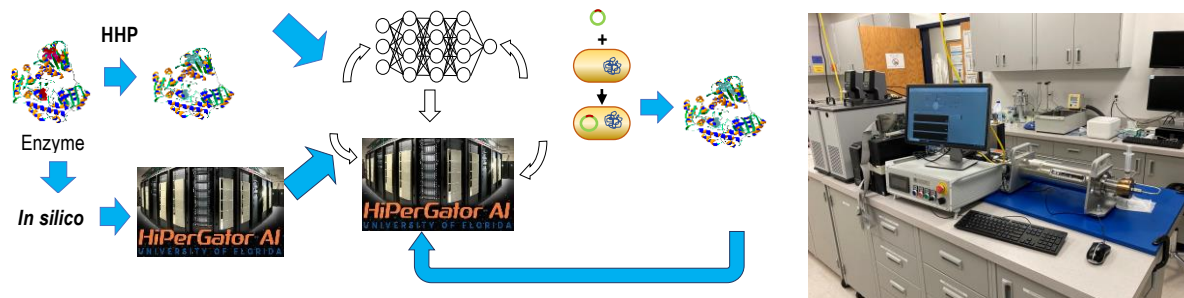


Pathfinder Doctoral Fellowship
Agricultural and Biological Engineering Department, University of Florida

AI-Driven Stabilization of Analytical Enzymes: A Combined *In-Silico* and *In-Vitro* Approach Inspired by High-Pressure Empirical Data.

Position Description:

Applications are solicited for a Graduate Research Assistant (GRA) position (Ph.D. Level) in the Agricultural and Biological Engineering Department at the University of Florida under the supervision of Drs. Reyes (Enzyme Catalysis) and Medeiros (Artificial Intelligence) groups. We are looking for a highly motivated and creative student interested in working on empirical laboratory research and mathematical modeling of enzyme structure in a highly interdisciplinary environment. Research focus includes characterization of enzyme stability and activity at high hydrostatic pressure, mathematical modeling of enzyme structure, *in-silico* design of stable enzyme variants creating computer programs that integrate AlphaFold capabilities, and/or *in-vitro* production of enzyme variants with increased stability.



Minimum Qualifications:

B.S. or B.E. and M.S. or M.E. in any of the following disciplines:

- Biological Engineering
- Chemical Engineering
- Biochemistry
- Biomedical Engineering
- Computer Science
- Computer Engineering

Applicants whose native or first language is not English must obtain a TOEFL score of 80 iBT or IELTS score of 6.5 or higher

Preferred Qualifications:

This position requires carrying out laboratory research, including enzyme kinetics, enzyme stability, and enzyme structure experiments as well as doing computer modeling and using tools such as AlphaFold. Prior experience in any of these areas is a plus. Proficiency with Python and experience with software libraries to design machine learning models are also highly desirable. Courses and/or previous research in physical biochemistry are a plus.

The UF/IFAS ABE Department is ranked among the top 5 programs in the nation and provides unique opportunities for in-depth research and field experience with award-winning department faculty and access to [HiPerGator](https://www.abe.ufl.edu/hi-per-gator/) one of the most powerful supercomputers available on a university campus.

How to Apply:

Interested applicants are encouraged to contact Dr. Jose Reyes (jireyes@ufl.edu) directly with a copy of your CV and research statement. Qualified candidates will be contacted separately for additional details (such as references). More information about applying for a graduate degree in Agricultural and Biological Engineering can be found at <https://abe.ufl.edu/graduate/admissions/>. *Please do not apply formally or pay any fees without making the inquiry first.*