CARIN RAGLAND
303 Sheridan Ave, Palo Alto, CA 94306 ▪ cragland@stanford.edu ▪ 301-832-0601

EDUCATION:

Stanford University, Palo Alto, CA **June 2023**
Doctor of Philosophy in Biology

Claremont McKenna College, Claremont, CA **May 2015**
Bachelor of Arts in Science and Management (Biotechnology)

RESEARCH EXPERIENCE:

Stanford University, Biology, Palo Alto, CA **May 2019—Present**
PhD Candidate, Dr. José Dinneny Lab
- Investigating the influence of root exudates on stress tolerance and root-microbe interactions
- Optimized root inoculation and negative staining to characterize *A. thaliana* root cap mutants
- Identified 2 new mucilage and 7 altered *Bacillus thuringiensis* colonization phenotypes

Stanford University, Biology & ChemE, Palo Alto, CA **July 2018—April 2019**
Rotating Graduate Student, Dr. José Dinneny Lab (Dr. Jenn Brophy)
- Designed, built, and tested two AND gate synthetic genetic circuits to control gene regulation systems in plants; created 2 novel circuit constructs which achieved buffer gate performance

Rotating Graduate Student, Dr. Elizabeth Sattely Lab (Dr. Eric Carlson)
- Boosted yields of cancer-treatment etoposides by 10-100x via 1) the transfer of medicinal plant genes to tobacco leaves and 2) transcriptional upregulation of substrate production

Beyond Meat, Research & Development, El Segundo, CA **June 2015—April 2018**
Research Associate II
- Performed protein analyses, textural assessments, and rapid prototyping to help characterize inputs, create new materials, and develop several animal protein alternative products
- Developed SOPs and training for molecular biology, textural analysis, and rheology methods
- Established and curated an R&D raw materials inventory for binding application inputs
- Attended IFT 2016 as one of three representatives: presented preliminary results to development scientists and account managers for feedback in scheduled meetings, identified new suppliers, and sourced improved and additional materials

W.M. Keck Science Department, Claremont, CA **September 2014—June 2015**
Research Assistant, Dr. Bryan Thines Lab
- Worked to elucidate the role of f-box genes in *A. thaliana* salt and abiotic stress responses
- Determined salt and ABA tolerance of knockout and over-expression lines via root imaging

Boyce Thompson Institute for Plant Research, Ithaca, NY **June 2014—August 2014**
REU Plant Genome Research Program Intern, Dr. Maria Harrison Lab
- Awarded $5500 to identify arbuscular mycorrhiza genes in *M. truncatula* via reverse genetics
- Prepared RNAi agrobacterium, transformed seedlings, and determined gene expression
- Measured fungal colonization to assessed symbiosis under different fertilization schedules

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PROFESSIONAL AFFILIATIONS:

American Society of Plant Biologists Member **August 2019—Present**

American Chemical Society Member **Feb 2017—Present**

Sigma Xi Associate Member **April 2015—Present**

HONORS & AWARDS:

NIH Training Grant **September 2019—September 2022**
- 3 years of funding for cell & molecular biology projects

Excellence in Teaching Award, Stanford Biology Department **June 2021**
- Served as TA for an animal and plant physiology course

Stanford Biosciences ADVANCE Summer Institute Fellowship **July 2018**
- Awarded $6500; program to increase URM interdepartmental communication

Kravis Leadership Institute Social Sector Sponsored Internship Program **April 2013**
- Awarded $3500 to address food inequality in Durham, NC with the agricultural non-profit, Natural Environmental Ecological Management for one summer

RELEVANT COURSES:

Undergraduate coursework:
- Economics (intro, micro & macro), Accounting, Cost Management, & Project Management

PhD coursework:
- Startup Garage (winter 2020)

OTHER WORK EXPERIENCE:

Agronaut LLC., Palo Alto, CA **January 2021—Present**
Owner, Managing Director
- Oversee the purchase, development, and management of real estate

Gerson Lehrman Group, Virtual **July 2020—Present**
Consultant
- Counsel clients in brief engagements to guide investments in the food industry

Second Nature Aquaponics, Pomona, CA **January 2014—September 2014**
Production Intern
- Assisted with the preparation of presentation materials, prototype manufacture, aquaponic system building and maintenance, greenhouse layout planning, and plant and fish care for a hydroponics apparatus start-up