Committee on Cancer Biology

Chair

• Stephen Kron, Molecular Genetics and Cell Biology

Professors

• Erin Adams, Biochemistry and Molecular Biology
• Habibul Ahsan, Public Health Sciences
• Douglas Bishop, Radiation and Cellular Oncology
• Susan Cohn, Pediatrics
• Glyn Dawson, Pediatrics
• M. Eileen Dolan, Medicine
• Wei Du, Ben May Department for Cancer Research
• Thomas Gajewski, Medicine
• Margaret Gardel, Physics
• Lucy Godley, Medicine
• David Grdina, Radiation and Cellular Oncology
• Geoffrey Greene, Ben May Department for Cancer Research
• Gregory Karczmar, Radiation and Cellular Oncology
• Howard Halpern, Radiation and Cellular Oncology
• Barbara Kee, Pathology
• Robert Keenan, Ben May Department of Cancer Research
• Stephen Kron, Molecular Genetics and Cell Biology
• Michelle Le Beau, Medicine
• Ernst Lengyel, Obstetrics and Gynecology
• Anning Lin, Ben May Department for Cancer Research
• Mark Lingen, Pathology
• Kay Macleod, Ben May Department for Cancer Research
• Scott Oakes, Pathology
• Olufunmilayo Olopade, Medicine
• Ilaria Rebay, Ben May Department for Cancer Research
• Marsha Rosner, Ben May Department for Cancer Research
• Hans Schreiber, Pathology
• Walter Stadler, Medicine
• Melody Swartz, Pritzker School of Molecular Engineering
• Wei-Jen Tang, Ben May Department for Cancer Research
• Mitchel Villereal, Neurobiology, Pharmacology and Physiology
• 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
• Daniel Catenacci, Medicine
• Tong Chuan He, Surgery
• Fotini Gounari, Medicine
• Justin Kline, Medicine
• James LaBelle, Pediatrics
• Megan McNerney, Pathology
• Peter Savage, Pathology
• Michael Spiotto, Radiation and Cellular Oncology
Committee on Cancer Biology

Russell Szmulewitz, Medicine
Michael Thirman, Medicine
Xiaoyang Wu, Ben May Department for Cancer Research

Assistant Professors
Mark Applebaum, Pediatrics
Jill de Jong, Pediatrics
Bryan Dickinson, Chemistry
Shannon Elf, Ben May Department for Cancer Research
Daria Esterhazy, Pathology
Yu-Ying He, Medicine
Jun Huang, Pritzker School of Molecular Engineering
Andrew Koh, Pathology
Raymond Moellering, Chemistry
Alexander Muir, Ben May Department for Cancer Research
Akash Patnaik, 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 led journal club, a student/postdoctorate research presentation group, and an annual program retreat in which students and trainees present their research findings. In addition, the program co-sponsors the Ben May Symposium with the Ben May Department for Cancer Research. This symposium 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 dissertation based on original research
- A final thesis examination
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABI 30800</td>
<td>Cancer Biology I: Fundamentals in Cancer Biology</td>
<td>100</td>
</tr>
<tr>
<td>CABI 30810</td>
<td>Cancer Immunology</td>
<td>100</td>
</tr>
<tr>
<td>CABI 30900</td>
<td>Cancer Biology II: Molecular Mechanisms in Cancer Biology</td>
<td>100</td>
</tr>
<tr>
<td>CABI 31000</td>
<td>BMSC All Stars</td>
<td>50</td>
</tr>
<tr>
<td>CABI 31100</td>
<td>Ethics in Scientific Research</td>
<td>50</td>
</tr>
<tr>
<td>CABI 31600</td>
<td>Cancer Biology IV: Hypothesis Design and Grant Writing Skills</td>
<td>100</td>
</tr>
<tr>
<td>CABI 31900</td>
<td>Protein Structure and Functions in Medicine</td>
<td>100</td>
</tr>
<tr>
<td>CABI 32000</td>
<td>Cancer Biology III: Translational Approaches in Cancer Biology</td>
<td>100</td>
</tr>
<tr>
<td>CABI 39900</td>
<td>Readings: Cancer Biology</td>
<td>100</td>
</tr>
<tr>
<td>CABI 40100</td>
<td>Research: Cancer Biology</td>
<td>300.00</td>
</tr>
<tr>
<td>CABI 47300</td>
<td>Genomics and Systems Biology</td>
<td>100</td>
</tr>
</tbody>
</table>