

CA LEAD TEAM Survey Synopsis

Responses: 16

ACADEMIA		INDUSTRY	
Community College	4	Company	3
Community College / Workforce	1	Non-profit	3
High School	2	INDUSTRY ASSOCIATION	1
		WORKFORCE / ECON DEV	2

- I. **Considering your role, what would you say are two to three Bioscience workforce priorities for California?** **[We will briefly review this question in the main meeting]**

Industry

1. Continue reaching out to high school students who will want to enter the programs at community colleges.
2. Continue to assist community colleges in their start up process as a biotech program. Have a unified certification process.
3. Increase job readiness for STEM students; work with industry partners to create opportunities for internships, co-ops, and apprenticeships.
4. Secure more acceptance of Apprentice programs by industry. Development of externships at companies for CC Bioscience professors.
5. Management of student expectations so they understand the balance between theory and actual work experience.
6. Bolstering state-wide education and training in the biosciences by prioritizing alternative protein technologies as an essential new learning pathway.
7. Creating new alternative protein courses and majors; Weaving plant-based, cultivated, and fermentation technologies into existing courses and majors.

Community College / Faculty, Pathway Support / Worforce Dev

1. Improving representation in access to bioscience majors and, for the same, improving their success in meeting their employment or transfer goals.
2. We need more diversity in our bioscience workforce, and more information-sharing with the community about the role of bioscience/biotech and the job opportunities in the field.
3. Industry relationships, technology access, professional development.
4. Awareness of the field = enrollment, keeping up with new technology, coordination of effort

Trade Association & Workforce Development

1. DEMAND: Understanding industry demand at a local /regional level and matching those companies with relevant ATE programs. SUPPLY: map ATE programs and skills they train for
2. Developing effective partnerships between industry and academia and helping state trade associations support their members' workforce needs by partnering with CCs
3. Engage employers in work experience opportunities for ages 16-18 and up.
4. Develop a joint alliance of post-secondary bioscience education institutions to work together on priority strategies and a single 'advisory board' to allow employers a voice without too many entities asking for their time.
5. Degreed apprenticeships in Biotechnology-Biomanufacturing. Co-op public private pipelines.
6. Diversifying the Talent Pipeline; aligning curriculum to meet sector needs.
7. Hands-on training, externships for teachers

K-12 & Non-Profits supporting Pathways

1. To increase underrepresented students and diversity:
 - Recruitment and enrollment - getting CTE and nonCTE teachers to introduce biotech as biology in classes all students take in high school.
 - Industry partnerships for Work Based Learning
2. Clarify ways to pay students for internships that benefit industry and students - LAEP, pre apprenticeships or apprenticeships
3. ID more manageable way for teachers to receive credentialing for CTE
4. Identifying Industry partners with an established workforce need that our specific Community College Program can meet. Going beyond "advisory board" to genuine collaboration.
5. Related to the first priority, establish internship and/or apprenticeships with industry or research partner that can be used as incentive for College students to participate.

II. What can you bring to the team that is specific to your work/organization that can help strengthen our workforce efforts?

1. Student recruitment and collaborative projects/ grant.
2. Strategy and ideation of impactful programs.
3. Understanding of the education and business environment to liaison workforce strategies that our State team agrees are priorities.
4. Expertise in new technology; a training facility
5. We work closely with local High Schools and initiatives to recruit students into our community college pathways. Also, we have experience working with school districts more broadly (thinking about how to make explicit ways for CC partners to engage High Schools). Work with feeder HS to CC programs by providing support & resources to HS teachers; be a bridge between HS and CC
6. Hands-on training, externships for teachers
7. An industry voice to the workforce efforts.
8. Increase the number of companies and their workers of the value of on-the-job training and e-learning.
9. Knowledge partner on workforce development gaps/bottlenecks/opportunities in the alternative protein space and vast network of alternative protein industry partners.

10. I have been leading the BioTC program for the last ten years to someday have a unified certificate for biotech statewide.
11. In 2024 GFI will be working to build curriculum related to alternative protein. We also have a global network of instructors who contribute to an Alternative Protein curriculum. We also have relationships with companies in the space who could provide guidance about skillsets needed.
12. Partner with colleges to help place students into internships; work together to identify employment gaps that can better position students/alumni with entry level roles.
13. Help on mapping/landscape analysis exercise; guiding development of team infrastructure; potential help with workforce summit if team decides to go there.
14. I've been part of Ohlone College's biotech program for about 20 years and have experience with students, college administration, local industry partners. We're also trying to develop apprenticeships in biotech.

III. Moving forward, who else do you think should be on this CA Lead team? Who else should be on team?

INDUSTRY

- More industry representatives
- More industry or research partners in NorCal
- At least 3 employers -preferably 2-3 from each region (NoCA, mid CA-LA region, southern-SD region)
- Society of Human Resource Managers (SHRM) rep responsible for bioscience
- Niedre Heckman - Director of RA at Takeda.
- SoCal Bio
- BioscienceLA
- Women In Bio

MANUFACTURING INSTITUTES

- [Bio P2P](#) and [CA Biomanufacturing Center](#) – Carey Kopay
- [BioEconomy, Agriculture, & Manufacturing \(BEAM\) Initiative](#) (rep leading workforce dev. If they receive Phase 2 NSF funding)

ACADEMIA

- Community Colleges
- Pamela Eversole (Pasadena City College),
- Chandler Arora (LA Mission College)
- Moorpark College
- Nita Sharma (Ohlone College)
- Nick Kapp (Skyline College)
- Post-Grad
- Keck Graduate Institute

ECON / WORKFORCE DEV

- TEAM CA
- Bay Area Council
- LAEP

ADVOCACY

- Patty Cooper, CA Biotechnology Foundation

IV. As you consider working with this CA Lead team, what will keep you engaged in this partnership?

1. Regular communication or meeting. Updates on our progress
2. Delivering on projects tasks and outcomes. Specific goals and focused meetings aimed at specific outcomes.
3. Clearly identifying priorities and activities related to these goals and focus on getting this work done, or at least trying them. Sharing feedback on efficacy of what works.
4. Helping students enter this amazing industry.
5. Student-centered initiatives.
6. Partnership and demonstrated commitment to helping students connect with entry-level or internship opportunities at Pfizer.
7. Intention to motivate employers to participate that's driven equally by our team of stakeholders. Further, given the SBWIB Special Projects funding, it's imperative that apprenticeship/pre-apprenticeship development and expansion be promoted.
8. Continued discussion of innovations.
9. Clear, steady, measurable progress towards incorporating alternative protein technologies into the state education and training agenda; Development of roadmap, co-development of curricula. We'd love to see continuous progress on biotech students being placed in the alternative protein and bioeconomy workforce.
10. More engagement with the CA CC Bioscience programs professors and their leaders
11. Actionable steps to support HS/CC faculty in recruitment and retention.
12. Co-engagement from a balanced cross-representation of stakeholders who want to get things done: (1) developing our first workforce action plan (2) building an engaged team for ongoing workforce collaboration, including fund development