INVESTIGATIVE MEDICINE

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Ph.D.

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FIELDS OF STUDY

The Investigative Medicine program offers a training pathway for highly select physicians in clinical departments who are interested in careers in clinical research. The program is designed to develop a broad knowledge base, analytical skills, creative thinking, and the hands-on experience demanded of clinical researchers devoted to disease-oriented and patient-oriented investigation. The program provides the student with individualized experience encompassing formal course work and practical experience, under the supervision and mentorship of a senior faculty member.

Students will enter the program with a broad range of experience and interests. Students can undertake thesis work in a variety of disciplines. These include but are not limited to:

1. Evaluating risk factors and interventions for disease using modern concepts in quantitative methods and clinical study design.
2. Investigating the biochemical, physiologic, and genetic basis of disease in the setting of a Clinical Research Center.
3. Exploring the molecular basis of a disease from the laboratory standpoint.

SPECIAL ADMISSIONS REQUIREMENTS

The Investigative Medicine program is designed for students with an M.D. or D.O. degree. To be eligible for admission, applicants must have completed two or more years of postgraduate clinical training. Prospective students who are already in a residency or subspecialty clinical fellowship program at Yale may apply to the Investigative Medicine program anytime during the first two years of that training (approximate). Application to the program also may be made concurrently with application for residency or fellowship training in a clinical department at the Yale School of Medicine. Special arrangements will be made for a deferred acceptance by the Graduate School.

The most important criteria for selection into the program are commitment to rigorous training in clinical investigation and evidence of high academic achievement in undergraduate and medical school courses, and on scores from the USMLE. All applicants must be eligible to practice medicine in the United States.

SPECIAL REQUIREMENTS FOR THE PH.D. DEGREE

The minimum overall course requirements for the doctorate program are completion of nine (9) courses. Intensive course work will extend for twelve months, starting in July. The majority of the course requirements are to be completed by the end of the first year of study. Prior to registering for a second year of study, students must successfully complete IMED 630, Ethical Issues in Biomedical Research. In addition to IMED 655, electives are often taken in the second year, with the expectation that they be completed by the end of the second year. To be eligible to take the comprehensive qualifying examination, students must achieve the grade of Honors in two courses (one course if a full-year course), have a minimum grade average of High Pass, and have completed a minimum of six courses. When requirements are met (typically by December 31 of the second year), students submit their thesis proposal and undertake the comprehensive qualifying examination. In order to be admitted to candidacy, students must pass both the written and oral comprehensive qualifying examinations and submit a thesis prospectus that has been approved by their qualifying committee.

The remaining degree requirements include completion of the dissertation project, writing of the dissertation, and its oral defense. It is expected that most students will complete the program in three to five years. There is no foreign language requirement. The minimum required curriculum for each program of study is as follows:

Course Requirements for Laboratory-Based Patient-Oriented Research

IMED 625, Principles of Clinical Research
IMED 630, Ethical Issues in Biomedical Research
IMED 635, Directed Reading in Investigative Medicine
IMED 645, Introduction to Biostatistics in Clinical Investigation
IMED 655, Writing Your Career Development (K-type) Grant or IMED 670, Writing Your First Independent Investigator-Initiated (R-type) Grant
IMED 680, Topics in Human Investigation
CBIO 601, Frontiers
CB&B 740, Clinical and Translational Informatics
Elective (1)

Course Requirements for Clinically Based Patient-Oriented Research
IMED 630, Ethical Issues in Biomedical Research
IMED 635, Directed Reading in Investigative Medicine
IMED 655, Writing Your Career Development (K-type) Grant or IMED 670, Writing Your First Independent Investigator-Initiated (R-type) Grant
IMED 660, Methods in Clinical Research, Part I
IMED 661, Methods in Clinical Research, Part II
IMED 662, Methods in Clinical Research, Part III
IMED 680, Topics in Human Investigation
Electives (2)

COURSES