

**Dr. Solange Duhamel** is an Associate Professor in the Department of Molecular and Cellular Biology at the University of Arizona, with joint appointments in the BIO5 Institute, Lunar and Planetary Laboratory, Environmental Science, and Ecology & Evolutionary Biology. Her research focuses on understanding the role of microorganisms in marine biogeochemical transformations, with particular emphasis on phosphorus cycling.

Dr. Duhamel received her Ph.D. in Marine Environmental Science from Aix-Marseille University in France, where her dissertation examined the coupling between carbon and phosphate fluxes in relation to microbial community structure. She completed postdoctoral training at the University of Hawai'i's Center for Microbial Oceanography and at the Woods Hole Oceanographic Institution before joining the faculty at Columbia University and later at the University of Arizona.

Dr. Duhamel is an expert on microbial phosphorus dynamics in the ocean. She has pioneered single-cell approaches using flow cytometry to study phosphatase activity and phosphorus utilization by marine microorganisms and has led multiple US-NSF-funded projects investigating how these organisms utilize and store dissolved organic phosphorus compounds. Most recent funded projects in the Duhamel Lab have focused on investigating compound-specific phosphorus hydrolase transformations and polyphosphate cycling in marine ecosystems. Her work has illuminated how picocyanobacteria and other plankton access and cycle organic phosphorus in marine environments.

She is the author of two recent reviews about phosphorus cycling: "Phosphorus as an integral component of global marine biogeochemistry" (*Nature Geoscience*, 2021) and "The microbial phosphorus cycle in aquatic ecosystems" (*Nature Reviews Microbiology*, 2025). With over 70 peer-reviewed publications, her research spans the world's oceans, from the oligotrophic subtropical gyres to the Amazon River plume.