

Title: Postdoctoral position available at the Water and Life Interface Integration Institute – University of Wisconsin-Madison

About the Position: A postdoctoral position is available immediately at University of Wisconsin-Madison. A highly motivated individual is sought to analyze molecular and cellular changes associated with desiccation tolerance in plants and other organisms. These studies will integrate advanced light and electron tomography imaging with molecular genetics and biochemistry, in the laboratory of Dr. Marisa Otegui.

About the Water and Life Interface Institute (WALII, pronounced “Wally”):

[WALII](#) studies how life interacts with water, from the molecular to the organismal level, across plants, fungi, and animals. WALII is a virtual institute, with scientists located at nine research facilities across the United States. Working together, WALII team members aim to uncover the rules by which organisms interact with water, exploring four integrated themes: 1) the physical and molecular determinants that allow organisms to survive in the solid state; 2) rehydration responses in desiccation-tolerant and -sensitive systems; 3) the molecular grammar of desiccation tolerance conferred by intrinsically disordered proteins; and 4) the short- and long-term evolutionary history of desiccation tolerance. WALII team members have diverse expertise, ranging from biophysics to plant biology, and experience with several desiccation-tolerant and -sensitive systems.

The institute’s long-term goals are to understand how organisms can tolerate desiccation; invent technologies and concepts to study anhydrobiosis; engineer macromolecules, cells, and organisms that can survive desiccation; and produce the next generation of leaders in all sectors of our society. To achieve these aims, WALII provides mentoring, outreach opportunities, and professional development for all affiliated scientists. That includes funding support for travel to scientific conferences, and internal professional development/training programs.

Responsibilities:

- Molecular and genetic characterization of desiccation tolerance organisms.
- Processing and analysis of biological samples, using different microscopy modalities.
- Structural analysis of cellular compartments, membranes, and molecular complexes by electron tomography.
- Analysis of results and manuscript preparation.
- Training of undergraduate and graduate students.

Required Skills:

- Ph.D. in biochemistry, cell biology, imaging, plant biology, genetics, or a related field.
- Experience with microscopy imaging.
- Excellent written and oral presentation skills and the ability to work collaboratively with others.

Preferred Qualifications:

Experience with transmission electron microscopy and cryo-electron microscopy.

How to apply: Submit your CV, a letter explaining your motivations for applying to this position, and a list of three people who can provide a reference letter to Dr. Marisa Otegui.

(otegui@wisc.edu).

Starting date: as early as January 2, 2022.

DEI Statements:

WALII is deeply committed to scientific excellence and diversity. We strongly encourage applications from candidates who will enrich and foster a diverse and inclusive environment.

All WALII member institutions are equal opportunity employers. All applicants will receive consideration for employment without regard to race, color, religion, gender, sexual orientation, gender identity or expression, national origin, age, genetic information, disability, veteran status, or any other characteristics protected by law.