

# COMMITTEE ON CANCER BIOLOGY

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## Chair

- Barbara Kee, Pathology

## Professors

- Erin Adams, Biochemistry and Molecular Biology
- Habibul Ahsan, Public Health Sciences
- Maria-Luisa Alegre, Medicine-Rheumatology
- Susan Cohn, Pediatrics
- Jing Chen, Medicine, Hematology and Oncology
- Bryan Dickinson, Chemistry
- M. Eileen Dolan, Medicine
- Wei Du, Ben May Department for Cancer Research
- Gini Fleming, Medicine, Hematology, Oncology
- Thomas Gajewski, Medicine
- Margaret Gardel, Physics
- Geoffrey Greene, Ben May Department for Cancer Research
- Gregory Karczmar, Radiation and Cellular Oncology
- Howard Halpern, Radiation and Cellular Oncology
- Chuan He, Chemistry
- Yu-Ying He, Medicine- Dermatology
- Jeffrey Hubbell, Pritzker Institute for Molecular Engineering
- Barbara Kee, Pathology
- Robert Keenan, Ben May Department of Cancer Research
- Stephen Kron, Molecular Genetics and Cell Biology
- Ernst Lengyel, Obstetrics and Gynecology
- Mark Lingen, Pathology
- Kay Macleod, Ben May Department for Cancer Research
- Scott Oakes, Pathology
- Olufunmilayo Olopade, Medicine
- Eric Pamer, Medicine-Infectious Diseases
- Marsha Rosner, Ben May Department for Cancer Research
- Hans Schreiber, Pathology
- Walter Stadler, Medicine
- Wendy Stock, Medicine, Hematology and Oncology
- Melody Swartz, Pritzker School of Molecular Engineering
- Wei-Jen Tang, Ben May Department for Cancer Research
- Ralph R. Weichselbaum, Radiation and Cellular Oncology
- Amittha Wickrema, Medicine
- Bakhtiar Yamini, Surgery-Neurosurgery
- Yingming Zhao, Ben May Department for Cancer Research

## Associate Professors

- Lev Becker, Ben May Department for Cancer Research
- Matthew Brady, Medicine
- Mengjie Chen, Medicine-Genetic Medicine
- Jason Cheng, Pathology
- Jill de Jong, Pediatrics
- Nickolai Dulin, Medicine-Pulmonary and Critical Care
- Tong-Chuan He, Surgery
- Justin Kline, Medicine, Hematology and Oncology
- Sonia Kupfer, Medicine-Gastroenterology

- James LaBelle, Pediatrics
- Megan McNerney, Pathology
- Raymond Moellering, Chemistry
- Alexander Pearson, Medicine, Hematology and Oncology
- Peter Savage, Pathology
- Russell Szmulewitz, Medicine
- Michael Thirman, Medicine
- Xiaoyang Wu, Ben May Department for Cancer Research

#### Assistant Professors

- Mark Applebaum, Pediatrics
- Anindita Basu, Medicine-Genetic Medicine
- Huanhuan Chen, Pritzker Institute for Molecular Engineering
- Nicholas Chevrier, Pritzker Institute for Molecular Engineering
- Shannon Elf, Ben May Department for Cancer Research
- Daria Esterhazy, Pathology
- Brandon Faubert, Medicine, Hematology and Oncology
- Evgeny Izumchenko, Medicine, Hematology and Oncology
- Aly Khan, Family Medicine
- Andrew Koh, Pathology
- Juan Mendoza, Pritzker Institute for Molecular Engineering
- Alexander Muir, Ben May Department for Cancer Research
- Akash Patnaik, Medicine, Hematology and Oncology
- Andrea Piunti, Medicine, Hematology and Oncology
- Simon Schwoerer, Medicine, Hematology and Oncology
- Joshua Weinstein, Medicine, Genetic Medicine
- Lixing Yang, Ben May Department of Cancer Research

The Committee on Cancer Biology (CCB) provides multidisciplinary and integrated training in cancer biology with an emphasis on innovation and critical thinking in cancer research. The program provides doctoral students with the most up-to-date knowledge and research training with the goal of preparing students for leadership and research careers in academia, industry, clinical research, science journalism, advocacy and policy and other relevant areas of the biomedical workforce. The program prepares students to conduct research by offering a core curriculum that focuses on multiple aspects of cancer biology, including molecular mechanisms of cancer, tumor progression and metastasis, autophagy and tumor metabolism, cancer genomics, computational approaches and big data analysis, mechanisms of drug resistance and tumor heterogeneity, in addition to translational research approaches. With 60 faculty members from across the University of Chicago with diverse interests in all of these research areas, students have a broad choice of research concentrations to select from for their thesis research project.

The CCB is committed to fostering interactions amongst graduate students, postdoctoral fellows, and faculty, and has a consistent track record of success in mentorship with many trainees publishing their work in outstanding journals and going on to run their own research labs. This is achieved through our core curriculum, a weekly cancer biology seminar series, journal clubs, student research presentations, group research meetings, an annual retreat and symposia. All of our students attend the AACR meeting in their third year of graduate school and numerous other opportunities are available to our students to present their data at international meetings and symposia. Our dedicated program in cancer biology is one of the most established in the country and is supported by an NCI training grant in addition to valuable support from foundations allowing us to continue to recruit and train the next generation of expert cancer biologists.

In addition to formal course work, the program sponsors a student and postdoctoral research presentation seminar and an annual program retreat in which students and trainees present their research findings. In addition, the program sponsors a seminar program that brings speakers of international renown to campus. Students and trainees also have the opportunity to attend national meetings and cancer biology workshops off campus. Through the auspices of the Ben May Department for Cancer Research, the Section of Hematology/Oncology, and the University of Chicago Medicine Comprehensive Cancer Center (an NCI designated Comprehensive Cancer Center), there are several additional seminar series and a clinical cancer research/basic science research translational conference. Thus, there is a thriving, interactive community of cancer researchers.

ADMISSION

Prospective students interested in obtaining the Ph.D. in cancer biology should submit an application to the Biological Sciences Division by December 1st of each year; indicate their cluster of interest as Biomedical Sciences and select Cancer Biology as their proposed degree program.

THE DEGREE OF DOCTOR OF PHILOSOPHY

Ph.D. requirements include:

- Completion of 7 course credits consisting of basic science, cancer biology and elective courses
- A preliminary examination
- A qualifying exam involving a thesis proposal
- A dissertation based on original research
- A final thesis examination

COMMITTEE ON CANCER BIOLOGY COURSES

CABI 30800	Cancer Biology I: Fundamentals in Cancer Biology	100
CABI 30810	Cancer Immunology	100
CABI 31000	BMSC All Stars	50
CABI 31100	Ethics in Scientific Research	50
CABI 31600	Cancer Biology IV: Hypothesis Design and Grant Writing Skills	100
CABI 32000	Cancer Biology III: Translational Approaches in Cancer Biology	100
CABI 39900	Readings: Cancer Biology	100
CABI 40100	Research: Cancer Biology	300
CABI 39000	Cancer Biology V: Introduction to Experimental Cancer Biology	50

