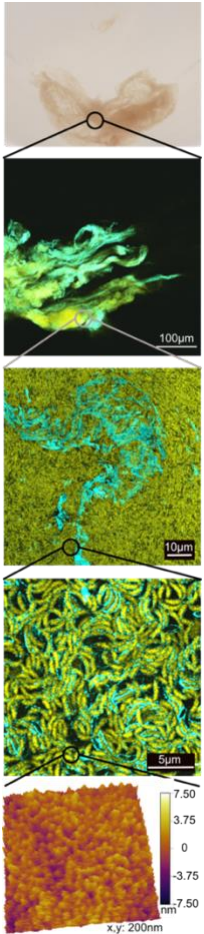


The Caroline Ajo-Franklin Group

at  RICE UNIVERSITY

Interested in engineered living materials? Join our group as a post-doc!



Our research group focuses on understanding and engineering the interface between living microbes and non-living materials. We are particularly interested in mechanisms underlying charge transfer and assembly of materials at this living/non-living interface. We then use this information for applications in environmental sustainability, bioremediation, and human health. We relish the multidisciplinary nature of our research, which blends microbiology and molecular biology with electrochemistry and materials science.

We seek an enthusiastically collaborative postdoctoral fellow to join our multidisciplinary team of microbiologists, synthetic biologists, and biophysicists working to develop and understand engineered living materials (ELMs). Our ELM work is built upon the secretion and assembly abilities of surface-layers, as they are in many respects ideal nanoscale building blocks. We work primarily with *Caulobacter crescentus*, as it has one of the most-thoroughly analyzed S-layers, is oligotrophic, and is genetically tractable. This position will focus on analyzing the interactions occurring within our ELMs and developing strains that produce ELMs with different characteristics, both functional and physical.

In our group, postdoctoral fellows leverage their existing expertise to expand their skills into new areas. Dr. Ajo-Franklin encourages her postdoctoral fellows to improve scientific writing and communication abilities through conferences presentations, drafting manuscripts, and contributing to grant proposals. Postdoctoral fellows are also provided opportunities and guidance to develop their mentorship abilities by helping graduate students and undergraduates grow into confident, knowledgeable, and independent researchers. Postdoctoral fellows are encouraged to develop their own projects and envision their future research as a Primary Investigator or in industry. Find out more about our group at CAFGroup.Rice.edu.

Salary will be commensurate with experience. This is a 1 year appointment available to start in January 2023, with the possibility of renewal for two additional years.

To apply: Please send a curriculum vitae and cover letter summarizing your interests to Dr. Caroline Ajo-Franklin at cajo-franklin@rice.edu.

Our group values: We believe diverse and kind minds make the best science. In a field where aggression can be taken to be a sign of intelligence, our group aims to be aggressively kind. We hold mutual respect, open mindedness, and support as catalytic for great science. You'll find that as passionate as we are about pushing the boundaries of research, we are just as passionate about advocating for each other. We make time to get to know each other, cheerlead for each other, and provide accommodations for each other. We lead with a healthy, joyful approach to research careers. Led by a PI who knows the challenges underrepresented groups and international scholars face, we value full inclusion and believe a wide array of perspectives is required for transformative science. We're proud to say our group has historically been split evenly between men and women, hail from five different continents, and includes underrepresented minorities, such as disabled scientists and scientists from non-traditional backgrounds. We insist that no one should be excluded from the scientific community on the basis of their body, socioeconomic, religion, or orientation. You also do not need to be an expert in synthetic biology, have a lineage in academia, or come from a highly ranked university to benefit our group and research.

There are no molds to fit into here.

Hierarchical

ELMs:

Cm-scale living material (in flask, top) appears as cells bound by a recombinant protein matrix (confocal, middle images). AFM of the surface is brush-like in ELM strain as opposed to RsaA surface-layer's usual hexagonal lattice (bottom).

Molinari, Nat. Comm., 2022