

Dear Dr. Jonathan Thomas,

We are writing in response to the rating we received from the GWG group and to request that the ICOC committee reconsider our college for funding. Many observations made by the reviewers can be readily clarified, but some of the reviewer's concerns and comments are understandable and deserving, and will afford us a blueprint for the expansion of our program going forward. In this letter to you, we want to emphasize some aspects of our program that are unique and valuable, clarify some of the reviewer's concerns, and assure the committee that what we have missing at this time would be addressed and installed should we be funded. We also want to note the challenges faced by smaller colleges and programs that have limited resources and as such lack some of the desired infrastructure that underlies the concerns reflected in comments provided by the GWG.

Our program is unique in the East Bay in that it provides rigorous training in biotechnology that allows graduates to proceed in a variety of directions, including securing technician positions in industry and academia, and progressing to 4-year schools and professional programs. We provide a much needed onramp into the science fields for a broad range of students from our community who otherwise would never have the opportunity; and we have developed pathways that allow students to enter at different stages given their prior work and college experiences. Our students are diverse in ethnicity, age, academic training, life experience and family responsibilities; over 60% of are economically disadvantaged and progression to a 4 year school is neither feasible, nor desired. For others who have graduated from 4 year schools and who are seeking to re-tool, re-entry into a 4-year school is not practical. As mentioned in our grant proposal, the CIRM internships received in the past offered a pathway into the world of science for students who otherwise would never have had the opportunity or financial resources to do so.

While small, our program is very strong and has a successful track record of job placement. Included in the appendices of our proposal was a spreadsheet detailing where former CIRM interns headed post-graduation, including both academic pursuits and job acquisition. We have been able to capture these details and maintain this spreadsheet because we make an effort to stay in touch with our students. We are proud that our former CIRM students, many of whom came from disadvantaged backgrounds, and almost all of whom started with a lack of confidence, are now contributing members in the research, clinical and industry labs where they work. Some students have gone on to earn graduate and professional degrees. Moreover, our courses have benefitted from the experiences of our students. Following their CIRM internships, students have informed us of what we can add to our classes that would better prepare students for future CIRM internships, and former students who remain in the area share with us the latest technologies in their labs. We hire many post docs from the major research laboratories in the Bay Area to contribute their expertise, keeping our lecture and lab classes vibrant.

There were a number of comments listed by the GWG expressing concern re: career development and opportunities, with the overall assessment that our program will not be successful as support systems do not appear to be in place. While support systems may not have been spelled out adequately in our proposal, and they may not appear in a formalized structure, they are most certainly present. Faculty, staff and counselors give our students much needed support and guidance throughout their training.

We offer many opportunities for our students to learn about career options, from lunch time seminars and professional day meetings, to small group and individual meetings. During our first CIRM funding, we offered evening seminars devoted to stem cell research and opportunities for both our students and the community which was very popular. However, the comments of the reviewers are important to us. As a small college, many formal structures for career development are still being developed and the addition of a course in career navigation for STEM students would prove a valuable addition.

Another concern expressed in the GWG was the method of placing students in internships, namely that of self-placement. The perception that students were on their own to place themselves in a research lab is not entirely accurate and it is unfortunate that this was not made clearer in the proposal. A more appropriate term for how students would be placed is self-selection. The process offered in the proposal was put in place during the previous CIRM granting period and it worked very well for us: once students were selected, there were numerous meetings to go over the available labs, what to consider when selecting a lab, and how to handle an interview. Students were encouraged to select several labs in case either they, or the lab, determined it would not be a good fit following the interview process. The PIs were told they had the final decision, that students are encouraged to look at more than one lab, and that no harm is done should they decide to decline a student. The benefit of engaging students in the selection process from the beginning, is that they develop confidence in their ability to handle their own decision making, i.e. they “own” the process; the experience of going through the interview process proved invaluable and faculty were present at all times to give support. However, the concerns of the reviewers are valid, and given the substantial number of laboratories with whom we have forged relationships, and who are keen to host our students (we included support letters from different institutions and laboratories), we could put a more formal process in place with pre-approved laboratories and a less time-consuming process for the student.

One other area mentioned by the GWG that should be addressed is that of our DEI efforts. In this section, we highlighted many of the efforts on the part of our college to ensure diversity, equity and inclusion. We would like to elaborate on two efforts. The Campaign for College Opportunity has recognized Berkeley City College (BCC) for 3 consecutive years as a Champion in Higher Education for the increase of BCC students who earn Associate Degrees for Transfer (ADTs). And in 2020, our college was recognized as the inaugural Equity Champion for our work in closing equity gaps of Latinx students earning ADTs. We are the only California Community College with this dual recognition. Also, our biology department is involved in a unique enterprise that is attempting to tackle the problem of what leads students to drop out and what can be done to ensure student success. The greatest attrition rates among underrepresented students occurs in the introductory courses in biology and chemistry which are the gateway to the sciences and medical fields. The grant awarded by the state of California is allowing us, in collaboration with CSUEB and UCB, to learn best practices to make our classes welcoming and the material accessible to all students. For many years now, we have offered boot camps, open labs, and group study sessions in an effort to improve student success, but the drop-out rate remains. Hopefully this study will shed light on where improvements are needed.

In closing, we acknowledge that we do not have all elements in place at this time, nor could we have established some of them in advance not knowing whether we would receive a grant. Nonetheless, we can launch many of these elements quickly to run a successful CIRM program. As mentioned in our

grant, we would have to start small. We have not had CIRM funding for 4 years and we are coming out of a long period of closure, so it will take time to build up. We were aware of the challenges at the time we wrote the grant, but 5 years is a long time for the students in our community to miss out on such a great opportunity. Bayer Pharmaceuticals will be building a Stem Cell Center in Berkeley and our college is uniquely poised to be an active participant in this venue. Our own college is expanding and we will have more laboratory space to train students in mammalian and stem cell culture to meet the needs of industry.

Given our location, the many underrepresented and marginalized students we are striving to serve, and the unique opportunities a CIRM grant will afford our community, we would like to request that the ICOC reconsider our application.

Sincerely,



Dr. Barbara Des Rochers
Program Director,
Biotechnology



Dr. Angélica Garcia
President,
Berkeley City College