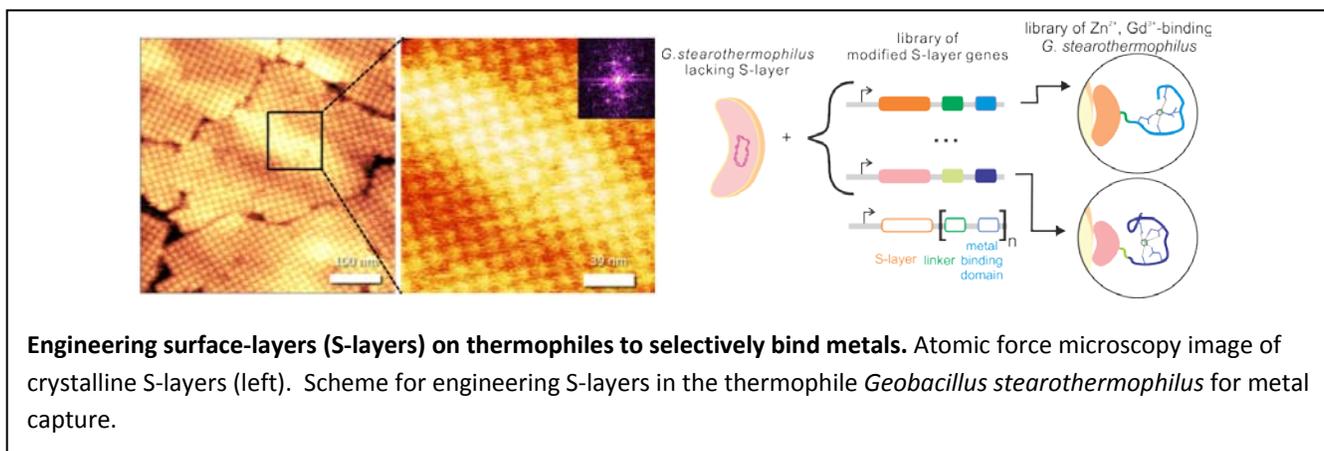


Join the Ajo-Franklin Research Group!

The Ajo-Franklin group uses biophysics and synthetic biology to explore the nanoscale interface between living microbes and inorganic materials. We are particularly interested in the basic mechanisms underlying charge transfer and material binding at this living/non-living interface. Ultimately, our research has applications in carbon-neutral energy production, hybrid biotic-abiotic systems, and nanostructure assembly. Our labs are part of the Molecular Foundry at Berkeley Lab in Berkeley, CA. More info at: <http://cafgroup.lbl.gov>



Engineering surface-layers (S-layers) on thermophiles to selectively bind metals. Atomic force microscopy image of crystalline S-layers (left). Scheme for engineering S-layers in the thermophile *Geobacillus stearothermophilus* for metal capture.

We seek a new member to join our multi-disciplinary team of synthetic biologists and geochemists working to explore whether thermophilic bacteria can be engineered to selectively capture dilute, valuable target metals from waste water. To achieve this goal we are engineering bacteria to display highly-selective metal-binding protein domains on their outermost surface – the S-layer. The new team member would be responsible for engineering these organisms and characterizing them biochemically. This person would also collaborate with the rest of the team to test their metal-binding capabilities in bench scale flow through reactors.

About the Foundry: The Molecular Foundry at Lawrence Berkeley National Laboratory (Berkeley Lab) is a knowledge-based user facility for the design, synthesis and characterization of materials with nanometer dimensions. Its charter defines two primary missions: a) conduct outstanding research across the breadth of nanoscience; and b) collaborate with scientists from around the world who visit to use its state-of-the-art instruments, techniques and expertise to further their own nanoscience research efforts (<http://foundry.lbl.gov>).

Qualifications required: B.S., M.S. or Ph.D. in molecular and cellular biology, bioengineering, biochemistry, microbiology or related field. Knowledge of microbial cell biology and molecular biology. Experience in molecular biology (PCR, recombinant DNA, protein over-expression and purification), microbial cell culture, biochemical analysis. Ability to communicate results effectively. Self-motivated, able to work as part of a team.

Salary will be commensurate with experience. This is a 1 year appointment to start in July/August 2015, and could be potentially renewed if funding is available.

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