**Faculty mentor:** Jeff Wine

**Research supervisor(s) (name, position, email)**
Meagan Shinbashi, LSRA, mshinbas@stanford.edu
Nam Soo Joo, Senior Research Scientist, nsjoo@stanford

**Project topic(s):**
1. Using pharmacologically stimulated sweat rate measures to assess function of the ion channel that is defective in cystic fibrosis.

**Brief description of scientific issues:**

Cystic fibrosis is caused by mutations that eliminate function in an ion channel. New drugs that restore partial function are being developed and some are in the clinic. The first project accurately measures the amount of function and seeks to understand the basis of interpersonal variation in response. The second project uses advanced methods to detect changes in the properties of pure gland mucus as a result of variations in eliciting conditions and genomic status of subjects.

**Skills required:**

Excel and Word

**Skills to be learned:**

- MatLab
- dissection
- ImageJ
- microscopy skills
- laboratory protocols and record keeping
- EndNote
- ability to search relevant literature