Kristy Mualim

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Education

Ph.D. in Biology, Evolution and Ecology — Palo Alto, CA

Stanford University, Advisor: Professor Moisés Expósito-Alonso — Sept. 2022 – Present

- Developing tools to understand plant adaptation & estimate genetic diversity loss to changing climates.

B.Sc in Biochemistry — Montreal, QC

McGill University — Sept. 2015 – Dec. 2018

- BL21 Research Scholar: Research Grant for Independent Student Researchers
- Yale Hackathon Award
- Chemistry Grant for Exceptional Students in Chemistry

Experiences

ENCODE Consortium Team Lead — Palo Alto, CA

Stanford University, Advisors: Professor Anshul Kundaje and Professor Jesse Engreitz — April. 2019 - Present

- Organized multiple bioinformatics challenge days to foster community collaboration and analysis in the field of Distal Regulation.
- Investigated the transcription factor landscape and mechanistic behavior of chromatin modifiers using deep learning algorithms.
- Organized and lead discussion groups of 30 interdisciplinary scientists to foster effective collaboration.
- Developed a comprehensive resource of enhancer-gene linking tools across 300 cell types and tissues for analyzing disease risk in humans.

Research Assistant — Berkeley, CA

University of California, Berkeley, Advisor: Professor Montgomery Slatkin — April. 2019 - April 2020

- Developed an analytical solution to estimating coalescence probabilities and population divergence times from SNP data in Neanderthals.

Publications

1. Exposito-Alonso, M. *et al.* Power and limitations of the mutations-area relationship toassess within-species genetic diversity targets for post-2020 Sustainable Development Goals. *EcoEvoRxiv* (2022).
2. **Mualim**, **K.**, Theunert, C. & Slatkin, M. Estimation of coalescence probabilities and population divergence times from SNP data. *Heredity* **127** (2021).
3. Nasser, J. *et al.* Genome-wide enhancer maps link risk variants to disease genes. *Nature* **593,** 1–6 (2021).
4. **Mualim**, **K.** *et al.* A Computational Validation of Enhancer-Gene Linking. *ENCODE Consortium* (2019).

Leadership Experience

Community Organizer — Palo Alto, CA

Sunrise Movement

- Spearheaded a compensation fellowship program focused on supporting under-served community leaders doing electoral work.
- Collaborated on defining 2020 Sustainability Goals and Passed new building reach codes in Palo Alto

Event Coordinator — Montreal, CA

Roots: Mental Health Alliance

- Collaborated with local organizations to plan art showcase events focused on elevating artists living with mental health issues, featured in Documentary by Green Lion Films.
- Initiated awareness programs and facilitated panel discussions to discuss mental health with experts

Finance Director Montreal,CA

BranchOut Mentorship

- Developed after-school art,cooking,woodworking programs for underfunded high schools
- Fund-raised and managed for resources, supplies for art programs

Projects/Awards

- **Scenes from the Anthropocene**: $25k seed grant to develop projects focussed on bringing community voices to conservation issues
- **Improving building accessibility with Machine Learning**: An app to advise cities on inclusive building accessibility standards. Awarded most innovative use of Machine Learning for Social Good.
- **Rising Voices Youth Award**: Awarded by the Sierra Club for our work on Alameda County Green New Deal and improving equity issues in the Bay Area.
- **Team Contribution Award**: Awarded a team that made an outstanding effort in the ENCODE Consortium
- **B21 Scholar**: Awarded to students with innovative research ideas
- **Tomlinson Engagement Award for Mentoring Award**: Awarded to one of the best students in class