Stanford

Alexandre Six

Postdoctoral Scholar, Pathology

Bio

BIO

My research is grounded in my curiosity about the living world and my desire to contribute to impactful, concrete discoveries. I began my journey in the world of biotechnology and microalgae during my studies at UTC in France, where I grew Volvox algae for tissue engineering purposes. Since then, I have been interested in studying and developing the potential of microalgae. During my PhD at CEA Cadarache, I investigated starch production in green microalgae for use in bioplastics. This work involved studying the induction, physiology and light requirements of starch accumulation, as well as developing a bioprocess for starch extraction, purification and plasticization. Working with Yonghua Li-Beisson, I have generated mutant strains of Ostreococcus tauri, one of the smallest known eukaryotes, to study the evolution of lipid metabolism in algae and plants. Here at Stanford, I am developing a genetic toolbox for non-model cyanobacteria in the Yeh lab.

STANFORD ADVISORS

- Ellen Yeh, Postdoctoral Faculty Sponsor

LINKS

- Google scholar: https://scholar.google.com/citations?user=9dZ7he4AAAAJ&hl=en
- LinkedIn: https://www.linkedin.com/in/alexandre-six-21699410a

Publications

PUBLICATIONS

- **Microalgae, sunlight, and starch: low cell concentration is optimal for outdoor production under nutrient stress** *BIORESOURCE TECHNOLOGY*
  Six, A., Chambonniere, P., Alvarez, P., Fon-Sing, S., Lancelon-Pin, C., Putaux, J., Sassi, J., Li-Beisson, Y., Fleury, G.
  2026; 443: 133840