



# BIOSCIENCES ADVISORY BOARD

## MEETING MINUTES

December 7, 2017/6:00pm/B1600/R1688B

### Meeting Agenda

#### LPC Mission Statement

Las Positas College is an inclusive learning-centered institution providing educational opportunities and support for completion of students' transfer, degree, basic skills, career-technical, and retraining goals.

#### LPC Planning Priorities

- ❖ Establish regular and ongoing processes to implement best practices to meet ACCJC standards.
- ❖ Provide necessary institutional support for curriculum development and maintenance.
- ❖ Expand tutoring services to meet demand and support student success in Basic Skills, CTE, and Transfer courses.
- ❖ Coordinate available resources to address current and future professional development needs of faculty, classified professionals, and administrators in support of educational master plan goals.

#### BioSciences Advisory Board

##### Members

Segal Boaz/LPC  
Monica Borucki/LLNL  
Dave Brekke/Sandia  
Jill Carbone/LPC  
Nicholas Heredia/BioRad  
Nan Ho/LPC  
Jorge Ligeti/LPC  
Dianna Maar/BioRad  
Josie Sette/Ohlone  
Michael P.Thelen/LLNL  
Camille Troup/Nanostrings  
Victoria Vandernoot/Sandia  
Darcy Ernst/LPC  
Barbara Zingg/LPC

##### Members Present (non-voting):

Vicki Shipman

#### 1. Welcome and Introductions

Members present: Dave Brekke (Sandia), Jill Carbone (LPC), Nicholas Heredia (BioRad), Nan Ho (LPC), Dianna Mar (BioRad), Michael Thelen (LLNL), Darcy Ernst (LPC), Jorge Ligeti (LPC), Kelsey Wat (LPC), Nicole Shapiro (JMI), Michal Shuldman (LPC).

#### 2. Approval of Prior Meeting Minutes

Minutes not present; will need to vote on at next advisory meeting.

#### 3. Industry Update

##### New Technology

No Discussion

##### Training Needs

Discussion: Bioinformatics – Computational Biology

Nicole Shapiro, JGI, stated that their new hires do need to have bioinformatics knowledge.

Michael Thelan, LLNL, indicated that the higher level positions would have advanced degrees.

Darcy asked if the labs typically hire people that have a biology background or computational skills, or both?

Dave Brekke, Sandia, finds that they end up trying to convert from one to another - what employers would like to see is the integration of the two. positions; Sandia is also thinking about multiple levels, BS, MS, and now even an AS; Sandia very interested in two year degreed positions.

Nan Ho, LPC, asked the advisory to share the type of equipment training our students need.

Nick Heredia, BioRad, indicated that different levels have varied knowledge of even the basics.

Dianna Maar, BioRad, stated that a technician will pick up the skill right away as long as they have had applied experience through their education.

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### Hiring Needs

Dave Brekke, Sandia, indicated that Sandia is looking to hire Electrical Engineering, two year degreed (AS).

Mikal Shuldman, LPC, asked the advisory if it was valuable for biology students to have programming experience.

Dave Brekke, Sandia, stated that yes all students should have BLAST and NCBI.

Michael Thelen, LLNL, not enough sequence analysis at the college level yet, just looking at sequences to query databases to find what might match - there are articles in education journals showing colleges how to use the process to investigate.

Jill Carbone, LPC, asked the student representative Jorge Ligeti what the Lab needed from him as an intern? Jorge responded with Micro Pipetting and that he gained incredible experience at LPC in Microscopy.

Nan Ho, LPC, recommended that an objective for the college could be to provide professional development for the faculty to meet these needs identified by the advisory board. Current two year degrees have high science requirements however it doesn't mean we can't incorporate the skills into the degrees; and create Career Certificates for Statistical Analysis, Cell Culture; To do full blown BioTechnology, it's very expensive with low enrollments.

Michael Thelen asked if there is a redundancy in teaching the skills? Yes, Jill Carbone, LPC, responded - redundancy is actually important at this level of education, cover a topic in entry and then again in higher level classes.

Nan Ho, LPC, suggested that LPC provide professional development for biology faculty to include: industry talks and externships for faculty.

Michael Thelen, LPC, offered to work with Nan Ho, LPC, to develop faculty job shadowing opportunities at LLNL.

Nicole Shapiro, JGI, recommended that faculty could attend the user meeting, this year it's in San Francisco.

Nicholas Heredia- BioRad definitely open to field trips, their firm collaborates with all levels of academia throughout the year.

Nan Ho, LPC, said that she would like to open up the opportunity to all science faculty including chemistry.

Dave Brekke, Sandia, mentioned that Sandia will be open to hosting both students and faculty.

Jill Carbone, LPC, asked about internships, and if there are internships available, send information to directly to faculty.

Nick Heredia, BioRoad, said that there are major changes at the Pleasanton facility however the Hercules facility may have internship opportunities.

Michael Thelen, LLNL, indicated that the Lab has a formal internship process – information posted on the website.

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#### 4. Faculty Report

##### Curriculum Updates:

Jill Carbone, LPC, shared out information about computational biology, bioinformatics - Nick and Dianna of BioRad have agreed to provide consultation to develop a Certificate and/or a Degree . Nick and Dianna are consulting with their colleagues at BioRad to determine content.

Dianna Maar, BioRad, said that she and Nick have sketched out an outline, she has indeed talked to a few colleagues with the conclusion to have a program that brings in both computer sciences and biology with training in the same classroom; need the biology for the computer sciences and computers sciences for the biologist; maybe teams or group based work; definitely project based courses.

Nick Heredia, BioRad, agreed that they definitely have a solid draft however he still needs to reach out to the computational instructor.

Jill Carbone, LPC, indicated that there are two options: 1) Create a degree that includes classes we offer and computational class; and, 2) create a Career Certificate or Certificate of Achievement.

Vicki Shipman, LPC, asked how about both and what the timeline is. Both Nick and Dianna agreed that they would have the course outline completed in Spring 2108.

Jill Carbone, LPC, once the course outline is finalized, she will take through Local Curriculum for approval.

#### 5. Recommendations from the Advisory Board

None

#### 6. Next Regular Meeting (Date)

April 19, 2018