Teaching Track Ph.D. Degree Program
In Medical Anatomical Sciences Education

Offered by the:
Department of Genetics, Cell Biology and Anatomy
College of Medicine
University of Nebraska Medical Center
Omaha, Nebraska 68198-6395
Ph.D. in Genetics, Cell Biology & Anatomy – Medical Anatomical Sciences Teaching Track

Background: Based on the reports from the American Association of Anatomists, retirement of aging faculty who currently teach the anatomical sciences will create a nationwide shortage of medical anatomy teachers. This problem will be aggravated by the shortage of Ph.D. programs and the increase in medical student class size recommended by the American Association of Medical Colleges by 2015. It is essential that we train medical anatomy educators capable of conducting successful biomedical research in addition to educating our future physicians and allied health professionals.

Goals of Medical Anatomy Teaching Track: The goal of the teaching track program is to produce a cadre of doctoral-level anatomy educators who are capable of teaching all of the medical anatomical disciplines to medical and allied health professional students, and who are capable of performing high-quality biomedical research and other scholarly activities to be a successful medical educator-researcher.

Overview: The Anatomical Sciences Teaching Track curriculum requires completion of required courses in all disciplines of the anatomical sciences during the first year while completing research rotations in multiple research laboratories and selecting a teaching mentor and a research mentor. The students will then complete the core courses required by the Genetics, Cell Biology and Anatomy (GCBA) graduate program. Students will then be required to pass a qualifying examination by the end of third year. Also, during the second, third, fourth, fifth and possibly sixth years, the students will assist in teaching anatomical sciences to medical or allied health students and complete dissertation research including writing and defending a dissertation.

Program Curriculum: This track is designed as a five to six year program. During the first year, the students will be required to take courses in Gross Anatomy, Embryology, Histology and Neuroanatomy while doing their research rotations.

- GCBA-571 PA/PT Gross Anatomy/Embryology
- GCBA-826/History Part I (with Medical Core II)
- GCBA-826/Histology Part II (with Medical Core III)
- GCBA-812 Human Neuroanatomy (with Medical Core IV)
- Three Research Rotations

During the second year, the students will complete the core courses required by the Genetics, Cell Biology and Anatomy Program.

- GCBA-822 Molecular Cell Biology
- GCBA-823 Genetics and Gene Regulation
- GCBA-806 Presentation and Scientific Writing Skills

During the third year onwards, the students will be involved in being teaching assistants in Gross Anatomy, Histology and Neuroanatomy while passing a qualifying examination. In addition the students will be involved with dissertation research in the selected mentor’s laboratory.

- GCBA-940 Human Gross Anatomy Teaching Practicum
- GCBA-949 Human Histology Teaching Practicum I (Core II)
- GCBA-949 Human Histology Teaching Practicum II (Core III)
- GCBA-942 Human Neuroanatomy Teach. Practicum (Core IV)
- Completion of qualifying examination

Qualifying Examination: At the end of the third year, the students will be required to pass a qualifying examination that tests their knowledge of anatomy, grasp of relevant literature, and the ability to form research hypotheses and experimental design to test these hypotheses. Students must successfully complete a doctoral research project, including the writing and defense of a dissertation together with being involved in teaching medical students as teaching assistants to gain teaching experience.

Dual Mentors: Students will select their teaching mentor and research mentor at the end of the first year. The Chair of the GCBA graduate program will serve as mentor before the selection of mentors.

Financial Assistance: In addition to full tuition remission, each student enrolled into this program will be given a stipend of $24,000 per year plus health insurance.

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