Program Entrance Requirements

- Open to Emory undergraduate senior students with a strong background in science
- 1 yr Foundations of Modern Biology I/II (Bio 141/142) with labs
- 1 upper level biology course (Cell & Molecular area: Bio 223 DevBio, 250 CellBio, 264 Genet, or CaBio415)
- 1 semester of Organic Chemistry (Chem 221) with lab.
- 1 semester each of Math, Physics and Statistics
- 1 semester of Biochemistry (Biol/Chem 301), which can be completed during the senior year
- Prior research experience is an advantage

What does the program cost?
The tuition for completing the 4+1 program is $41,050 + fees, for a total of 34 credits.

Degree Requirements

- 16 credit hours of required courses
- 18 credit hours of lab research
- Master's Thesis

Course Organization & Lab Research

In the first year of the program (senior year), students will take the core Cancer Biology I and II courses (IBS523/524), the Advanced Graduate Seminar Course in Cancer Biology (CBS90r) and will start their research in a cancer laboratory (Biol499R or Biol495A,B course).

The MS thesis research project will continue during the summer, fall and spring semesters (IBS599r Advanced Research course) of the second year. During the 2nd year, students will also acquire the skills to critically read the scientific literature and orally present research results (CB570r course). They will present their own research findings in the CB590r course. The training culminates with the student writing and defending their Master's Thesis.

For more information, contact:
Gregg Orloff, PhD, Assistant Professor, CBTO Program Advisor
or Erwin G. Van Meir, PhD, Professor, Cancer Biology Program Director
cbto@emory.edu

Apply here by January 30, 2015:
http://biomed.emory.edu/PROGRAM_SITES/CB/4+1CBTO/
Cancer Biology Graduate Program

The Graduate Program in Cancer Biology (CB) provides outstanding training opportunities at the PhD and MS levels in every aspect of cancer research, from basic to translational research. This includes molecular and cellular biology, genetics and epigenetics, signal transduction, genetic engineering, nanotechnologies, and many other disciplines used to understand the development and progression of cancer. Many different approaches are applied to a range of model systems to address how a normal cell becomes a cancer cell, how cancer progresses to a metastatic state at the molecular level and how our understanding of these mechanisms can be exploited for the design of new cancer therapies or novel ways to apply existing anti-cancer agents in the clinic.

Learning objectives:
At the completion of their training, students will:

• demonstrate broad knowledge of cancer biology. Students will develop a mastery of the literature and a deep understanding of major questions in their chosen area of cancer research.

• design and conduct hypothesis-driven research using state-of-the-art techniques that results in significant scholarly advances.

Who is this for?
This program aims to train and help launch the career of the next generation of cancer scientists and oncologists.

Faculty
The CB program has a diverse membership drawn from over 10 different basic science and clinical departments on the Emory campus. The faculty are members of the Winship Cancer Institute, an NCI-designated Cancer Center, and have a common research interest in cancer, but apply a variety of disciplines, including virology, molecular biology, biochemistry, genetics, immunology, and cell biology, to understand the mechanisms of cancer formation and malignant progression, from basic principles to the development of novel experimental therapeutics.

http://www.biomed.emory.edu/PROGRAM_SITES/CB/4+1CBTO/research/researchfaculty.html

What can you do in the future?
The training provided in our 4+1 program prepares students for a variety of careers where the analytical and discovery thinking skills and laboratory experience will be valuable assets. When they leave the program, our trainees will have the skills and knowledge necessary to participate in advanced analysis and problem solving for cancer-related careers in work settings including medical and research academia, translational and physician-scientists, clinical oncology, teaching, government health agencies, non-profits, patent law, science journalism, and private industry.