



5 January 2022

Ms. Birgitta Corsello  
County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

The California Biomanufacturing Center is pleased to submit our plan for the Rapid Alternative Medtech Pathway training program, with application to Solano County's ARPA Funding second category, responding to negative economic impacts of COVID-19.

#### **About the California Biomanufacturing Center (CBC)**

CBC is a California headquartered 501(c)(3) non-profit corporation. CBC convenes industry, academia, and community partners to foster direct dialogue related to the continued growth of the biotechnology industry. Stakeholders will examine key issues, share knowledge, explore best practices, identify shared values, and implement consensus-based solutions that promote industry growth and success.

CBC serves our community through two primary objectives:

First, accelerating biotechnology-based economic and workforce development, fostering commercialization, education, and business growth, and;

Second, engaging community and industry stakeholders to foster a direct dialogue on shared prosperity for both the biotechnology industry and a vibrant community.

The organization is governed by an industry advisory board including local and regional employers and training providers.

#### **Theory of Change**

*Every life science career launched is a life changed forever.*

Life science is one of few industries in the world which both fulfills the highest potential of new career entrants, and also generates highest and best use for regional economies.

## About RAMP

COVID-19 caused catastrophic disruption to service industries. For Solano County, impacts have been disproportionate to those working in fields such as restaurant and retail industries. CBC proposes a training partnership designed to address those most impacted by COVID-caused unemployment and career disruption.

This proposal for a Rapid Alternative Medtech Pathway (RAMP) includes rapid-response training, industry-driven curriculum, industry matchmaking and placement, job fairs, and community recruitment. This format is consistent with national policy frameworks and best practices established over decades (story inset, at right).<sup>1</sup>

California has been proactive with these worker transition programs for thirty years. In the early 1990s, California made a concerted effort to apply career transition resources to the base closure process, including training and the Regional Technology Alliances (RTAs), and more.<sup>2</sup>

Biotech remains one of few industries experiencing a hiring crisis. There are not enough trained people to fill available biotech jobs. These jobs are typically sought after because they are stable, low turnover, high wage, and lead to further opportunity. CBC will deploy rapid training programs to quickly transition to non-science jobs in biotech.

Opportunities exist in fields including HVAC, facilities, operations, supply chain, loading dock, procurement, office management, and related support positions, none of which require biology degrees. Initially, this program would recruit participants who lost jobs due to the COVID-19 pandemic in fields including retail, restaurant, and service sectors.

Biotechnology. This type of program would be open to residents of the County. Though many biotechnology opportunities in the area are within the Vacaville city limits, residents of all parts of Solano County are likely to be candidates for this kind of up-skilling program.

STEM CAREER TRANSITIONS:  
NATIONAL POLICY FOR  
DECADES

CAREER TRANSITION  
RESOURCES HAVE BEEN  
FUNDAMENTAL TO U.S.  
LABOR POLICY FOR DECADES.  
WITH THE PASSAGE OF FEES  
TO THE H1-B VISA PROGRAM  
IN 1998, CONGRESS  
ESTABLISHED THE  
MECHANISM FOR PROCEEDS  
TO BE REINVESTED IN  
ASSISTING U.S. CITIZENS  
WITH TRAINING FOR STEM  
CAREERS.

THE FEE HAS INCREASED  
OVER TIME, AND TRAINING  
FUNDS ARE ADMINISTERED  
BY THE U.S. DEPARTMENT OF  
LABOR AND NATIONAL  
SCIENCE FOUNDATION.

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<sup>1</sup> <https://www.migrationpolicy.org/article/h-1b-temporary-skilled-worker-program#6>

<sup>2</sup> Defense Conversion in California: Economies in Transition. Defense Conversation Council, February 1996, page 19. CBC copy available via Google Drive by [CLICKING HERE](#).

Career pathways have been selected to place high emphasis on entry-level opportunities such as those that require a high school diploma. An initial panel of eight (8) career pathways is detailed below.

CBC will deliver the RAMP program through a short-course approach to rapid training using contracted subject matter experts as faculty, based on industry-driven curriculum, and will provide support to enrollees with identifying potential employment opportunities, job fairs, industry matchmaking, and expansive engagement with industry. The short-course approach complements formal education available for those interested in seeking further, degree-based opportunities, and remains consistent with best practices for industry driven rapid response training (story inset, at right).<sup>3</sup>

CBC requests \$1,500,000 over two years, \$750,000 per year, in this initial allocation (first installment) of ARPA funds from Solano County. RAMP would include Solano County ARPA funds matched with City of Vacaville ARPA funds and additional contributions from industry and academia.

### **Selected RAMP Career Pathways**

RAMP will begin with training modules in eight (8) career pathways, initially designed with intentional links to skill bases for those in impacted industries such as restaurant and retail.

Career pathways have been selected to place high emphasis on entry-level opportunities across a wide spectrum of possible starting qualifications, such as those that require a high school diploma. An initial panel of eight (8) career pathways is detailed below.

These careers have also been chosen for their potential to invite and inspire some to seek further training at partner institutions. Curriculum is open to limited flexible iteration during the second year to add further downstream modules in fields such as regulatory and quality if trainee interest is strong. The participation of accredited institutions as CBC partners is critical to the success of both this program and every trainee.

AWARD-WINNING RAPID RESPONSE TRAINING IN BIOTECH: THE BAYBIO EXPERIENCE

DURING CBC PRESIDENT MATT GARDNER'S TENURE ON THE ALAMEDA COUNTY WORKFORCE BOARD, A PROGRAM ESTABLISHED BY GENENTECH WAS EXPANDED BROADLY TO MORE PARTNER INSTITUTIONS AND MORE EMPLOYERS.

CBC HAS UPLOADED A BRIEF SUMMARY OF THESE **DOL HIGH-GROWTH JOB TRAINING INITIATIVES** **HERE** (PLEASE SEE P. 39).

THE PROGRAM WAS HONORED BY THE DEPARTMENT OF LABOR FOR INNOVATIVE DELIVERY OF CAREER TRANSITION TRAINING.

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<sup>3</sup> <https://www.bizjournals.com/sanfrancisco/stories/2004/07/12/story8.html>

### Subgroup 1: Operations

**Facilities Technician:** A Facilities Technician must be able to understand, recommend and install new systems. They may provide and add corrections to Standard Operating Procedures and assist engineers in evaluating new equipment. Knowledge of Good Manufacturing Procedures (GMPs) and major trades, such as carpentry, electrical systems, plumbing, HVAC, refrigeration, is required.

**Lab Operations Manager:** The lab operations manager is responsible for liaison with vendor technicians for installation, staff training, and maintenance. This position is usually responsible for asset management and tracking, calibration and maintenance schedules, tracking equipment use and consumables, and supporting EH&S to ensure compliance. Effective lab managers must successfully support both internal coworkers conducting researchers and external relationships with vendors.

**Shipping and Receiving:** Shipping and receiving clerks identify and receive incoming materials, pack and ship finished goods, and maintain accurate documentation of all activities. Conduct inventory assessments, spot checks, digital and physical transaction processing and verification, and diligent material handling.

### Subgroup 2: Laboratory Technician

**Lab Support Technician:** Lab support is critical to ensuring the smooth operation of research. Maintains department equipment, utilizes department computer systems, and documents information, as needed. Performs waived laboratory testing, accurately following laboratory procedures for test performance, quality control, reagent preparation, and instrument maintenance.

**Media Prep Associate:** Media prep associates document data and results per good documentation practices and perform general laboratory housekeeping. Maintain laboratory equipment, identify malfunctions, and perform simple repairs or can coordinate repairs as needed. Follow all procedures related to data documentation, laboratory safety, and good laboratory practices. Review test data, calculations, and results for accuracy and completion.

**Glass Washer:** Glass washers are often responsible for related tasks such as collecting and distributing glassware, cleaning and sterilizing glassware and storing and inventorying glassware. These tasks require a working knowledge of research. When experiments are finished, the glass washer collects the dirty glassware from laboratories. The glass washer must take great care to properly dispose of liquids and chemicals used in experiments.

### Subgroup 3: Plant Biotechnology

Greenhouse Technician: These positions are for people who like to work with plants, enjoy being more outdoors, but also like to understand science. They care for plants that have been created through genetic engineering and have to understand how to plant seeds, pollinate flowers, water and weed plant beds, plant rooted plants, nurture root cuttings, treat plants for disease and pest infestation, and be able to use a computer for documentation purposes.

### Subgroup 4: Quality Systems

Compliance Specialist: A Compliance Specialist may be responsible for preparing regulatory submissions for drugs, biologics and medical devices. Compliance specialists may spend time meeting with scientists, writing and reviewing documents, presenting information about updates to regulations and discussing strategies to ensure compliance.

In summary, the California Biomanufacturing Center is honored to submit this proposal for the RAMP Training Program, and to support success in our community with this outstanding set of partners.

Sincerely,

A handwritten signature in black ink that reads "Matt Gardner". The signature is written in a cursive, slightly slanted style.

Matthew Gardner  
Chief Executive Officer

CALIFORNIA BIOMANUFACTURING CENTER  
RAMP PROGRAM

# **SELECT POSITION DESCRIPTIONS**



**CAREER LADDER**

Quality Systems



**QUALIFICATIONS**

Associate's degree

Bachelor's degree



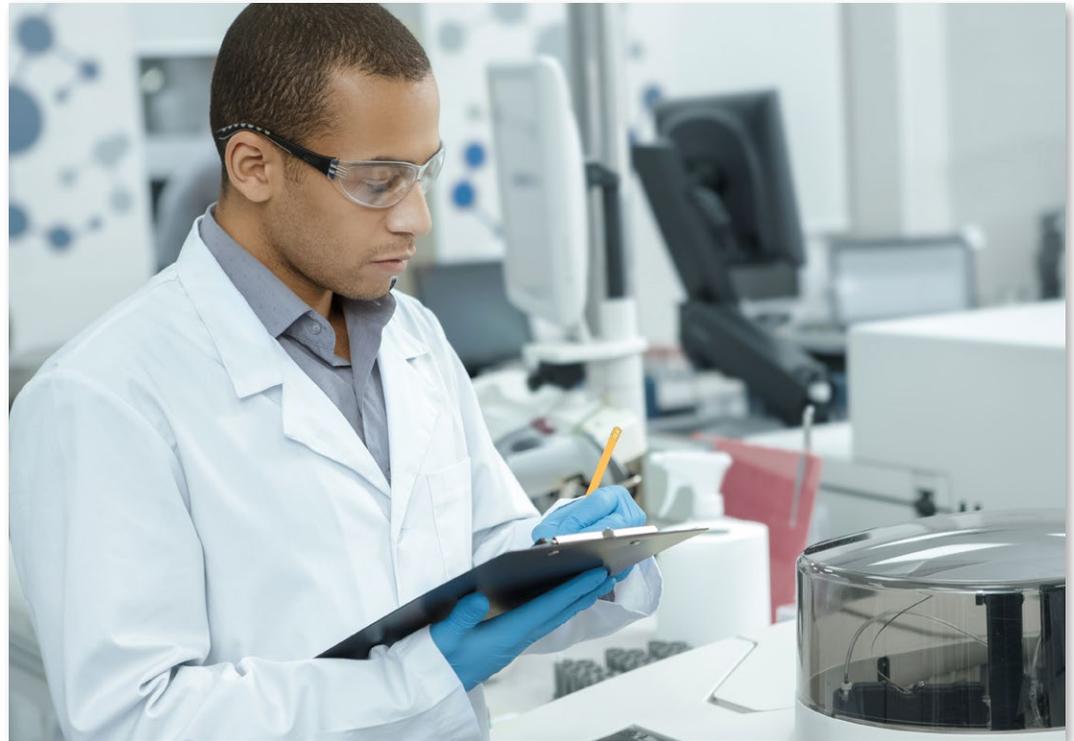
**RELATED JOBS**

QA/QC

Validation

Document

Coordinator



## Compliance Specialist

**Compliance Specialists manage their organization's need to obey industry regulations.**

The Compliance Specialist may be responsible for preparing regulatory submissions for drugs, biologics and medical devices. Compliance specialists may spend time meeting with scientists, writing and reviewing documents, presenting information about updates to regulations and discussing strategies to ensure compliance.

**1**

**KEY SKILL 1**  
Regulations

**2**

**KEY SKILL 2**  
Documentation

**3**

**KEY SKILL 3**  
Filings



**CAREER LADDER**  
Operations



**QUALIFICATIONS**  
Associate's degree  
Bachelor's degree



**RELATED JOBS**  
HVAC  
Equipment  
Maintenance



## Facilities Technician

**Facilities Technicians are responsible for the operation and maintenance of biotech buildings and equipment.**

A Facilities Technician must be able to understand, recommend and install new systems. They may provide and add corrections to Standard Operating Procedures and assist engineers in evaluating new equipment. Knowledge of Good Manufacturing Procedures (GMPs) and major trades, such as carpentry, electrical systems, plumbing, HVAC, refrigeration, is required.

**1**

**KEY SKILL 1**  
GLP / GMP

**2**

**KEY SKILL 2**  
Standard Operating  
Procedures

**3**

**KEY SKILL 3**  
Record Keeping



**CAREER LADDER**

Laboratory Technician



**QUALIFICATIONS**

HS Diploma



**RELATED JOBS**

Facilities Technician  
Greenhouse Technician  
Laboratory Assistant



## Glass Washer

**A glass washer must handle and clean glassware properly to insure usefulness in the laboratory.**

Glass washers are often responsible for related tasks such as collecting and distributing glassware, cleaning and sterilizing glassware and storing and inventorying glassware. These tasks require a working knowledge of research. When experiments are finished, the glass washer collects the dirty glassware from laboratories. The glass washer must take great care to properly dispose of liquids and chemicals used in experiments.

**1**

**KEY SKILL 1**  
Good Lab Practice

**2**

**KEY SKILL 2**  
Media Prep

**3**

**KEY SKILL 3**  
Sterilization



**CAREER LADDER**  
Plant Biotechnology



**QUALIFICATIONS**  
Associate's degree



**RELATED JOBS**  
Facilities Technician  
Plant Technician  
Laboratory Assistant



## Greenhouse Technician

**These technicians usually work in a greenhouse and or out in the fields and may need experience with farm equipment.**

These positions are for people who like to work with plants, enjoy being more outdoors, but also like to understand science. They care for plants that have been created through genetic engineering and have to understand how to plant seeds, pollinate flowers, water and weed plant beds, plant rooted plants, nurture root cuttings, treat plants for disease and pest infestation, and be able to use a computer for documentation purposes.

**1**

**KEY SKILL 1**  
Agricultural  
Biotechnology

**2**

**KEY SKILL 2**  
Food Science

**3**

**KEY SKILL 3**  
Research Methods



**CAREER LADDER**  
Operations



**QUALIFICATIONS**  
HS Diploma



**RELATED JOBS**  
Facilities Technician  
Facilities Director  
Workplace Services



## Lab Operations Manager

**A lab operations manager ensures seamless lab processes.**

The lab operations manager is responsible for liaison with vendor technicians for installation, staff training, and maintenance. This position is usually responsible for asset management and tracking, calibration and maintenance schedules, tracking equipment use and consumables, and supporting EH&S to ensure compliance. Effective lab managers must successfully support both internal coworkers conducting researchers and external relationships with vendors.

**1**

**KEY SKILL 1**  
SOPs

**2**

**KEY SKILL 2**  
Maintenance  
Schedules

**3**

**KEY SKILL 3**  
Material Handling



**CAREER LADDER**

Laboratory  
Technician



**QUALIFICATIONS**

HS Diploma



**RELATED JOBS**

Senior Technician  
Associate Scientist  
Laboratory Assistant



## Laboratory Support Technician

**A lab support technician works closely with coworkers to maintain equipment, specimen collection, and lab supplies.**

Lab support is critical to ensuring the smooth operation of research. Maintains department equipment, utilizes department computer systems, and documents information, as needed. Performs waived laboratory testing, accurately following laboratory procedures for test performance, quality control, reagent preparation, and instrument maintenance.

**1**

**KEY SKILL 1**  
Good Lab Practice

**2**

**KEY SKILL 2**  
Research Equipment

**3**

**KEY SKILL 3**  
Handling



**CAREER LADDER**

Laboratory  
Technician



**QUALIFICATIONS**

HS Diploma



**RELATED JOBS**

Senior Technician  
Associate Scientist  
Laboratory Assistant



## Media Prep Associate

The media prep associate performs laboratory media preparation tasks based on documented processes.

Media prep associates document data and results per good documentation practices and perform general laboratory housekeeping. Maintain laboratory equipment, identify malfunctions, and perform simple repairs or can coordinate repairs as needed. Follow all procedures related to data documentation, laboratory safety, and good laboratory practices. Review test data, calculations, and results for accuracy and completion.

**1**

**KEY SKILL 1**  
Good Lab Practice

**2**

**KEY SKILL 2**  
Media Prep

**3**

**KEY SKILL 3**  
Documentation



**CAREER LADDER**

Operations



**QUALIFICATIONS**

HS Diploma



**RELATED JOBS**

Facilities Technician  
Warehouse Manager  
Supply Chain



## Shipping / Receiving Clerk

**A shipping and receiving clerk receives deliveries, ships products, and ensuring accurate documentation.**

Shipping and receiving clerks identify and receive incoming materials, pack and ship finished goods, and maintain accurate documentation of all activities. Conduct inventory assessments, spot checks, digital and physical transaction processing and verification, and diligent material handling.

**1**

**KEY SKILL 1**  
Documentation

**2**

**KEY SKILL 2**  
Material  
Management

**3**

**KEY SKILL 3**  
Inventory



## Measuring RAMP Success

Measuring success of the RAMP program will require tracking indicators from multiple stakeholders, especially trainee and hiring employer groups. CBC will track program performance based on multiple variables:

	Indicator	Metric
<b>Access</b>	Classroom capacity per Vallejo, Fairfield, Vacaville location	# Classroom days # Total classroom seating capacity
<b>Career Interest</b>	Expressions of Interest Registrations	# Requests for Information # Trainees per course # Trainees per subgroup
<b>Course Achievement</b>	Trainee Assessments	Delta pre- and post-training assessment
<b>Industry Engagement</b>	Expertise Interviews Advisory Board	# Industry instructors # Interviews # Attendance at Advisory Board meetings
<b>Placement Efforts</b>	Internships Hires Surveys Job Fairs	# Internships # Hires over 90 days in tenure % Hiring manager satisfaction # Job Fairs # Companies at Job Fairs
<b>Industry Investment</b>	Industry Match	\$ Contributions \$ In-kind # Faculty # Facilities
<b>Spark</b>	Advance to degree program	# Trainees applying for formal degree programs

In addition, we will continually consult with our Industry Advisory Board and partners on program dynamics and additional metrics deemed important.

**RAMP Program Budget Pro-Forma**

<b>Funding Source</b>	<b>Year One</b>	<b>Year Two</b>
Solano County	\$750,000	\$750,000
City of Vacaville	\$375,000	\$375,000
Industry Partners	\$375,000	\$375,000
<b>FUNDING SUBTOTAL</b>	<b>\$1,500,000</b>	<b>1,500,000</b>
<b>Expense</b>		
Operations	\$300,000	\$300,000
Recruitment	\$400,000	\$350,000
Placement	\$250,000	\$300,000
Administration	\$150,000	\$150,000
Facilities	\$240,000	\$240,000
Transportation	\$160,000	\$160,000
<b>EXPENSE SUBTOTAL</b>	<b>\$1,500,000</b>	<b>\$1,500,000</b>

CALIFORNIA BIOMANUFACTURING CENTER  
RAMP PROGRAM

## **BOARD BIOGRAPHIES**

## **Matthew Gardner**

Matt Gardner is President and CEO of the California Biomanufacturing Center. Matt previously founded or co-founded industry organizations including BioCalifornia, California Business Incubation Alliance, the California Technology Council, Bay Area Bioscience Association, and the California Biotechnology PAC.

Matt is a contributing writer to “Start-Up” and several other publications. He is also executive producer of the radio program Biotech Nation, heard on NPR, SiriusXM and American Forces Radio. His campaigns have won awards including an Emmy Award for the “Behind the Science of Life” television campaign between CBS and BayBio.

Matt has demonstrated leadership in the community through previous board memberships including the California Association for Local Economic Development, Team California, California Commission for Economic Development, the Alameda County Workforce Investment Board (2004-2014), the Maryland Technology Development Center, and Montgomery Works, the workforce board in Montgomery County, Maryland (2002-2003). During his tenure at Montgomery Works, he partnered with MetroTech, a unique multi-jurisdictional career transition program for tech employers, funded by the U.S. Department of Labor.

He has served on boards at the Council of State Bioscience Associations, University of Maryland and Johns Hopkins University. Matt chaired organizations including the State Medical Technology Alliance, Maryland Venture Capital Task Force, and Maryland Clinical Development Initiative.

He served as a founder and chair of the life science advisory boards for two members of Congress, Rep. Barbara Lee (California, 13th) and Rep. Jackie Speier (California, 14th). He is the co-author of legislation including Maryland’s angel investment credit and California’s tax treatment of net operating losses for innovative companies, and regulations including California’s “L” occupancy code allowing life sciences research.

## **James DeKloe**

Jim DeKloe, Professor of Biological Sciences and Biotechnology, serves as the director and founder of the Industrial Biotechnology program at Solano College, which he established in 1997. From the beginning, this program emphasized biomanufacturing by training students in the skills required to work in companies that have located in the biotech manufacturing

In the past, he served as the regional director of the Southwest Region of Bio-Link, the nationwide consortium of community and technical colleges that teach biotech. On sabbatical he worked in the manufacturing department of biotech pioneer Genentech Inc. He also served as a consultant to help biotech giant Amgen redesign the training programs for their biomanufacturing technicians and for their quality assurance

associates. He currently serves on the advisory committee for the Explorer Education Division of BioRad, and on the advisory committees of multiple college and high school biotechnology programs.

In 2000, the Association of Community College Trustees chose Jim as the Distinguished Faculty Member of the Pacific Region which includes the Western United States and Canada, Hawaii Alaska and Guam. In 2011 Solano College faculty chose Jim as the Distinguished Faculty Member of the Year. In 2015, he became a finalist for the Award of Excellence for Faculty Innovation by the American Association of Community Colleges.

### **Gordon Zagar, Advisory COO**

Gordon Zagar has over twenty five years combined experience in biotechnology facilities operations, real estate optimization and project management; holding previous positions such as, Director of Facilities, and Director of Operations and Bio/Pharma Projects. With the ability to focus on big picture issues, he has significant skills and technical abilities in facilities and operations management, budget planning and financial analysis, real estate negotiation, complex problem solving, contract administration, cost control and strategic planning. He has additional experience and expertise in Facilities Management and Global Operational Multi-Site Planning for past Life Science/Device companies such as Amgen, Genentech, Xenoport, Dynavax, and Nektar.

### **Steve Lincoln, Counsel and Board Secretary**

Steve has practiced law in the Bay Area for nearly 30 years, assisting clients in the technology and life science sectors, as well as small businesses. His practice emphasizes all aspects of the drug development and promotion pathway for biopharmaceutical companies, with particular emphasis on clinical trials and on the in-licensing and out-licensing of drug candidates.

Steve also has extensive in-house experience in pre-clinical research, manufacturing, marketing, and corporate compliance issues (including conducting in-house training). Steve is experienced in corporate formation and governance, business strategy and negotiation, debt and equity financing, securities law compliance, intellectual property licensing and counseling, contract drafting and review, and copyright and trademark protection.

Steve's legal career has included both private practice and serving as in-house counsel for several publicly traded biopharma companies, including PDL BioPharma and SciClone Pharmaceuticals. He also spent the early years of his career as a litigator and continues to provide legal strategy and litigation oversight to his corporate clients.

Steve was the co-founder and co-owner of an Internet start-up company. He began his career as a law clerk at the U.S. Court of Appeals for the Federal Circuit in Washington, DC.

### **Don Burrus**

Don Burrus is Director of Economic Development for the City of Vacaville. Don leads the effort to implement the City of Vacaville's newly developed Biotech and Advanced Manufacturing Initiative.

Don has previously served in economic development roles in Redwood City and San Jose since 2005.

### **Robert G. Burris**

Robert Burris is the Deputy Chief Economic Development Officer of Rural County Representatives of California (RCRC). Burris provides economic development expertise to the organization's 37 rural county members, and he is specifically charged with the mission of increased infrastructure development.

Beyond his recent experience at RCRC, Burris was the President and CEO of the Solano EDC for four years, led Economic Development and Workforce Housing for the City of Fairfield, and for over fourteen years Mr. Burris was Executive Vice President and Interim CEO of the Sacramento Area Commerce and Trade Organization (SACTO), then the Greater Sacramento Economic Council.

CALIFORNIA BIOMANUFACTURING CENTER  
RAMP PROGRAM

# **LETTERS OF SUPPORT**

September 8, 2021

Ms. Birgitta Corsello  
County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

Dear Birgitta,

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) training program.

The Solano Economic Development Corporation (EDC) is a public-private, nonprofit, dedicated to the economic growth of Solano County – scaling local traded sector industries, attracting new jobs and investment and maintaining competitive advantages for both existing and new businesses.

As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions.

We're now highly sensitive to a job shortage in the biotechnology industry. The RAMP training program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

Solano EDC remains optimistic that the type of rapid training offered by CBC's RAMP program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology.

Sincerely,



Sean Quinn  
Interim President and CEO



<http://www.solano.edu>

Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

December 23, 2021

Ms. Corsello,

Please accept this letter of support and commitment for the California Biomanufacturing Center's (CBC) Rapid Alternative Medtech Pathway (RAMP) Program proposal. This program will recruit workers displaced in industries hurt by COVID for rapid, short-course training in entry-level positions in biotech. Restaurant and retail workers have been especially hard-hit and these workers could benefit the most from this program.

The Solano College Biotechnology department has been working closely with the CBC on this project. We view it as parallel to and complementary with our mission of providing a workforce for current and future biotechnology companies in our region.

When the state and the accreditation commission authorized us to offer a the Bachelors degree in Biomanufacturing in 2017, we put together a true educational pathway: articulated high school classes flow into three certificates which, with added General Education courses becomes an Associates degree. The Associates degree flows seamlessly into the Bachelors of Science. And we have negotiated a guaranteed admission into several graduate schools. We have talked with seven different graduate schools who would like to consider our students for admission. So, there it is -high school to PhD – alpha to omega. The pathway has multiple entry and exit points to enter industry. And all of the segments can be pursued part-time and while employed. And the four years of the Bachelors degree cost under \$10,000. If this project is funded, we will integrate it into this pathway so RAMP graduates can be hired but while they are working continue to pursue their educational goals.

This Fall we launched the Cell and Gene Therapy Certificate – as far as we know this is first certificate of its type in the United States. We will share this curriculum with colleges from every region in the United States. The program also teaches the skills and knowledge required for students to pursue synthetic biology and stem cell manipulation and algae biotechnology.

The biotech program is working with multiple national organizations: NIIMBL, BioMADE, California Biomanufacturing Center, and InnovATEBIO. I serve on the workforce committees of both organizations. As part of these national organizations we have projected a shortage of workers in this field. The RAMP Program will provide rapid training for entry level career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology. But, this new rapid pathway will be integrated with our pathway.

Our experiments is that enrollment in all segments of the biotech program remains strong with a near 100% placement driving enrollment. Graduates of the certificate earn entry level salaries between \$45,000 and \$60,000 per year, and the field provides a tremendous potential for upward mobility.

I will commit to the following:

1. Serve on the advisory board and help recruit members from industry.
2. Have Solano College provide laboratory and lecture space.
3. Serve as an instructor
4. Help you with an equipment list.
5. Help with curriculum development. At Solano College college I have developed six certificates (and degrees) and have taken 41 classes and six certificates/ degrees through the local, regional, and statewide approval processes. I shepherded our Bachelors of Sciences degree through these approvals and through the accreditation process. The certificates should be stacked and should seamlessly flow from one to another with multiple entry and exit points. I can help you with this.
6. Help align the curriculum with our educational pathway
7. Help devise strategies for recruitment and outreach.
8. Help connect with the National Manufacturing Centers the National Institute for Innovations in the Manufacture of Biologics (NIIMBL) and the Bioindustrial Manufacturing and Design Ecosystem (BioMADE). Both organizations can help facilitate contacts with industry and with universities. I am the co-chair of the workforce committee of NIIMBL
9. Help you with sustainability strategies.

The field of biotechnology will dominate the economy of the 21st century the way that computers and the internet dominated the last half of the 20<sup>th</sup> century. And at this moment in history it could not be more obvious - the biotech industry is leading the United States and the world out of the novel coronavirus pandemic and out of the economic downturn that it caused. I am always happy to encourage the expansion of education and training in this field and work to fill the gaps that exist in the provision of this education and training. To support these efforts, I will commit to the actions that I have outlined in this letter.

Sincerely,



James D. DeKloe  
Professor of Biotechnology and Biomanufacturing  
Solano Community College  
Vacaville, CA 95688

# John C. Power

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January 4, 2022

Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

Dear Ms. Corsello:

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

Our family has been in Solano County since the 1850s and sincerely believe this is the future of quality job growth in our community. We continue to own a large shopping center in Vacaville (Vacaville Commons) and are committed to the community and its future.

As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions.

We're highly sensitive to a job shortage in the biotechnology industry. The RAMP Program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

We are optimistic that the type of rapid training offered by CBC's RAMP Program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology. In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields.

Sincerely,



John C. Power  
Co-General Partner,  
Power Vacaville, LP



Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

**Subject: CBC RAMP Program Funding Request**

Dear Ms. Corsello,

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its products and services are designed to help people and planet thrive by supporting efforts to master the major challenges presented by a growing and aging global population.

Biotechnology is a strategic industry for our region providing positive economic impact. The economic impact of Bayer's biotech operations in Berkeley was recently studied by the Bay Area Council Economic Institute and their report (<http://www.bayareaeconomy.org/report/economic-impact-of-bayer/>) is just one case study of many on the valuable role of this industry in the economy. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions to this and other important health concerns.

CBC's proposed RAMP Program has the potential to assist workers displaced in restaurant, retail and other stressed industries by providing rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in the sciences.

I'm optimistic that the type of training offered by CBC's RAMP Program may give many workers displaced by COVID-19 an opportunity to enter new career pathways. In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields.

Best Regards,

A handwritten signature in black ink that reads "Drew Johnston".

Drew Johnston  
Vice President Site Engineering - Berkeley  
Pharmaceutical Product Supply Biotech

//////////

December 26, 2021

Drew Johnston

Bayer Healthcare LLC  
800 Dwight Way  
Berkeley, CA 94710  
USA

[drew.johnston@bayer.com](mailto:drew.johnston@bayer.com)

[www.bayer.com/berkeley](http://www.bayer.com/berkeley)

Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

My name is Al Dadson (Chief Manufacturing Officer, Agenus Inc. We are a global biotechnology company with locations in Berkeley and Emeryville, Cambridge UK and Lexington Mass (Headquarters). We specialize in discovery, development and manufacturing of drugs for the treatment of various cancer types and we are a pioneer in the I/O space. My company recently purchased 120 acres of land near Kaiser and Genentech in Vacaville for our future expansion.

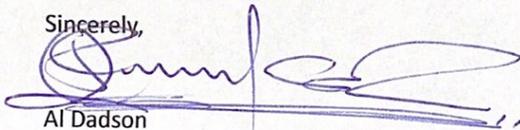
As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions.

We're highly sensitive to a job shortage in the biotechnology industry. The RAMP Program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

In addition to this expression of support for CBC's RAMP Program, my organization also pledges to provide advisory board membership and where possible subject matter experts as instructors as an industry contribution to the RAMP Program.

My organization remains optimistic that the type of rapid training offered by CBC's RAMP Program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology. In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields.

Sincerely,



Al Dadson  
Chief Manufacturing Officer  
Agenus Inc

January 5, 2022

Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533



Where science  
& creativity meet

Dear Ms. Corsello,

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

IFF in Palo Alto represents the Health & Biosciences division and is a primary enzyme innovation site with research and applications labs, a unique pilot plant for fermentation, recovery and formulation of enzymes and microbes. Key application areas that we address include animal nutrition, food enzymes, home & personal care, grain processing, and more. There are ~220 employees in Palo Alto, including R&D scientists & engineers, applications technologists, regulatory & sustainability experts, patent lawyers, and operations.

IFF is headquartered in New York City, with 23,000 employees globally, serving over 45,000 customers and generating pro-forma revenue of over \$11 billion. The four business divisions are Nourish, Scent, Pharma, and Health & Biosciences.

As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions.

We're highly sensitive to a job shortage in the biotechnology industry. The RAMP Program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

In addition to this expression of support for CBC's RAMP Program, my organization also pledges to provide short-term instruction on biotech-enabled novel foods and enzymes, their food safety considerations and regulatory requirements as an industry contribution to the RAMP Program.

My organization remains optimistic that the type of rapid training offered by CBC's RAMP Program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology. In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields.

Sincerely,

A handwritten signature in black ink, appearing to read 'Casper Vroemen', written over a light blue horizontal line.

Casper Vroemen, PhD  
VP R&D

**Health & Biosciences**  
925 Page Mill Road  
Palo Alto, CA  
94304

T 650-846-7500  
[iff.com](http://iff.com)



Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

December 31, 2021

Dear Ms. Corsello,

I am writing to offer my enthusiastic support for the proposed California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

The UC Davis Biotechnology Program has a long history of building public-private partnerships to support research and biotech education at the graduate/professional level and we emphasize the need for interdisciplinary teams to drive innovation across all sectors of biotechnology. Successful teams in biotech include well-trained, entry level technicians and non-technical employees who are essential for bringing new bioproducts to market. I am pleased to be working with colleagues across the educational space, from K-12, community college and university, as well as industry partners, to ensure that the regional workforce is ready to support the growth of the bioeconomy.

RAMP will serve a key role in building strategic biotech workforce capacity in our region, with the potential to help retail and service-industry workers upskill and retrain for non-technical roles (e. g. operations, supply chain, administration) in the biotech industry. Through RAMP and similar programs, we strongly support efforts to improve public science literacy and engage all segments of our local communities in awareness and readiness for employment in the biotech industry. If funded, I will engage with RAMP organizers to ensure that trainees are knowledgeable about UC Davis educational opportunities and biotech career paths that may be considered as next steps on the career ladder.

Sincerely,

A handwritten signature in blue ink that reads "D. Jamison-McClung". The signature is fluid and cursive.

Dr. Denneal Jamison-McClung  
Director, UC Davis Biotechnology Program  
One Shields Avenue, 301 Green Hall  
Davis, CA 95616

[dsjamison@ucdavis.edu](mailto:dsjamison@ucdavis.edu) | 530-752-5090

<https://biotech.ucdavis.edu/>

3333 Vaca Valley Parkway, Suite 400  
Vacaville, CA 95688



Phone: 707-592-1866  
hal.padgett@novicibiotech.com

January 4, 2022

Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

Dear Ms. Corsello;

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

Novici Biotech focuses on the development, optimization, and use of transient genetic systems for recombinant protein production in green plants in controlled indoor environments. The company also developed and supplies the most common DNA error correction technology used by synthetic biology companies in their commercial gene synthesis workflows since 2010, and new products are being readied for introduction into that market. The span of our activities ranges from specialized biological R&D to biomanufacturing and facility operations, requiring workers at all levels of skill and types of background. We enthusiastically support CBC's plans to cultivate the necessary infrastructure required to supply employees and services required to drive progress in my company, as well as in the wider local biotechnology community.

As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions, and the Novici team is proud to have been doing our part to advance that wider cause.

I believe that the RAMP Program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

In addition to this expression of support for CBC's RAMP Program, my organization is also willing to consider making available our expertise in molecular biology and biochemistry to facilitate efforts to advance the RAMP Program.

It is clear to see that we are in the midst of a transformation of the local biotechnology industry into one with needs focused ever-more sharply on the 'lower' levels of skill required for

biomanufacturing of the diverse array of products that Novici and other local companies produce. I am optimistic that the type of rapid training offered by CBC's RAMP Program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology.

In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields. I believe that the intellectual capital accruing from such pursuits will only serve to propagate and amplify the contributions flowing from our biotechnology industry as it continues on its trajectory to positively shape our wider community and economy well into the future.

Sincerely,



Hal S. Padgett, Ph.D.  
Founder and CEO,  
Novici Biotech LLC



Ms. Birgitta Corsello, County Administrator  
Solano County  
675 Texas Street, Suite 6500  
Fairfield, California 94533

I am writing to express support for the California Biomanufacturing Center (CBC) Rapid Alternative Medtech Pathway (RAMP) Program.

Currently I am serving as a CFO for a support construction company that works with just about every major biotech within California, and having come from over a decade of direct employment from one of these biotech's before coming to where I am today, I am fully aware of this need to have well trained workers in this specific industry.

As a strategic industry for our region, we value biotechnology jobs as a high priority. Throughout the pandemic, the biotechnology industry has continued to thrive as the world turned to science for solutions.

We're highly sensitive to a job shortage in the biotechnology industry. The RAMP Program developed by CBC has high potential to assist workers displaced in restaurant, retail, and other stressed industries and provide rapid training for non-technical career pathways in biotechnology such as facilities, operations, procurement, supply chain, and related fields which do not require degrees in biology.

In addition to this expression of support for CBC's RAMP Program, my organization also pledges to provide our experts all phases of facilities management and support as well as industrial safety training as an industry contribution to the RAMP Program.

My organization remains optimistic that the type of rapid training offered by CBC's RAMP Program will serve a broad community throughout our region, and give many workers displaced by COVID-19 an opportunity to enter new career pathways in biotechnology. In addition, we recognize that this type of program may lead job seekers to further study in degree programs in biotechnology and related fields.

Sincerely,

Joe Garcia  
CFO  
Unique Scaffold