AGENDA

CSUPERB Faculty Consensus Group (FCG) Winter Meeting
Santa Clara Marriott
Sunday, January 8, 2017

7:30 am  Breakfast and Informal Networking

8:30 am  Call to Order (Mike Goldman, San Francisco State University & FCG Chair)
  - Welcome & Introductions: FCG Representatives and Guests
  - Discussion of FCG Representatives’ Duties (Kathie McReynolds, CSU Sacramento & FCG Deputy Chair)

8:45 am  State of CSUPERB Report (Susan Baxter, Exec. Director, CSUPERB)

9:30 am  Grants & Awards Program Reports & Discussion
  - Fall Grants & Awards Program Report (James Schmitt, CSUPERB)
  - Spring Grants Submission and Review Preview (Schmitt)

9:45 am  Break

10:00 am  Special Topic: Non-Academic Careers in the Life Sciences
  - Introduction (Baxter & Goldman)
  - Invited Speaker: Bruce Alberts, University of California San Francisco
  - Discussion (FCG)

12:00 noon  Lunch (continued discussion and networking)

1:00 PM  2017 Symposium Analysis & Discussion
  - Comments and Reactions (FCG)
  - 2017 Poster Selection Process & Analysis (Jen Lillig, Sonoma State University)
  - 2017 Awards Selection Process & Analysis (Paula Fischhaber, CSU Northridge)
  - Preliminary 2017 Symposium Budget Report & Implications for 2018 (Schmitt)
  - Suggestions for 2018 Symposium (FCG)

2:00 PM  Task Force & Network Reports (McReynolds)
  - Astrobiology Network (Daryl Eggers, SJSU & Rakesh Mogul, Cal Poly Pomona)
  - Bioengineering Network (Eggers)
  - Faculty Professional Development Task Force (Jill Adler-Moore, Cal Poly Pomona & Koni Stone, Stanislaus State)
  - Genome Analysis & Technology (Sandy Sharp, CSU Los Angeles) & Quantitative Biology (Bori Mazzag, Humboldt State) Committees
  - Effective STEM Education & Mentoring (Stone, Baxter)
  - Discussion of overarching taskforce & network goals (FCG)

2:45 PM  Summer FCG Meeting Planning: Topics of Interest? (Goldman)

3:00 PM  Adjourn
Background Reading for Special Topic: “Non-Academic Careers”

In 1999 CSUPERB was recognized by the California Assembly with a legislative line item (AB 968, Ducheny) to “maintain and enhance its role in the preparation of the biotechnology workforce.” Today, CSUPERB “believes the best way to recruit, engage, and help undergraduate and master’s students persist in life science careers is to provide access to experiential learning opportunities in biotechnology research and entrepreneurship.”

Building on the student-faculty research apprenticeships offered on CSU campuses, many CSUPERB Faculty Consensus Group (FCG) members serve as PIs, key personnel and program directors on large research training and education grants, including BUILD, CIRM, HHMI Scholars, LSAMP and MARC programs. As a result of their deep experience, the FCG has hosted discussions on the importance of effective mentoring on student learning and post-graduation success.

Based on our analysis of post-graduate career paths and our knowledge of the biotechnology workforce ecosystem (1), we leave unsaid a goal for where our graduates go next (graduate school, a biotech company, medical school, teaching K-12, etc.). We define student success (2) as the ability graduates have to translate a CSU education into a degree-relevant career beyond the university.

For a variety of reasons faculty mentors report they have a hard time advising and mentoring students about career opportunities outside academia. Federal training standards still perceive student success narrowly and focus on entry into doctoral research programs. While many of these programs rightfully aim to diversify the professoriate, narrow goals can be a disservice to students (3a, b). Based on CSUPERB-supported student feedback (4), we recognize that mentors and programs across the CSU still struggle to expose students to a variety of career paths and teach them that life science careers will branch (5) as they enter the world of work.

The annual CSU Biotechnology Symposium offers career-related learning opportunities (6) for students, but we’re aiming also to raise awareness of non-academic careers and provide context for faculty reflection at the January 8th FCG meeting. We’ve recruited Dr. Bruce Alberts to provide his national perspective on the conversation, along with specific recommendations and observations from his recent policy work on “rescuing US biomedical research.” (7)

References:
(2) Finding job satisfaction at a biomedical device company: http://blogs.nature.com/naturejobs/2016/10/12/finding-job-satisfaction-at-a-biomedical-device-company/ (includes the quote, “It’s hard to get advice from someone who has been a faculty member for 50 years — that’s all they know.”). 
(3a) Decoupling of the minority PhD talent pool and assistant professor hiring in medical school basic science departments in the US: https://elifesciences.org/content/5/e21393
(5) Improving Graduate Education to Support a Branching Career Pipeline: Recommendations Based on a Survey of Doctoral Students in the Basic Biomedical Sciences: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3164563/ (includes important framing data: “‘…nontraditional’ career paths are not ‘alternative.’ Since 2001, fewer than 20% of PhDs in the biological sciences have been moving into tenure-track academic positions within 5–6 years of receiving a PhD. In fact, the most recent data (2006) show only 14% of these PhDs in tenure-track positions.’”). See also NSF opportunity: https://mcbblog.nsfbio.com/2016/10/03/exploring-non-academic-science-careers-supplemental-funding-for-career-development/
(7) Rescuing US biomedical research from its systemic flaws: http://www.pnas.org/content/111/16/5773.full

Sampling of CSU Biotech-relevant, Grant-funded Training and Education Programs:
BUILD: https://diversityprogramconsortium.org/pages/build
CIRM: http://www.csuperb.org/blog/2014/10/30/mapping-cirm-bridges-program-impact/
CSU LSAMP: http://www.csus.edu/csul-SAMP/
HHMI Scholars program example: http://hhmi.fullerton.edu/
MARC programs (at 11 CSU campuses): https://www.nigms.nih.gov/Training/MARC/Pages/PartInstUSTAR.aspx