Rohini Janivara

Bioinformatics Ph.D. Candidate
Georgia Institute of Technology
Atlanta, GA 30308

Phone: (+1) 404-934-8789
Email: rjanivara3@gatech.edu

Education

- Ph.D. in Bioinformatics (Jan 2021 - present)
  Georgia Institute of Technology
  Research Interests: Genomics, Evolution, Mathematical Modeling
  Advisor: Prof. Joseph Lachance
- Integrated Bachelor & Master of Technology (July 2015 – May 2020)
  Indian Institute of Technology Madras
  Major in Biological Engineering and *Minor* in Computational Biology
  Thesis advisor: Prof. Karthik Raman

Experience

- Graduate Research Assistant at **Georgia Institute of Technology** (Jan 2021– present)
  Topics: Evolution, Cancer, Population Genetics
- Research Intern at **Indian Institute of Sciences** (Aug 2020 - Dec 2020)
  Advisor: Dr. Mohit Jolly Kumar
  Topic: Intermediate Epithelial-Mesenchymal states across Biological contexts using gene expression
- Dual Degree Thesis Project at **Indian Institute of Technology Madras** (Aug 2019 - Jul 2020)
  Advisor: Dr. Karthik Raman
  Topic: Network Topology of Circadian clock genes across species
- Summer Research Intern at **University of California San Diego** (May 2019 – Aug 2019)
  Mentor: Dr. Scott Rifkin
  Topics: Comparative transcriptomics of development in different species of Caenorhabditis
- Summer Research Intern at **Rice University** (May 2018 – Dec 2018)
  Mentor: Dr. Michael Deem
  Topic: Evolutionary genomics of H5N1 and H7N9 viruses to inform vaccine development
- Summer Research Intern at **National Chemical Laboratory**, India (May 2017 – Jul 2017)
  Mentor: Dr. Ram Rup Sarkar
  Topic: Sequence-based structure prediction of metabolic proteins in E. coli

Awards & Honors

- J. Leland Jackson Fellowship Best Paper Award 2024
- College of Sciences Graduate Career Connect Travel Grant 2024
- Genetic Society of America Presidential Membership Award 2022
- University of Washington Statistical Institute of Statistical Genetics Scholarship 2021
- Madan Gopal Damani Prize for academic excellence (@ Indian Institute of Technology Madras) 2018
- Indian Academy of Sciences Fellowship 2017

Publications (In print, accepted, and submitted)

1. **Janivara, R.**, Chen, W., Hazra, U., Baichoo, S., Agalliu, I., ... & Lachance, J*, Rebbeck, T*. Heterogeneous genetic architectures and evolutionary genomics of prostate cancer in Sub-Saharan Africa. **Nature Genetics (2023)** [*Accepted*]
2. Hoffmann, T. J., Graff, R. E., Madduri, R. K., Rodriguez, A. A., ..., **Janivara, R.**, ... & Witte, J. S. Genome-wide association study of prostate-specific antigen levels in 392,522 men identifies new loci and improves cross-ancestry prediction. **Nature Genetics** (2023) [*Accepted*]

3. Wang, A., Shen, J., Rodriguez, A. A., Saunders, E. J., Chen, F., **Janivara, R.**, Darst, B.F., ... & Haiman, C.A. Characterizing prostate cancer risk through multi-ancestry genome-wide discovery of 187 novel risk variants. Nature Genetics (2023) [*In Print*]
4. **Janivara, R.** Lachance, J. (2024). The Genetic Hitchhiker's Guide to Tumor Evolution. *Cancer through the Lens of Evolution and Ecology (pp. 26-41). CRC Press.*
5. **Janivara, R.**, Hazra, U., Pfennig, A., Harlemon, M., Kim, M. S., Eaaswarkhanth, M., ... & Lachance, J. (2024). Uncovering the genetic architecture and evolutionary roots of androgenetic alopecia in African men. bioRxiv, 2024-01. [*Under Review; HGG Advances*]
6. Mandal, S., Tejaswi, T., **Janivara, R.**, Srikrishnan, S., Thakur, P., Sahoo, S., ... & Jolly, M. K. Transcriptomic-based quantification of the epithelial-hybrid-mesenchymal spectrum across biological contexts. Biomolecules (2021) [*In Print*]

Conferences

- Platform talk on *Heterogeneous genetic architectures and evolutionary genomics of prostate cancer in Sub-Saharan Africa* at **Society of Molecular Biology and Evolution 2024**
- Poster on *Leveraging site frequency spectra to infer clonal interference and identify cryptic driver mutations* at **International Society for Evolution, Ecology and Cancer 2024**
- Poster on *Uncovering the genetic roots of androgenic alopecia in African men: a novel dataset reveals ancestry-specific loci and pathways* at **American Society of Human Genetics 2023**
- Poster on *Modeling clonal interference and context dependency of mutations that affect different hallmarks of cancer* at **Biology of Cancer: Microenvironment & Metastasis 2023**
- Platform talk on *A multi-population African GWAS for prostate cancer reveals novel disease associations and within-continent heterogeneity of cancer risk* at **American Society of Human Genetics 2022**

Teaching, Academic Service & Mentoring

Teaching

- **Graduate Teaching Assistant** for Human Evolutionary Genomics @ Georgia Tech (Spring 2024)
  with Prof. Joseph Lachance
- **Graduate Teaching Assistant** for Evolutionary Biology @ Georgia Tech
  with Prof. Joseph Lachance & Dr. Ozan Bozdag (Spring 2023, Fall 2021, Spring 2021)
- **Graduate Teaching Assistant** for Structural Biology @ IIT Madras (Spring 2020)
  with Prof. Manoj Narayanan
- **Teaching Assistant** for IITM-EMBL-EBI Winter School 2019 @ IIT Madras (Fall 2019)
  with Prof. Karthik Raman
  - Assisted with Systems Biology Model curation and annotation with the software COPASI
- **Graduate Teaching Assistant** for Evolutionary Biology @ IIT Madras (Fall 2019)
  with Prof. Manoj Narayanan
- **Graduate Teaching Assistant** for Computational Biology Lab @ IIT Madras (Fall 2019)
  with Prof. Manoj Narayanan

Academic Service

- **Mentorship committee**: Women+ in computational biology
- **Peer Reviewer**: Journal of Human Genetics
- **Review Committee at Georgia Tech**: President's Undergraduate Research Grant Awards, Undergraduate Research Awards
- **Student committee, Molecular Biomedical Cancer series**: Invite and host speakers for the MBM Cancer seminar series at Georgia Tech
- **Science Writer**: Immerse, science magazine of IIT Madras

Mentoring & Community engagement

- **Mentoring experience with MS student collaborators at Georgia Institute of Technology**
  - Population Genetics of Complex Traits in sub-Saharan Africa
- Guest lecture at NCWIT GirlsTech Camp 2021 on computational biology
- Voluntary teaching at Deepa Academy (school for the visually impaired), Bangalore