Keck Biotechnology Program at Pasadena City College

CTE Advisory Committee Meeting

2:30pm to 4:00pm, Friday, June 23, 2023

1570 E. Colorado Blvd., Pasadena, CA 91106

Meeting held via Zoom

Time	Agenda Description	Facilitator	Outcome
2:33pm	**Call to Order**	Barbara Driscoll, Ph.D., Chair	Informational
2:33-2:47pm	**Welcome and Introductions** **In attendance:** Barbara Driscoll, Veronica I. Jaramillo, Pamela Eversole-Cire, Karol Lu, **Aron Kamajaya, Marie Csete, Francesca Mariani**, Emily Bangham, Manuel Santana, Jeffrey Cole, **Wendie Johnston, Robert Chow**, Marilyn Johnson, **Glendy Ramirez, Ritchie Ho***, Edward Lien**, Janet Chen**, Terri Quenzer** *New committee member **Guest(s) Voting members in **bold**	Pamela Eversole-Cire, Ph.D., Program Director Karol Lu, Ed.D. Program Coordinator Committee Members	Informational
2:48pm	**Approval of minutes from June 24, 2022 meeting** • **ON MOTION by Marie Csete** – motion to approve the minutes, and seconded by Marilyn Johnson • The committee approved the minutes for the meeting held on June 24, 2022 by unanimous consent	Barbara Driscoll, Ph.D., Chair Committee Members	Informational Vote
2:49-2:51pm	**Program Updates** **A.S. Degrees/Certificates of Achievement (CoA)** • 3 general biotechnology CoAs: • Biological Technology (50 units) + A.S. Degree • Lab Assistant Option (39 units) • Lab Skills (16 units) • 2 specialized CoAs: • Stem Cell Culture (43-44 units) + A.S. Degree • Computational Biology (16-17 units)	Pamela Eversole-Cire, Ph.D., Program Director	Presentation Informational

2:52-2:56pm	**Proposal - A.S. Degree and CoA - Stem Cell-Based Biomanufacturing** · Documentation and principles of GMP will be included in the training and the stem cell-based biomanufacturing course will utilize the portable cleanroom installed in the laboratory space. • **ON MOTION by Marie Csete** – motion to approve the proposal for A.S. Degree and CoA - Stem Cell-Based Biomanufacturing, and seconded by Francesca Mariani • The committee approved the proposal by unanimous consent	Barbara Driscoll, Ph.D., Chair Pamela Eversole-Cire, Ph.D., Program Director Committee Members	Proposal Informational Vote
2:57-3:00pm	**Proposal - Change of prefix of biotechnology courses** · All biotechnology courses are currently using BIOL (biology). · Purpose of the proposal: The proposal to change the prefix from BIOL to BIOT would allow for 1) increase in program visibility; 2) increase student access; 3) distinguish/identify biotechnology courses within a CTE discipline; and 4) faculty qualification and recruitment • **ON MOTION by Marie Csete** – motion to approve the proposal to change the prefix of biotechnology courses from BIOL to BIOT, and seconded by Emily Bangham • The committee approved the proposal by unanimous consent	Barbara Driscoll, Ph.D., Chair Committee Members	Proposal Vote
3:00-3:18pm	**Program Updates (continue)** **Curriculum Improvements - Request for Funding** · Students need access to molecular biology software. Recommendation by former students/alums - access to SnapGene; recommendation by Committee Member - Geneious software · Observed needs in the classroom - add small equipment and more student workstations to increase efficiency of classroom lab activities. Examples include small waterbaths, E-Gel Power Snap Electrophoresis all-in-one system that includes imaging **Internships and Apprenticeship Opportunities** · Internships established last year - CEMI-WAVE at Caltech and Xencor, Inc. · New potential internship partners: Molecular Technologies, Doheny Eye Institute, Bioinformatics at USC · Pre-apprenticeship/apprenticeship (pending):	Karol Lu, Ed.D. Program Coordinator	Presentation Informational

	SoCal Apprenticeship Network (SCAN), Biological Technician Apprenticeship Program (BTAP), LA County Women Pre-Apprenticeship Program, and California Apprenticeship Initiative (CAI) **Program Outcomes** Enrollment (2021-2022): 88 A.S. Degree/CoA awarded (2021-2022): 33 **CIRM Bridges to Stem Cell Research and Therapy Program** • PCC noted as the only community college in Southern California with a CIRM Bridges grant that will last through 2025 • Year 1-13: 91 participants, 84% minorities, 10% are transfer-bound students, 24% were PCC alums; 38 publications and/or patent applications reported for 28 CIRM interns. • Committee member Robert Chow commended the program's long standing reputation as a CIRM Bridges Program serving students in the local area. **Labor Market Information** • The endorsement published in October 2022 by the Los Angeles Center of Excellence (LA - COE) shows that there will be an increase in occupational demand for above middle-skill (bachelor's degree) workers in LA region for Biological Technicians which pays above a self-sufficiency wage (LA County self-sufficiency wage is $18.10). · The report demonstrates that there is a supply/demand gap for above middle skills occupations based on the number of degrees conferred for the occupations of interest. · 82% of the job postings require a minimum education of a bachelor's degree for the occupations of interest (2,672 job postings require bachelor's degrees, LA-COE, October 2022)		

3:18-3:48pm	**Baccalaureate Degree Program Application Status Update** · Application for a baccalaureate degree program (BDP) in stem cell and gene technologies was submitted in January 2023 1) Policy Compliance and Certification 2) Program Planning/Workforce Need 3) Institutional Capacity 4) Program and Curriculum Design 5) Intersegmental Alignment/Non-Duplication **Application approval requirements include:** **1) Program Quality Review** - Passing score is 100/125, BDP proposal submitted scored 86.8%; provisional approval (3/30/23) **2) Intersegmental Partners Review** - Agreement of non-duplication - CSU objections (5/31/23); awaiting additional information and instructions from California Community College Chancellor's Office **3) Accrediting Commission for Community and Junior Colleges (ACCJC)** - Substantive Change Application approved (4/24/23) **4) California Community Colleges Board of Governors** **Curriculum Requirements of BDP** 120 semester units includes a minimum of 60 lower division units 40 upper division units: 9 units of upper division general education (GE) + 31 units of upper division major-specific **Upper Division GE:** Data Management and Statistical Analysis in Biomedical Research (3 units) – lecture Ethical Considerations in Biomedical Research (3 units) – lecture Scientific Writing and Communication in Stem Cell Science (3 units) – lecture **Upper division coursework informed by labor market demands will include:** **1)** Stem Cell Research Methods in Biotechnology Industry and Academia **2)** Stem Cell-Based Biomanufacturing and Bioprocessing **3)** Specialized Techniques and Instrumentation **4)** Computational Biology of Stem Cells **5)** Stem Cells and Cellular Neuroscience **Student Interest Survey for BDP Application**	Pamela Eversole-Cire, Ph.D., Program Director	Presentation Informational

	· Over 75% of students surveyed indicated that they were either interested or very interested in the BDP · Students indicated primary reason for interest was interest in the discipline and/or technical training (59%) · Secondary reasons being interest in the discipline and/or technical training (64%), staying close to home (52%), and limited financial resources (42%) **Workforce Needs for the BDP Application** · Must demonstrate a statewide and regional supply/demand gap, the BDP will provide graduates with the opportunity to earn a living wage, and the occupations in the discipline requires a bachelor's level degree training · Los Angeles and Orange Counties area is the third largest Life Sciences hub for employment, accounting for 25% of job postings between 2017-2020 (Reference: 2021 Life Sciences Workforce Trends Report, California. Biocom and California Life Sciences) **Committee Recommendations** · Contact CSU Faculty/Administrators to discuss the objections · Discuss the agreement with CSUs and make changes/updates to the proposed curriculum to come to an agreement · Reinvest in the program from the tuition charged for upper division courses if the BDP is approved · Meet with other faculty from biotech-related BDPs already approved to discuss the process during the objections phase and implementations · BDP approval would mean that the program would be eligible for undergraduate grants typically only available for 4-year institutions, for example CIRM COMPASS grant · Geneious software is a tool that can be used in molecular biology - recommendation to consider including in courses	Karol Lu, Ed.D. Program Coordinator Committee Members	Presentation Informational Discussion
3:48pm 3:59pm 4:05pm	**Open Discussion** · Hiring faculty for BDP · Find a support network during the objection process and contact other BDP community colleges **Meeting Summary** **Adjournment** • **ON MOTION by Terri Quenzer** – motion to	Committee Members Karol Lu, Ed.D. Program Coordinator Barbara Driscoll, Ph.D., Chair	

	approve the adjournment of the meeting, and seconded by Marilyn Johnson • The committee approved the adjournment by unanimous consent		