Meeting Minutes from Quantitative and Chemical Biology (QCB) Trainer Meeting

Meeting called by Dr. David Giedroc  Attendees: Dr. Giedroc, Dr. Pohl, Dr. Dragnea, Dr. Sokol, Dr. Jacobson, Dr. Bell, Dr. Walczak, Dr. Baker, Dr. Chen and Dr. Setayeshgar
Meeting held on Friday, July 19, 2013

Call for action from each QCB Trainer/Preceptor

- Flag at Graduate student application stage potential QCB trainees
- Encourage potential TG students to participate in extracurricular activities in 1st year to integrate into QCB community
- Encourage students to enroll in Fall C688 (Glitch in system will appear as C680 as correction during semester)
- Journal Club C689 still needs **4 instructors** for Fall- Please contact Dr. Giedroc if interested in serving as instructor
- Suggest speakers to be a part of QCB Seminar Series - Please contact seminar coordinators Adam or Charles with info

Objective: Create a didactic training/core curriculum program that unifies and attracts interested students in cross-discipline training from across 5 departmental units (Chemistry, Physics, Biochemistry, Biology or Medical Science)

Bottom line: 5 departmental units will provide access to an increased applicant pool

**QCB Trainee Appointment Structure and Selection**

**Current structure:**
QCB program slots for trainees from College of Arts and Sciences (COAS) approved support 2010 - 2014

**Runs on Calendar Year schedule**
(January 1 – December 1)

<table>
<thead>
<tr>
<th>Years</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tr>
<td>Slots</td>
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<td>4</td>
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**NIH proposed structure: (Proposed period of support: 7/1/14 – 6/30/19)**

**Runs on Academic Year schedule**

<table>
<thead>
<tr>
<th>Years</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
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**United structure upon NIH award:**

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<tr>
<th></th>
<th>2014</th>
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<th>2017</th>
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Black circles represent allotment for trainees with returning appointments

**Current selection process of students into the program:**

Every December QCB trainers receive a letter soliciting nominations for an end of first year or second-year student who is working on a project that would be considered within a QCB area. The Steering Committee (members: Drs. Giedroc, Pohl, Carlson, Dragnea, Shaw, and Zlotnick) review student applications for high academic metrics as well as strong project lab work in a QCB area. Letters will disseminate this December for 2014 selection.

**Current Action Requested from each Departmental Unit Trainer/Preceptor:**

- Please contact your graduate office and inform pertinent individuals of the QCB training program to flag applications that would qualify as potential QCB trainees
- Please actively participate in advertising QCB extracurricular activities to these potential QCB trainees
- Please notify the QCB Recruitment Committee of these potential students as QCB candidates

Recruitment Committee (members: Drs. Dragnea, Bauer, Sokol, Winkler, and Walczak) will be formalized once NIH support is awarded to interact with graduate admission committees from all departmental units to identify students who are eligible and interested in support by the training grant.

Thoughtful input: Dr. Walczak (Medical Science) provided awareness regarding appointing 1st year students too soon as trainees into a training program providing the Biology training program as an example explaining two points of experience. 1) Students that looked good on paper in 1st year did not perform well in the lab and outcomes of retention in program were not successful 2) Program was in jeopardy at renewal term in continued NIH support due to the incentive of funding support as a means of luring enrollment- needing recruitment change for continuation

Advertising input: Dr. Pohl - University of Illinois has had success with a recognized facebook page for their science program Dr. Dragnea - Training Program can be promoted at American Chemical Society meetings
Construct of QCB training curriculum

QCB Training Program Foundation

Core Courses C680/C681

C680 - Introduction to Quantitative Biology and Measurement will initiate in Fall 2013 with Dr. Dragnea instructing first iteration. (1.5 credit hours) This will be helpful to have in place in case of site visit.

** Please encourage potential QCB trainees to register for C688 in Fall (will be corrected to C680 during semester)**

Dr. Dragnea's input regarding course description: course will serve as a "tool-box" covering chemical and physical biology that will enable students to interact with colleagues in other areas of chemistry, physics, or biology and create a forum for development of dissertation projects in interdisciplinary areas

C681 - Introduction to Chemical Biology I (Synthetic focus) already started with Dr. Van Nieuwenhze as C687 (1.5 credit hours) Dr. Pohl will instruct this course as

Three credits of graduate electives along with the core QCB courses satisfy the 6 credit Graduate School QB (Quantitative Biology) minor requirement - goal accessible to any graduate student across the 5 departmental units (core courses feed into more advanced courses)

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<table>
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<tr>
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<td>BIOL L800</td>
<td>Research</td>
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**Please contact David (giedroc@indiana.edu) for interest as a Journal Club instructor - still need 4 instructors**

C689 - QCB Journal Club (1 credit) seminar-based course designed to bring together graduate students, postdoctoral associates and QCB preceptors to discuss literature in the broad QCB interdisciplinary area. Coupled with an additional three credits of approved QCB electives expands the concepts learned in C680/C681 core courses. Thereby, programmatically supports the six core credits.

Small Topic-based e-Modules - facilitate online cross-disciplinary self-study with student-driven content to fill in past training gaps and customize learning for enrichment as well as provide students’ awareness of initial assumptions from limited training. It will also strengthen concept growth with the ability to review modules as often as needed. Modules will not be graded and everyone will have access regardless of support and acceptance into the training program.

Modules will be preserved and will grow as students create with learning assessment assist by faculty.

QCB Training Program Extracurricular Activities

Watanabe Symposium in Chemical Biotechnology (Saturday, October 12, 2013 - 4th year) Spring annual one-day event graciously supported by Dr. Richard DiMarchi features oral presentations by 4/5 distinguished speakers from academia and industry, one presentation by a QCB preceptor, and a poster session that demonstrates research activities of QCB trainees **Future action will be to revisit attempt (tried in Year 1) to invite prospective students and their undergraduate research mentors from institutions in Indiana and in neighboring states within driving distance.**

Monthly QCB Evenings will have two QCB trainees give informal presentations to the larger group. Students do not need to be directly supported by the training program to give a presentation as long as they work in a QCB preceptor laboratory. During Spring semesters efforts will be made to couple this event with that of the QCB Seminar Series to have the research interests of the speaker "match" that of the student to further stimulate discussion. The student would immediately follow the Friday 2:30p.m. seminar from 4-5:30p.m. (food provided - networking event)

**Please contact Adam or Charles with potential QCB-designated speaker contacts for invitation**

QCB Seminar Series Chemical Biology division within Chemistry department and the graduate program in Biochemistry sponsor an active weekly seminar series where prominent speakers are brought to campus to interact with faculty and students on Fridays at 2:30p.m. Actively seek to reserve 5 of the 15 weekly slots each Spring for speakers with QCB area focus work.