

# Kewalin Samart

COMPUTATIONAL BIOLOGY · BIOINFORMATICS · COMPUTATIONAL AND STATISTICAL GENOMICS

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## Education

### University of Colorado Denver, Anschutz Medical Campus (CU Anschutz)

Aurora, Colorado

DOCTOR OF PHILOSOPHY IN COMPUTATIONAL BIOSCIENCE

Aug 2022 – present

- Thesis Advisors: Dr. Arjun Krishnan, and Dr. Janani Ravi (co-primary)
- C. Werner and Kitty Hirs Fellowship

### Michigan State University (MSU)

East Lansing, Michigan

B.SC. IN COMPUTATIONAL MATHEMATICS; MINOR IN COMPUTATIONAL MATH, SCIENCE, AND ENGINEERING

May 2022

- High Honor (Summa Cum Laude)
- McCartney Math Award, L.C. Plant Math Award, College of Natural Science Scholar
- Cumulative GPA: 3.98/4.00; Major GPA: 4.00/4.00
- Dean's Honor List: Fall 2018 – Spring 2022
- Royal Thai Government Scholarship Recipient 2017

## Skills

**Programming Languages** R, Python, C++, TeX

**Computational Tools** Git, vi, Terminal, Unix/Linux, High-performance/ Cluster computing, LaTeX

## Publications

- **Kewalin Samart**<sup>\*\*</sup>, Phoebe Tuyishime<sup>\*\*</sup>, Arjun Krishnan<sup>\*</sup>, Janani Ravi<sup>\*</sup>. Reconciling multiple connectivity scores for drug repurposing. *Briefings in Bioinformatics*(2021) doi.org/10.1093/bib/bbab161; <sup>\*\*</sup>co-primary authors; <sup>\*</sup>corresponding authors  
[GitHub: github.com/jravidlab/connectivity\\_scores](https://github.com/jravidlab/connectivity_scores); [Live doc: jravidlab.github.io/connectivity\\_scores](https://live-doc.jravidlab.github.io/connectivity_scores)
- Janani Ravi, **Kewalin Samart**, Jason Zwolak, John Tyson. Modeling the START transition in the budding yeast cell cycle. *In preparation*. Online simulator: <http://sbmlsimulator.org/simulator/by-start>
- **Kewalin Samart**, Amy Tonielli, Arjun Krishnan, Janani Ravi. Integrating multiple transcriptome-based methods for drug repurposing in tuberculosis. *In preparation*.

## Presentations

### Research/Technical Talks

- R workshop at Global Alliance for Rapid Diagnostics (GARD). Virtual, Mar. 21, 2023. [Presentation material: github.com/jananiravi/R\\_intro](https://github.com/jananiravi/R_intro)
- 2nd Latin American Congress of Women in Bioinformatics and Data Science (WBDS LA). Virtual, Sep. 23, 2021.
- 29th Conference on Intelligent Systems for Molecular Biology and the 20th European Conference on Computational Biology (ISMB/ECCB). Virtual, Jul. 25, 2021.
- R-Ladies Pune. Virtual, May. 9, 2021. [Presentation material: github.com/KewalinSamart/RLadies-lightning-talk-distill](https://github.com/KewalinSamart/RLadies-lightning-talk-distill)

### Poster Presentations

- Colorado Immunology and Microbiology conference. Vail, CO, Sep. 24 – 26, 2022.
- Intelligent Systems for Molecular Biology, ISMB 2022, International Society for Computational Biology flagship conference. Virtual, Jul. 11 – 12, 2022.
- 2nd Latin American Congress of Women in Bioinformatics and Data Science (WBDS LA). Virtual, Sep. 22 – 24, 2021.
- 2021 Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE). Virtual, Jul. 28, 2021.
- 29th Conference on Intelligent Systems for Molecular Biology and the 20th European Conference on Computational Biology (ISMB/ECCB). Virtual, Jul. 25 – 30, 2021.
- 2021 Great Lakes Bioinformatics Conference (GLBIO). Virtual, May 10 – 13, 2021.
- 2021 University Undergraduate Research and Arts Forum (UURAF). Virtual, Apr. 15 – 19, 2021.
- 2020 Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE). Virtual, Aug. 10, 2020.

### Podcast Interview

- Repurposing drugs for diseases. The Sci-Files on Impact 89FM Episode 11 Season 6, Aug. 1, 2021.  
[Podcast: https://impact89fm.org/101365/podcasts/the-sci-files-08-01-2021-kewalin-samart-repurposing-drugs-for-diseases/](https://impact89fm.org/101365/podcasts/the-sci-files-08-01-2021-kewalin-samart-repurposing-drugs-for-diseases/)

## Peer Review

**Academic Journals** Contributed to peer review at PROS ONE

## Honors/ Awards/ Scholarships

Aug 2022 **C. Werner and Kitty Hirs Fellowship**, University of Colorado Denver, Graduate School

Aurora, CO

May 2022	<b>High Honor (Summa Cum Laude)</b> , Michigan State University	East Lansing, MI
Apr 2022	<b>McCartney Mathematics Award</b> , MSU Department of Mathematics	East Lansing, MI
Oct 2021	<b>Fall 2021 CNS Undergraduate Research Scholarship</b> , MSU College of Natural Science	East Lansing, MI
May 2021	<b>Summer Research Scholarship</b> , EnSURE program – MSU College of Engineering	East Lansing, MI
Jan 2021	<b>Spring 2021 CNS Undergraduate Research Scholarship</b> , MSU College of Natural Science	East Lansing, MI
Oct 2020	<b>Fall 2020 CNS Undergraduate Research Scholarship</b> , MSU College of Natural Science	East Lansing, MI
May 2020	<b>Summer 2020 CNS Undergraduate Research Scholarship</b> , MSU College of Natural Science	East Lansing, MI
Apr 2020	<b>L.C. Plant Mathematics Award Scholarship</b> , MSU Department of Mathematics	East Lansing, MI
Jan 2020	<b>Spring 2020 CNS Undergraduate Research Scholarship</b> , MSU College of Natural Science	East Lansing, MI
Mar 2018	<b>Academic Excellence Award (High Honor)</b> , Lawrence Academy	Groton, MA
Dec 2017	<b>Academic Excellence Award (Honor)</b> , Lawrence Academy	Groton, MA
May 2017	<b>Full-Ride Scholarship</b> , BIOTEC, Royal Thai Government	Bangkok, Thailand

## Research Experience

<b>JRavi and Krishnan Labs; PIs: Dr. Janani Ravi and Dr. Arjun Krishnan</b>	Jul 2023 – present
DEPARTMENT OF BIOMEDICAL INFORMATICS, CU ANSCHUTZ Graduate researcher	Aurora, CO
<b>Zhang Lab; PI: Dr. Fan Zhang</b>	Mar 2023 – May 2023
DEPARTMENT OF BIOMEDICAL INFORMATICS, CU ANSCHUTZ Graduate researcher; Rotation student	Aurora, CO
<b>Kechris Lab; PI: Dr. Katerina Kechris</b>	Jan 2023 – Mar 2023
DEPARTMENT OF BIOSTATISTICS AND INFORMATICS, CU ANSCHUTZ Graduate researcher; Rotation student	Aurora, CO
<b>Krishnan Lab; PI Dr. Arjun Krishnan</b>	Mar 2021 – May 2022
MSU DEPARTMENT OF COMPUTATIONAL MATHEMATICS, SCIENCE, AND ENGINEERING Undergraduate researcher in computational biology	East Lansing, MI
<b>JRavi Lab; PI: Dr. Janani Ravi</b>	Dec 2019 – May 2022
MSU DEPARTMENT OF PATHOBIOLOGY AND DIAGNOSTIC INVESTIGATION Undergraduate researcher in computational biology	East Lansing, MI

## Teaching Experience

<b>CPBS 7712: Research Methods in Biomedical Informatics</b>	Jan 2024 – May 2024
COMPUTATIONAL BIOSCIENCE PROGRAM, CU ANSCHUTZ Education assistant	Aurora, CO
<b>CMSE 202: Computational Modeling and Data Analysis II</b>	Jan 2022 – Apr 2022
MSU DEPARTMENT OF COMPUTATIONAL MATHEMATICS, SCIENCE, AND ENGINEERING Undergraduate learning assistant (LA) with Dr. Luciano Silvestri	East Lansing, MI

## University Service/ Leadership

<b>Committee Member</b>	Aurora, CO
COMPUTATIONAL BIOSCIENCE PROGRAM RETREAT • Planned and organized the annual retreat for the Computational Bioscience graduate program.	2022-2023 Academic Year
<b>Committee Member</b>	East Lansing, MI
A REPRESENTATIVE ON BEHALF OF MSU COLLEGE OF NATURAL SCIENCE FOR • the University Academic Grievance Hearing Board • the University Academic Integrity Hearing Board • the University Academic Appeal Board	Fall 2021 – Spring 2022

## Extracurricular/ Volunteer Activities

Jul 2023	<b>2023 Summer Academy, SACNAS at CU Anschutz</b> , Helped set up program activities	Aurora, CO
Jul 2021	<b>useR! 2021 The R Conference</b> , MaRmot; Helped provide program information to participants	Virtual
2021–	<b>International Society for Computational Biology (ISCB)</b> , Member	Leesburg, VA
2021–	<b>Association for Women in Mathematics (AWM)</b> , Member	Providence, RI

2021–2022 <b>MSU Women in STEM</b> , Member	<i>East Lansing, MI</i>
2020–2022 <b>Women + Data Science</b> , Member	<i>East Lansing, MI</i>
2019–2022 <b>R-Ladies East Lansing</b> , Member	<i>East Lansing, MI</i>
2018–2022 <b>MSU Thai Student Association (ThaiSA)</b> , Member	<i>East Lansing, MI</i>
Jul 2018 <b>Burirum Pitthayakhom School</b> , Assisted in the educational guidance seminar for K-12 students	<i>Burirum, Thailand</i>
Mar 2018 <b>The Arc of Opportunity in North Central Massachusetts</b> , Cared for people with disabilities	<i>Fitchburg, MA</i>
2017–2018 <b>Math Club</b> , Member	<i>Groton, MA</i>
2017–2018 <b>Stage Crews</b> , Member; 6 hours/week working and learning art and technician skills for stage plays	<i>Groton, MA</i>
2017–2018 <b>LA Singers (High School Choir)</b> , Member; Soprano	<i>Groton, MA</i>
Nov 2017 <b>Rise Against Hungers</b> , Assisted in cooking foods/desserts and organized fundraising tables	<i>Groton, MA</i>