

Notes & Comments...

SCHEDULE SUMMARY

8:00am to 8:30am CONTINENTAL BREAKFAST

8:30am to 8:45am WELCOME :
Secretary Victoria Bradshaw, California Labor
and Workforce Development Agency

8:45am to 9:15am SESSION ONE

What Is So Special About California Community Colleges Preparing the Applied
Biotechnology Workforce?
~ Dr. Mary Pat Huxley, Director of the California Applied Biotechnology Centers
Initiative - Session Chair with panelists, Jeffery O'Neal and Susan Patereau

9:15am to 10:00am SESSION TWO

Educating Technicians for Future Industry Needs
~ Celeste Carter, Ph.D., Program Director, Division of Undergraduate Education,
National Science Foundation

10:00am to 10:15am BREAK

10:15am to Noon SESSION THREE

Biotechnology Centers for Educating and Training the Biotechnology Workforce
~ Dr. Sonia Wallman, Director of the Northeast Biomanufacturing Center and
Collaborative - Session Chair with panelists, Elaine Johnson and Russ Read.

Noon to 1:15pm LUNCH & NETWORKING

1:15pm to 2:45pm SESSION FOUR

Faces of Success - Biotechnology Graduates
~ Dr. Elaine Johnson, Director of Bio-Link - Session Chair with panelist employees
who were educated and trained at community and technical colleges across the
nation.

2:45pm to 3:00pm BREAK

3:00pm to 4:30pm SESSION FIVE

Effect of Emerging Industry Sectors on Workforce Education and Training -
Nanotechnology, Biofuels, Stem Cells, Information and Convergence of Bio/Nano/
Information Technologies
~ Russ Read, Director of the National Centers for Biotechnology Workforce -
Session Chair.

4:30pm to 5:00pm Wrap-Up/BIO 2009 (May 17-20 in Atlanta)

8:45am to 9:15am SESSION ONE

What Is So Special About California Community Colleges Preparing the Applied Biotechnology Workforce?

Features Partnerships with Biotech Business Incubators, Regional Internship Models, Traveling Laboratory Kits for High Schools and Colleges, Life Science Summer Institute, Biotech Boot Camps for Instructors and Students, and the innovative network that makes these happen through the California Community Colleges.

Session Chair: Dr. Mary Pat Huxley, Director of the California Applied Biotechnology Centers Initiative mp_huxley@vcccd.edu



BIO 2008 – Community College Program

OUR SPEAKERS

Session Five: Effect of Emerging Industry Sectors on Workforce Education and Training – Nanotechnology, Biofuels, Stem Cells, Information and Convergence of Bio/Nano/Information Technologies (continued)

Gail O'Kane, Ph.D.
Education-Industry Partnership Manager, Biosciences and Nanosciences
Minnesota State Colleges and Universities
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Russ H. Read, BS, Dip. Ed., DIA, MA, worked in the pharmaceutical industry for over 30 years in a wide variety of positions, most recent of which was that of a CEO with a start-up company. He currently serves as executive director of the National Center for the Biotechnology Workforce, a program sponsored by a U.S. Department of Labor grant. Read has co-written multiple successful grants and has served as a reviewer of NSF ATE and NC Biotechnology Center grant programs. He is active on many boards (e.g. the UNC Science Advisory and NC BIO) and is both the current co-chair of the Piedmont Triad Biotechnology Advisory Board and the Life Sciences Executives Round Table. He is based at Forsyth Technical Community College in Winston-Salem, NC.

Ric Matthews
Dean, Math and Sciences
Director Center of Expertise, Bioprocessing
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Ric Matthews has been the Dean for Math and Sciences at MiraCosta College in Oceanside, California, for five years. Prior to join MiraCosta College he had been a Professor of Biology and Health Sciences at San Diego Miramar College. He possesses a Bachelors from the University of California, Davis campus, a Masters from San Diego State University (Biology), and a Masters from National University (Educational Technology). The biotechnology program at MiraCosta has been in existence for 17 years. With the recent construction of a large biomanufacturing operation near the campus, the college has added new educational opportunities in biomanufacturing to supplement the traditional research and development ones.

BIO 2008 – Community College Program

OUR SPEAKERS

Session Five: Effect of Emerging Industry Sectors on Workforce Education and Training - Nanotechnology, Biofuels, Stem Cells, Information and Convergence of Bio/Nano/Information Technologies

Russ Read
Executive Director
National Center for the
Biotechnology Workforce
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Russ H. Read, BS, Dip. Ed., DIA, MA, worked in the pharmaceutical industry for over 30 years in a wide variety of positions, most recent of which was that of a CEO with a start-up company. He currently serves as executive director of the National Center for the Biotechnology Workforce, a program sponsored by a U.S. Department of Labor grant. Read has co-written multiple successful grants and has served as a reviewer of NSF ATE and NC Biotechnology Center grant programs. He is active on many boards (e.g. the UNCG Science Advisory and NC BIO) and is both the current co-chair of the Piedmont Triad Biotechnology Advisory Board and the Life Sciences Executives Round Table. He is based at Forsyth Technical Community College in Winston-Salem, NC.

Matthew Meyer
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Community College System
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Matthew Meyer began his career as the chairperson of the Mechanical Engineering Technology Department at AB Tech in Asheville, North Carolina in 1994. He moved into workforce training in 1998 as dean of business and industry training at AB Tech. In 2003, Meyer served as dean of workforce training with the Community College Workforce Alliance in Richmond, Virginia. In 2006, he became the director of the North Carolina Community College System's BioNetwork. He holds a master's degree in bioengineering from Clemson University, and a bachelor's degree in mechanical engineering from the University of Dayton. Meyer will complete his PhD in community college leadership from Old Dominion University in winter 2008.

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9:15am to 10:am SESSION TWO

Educating Biotechnicians for Future Industry Needs

A meeting of biotechnology educators, industry and organizations met in Arizona this April to provide recommendations to NSF for educating biotechnicians for future industry needs. Dr. Carter will present an overview of these recommendations followed by a Q&A and discussion with CCP participants.

Session Chair: Celeste Carter, Ph.D., Program Director, Division of Undergraduate Education, National Science Foundation, Arlington, VA. Voice: 703-292-4634 vccarter@nsf.gov



10:00am to 10:15am BREAK

BIO 2008 - Community College Program

10:15am to Noon SESSION THREE

Biotechnology Centers for Educating the Biotechnology Workforce

This session will detail accomplishments of and collaborations among three Biotechnology Centers, the NSF ATE Bio-Link National Biotechnology Resource Center in San Francisco, the ETA DOL National Centers for the Biotechnology Workforce in North Carolina, and the NSF ATE Northeast Biomanufacturing Center and Collaborative in New Hampshire

Session Chair: Dr. Sonia Wallman, Director of the Northeast Biomanufacturing Center and Collaborative, Great Bay Community College, Portsmouth, NH. Voice: 603-559-1581 swallman@ccsnh.edu

Russ Read
Executive Director
National Center for the
Biotechnology Workforce
Forsyth Technical Community College
Winston-Salem, NC

Elaine Johnson
Executive Director
Bio-Link National Center
City College of San Francisco
San Francisco, CA

Noon to 1:15pm LUNCH & NETWORKING

BIO 2008 - Community College Program

OUR SPEAKERS

Session Four: Faces of Success - Biotechnology Graduates (continued)

Maureen Wong
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Maureen Wong earned her B.A. in Theatrical Design from the University of California San Cruz in 1996. After 8 years in theatre, including high school and college, Maureen wanted a change. She decided to pursue her interest in the biological sciences and enrolled in a few evening courses in the Biotechnology Certificate Program at City College of San Francisco, a program she heard about through an advertisement. In 2001, while working on completing the Certificate Program, she applied for a position in the BioAnalytical Research and Development Department at Genentech. Seven years, 1 sabbatical, and 2 promotions later, Maureen is still at Genentech. She is currently a Research Associate, in BioAnalytical Research and Development, training new employees and developing immunoassays to evaluate the potency of potential therapeutics that are currently in Genentech's product pipeline.



BIO 2008 - Community College Program

OUR SPEAKERS

1:15pm to 2:45pm SESSION FOUR

Session Four: Faces of Success - Biotechnology Graduates (continued)

Leticia Flores
Lab Assistant II
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Leticia Flores was born in Mexico and educated at the Tecnológico de Ciudad Juárez in Mexico. She moved to San Diego when her children started college in 2000. This radical change motivated her to pursue a Biotechnology associate degree at Southwestern College. She graduated in 2005. Since then, she has been employed as a Lab Assistant II in Biocept Inc, CLIA accredited clinical laboratory. For the past three years, she has focused on learning and practicing the latest techniques in a new class of diagnostic assays. Biocept is a San Diego company investigating methods to isolate tumor cells circulating in blood. Leticia is involved in a study which uses Biocept's proprietary CEE™ (Cell Enrichment and Extraction) technology, designed to capture rare cells from a larger heterogeneous cell population. The focus of this study is ovarian cancer cells. Biocept also produces a non-invasive prenatal Rh(D) diagnostic test.

Ethan Brookes
Sales Associate
BioSurplus
San Diego, CA

In the fall of 1999, Ethan Brookes began his collegiate education at the University of California, San Diego with the aspiration of earning a B.S. in Human Biology. After several years of hard work and a denial for further financial aid, Ethan could no longer afford the high cost of tuition in addition to living expenses and was forced to take an extended leave from school. He subsequently found employment in the life science industry to be impossible without at least a degree or some work experience.

However, with high praise and a recommendation from a friend, Ethan began attending the Biotechnology program at Mira Costa Community College. After only two semesters in the incredible program, he was hired by BioSite, a San Diego based Biotech company and began working in their biochemistry controls lab. Currently Ethan is a Sales Associate at a biotechnology equipment company, BioSurplus. A recent recipient of Genentech's 2008 Mira Costa Community College scholarship, Ethan looks forward to this fall when he will receive two professional certificates as well an A.A. degree in Biotechnology.

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Faces of Success - Biotechnology Graduates

Graduates from community and technical colleges from different parts of the country share their stories. Examples include internship, coop and apprenticeship experiences and highlight the importance of industry mentors. This session was lauded at BIO 2007 as a highlight and is returning for an encore with different panelists.

Session Chair: Elaine Johnson, Executive Director, Bio-Link National Center, City College of San Francisco, San Francisco, CA.
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Speakers:

Ethan Brookes
Sales Associate
BioSurplus
San Diego, CA

Maureen Wong
Research Associate
Genentech, Inc.
San Francisco, CA

Leticia Flores
Lab Assistant II
Biocept, Inc
San Diego, CA

Chris Adams
Associate Scientist
Latitude Pharmaceuticals
San Diego, CA

Brooke Davis
Associate Scientist
Latitude Pharmaceuticals
San Diego, CA

David Haddad
Lab Assistant
Millennium, Inc.
Cambridge, MA

2:45pm to 3:00pm BREAK

BIO 2008 - Community College Program

3:00pm to 4:30pm SESSION FIVE

Effect of Emerging Industry Sectors on Workforce Education and Training - Nanotechnology, Biofuels, Stem Cells, Information and Convergence of Bio/Nano/Information Technologies

Community Colleges can, and do, respond quickly to industry needs in emerging technologies. The session will illustrate exemplary programs already in place as well as discuss how to translate the coming changes in technology into practical education and training for the biotechnology industry.

Session Chair: Russ Read, Director of the National Center for Biotechnology Workforce, Forsyth Technical Community College, Winston-Salem, NC.
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Speakers:

Ric Matthews
Dean, Math and Sciences
Director Center of Expertise, MCC
Bioprocessing
Dean, Faculty Evaluation
MiraCosta College
Oceanside, CA

Matt Myer
Director of NC BioNetwork
North Carolina Community
College System
Raleigh, NC

Gail O'Kane
Education-Industry Partnership
Manager, Biosciences and
Nanosciences
Office of the Chancellor, Strategic
Partnerships Unit
Minnesota State Colleges
and Universities
St. Paul, MN

Wrap-Up BIO 2009 in Atlanta

BIO 2008 - Community College Program

OUR SPEAKERS

Session Four: Faces of Success - Biotechnology Graduates (continued)

Brooke Davis
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Brooke's path has had a plethora of twists, turns, and diversions. It began in elementary school with a passion for science, especially biology, that was often the cause of arriving late to school having stopped to study ants bringing bits of food back to their anthill or devouring a fallen flying insect. It continued in Junior High and High School with Biology, Zoology, Anatomy and Chemistry classes. Brooke reflects, either I lost my way or did not realize, at the age of 18, that there were careers related to these areas of interest because after completing two semesters at University Nebraska at Omaha I enlisted in the United States Navy. I was stationed in California and upon my honorable discharge I began attending Merritt Community College in Oakland, California followed by Metropolitan Community College in Omaha, Nebraska where I earned an A.S. degree. After two apprenticeships - backstage theatre tech and the commercial/industrial electrical trade I attended two more semesters at U.N.O., moved back to San Diego, enrolled in San Diego City College and attended elementary education classes at U.C.S.D. Brooke was encouraged by biology professors at San Diego City College to pursue the biotechnology program. Brooke was in the process of completing the last class required for the certificate, went on a first interview and was hired out of the class.

Chris Adams
Associate Scientist
Latitude Pharmaceuticals, Inc.
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Chris Adams attended Miramar College and then transferred to the University of California at San Diego where he received a B.S. degree in Biology. After a few years working outside the field of science and seeking a position in the Biotech industry, he needed recent laboratory skills and experience. He returned to Miramar College which had also become the home of the Southern California Biotechnology Center. There he completed the Biotech Lab Experience course. He then found a position as an Associate Scientist performing analytical chemistry at Latitude Pharmaceuticals in San Diego.

BIO 2008 - Community College Program

OUR SPEAKERS

Session Four: Faces of Success - Biotechnology Graduates

Elaine Johnson, PhD
Executive Director , Bio-Link National Center
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Elaine Johnson is the Director of Bio-Link, the National Science Foundation Advanced Technological Education Center for Biotechnology at the City College of San Francisco. Elaine is a leading advocate for educating biotechnology technicians across the country and serves on a variety of educational, governmental and industry advisory panels and boards. Her success in growing partnerships and facilitating networking activities has led to her service on the University of California Advisory Group, on the Public Science Project, and as co-chairperson for the Outreach and Education Committee for BIO 2004 in San Francisco. Elaine is co-chairperson for the Workforce Development Committee for BayBio, is a Board Member for the BayBio Institute and Bay Area Biotechnology Education Consortium (BABEC) and is a member of the Minnesota Biosciences Education-Industry Partnership Council.

David Haddad
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David Haddad graduated from Londonderry High School class of 2005. During this time he decided that he wanted to go into biotechnology and the program at New Hampshire Community Technical College (NHCTC) seemed like a good way to do this. He figured that he would get his associates degree, get a low level job at a biotech company, and continue on with his education. While at NHCTC he worked a few different jobs at the school and graduated in 2007 with a 3.69 GPA. After a short job search he found his current position in the Lab Ops at Millennium. Now he supports the researchers by making them solutions and stocking the labs. He is also working on getting my bachelors degree at Harvard Extension School, which his company is paying for. He has a good job, no college loans to pay off, and in a few years a degree from Harvard.

OUR SPEAKERS

Session One: What is So Special About California Community Colleges Preparing the Applied Biotechnology Workforce

Mary Pat Huxley
Director of the California Applied Biotechnology Centers Initiative
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Mary Pat Huxley is the state initiative director, helping to prepare the workforce for biotechnology careers. Her previous experience includes 14 years as an adjunct instructor in biology at Venture College, over 10 years as a biological environmental scientist and consultant, three years as a regional director in the Applied Biotechnology Centers Initiative, and seven years as the state director of the California Applied Biotechnology Centers Initiative for the California community colleges. Huxley earned a bachelor's degree in biology from University of California San Diego, a master's of science in genetics from the University of Dublin, Trinity College, and a doctorate in organization change from Pepperdine University.



OUR SPEAKERS

Session Two: Educating Biotechnicians for Future Industry Needs

Celeste Carter, Ph.D.
Program Director Division of Undergraduate Education
National Science Foundation
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V. Celeste Carter received her Ph.D. in Microbiology from the Pennsylvania State University School of Medicine in 1982 under the direction of Dr. Satvir S. Tevethia. She moved to the University of California at Berkeley for postdoctoral studies in the laboratory of Dr. G. Steven Martin. She joined the Division of Biological and Health Sciences at Foothill College in 1994 to develop and head a Biotechnology Program, and is serving as a Program Director in the Division of Undergraduate Education at the National Science Foundation (NSF). Prior to her arrival at NSF, she was the recipient of a DUE-ATE award, which produced a set of case studies and associated laboratories with biotechnology industry partners.



BIO 2008 - Community College Program

OUR SPEAKERS

Session Three: Biotechnology Centers for Educating and Training the Biotechnology Workforce

Sonia Wallman, Ph. D.
Director, Northeast Biomanufacturing Center and Collaborative
Great Bay Community College
Portsmouth, NH
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Sonia Wallman started the biotechnology associate in science degree program at New Hampshire Community and Technical College (now Great Bay Community College) in 1994. Two hands-on cornerstone courses, Discovery Research and Biomanufacturing, were developed with NSF ATE funding. Graduates hired by the many global biomanufacturers in the region begin careers in biopharmaceutical manufacturing. Wallman serves as the PI of the NSF ATE Northeast Biomanufacturing Center and Collaborative, which offers a global biomanufacturing curriculum repository, and an annual bio-manufacturing conference (BIO/MAN) for educators. With the U.S. DOL, Wallman developed registered biomanufacturing apprenticeships designed to entice recent high school graduates to pursue careers in biomanufacturing, and to develop the local pipeline of workers.

Russ H. Read, BS, Dip. Ed., DIA, MA, worked in the pharmaceutical industry for over 30 years in a wide variety of positions, most recent of which was that of a CEO with a start-up company. He currently serves as executive director of the National Center for the Biotechnology Workforce, a program sponsored by a U.S. Department of Labor grant. Read has co-written multiple successful grants and has served as a reviewer of NSF ATE and NC Biotechnology Center grant programs. He is active on many boards (e.g. the UNC Science Advisory and NC BIO) and is both the current co-chair of the Piedmont Triad Biotechnology Advisory Board and the Life Sciences Executives Round Table. He is based at Forsyth Technical Community College in Winston-Salem, NC.

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