The **Capstone Scholarship and Discovery** (CSD) course represents the key principles of the University of Massachusetts Medical School (UMMS) Learner-centered Integrated Curriculum (LInC). For undergraduate medical students (non-dual degree), it is a four-year longitudinal curricular experience that is a graduation requirement for all classes beginning with students entering in 2012. Through this course, each student completes an individualized scholarly project that puts into practice one or more of the UMMS core competencies (Physician as Professional, Scientist, Communicator, Clinical Problem Solver, Advocate, and Person), allowing students to build on a personal passion as it relates to medicine. Students earn four credits upon completion of the CSD course. The CSD course is required for graduation; "credit" or "no credit" is assigned for the course.

Capstone Course for students in the Clinical Translational Research Pathway (CTRP) students that complete a 5th Year Option MSci

The Capstone course will help trainees prepare for their future careers as physician scientists. It will also help to address a major challenge: balancing the clinical and research components of their training. This is pivotal, because successful physician-scientists are those who can balance these worlds simultaneously.

OVERVIEW

- **Capstone Scholarship and Development Course (CSD) Co-leaders**: Rachel Gerstein, PhD, Course Co-Leader; Eustathia Lela Giannaris, PhD, Course Co-Leader; Christina Hermos, MD MSc, Course Co-Leader; Carolina Ionete MD PhD, Course Co-Leader; Yunsheng Ma, MD PhD MPH, Course Co-Leader; Sarah McAdoo MD MPH, Course Co-Leader; Colleen Burnham, MBA, Program Manager.
- **Office of Undergraduate Medical Education:** Melissa Fischer, MD, MEd, Associate Dean for Undergraduate Medical Education; Sonia Chimienti, MD, Associate Dean for Student Affairs.
- **CTRP program**: Silvia Corvera, MD, CTRP Program Co-Director, Catarina Kiefe PhD MD,CTRP Program Co-Director, Anne Michelson, MBA, Graduate Programs Administrator.

Summary: MSci CTRP students will participate in career development and skill-building activities primarily under the direction of the CTRP Program Co-Directors. Given the intensive training that these students receive with respect to scientific scholarship, a separate Capstone project (in addition to their Master's dissertation) is not required. To fulfill the curricular requirement of the Capstone Course, these students will participate in Capstone Presentation Day during their AS year by presenting their Thesis work with an emphasis on integration of their work and its clinical utility and implications.

Note: This change will be in effect as of April 1, 2018 for all MSci students (current and incoming). Students that started Medical School before Fall 2012 are exempt.

PROGRAM OUTLINE

1st year (FOM1)
Students take MDP 740A or CTS604, focus on Medical School coursework, and identify possible areas of research focus. This part of the Capstone course will be overseen and reviewed by the CTRP Directors. No formal Capstone project reporting will be required, as the CTRP includes mechanisms that promotes individualized student development. (Current students may have taken MDP740)

Summer between FOM1 and FOM2
Students complete research projects overseen by the Principal Investigator of the laboratory in which the project takes place.

2ⁿᵈ year (FOM2)

Students take MDP 740A or CTS604 (if they did not do so during their first year). Students will continue Medical School coursework and develop ideas for thesis research. This part of the Capstone course will be overseen by the CTRP Program Director. No formal Capstone project report will be required (Current students may have taken or be taking MDP740)

GSBS RESEARCH YEAR (SCHOOL OF MEDICINE LOA FOLLOWING THE FIRST THEMATIC SECTION OF THE CCE)

3ʳᵈ Year (CCE); return to CCE

Students rotate in clinics full-time and participate in additional CCE year educational opportunities. During this period, they will keep in contact with Thesis advisor and collaborators. This section will be overseen by the Program Director**.** Students will be required to meet with their Thesis Advisor to discuss progress in preparation for AS year Capstone Presentation Day participation.

4ᵗʰ Year (AS)

Students prepare for Capstone Presentation Day and complete their Capstone Month. This period will be overseen by the Thesis Mentor *with support from* Program Director as well as the student's Capstone Course Co-leader (House Affiliate)*.*

Students will pick either option 1 or option 2 for their presentation:

Option 1: Discuss the student's **Thesis project**, with emphasis on translation to "lay language". It is expected that this presentation builds on the Thesis Project, and integrates new data that has been published since the time of the thesis defense. In addition, the presentation must consider the potential relevance to clinical practice of either the specific project or the long-term goals of the research team.

Option 2: Discuss the student's Thesis **topic** (and related topics) with an emphasis on clinical relevance and translational potential.

Students Participate in Capstone Presentation Day | March (Match Week)

Students elect to present either a poster or a short podium presentation.
- Evaluation will be given by Thesis Mentor (required), CTRP Program Director as well as Capstone Faculty Committee members and peer colleagues. (In the event of scheduling conflicts, the Thesis Mentor may designate a colleague or invite the Program Director to serve as the evaluator).
- Grading is credit/no credit, and is assigned by the Capstone Course Co-leaders.

Reflection on the Capstone course

Students write a short reflection piece, answering a series of prompts or questions, designed to engage students in self-reflection, "lessons learned" and looking to the future, based on their experience in the Capstone Course; this will be required and is to be completed by April of the AS year.

Credits: 4 Credits total for the Capstone Course. Awarded after successful completion (April AS year). 3 Credits are awarded upon successful completion of MDP740A, or CTS 604, and 1 credit is awarded at completion of the requirements during AS Year.