

Dr. Bilgenur Baloglu

Molecular biologist, bioinformatics scientist
San Diego, CA

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PROFESSIONAL APPOINTMENTS

- Present-2025 Adjunct Professor, University of San Diego, MS-ADS, MS-AAI (part time)
- Present-2024 Co-founder, Chief Scientific Officer, Wild Genomics, CA, USA
- 2025-2021 Field Bioinformatics Scientist III, Thermo Fisher Scientific, CA, USA (full time, remote)
- 2024-2021 Clinical instructor for translational genomics, USC Keck School of Medicine, Los Angeles, CA, USA (part time)
- 2021 Bioinformatics lead, Sequential Skin, NYC, USA (full time, February-August)
- 2021-2020 Freelance science writer, Asian Scientist, Singapore (remote)
- 2020-2018 Postdoctoral Fellow, Centre for Biodiversity Genomics, University of Guelph, Canada
- 2018-2013 Graduate Research Assistant, Department of Biological Sciences, NUS, Singapore
- 2017-2014 Graduate Teaching Assistant, Department of Biological Sciences, NUS, Singapore

EMPLOYMENT HISTORY

- 2021 PVNet instructor, PVNet Technology Education Center, Los Angeles, CA, USA
- 2012 Field research assistant, KuzeyDoga Society, Turkey
- 2012 Intern, EMBL Structural and Computational Biology Department, Germany
- 2012 Project assistant and translator, Phenology Network of Turkey, Turkey
- 2011 Intern, HelmholtzZentrum muenchen, AGV Research Unit Gene Vectors, Germany
- 2011-2010 Research assistant, Bavarian State Institute for Agriculture (LfL), Germany
- 2011-2010 Intern, TUM School of Life Sciences Biopolymer Chemistry Department, Germany
- 2010 Intern, Koc University, Molecular Biology and Genetics Department, Turkey
- 2010-2008 Student assistant, ITU Erasmus Office

EDUCATION

National University of Singapore (NUS), Singapore — Ph.D. in Biological Sciences, 2018

Advisor: Dr. Rudolf Meier

Thesis: Biological assessment & monitoring of Singapore aquatic environments with NGS

Istanbul Technical University (ITU), Turkey — BSc. in Molecular Biology and Genetics, 2012

Advisor: Dr. Asli Kumbasar

Thesis: Characterization of Nuclear Factor I Protein Expression in Human Neural Stem Cells

Munich Technical University (TUM), Germany — Exchange studies in Molecular Biology and Genetics, 2010-11

GRANTS & AWARDS (Total to date: \$171,837 USD)

- 2022 Travel grant for TERIAS keynote speech
- 2020 Insight Health Data Science Fellowship (*rejected*)
- 2020 TEDx talk invitation (*cancelled due to Covid19 pandemic*)
- 2020-2018 Centre for Biodiversity Genomics Postdoctoral Fellowship
- 2019 Northern Research Fund and Food From Thought Grants for Sub-Arctic Research
- 2019 Centre for Biodiversity Genomics travel grant (2X)
- 2019 AllGenetics award for industrial applications using DNA barcoding and DNA metabarcoding
- 2018-2017 National University of Singapore travel grant (3X)
- 2018-2013 TEV-SINGA PhD scholarship
- 2011 European Molecular Biology Laboratory (EMBL) internship travel grant
- 2011-2010 Scholarship from Turkish National Agency for Erasmus Exchange Program

PUBLICATIONS

- [1] **Baloglu, B.**, Chen. Z., Elbrecht, V., Braukmann, T., MacDonald, S., Steinke, D. 2021. *A workflow for accurate metabarcoding using Nanopore MinION sequencing*. Methods Ecol Evol. 12:794–804.
- [2] Shepherd, B. A., Tanjil, M. R. E., Jeong, Y., **Baloglu, B.**, Liao, J., Wang, M. C. 2020. *Ångström- and Nano-scale Pore-Based Nucleic Acid Sequencing of Current and Emergent Pathogens*. MRS Advances, 5(56), 2889-2906.
- [3] **Baloglu, B.**, Clews E., Meier R., 2018. *NGS barcoding reveals high resistance of a hyperdiverse chironomid (Diptera) swamp fauna against invasion from adjacent freshwater reservoirs*. Frontiers in Zoology, 15(1):31.
- [4] Srivathsan, A.*, **Baloglu, B.***, Wang, W., Tan, W.X., Bertrand, D., Ng, A.H.Q., Boey, E.J.H., Koh, J.J.Y., Nagarajan, N. and Meier, R., 2018. *A MinION™-based pipeline for fast and cost-effective DNA barcoding*. Molecular ecology resources, 18(5), 1035-1049. *Equal contribution.
- [5] **Baloglu, B.** 2018. *Biological assessment and monitoring of Singapore aquatic environments* (Doctoral dissertation).
- [6] Lim, N.K., Tay, Y.C., Srivathsan, A., Tan, J.W., Kwik, J.T., **Baloglu, B.**, Meier, R. and Yeo, D.C., 2016. *Next-generation freshwater bioassessment: eDNA metabarcoding with a conserved metazoan primer reveals species-rich and reservoir-specific communities*. Royal Society Open Science, 3(11), p.160635.

OTHER PRODUCTS

- [1] **Baloglu, B.**, Chen, Z. Python-based bioinformatics algorithm for analyzing metabarcoding data obtained with Nanopore sequencing. [Github site](#)
- [2] Srivathsan, A.*, **Baloglu, B.***, Wang, W., Tan, W.X., Bertrand, D., Ng, A.H.Q., Boey, E.J.H., Koh, J.J.Y., Nagarajan, N. and Meier, R. Python-based bioinformatics algorithm for analyzing DNA barcoding data obtained with Nanopore sequencing. [Github site](#)

SEMINARS & INVITED TALKS

- [1] *National University of Singapore Department of Biological Sciences Seminar*, Singapore, 2025.
- [2] USDA meeting at US Embassy Singapore, 2025.
- [3] Invited as a panelist to “Brunch with Industry” by BME VGSA & the GSA of Keck, Los Angeles, 2023.
- [4] Bioinformatics panel speaker at the event “Let's B. Cereus: Biotech Beyond Human Health”, Los Angeles, 2022.
- [5] Keynote and panel speaker at the International Scientific Conference Invasive alien species threat: from theory to practice, Ankara, Turkey, 2022.
- [6] *Bilkent University National Nanotechnology Research Center Thursday Seminars*, Bilkent UNAM, Ankara, Turkey, 2022.
- [7] Invited as a panelist to *Academia and Biotech Symposium 2022*, University of Southern California, Los Angeles, California, USA, 2022.
- [8] *International Society for Computational Biology Seminar*, Regional Student Group Turkey, Virtual event, 2020.
- [9] *Ecology and Evolutionary Biology Society of Turkey Seminar*, Virtual event, 2020.
- [10] *Pattern Ag Seminar*, Virtual event, 2020.
- [11] *50th Ontario Ecology, Ethology, and Evolution Colloquium*, Virtual event, 2020.
- [12] *Great Lakes Restoration Initiative Meeting*, Cornell University Biological Station, USA, 2020.
- [13] *Food From Thought, Research Integration Symposium*, Guelph, Canada, 2020.
- [14] *Biodiversity Institute of Ontario Seminar*, Guelph, Canada, 2018.
- [15] *PVNetTechnology Education Center lecture* for high school students, Los Angeles, California, USA, 2021.

CONFERENCE PRESENTATIONS

- [16] *13th International Symposium on Health Informatics and Bioinformatics (HIBIT)*, Virtual event, 2020.
- [17] *London Calling 2020*, Virtual event, 2020.
- [18] *8th International Barcode of Life Conference*, Trondheim, Norway, 2019.
- [19] *Society for Freshwater Science Annual Meeting*, Salt Lake City, USA, 2019.
- [20] *5th Ecology and Evolutionary Biology Symposium*, Izmir, Turkey, 2018.
- [21] *3rd Southeast Asian Gateway Evolution Meeting*, Bogor, Indonesia, 2017.

- [22] 21st Biological Sciences Graduate Congress, University of Malaya, Malaysia, 2016.
- [23] 25th International Congress of Entomology, Orlando, Florida, USA, 2016.
- [24] International ITU 6th Molecular Biology and Genetics Student Congress, Istanbul, Turkey, 2012.

WILD GENOMICS START-UP EVENTS

- [1] Thrive Academy III Demo Day, Calgary, Alberta, Canada, Nov 2023 (presentation).
- [2] San Diego Innovation Showcase, San Diego, USA, May 2024 (presentation).
- [3] StartBlue Demo Day, Scripps Institute, San Diego, USA, May 2024 (presentation).
- [4] 2024 CA Specialty Crops Council Ag Chem Farm Tour, June 2024 (participation).
- [5] CA Specialty Crops Council Technical Committee meeting, August 2024 (online presentation).
- [6] San Diego Innovation Day, PetCo Park, San Diego, USA, Sept 2024 (booth).
- [7] 2024 Institute for Global Entrepreneurship (IGE) Showcase, San Diego, USA, Nov 2024 (booth).
- [8] Ocean Resilience Summit, BlueTech Week, San Diego, USA, Nov 2024 (presentation and booth).
- [9] Practical Farmers of Iowa (PFI) Annual Conference 2025, Des Moines, Iowa, USA, Jan 2025 (presentation).
- [10] Hong Kong Techathon+ 2025, Hong Kong, Jan 2025 (presentation).
- [11] US Embassy Singapore meeting with USDA representatives (presentation).
- [12] IGNITE22, AltaSea at the Port of Los Angeles, LA, October 2025 (booth).

START-UP FELLOWSHIPS & COMPETITIONS & MILESTONES (Total to date: \$63,000)

- [13] Got into top 5% in the application process of Sci-Founder Fellowship 2022 among 371 applicants for a prize of \$400k, got rejected in the final stage.
- [14] Accepted into Braid Theory Celsius Program for Jan-May 2022 batch but did not pursue it.
- [15] Became semifinalist at UNLEASH Global Innovation lab India 2022 program, then got rejected.
- [16] Became semifinalist in the Nucleate Activator Eco program for Jan-May 2023 batch, then got rejected.
- [17] Rejected from Activate Fellowship cohort 2023.
- [18] Accepted into NSF I-Corps Hub: Desert and Pacific Region Winter 2023 batch, completed successfully.
- [19] Rejected from the 2024 Farm Bureau Ag Innovation Challenge.
- [20] Accepted into Thrive 2023 Academy III cohort (total selected: 15, globally).
- [21] Accepted into Policy & Entrepreneurship Venture Lab, 2023-2024 cohort (total selected: 10 ventures, Southern California and Baja California only).
- [22] Accepted into Fall 2023 cohort of the Blackstone LaunchPad Program, UC San Diego (UCSD).
- [23] Accepted to San Diego Startup Week 2023 Lightweight Intercollegiate Pitch Competition (total selected 18 out of 100+ applications).
- [24] Accepted as StartBlue Cohort 3 (2024), offered in partnership by Scripps Institution of Oceanography and UCSD Rady School of Management.
- [25] Rejected from Manifest Climate grant, 2024.
- [26] Rejected from Activate Fellowship cohort 2024.
- [27] Won CA Cares (Climate Action, Resilience, and Environmental Sustainability) grant (\$50,000), 2024.
- [28] Won 2nd place and \$3,000 at the 2024 The Basement at UC San Diego pitch competition.
- [29] Became finalist at the Triton Innovation Challenge at UCSD, 2024.
- [30] Won 1st place and \$1,500 at StartR demo day at the Sullivan Center for Entrepreneurship and Innovation, 2024.
- [31] Accepted into The Lean Essentials Sprint by the Brink SBDC, 2025.
- [32] Got accepted into Hong Kong Techathon+, 2025. Won Sustainability Merit Award.
- [33] Received a Certificate of Special Congressional Recognition from Congress member Juan Vargas for our contributions to climate solutions in the San Diego region (28 April 2025).

WILD GENOMICS OR FOUNDING TEAM PRESS COVERAGE & INSTITUTIONAL RECOGNITION

- [1] "StartR Demo Day - Wild Genomics Pitch." UC San Diego Rady School of Management, YouTube, May 2, 2024, <https://www.youtube.com/watch?v=-ewTTWcgr2A>.
- [2] "StartR Impact – Wild Genomics: Revolutionizing Pest Detection with eDNA Technology." UC San Diego Innovation, YouTube, May 31, 2024, <https://www.youtube.com/watch?v=2mVgAMDDVAo>.

CV

Bilgenur Baloglu

- [3] "**4 UC San Diego Startups to Watch from Innovation Day 2024.**" *UC San Diego Today*, October 3, 2024, <https://today.ucsd.edu/story/4-uc-san-diego-startups-to-watch-from-innovation-day-2024>.
- [4] "**Wild Genomics Wins Second Place at The Basement's Demo Day Pitch Competition.**" *UC San Diego Today*, June 11, 2024, <https://today.ucsd.edu/story/the-basement-celebrates-student-entrepreneurship-with-demo-day-pitch-competition-2024>.
- [5] "**First Place: Wild Genomics at StartR Demo Day.**" *UC San Diego Rady School of Management*, LinkedIn, June 9, 2024, <https://www.linkedin.com/feed/update/urn:li:activity:7169122079710142464/>.

ADVISORY EXPERIENCE

Present-2024 Advisor and consultant, [Energy Innovators Network](#)

Present-2024 Member of the Industry Leadership Team, NSF-ATE Grant: Nanopore Sequencing Mini-Course-Based Undergraduate Research Experiences and Micro-Credentials for the Next Generation of Biotechnicians

CERTIFICATIONS

- 2020 "Deep Learning with PyTorch: Zero to GANs", [Jovian.ml](#)
- 2020 "Machine learning with Python", [Udemy](#)
- 2020 "Python: Python Programming for Artificial Intelligence and Data Science", [Udemy](#)
- 2019 SCUBA PADI open water diver
- 2019 Wilderness first responder

TEACHING & MENTORING EXPERIENCE

Mentoring Experience

10 UCSD undergraduate students, data team – April-Present (2024), Wild Genomics

Project: Reproducible bioinformatics pipeline for eDNA analysis using Nanopore sequencing

Sibora Peca, Cynnia Deng, Undergraduate students – May-July (2021), Sequential Skin

Project: Skin microbiome characterization using Nanopore sequencing

Britney Shepherd, Undergraduate Student – 2020-2021, University of South Florida

Project: Nanopore sequencing of current and emergent pathogens

Shanna MacDonald, Undergraduate Student – 2018-2020, Centre for Biodiversity Genomics, University of Guelph

Project: Metabarcoding of aquatic habitats with DNA sequencing tools

Jake Gonzales, Wan Ting Lee, Koa Jia Tong, Singapore Polytech Students – 2014-2016, Department of Biological Sciences, National University of Singapore

Project: NGS barcoding of aquatic midges of Singapore

Lecturer, Bioinformatics and programming with Python, StarDust Squad — May - July (2021)

I taught StarDust Squad, a community of high school, undergraduate, and graduate students from Turkey. I gave lectures and practical classes about coding with Python in Jupyter notebook environment, bioinformatics tools, and data visualization. I designed the module myself. [Github site](#)

Teaching Assistant, National University of Singapore; Singapore — 2014-17

I assisted in undergraduate biodiversity, animal behavior, and comparative genomics and evolution courses, where I was responsible for grading essays, homework assignments, and laboratory courses.

Teaching Practicum for Bioinformatics, Istanbul Technical University; Istanbul, Turkey — 2012

I structured teaching experience where bioinformatics lectures were planned and delivered for molecular biology and genetics majors for one semester.

ACADEMIC SERVICE

- 2022 Reviewer: Frontiers in Microbiology
 2020-2018 Reviewer: Molecular Ecology Resources, Ecology and Evolution, Scientific Reports
 2020-2018 Member: Ecology and Evolutionary Biology Society of Turkey, Society for Freshwater Science
 2020-2018 Project coordinator and consultant for Great Lakes research, US EPA
 2016-2014 Consultant, PUB, Singapore's National Water Agency
 2014-2012 Graduate Student Council Representative, Department of Biological Sciences, National University of Singapore
 2012 Organizer, Bioinformatics workshop, Istanbul Technical University, Turkey
 2012-2011 Young Scholar, Global Relations Forum, Istanbul, Turkey
 2010 Organizer, ITU 4th National Molecular Biology and Genetics Congress, Turkey

EQUITY & INCLUSION

- 2022-2020 Youth Mentor for high school and undergraduate students, StarDust Squad, Turkey
 2019-2018 Mentor for one undergraduate student, University of Guelph, Canada
 2016-2014 Mentor for three Singapore Polytech students, Singapore

PUBLIC OUTREACH

- 2022 Speaker, Career panel with Molecular Biology student club, TED Ankara College
 2022 Speaker, Career panel with Antalya Anatolian High School students
 2020 Public feature, Canada based Turkish language newspaper CanadaTurk:
“Awarded molecular biologist Bilgenur Baloglu’s journey from the tropics to the Arctic”
 2020 Public feature, Turkish newspaper Bianet: *“Biologist Baloglu: Don’t be afraid of being bold”*
 2020 Author, Barcode Bulletin (featured on the official US. EPA government website):
“What can’t be measured won’t be managed: Scientists and U.S. Environmental Protection Agency work together to conserve the Great Lakes”
 Author, Towards Data Science, Medium:
“Predicting ocean water temperature with machine learning”
 Author, Turkey's largest science website, Tree of Evolution:
“If we want to prevent the next pandemic, we have to value evolutionary biology”
 Author, Global Relations Forum & Turkish Society of Ecology and Evolutionary Biology:
“Ecological and evolutionary perspective on the novel coronavirus”
 2020 Speaker, Discord event with high school students from Turkey on biology and genetics
 2020 Public feature, Bilim Kadınları (Eng: Women Scientists):
 A Twitter thread: *“Woman scientist of the week, Dr. Bilgenur Baloglu”*
 2019 Author, Barcode Bulletin:
“Discovering a resilient and hyperdiverse midge fly fauna in a Singaporean swamp forest”
 2019 Research coverage, Science Magazine:
“\$180 million DNA ‘barcode’ project aims to discover 2 million new species”
 2019 Award announcement, AllGenetics postdoc award:
“Dr. Bilgenur Baloglu wins the «AllGenetics award for industrial applications using DNA barcoding and DNA metabarcoding» for environmental DNA study”
 2018 Public feature, Woman Doing Science Instagram, Facebook, and Twitter pages
 2018 Local newspaper coverage, Antalya Gundem Gazetesi, on my one day at a Montessori Kindergarten educating kids on ecology
 2017 Speaker, Noroblog Podcast: *“Insects and Humans”*
 2017-2012 Author and editor, Turkish science website Bilim.org