



## MIRACOSTA COMMUNITY COLLEGE DISTRICT BOARD OF TRUSTEES

Workshop  
3 P.M. – THURSDAY – FEBRUARY 23, 2023  
CONFERENCE ROOM 1054 – OCEANSIDE CAMPUS  
1 BARNARD DRIVE – OCEANSIDE, CA

### AGENDA

- I. CALL TO ORDER
- II. FLAG SALUTE / ROLL CALL
- III. PUBLIC COMMENT ON ITEMS ON AND NOT ON THE AGENDA

**ITEMS ON THE AGENDA:** Members of the audience may address the Board of Trustees on any item listed on the agenda when that agenda item comes up for discussion and/or action. Comments will be limited to three (3) minutes per agenda item and a total of fifteen (15) minutes of public comment on any one item, unless waived by the board. Non-English speakers utilizing a translator will have six (6) minutes to directly address the board. Consent items are considered routine and customary district business, and are voted on in one vote; however, a board member or a member of the audience may request that an item listed on the consent items be removed and considered individually.

**ITEMS NOT ON THE AGENDA:** Members of the audience may address the Board of Trustees on any topic not on the agenda so long as the topic is within the jurisdiction of the district. Under the Brown Act, the board is not permitted to engage in public discussion or take any action on an agenda item not on the agenda, except that members of the board may briefly respond to statements made or questions posed by persons exercising their public testimony rights under Government Code §54954.3. In addition, on their own initiative, or in response to questions posed by the public, a member of the board may ask a question for clarification. A member of the board or the board itself may provide a reference to staff (superintendent/president) or other resources for factual information, request staff (superintendent/president) to report back to the body at a subsequent meeting concerning any matter, or take action to direct staff (superintendent/president) to place a matter of business on a future agenda. Comments from visitors shall not exceed three (3) minutes unless the board waives the time limit. Non-English speakers utilizing a translator will have six (6) minutes to directly address the board. The board may also limit the total amount of time for speakers on a particular topic to fifteen (15) minutes.



**DECORUM:** Board Policy 2355 requires members of the public to observe order and decorum at board meetings and to conduct themselves in a courteous manner, avoiding profanity, obscenity, other abusive language, and threats of violence. The board president, as presiding officer, has the authority to run the meeting, which includes the authority to issue warnings, call for recesses, or clearing the boardroom in the event of disruptive behavior. Speakers shall speak to the issues and refrain from using defamatory or abusive personal remarks that disturb or impede the meeting or exceed the bounds of civility necessary to the conduct of the business of the district. Government Code section 54954.3(c) establishes that the legislative body of a local agency shall not prohibit public criticism of the policies, procedures, programs, or services of the agency, or of the acts or omissions of the legislative body, and California Penal Code section 403 makes it a misdemeanor for any person to willfully disturb or break up any assembly or meeting with lawful authority.

- IV. CHANGES IN AGENDA ORDER
- V. PRESENTATIONS
  - A. BioScience Hub Update
- VI. ADJOURNMENT

### UPCOMING MEETING

4 p.m. – March 16, 2023  
Regular Meeting and  
Board Workshop

In compliance with Government Code §54957.5, nonexempt writings that are distributed to a majority or all of the MiraCosta Community College District Board of Trustees in advance of their meetings may be viewed at the Office of the Superintendent/President, One Barnard Drive, Oceanside, California, or by clicking on the Board of Trustees' website at <http://www.miracosta.edu/OfficeOfThePresident/BoardofTrustees/Agendas.htm>. Such writings will also be available at the board meeting. In addition, if you would like a copy of any record related to an item on the agenda, please contact Julie Bollerud, executive assistant to the superintendent/president, at 760.795.6610 or by email at [jbollerud@miracosta.edu](mailto:jbollerud@miracosta.edu).

<b>Subject:</b> Bioscience Workforce Development Hub	<b>Attachment:</b> PowerPoint Presentation
<b>Category:</b> Presentations	<b>Type of Board Consideration:</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <span style="text-align: center;">✓ Information</span> <span style="text-align: center;">Consent</span> <span style="text-align: center;">Action</span> </div>
<b>Institutional Goals:</b> <a href="#">mcc_mission_statement.pdf (miracosta.edu)</a>	<b>Institutional Goal Supported:</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <span style="text-align: center;">✓ Goal 1</span> <span style="text-align: center;">✓ Goal 2</span> <span style="text-align: center;">✓ Goal 3</span> <span style="text-align: center;">Goal 4</span> </div>
<b>Recommended:</b>  <hr/> <b>Kristina Denée Pescarmona</b> <b>Assistant Superintendent/Vice President,</b> <b>Instructional Services</b>	<b>Approved for Consideration:</b>  <hr/> <b>Sunita V. Cooke, Ph.D.</b> <b>Superintendent/President</b>

**BACKGROUND**

The Life Sciences/Biotechnology sector work began as part of the statewide Strong Workforce program hosted by the Chancellor’s Office. In 2022, MiraCosta College received a seed grant from the Chancellor’s Office to create the BioScience Workforce Development Hub. Hosted by MiraCosta College, the Hub has secured approximately \$6M in grants to develop inclusive training pathways in bioscience.

**STATUS**

Dean Mike Fino and Executive Director, Terri Quenzer will provide an overview of the work of the Bioscience Workforce Development Hub. The focus will be on how the Hub is supporting MiraCosta students as well as students throughout California.

**RECOMMENDATION**

For information only.



## Bioscience Workforce Development Hub

*Advancing Bioscience Education and Training in California*

Hosted at MiraCosta College

Mike Fino, EdD  
Terri Quenzer, PhD  
Keau Wong, MBt

February 23, 2023



**Bioscience Workforce Development Hub**

*Advancing Bioscience Education and Training in California*  
Hosted at MiraCosta College

# Bioscience Workforce Development Hub Team

- **Mike Fino, EdD** Dean of Mathematics & Sciences
  - **Terri Quenzer, PhD** Executive Director
    - **Keau Wong, MBt** Director
    - **Josie Sette, MS** Bay Area Sector Consultant
    - **Wendie Johnston, PhD** Greater Los Angeles Area Sector Consultant



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# The Origin Story

- CCCCO Strong Workforce Program defines industry sectors with statewide and regional leadership to connect industry, workforce/economic development, and community colleges
  - Life Sciences/Biotech Sector
    - Terri in statewide role and Keau, Josie, and Wendie with regional roles
  - Sector roles funding ends in 2021
- CCCCO provides seed funding for Hub to continue related work with expectation to pursue extramural funding for on-going sustainability
- MiraCosta hosted two regional leads and takes opportunity to host the Hub



## Mission Statement

*Facilitate development of inclusive and accessible bioscience career education and training pathways in California that lead to employment opportunities with upward mobility that enable students to go after their dreams*



# Biotechnology

- Use of cellular & bio-molecular processes to develop technologies & products
  - Combat disease
  - Reduce environmental footprint
  - Feed the hungry
  - Use less and cleaner energy
  - Safer, cleaner, more efficient industrial manufacturing processes



## Biotech Industries

- Medical
  - Therapeutics
    - Pharmaceutical companies
    - Biotechnology companies
  - Medical devices
- Agricultural biotechnology
- Fermentation (industrial, foods, beer, wine)
- Food Technology
- Biodegradable plastics
- Biofuels
- Bioremediation





# The Need

Figure 1. Life Science Employment and YOY Growth, 2021

	California		USA	
	Emp (2021)	YOY % growth	Emp (2021)	YOY % growth
Biotechnology	66,290	13.2%	308,355	9.7%
Research & Manufacturing	160,753	4.9%	1,215,458	2.5%
Biopharmaceuticals	81,319	4.2%	578,085	3.4%
Medical Devices and Equipment	90,631	3.8%	628,356	4.4%
Scientific/Research Tools	35,615	4.7%	168,371	2.4%
Food and Agriculture Biotechnology	1,035	2.4%	19,485	1.2%
<b>Total</b>	<b>435,693</b>	<b>5.8%</b>	<b>2,918,109</b>	<b>3.9%</b>

Life Science Economic Impact Report 2022, Biocom.org

Future bioeconomy was recently projected to become worth somewhere between \$4 trillion and \$30 trillion dollars globally

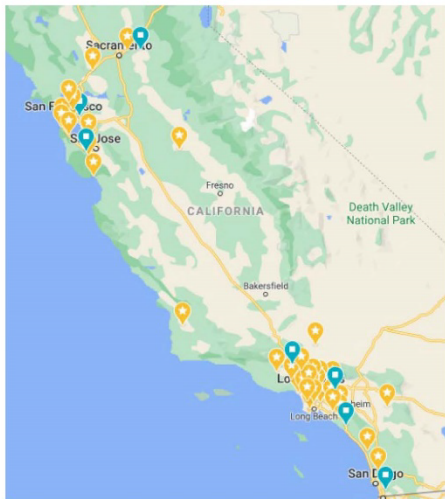
Schmidt Futures, 2022

California has the largest biotechnology employment base in the nation. Industry projections forecast 8% growth in jobs through 2024.

Biotech Skilled Technical Workforce Needs Assessment, 2021



## CC Bioscience Programs in CA



### Active Certificate & AS Degree Programs:

- 33 Biotech/Biomanufacturing Programs
- 6 Medical Laboratory Technician Programs
- 3 Chemical Technology Programs
- 2 Histotechnology Programs
- 1 Computational Biology Program

### AS Degree Programs Under Development:

- 5 Biotech/Biomanufacturing Programs

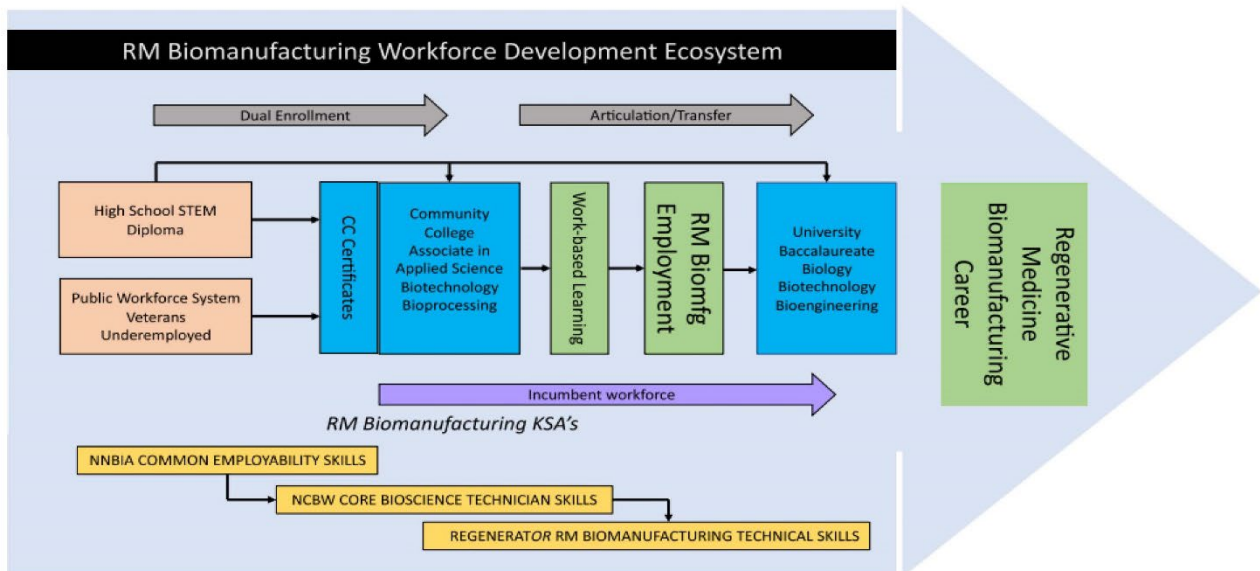
### BS Degree Programs:

- 3 Active Programs (2 Biomanufacturing; 1 Histotech)
- 1 Approved Program (Biomanufacturing)
- 2 Applied in January (Bioman; Stem Cell Tech)

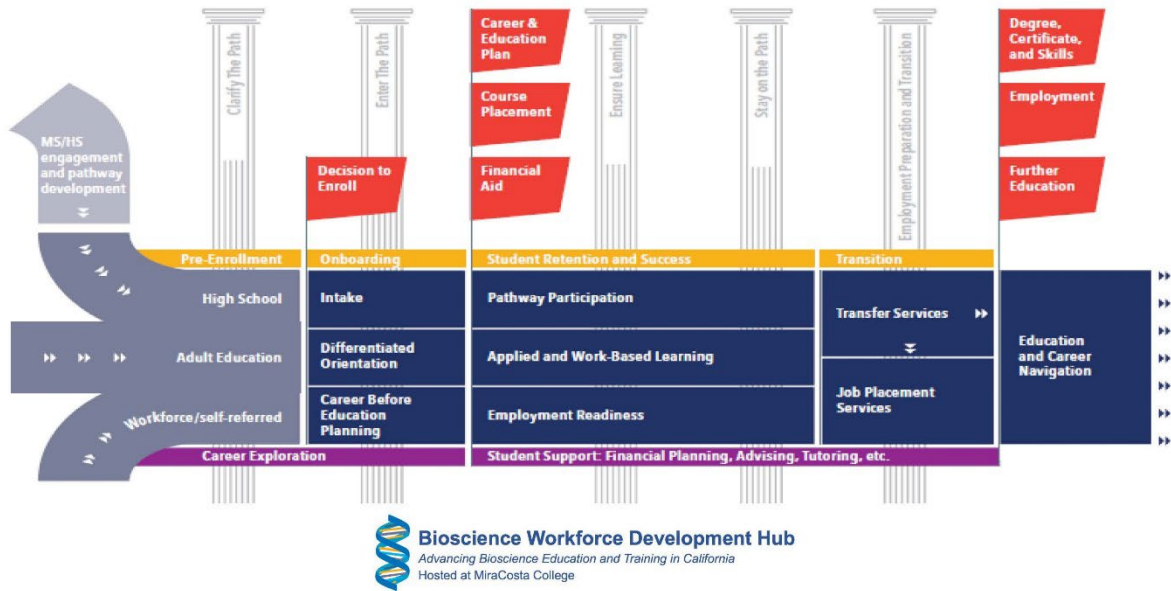


# Life Science/Biotech Statewide & Regional Initiatives

- Expansion of Biotech/Biomanufacturing programs
- Faculty professional development
- First apprenticeship program in Biotech
- 3<sup>rd</sup> party credentials:
  - Development of the BioTC Industry-Recognized Credential
  - State adoption of the BACE
- Novel Food Safety compliance apprenticeship program
- InnovATEBIO



## A Community College Student's Road to Success



## Bioscience WD Hub Grant Summary

- 5 grants awarded (\$4.6M, 5yrs)
- 7 proposals submitted and pending (\$4.1M, 5 yrs)
- 3 proposals in preparation for submission (\$2.4 M, 5 yrs)
- Funding sources include regional, state, and national organizations



# Quick Peak Pending and Future Grants

- NSF ATE: Bioscience Supply Chain Operations Projects for Education (\$650K, 3yrs)\*
- NSF ATE: Assoc. of Biomolecular Research Facilities Consortium Grant (sub-award to MCC, \$164K, 4yrs)
- CAI Apprenticeship Implementation
  - Food Safety, Compliance, & Quality (\$1.5M, 3 yrs)
  - Regenerative Medicine (\$1.5M, 3 yrs)
- CAI Apprenticeship Planning
  - Clinical Laboratory Science (\$120K, 3 yrs)
  - Medical Laboratory Technology (\$120K, 3 yrs)
- San Diego Foundation Science & Technology (\$75K, 1.5yrs)
- National Science Foundation
  - Scholarships in STEM (S-STEM): Institutional Capacity Building (\$1M, 5 yrs, 3/29/23 submission)
  - Experiential Learning for Emerging & Novel Technologies (ExLENT): Biotech & Biomanufacturing (\$1M, 3yrs, 3/2/23 submission)
  - Enabling Partnerships to Increase Innovation Capacity (EPIIC): Life Sciences and Biotechnology (\$400k, 3yrs, 5/25/2023)

\*Advanced to funding consideration



## Scope of Grant Activities Includes

Grant Activities	Students	Faculty	Industry Partners
Mentorship	✓	✓	✓
Paid Internships, Pre-Apprenticeships, & Apprenticeships	✓		
Supply Chain Biomanufacturing	✓	✓	✓
Food Safety Compliance	✓		
Professional Development		✓	✓
Employer Engagement	✓	✓	✓
Community of Practice	✓	✓	✓
Outreach & Recruitment	✓	✓	✓
Bioscience Pathway Development	✓	✓	✓
DEIA-Focused	✓	✓	✓



# Initiatives and Outcomes

- Work-Based Learning Expansion
- Robust Employer Talent Pipelines
- New and Innovative Sector Apprenticeships
- Statewide Expansion (4-Yr programs)
- Increase Graduate School Affiliations
- Faculty Support and Professional Development
- Employer Incentives (Grant partnerships, ETP, Training, Retention)
- Internship Pathways for Students with Disabilities
- State Adoption of the Biotechnician Assistant Credentialing Exam (BACE) Industry-Recognized Credential
- National NSF Biotechnology Education Center (InnovATEBIO) Leadership Committee



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