MINUTES

Present: Dave Brow, Ann Palmenberg, Ivan Rayment, Tom Record, Alessandro Senes, Mike Sheets, Ellen Crummy

Absent: Jim Keck

1. Discussion of Intent of “Breadth” Requirements – Brow
   On behalf of the Examination and Certification Committee (ECC), Mr. Brow brought up the topic of IPiB’s breadth requirements in the biological and physical sciences. Two students recently petitioned to have math-focused coursework approved for fulfilling the biological sciences breadth requirement. The ECC was concerned that students are using the “breadth” requirement to take additional courses related to their research, which is contrary to the intent of the requirement to expose students to a variety of areas of biochemistry and biomolecular chemistry outside of their research areas. Ms. Palmenberg commented that it seems as if some students are trying to get out of coursework, when the coursework is designed to help them get a well-rounded graduate education.

   After discussion, the Committee decided that, since the requests are not numerous, the ECC could continue to handle such requests on a case-by-case basis, bearing in mind the original intent of the breadth requirements.

2. Feedback from BMC Faculty Meeting Discussion on Continuing the Holiday Party – Brow
   (Biochem Faculty Meeting feedback provided at the November Steering Committee meeting)
   Mr. Brow reported that the Biomolecular Chemistry faculty discussed whether or not to continue the IPiB Holiday Party in light of increased costs due to University regulations concerning alcohol service. BMC faculty voted unanimously to keep the Holiday Party but to discontinue serving alcohol at the party.

3. Feedback from BMC Faculty Meeting Discussion on the Draft IPiB Higher Learning Goals (attachment) – Brow
   (Biochem Faculty Meeting feedback provided at the November Steering Committee meeting)
   Mr. Brow reported that BMC faculty discussed and approved by consensus IPiB’s draft higher learning goals. In addition to getting feedback from the Biochemistry faculty after its November faculty meeting, the next steps will be communicated to graduate programs from the Graduate Faculty Executive Committee (GFEC) and the Provost’s Office in the coming months.

4. Discussion and Selection of IPiB’s Nominee for HHMI International Student Research Fellowship
   Three students were nominated by their thesis advisors to be IPiB’s nominee for the HHMI International Student Research Fellowship to the Graduate School (Note: The students’ GPAs have been removed from these minutes.):

   a. Ti-Yu Lin (Weibel lab), fourth year in 2015-16
b. Thao Nguyen (Sussman lab), third year in 2015-16
   c. Keren Turton (Mosher lab), third year in 2015-16

After much deliberation due to the high quality of the students nominated, the Committee determined that Ti-Yu Lin would be IPiB nominee. Each graduate program on campus can nominate one student; the University can then nominate up to ten to HHMI.

5. Other Business

6. Next Meeting: November 19, 2014

   Reminder: Thursday, December 11, 1:00pm – Special meeting to ratify IPiB thesis lab assignments

As there was no further business, the meeting was adjourned.

Respectfully submitted,

Kate Ryan
Learning Goals of the Integrated Program in Biochemistry  
(as required by the Higher Learning Commission)  
Revised 10-10-14

Comments from the GFEC
1. Program-level goals are consistent with the draft overarching outcomes and [IPiB] is on the right track.
2. Outcomes [are] not defined separately at the masters and doctoral levels.
3. Skills could be framed to focus more on student learning rather than on [IPiB] activities.

Introduction
The goal of the program is to train the next generation of biochemists who will be well prepared to address 21st Century challenges in science. The training is expected to qualify its graduates for leadership positions in industry, government, or academic settings.

Knowledge
Graduate students in IPiB are expected to gain a broad understanding of the biochemical principles that underlie all biological processes. They will become aware of the current limitations of the state of understanding of this discipline and the strategies that are required to advance the field. With this knowledge graduate students will be able to formulate and design new approaches that extend and apply biochemical principles beyond their current boundaries.

Skills
Biochemistry is a discipline that demands a broad range of experimental and intellectual skills, thus the goals of the training program will be to:

- expose students to the diverse breadth of biochemical processes that help them conduct independent research
- teach students the theories, research methods, and approaches to inquiry that enable them to think critically to address research challenges
- inspire collaboration with investigators within the program, university, and beyond since current and future advances in the biomolecular sciences demand interdisciplinary skills
- instill communications skills that enable students to articulate their research to fellow scientists and non-scientists
- support student career development activities that encompass careers in industry, government and academia, and help students achieve their professional goals and paths
- develop teaching and mentoring skills in both lecture and laboratory settings

Professional Conduct
Students will be trained in professional and ethical conduct in the sciences. This will encompass: exposition of the scientific method, ethical design of experimental protocols, the importance of reproducibility in science, and professional behavior in the industrial, government, and academic settings. Training in the ethical approach to documentation of scientific results, communication to other scientists and the public, and peer review will be of paramount importance.