseeing property maintenance.

Summer 2010 **Desktop Support Technician**, *Central Vermont Public Service*; Rutland, VT.
Summer internship providing software and hardware support for all CVPS employees, as well as maintaining and troubleshooting the company's enterprise-level network.

2009–2010 **IT Technician**, *University of Rochester ITS*; Rochester, NY.
Provided desktop support to faculty, staff, and students of the University of Rochester. Additionally, managed computing lab facilities available to University affiliates.