

TPCB PROGRAM OF STUDY

Entering Class of 2018

<http://chembio.triiprograms.org/about-tpcb/program-of-study/>
<http://chembio.triiprograms.org/about-tpcb/timeline-and-requirements/>

Admissions Timeline

- Feb–Apr 2018 TPCB admission offers sent to students;
Additional discussions arranged with TPCB faculty based on interests
- April 16, 2018 Deadline for students to accept or decline TPCB admission offers

Enrollment Timeline

- May 1, 2018 Deadline for foreign students to submit completed I-20 visa applications to TPCB (processed by Weill Cornell Graduate School);
First-Year Advisors contact students to discuss rotation selections
- May 15, 2018 Deadline for students to arrange Laboratory Rotation #1 directly with faculty
- June 20, 2018 Deadline for receipt of final official undergraduate transcript by TPCB
(*deadline extended for students at institutions with later graduation dates*)
- July 2, 2018 Students arrive on Tri-I campuses and formally enroll at Weill Cornell;
Welcome Meeting & Orientation with TPCB Directors and 2nd-Year Students
(*start date flexible for students with extended academic commitments*)
- Summer 2018 Students attend Meet the Faculty lunches with TPCB faculty
- Late Aug 2018 Graduate Student Orientation Week (hosted by Weill Cornell)
- Sept 4, 2018 Classes begin on all campuses

Laboratory Rotations – Year 1

Students must complete at least 3 rotations on at least 2 campuses (Weill Cornell, Rockefeller, Sloan Kettering). A fourth rotation may be pursued and dates may be adjusted in consultation with First-Year Advisor and faculty, contingent upon satisfactory performance to date).

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| July 2018 – Sep 2018 | Laboratory Rotation #1 | (3 months) |
| Oct 2018 – Jan 2019 | Laboratory Rotation #2 | (4 months) |
| Feb 2019 – May 2019 | Laboratory Rotation #3 | (4 months) |

Lecture Courses, Seminars, and Symposium

Students must complete 4 lecture courses and participate in interactive seminars

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| Years 1–2 | <ol style="list-style-type: none"> 1) TPCB Chemistry in Biology & Medicine (Weill Cornell, Fall, even years) 2) TPCB Principles of Chemical Biology (Rockefeller, Fall, odd years) 3) Core Course (<i>select one</i>) <ul style="list-style-type: none"> Advanced Organic Chemistry (Columbia GU4147, Fall) Biochemistry and Structural Biology Core (Weill Cornell, Fall) Pharmacology I: Chemical Biology (Weill Cornell, Fall) Statistical Thermodynamics (Columbia GU4230, Fall) 4) Elective Course (<i>select one or a second course from Group 3</i>) <ul style="list-style-type: none"> <i>Other electives may be selected with prior approval by Program Director</i> <i>Highlighted courses pending confirmation from course director</i> Biochemical & Biophysical Methods (Rockefeller, Fall, intermittent [expected 2019]) Biomolecular NMR Spectroscopy (NYSBC/CUNY, Fall, intermittent [offered 2018]) Cell Biology (Rockefeller, Spring, even years [expected 2020]) Core Principles of Molecular Biophysics (Weill Cornell, Spring) Cryoelectron Microscopy of Macromolecular Assemblies (NYSBC/NYU 4408, Spring) Drug Development: From Molecule to Prescription (Weill Cornell, Spring) Quantitative Understanding of Biology I (Weill Cornell, Fall) Synthetic Methods in Organic Chemistry I (Columbia G4148, Fall) |
| Years 1 & 2 | • TPCB Chemical Biology Seminar Course (seminars and journal club) |
| Years 1 & 5 | • Tri-Institutional Responsible Conduct of Research Course (Fall) |
| All Years | • TPCB Research-in-Progress Student Seminar Series (approx. biweekly) |
| All Years | • Tri-Institutional Chemical Biology Symposium/Retreat (annual) |
| All Years | • TPCB Open House Poster Session (annual) |

Thesis Research

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| June 1, 2019 | Deadline for selection of thesis laboratory (end of Year 1) |
| July 1, 2019 | Students relocate to housing at thesis mentor's institution and formally transfer to corresponding graduate school if necessary (beginning of Year 2) |
| June 30, 2020 | Deadline for successful completion of PhD candidacy exam (end of Year 2): Admission to Candidacy Exam (Weill Cornell and Sloan Kettering) or Thesis Research Proposal (Rockefeller) |
| Fellowship | Students must submit at least one external fellowship application during their training, generally based upon the thesis proposal |
| Thesis Research | Thesis Committee meetings at least annually (Years 3 and 4) then at least every 6 months (Year 5 and beyond); Thesis Committee report must be filed with TPCB and graduate school in which student is enrolled |
| Thesis Defense | Students complete written thesis, public oral presentation, and private defense with Thesis Committee and additional faculty examiner |
| All Years | Students required to abide by all policies & procedures of TPCB and graduate school in which they are formally enrolled (Weill Cornell or Rockefeller) |

Additional Course Information

Course Lists

Weill Cornell (quarters): <http://gradschool.weill.cornell.edu/academics/course-offerings>
Rockefeller (trimesters): <http://www.rockefeller.edu/graduate/curriculum/>
Columbia (semesters): <http://www.columbia.edu/cu/bulletin/uwb/sel/subj-C.html>
CUNY (semesters): www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Doctoral-Programs/Chemistry/Path-to-Degree/Courses
NYSBC (semesters): <http://nysbc.org/education-events/>

TPCB Required Courses

Chemistry in Biology & Medicine (Weill Cornell, Fall Q1Q2, even years)
Course Director: Scott Blanchard (WCM)
Website: n/a - syllabus on file

Principles of Chemical Biology (Rockefeller, Fall T1, odd years)
Course Director: Tarun Kapoor (RU)
Website: n/a - syllabus on file

TPCB Core Courses

Advanced Organic Chemistry (Columbia GU4147, Fall, every year)
Course Directors: Dalibor Sames (2018, CU)
Website: <http://www.columbia.edu/cu/bulletin/uwb/subj/CHEM/G4147-20163-001/>

Biochemistry and Structural Biology Core (Weill Cornell, Fall Q1, every year)
Course Directors: Paul Tempst (MSK) & Andrew Koff (MSK)
Website: <http://gradschool.weill.cornell.edu/academics/course-offerings/biochemistry-and-structural-biology>

Pharmacology I: Chemical Biology (Weill Cornell, Fall Q1Q2, every year)
Course Directors: Anthony Sauve (WCM) & Minkui Luo (MSK)
Website: <http://gradschool.weill.cornell.edu/academics/course-offerings/principles-pharmacology-i-chemical-biology>

Statistical Thermodynamics (Columbia GU4230, Fall, every year)
Course Directors: Angela Cacciuto & Bruce Berne (2018, CU)
Website: <http://www.columbia.edu/cu/bulletin/uwb/subj/CHEM/GU4230-20173-001/>

TPCB Elective Courses

Other electives may be selected with prior approval by Program Director

Biochemical & Biophysical Methods (Rockefeller, Fall T1, intermittent years)
Directors: Seth Darst (RU) & Michael Rout (RU) – Fall 2019 (*last offered in 2017*)
Website: n/a - 2017 syllabus available on file

Biomolecular NMR Spectroscopy (NYSBC/CUNY 86900, Fall, intermittent years)
Director: Ranajeet Ghose (CCNY) – Fall 2018 (*last offered in spring 2015*)
Website: <http://www.nysbc.net/twiki/bin/view/Main/ProteinNmrCourse>

Cell Biology (Rockefeller, Spring T2T3, even years)
Director: Sanford Simon (RU)
Website: n/a - 2016 syllabus available on file

Core Principles of Molecular Biophysics (Weill Cornell, Spring Q3Q4, every year)
Course Director: Jeremy Dittman (WCM) & Alessio Accardi (WCM)
Website: tbd – 2019 draft syllabus available on file

Cryoelectron Microscopy of Macromolecular Assemblies (NYSBC, Spring 2019, every year)
Director: Clint Potter (NYSBC)
Website: <http://semc.nysbc.org/course/course.html>

Drug Development: From Molecule to Prescription (Weill Cornell, Spring Q3Q4, every year)
Course Directors: Lorraine Gudas (WCM) & Ignacio Rodriguez (Roche)
Website: n/a - 2018 syllabus available on file

Quantitative Understanding of Biology I (Weill Cornell, Fall Q1Q2, every year)
Director: Luce Skrabanek (WCM) & Jason Banfelder (RU)
Website: <http://physiology.med.cornell.edu/people/banfelder/qbio/>

Synthetic Methods in Organic Chemistry I (Columbia GU4148, Fall, every year)
Directors: Tomislav Rovis (2018, CU)
Website: <http://www.columbia.edu/cu/bulletin/uwb/subj/CHEM/G4148-20163-001/>