



**Advisory Committee Board Meeting - Biotechnology
3/09/2022, 6:30 – 8:30 PM, Held in Campus Center Conference Room and on Zoom**

NAMES OF ADVISORY COMMITTEE MEMBERS	ATTENDANCE; Present or Absent	Name of Company, Business, College, High School	Email Address	Telephone Number	Mailing Address
Chair					
Subhash Karkare	Present	MC	skarkare@vcccd.edu	(805) 553-4712	
Industry Partners					
Karen Arreola	Absent	Thermo Fisher/MC	Karen_arreola1@vcccd.edu		
Kory Austria	Absent	Amgen	kneswald@amgen.com		
Greg Couchon	Present	Amethyst Life Sciences	greg@amethystls.com		
Christine Covert	Present	Takeda	Christine.covert@takeda.com		
Kenny Cruz	Present	PBS	kcruz@pbsbiotech.com		
Steve Dahms	Absent	SoCal Bio	Sdahms100@yahoo.com		
James Evenson	Absent	Thermo Fisher Scientific	james.evenson@thermofisher.com		
Jennifer Escobar	Absent	Takeda	jennifer_escobar@takeda.com		
Stuart Jaffe	Present	Amgen	stujaffe@aol.com		
Wendie Johnston	Present	Pasadena Bio	wajohnston@mac.com		
Marybeth Jacobson	Present	Ventura County	mbjacobsen607@gmail.com		
Sunghoon Jung	Absent	PBS Biotech	sjung@pbs.com		
Brendon Keiser	Absent	Curia Global	Brendon.keiser@curiaglobal.com		
Trevor Kelly	Absent	Aerotek	trkelly@aerotek.com		
Melissa Kirkegaard	Absent	Independent Professional	melissakirkegaard@me.com		
Deborah Klein	Present	MC	dklein@vcccd.edu		
Brian Lee	Absent	PBS Biotech	blee@pbsbiotech.com		
Marc Leslie	Present	Amgen	mleslie@amgen.com		
Jeff Lewis	Absent	Thousand Oaks HS	gate.cutter@gmail.com		
Nancy Lewis	Absent	Atara Biosciences	nlewis@atarabio.com		
Jonathan Lull	Absent	Amgen	jlull@amgen.com		
Rob Murphy	Absent	Capsida Biotherapeutics	Rob.murphy@capsida.com		
Phillipe Pare	Present	ECA Medical Instruments	ppare@ecamedical.com		
Ketaki Patel	Present	Arcutis/ MC	ketaki_patel1@vcccd.edu		
William Pratt	Present	Kinamed	wpratt@kinamed.com		
Terri Quenzer	Present	Mira Costa College	tquenzer@miracosta.edu		

Mike Reilly	Present	Curia	michael.reilly@curiaglobal.com		
Bryn Ropa	Absent	Curia Global	Bryn.ropa@curiaglobal.com		
Francisco Rosello	Absent	PBS Biotech	frosello@pbsbiotech.com		
Dusty Russell	Present	Thousand Oaks	Drussell@toaks.org		
Lisa Severy	Absent	Independent Professional	lsevery@hummingtires.com		
Greg Stelmar	Present	Independent Professional	gstelmar@gmail.com		
Steve Swanson	Present	Genentech	swanson.steven_@gene.com		
Nicole Tejeda	Absent	Amgen	ntejeda@amgen.com		
Kanti Thirumoorthy	Present	Neogene	Kanti.Thirumoorthy@neogene.com		
Emma Uichanco	Present	Freuden	egallarz@gmail.com		
Heather Wise	Absent	TMJ Concepts	heather@tmjconcepts.com		
Melissa Williams	Absent	ECA Medical Instruments	mwilliams@ecamedical.com		
Administration					
Robert Cabral	Present	MC	rcabral@vcccd.edu		
Carol Higashida	Present	MC	chigashida@vcccd.edu		
Celine Park	Present	MC	cpark@vcccd.edu		
Mary Rees	Present	MC	mrees@vcccd.edu		
Eric Reese	Present	MC	ereese@vcccd.edu		
Julius Sokenu	Absent	MC	jsokenu@vcccd.edu		
Student Representatives					
Mike Maldonado	Present	MC	mikeandrew49@gmail.com		
Keira Thorgusen	Present	MC	keira_thorgusen1@my.vcccd.edu		
Faculty					
Audrey Chen	Absent	MC	achen@vcccd.edu		
John Clark	Absent	VC	jclark1@vcccd.edu		
Hovik Gasparyan	Present	MC	hgasparyan@vcccd.edu		
Timothy Grasel	Present	MC/independent professional	tgrasel@seas.ucla.edu		
Melissa McCoy	Present	MC	Melissa.mccoy@csuci.edu		
Nitika Parmar	Absent	CSUCI	Nitika.parmar@csuci.edu		

AGENDA

ACTION SUMMARY

	Notes	ACTION
1. Dinner/Networking 6:30 –7:00 PM 1.1 Welcome new members	1.1 We had a nice turnout with representation from numerous industry partners including former alumni, faculty from other community colleges, and Moorpark faculty and administration. The meeting was held in hyflex format, with most people attending in person, while a few guests attended virtually. Dinner was served from 6:30-7:00 PM.	
2. Current Status of Program: 2.1 Report on Status of the program (S. Karkare) 2.2 STEM Impacto grant update (H. Gasparyan) 2.3 Student feedback on program strengths and improvement opportunities	2.1 Subhash reported on the status of the program. Our enrollment numbers have rebounded very nicely as the COVID-19 pandemic has subsided. We have plenty of internship opportunities, but not enough students to fill every spot! We hosted multiple job ready forums, high school workshops and a summer bridge course. We've also applied for a B.S. in Biomanufacturing degree program. 2.2 Hovik presented an update on the STEM Impacto program, highlighting the successes within the Biotech program. Our industry partners were very interested in this program, especially about the paid internships that students receive.	

	<p>2.3 Mike enjoyed the “hands-on” aspect of classes and learning from guest speakers. He suggested including engineering and calculus as optional courses. Keira likes that the courses help build student confidence in their ability to perform practical lab tasks, as well as the documentation skills she learned.</p>	
<p>3. BS Biomanufacturing Proposal – industry input (S. Karkare)</p>	<p>Subhash reported that our Biotech program was one of 10 in the state to apply for the opportunity to award a bachelor’s degree in an applied field (biomanufacturing). The application is currently under review by the state, and we expect to hear back in May. The curriculum will add 10 additional upper division Biotech courses and 3 general education courses on top of the existing courses for the Associate’s degree. The courses follow the model set by Mira Costa and Solano College in their Biomanufacturing BS programs, with one minor change (the addition of a Cell and Gene Therapy course).</p> <p>Advisory board members were very supportive of the proposal. Steve Swanson suggested including bioanalytics and bioinformatics courses in the curriculum. Greg Couchon raised concerns about the cost of equipment for training students, but Kanti Thirumoorthy suggested that students can be trained on the theoretical aspects in the class, then learn the applied aspects in internships. Subhash said that we can apply for grants to purchase new equipment. Both Marc Leslie and Tim Grasel think the technical writing class is essential for nearly every job in the industry, and Steve Swanson emphasized the importance of oral communication. Philippe Pare suggested we consider teaching biocompatibility and bioburden testing topics in one of the courses. Tim was concerned about how challenging some of the math requirements could be, but wants statistics to be a requirement. Kenny Cruz thinks the control systems class is essential, and suggested using simulation software for training to cut down on cost. Bill Pratt suggested forging relations with UCs for students interested in bioengineering.</p> <p>The advisory board unanimously voted in favor of moving forward with the proposal.</p>	<p>If the proposal is approved, we will apply for a substantive change application.</p>
<p>4. Industry 4.1 Updates from industry -trends/ changes(all) 4.2 Suggestions for equipment purchases(all)</p>	<p>Kanti said that gene editing tools (like CRISPR) are becoming much more common in the industry. William mentioned risk analysis/assessment is an important trend in the medical device field, and Kenny agreed. Mike Reilly suggested that we market our program by tracking alumni job placement and advertising the data on our website. Celine mentioned that VCOE recently got a grant that partners local high schools with Moorpark college, to feed students into the biotech program.</p> <p>The advisory board was supportive of our proposal to purchase a new chromatography system. They recommended with go with an AKTA model. Mike Reilly mentioned there’s a trend towards single-use equipment in industry. Steve Swanson mentioned we consider purchasing a flow cytometer. Kenny cautioned about investing a large sum of money in a “hot” item or trend which can be outdated quickly, and recommended sticking to the basics and/or modular versions that can be upgraded. William asked about our current environmental monitoring and microscopy instrumentation.</p>	<p>We will apply to purchase a new chromatography system.</p>
<p>5. New Business</p>	<p>Celine Park requested feedback from the advisory board about how we can improve and provide better prepared students for the local businesses.</p>	<p>Celine will send survey link to Subhash</p>
<p>6. Set next meeting date</p>	<p>The next meeting will be in the Spring of 2023, most likely in March.</p>	

Meeting Summary completed and distributed by: Hovik Gasparyan Date: 3/25/2022

Handouts

*Please note Meeting Summaries should be completed, distributed to all participants and posted on MC Share in Advisory committee folder within 1 month of the meeting.