

ALOK ARUN

My name is Alok Arun, and I serve as Associate Professor at the Inter American University of Puerto Rico. At the university's Institute for Sustainable Biotechnology, with external funds from agencies such as the National Science Foundation, I have established a laboratory dedicated to algal genomics studies and other facilities such as a raceway ponds for cultivation of algae in Puerto Rico. My research interests fall into two areas: understanding the evolution of the multicellular organisms using algal model systems and developing genomics tools for yellow green alga *Vaucheria* to elucidate the development of the siphonous form. In collaboration with our partners at research-centric institutions, we work on investigating questions that will eventually help us have a clearer picture of how single-celled forms may have evolved into higher complex organisms with varying degrees of cellular specialization.

Our research is carried out with a strong focus on nurturing the next generation of researchers and mentoring activities of undergraduate students are a key aspect of my work. Students at various levels of study work on short- and long-term research projects and gain experience and exposure. We've also laid a strong foundation at our institution for algal literacy in Puerto Rico and efforts are underway to also educate the community about the often-undermined value of algal resources. A newly established Interactive Marine Biology Museum at the university has quickly become a focal point for improving student and public awareness and understanding about marine resources, particularly algae.

Brief academic background

Alok Arun is currently an Associate Professor in the Department of Science and Technology at the Barranquitas campus of Inter American University of Puerto Rico, Puerto Rico. He obtained a PhD in Developmental Biology and Genomics from Pierre and Marie Curie University, France. This was followed by postdoctoral research at Catholique University of Louvain in Belgium. His research interests lie in origin and evolution of plants and algae, and in his present position he utilizes next generation molecular and imaging techniques with the goal of developing scientific and community resources for blue agriculture in Puerto Rico and beyond. He has been recently conferred with AAAS Caribbean Division Student Mentorship Award 2024.

List of five publications:

1. J Mark Cock, Simon Bourdareau, Olivier Godfroy, Alexander Cormier, **Alok Arun**, Delphine Scornet, Akira F Peters, Susana M Coelho, France Denoed, Leila Tirichine-Delacour. (2021). Brown algal genomics and epigenomics. **Phycologia** 60, 49-50.
2. **Alok Arun***, Susana Coelho*, [...], Mark Cock (2019). Convergent recruitment of TALE homeodomain life cycle regulators to direct sporophyte development in land plants and brown algae. eLIFE. (<https://doi.org/10.7554/eLife.43101.002>) (*joint first authors)
3. Priyanka Varma, **Alok Arun** & Dinabandhu Sahoo (2016). Brown algae. **The Algae World**. Eds. D B Sahoo & Joseph Seckbach. Series Cellular Origin, Life in Extreme Habitats and Astrobiology (Springer Netherlands). 26, 177-204. (<https://doi.org/10.1007/978-94-017-7321-8>)

4. **Alok Arun**, Nick Peters, Delphine Scornet, Akira F Peters, Mark Cock & Susana Coelho (2013). Non-cell autonomous regulation of life cycle transitions in the model brown alga *Ectocarpus*. **New Phytologist**, 197(2), 503-510. (<https://doi.org/10.1111/nph.12007>)

5. Jonas Collen, [...], **Alok Arun**, [...], & Catherine Boyen (2013). Genome structure and metabolic features in the red seaweed *Chondrus crispus* shed light on evolution of the archaeplastida. **Proc Natl Acad Sci USA (PNAS)**, 110(13), 5247-5252. (<https://doi.org/10.1073/pnas.1221259110>)