# Joint UC Berkeley – UCSF Master of Translational Medicine Capstone Project Request for Proposals

## Background

The UC Berkeley – UCSF Master of Translational Medicine (MTM) program provides students with in-depth training in the pathways that take research discoveries from the lab toward active clinical care. The centerpiece of the curriculum is a nine month capstone project conducted under the guidance of a mentor. We invite you to submit your potential project to act as a project advisor for an MTM team in the coming year.

During the MTM program, students take classes and develop skills across the translational process, including technical engineering aspects, general business leadership, healthcare finance, intellectual property, clinical trials, and FDA regulations (see <http://uctranslationalmedicine.org/> for additional information). Student work in many classes is directly related to their capstone project. The MTM program seeks projects at various stages of the translational process – from pre-prototype, early prototype and business development to collecting pre-clinical data to preparing for interactions with regulators – which provide students with exposure to the entire range of skills required for successful medical innovation. Student efforts may include technical engineering development such as producing prototypes, understanding clinical or market needs, regulatory, validation, or business development such as participating in scientific method for entrepreneurship classes (e.g., Lean Launchpad). The students come to the MTM with a variety of backgrounds, including engineering (primarily bioengineering, biomedical engineering, or materials science), life science (including biology and neuroscience), and business. A number of MTM students have clinical backgrounds, including MD and RN. While many successful projects involve medical devices, we are interested in diverse opportunities including therapeutic, diagnostic, or digital health that provide students with the experience of moving new ideas into practice in a clinical setting.

## Anatomy of a Successful MTM capstone

* Project engages a range of skills and seeks to hit varied milestones (e.g., technical development alongside planning path to market and regulatory strategy).
* Teams receive regular opportunities for mentorship and advice, such as general lab meetings and one-on-one meetings. Ideally, teams have active mentor contact (in person, or by phone, email, or teleconference) on a weekly basis. The mentorship team should include broad and deep expertise to guide students towards their deliverables.
* The project should provide sufficient resources – such as equipment, workspace, and funding – such that students make reasonable progress throughout the year.
* Students must be able to discuss their work, including intellectual property (IP) issues, in the context of classes and in a final symposium.

## Application Process and Timeline

The MTM program runs from mid-August of 2016 through mid-June of 2017. During this time, students are expected to work ~10-15 hours per week in the early stages (through December) ramping up to 20+ hours per week in the spring. The program culminates in a symposium in mid-June at which all capstone teams present the outcome of their year of effort.

Project proposals are vetted by the MTM leadership to ensure they contain elements needed for successful student learning. During this process, the MTM program may reach out to proposing teams for clarification of their plan or to request improvements.

Selected project descriptions are shared with students at the beginning of the program. In late August, teams will present their projects to the students, with opportunity for discussion. Following all the presentations, students will rank their interest in each project. Mentors will have an opportunity to comment on the resumes of the students who are interested in working with them, highlighting the skills the value most highly. Final teams of 2-4 students will be established by the MTM program in mid-September, and will be ready to begin work immediately.

### A project proposal consists of

* A cover sheet (use template on following page)
* Project Narrative (1-2 pages)
  + Description of clinical issue to be addressed
  + Outline of the solution the team will pursue
  + Current status of effort (including any preliminary results or outcomes)
  + Resources available for the project (such as workspace, funding, partnerships)
* Mentorship Plan
  + Describe how mentors intend to interact with the students, such as type of work environment (laboratory, company, or team working on their own), frequency of lab meetings, and availability of personnel. As appropriate, describe project management plans.
* Work plan (including milestones expected in the coming year)
* Desired skill sets in capstone team
* References or background reading (optional)

Please submit completed proposal to the Executive Director ([mooseo@berkeley.edu](mailto:mooseo@berkeley.edu)**) by June 30, 2016.**

<Project Title>

<Team Leader (Name, title, email)>

<Sponsoring organization or entity>

<Additional Key Personnel>

<Project Summary (max 250 words)>

Ideal Team Size (Generally 3-4 students):

Project location:

*We understand that MTM student teams will need to present information about their project in classes throughout the year at a final symposium that will be public. We will work to resolve any sensitive IP strategy issues to make this possible.*

**Please submit completed proposal to** [**mooseo@berkeley.edu**](mailto:mooseo@berkeley.edu)