

COMPASS Program

The Solano Community College Experience

Jim DeKloe and Mike Silva

Solano College

Vacaville, CA

Sacramento

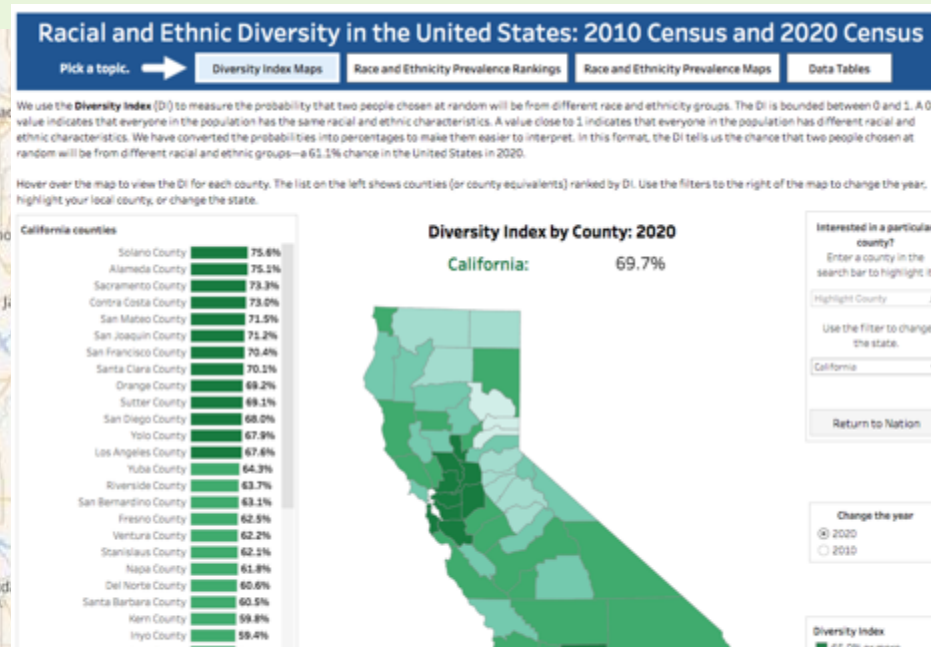
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March 26, 2026




Introduction to Solano County and Solano College




Campus Locations




Fairfield Campus
4000 Suisun Valley Road, Fairfield CA, 94534




Vallejo Campus
545 Columbus Pkwy, Vallejo CA, 94591




Vacaville Campus
2001 North Village Parkway, Vacaville, CA 95688



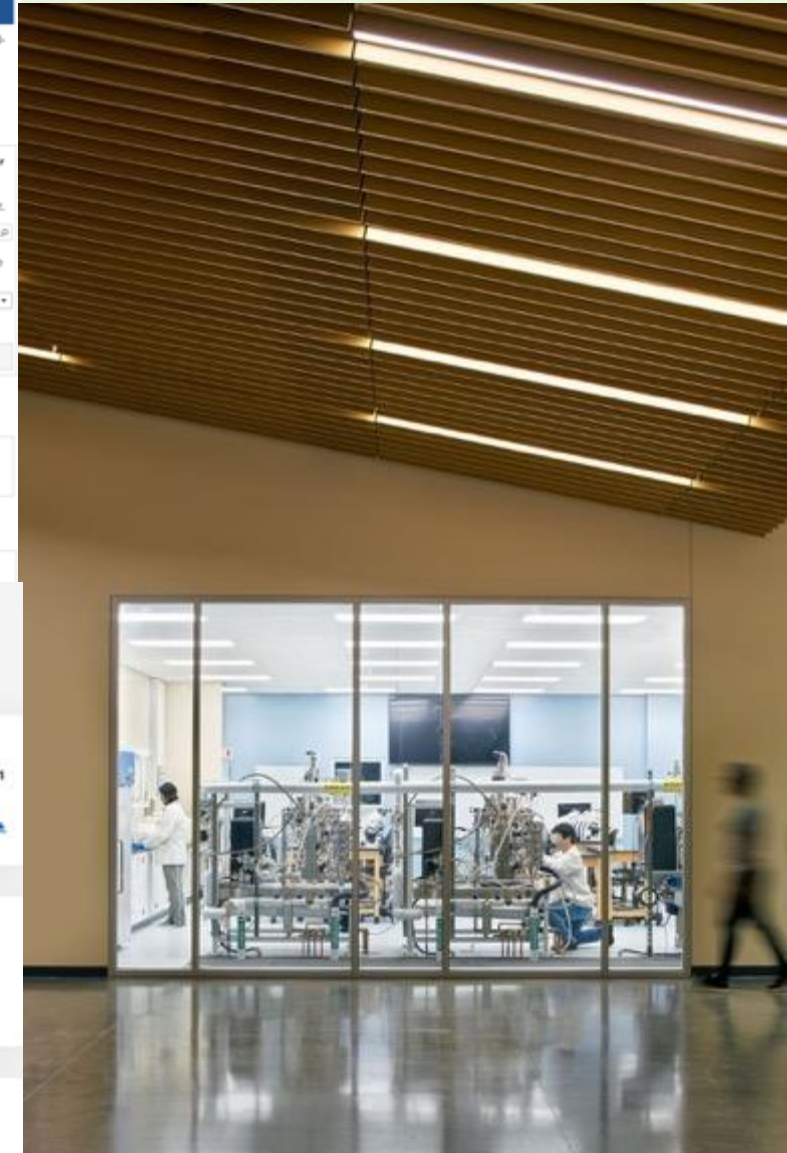
Auto Tech Center
1687 North Ascot Parkway, Vallejo CA 94591



Travis Air Force Base
530 Hickam Ave, Bldg 249 TAFB, CA 94535



Aeronautics Center
281 County Airport Rd, Vacaville, CA 95688



MiraCosta College



**Solano College Started our Industrial Biotechnology program when
Genentech Announced Vacaville Expansion – 1994
Lonza Acquires the Biomanufacturing Plant for \$1.2 billion - 2024**



Protein Pharmaceuticals



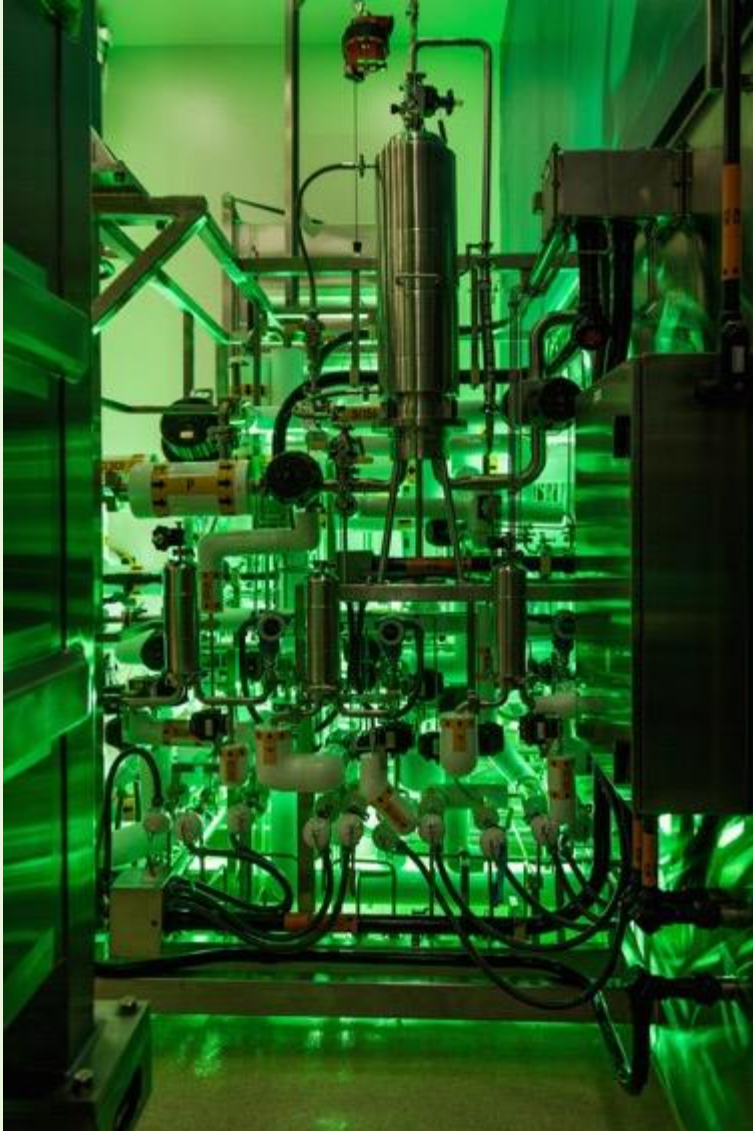
Most of the top pharmaceuticals are biotech produced biologics

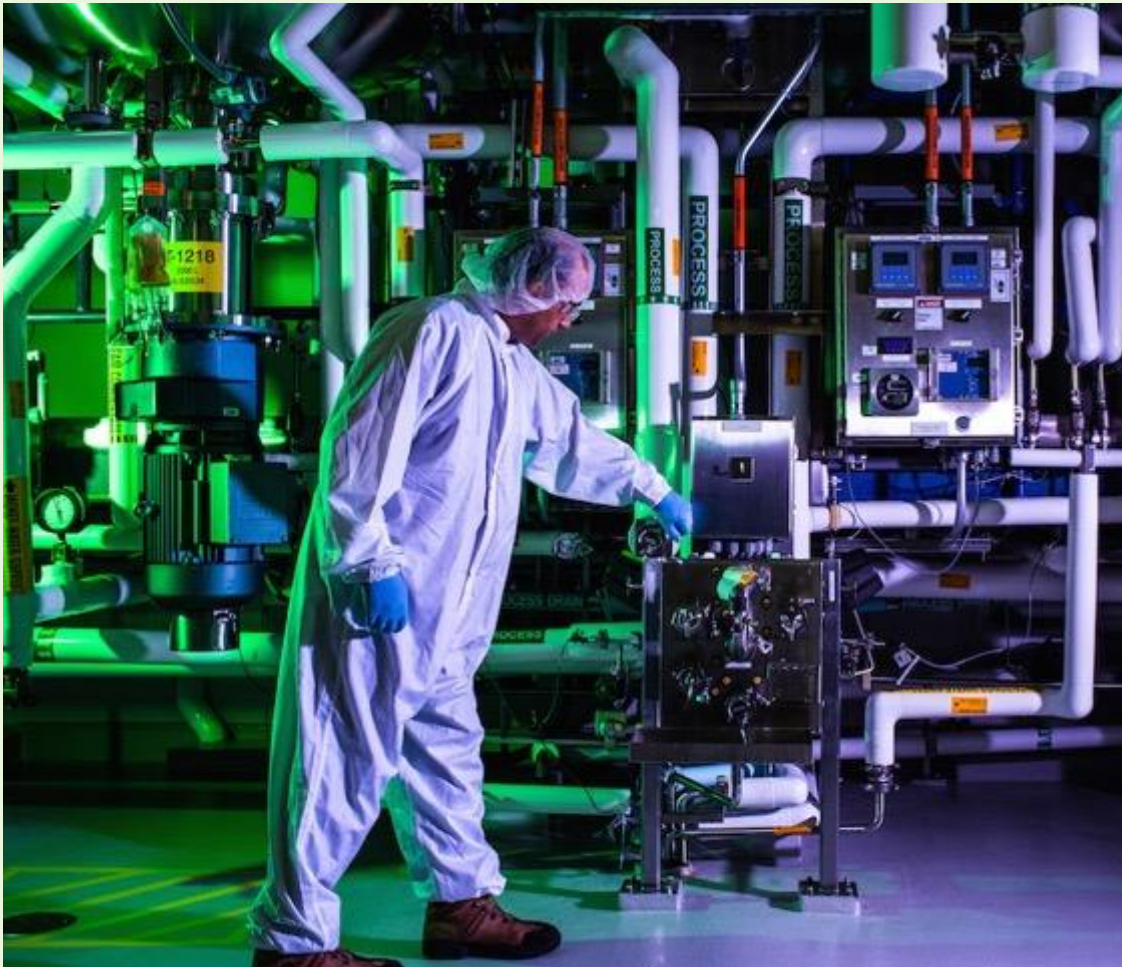
Table 1 | Top product forecasts for 2024

Rank	Product	Company	Pharmacological class	2024 worldwide sales forecast (US\$)
1	Keytruda	Merck & Co.	Anti-PD1 mAb	27.19 billion
2	Ozempic	Novo Nordisk	GLP1 receptor agonist	16.13 billion
3	Dupixent	Sanofi/Regeneron	Anti-IL-4/IL-13 mAb	13.45 billion
4	Eliquis	Bristol Myers Squibb/Pfizer	Factor Xa inhibitor	13.31 billion
5	Biktarvy	Gilead Sciences/Yuhan	HIV INSTI/NRTI/NtRTI	12.57 billion
6	Darzalex	Johnson & Johnson	Ant-CD38 mAb	11.98 billion
7	Opdivo	Bristol Myers Squibb/Ono	Anti-PD1 mAb	11.33 billion
8	Comirnaty	Pfizer/BioNTech	SARS-CoV-2 vaccine	10.79 billion
9	Gardasil	Merck & Co./CSL	HPV vaccine	10.03 billion
10	Skyrizi	AbbVie	Anti-IL-23 mAb	9.93 billion

Forecasts include sales booked by global marketing partner, where relevant. Estimates based on sellside equity analyst models, compiled by Evaluate Pharma to generate a consensus view. INSTI, integrase strand transfer inhibitor; GLP1, glucagon-like peptide 1; HPV, human papilloma virus; mAb, monoclonal antibody; NRTI, nucleoside reverse transcriptase inhibitor; NtRTI, nucleotide reverse transcriptase inhibitor; PD1, programmed cell death protein 1; SARS-CoV-2; severe acute respiratory syndrome coronavirus 2. Source: EvaluatePharma and company statements, December 2023.

Biomanufacturing = the manufacturing sector of biotech





Biotechnology that is Career Oriented Formally Career Technical Education



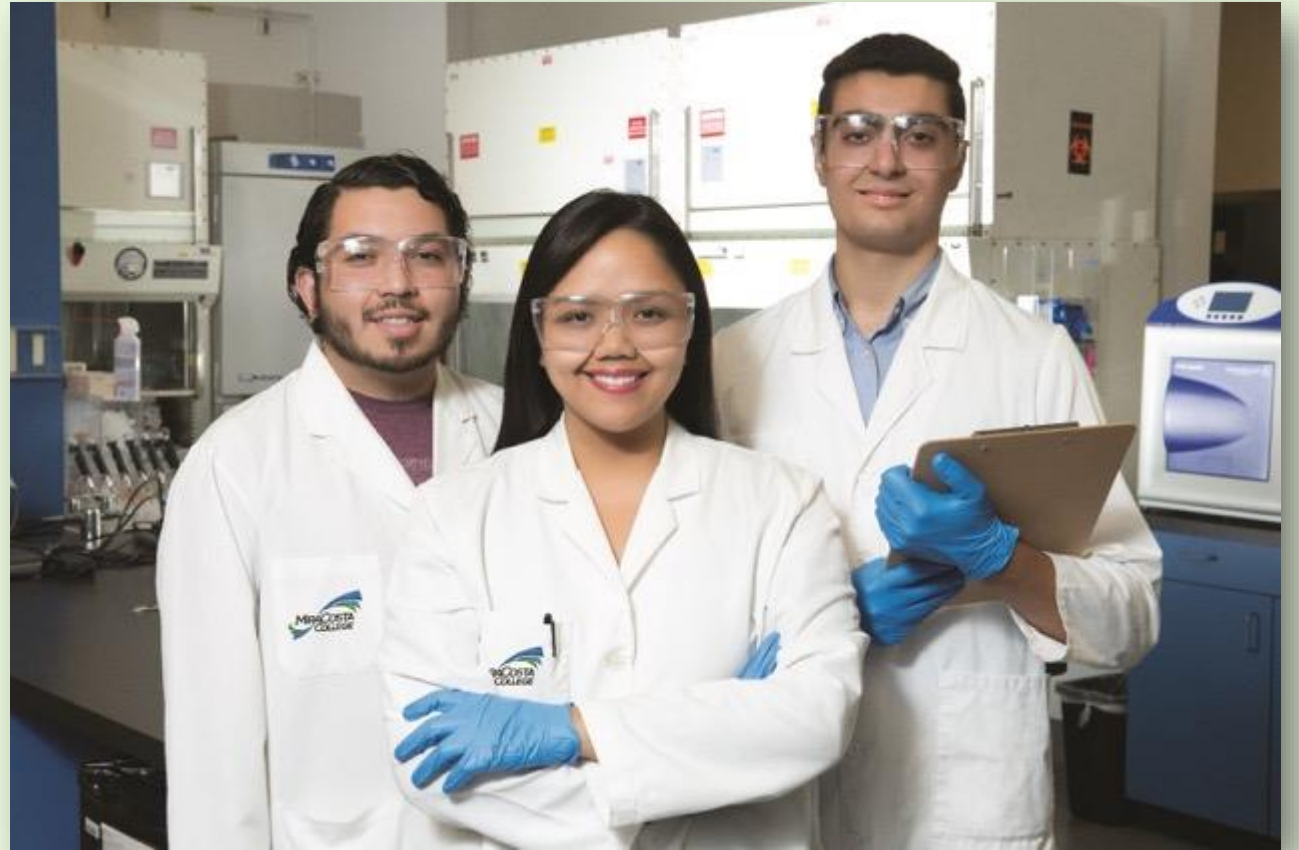
Biomanufacturing is the intersection of

10

- **Science**
- **Engineering**
- **Medicine**
- **Business**
- **Government (Regulation)**

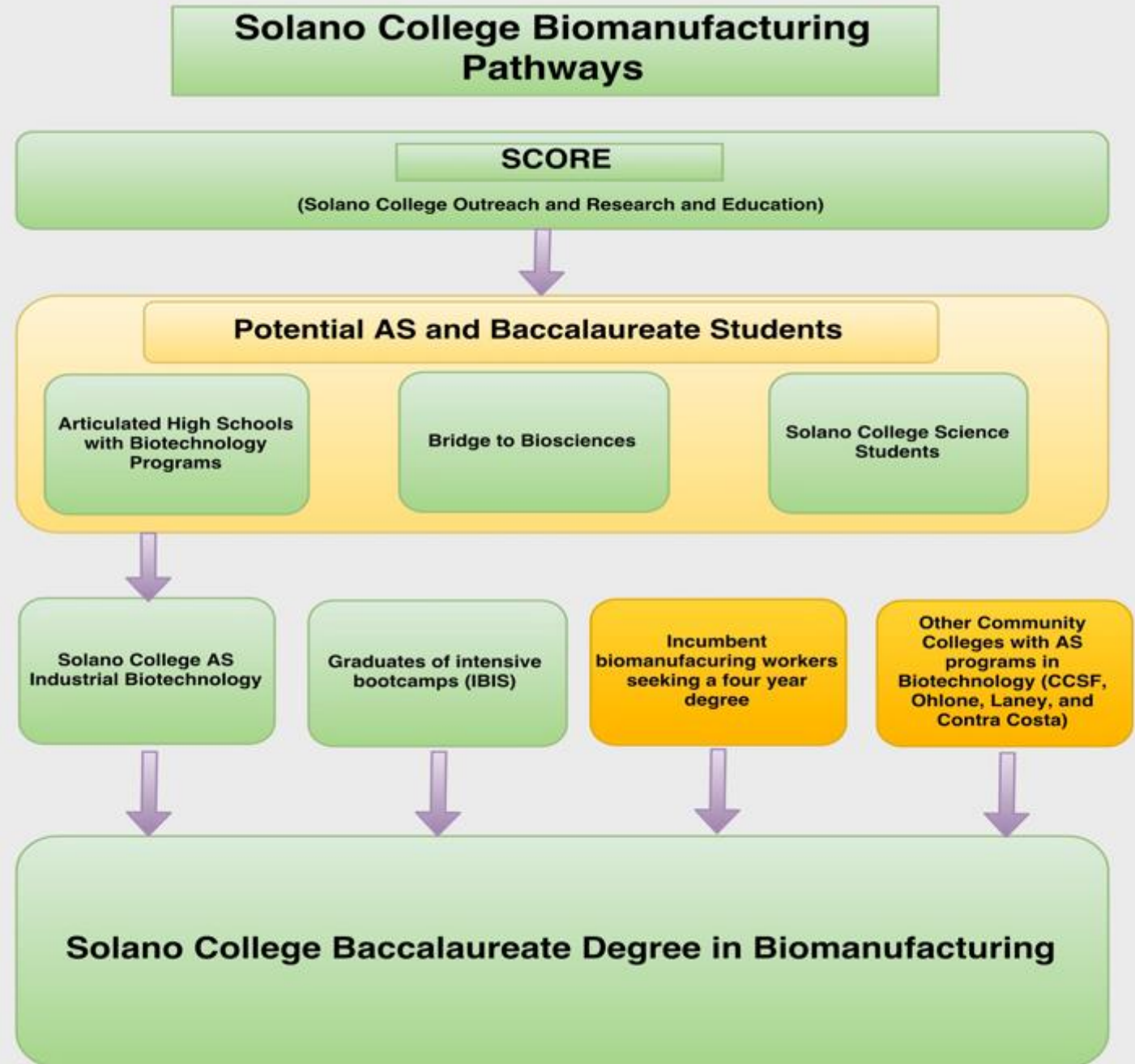
It provides:

- **A career that pays a livable wage**
- **A career with upward mobility – additional education and internships accelerate advancement**



Solano College Biotechnology Programs

- Laboratory Assistant Certificate
- Industrial Biology Certificate
(Including Bootcamps)
- Cell and Gene Therapy Certificate (new)
- Industrial Biotechnology Associates in Science
- Bachelors of Science in Biomanufacturing
- Transfer to Graduate Schools
- Complete Educational Pathway – with multiple entry/ exit points



California Community College Baccalaureate

“First Fifteen” Community College Baccalaureates

Antelope Valley College, Airframe Manufacturing Technology
 Bakersfield College, Industrial Automation
 Cypress College, Mortuary Science
 Feather River College, Equine Ranch Management
 Foothill College and West Los Angeles College, Dental Hygiene
Mira Costa College, Biomanufacturing
 Modesto Junior College and Skyline College, Respiratory Therapy
 Rio Hondo College, Automotive Technology
 Santa Ana College, Occupational Studies
 San Diego Mesa College and Shasta College, Health Information Management
 Santa Monica College, Interactive Design
Solano College, Biomanufacturing

“Current Status”

62 Bachelors Degrees at 46 Community Colleges

Antelope Valley College	Airframe Manufacturing Respiratory Care	Napa Valley College	Respiratory Care
Bakersfield College	Industrial Automation, Research Laboratory Technician	Oxnard College	Dental Hygiene Applied Advocacy & Organizing
Cerritos College	Dental Hygiene Field Ironworker Supervision	Palomar College	Building Performance and Environmental Design
College of the Canyons	Building Performance	Rio Hondo College,	Automotive Technology, Electronic Digital Instrument
Crafton Hills College	Respiratory Care	San Bernardino Valley College,	Water Resource Management
Cypress College	Mortuary Science Dental Hygiene	San Diego City College,	Cyber Defense and Analysis
<u>DeAnza</u> College	Automotive Technology	San Diego Mesa College,	Health Information Management, Physical Therapy Assistant (coming soon)
East Los Angeles College	Respiratory Therapy Paralegal Studies	San Diego Miramar College,	Public Safety Management
El Camino College	Respiratory Care	Santa Ana College,	Automotive Technology (coming soon), Occupational Studies, Paralegal Studies
Feather River College	Equine & Ranch Management, Ecosystem Restoration & Applied Fire	Santa Barbara City College,	Health Information Management (coming soon)
Foothill College	Dental Hygiene Respiratory Care Building Trades Management	Santa Monica College,	Interaction Design, Cloud Computing (coming soon)
Fresno College	Dental Hygiene	Santiago Canyon College,	Digital Infrastructure & Location Science
Fullerton College	Drone/Autonomous Systems	Shasta College	Health Information Management
Hartnell College	Respiratory Care	<u>Siskiyous</u> College	Paramedicine
Imperial Valley College	Industrial Automation	Skyline College	Respiratory Care
Long Beach City College	Library/Information Science	Solano College	Biomanufacturing
LA Mission College	Biomanufacturing	Southwest College,	Transborder Environmental Design
LA Pierce College	Biomanufacturing	Taft College	Dental Hygiene
LA Valley College,	Respiratory Therapy	Ventura College	Automotive Career Education
MiraCosta College	Biomanufacturing	Victor Valley College	Respiratory Care
Mission College	Emergency Services Administration	West Los Angeles College	Dental Hygiene, Avionics
Modesto College	Respiratory Care		
Moorpark College	Biomanufacturing		
Applied Cyberdefense and	Network Operations		
Moreno Valley College	Emergency Management		
Mt. San Antonio College	Histotechnology		

We are looking for



Cell & Gene Therapy

SUMMER INTERNS

Details:

- 10-weeks (6/10 - 8/16/24)
- In-person at a state-of-the-art cGMP facility
- \$5,000 stipend at the end of successful program completion
- Work with world-class scientists in Process Development & Manufacturing



APPLY NOW!

Application Deadline 3/25/24

LCGM is a unique biotech startup in an academic environment with projects that represent diverse therapeutic modalities



CAL POLY Regenerative Medicine

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CIRM

CALIFORNIA'S STEM CELL AGENCY

MPHS-01 - CIRM
Application supporting
UC Davis for the
development of a
state-of-the-art
facility for the
regenerative medicine
research center
at UC Davis
Project Budget
\$10,000,000

COVID-19 Information

Department	Department	Department	Department	Department
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Sacramento State • Department of Biological Sciences

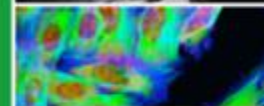
Master of Arts in Stem Cell Research

Participate in research on novel stem cell-based therapies to treat disease and injury

Application deadline: February 1st, 2022

- 20-month program
- Coursework at Sacramento State
- Research internship at UC Davis
- \$3,000/month stipend during the 8-month internship, totaling \$24,000
- Two semesters of paid tuition during the 8-month internship

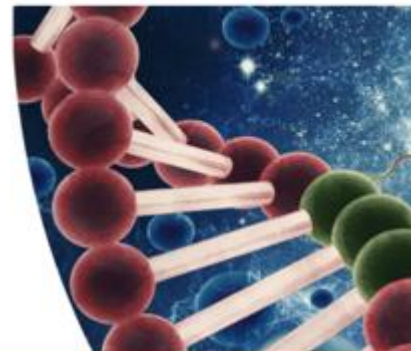
Find more details here:
<https://tinyurl.com/2nk79wah>



Please email questions to:
Dr. Kelly McDonald
mcdonald@csus.edu

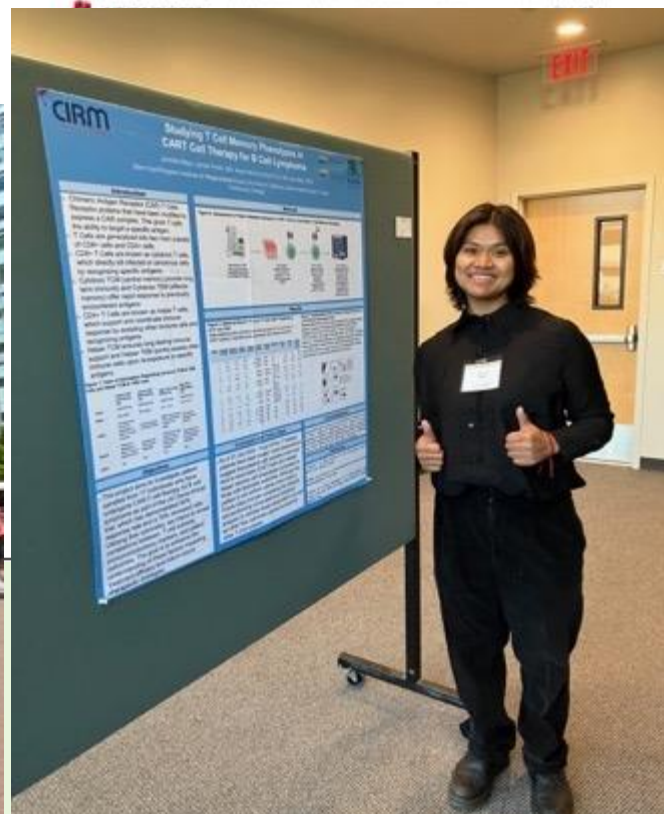


Stanford Cell & Gene GMP Certificate Program



Our mission is to train a diverse cell and gene therapy manufacturing and quality workforce. We aim to increase opportunity, access, equity and inclusion as we develop a skilled workforce in the evolving cell and gene therapy field.

Progress in the rapidly growing cell and gene therapy field continues to be limited by a shortage of trained and skilled individuals in current good manufacturing practices (cGMP; GMP). The workforce shortage is felt across all functional units; Process and Analytical Development, Manufacturing, Quality Assurance, Quality Control, Regulatory Affairs, Facilities & Operations. The Stanford Cell and Gene GMP Certificate Program is designed to provide foundational and ongoing training in GMP and contribute to the cell and gene therapy workforce.



CIRM

CALIFORNIA'S STEM CELL AGENCY

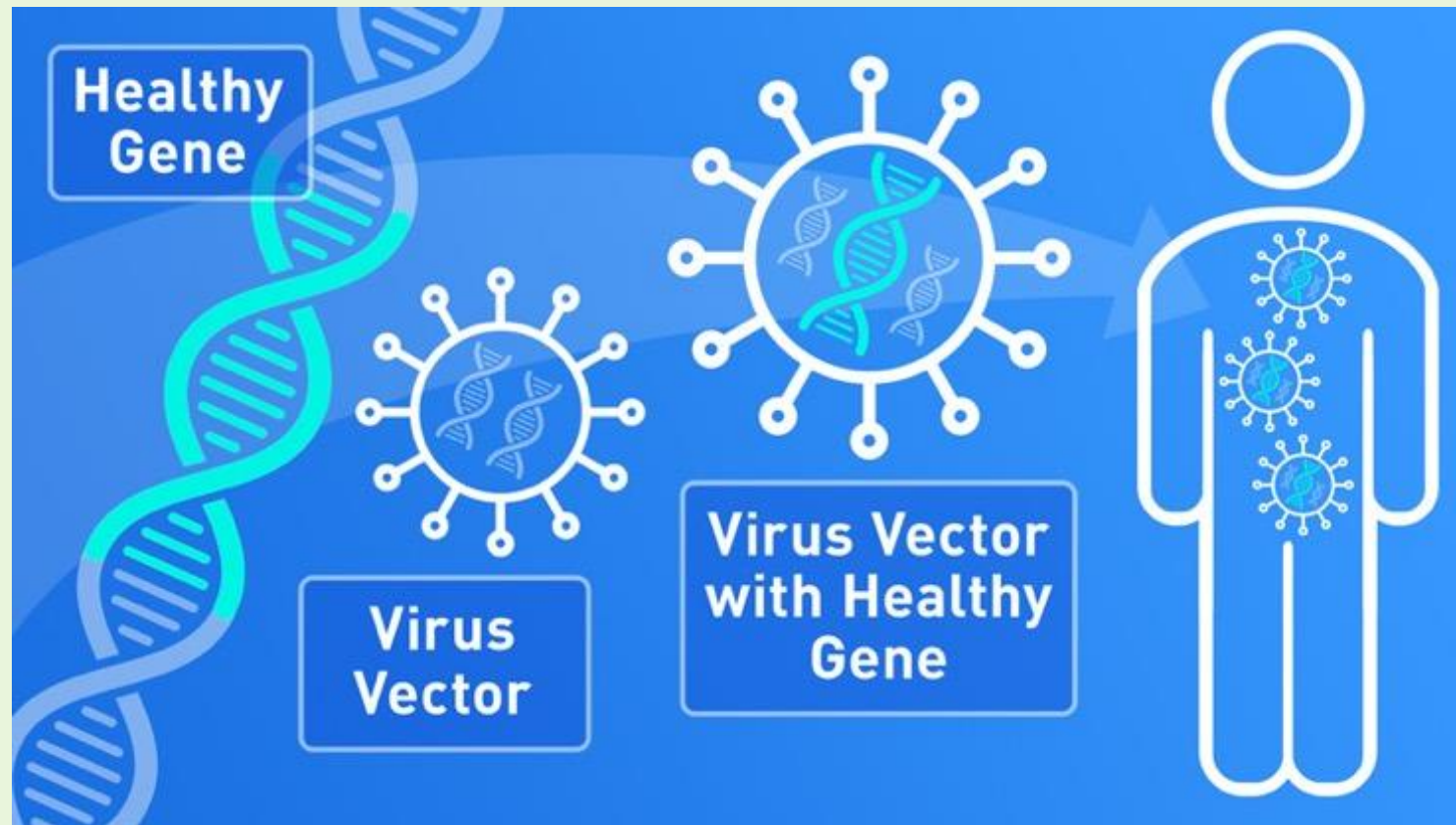
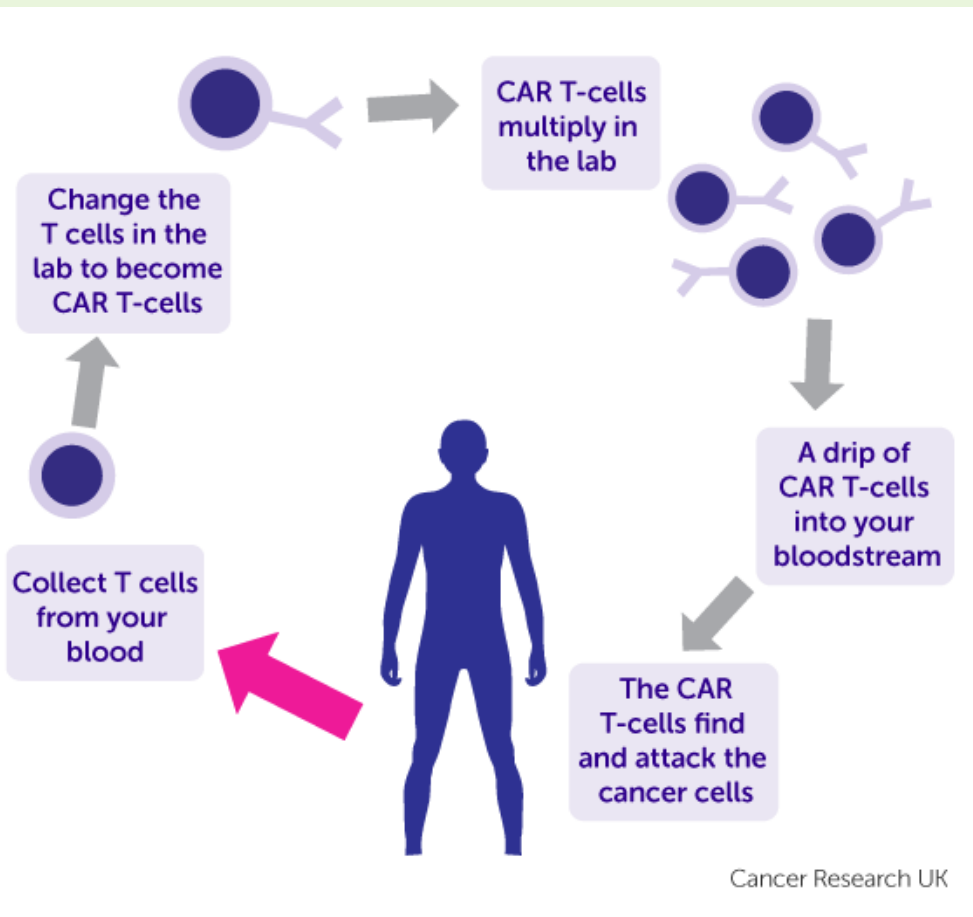
I SKATE TO
WHERE THE PUCK
IS GOING TO BE,
NOT WHERE IT
HAS BEEN.

Wayne Gretzky



AZ QUOTES

Cell Therapy and Gene Therapy



<https://www.youtube.com/watch?v=7-2aHIpgl4&t=6s>

<https://www.fda.gov/consumers/consumer-updates/what-gene-therapy-how-does-it-work>

Creating Opportunities through Mentorship and Partnership Across Stem Cell Science (COMPASS)

Since only 4 year colleges were eligible to apply, Solano Community College and MiraCosta College were the only community college that qualified to be even considered.

Other awardees

UCLA, USC, UC Davis, UC Berkeley,

UC Santa Barbara, UC Merced, UC Irvine, UC Riverside,

Cal Poly San Luis Obispo, CSU Northridge,

Sacramento State,

San Francisco State, CSU San Bernardino,

CSU Fullerton, CSU San Marcos



COMPASS



National Bone Marrow Donor Program

Be-The-Match



Students Participate in Outreach – Preschool; K-12; Adult School; Volunteer



Bioville 2025 and Extravaganza

Bioville 2025
Vacaville California

FREE Community Event!

Mark Your Calendar

Who: Job Seekers, High School & Adult Learners

April 24th Career Fair
Celebrate National DNA Day
April 24-25th Facility Tours
Raffle Prizes

Presented by: CALIFORNIA BIOMANUFACTURING CENTER

register at: www.bioville.us

APRIL 15-16, 2025

11TH ANNUAL AMERICAN BIOMANUFACTURING SUMMIT

HYATT REGENCY SAN FRANCISCO AIRPORT - SAN FRANCISCO, CA

Baccalaureate Degree Program
Community of Practice

March 13, 2025 | 10am - 11am

Special Guest Speaker:
James Dekloe,
Solano Community College
Topic: Biotechnology Career Pathway

Science Laboratory Technology

SLT VIRTUAL Openhouse

FEBRUARY 19 2025 | STARTS AT 10 AM

Zoom: <https://dcc-edu.zoom.us/j/94435846640>

MORE Information: <https://shorturl.at/Pau3c>

SAVE THE DATE: APRIL 25TH 2025 10A-4P

VALLEJO BIOTECH CAREER EXPO

Prepare for a fulfilling career in biotechnology. Explore various career pathways in the industry, including research and development, as well as manufacturing and production. Connect with leading professionals, companies and colleges in the field.

- Industry Panel Speakers
- Colleges offering 2yrs NO FEE
- Interactive workshops
- Job opportunities

REGISTER HERE

www.ladychelon.com

March 26-27, 2025 | Durham, NC

U.S. Biopharma Workforce Partnership Conference

Mark your calendars for the 2025 U.S. Biopharma Workforce Partnership Conference on March 26-27, 2025, at the Durham Convention Center in Durham, North Carolina. Focused on partnership formation and best practice sharing, the conference is a must for industry, academic, and nonprofit professionals focused on educating, training, recruiting, and growing talent in the biopharmaceutical industry. Make your plans to join us in North Carolina.





2024 -
2025



Economic Development



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Registration News

Vacaville Unveils California Biomanufacturing Center

October 27, 2020

Share



Genentech's biomanufacturing facility

A photograph of a Sartorius bioreactor, a large, cylindrical stainless steel vessel used for cell culture and bioprocessing. It is shown in a clean, industrial setting.

Learn New Tools for Successful Scale-Up from 15mL to 2000L

Watch Webinar

COVID-19 Candidates

Solano's got it!
Genentech's April 1, 2004 Ground Breaking

World's Largest
Biotechnology Manufacturing Facility,
Vacaville, CA



Walter Moore, Genentech; Mayor Augustine; Governor Schwarzenegger; Susan Hollman-Genentech's President Product Development; Frank Jackson, Genentech

By 2009...
1200 Jobs, 3/4 Million Sq. Ft., and \$ 1/2 Billion Investment





