Developing the Biotechnology Workforce: Sharing Strategies and Partnerships

Linda Collins

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THE VISION

- The community colleges are an effective and central part of a unified approach to workforce development in California—one that is founded on career ladders, universal, seamless, regional, strategic and collaborative.

- All the components of the workforce development system are working together in an integrated fashion. A system of career ladders provides opportunity for all Californians to attain jobs that provide a living wage and to advance to positions requiring greater skills, responsibilities, and accordingly, higher pay.

- Employer needs are better met, and workforce and economic development in California is enhanced by the increasing supply of skilled workers.

(Ladders of Opportunity, BOG-CCC 2001)
INTRODUCTION TO BIO SCIENCE
(Employability, Life Skills, Ergonomics)

CONTEXTUALIZED BIO SCIENCE LITERACY/VESL TRAINING
(100-150 hours)

BIO PROCESS/ASSISTANT MEDIA PREP/PHARMACEUTICAL MATERIALS SPECIALIST TRAINING
(Biological Sciences, Physical Sciences, Engineering)
(300 hours)

1-3 MONTHS WORK EXPERIENCE

ASSISTANT MEDIA PREP
32K – 35K + Benefits

BIO PROCESS MANUFACTURING TECHNICIAN
35k – 40k + Benefits

PHARMACEUTICAL MATERIALS SPECIALIST/TECHNICIAN
32K – 35K + Benefits

QUALITY CONTROL (QC) ANALYST TECHNICIAN
35k – 40k + Benefits

RESEARCH ASSISTANT
60k +

PARTNERS
GRUBER & PEREIRA ASSOCIATES
SAN MATEO LABOR COUNCIL
PENINSULA WORKS / SAN MATEO COUNTY WIB
SKYLINE COLLEGE

EMPLOYERS
Genentech, Inc.
Chiron, Inc.
Cell Genesys, Inc.
Abgenix Inc.
Signature Bioscience
UCSF
BioRad
Bayer

THE SAN MATEO REGIONAL BIOTECH CAREER LADDER SYSTEM

PREPARATION
ENTRY LEVEL TRAINING
ENTRY LEVEL EMPLOYMENT
UPGRADE EMPLOYMENT
ADVANCED EMPLOYMENT
THE BAYER AND GENETECH CORPORATION GATEWAY TO BIOTECH MODEL

DRAFT

**COLLEGE AND CAREER PROGRAMS**
- 2 Year Degree and Certificate Program at Laney Community College

**SHORTTERM WORK READINESS**
- Additional Remediation
- TABE Under 6th Grade

**OUTREACH, RECRUITMENT AND ASSESSMENT**
- TARGET GROUP: Youth, Neighborhood Residents and Disadvantaged Adults
- TARGET AREAS: Residents of Oakland and the East Bay
- SERVICES: Career Orientation/TABE testing /Career Counseling/Referrals/Job Development

**STAGE 1**
- TABE Under 6th Grade

**STAGE 2**
- TABE 8th – 10th Grade

**STAGE 3**
- BRIDGE TO COLLEGE AND CAREER DELIVERED AT LANEY COMMUNITY COLLEGE
  - 14 Week Program
  - Delivered for college credit at Laney Community College
  - Introduction to Post Secondary Education and Career Opportunities
  - Intensive Literacy and Math Skills
  - Work Readiness
  - Social Support
  - Individualized Education and Career Plan
  - Achievement of 10th Grade Reading Level
  - Transition to Biotechnology Manufacturing Training
  - Intensive in/class Counseling

**STAGE 4**
- 3 MONTHS PAID INTERNSHIP

**STAGE 5**
- FULL TIME PLACEMENT
  - 35K + per year

**BIOTECHNOLOGY MANUFACTURING TRAINING**
- SKYLINE/OHLONE COMMUNITY COLLEGE MODEL
- DELIVERED AT LANEY COMMUNITY COLLEGE
- • 14 week training (260 hours)
- • GMP Training
- • SOP Training
- • Biology
- • Chemistry
- • Soft Skills
- • Communication
- • Interviewing
- • Quality Control
- • Bio Manufacturing

**Part-time Jobs:**
- after-school workers
- IT or retail staff
  - ($7.50 to $9.50 per hour) + full financial aid package

**GRUBER & PEREIRA ASSOCIATES, LLC.** Workforce and Economic Development Consulting & THE CAREER LADDERS PROJECT
Partnerships with Business

- Business & Industry Partnerships: *highest rated key dimension*
- External partners report positive relationships and effective outcomes from partnerships with colleges
- Aligning curriculum and keeping program vibrant
- Diversity, range and scale of partnerships

As busy as we are, I think that the time you spend working with the colleges is well worth it. It just pays off. I would encourage everyone to put the time in, that it will reap good rewards and good employees in the future.  *Hospital Prog. Coordinator*
WIB Partnerships

Strong practices –

- Leveraging dollars across systems
- Learning more about how the other organization works
- Working with each partner’s strengths, skills and resources
- Developing clear roles and responsibilities.

There's so many different funding silos … that it's hard to connect the funding streams to make sure that we have a coherent and an effective employment development process in our local community.  

WIB Staff

Community Colleges have been really responsive to our needs and the needs of the employers in our community.  

WIB Director
Innovation & Flexibility

- sharing and adapting innovative models
- incentives and revenue generation for programs
- support for program and curriculum development
- faculty and administrative professional development
- college wide discussions and commitments regarding basic skills, ESL and other issues
- creating a culture of innovation and risk taking
- leveraging multiple funding sources

*President*

I encourage all of my managers to make connections, network and be involved in at least 1 community organization. I also encourage them to try things. If we fail we learn from that and move on.
We don’t have anyone to train us to navigate the WIA system . . . it is hard to connect the dots without a roadmap.
Dean, Economic Development

The community college system could facilitate more communication across the system. They could offer more workshops, conferences or venues … to share best practices with one another.
Dean, Vocational Education

Develop/Provide Focused CL Strategic Assistance

- Disseminate models, practices, tools
- Facilitate exchanges with industry
- Utilize team approach: college practitioners, expert intermediaries, local workforce board leaders
- Focus on partnerships & navigation of WIA system
CCC Funding

Provide CL Seed/Base Funding To all Colleges
- Support partnership development
- Expand career ladders capacity
- Further program/curriculum design, development and integration
- Address integration of services/instruction

Integrate CL Into Relevant Programs/Funding Streams
Support, Develop & Evaluate Demonstration Projects
- Leverage funding across systems
- Create bridges and/or focus on high wage careers
- Incorporate learning communities, cohort approaches
CCC System Processes

Continue to Streamline System Processes

- Curriculum and program approval
- Grant application and tracking

Flexibility is key if community colleges are expected to respond quickly to emerging needs. There could be a more streamlined certificate approval process that also recognizes that some programs will not be here for time immemorial, but that they may be let go when the need is served.

President

I think there could be ways to speed up the curriculum approval process. … It took me 2 ½ years to get [the program] off the ground.

Occupational Dean
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