

Professional Profile

Deniz Akdemir is an innovative researcher in genomics and computational biology with extensive experience in statistical genomics, bioinformatics, and integrative genetic data analysis. His work focuses on developing computational pipelines and statistical methods to decode complex genetic information and drive forward precision medicine.

Core Competencies

- Genomic Data Analysis & Bioinformatics
- Statistical Genomics & Computational Biology
- Integrative Omics Data Processing
- High-Throughput Sequencing Analysis
- Data Visualization & Scientific Communication

Professional Experience

- **Senior Clinical Data Scientist**, National Marrow Donor Program (2023 - Current)
Led projects in next-generation sequencing data analysis, developing novel algorithms for variant detection and gene expression profiling.
- **Clinical Data Scientist**, National Marrow Donor Program (2021 - 2023)
Developed and maintained bioinformatics pipelines for large-scale genomic studies, contributing to significant discoveries in personalized medicine.
- **Postdoctoral Research Associate**, University College Dublin (2019 - 2021)
Assisted in research projects focused on integrative multi-omics analysis and statistical method development in genomics.

Education

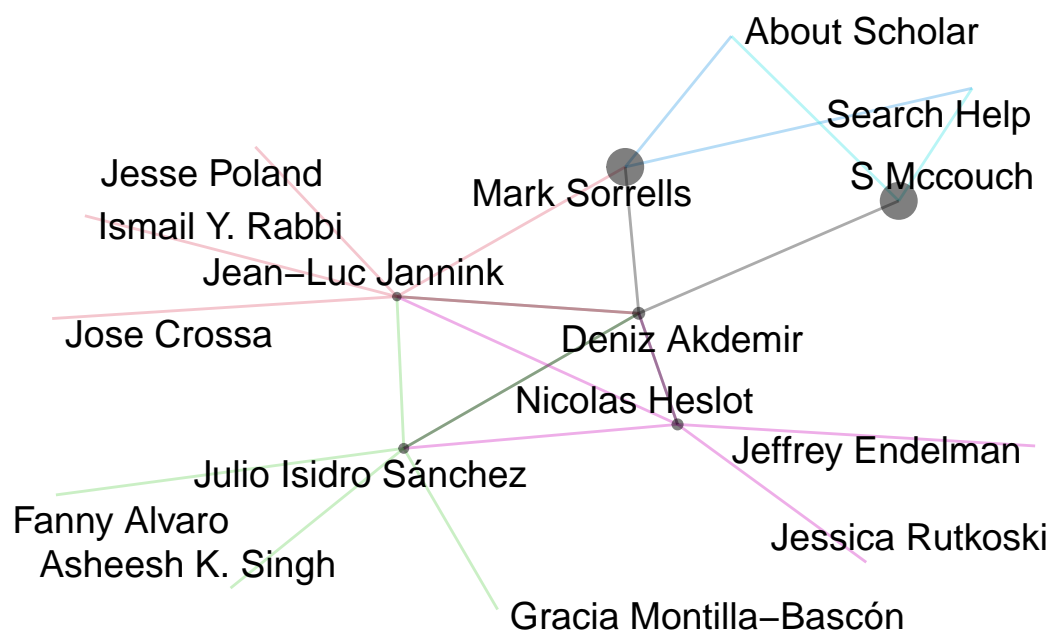
- **PhD. in Statistics**, Bowling Green State University (2009)
- **M.A. in Applied Statistics**, Bowling Green State University (2004)
- **M.S. in Statistics**, Middle East Technical University (2003)
- **B.A. in Business Administration**, Middle East Technical University (1999)

Research Interests

His research is centered on the integration of statistical methods with bioinformatics to elucidate genetic mechanisms underlying complex traits. He is particularly passionate about leveraging high-throughput sequencing and multi-omics data to uncover novel insights in genomics.

Collaboration Network

Network of coauthorship of Deniz Akdemir



Core Skills

- **Statistical Genomics:** Genomic selection, multi-trait methodologies, genomic prediction, GWAS, models for epistasis and genotype by environment interactions, optimization of plant and animal breeding programs.
- **Statistics:** Multivariate analysis, high-dimensional data modeling, Bayesian methods, machine learning, deep learning, data science, biostatistics.
- **Statistical Computation:** Proficient in R, SAS, Python, and C++ for statistical programming and analysis.
- **Software Development:** Development of research and commercial grade software.
- **Management and administration:** Strategic planning, project management, team leadership, grant/patent writing, budgeting, accounting.

Career Summary

- **Senior Clinical Data Scientist, National Marrow Donor Program, Minneapolis, USA (2023 - Current):** Engaged in statistical and machine learning analysis of stem cell transplant data, focusing on research into donor optimization. Applied for grants and submitted manuscripts to peer-reviewed journals. Wrote patent applications.
- **Clinical Data Scientist, National Marrow Donor Program, Minneapolis, USA (2021 - 2023):** Engaged in statistical and machine learning analysis of stem cell transplant data, focusing on research into donor optimization.
- **Postdoctoral Research Associate, School of Agriculture and Food Science, University College Dublin, Dublin, Ireland (2019 - 2021):** Conducted research on methods for combining heterogeneous genomic and phenotypic datasets and prepared statistical software for data analysis.
- **Statistical Consultant, Cornell Statistical Consulting Unit, Cornell University, Ithaca, NY, USA (2017 - 2019):** Provided statistical consulting services for researchers at Cornell University, including the preparation and presentation of statistics workshops.

- **Postdoctoral Research Associate, Department of Plant Breeding and Genetics, Cornell University, Ithaca, NY, USA (2011 - 2017):** Focused on research developing new methodologies in genomic selection and prediction, mixed models, and machine learning, advising graduate students and preparing statistical software.
- **Visiting Assistant Professor, Department of Statistics and Actuarial Science, University of Central Florida, Orlando, FL, USA (2010 - 2011):** Responsibilities included teaching Data Mining Methodology, Theoretical Statistics, Applied Time Series Analysis, and Nonparametric Statistics.
- **Visiting Assistant Professor, Department of Mathematics and Statistics, Ohio Northern University, Ada, OH, USA (2009 - 2010):** Taught Statistics for Professionals, Statistics for Engineers, and Statistical Computing, catering to various undergraduate levels.

Workshops and Training Sessions

- **Genomic Assisted Breeding Workshops:** Conducted workshops in the USA, Ireland, Spain, and Belgium, educating the agricultural community on genomic technologies.
- **Public Speaking:** Presented at various international conferences including EFI conference in Geneva and ASHI Annual Meeting in San Antonio.

Publications

Education

- **PhD. in Statistics,** Bowling Green State University, Bowling Green, OH, USA, 2009.
- **M.A. in Applied Statistics,** Bowling Green State University, Bowling Green, OH, USA, 2004.
- **M.S. in Statistics,** Middle East Technical University, Ankara, Turkey, 2003.
- **B.A. in Business Administration,** Middle East Technical University, Ankara, Turkey, 1999.

Professional References

- **Dr. Yung-Tsi Bolon**
 - **Affiliation:** Director, Immunobiology & Bioinformatics Research, NMDP, Minneapolis, Minnesota, United States
 - **Relationship:** Supervisor at the National Marrow Donor Program
 - **Contact:** ybolon@nmdp.org
- **Dr. Julio Isidro-Sanchez**
 - **Affiliation:** Associate Professor: Centro de Biotecnologia y Genomica de Plantas, Universidad Politecnica de Madrid, Instituto Nacional de Investigacion y Tecnologia Agraria y Alimentaria, Campus de Montegancedo - UPM, 28223-Pozuelo de Alarcon, Madrid, Spain
 - **Relationship:** Expert in plant breeding and genetics, collaborator on various projects
 - **Contact:** j.isidro@upm.es
- **Dr. Jhonathan Pedroso**
 - **Affiliation:** Research Scientist at Corteva Agriscience, Corteva, Johnston, Iowa, USA
 - **Relationship:** Industry partner in genomic tool development, contributed to software enhancements
 - **Contact:** jhowpd@gmail.com
- **Dr. Lynn Johnson**
 - **Affiliation:** Interim Director and Statistical Consultant, Cornell Statistical Consulting Unit, Cornell University, Ithaca, NY, USA
 - **Relationship:** Coworker at the Cornell Statistical Consulting Unit
 - **Contact:** lms86@cornell.edu

- **Dr. Roberto Fritsche Neto**
 - **Affiliation:** Assistant Professor, Department of Plant, Environmental Management & Soil Sciences, LSU
 - **Relationship:** Collaborator on various projects
 - **Contact:** rneto1@lsu.edu