POSTDOCTORAL RESEARCHER (PROTEIN ENGINEERING)

Department of Molecular Biosciences and Bioengineering
University of Hawaii, Honolulu, Hawaii, USA

CLOSING DATE: January 23, 2025, or until filled (ID# 224800)
INQUIRIES: Dr. Wei Wen Su wsu@hawaii.edu

Regular, Full-Time, Research Corporation of the University of Hawai'i (RCUH) Non-Civil Service position with the Department of Molecular Biosciences and Bioengineering, Su laboratory, located on the University of Hawai'i at Manoa (UHM) campus in Honolulu, Hawai'i, USA.

The postdoctoral researcher will work on innovative research that combines rational and combinatorial protein engineering, with high-throughput screening, to develop next-generation autoprocessing protein (AP) and conditional degron systems. These cutting-edge molecular technologies propel synthetic biology, metabolic engineering, and trait engineering forward, unlocking significant applications in medicine, agriculture, and industrial biotechnology.

MONTHLY SALARY RANGE: US$4,888 - US$5,250, plus health benefits.

DUTIES:

- Designs and generates gene constructs, and carries out genetic transformation for expression, primarily in yeast and plant systems.
- Designs and engineers AP variants to enhance performance using synthetic biology, rational mutagenesis, and directed evolution approaches.
- Validates improved AP in plant using agroinfiltration.
- Designs and conducts genetic and biochemical tests to probe the interplay between AP expression and cellular metabolism.
- Engineers conditional degron to enhance induction reversibility. Utilizes AP and degron systems in metabolic engineering.
- Assists in supervising grad students, and in preparing manuscripts, reports, and research proposals.

PRIMARY QUALIFICATIONS:

EDUCATION	PhD from an accredited college or university in Bioengineering, Biotechnology, Chemical Engineering, Biochemistry, Biophysics, Chemical Biology, Protein Chemistry, Molecular Biology, or a related STEM field. (PhD candidates may apply but must submit evidence of PhD completion upon hire).
EXPERIENCE	One to three (1-3) years of research experience in molecular biology, biochemistry, or protein chemistry. Experience may be obtained during PhD studies.
KNOWLEDGE	protein chemistry, protein engineering, understanding of synthetic biology, biochemistry and molecular biology
ABILITIES & SKILLS	• Expert ability and skills to design and create gene constructs. • Carrying out genetic transformation. • Using bioinformatic tools for protein modeling and analysis.

	• Strong analytical skills to hypothesize, design experiments, and interpret results. • Comprehending and analyzing relevant scientific literature. • Communicating in English.

SECONDARY QUALIFICATIONS:

- Research experience in protein directed evolution, mutant library development, and library screening.
- Experience in ubiquitin research.
- Experience in synthetic biology research.
- Experience in metabolic engineering research.
- Experience in engineering yeast, mammalian, and/or plant systems.
- Experience in computational protein structure analysis.
- Experience in CRISPR-related techniques.

APPLICATION REQUIREMENTS:

For a full list of requirements and to apply, please visit us at https://www.rcuh.com/work/careers/. You must submit the following documents online to be considered for the position: 1) cover letter (indicating how you satisfy the primary and some, if not all, secondary qualifications), 2) resume, 3) names and contact information for at least three professional references, 4) copy of degree(s)/transcript(s)/certificate(s). All online applications must be submitted/received by the closing date (11:59 P.M. Hawai'i Standard Time/RCUH receipt time) as stated on the job posting. If you do not have access to our system and the closing date is imminent, you may send additional documents to rcuh_recruitment@rcuh.com. If you have questions on the application process and/or need assistance, please call (808)956-7262 or (808)956-0872. Please visit https://www.rcuh.com/document-library/3-000/benefits/rcuh-benefits-at-a-glance/ for more information on RCUH's Benefits for eligible employees.

RCUH's mission is to support and enhance research, development and training in Hawai'i, with a focus on the University of Hawai'i.

RCUH is an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, national origin, ancestry, age, disability, genetic information, pregnancy, marital status, reproductive health decision, citizenship, gender identity or expression, domestic or sexual violence victim status, military/veteran status, or other grounds protected under applicable federal and state laws, except as permitted by law.