

Description of the Academic Nature of the DETR

Admissions Criteria

Ph.D. graduate students in good standing in the affiliated programs must declare an interest in the DETR program after completing the first Ph.D. year, to have an optimal career impact, precisely when they are selecting dissertation mentors and formulating dissertation research proposals. They will have completed basic didactic instruction in their chosen discipline, instruction in essential laboratory techniques, and rotations through various faculty laboratories. Graduate students will be recruited based on: 1) academic credentials; 2) motivation for translational biomedical research; and 3) fit with the DETR goals. We will further increase the diversity of DETR trainees by including the following selection criteria: documented activities which have improved the health, education, or well-being of ethnic and racial minorities, gay and lesbian persons, disabled persons, and/or persons of low socioeconomic status. Students must be selected as DETR Trainees prior to taking the Ph.D. Qualifying Examination of their degree program.

Curriculum

1) Required Courses for the DETR

No changes are required in the curricular requirements for existing Ph.D. programs. The curriculum of the designated emphasis will consist of the following major components (11 required units):

- a) ***Integrating Medicine into Basic Science (CLH 250, approval pending, 6 units)***, a four-week DETR summer institute to acculturate trainees to the clinical environment, integrate medical principles into their research, and highlight high-impact clinical studies. The institute includes “*Doctoring*,” a small-group, case-based course where DETR trainees along side medical students, learn patient communication, clinical problem solving, and applications of psychosocial, cultural, bioethical, and basic science concepts to patient case scenarios.
- b) ***Congestive Heart Failure, Molecular Mechanism of Disease (CLH 230, 3 units)***, a new course designed to introduce the molecular mechanisms of disease as related to cardiovascular health.
- c) ***General Clinical Research Center (GCRC) clinical study coupled with a rotation through the CTSC (Clinical and Translational Science Center) (CLH 231, submitted, 1 unit)***. Leaders of CRISP units will reinforce trainees’ appreciation of the GCRC clinical study by providing knowledge and skills in technical, logistical and regulatory requirements for conducting clinical research.

- d) **Hot Topics in Clinical Research Seminar Series and Journal Club (CLH 290A, approval pending, 1 unit)**. A new DETR two-part seminar series for presenting landmark papers in vascular medicine and research plus discussions by “stakeholders” (legislators, state agency officials, community advocacy groups and underserved minority groups). Also attend other existing journal clubs and seminars, sponsored by clinical units and not typically attended by biological PhD students.

Individualized Electives:

- e) **NIH K30 Mentored Clinical Research Training Program (MC RTP) menu of courses** including opportunities in clinical research, responsible research conduct, grant writing, team science, informatics, choosing appropriate animal models, regulations, entrepreneurship, and career development; this flexible enrollment will provide the added value of DETR trainees networking with junior clinical faculty and fellows.
- f) **Clinical Clerkship/Rotation** for trainees to experience shoulder-to-shoulder training with medical students, residents, and fellows, in a carefully designated set of clinical venues relevant to their research in a half-day rotation, followed by a debriefing session.
- g) **Clinical Medicine-Basic Science Learning Groups**, a core feature of the DETR, whereby small groups of DETR trainees, alumni and mentors will form new translational research teams. The learning groups will meet at least once quarterly.
- h) **Research Facility Field Trips** for additional perspectives on translational research and advanced technologies through visits to UCD centers such as the Functional Imaging and Primate Research centers, biopharmaceutical companies, and a federal research laboratory.
- i) **Quarterly Breakfast Meetings with the Deans** to reinforce the links between biology and medicine, emerging areas of mutual research interest, and career development.
- j) **Kick-Off and Year-End Retreats** to foster interactions and track progress.
- k) **Social events** to build social relationships and encourage interactions.

Elective Courses

Elective courses may be recommended by the Adviser. These courses would be recommended on an individual basis, after considering the student's background and particular area of research.

Qualifying Examination

The Ph.D. qualifying examination shall include an examination of knowledge within the designated emphasis. At least one faculty member of the designated emphasis program shall participate in the qualifying examination. Satisfactory performance on the qualifying examination for the Ph.D. will be judged independently from the performance on the designated emphasis.

Dissertation Requirements

The dissertation topic shall incorporate study within the designated emphasis. The dissertation committee shall include at least one faculty member of the designated emphasis.

Degree Conferral Process

The designated emphasis will be awarded solely in conjunction with the Ph.D. and will be signified by the degree designation "Ph.D. in X with Emphasis in Translational Research."

Student Advising

The Chair will advise students, and the Program Coordinator will also serve as an adviser.