

Tabled by Mr Beattie during a ministerial statement 21-6-2001

**QUEENSLAND BIOTECHNOLOGY MISSION
QUEENSLAND DELEGATES' PROGRAM
BIO2001 – JUNE 2001**

Thursday, June 21

	Own arrangements for breakfast
8.00 am	Pickup at downtown hotels (see Notes)
9.00 - 9.15 am	Introduction to San Diego @ BIOCOP, Joe Panetta (CEO)
9.45 – 10.45 am	Tour of Diversa Corporation HQ & High-throughput screening Facilities
11.00 - 12.30 pm	University of California, San Diego (UCSD) including Vice Chancellor for Research, CONNECT, Tech Transfer, School of Medicine, and Supercomputer Center Biotech meetings
1.00-2.00 pm	[To be confirmed] Scripps Research Institute
2.30-4.00 pm	Torrey Mesa Research Institute & Novartis Genomics Institute (Novartis Foundation) - shared facility, 45 minutes each side
4.00-5.30 pm	Salk Institute
6.00-7.30 pm	Tour & light meal, Sequenom HQ & SNP research facilities
	Own arrangements

Day 1 – Notes

- Breakfast not included.
- Pickup at Marriott Hotel & Marina and Hilton Gaslamp at 8:00am. If you are not staying at one of these hotels, please either be in the lobby of one of these hotels by 7:50, or meet us at BIOCOP by 9:00 am.

Friday, June 22

7.15 am	Pickup from downtown hotels (see Notes)
8.00-9.00 am	Breakfast
9.00-9.30 am	Workshop on US BIO market, Capital Trends and Commercialisation Issues Opening/Introductions Venue. La Jolla Hyatt, San Diego
9.35-10.05 am	Michael Longes Ernst & Young Topic: Key differences in the US and Australian/New Zealand tax and financial systems (including industry specific issues such as R&D, tax credits, subsidiaries etc)
10.05-10.35 am	Elliot Parks Ventana Topic: Current state of Life Science VC
10.35-10.45 am	Coffee break
10.45-11.15 am	Nir Kossovsky The Patent & License Exchange Topic: “Capital formation for SMEs - increasing asset value from IP and how that will work in financial markets and with investors”
11.15-11.45 am	Doug Munch DFM Ltd Topic: “Working with Large Corporations from the Biotech’s Point of View”
12.00-1.00 pm	Lunch
12.30 pm	Lunchtime Keynote Speaker: Rob Ayling, Gray Cary Ware Friedenrich: “Experience with Bringing Companies to the US”
1.00-1.45 pm	Panel Discussion 1 – “Bootstrapping and Real Costs to Enter” Moderator: John Kenny, Queensland BioIndustries Task Force Doug Munch, DFM Ltd Elliot Parks, Ventana Global Kris Dyszynski, Alchemia, Inc. [New Zealand firm to be confirmed]
1.45-2.30 pm	Panel Discussion 2 – “Migrating to the US, Personally and Professionally” Moderator: Dr. Alan Rogerson, Investment NZ Biotech Director Rob Ayling, Gray Cary Ware & Friedenrich Michael Longes, Ernst & Young (to be confirmed) Carl Stublings, PanBio InDx [New Zealand firm to be confirmed]
2.30 pm	Closing

Day 2 – Notes

- Pickup at Marriott Hotel & Marina and Hilton Gaslamp at 7:15am. If you are not staying at one of these hotels, please either be in the lobby of one of these hotels by 7:05, or meet us at the Hyatt Aventine in La Jolla by 9:00 am.
- For participants in the Austrade exhibit hall briefing and Austrade World Trade Center function, arrangements will be made to get to your meetings at 3:00pm. For others, you will need alternate arrangements.

AUSTRALIAN ACTIVITIES AT BIO 2001

(& highlights of Bio 2001 scheduled events)

Date	Time	Activity	Location	Attendees
Fri 22 June	3 – 5 pm	Austrade Exhibitor Briefing	Westgate Hotel Riviera Room	All exhibitors on Australian National Stand
	3 – 6pm	Bio 2001 Orientation	San Diego World Trade Center	Members of Delegation <u>not</u> exhibiting on Australian National Stand Exhibitors (cost involved)
	7 – 10pm	Big Bio Warm Up Reception	Westgate Hotel	All delegation (cost involved)
Sat 23 June	9am – 6pm	Conference Registration Opens	San Diego Convention Center	Full Conference registrants
	1pm – 5pm	Queensland State Government reception	Birch Aquarium	By invitation
	6.30pm – 10pm	Victorian State Government reception	Marriott Hotel	By invitation
Sun 24 June	8am – 5pm	Exhibitor Booth Dressing	San Diego Convention Center	All exhibitors
	10.30am – 12.30pm	Bio 2001 International Networking Brunch	San Diego Convention Center	Full Conference registrants & upgraded Exhibitors
	12pm – 4pm	Aust – Canada – NZ Meeting	Coronado Terrace, 4 th Level, Marriott Hotel	All Australian Delegation
	4.30pm – 6pm	Heller Ehrman Australian Reception	Hilton Hotel	All Australian Delegation
	6.30 – 9pm	Bio Welcoming Reception	Embarcadero Park South	Full Conference registrants & upgraded Exhibitors
Mon 25 June	7.00am – 5.30pm	Conference Sessions & Symposia – incl. Technology Partnering & Investor Partnering Forum	Convention Center	Full Conference registrants
	7.30am – 9.00am	NSW State Government breakfast	Westgate Hotel	By invitation
	9.30am – 4.30pm	Exhibition Hall open	Convention Center	All delegation
	2pm – 4.30pm	Australian National Stand – Official Opening – Networking & Wine Tasting	Australian Stand – Exhibit Hall	All delegation
	7pm – 11pm	Hospitality Suites – hosted by Bio 2001 (incl: Qld Government)	Marriott Hotel	Full Conference registrants – Exhibitor personnel both standard & upgraded

AUSTRALIAN ACTIVITIES AT BIO 2001

(& highlights of Bio 2001 scheduled events)

Date	Time	Activity	Location	
Tues 26 June	7.00am – 5.30pm	Conference Sessions & Symposia – incl. Technology Partnering & Investor Partnering Forum	Convention Center	Full Conference registrants
	9.30am – 6.30pm	Exhibition Hall open – including hall networking reception (4.30 – 6.30pm)	Convention Center	All delegation
	7.00pm – 9.30pm	Bio Chairman's Cup Reception	Gaslamp District Block Party	Full Conference registrants & upgraded Exhibitors
Wed 27 June	7.00am – 5.30pm	Conference Sessions & Symposia – incl. Technology Partnering & Investor Partnering Forum	Convention Center	Full Conference registrants
	9.30am – 4.30pm	Exhibition Hall open	Convention Center	All delegation
	4.30pm – 12am	Exhibit Hall Tear Down	Convention Center	All exhibitors
	7 – 10pm	Bio Closing Reception	On Broadway	Full Conference registrants & upgraded Exhibitors
Thur 28 June	8.30 – 10.30am	Austrade Australian Exhibitors Debrief	Marriott Hotel	All exhibitors on Australian National Stand

Visit www.bio2001.org for a complete schedule of events

e.g.

Saturday 23 June	- BioParks 2001 Conference
Sunday 24 June	- Council of Biotechnology Centers Forum
	- Bio 2001 Career Fair
	- HealthFest 2001

Detail on Activities at Bio 2001

Please refer to the following in conjunction with the attached 'Australian Activities' schedule.

Austrade Exhibitor Briefing (Australian pavilion exhibitors)

Friday 3-5 pm, Westgate Hotel San Diego

This briefing will be an orientation to Bio specifically tailored for exhibitors on the Australian pavilion. Austrade will review the exhibit hall set-up, show hours, tear-down schedule, marketing activities and the arrangements for the opening/networking event. US speakers will address the group on intellectual property issues and strategies for presenting technology to potential partners.

Bio 2001 Orientation (Australian delegation non-exhibitors)

Friday 3-6 pm, San Diego World Trade Center

The German-American Chamber of Commerce in San Diego has arranged an orientation program for International Delegates, with input from Austrade and the Consul of Sweden. The program features speakers on the California biotech industry, licensing, product approval, and visiting San Diego. Australian non-exhibitors arriving early to San Diego are encouraged to take advantage of this program. The cost is US\$30, and registration is on-line at: www.biotech-network.com (Click on Big Bio Warm-Up)

Big Bio Warm-Up Evening Reception (Australian delegation)

Friday 7-10 pm, Westgate Hotel, San Diego

A special Friday night kick-off event for all Bio 2001 Delegates to meet and network will be held at the Westgate Hotel. Joseph Panetta, President of BIOCOM, the regional association for biotechnology, medical device and bio-agriculture companies in San Diego County, will welcome all participants. Cost is US\$75/person, includes a gourmet buffet & wines, and registration is on-line at: <http://www.biotech-network.com/site/index.php?id=34>

• On-line Matchmaking for Big Bio Warm-Up

All Bio 2001 Delegates can visit www.biotech-network.com and register to fill out a free profile and have access to a growing database of delegates for pre-conference networking. Take this opportunity to arrange meetings before you go to San Diego.

Package Deals

- Register for both the Orientation and the Reception and the total cost is US\$95 versus \$105. Register for the matchmaking program (fill out profile) and the total cost for both is reduced to \$US85.
- Register for Reception and matchmaking program (fill out profile) and the Reception cost is reduced to \$US65.

Bio 2001 International Brunch (Conf. Registrants & upgraded exhibitors)

Sunday 10:30-12:30, Convention Center

SpeaSchedule:	10:30 - 11:30 am	Networking
	11:30 - 12:00 pm	Welcoming Remarks (BIO)
		Ernesto Bertarelli - Serano (Sponsor)
		Lon Hatimaya - California Technology, Trade & Commerce
		Ray Briscuso - Executive Director, BIO
	12:00 - 12:30 pm	Networking

Speakers will include Ernesto Bertarelli (Serano), Lon Hatimaya (California Technology Trade & Commerce) and Ray Briscuso (Executive Director, Bio). All international delegations will have an information display at this event. Austrade will distribute literature & marketing material. BIO, BIOCOM, San Diego research institutes and other sponsors will also have information displays, with BIOCOM intending to distribute a list of San Diego companies to all reception attendees. In addition, the BIOCOM membership directory will be available for purchase at a slight discount to its cover price.

Canada - Australia - NZ Meeting & Mixer (Australian delegation)

Sunday 12-4 pm, Coronado Terrace, 4th Level, Marriott Hotel

You have been emailed profiles from over 70 Canadian companies who are attending Bio. You will be able to assess these profiles and those on the Industry Canada Bio 2001 website www.strategis.gc.ca/canada@BIO2001. If you are interested in meeting with one or more of these companies you will need to email them and solicit their interest in meeting. If the company does not respond, please email the Austrade Toronto contact sergei.tarasov@austrade.gov.au so he may check with the Canadian company to ensure that they are aware of your contact. Once confirmed, meetings must be notified to Sergei who will slot in 30 minute meeting times.

To facilitate your email correspondence with the Canadian companies we have prepared a standard introduction you may wish to use :

"We are participating in the Australian-Canadian-New Zealand Meeting & Mixer planned for Bio 2001 in San Diego. In case you are unaware of the meeting, it is scheduled for Sunday June 24, 12-4 PM, Coronado Terrace, Marriott San Diego. The event is sponsored by Manitoba, the Australian Government, and the New Zealand Trade Development Board, and is designed to foster partnering between the delegations. The event is listed on (Canadian website as above).

We are interested in.....

We will let the coordinator know that a meeting has been confirmed between our organizations. It is our understanding that a schedule will be drafted prior to the event, with a final schedule to be provided at the beginning of the meeting."

To participate, please complete the profile form you have been provided and return asap to sue.clerk@austrade.gov.au Remember that this event is a networking mixer too - there will be a bar area with light refreshments -so everyone is welcome even if they don't have meetings scheduled.

Heller Erhman Australia Reception (Australian delegation)

Sunday 4:30-6 pm, Hilton Pacific Room

Heller Ehrman White & MacAuliffe LLP is hosting a reception for the Australian delegation. The preliminary program is focused on investment in Australia.

Australian Pavilion Opening/Wine Tasting/Networking Event

Monday 2:00-2:30 pm, Australian Pavilion (Australian Delegation)

Peter Riddles, the President of AusBiotech will open the Australian Pavilion.

Monday 2:30-4:40 pm, Australian Pavilion (Australian Delegation)

Networking at this popular annual event will be augmented by invitations to key industry contacts prior to the conference. This event is being co-sponsored by AusBiotech, and Austrade has arranged a supply of boutique wines from a range of Australian regions.

 **UNITED**

 **UNITED**

Corporate sponsor of the
Australian National stand at Bio 2001

FURTHER QUERIES - PLEASE CONTACT

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AUSTRALIAN TRADE COMMISSION

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- more than 750 exhibitors
- more than 350 technology, investor and corporate partnering presentations



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**Partnering
for Life**

**UPDATED
PROGRAM**

visit our Web site for details www.bio2001.org

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The Biotechnology Industry Organization (BIO) hosts the world's largest annual International Biotechnology Convention & Exhibition. Leaders in business, science, patient advocacy, bioethics, education, government and the media discuss the latest innovations and issues. Exhibitors from around the world display the most advanced biotechnology products in health care, agriculture, industrial manufacturing and environmental management.

BIO's convention gives those involved in biotechnology the one opportunity each year to come together to network, celebrate accomplishments and explore the industry's potential to improve the world.

"BIO 2001 is truly a world-class event with people from industry, government and academia meeting and sharing ideas. It's this type of interaction that keeps biotech so dynamic."

-L. Patrick Gage, Ph.D. - President,
Wyeth-Ayerst Research
BIO 2000 and 2001 Major Sponsor

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See pages 56 & 57 for BIO 2001 partnering opportunities or visit

www.Investinbio.com

Receptions

Sunday, June 24

International Brunch: Partnering Has No Borders
San Diego Convention Center

Welcome Reception

California Road Trip: BIO Highway 101 at
Embarcadero Park South

Monday, June 25

Hosted Hospitality Suites
San Diego Marriot Hotel and Marina

Tuesday, June 26

Exhibit Hall Reception: Networking with Biotechnology Leaders
at the Industry's Largest Trade Show

CEO Reception

Natural History Museum (by invitation only)

Chairman's Cup Reception

Taking it to the Street: The Gaslamp District

Wednesday, June 27

Closing Reception
On Broadway



BIO represents more than 950 companies, academic institutions and state biotech centers in all 50 states and 33 nations. BIO members are involved in the research and development of health-care, agricultural, industrial and environmental biotechnology products. BIO members enjoy registration discounts and other benefits throughout the year.

Are You Ready...

To travel to one of the most exciting and entrepreneurial cities in the world and attend the world's largest and best biotechnology event?

To experience San Diego's perfect climate? Bolstered by six technology clusters—bioscience, communications, information technology, defense and space, recreational goods, software and the Internet—San Diego has the third-largest concentration of biotech companies in the United States and was named one of the nation's technology hot spots by *The Wall Street Journal*.

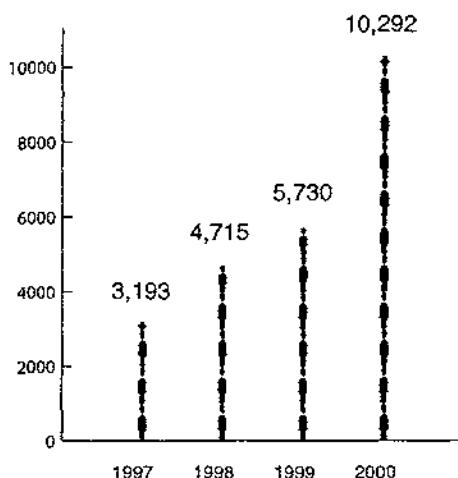
Contributing to San Diego's biotech success is its wealth of world-class research institutions, including the University of California—San Diego (UCSD), the Salk Institute, the Scripps Research Institute, the Burnham Institute and San Diego State University. UCSD has generated more than 125 start-up companies and ranks third in the nation in the amount of federal money spent on research and development. It doesn't seem surprising that the region is home to seven Nobel laureates.

San Diego's biotech industry is maturing rapidly. The region's companies are leaders in genomics research and in developing drugs, diagnostics and medical devices. It is easy to see why San Diego is considered the place to be in biotechnology.

It's also the perfect place to be for sun and fun. Located on the majestic shores of the Pacific Ocean, San Diego is known for its Mediterranean climate of warm, dry summers and temperate winters. Attractions include Sea World's Shamu and the San Diego Zoo's Hua Mei, the first captive-born giant panda in North America. Downtown San Diego serves as the financial district by day and offers fine dining and entertainment by night. Every year thousands flock to San Diego's endless beaches and some of the best surfing on the West Coast.

So, are you ready for Technology's Perfect Climate? We'll see you in San Diego.

Attendance Rising



BIO 2000 Attendance by Position/Title

President/CEO/Chairman	1,437
CFO/COO/CSO	432
Vice Pres/Senior Vice Pres	1,215
Managing Partner/Exec Director	185
Director	1,944
Manager	1,982
Scientist	734
Attorney	589
Academic	482
Other	1,292
	10,292

As the BIO International Convention moves to a different city each year, a partnership with a local biotech association is often established to assist in the planning and coordinating of the meeting. In San Diego for BIO 2001, BIO is fortunate to have a close working relationship with BIOCOM/san diego, the regional association for biotechnology, medical device and bio-agriculture companies in San Diego county, as well as the service company sector, including finance, legal, architecture, marketing, insurance and other companies specializing in business with the life science industry. Joseph Panetta, President & CEO, and Jennifer Andrews, BIO 2001 Liaison, serve as the lead coordinators on this effort.

For more information on BIOCOM/san diego, please visit www.biocom.org.

BIOCOM
san diego

BIO 2001 Plenary & Event Speakers

Plenary Sessions:

BIO 2001 will feature six plenary sessions — three breakfast and three lunch. Every session will feature an internationally renowned speaker. For updated information on speakers, visit our Web site at www.bio2001.org. Invited guests include Naomi Judd, Jean-Michel Cousteau, Craig Venter and Francis S. Collins.

Partnering for Life

BIO 2001 has a central theme that touches all of our industry's businesses, research, and people: Partnering for Life. This theme celebrates the partnerships that are delivering the products of biotechnology to those who need them, but it also celebrates the amazing results that occur when great partners come together to support and move toward a common goal.

The completion of the Human Genome Project in the past year—one of the pivotal scientific achievements of human history, was the product of such partnerships—from individual scientists and researchers around the globe, to great scientific institutions and commercial partners who brought their technologies and ideas together.

BIO 2001 is a mixing bowl of great science, great business leaders, great thinkers and great ideas - and the opportunity to find the right partners to bring those ideas to reality has always been a primary reason to be at all BIO International Convention. This year, there are more venues to make those connections than ever before.

Finally, Partnering for Life celebrates the fundamental truth of our work - no matter where or how that work is conducted: we are working individually and collectively to improve life. In 2001, we will celebrate many things, but the collaboration of BIO people to make life on planet Earth better is the foundation of our meeting and the promise we build on for the future.

2001 Chemical Heritage Foundation Heritage Award

One of the most important scientific achievements in human history will be celebrated Wednesday morning at BIO 2001. The 2001 Chemical Heritage Foundation Heritage Award will be presented to Dr. Francis S. Collins, Director of the Human Genome Institute at NIH and Dr. J. Craig Venter, of Celera Genomics Corporation. These two leaders of biotechnology will share the BIO 2001 stage as they receive this prestigious award. Dr. Francis Collins led the global consortium of scientists and technicians under the Human Genome Project banner that included scientists

at 16 institutions in France, Germany, Japan, China, Great Britain and the U.S. Dr. Craig Venter is the President and Chief Scientific Officer of Celera Genomics Corporation. Among his many other achievements, in 1990 he developed expressed sequence tags (ESTs), a new strategy for gene discovery that has revolutionized the biological sciences.

Jean-Michel Cousteau



There are only a few names that instantly communicate a family legacy; Cousteau is one of those names. Jean-Michel Cousteau has spent his life with his famous family exploring the world's oceans aboard the research vessels *Calypso* and *Alcyone*, communicating his love and concern for our water planet.

Jean-Michel will join BIO 2001 to speak Monday morning from 8:15 to 9:45 in the session "Is Global Sustainability in Trouble?" (see page 38 for more information.) Jean-Michel is President of Ocean Futures Society, which develops marine education programs, conducts research and fosters a conservation ethic for our endangered oceans and waterways. His contribution to this outstanding panel of experts will make this a "must see" session, so plan to be there early!

Naomi Judd



Confirmed for Wednesday's Plenary Luncheon is a recording artist of world renown — Naomi Judd. Naomi has a special partnership with our industry, having worked in health care delivery as a nurse and now as a patient benefiting from biotechnology's products. Her entertainment career actually began in health care, when she captured a chance for an audition while tending to a hospitalized relative of a record producer. She was soon discovered by RCA records, formed the hit recording act The Judds, and the rest is music history. Naomi and daughter Wynonna began turning out one chart-topper after another. The duo's songs became number one hits, their albums went platinum, and their concerts became sellouts. In all, they received six Grammy awards and had an eight year reign at the top of country music. Naomi's recording career ended after she was diagnosed with a life-threatening liver disease. Although she has left the recording business, but she certainly kept busy, and she is one speaker you will not want to miss.

BIO 2001 Agenda*

All events take place at the San Diego Convention Center unless otherwise noted.

Saturday, June 23

8:00 a.m. - 5:30 p.m.
BioParks 2001
(Requires separate registration. Located at UCSD in La Jolla.)

9:00 a.m. - 6:00 p.m.
Registration Open

12:00 - 6:00 p.m.
Exhibit Hall Setup

3:00 - 9:00 p.m.
Teacher Professional Development Program, Industry Facility Tours, Reception and Dinner

8:30 - 11:30 a.m.
Technology Partnering Forum

8:20 - 11:40 a.m.
Partnering & Investor Forum

9:30 a.m. - 4:30 p.m.
Exhibit Hall Open

12:00 - 1:45 p.m.
Luncheon/Guest Speaker

2:00 - 5:20 p.m.
Partnering & Investor Forum

2:00 - 5:00 p.m.
Technology Partnering Forum

2:00 - 5:30 p.m.
Breakout Sessions and Symposia

7:00 - 11:00 p.m.
Hospitality Suites Hosted by BIO 2001 Sponsors
San Diego Marriott Hotel and Marina

Sunday, June 24

7:30 a.m. - 4:30 p.m.
Teacher Professional Development Program-Workshops
San Diego City College

7:30 a.m. - 5:15 p.m.
Fourth Annual International Biotechnology Centers Forum

8:00 a.m. - 5:00 p.m.
Exhibit Hall Setup

9:00 a.m. - 8:00 p.m.
Registration Open

10:00 a.m. - 1:00 p.m.
International Networking Brunch

11:00 a.m. - 4:00 p.m.
BIO 2001 Career Fair, San Diego Marriott Hotel and Marina

12:00 - 4:00 p.m.
HealthFest 2001, Embarcadero Park North

6:30 - 9:00 p.m.
Welcoming Reception, Embarcadero Park South
Sponsored by the State of California

Tuesday, June 26

Monday, June 25

6:00 a.m. - 6:30 p.m.
Registration Open

7:00 - 8:00 a.m.
Breakfast/Opening Plenary Session

7:30 a.m. - 5:30 p.m.
Procurement and Supply Chain Management Workshop
San Diego Marriott Hotel and Marina

8:15 - 11:45 a.m.
Breakout Sessions and Symposia

6:30 a.m. - 6:00 p.m.
Registration Open

7:00 - 8:00 a.m.
Breakfast Plenary Session

8:15 - 11:45 a.m.
Breakout Sessions and Symposia

8:20 - 11:40 a.m.
Partnering & Investor Forum

8:30 - 11:30 a.m.
Technology Partnering Forum

9:30 a.m. - 6:30 p.m.
Exhibit Hall Open
(4:30 - 6:30 p.m. Reception)

12:00 - 1:45 p.m.
Luncheon/Guest Speaker

2:00 - 5:20 p.m.
Partnering & Investor Forum

2:00 - 5:00 p.m.
Technology Partnering Forum

2:00 - 5:30 p.m.
Breakout Sessions and Symposia

4:30 - 6:30 p.m.
Exhibit Hall Networking Reception

Partnering for Life

6:00 - 7:30 p.m.
CEO Reception
(by invitation only)

7:00 - 9:30 p.m.
Chairman's Cup Reception, Taking It to the Streets,
Gaslamp District Block Party

Wednesday, June 27

6:30 a.m. - 5:00 p.m.
Registration Open

7:00 - 8:00 a.m.
Breakfast Plenary Session

8:15 - 11:45 a.m.
Breakout Sessions and Symposia

8:20 - 11:40 a.m.
Partnering & Investor Forum

8:30 - 11:30 a.m.
Technology Partnering Forum

9:30 a.m. - 4:30 p.m.
Exhibit Hall Open

12:00 - 1:45 p.m.
Luncheon/Guest Speaker

2:00 - 5:20 p.m.
Partnering & Investor Forum

2:00 - 5:00 p.m.
Technology Partnering Forum

2:00 - 5:30 p.m.
Breakout Sessions and Symposia

4:30 p.m. - 12:00 a.m.
Exhibit Hall Tear Down

7:00 - 10:00 p.m.
Closing Reception, On Broadway
Sponsored by Iowa: The Smart State for Business

The BIO 2001 Exhibit Hall

A spectacular viewing of the best biotechnology has to offer. Come out and network with over 750 exhibitors representing more than 20 countries and 40 states. Representatives from laboratories, pharmaceutical companies, state economic and development agencies, print publications, law firms and supply companies will be on hand to display and present the latest techniques and devices used in our industry.

The BIO 2001 Exhibit Hall will feature:

- The largest exhibition in the history of this event - More than 156,000 gross square feet
- An Exhibit Hall Networking Reception, Tuesday Evening, 4:30 - 6:30 p.m.
Exhibit Hall Reception is sponsored by: Stroock & Stroock & Lavan LLP and Wallonia Region of Belgium
- International and domestic pavilions with companies from specific regions displaying their expertise
- A convenient Internet café including a searchable BIO 2001 exhibitor database to make finding the company or type of company you need quickly

The BIO 2001 Exhibit Hall will be open Monday, June 25 - Wednesday, June 27, 2001, from 9:30 a.m. to 4:30 p.m. (Tuesday hours will be extended to 6:30 p.m. to include the Exhibit Hall Networking Reception).

Monday, June 25*

Tracks	8:15 – 9:45 a.m.	10:15 – 11:45 a.m.
Finance	An Overview: The Future of Life Sciences Financing	Corporate Venture Financing: How is it Different?
Business Development	Scientific Due Diligence - What Is It and Why Do I Care?	Strategies in Pharmacogenomics
Science 1	Understanding Biotechnology	Exhibit Hall Break
Science 2	Innovations in Inflammation: Novel Approaches in the Treatment and Management of Inflammation	TNF Blockers: The Next Billion-Dollar Market
Product Development/Manufacturing	San Diego Moves to Local Biopharmaceutical Manufacturing - How and Why?	Getting Personal: The Development and Practice of Personalized Medicines
Industrial and Environmental	Is Global Sustainability in Trouble?	Using Modern Biotechnology to Achieve Sustainability
Communication	Visit BIO's Web site at www.bio2001.org for information.	
Policy/Ethics	Protection of Human Research Subjects	State Policy Conference
Food and Ag	Golden Rice: Public/Private Cooperation to Battle Malnutrition	Spare the Plow: Environmental Benefits of Biotechnology
Management	Best Practices for Workforce Development	Building a Workforce for a Biotech Future
Clinical/Regulatory	Web-Based Acceleration of Clinical Development	Biotech and the Internet
Doing Business Globally	Canadian Biotech Thinking	Collaborating with Universities Around the Globe - Opportunities for U.S. Biotech Companies
IP/Legal	Updates in Patent Prosecution - A European Perspective	Building and Maintaining a Winning Patent Portfolio: Strategic Considerations
Current Issues	New Trees on the Horizon: Growing Scientific, Industry and Societal Issues	

Participating for Life

2:00 – 3:30 p.m.

4:00 – 5:30 p.m.

Tracks

Debt Financing Alternatives

Visit BIO's Web site at www.bio2001.org for information.

Finance

Genomics in the Information Age Symposium

Business Development

Research Begets Biotech: The San Diego Story

Post-Genomics: Making Sense of DNA's Secrets

Science 1

Attacking Tumor Vasculature - A Cure for Cancer?

The Return of Monoclonal Antibodies in the Fight Against Cancer and Infectious Diseases

Science 2

Protecting Patient Confidentiality in Biomedical Research

Enhancing the Value of Biotechnology Products: Formulation and Drug Delivery Strategies

Product Development/Manufacturing

New Developments in Bio-based Processing

Visit BIO's Web site at www.bio2001.org for information.

Industrial and Environmental

Website.com - Guidelines for Product Disclosure in Light of FDA, SEC and FTC Regulations

Wired: E-Connecting with your Patient Communities

Communication

The Public Policy Implications of Drug Discovery and Innovation

Impending Changes in Medicare and Implications for Drug Discovery and Innovation

Policy/Ethics

Improving the Safety of Existing Foods through Biotechnology

Visit BIO's Web site at www.bio2001.org for information.

Food and Ag

To Outsource or not to Outsource

Visions of Top Management

Management

Symposium on Clinical Results in an Advancing Regulatory Era:
Maturing Xenotransplantation

Clinical/Regulatory

Cross-Border Technology Transfer and Commercialization

Japan Market: Strategic Refocus in the New Millennium
*2 hours

Doing Business Globally

Patenting Strategies - A Global Perspective

Patent Disclosure vs. Scope of Claim: The Courts' Views - U.S., Europe and Japan

IP/Legal

Current Issues in Commercial Recombinant Protein Manufacturing

Promoting University-Industry Partnerships: Partners in Product Creation and Workforce Preparation

Current Issues

Tuesday, June 26*

Tracks	8:15 – 9:45 a.m.	10:15 – 11:45 a.m.
Finance	Sell-Side Analysts: A 2001 Roundup	Spinoffs and Joint Ventures as Financing Tools
Business Development	Creative Partnering Models for Pharmaceutical and Biotechnology Companies	Does Biotech Need Pharma in the New Economy?: Strategic Alliances in the Post-Genome Era
Science 1	Converting the Human Genome into Therapeutics: From Genes to Drugs	Visit BIO's Web site at www.bio2001.org for information
Science 2	Apoptosis-Based Therapies	Biotechnology at the National Laboratories
Product Development/Manufacturing	Visit BIO's Web site at www.bio2001.org for information	Glycosylation in the Era of Proteomics: Will Sugars be the Limiting Factor in Protein Production?
Industrial and Environmental	Bio-based Products and Chemical Wastes - Can a Marriage of Chemistry and Biotechnology Bring Solutions?	Biocatalysis - The Key to the Future of Chemical Processing
Communication	Launching Your Product - Blockbuster or Bust?	New Technologies and e-Business Processes to Streamline Biopharmaceutical Research and Development
Policy/Ethics	Visit BIO's Web site at www.bio2001.org for information	Global Harmonization in Regulations of Medical Products
Food and Ag	Safety and Regulatory Oversight of Novel Crops Symposium: A Public Discussion	
Management	Visit BIO's Web site at www.bio2001.org for information	Exhibit Hall Break
Clinical/Regulatory	Developing AIDS Drugs for the New Millennium	Bringing Genetic Medicine Into The Mainstream
Doing Business Globally	Visit BIO's Web site at www.bio2001.org for information	
IP/Legal	Secrets of the Intellectual Capitalist: Financial Strategies for Monetizing Intellectual Property	Creating and Managing Pharmaceutical Patent Portfolios
Converging Sciences	E-Solutions for the Life Science Industry Symposium	
Sales/Marketing	How Will the Biotechnology Revolution Affect the Current U.S. Health-Care Supply System?	E-Business Initiatives - Current Options and Future Prospects

Partnering for Life

2:00 – 3:30 p.m.

4:00 – 5:30 p.m.

Tracks

<p>M&A Strategies: When Do One and One Make Three?</p> <p>Visit BIO's Web site at www.bio2001.org for information.</p>		Finance
Beyond Licensing - Models for Sharing Risk and Rewards	Growth Strategies and Business Models	Business Development
Optimizing Genes and Proteins with Directed Evolution Technologies	Animal, Mineral or Vegetable: Which Model for Product Delivery?	Science 1
Visit BIO's Web site at www.bio2001.org for information.	Raiders of the Lost Genome: Gene Analysis in the Post-Genome Era	Science 2
Plants as Production Vehicles for Therapeutic Proteins	Bio-Med Manufacturing Facilities: Case Studies	Product Development/Manufacturing
New Opportunities in Biocatalysis	Real Biotech Solutions in Chemical Processes	Industrial and Environmental
Visit BIO's Web site at www.bio2001.org for information.	Impact of Nucleic Acid Probe Technology on the Future of Clinical Microbiology	Communication
Gene Therapy	Exhibit Hall Break	Policy/Ethics
Visit BIO's Web site at www.bio2001.org for information.	Accepting New Technology: Media and Public Perception of Risks and Benefits	Food and Ag
Visit BIO's Web site at www.bio2001.org for information.	Building Entrepreneurial Companies with Strategic Alliances	Management
<p>Protecting Clinical Research and Human Subjects Symposium</p> <p>Visit BIO's Web site at www.bio2001.org for information.</p>		Clinical/Regulatory
Biotech in South America	Visit BIO's Web site at www.bio2001.org for information.	Doing Business Globally
The Great Patent Debate: The Role of IP in Biotherapeutics	The Business-IP Interface in Bioinformatics *2 hours	IP/Legal
Visit BIO's Web site at www.bio2001.org for information.	Biotech and Consumer Partnering: Building Synergy for Enhanced Research Outcomes	Converging Sciences
From Indication to Franchise	Is Your Molecule Ready to Market? - Incorporating Marketing Objectives into Clinical Development	Sales/Marketing

Wednesday, June 27*

Tracks	8:15 – 9:45 a.m.	10:15 – 11:45 a.m.
Finance	Finding the Funding - A User's Guide	Visit BIO's Web site at www.bio2001.org for information.
Business Development	Doing Business with Nonbusiness Entities	Optimizing Collaborations: What Terms to Ask For and How to Get Them
Science 1		Visit BIO's Web site at www.bio2001.org for information.
Science 2	Exhibit Hall Break	Methods for Phenotypic Evaluation of Transgenic and Knockout Mice
Product Development/Manufacturing	Outsourcing Production - Can It Work?	Outsourcing and Seamless Integration - A New Paradigm for Pharmaceutical Development
Industrial and Environmental	The Case for Global Warming	Exhibit Hall Break
Communication	Biotech in the Media - How Are We Doing?	Sharing Public Opinion: A European Case Study
Policy/Ethics	Bioethics and Business: Making it Work	Societal Issues and Advancing Technologies
Food and Ag	The Global Trade Dilemma	Lack of Global Harmonization and Challenges for Developing Countries
Clinical/Regulatory	Clinical Development: Tactical Nuisance or Strategic Opportunity?	Visit BIO's Web site at www.bio2001.org for information.
Doing Business Globally		Visit BIO's Web site at www.bio2001.org for information.
IP/Legal	Serve Your Customers and Yourself: Protecting Your Trademark	Designing for the Defense: Creating Patents that Will Withstand Litigation
Converging Sciences		The Emergence of Electronic FDA Symposium
Sales/Marketing	Emerging Drug Discovery Tools Companies and Commercialization Models for Value Creation Symposium	

Partnership for Life

2:00 – 3:30 p.m.	4:00 – 5:30 p.m.	Tracks
	Global Venture Financing Symposium	Finance
e-Business Development	After the Deal is Signed: Optimizing Alliance Success	Business Development
Hitting the Target - Accurate Drug Delivery	Visit BIO's Web site at www.bio2001.org for information	Science 1
Regenerative Medicine: Sustaining Human Health by Harnessing the Body's Regenerative Capabilities	Stopping Global Pandemics in their Tracks	Science 2
A Worldwide Shortage of Biomanufacturing Capacity for Monoclonal Antibodies	Clinical and Preclinical Progress on Transgenically Sourced Biopharmaceuticals	Product Development/Manufacturing
Global Climate Change and Energy - Can Modern Biotechnology Provide Workable Solutions?	Biotechnology and Carbon Management	Industrial and Environmental
Visit BIO's Web site at www.bio2001.org for information	Media Blitz: How To Turn Science Into News	Communication
Conserving Endangered Species in the Genomics Era	Biotechnology and the Developing World	Policy/Ethics
Agricultural Biotechnology: From Farm to Pharm	Visit BIO's Web site at www.bio2001.org for information	Food and Ag
The EU Regulatory Environment for Biotech: An Assessment of Existing and Proposed Legislation	New European Regulations on Orphan Products: New Strategies for Faster Access to the Market	Clinical/Regulatory
Exhibit Hall Break	Visit BIO's Web site at www.bio2001.org for information	Doing Business Globally
Information Streams: Flood Control	Global Balancing Act: Intellectual Property Rights and the Plight of the Poor	IP/Legal
Patent or Perish - The Unique Challenges Facing the Genomics Executive	Visit BIO's Web site at www.bio2001.org for information	Converging Sciences
Outreach: Building the Ties with Patient Advocates for Long-Term Success	Effective Pricing - Maximizing the Potential of Biotechnology	Sales/Marketing

Symposia & Sessions

(Session Information as of 2/15/01)

Business Development

Sponsorship Available

Monday, June 25

8:15 – 9:45 a.m.

Scientific Due Diligence — What Is It and Why Do I Care?

This session will examine the need for and the execution of scientific due diligence as it relates to M&A, product acquisitions or divestitures and venture capital investing. Experts from each of these fields will address the topics as follows:

1. Why does the science matter in M&A
2. Scientific due diligence for product acquisitions.
3. Big pharma licensing — What we're looking for.
4. Science and technology hurdles and how to overcome them for VCs.

Chair: William McCulloch, M.D., *Medical Director and Senior Vice President, A. M. Pappas & Associates, LLC*

Speakers:

William McCulloch, M.D.

Michael McKenna, Ph.D., *Vice President, Science and Technology, A. M. Pappas & Associates, LLC*

John McBride, *Head, Global Licensing, Oncology, Pharmacia Corporation*

Peter Parker, *General Partner, Ampersand Ventures*

Monday, June 25

10:15 – 11:45 a.m.

Strategies in Pharmacogenomics

The year 2000 marked an important milestone in human history, the completion of the Human Genome Project. This completion fuels the next genomics challenge: understanding genetic variation and function and applying that understanding to develop new pharmaceuticals targeted at specific individuals with the highest levels of efficacy and lowest levels of adverse reactions. This is the goal of pharmacogenomics and the vision of personalized medicine. In this session, the speakers will present their companies' strategies for pharmacogenomics.

Chair: Arthur Holden, *President and CEO/President, First Genetics Trust/The SNP Consortium*

Speakers:

Nicholas C. Dracopoli, Ph.D., *Executive Director of Pharmacogenomics and Human Genetics, Bristol-Myers Squibb*

Toni Schuh, Ph.D., *President and CEO, Sequenom*

Steve Friend, Ph.D., *President and CEO, Rosetta Inpharmatics*

Allen Roses, Ph.D., *Vice President and Worldwide Director of Genetics, GlaxoSmithKline Pharmaceuticals*

Monday, June 25

2:00 – 5:30 p.m.

Genomics in the Information Age Symposium

With three billion bases comprising the human genome and organized into tens of thousands of genes with millions of variations, genomics presents a significant information problem. Collecting, storing, analyzing, and safeguarding the enormous amounts of genomics information will be the ongoing challenge in the years ahead. The speakers in this session will address the future of genomics and the information challenge it poses.

Chair: George Poste, Ph.D., *Chairman/Former President, Health Technology Networks/SmithKline Beecham*

Speakers:

George Poste, Ph.D.

Lee Hood, Ph.D., *President, Institute for Systems Biology*

Jay Flatley, *President and CEO, Illumina, Inc.*

Arthur Holden, *President and CEO/President, First Genetics Trust/The SNP Consortium*

Randall Scott, Ph.D., *President and CEO/Chairman, Genomic Health/Incyte Pharmaceuticals*

Mark Adams, Ph.D., *Vice President, Genome Programs*

Tuesday, June 26

8:15 – 9:45 a.m.

Creative Partnering Models for Pharmaceutical and Biotechnology Companies

This session will include presentations from several pharmaceutical companies outlining creative partnering strategies they have implemented with biotechnology companies.

Chair: Dan Welch, *President, Elan Pharmaceuticals*

Speakers:

Dan Welch

Gary L. Kirby, *Head, Commercial Alliances, GlaxoSmithKline*

John S. Zawad, Ph.D., *Vice President, Technology Licensing and Alliance, Aventis Pharma*

Tuesday, June 26

10:15 – 11:45 a.m.

Does Biotech Need Pharma in the New Economy?: Strategic Alliances in the Post-Genome Era

Within the past year alone, strategic alliances and consolidation have occurred at an increasing pace within the biotechnology and the life sciences sector. Whereas mergers and acquisitions (M&As) were once the dominant business model, today, biotechnology and pharmaceutical companies are placing significant value on the creation of alliances and developing new models for doing business. For the biotech industry, such alliances expand opportunities for financing, research and development (R&D), com-

Symposia & Sessions

mercialization and marketing capacity. But will biotech need pharma in the New Economy? This session will explore the current and future impact of industrial consolidation and reorganization in the biotech and life sciences sector. In addition to addressing emerging nuts and bolts issues - such as identifying, negotiating and structuring strategic alliances - this session will focus on emerging domestic and transnational trends in biopartnering from a business development and global economic perspective.

Chair: Ravi Kiron, Ph.D., MBA, *Senior Alliance Analyst, External Technologies, Pfizer*

Speakers:

Juan Enriquez, Ph.D., *Harvard University*

Mark Chandler, *Agilent Technologies*

Stelios Papadopoulos, Ph.D., *Managing Director, SG Cowan Securities*

Alison Taunton-Rigby, Ph.D., *President and CEO, Aquila Biopharmaceuticals, Inc.*

Tuesday, June 26

2:00 – 3:30 p.m.

Beyond Licensing - Models for Sharing Risk and Reward

The session will evaluate recent deals that were structured to exploit technology and products in ways other than simple licensing. The panel, comprising key participants in these deals, will describe deal structures, advantages/disadvantages, and the legal and economic issues involved in choosing the structure, as well as how the structure is working in practice.

Chair: Jeffrey Wiesen, *Chairman, Biotechnology Group, Mintz, Levin, Cohn, Ferris, Glousky and Popeo, P.C.*

Speakers:

Anne Marie Cook, *Associate General Counsel and Chief Corporate Counsel, Biogen*

Chris McLeod, *Vice President, CuraGen Corp.*

Jeffrey Wiesen

Tuesday, June 26

4:00 – 5:30 p.m.

Growth Strategies and Business Models

This interactive session is designed to explore the merits of new and evolving growth strategies and business models. Panelists, representing a cross section of pharmaceutical and biotechnology interests, will present their views on key themes. The audience will then be invited to question panelists or offer alternative views regarding the impact of recent growth trends and strategies on business models.

Chair: Alan Williams, *Chairman, Managing Resources Ltd.*

Speakers:

Peter Ringrose, Ph.D., *President, Bristol-Myers Squibb Pharmaceutical Research Institute*

David Kent, *Partner, Taylor Joynson Garrett*

Glyn Edwards, *CEO, Antisoma plc*

Adrian Hobden, Ph.D., *President, Myriad Pharmaceuticals*

Wednesday, June 27

8:15 – 9:45 a.m.

Doing Business with Nonbusiness Entities

Review strategic business-to-nonbusiness relationships including licensing agreements, technology transfer, spin-outs and venture capital funding with government agencies, nonprofit research institutes, charities and universities. Speakers will provide examples of successes and failures of these relationships and talk about the various roles nonbusinesses can fulfill.

Chair: Alice Lin, *Vice Consul - Life Sciences and Health, British Consulate-General*

Speakers:

Alison F. Campbell, Ph.D., *Director, Intellectual Property Division, Medical Research Council Technology*

Alan G. Lamont, Ph.D., *Business Development Manager, Catalyst Biomedica Ltd.*

Albert R. Collinson, Ph.D., *Vice President, Business Development, Phylos Inc.*

Beatrice Leigh, *Assistant Director, Worldwide Academic Liaison, GlaxoSmithKline Pharmaceuticals*

Wednesday, June 27

10:15 – 11:45 a.m.

Optimizing Collaborations: What Terms to Ask For and How to Get Them

This session will outline how a biotechnology company can establish and support optimal deal terms when out-licensing its products and technologies. L.E.K. will introduce the session by discussing methodologies and will then draw leading companies within the biotechnology industry to speak about how they evaluated, and negotiated, great deal terms. Invited speakers include Derek Hodkey, Senior Director, Project Management and Strategic Planning, Vertex Pharmaceuticals, Inc. and Marsha Fanucci, Vice President, Mergers and Acquisitions, Millennium Pharmaceuticals, Inc. This topic will be of tremendous interest to business development management who need to decide on, and negotiate, appropriate terms. The session will convey both current methodologies and practical examples.

Chair: Lisa McIntyre, Ph.D., *Vice President, L.E.K. Consulting*

Symposia & Sessions

Business Development (continued)

Wednesday, June 27

2:00 – 3:30 p.m.

e-Business Development

The Internet has had a specific impact on the way we do business. In this panel we explore how the Internet has provided an efficient medium for bringing buyers (or licensees) and vendors (or licensors) together. We will look at two different systems for e-Licensing - TechEx and BioLicense.com - and two different businesses that deliver drug discovery products and services to the biotechnology and pharmaceutical industries - ChemNavigator.com's iResearch System and Trega Biosciences' iDiscovery.

Chair: Michael Grey, CEO, LION bioscience, Inc.

Speakers:

Amy L. Tsui Collins, Ph.D., J.D., M.B.A., President and CEO, BioLicense.com

Donald S. Masters, Ph.D., Vice President, Business Development, TechEx

Scott Hutton, President and CEO, ChemNavigator, Inc.

Wednesday, June 27

4:00 – 5:30 p.m.

After the Deal is Signed: Optimizing Alliance Success

Chair: Nelson Sims, Executive Director, Eli Lilly and Company

Speakers:

Alan Crane, Senior Vice President, Corporate Development, Millennium Pharmaceuticals, Inc.

Peter L. Thurlby, Alliance Director, SmithKline Beecham

Nelson Sims

Eric Rule, Partner, Pricewaterhouse Coopers LLP

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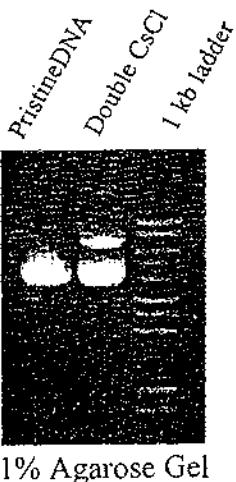
Comparative Purification and *In vivo* Data

METHOD	SCALE	YIELD (mg/g)	A _{260/280} ratio	AGAROSE GEL		NAKED DNA MOUSE LUNG t _{1/2} (hr)
				# of BANDS	% SUPERCOIL	
PristineDNA™	Maxi	0.84	1.91	1	> 95	~24
		0.88	1.91	1	> 95	
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Symposia & Sessions

Clinical/Regulatory

Sponsored by: Ernst & Young LLP

Monday, June 25

8:15 - 9:45 a.m.

Web-Based Acceleration of Clinical Development
Developers and users of Internet technologies will talk about how biotechnology companies can maximize their efficiency in drug development, clinical trial data collection and analysis using secure and private Web tools. For example, the Internet provides us with a ubiquitous network for connecting sponsors and investigator sites around the globe. Recruiting subjects as well as monitoring and managing of clinical trials have been expedited through Web-based management tools.

Chair: Steve A. George, Vice President, Information Technology, PharmaNet, Inc.

Speakers:

Paul Bleicher, M.D., Ph.D., Chairman and CSO, Phase Forward Incorporated

Rick Nelson, Senior Director, Clinical Operations Technologies, PharmaNet

David Heck, Senior Account Manager, CenterWatch

Monday, June 25

10:15 - 11:45 a.m.

Biotech and the Internet

Discussion by buyers, sellers and regulatory specialists of important regulatory and commercial issues raised by Internet transactions involving biotech compounds. Perspectives include: Food and Drug Administration (e.g., regulation of e-commerce sales, particularly pharmaceuticals, devices, off-label promotion); other regulatory agencies (biological products, genetically modified organisms, viruses and vectors); and commercial issues (e.g., title and transportation).

Chair: Kent A. Stormer, J.D., Partner, Heller, Ehrman, White & McAuliffe, LLP

Speakers:

Bruce F. Mackler, Ph.D., J.D., Partner, Heller, Ehrman, White & McAuliffe, LLP

David Caria, Director, Regulatory Affairs, VWR International General Counsel, Ventro

Monday, June 25

2:00 - 5:30 p.m.

Symposium on Clinical Results in Advancing Regulatory Era: Maturing Xenotransplantation Program

Leaders in xenotransplantation will talk about the clinical and preclinical data in the ongoing xenotransplantation trials and plans for marketing applications for those products. This will also be an opportunity to share the outcome of several international initiatives taking place to address the conduct of xenotransplantation trials, including efforts by the WHO/OECD on xenotransplantation surveillance, and an update on international policy and positions. Key regulators will discuss the evolving worldwide regulatory landscape, including the latest efforts in international harmonization and pharmacovigilance systems as the first xenotransplantation product marketing applications near completion.

Chair: E. Michael Egan, COO, Diacrin, Inc.

Speakers:

Andre La Praire, Policy Analyst, Health Canada

Amy Patterson, Ph.D. (Invited), Director, Office of Biotechnology Activities, NIH

Alison Lawton, Senior Vice President, Regulatory Affairs, Genzyme Corp.

E.X. Meslin, Ph.D., Coordinator, Animal and Food Related Public Health Risks (APH) and Department of Communicable Disease Surveillance and Response, World Health Organization

Julia L. Greenstein, Ph.D., President and CEO, Immerge Biotherapeutics

Barry Solomon, President and CEO, Circe Biomedical

Philip Noguchi, Ph.D. (Invited), Director, CBER

John Logan, Ph.D., Vice President, Research and Development, Nextran

Zorina Pitkin, Vice President, QA/QC, RA, Circe Biomedical

Tuesday, June 26

8:15 - 9:45 a.m.

Developing AIDS Drugs for the New Millennium

Although the use of combination therapy has demonstrated significant therapeutic benefit, numerous challenges remain in patient treatment and clinical development of new drugs for HIV. Companies face the challenge of developing new strategies to navigate regulatory hurdles and successfully market their products with increasing competition. However, today's clinical landscape and shifting patient demographics present opportunities for companies to develop novel drugs that have attractive efficacy, safety, pharmacokinetic and/or resistance profiles.

Chair: David W. Barry, M.D., Chairman and CEO, Triangle Pharmaceuticals, Inc.

Symposia & Sessions

Speakers:

Eugene Sun, M.D., *Divisional Vice President, Infectious Diseases and Virology Development, Abbott Laboratories*
James F. Rooney, M.D., *Vice President, Clinical Research, Gilead Sciences*
G. Diego Miralles, M.D., *Director, Clinical Trials, Trimeris, Inc.*

Tuesday, June 26

10:15 – 11:45 a.m.

Bringing Genetic Medicine into the Mainstream
Serious barriers prevent biotechnology from identifying those at risk for transmitting or developing disease and offering medical options, including prevention. Three 20-minute presentations will bring participants up to date on 1) attempts to define analytic validity, clinical validity and clinical utility for testing of mutations in several model genes; 2) the steps needed to ensure that evolving technologies receive proper attention by the organizations that establish billing codes (e.g., CPT codes), fees and reimbursement; and 3) patenting, licensing and regulation of new technologies. The activities of the U.S. Department of Health and Human Services Secretary's Advisory Committee on Genetic Testing (SACGT) will also be reported.

Chair: Edward McCabe, M.D., *Chair, Department of Pediatrics, UCLA and Chair, SACGT, UCLA School of Medicine*

Speakers:

Reed Pyeritz, M.D., Ph.D., *Professor, University of Pittsburgh, School of Medicine*
Michele M. Schoonmaker, Ph.D., *Vice President, Corporate Development, Vysis, Inc.*
Michael Watson, Ph.D., *Executive Director, American College of Medical Genetics*

Tuesday, June 26

2:00 – 5:30 p.m.

Protecting Clinical Research and Human Subjects Symposium

In the wake of recent sanctions imposed by the FDA and the Office for Human Research Protections on Institutional Review Boards (IRB) and university human subject protection, much attention has been focused on the ethical aspects of conducting clinical studies. This session will address issues associated with ethical conduct concerning research subject recruitment, protocol compliance, the informed consent process, the interface between the sponsor, IRB and the clinical investigator, and other key issues.

Co-Chairs: Leslie Platt, J.D., *Principal and Leader, Health Sciences Research Compliance Group, Ernst & Young LLP*

Jill Wadlund, ALCM, *Life Sciences Casualty Manager, Chubb Group of Insurance Companies*

Speakers:

Robert White, Ph.D., MBA, *Department Head, Clinical Development Outsourcing, Amgen, Inc.*

John Isidor, J.D., *CEO, Schulman Associates Institutional Review Board*

Jay Young, M.D., *Vice President, Medical Affairs and Board Certified Urologist, America's Doctor*

William Alexander, Ph.D., *Manager, Ernst & Young LLP*

Kendra Dimond, *Partner, Arent Fox Kitner Plotkin & Kahn PLLC*

E. Greg Koski, M.D., Ph.D., *Director, Office for Human Research Protections, Department of Health and Human Services*

Michael J. Werner, Esq., *Director, Federal Government Relations/Bioethics Counsel, Biotechnology Industry Organization*

Wednesday, June 27

8:15 – 9:45 a.m.

Clinical Development: Tactical Nuisance or Strategic Opportunity?

Drugs entering the clinic have only a 5 percent chance of receiving permission to be marketed at the end of their development cycle, and many successful drugs do not get approved quickly. This important workshop will explore in detail how your company can maximize the chances for success. The members of the panel have all successfully developed products that have achieved great financial success.

Chair: Anthony W. Fox, M.D., Ph.D., FFPM, Cbiol, FIBiol, *President, EBD Group, Inc.*

Speakers:

David A. Shapiro, M.B., ChB, MRCP, MFPM, *President, Integrated Quality Resources*



Symposia & Sessions

Clinical/Regulatory (continued)

Wednesday, June 27

2:00 – 3:30 p.m.

The EU Regulatory Environment for Biotech: An Assessment of Existing and Proposed Legislation
The panel will highlight the particularities of the EU legislative review process and the role of the EU Commission, Parliament and the Council of Member States. Further, it will review legislation specifically applicable on biotechnology, such as the directives on biotechnology patenting and on the deliberate release of GMOs. Finally, it will evaluate general legislation affecting or expected to affect the use of biotechnology, such as the regulations proposing a European Food Safety Authority or an EU Community Patent.

Chair: Hugo Schepens, *Secretary General, EuropaBio*

Speakers:

Simon Barber, *Director, Plant Biotechnology Unit, EuropaBio*

Willy De Greef, *Head, Regulatory Affairs, Syngenta Seeds*

Erik Tambuyzer, Ph.D., *Vice President, Corporate Affairs Europe, Genzyme Corporation*

Wednesday, June 27

4:00 – 5:30 p.m.

New European Regulations on Orphan Products: New Strategies for Faster Access to the Market

This session will address the recently implemented European regulations for the development of therapeutic products intended to treat rare diseases. The regulations will be presented, with special emphasis on the advantages for drug developers, by the current head of the Orphan Medicinal Product department at the European Medicines Evaluation Agency (EMEA) and by the person who took the initiative for the European Directive on Orphan Medicinal Products. Industry representatives who have succeeded in obtaining orphan designation will present their experience, the positive and negative aspects, with a practical viewpoint.

Chair: Emmanuelle Voisin, Ph.D., *Principal, Voisin Consulting*

Speakers:

Patrick Lecourtois, *Head of Evaluation of Medicines for Human Use Dept, EMEA*

Marie-Christine Fortun, *Manager, Regulatory Affairs, Orphan Europe*

Joseph Irwin, *Director, Johnson & Johnson*

Pr Hildebrandt, *Director, German Health Authorities*

Communication

Sponsorship Available

Monday, June 25

2:00 – 3:30 p.m.

Website.com — Guidelines for Product Disclosure in Light of FDA, SEC and FTC Regulations

Regulatory agencies, including the FDA, SEC and FTC have increased their monitoring of biotech company Web sites to look for violations of federal law. The FDA has issued warning letters, but biotech companies need to describe their products in development favorably to stimulate business partnerships and referrals for clinical trials. How can you mediate the conflicting needs of your Investor Relations, Marketing and Regulatory teams without provoking federal regulatory retaliation? The panel will cover the regulations, focus on case studies and their impact on biotech companies and address the impact of case law if any has developed by the end of June.

Chair: Linda Bentley, J.D., *Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.*

Speakers:

Thomas Abrams (invited), *Director, FDA Division of Drug Marketing, Advertising and Communications*

William T. Whelan, J.D., *Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.*

Marcia Kean, *Managing Director, Feinstein Kean Healthcare*

Monday, June 25

4:00 – 5:30 p.m.

Wired: E-Connecting with Your Patient Communities

The Internet has created the ability of patient communities, particularly those with physical disabilities, to have unprecedented access to information about research, care, treatment and support about their conditions. The panel will discuss trends regarding the increasing volume of patient traffic on the Web, the nature of the information demand and the essential ingredients of a company's successful Internet communications plan.

Chair: Tierney Saccavino, *Manager, Communications, Acorda Therapeutics*

Speakers:

Wise Young, M.D., Ph.D., *Adviser, CanDo.Com*

Kori Beer, *Director, Communications, ViroPharma*

Mary Fisher, *Vice President, Marketing, Acorda Therapeutics*

Symposia & Sessions

Communication (continued)

Tuesday, June 26

8:15 – 9:45 a.m.

Launching Your Product — Blockbuster or Bust?

Having spent many dollars, having made many promises, the launching of a new product must be executed with flare and military precision. This session will examine recent blockbuster products and define the necessary IR/PR components from the perspectives of large and small companies - a new definition of what blockbuster programs will look like will emerge from this session.

Chair: Theresa E. McCurry, B.Sc., Vice President, *Hill and Knowlton*

Speakers:

John W. Kennedy, B.Sc., M.Sc., President and CEO, *Hemosol Inc.*

Richard A. Paulson, MBA, Director, *Patient Access and Health Policy, Pfizer Canada*

Jim Weiss, President, *WeissCom*

Theresa E. McCurry, B.Sc.

Tuesday, June 26

10:15 – 11:45 a.m.

New Technologies and e-Business Processes to Streamline Biopharmaceutical Research and Development

Increasingly, biotechnology and pharmaceutical companies are harnessing technology solutions to aid in the time-consuming and expensive processes involved with research and development. Effective tools include two distinct but inseparable components: technology and process. This session explores these two components, identifying several new technologies and business models being used today. In addition, the effectiveness of research and development initiatives are critically dependent on an integration of the technology and process components to produce business-critical results for biotechnology companies. Critical success factors involving these components and their integration will be explored by the use of industry case studies.

Co-Chairs: Kevin B. Johnson, Ph.D., Senior Director, *Strategy and Operations, Inceutic, Inc.*
Don DeCamp, Director, *Enterprise Network Engineering, Worldcom Inc.*

Speakers:

Patrick J. Moon, Senior Manager, *Enterprise Network Engineering, Worldcom Inc.*

Kevin B. Johnson, Ph.D.

Ellis Wilson, Development Project Manager, CNS, *AstraZeneca*

Tuesday, June 26

4:00 – 5:30 p.m.

Impact of Nucleic Acid Probe Technology on the Future of Clinical Microbiology

During the last two decades nucleic acid probe technology has been advanced to an apex where a single nucleic acid target sequence can be identified in a whole genomic sample. The discovery of different amplification methods and advances in microarray technologies provided platforms to determine the sequence of a target analyte in a clinical sample. These advances have the potential to revolutionize clinical diagnostic methods in a microbiology laboratory. The current methods need to be simplified to produce cost effective products for wide spread applications and automation in diagnosis of infectious diseases.

Chair: Nanibhushan Dattagupta, Ph.D., President and CSO, *Applied Gene Technologies, Inc.*

Speakers:

Larry Mimms, Ph.D., Vice President, *Product Development, Gen-Probe, Inc.*

Andreas Braun, Ph.D., M.D., Chief Medical Officer, *Sequenom*

Bjorn Ingemarsson, Ph.D., Senior Technical Support Manager, *Pyrosequencing AB*

Wednesday, June 27

8:15 – 9:45 a.m.

Biotech in the Media - How Are We Doing?

The biotech industry has generated enormous press interest since the announcement of the Human Genome Project, the introduction of GMO crops and foods and the prescription drug debate, among others. How effectively has the industry presented itself and its case to the public on these issues from the media's perspective? How can the industry improve? A panel of reporters who cover our industry will discuss these questions.

Chair: Dan Eramian, Vice President, *Communications, Biotechnology Industry Organization*

Speakers:

Tom Abate, Health Care and Biotechnology Reporter, *San Francisco Chronicle*

Ron Rosenberg, Business/Biotech Reporter, *Boston Globe*

Justin Gillis, Biotechnology Writer, *The Washington Post*

Paul Jacobs, Biotechnology Writer, *San Jose Mercury*

Symposia & Sessions

Wednesday, June 27

10:15 – 11:45 a.m.

Shaping Public Opinions: A European Case Study
The Swiss Life-Sciences Industry, lead by large multinationals like Novartis, Roche and Ares-Serono, has specific experience in shaping public opinion in favor of biotechnology. Two years ago, the Swiss biotechnology industry successfully fought a public vote to ban biotechnology research in Switzerland. By using new communication tools, Swiss Biotechnology helped to build public support for medically-oriented biotechnology research.

Chair: Mario Brossi, Senior Representative,

Location: Switzerland+

Speakers:

Johannes Randegger, Ph.D., Director, Novartis Services, Novartis AG

Arthur Einsele, Ph.D., Head, Public Affairs and Communication, Syngenta AG

Pier Paolo Pugnale, Biotech Illustrator and Cartoonist, Pecub Pugnale Pierpaolo

Guy-Olivier Segond, Ph.D., President, Conseil d'Etat de Genève

Beda M. Stadler, Ph.D., Professor, Institute of Immunology, University of Berne/Switzerland

Hans G. Leuenberger, Ph.D., Former Head of the Biotechnology/Microbiology Department Hoffmann-la Roche, Biotech-Consultant

Wednesday, June 27

4:00 – 5:30 p.m.

Media Blitz: How to Turn Science Into News

In this information-crowded age, it's often hard to get the public's attention on scientific topics. Using case studies, this session will discuss ways to make science news appealing, educational and powerful.

Chair: Tony Russo, CEO, Noonan/Russo Communications

Speakers:

Renee Connolly, Assistant Vice President, Noonan/Russo Communications

Rick Weiss, Science Reporter, Washington Post

Robert Lanza, CEO, Advanced Cell Technology

Schond Greenway, IR Director, Durect

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SESSION and SPEAKER UPDATES
on the BIO 2001 program.

Converging Sciences

Sponsored by: Accenture, BioQ, Inc., IBM and Sun Microsystems

Two symposia will be offered:

Tuesday, June 26

8:15 – 11:45 a.m.

e-Solutions for the Life Science Industry
Key to the near-term future success of the pharmaceutical and biotech industry will be the crafting of information technology strategies that encompass data mining, knowledge management, collaboration and process management. Technologies from the high-tech Internet economy are providing solutions that affect all aspects of company operations, from R&D through clinical studies and into commercial marketing. There will be two sessions.

8:15 – 9:45 a.m.

Session 1: The e-Solutions Landscape

A moderator will guide a panel through a description of the current and future landscape of e-solutions. This overview will introduce three main categories. Speakers on the panel will address each of the areas in detail:

1. e-Discovery
2. e-Clinical
3. e-Business

Chair: David L. Gollaher, Ph.D., President and CEO, California Healthcare Institute

Speakers: Representatives from Accenture (formerly Andersen Consulting), IBM and other technology companies will be included in this panel discussion.

10:00 – 11:45 a.m.

Session 2: Riding the Convergence Wave: Best Practices

In a general overview, a moderator-led panel will describe the convergence of high technologies and biotechnology. Session participants will learn about the types of problems e-solutions can solve, the definitions of technology solutions, and how recent advancements in technology translate into productivity gains across an enterprise. BIO 2001 attendees can expect to hear from experts in the areas of knowledge management, information management, e-training and Internet-based electronic product submissions.

Chair: Mary Jo Veverka, Partner, Accenture; Former Deputy Commissioner for Management and Systems, FDA

Representatives from hardware, software, integration and business process companies, including Sun Microsystems, BioQ, Inc., IBM and others.

Symposia & Sessions

Converging Sciences (continued)

Tuesday, June 26

4:00 – 5:30 p.m.

Biotech and Consumer Partnering: Building Synergy for Enhanced Research Outcomes

Chair: Leslie A. Platt, J.D., *Principal and Leader, Health Sciences Research Compliance Group, Ernst & Young LLP*
Speakers:

Leslie A. Platt, J.D.

Mary Davidson, MSW, *Executive Director, Genetic Alliance*

Sharon Terry, M.S., *Executive Director, PXE, International*
Randall Scott, Ph.D. (invited), *Chairman and CEO, Genomic Health, Inc.*

Brad Margus (invited), *CEO, Perlegen Sciences, Inc.*

Philip Cyr, MPH, *Manager, Ernst & Young LLP*

Wednesday, June 27

8:15 – 11:45 a.m.

The Emergence of the Electronic FDA

This symposium will update attendees on the initiatives within the FDA to access regulatory information and automate processes. Internet-based electronic and computerized submissions will be an emphasis of the symposium. Representatives from the FDA and European regulatory agencies are anticipated. Industry case studies and practical approaches will be presented and discussed. There will be two sessions:

8:15 – 9:45 a.m.

Session 1: The e-Submission Forecast

A moderator will set the stage for a series of presentations by members of the U.S. and European regulatory agencies for biotech and pharma. Each panelist will address the following topics:

- Regulatory initiatives and goals regarding electronic submissions
- Issues and considerations of information technology initiatives: legacy data, skills, resource balance, and other
- Agency and Center goals for 2002 and beyond

Chair: Donald W. Grimm, *Former President, Hybritech, Incorporated*

Speakers: *Officials from the U.S. FDA and European regulatory agencies are expected.*

10:00 – 11:45 a.m.

Session 2: Innovative Applications of Technology to Submissions

The moderator will introduce company success stories, highlighting tools and techniques at the forefront of electronic submissions, plus emerging solutions. The moderator will guide the panelists through a discussion covering the following points:

- Recent e-FDA experience – lessons learned
- Company case studies: internal initiatives and returns on investment
- Emerging solution sets

Chair: Bryan Bjorndal, *Executive Vice President and Co-founder, BioQ, Inc.*

Speakers: *Representatives from biotech, pharmaceutical and technology companies.*

Wednesday, June 27

2:00 – 3:30 p.m.

Patent or Perish - The Unique Challenges Facing the Genomics Executive

Chair: John Isaacson, *Shareholder, Heller, Ehrman, White & McAuliffe LLP*

Speakers:

Qin Shi, *Bioinformatics Specialist, Law Clerk, Heller, Ehrman, White & McAuliffe LLP*

Hans-Josef Schuster, *Attorney, Schuster & Partner*

Stephen Walsh, Ph.D., *Associate Solicitor, U.S. Patent and Trademark Office*



Symposia & Sessions

Current Issues

Sponsorship Available

Monday, June 25

8:15 – 11:45 a.m.

New Trees on the Horizon: Growing Scientific, Industry and Societal Issues

With demands for lumber and derived products increasing worldwide, and available land for harvesting constrained by policy in America and other developed nations, the world has one clear imperative: to more efficiently and more quickly grow more trees, with targeted characteristics, on less land and with diminished environmental intrusion. Meeting this imperative will prove challenging.

Biotechnology, carefully developed and applied, can be key among appropriate strategies. As a result, the next fifty years will likely see a forestry endeavor worldwide profoundly shaped by biotechnology, yielding a complicated mixture of scientific, economic, industrial, ecological, societal and policy factors. Parties attentive to forest biotechnology worldwide are keenly aware of lessons learned from responses to crop and agricultural biotechnology – aware that more attention must be paid from the beginning to societal, environmental and policy issues. Doing so is requisite, for trees occupy a place in human life and consciousness unmatched by any other planted organism.

Chair: W. Steven Burke, Senior Vice President, Corporate Affairs and External Relations, North Carolina Biotechnology Center

Speakers:

W. Steven Burke

Robert M. Friedman, Ph.D., Vice President for Research, The H. John Heinz III Center for Science, Economics and the Environment

Maud A. Hinchee, Ph.D., Chief Technology Officer, ArborGen, LLC

Susan McCord, Project Manager, Institute of Forest Biotechnology, North Carolina Biotechnology Center

Jim McLean, Head of Business Development, Genesis Research and Development Corporation, Limited

Sandy Thomas, Ph.D., Director, Nuffield Council on Bioethics

Monday, June 25

4:00 – 5:30 p.m.

Promoting University-Industry Partnerships: Partners in Product Creation and Workforce Preparation

The session examines factors contributing to highly successful university-industry partnerships. Examples of how universities can contribute to the successful commercialization of new products based on their research programs will be discussed. In addition, speakers will present the benefits and challenges of university-industry partnerships, such as maintaining institutional boundaries between the commercialization process and the intellectual freedoms of the research institution; fostering the public trust; and how universities can work in concert with industry to prepare the future workforce for life science companies.

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Symposia & Sessions

Doing Business Globally

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Monday, June 25

8:15 – 9:45 a.m.

Canadian Biotech-Thinking

This session will present the views of leaders of biotech in Canada and will provide some insight into the environment and management character in the biotech world in Canada. This segment will be an excellent preview of Canadian biotech.

Chair: Alex McPherson, M.D., Ph.D., *President and CEO, Biomira, Inc.*

Speakers:

Julia Levy, *President and CEO, QLT PhotoTherapeutics Inc.*

Gervais Dionne, Ph.D. (invited), *CSO and Co-Founder, Biochem Pharma*

J. Mark Lievonen, *President, Aventis Pasteur Limited*

Monday, June 25

10:15 – 11:45 a.m.

Collaborating with Universities Around the Globe - Opportunities for U.S. Biotech Companies

Outside the USA, much of the world's promising biotech research is conducted in publicly funded universities. Many of these are increasingly receptive to private-sector collaborations, thus creating exciting new opportunities for biotech companies seeking to enhance their technology portfolios. Drawing on the experiences of university representatives and advisers from a number of different countries, this session aims to provide practical guidance on achieving successful deals with such overseas universities.

Chair: Mark Hawes, *Corporate Partner, Bristows*

Speakers:

Cengiz Tarhan, *Director of Commercial & Medical School Accounting, University College London*

Cesar Anquillare, *President and CEO, Winchester Capital*

Dr. Mitsutaka Iwasaki, *Patent Attorney, Aoyama & Partners*

Laura Anderson, *Intellectual Property Partner, Bristows*

Dr. Jorn Erselius, *Patent and License Manager, Garching Innovation GmbH, Max Planck Institute*

Monday, June 25

4:00 – 6:00 p.m.

Japan Market: Strategic Refocus in the New Millennium

Japanese pharmaceutical companies have changed largely due to 15+ years cumulative experience in international biopartnering and the past decade in their worst recession. Two major companies are merging this fall; deal-making lead times have recently shrunk; early-stage product options are being signed; novel product development interest is very high; disease interests of companies are more focused; and ICH harmonization is creating global synergies. But partnering success comes from up-to-date strategies based on realistic domestic market potential, government controlled pricing, product development options, and recognizing cultural and communication style differences. Hear how recent conditions are creating "new strategic models."

Chair: Ted T. Tanaka, *President, Tanaka International, Inc.*

Speakers:

Ted T. Tanaka

Kazuo Nakamura, *Chairman and CEO, CMIC Co., Ltd.*

Masanori Fukushima, M.D., Ph.D., *Professor of Pharmacoepidemiology, School of Public Health, Kyoto University*

Philip N. Sussman, *Executive Vice President, Corporate Development, Memory Pharmaceuticals Corp.*



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Our Future

Symposia & Sessions

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Detailed information on speakers and sessions can be found on our web site at www.bio2001.org.

Monday, June 25

8:15 – 9:45 a.m.

An Overview: The Future of Life Sciences Financing

Monday, June 25

10:15 – 11:45 a.m.

Corporate Venture Financing: How is it Different?

Monday, June 25

2:00 – 3:30 p.m.

Debt Financing Alternative

Tuesday, June 26

8:15 – 9:45 a.m.

Sell-Side Analysts: A 2001 Roundup

Tuesday, June 26

10:15 – 11:45 a.m.

Spinoff and Joint Ventures as Financing Tools

Tuesday, June 26

2:00 – 3:30 p.m.

M&A Strategies: When Do One and One Make Three?

Wednesday, June 27

8:15 – 9:45 a.m.

Finding the Funding - A User's Guide

Wednesday, June 27

2:00 – 3:30 p.m.

Global Venture Financing

UCB Research, Inc. is engaged in the exciting challenge of discovering new therapeutics to fill UCB's pipeline in its key research areas - allergic/respiratory diseases, central nervous system disorders

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UCB Research, Inc. is a subsidiary of UCB Pharma, a global research-based pharmaceutical company with headquarters in Brussels, Belgium.

Symposia & Sessions

Food and Ag

Sponsorship Available

Monday, June 25

8:15 – 9:45 a.m.

Golden Rice: Public/Private Cooperation to Battle Malnutrition

Golden Rice has emerged as a clear example of how biotechnology can address food problems previously unapproachable through traditional plant breeding. Speakers will review how public and private sector cooperation created this advance for malnourished populations, and lessons learned for future improvements to the world's food supply.

Chair: Adrian Dubock, *Head of Mergers, Acquisitions, Ventures and Licensing, Syngenta Seeds, Inc.*

Speakers:

Dr. Ingo Potrykus, *Professor Emeritus, Swiss Federal Institute of Technology, Zurich*

Dr. Ronald Cantrell, *Director General, International Rice Research Institute, Manila*

Monday, June 25

10:15 – 11:45 a.m.

Spare the Plow: Environmental Benefits of Biotechnology

Specific studies will be presented documenting the beneficial environmental effects of biotechnology on agricultural sustainability, biodiversity, fossil fuel use, soil compaction and erosion, water quality, and reduced pressure to convert wilderness lands to agriculture.

Chair: Martina McGlaughlin, *Director, Biotechnology Program, University of California, Davis*

Speakers:

Kim Nill, *Director, International Marketing, American Soybean Association*

Bill Lovelady, *Farmer, Past President of National Cotton Council*

Rick Hellmich, *Researcher, Genetics Laboratory, U.S. Department of Agriculture and Iowa State University*



Monday, June 25

2:00 – 3:30 p.m.

Improving the Safety of Existing Foods through Biotechnology

Although little-known, virtually all foods contain natural allergens, carcinogens, mutagens, toxins and anti-nutritional factors. Conventional breeding has made gradual progress in reducing some of these undesired components. Specific examples of using biotechnology to further enhance the safety of existing foods will be reviewed.

Chair: Rhona Applebaum, *Executive Vice President, Scientific and Regulatory Affairs, National Food Processors Association*

Speakers:

Pat Dowd, *Researcher, North Central Agricultural Utilization Research Laboratory, U.S. Department of Agriculture*

Robert Buchanan, *Professor, Department of Plant Physiology, University of California, Berkeley*

Neil Cowen, *Global Products Leader for Food Safety, Dow AgroSciences*

Tuesday, June 26

8:15 – 11:45 a.m.

Safety and Regulatory Oversight of Novel Crops Symposium: A Public Discussion

U.S. government representatives will present their views on the comprehensive nature of their oversight, communication with the public and mechanisms for public input to their decision-making. Representatives from public interest groups will present their views on current and emerging issues. A panel discussion will follow.

Chair: Terry Medley, *Vice President, Biotechnology Regulatory Affairs, DuPont Nutrition and Health*

Speakers:

Joseph Levitt, *Director, Center for Food Safety and Nutrition, Food and Drug Administration*

Steve Johnson, *Deputy Assistant Administrator for Prevention, Pesticides and Toxic Substances, Environmental Protection Agency*

Craig Reed, *Administrator, Animal and Plant Health Inspection Service, U.S. Department of Agriculture*

Carol Tucker Foreman, *Director, Food Policy Institute, Consumer Federation of America*

Cliff Gabriel, *Deputy to Associate Director of Science, Office of Science and Technology Policy*

Michael Jacobson, *Executive Director, Center for Science in the Public Interest*

Manly Molpus, *President and CEO, Grocery Manufacturers of America*

Symposia & Sessions

Tuesday, June 26

4:00 – 5:30 p.m.

Accepting New Technology: Media and Public Perception of Risks and Benefits

Speakers will address how new technology is viewed by the public and the media. They will also provide guidance on how to accurately communicate new technology to the public and media.

Wednesday, June 27

8:15 – 9:45 a.m.

The Global Trade Dilemma

A mishmash of conflicting and increasingly expensive regulations impedes international trade, largely between developed countries. Without resolution, this problem could eventually encompass all importing and exporting nations—an international Tower of Babel in the making. Speakers will review the current impacts on trade, including costs and barriers.

Chair: Paul Drazek, *President, DTB Associates*

Speakers:

David Byrne (invited), *European Commissioner for Health and Consumer Protection, Brussels*

The Honorable Robert Zoellick (invited), *U.S. Trade Representative*

Wednesday, June 27

10:15 – 11:45 a.m.

Lack of Global Harmonization and Challenges for Developing Countries

Biotechnology promises more benefit to developing nations than other technologies such as mechanization, agricultural chemicals and hybridization. This is because biotechnology demands less capital investment, needs less sophisticated infrastructure and is less scale-dependent. These benefits, however, will be diminished, if not eliminated, by conflicting worldwide regulations that threaten to impose high cost infrastructures such as identity preservation and unrealistic labeling requirements. Speakers will address the impact of these potential requirements for developing countries.

Chair: Jocelyn Webster, *Executive Director, AfricaBio*

Speakers:

Florence Wambugu, *Director, ISAAA AfriCenter, Kenya*
C.S. Prakash, *Director, Center for Plant Biotechnology Research, Tuskegee University*

Per Pinstrup-Anderson, *Director General, International Food Policy Research Institute*

Wednesday, June 27

2:00 – 3:30 p.m.

Agricultural Biotechnology: From Farm to Pharm

The first biotechnology modifications to crops focused on traditional agriculture production such as yield, quality and crop protection. The second wave of applications will concentrate on advances such as using green plants instead of steel plants to produce chemical compounds, plastics and pharmaceuticals.

Chair: Guy Cardineau, *Dow AgroSciences*

Speakers:

Guy Cardineau

Mich Hein, *President, EPICyte Pharmaceutical, Inc.*

Charles Arntzen, *Florence Ely Nelson Presidential Chair, Department of Plant Biology, Arizona State University*

Bill Dowd, *Consultant, Dow Chemical Company*

Jay Short (invited), *President and CEO, Diversa, Inc.*

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Symposia & Sessions

Industrial and Environmental

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Monday, June 25

8:15 - 9:45 a.m.

Is Global Sustainability in Trouble?

In this session, internationally recognized experts will outline their views on the issue of global industrial and environmental sustainability of our planet, and what kinds of changes may be necessary to reduce environmental degradation for future generations.

Chair: Joe Panetta, *President and CEO, BIOCOP/san diego*

Speaker:

Jean-Michel Cousteau, *President, Ocean Futures Society*

Monday, June 25

10:15 - 11:45 a.m.

Using Modern Biotechnology to Achieve Sustainability

This session will explore the tremendous potential of the tools of modern industrial biotechnology to help solve imbalances between mankind and the environment.

Chair: Joe Panetta, *President and CEO, BIOCOP/san diego*

Monday, June 25

2:00 - 3:30 p.m.

New Developments in Bio-Based Processing

Speakers in this session will discuss examples of new developments where the use of modern industrial biotechnology can result in resource conservation and environmentally improved products and processes.

Chair: Larry Drum, *Acting President, Bio-Technical Resources*

Tuesday, June 26

8:15 - 9:45 a.m.

Bio-Based Products and Chemical Wastes - Can a Marriage of Chemistry and Biotechnology Bring Solutions?

In this session, corporate leaders will present their views of the growing partnership of chemistry and industrial biotechnology in industry today and what it can mean for the industries of tomorrow.

Chair: Brent Erickson, *Director, Industrial Biotechnology, Biotechnology Industry Organization*

Tuesday, June 26

10:15 - 11:45 a.m.

Biocatalysis - The Key to the Future of Chemical Processing

Speakers in this session will focus on specific applications which demonstrate how novel biocatalysts are being, or can be, used to improve the way chemicals are made.

Chair: Jack Huttner, *Vice President, Communication and Public Affairs, Genencor International, Inc.*

Tuesday, June 26

2:00 - 3:30 p.m.

New Opportunities in Biocatalysis

This session will explore different views on the potential net environmental impact and economic benefits of so-called green chemistries.

Chair: Fred Hart, *Hart Partners*

Tuesday, June 26

4:00 - 5:30 p.m.

Real Biotech Solutions in Chemical Processes

Speakers in this session will present specific commercially proven examples of improving production processes through the application of modern biotechnology solutions.

Chair: John Carroll, *Director, Regulatory Affairs, Novo Nordisk*

Wednesday, June 27

8:15 - 9:45 a.m.

The Case for Global Warming

Attendees will hear reports from global climate experts discussing the theory that increases in greenhouse gas levels over the past century are beginning to have an effect on median global temperatures.

Chair: Jim McLaren, *Inverizon*

Wednesday, June 27

2:00 - 3:30 p.m.

Global Climate Change and Energy - Can Biotechnology Provide Workable Solutions?

Speakers in this session will discuss the broad ranging positive impacts that industrial biotechnology solutions can have on issues pertaining to our environment.

Chair: Jim McLaren, *Inverizon*

Symposia & Sessions

Wednesday, June 27

4:00 - 5:30 p.m.

Biotechnology and Carbon Management

This session will provide an overview of biotechnology research at the forefront of carbon management.

Presentations will address the use of plants and microbial processes for carbon sequestration, hydrogen production and the production of energy, power and products from renewable biomass and waste materials, including commodity as well as high value chemicals currently derived from petroleum and natural gas.

Co-Chairs: F. Blaine Metting, Ph.D., *Fundamental Sciences Division, Pacific Northwest National Laboratory*
Jennie Hunter-Cevera, Ph.D., *Director, University of Maryland Biotechnology Institute*

Speakers:

James R. Hettenhaus, *Managing Director, Chief Executive Assistance, Inc.*

Linda Lasure, Ph.D., *Staff Scientist, Pacific Northwest National Laboratory*

Frank Roberto, Ph.D., *Idaho National Environmental and Engineering Laboratory*



Intellectual Property/Legal

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CLE credits may apply. Certificates of attendance will be available.

Monday, June 25

8:15 - 9:45 a.m.

Updates in Patent Prosecution - A European Perspective

This Session will explore the EU Biotechnology Directive and other developments at the European Patent Office (EPO), with perspectives from representatives of the EPO and European and U.S. patent practitioners.

Chair: Thomas J. Kowalski, Esq., *U.S. Patent Attorney, Partner, Frommer Lawrence & Haug LLP*

Speakers:

Christian Guggerell, Ph.D., *Director, DGII, European Patent Office*

Siobhan Yeats, Ph.D., *Director, DGII, European Patent Office*

Rainer Hermann, Ph.D., *Director, DGII, European Patent Office*

Raphael Boesi, Ph.D., *European Patent Attorney, Partner, Bardelle Pagenberg Dost Altenburg*

Martin Grund, Ph.D., *European Patent Attorney, Partner, Patentanwaltskanzlei*

William F. Lawrence, Esq., *U.S. Patent Attorney, Partner, Frommer Lawrence & Haug LLP*

Antonio Maschio, Ph.D., *D. Young & Company*

Monday, June 25

10:15 - 11:45 a.m.

Building and Maintaining a Winning Portfolio: Strategic Considerations

For biotechnology companies the key to commercial success and corporate survival depends greatly on the strength of their patent portfolios. They can also benefit significantly by collaborating with academic and hospital researchers and licensing their technology. The speakers will discuss various issues that arise from such collaborations and how biotechnology companies can develop a strong patent portfolio on their own and augment their position by strategic licensing.

Chair: J. Peter Fasse, Esq., *Principal, Fish & Richardson P.C.*

Speakers:

John J. Doll, *Director, Technology Centers 1630 & 1640 U.S. Patent and Trademark Office*

Symposia & Sessions

Intellectual Property/Legal (continued)

Gregory Einhorn, Esq., *Principal, Fish & Richardson P.C.*
Mark F. Boshar, Esq., *Associate General Counsel,
Millennium Pharmaceuticals, Inc.*
David J. Glass, Ph.D., *Associate Director of Corporate
Sponsored Research and Licensing, Massachusetts
General Hospital*

Monday, June 25

2:00 – 3:30 p.m.

Patenting Strategies - A Global Perspective

The primary business asset of many biotech and genomics companies is their proprietary technology. Therefore, securing and defending intellectual property rights is a high priority. We propose to review the issues, and the opportunities, arising from the latest legal developments around the world relating to obtaining and enforcing patents for gene sequences, proteins and transgenic organisms.

Chair: Dr. Penny X. Gilbert, *Intellectual Property Partner,
Bristows*

Speakers:

Herwig von Morze, *International Patent Consultant, Heller
Erman White & McAuliffe LLP*

Tim Powell, *Intellectual Property Partner, Bristows*

Monday, June 25

4:00 – 5:30 p.m.

Patent Disclosure vs. Scope of Claim: The Courts' Views - U.S., Europe and Japan

The session will address one of the major issues in biotech patent law today: How much disclosure is required in a patent to permit enforcement of a broad patent claim? The goal of the session is to address the relevant decisions and trends in patent enforcement in the United States, Europe and Japan on this balance of disclosure and scope of claim in biotech patents. The session will be of interest to lawyers, business executives and analysts alike.

Chair: James F. Haley, Jr., *Partner, Fish & Neave*

Speakers:

Kenneth B. Herman, Esq., *Partner, Fish & Neave*
Hans Rainer Jaenichen, Ph.D., *Senior Partner, Vossius &
Partners*
Stephen D. Ritter, Esq., *Senior Partner, Mathys & Squire*

Tuesday, June 26

8:15 – 9:45 a.m.

Secrets of the Intellectual Capitalist: Financial Strategies for Monetizing Intellectual Property

This presentation will help biotech executives become intellectual capitalists. We will demonstrate how the tools of a disciplined financial market can help them create value from their intangible assets. This discussion will provide participants with real solutions for obtaining value from their intellectual property.

Chair: Bruce Lehman, J.D., *President, International
Intellectual Property Institute*

Speakers:

Alex Arrow, M.D., CFA, CFO, *Vice President, TRRU
Metrics, The Patent & License Exchange, Inc.*

Nir Kossovsky, M.D., MBA, *CEO and Chairman, The
Patent & License Exchange, Inc.*

Leslie Platt, J.D., *Principal, Ernst & Young, LLP*

Tuesday, June 26

10:15 – 11:45 a.m.

Creating and Managing Pharmaceutical Patent Portfolios

The panel will address the challenge of creating and managing pharmaceutical patent portfolios from the perspective of both the large pharmaceutical company and the start-up initiative. Topics that the speakers will address will include when to file patent applications, how broadly to file, defensive and offensive filing strategies, where to file outside the United States, working with international counsel and managing interparties proceedings both in the United States and in foreign countries.

Chair: Sherry M. Knowles, Esq., *Partner, King & Spalding*
Speakers:

Blair Q. Ferguson, Esq., *Vice President, Chief Patent and
Trademark Counsel, DuPont Pharmaceuticals, Inc.*

Jean-Pierre Sommadossi, Ph.D., *President and CEO,
Novirio Pharmaceuticals, Inc.*

Raymond F. Schinazi, Ph.D., *Director, Pharmasset, Inc.*

Tuesday, June 26

2:00 – 3:30 p.m.

The Great Patent Debate: The Role of IP in Biotherapeutics

Between visible debates in the courtroom involving biotech's leading companies and recent public discussion of gene patents, biotech IP seems to be on everyone's mind. From top genomics companies, U.S. patent officers and patent lawyers, hear how securing gene patents continues to be a fundamental issue for any developer of biotherapeutic

Symposia & Sessions

drugs. The speakers will address effective IP strategies, building business opportunities around biotech patent portfolios and, of course, the public debate over gene patenting.

Chair: Bruce Carter, Ph.D., *President and CEO, ZymoGenetics, Inc.*

Speakers:

George Rathmann, Ph.D., *Chairman and CEO, Hyseq, Inc.*
Henry Wixon, *Senior Partner, Hale & Dorr, LLP*

Lars Rebien Sorensen, *President and CEO, Novo Nordisk A/S*

James H. Davis, Ph.D., J.D., *Senior Vice President, General Counsel and Secretary, Human Genome Sciences*

Tuesday, June 26

4:00 – 6:00 p.m.

The Business/IP Interface in Bioinformatics

Functional genomics and bioinformatics increasingly pervade biotechnology as biology transforms from a one-dimensional science concerned with single genes to a multi-dimensional one focused on such endeavors as gigabase sequence annotation and deciphering the myriad functional interactions among thousands of genes monitored simultaneously. With this transformation comes a commensurate shift in the business models and underlying IP strategies driving the new biology to market. This presentation will convey approaches and perspectives of two emerging bioinformatics leaders and a major bioinformatics consumer, with insights from respective experts on essential valuation, equity research, enforcement and policy issues that define the bioinformatics business-IP landscape.

Chair: Arie M. Michelsohn, Ph.D., Esq., *Associate, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.*

Speakers:

Mark Boguski, M.D., Ph.D., *Senior Vice President, Research and Development, Rosetta Inpharmatics*

Caroline Kovac, Ph.D., *Vice President, Life Science Solutions, IBM*

Stephen G. Kunin, *Deputy Commissioner for Patent Examination Policy, U.S. Patent and Trademark Office*

Charles C. Lipsey, Esq., *Partner, Finnegan, Henderson, Farabow, Garrett & Dunner, L.L.P.*

Richard Razgaitis, *Managing Director, InteCap*

Thomas D. Webster, Ph.D., *Patent Attorney, Eli Lilly & Co.*

A. Rachel Leheny, *Senior Vice President, Biotechnology Research, Lehman Bros.*

Wednesday, June 27

8:15 – 9:45 a.m.

Serve Your Customers and Yourself: Protecting Your Trademark

Many early stage companies ignore trademark issues as too far in the future. This is a mistake, as the marks are crucial for the company's success. This panel will discuss cost effective ways to secure the future of the company's image.

Wednesday, June 27

10:15 – 11:45 a.m.

Designing for the Defense: Creating Patents that Will Withstand Litigation

The monetary value of a noteworthy biotech patent is only as great as its ability to withstand a court battle. Join intellectual property experts who have designed and defended "bet-the-company" patents. Learn how to design your patent so that its technology will stand up against tough litigators. A noted jurist who has heard hundreds of patent appeals will describe crucial elements that help make a patent defendable in the courtroom.

Chair: Bradford J. Duft, *Partner, Brobeck, Phleger & Harrison LLP*

Speakers:

William L. Respees, Esq., *Senior Vice President and General Counsel, Graviton, Inc.*

Harry J. Leonhardt, Esq., *Vice President and General Counsel, Genoptix, Inc.*

Douglas E. Olson, Esq., *Partner, Brobeck, Phleger & Harrison LLP*

The Honorable Roderick R. McKelvie, *U.S. District Court for the District of Delaware*

The Honorable Paul R. Michel, *U.S. District Court of Appeals for the Federal Circuit*



Symposia & Sessions

Management

Sponsorship Available

Monday, June 25

8:15 – 9:45 a.m.

Best Practices for Workforce Development

The session will focus on the release of a national study conducted by the BIO/CBC Workforce Committee and the California State University Systemwide Biotechnology Program (CSUPERB) on best practices in workforce development among the nation's biotechnology industry clusters. Data compiled from leading biocommerce trade groups, state associations, private industry councils and economic development organizations will be presented. Representatives from four such clusters will individually present their strategies and successes in developing and enhancing their regional biotechnology workforce. A consensus on best practices will be sought.

Chair: A. Stephen Dahms, Ph.D., *Executive Director, San Diego State University Biotechnology Program (CSUPERB)*

Speakers:

Janice Bourque, *President and CEO, Massachusetts Biotechnology Council*

Kathleen Kennedy, Ph.D., *Vice President, Education and Training Program, North Carolina Biotechnology Center*

Thomas Kowalski, *President, Texas Healthcare and Bioscience Institute*

Monday, June 25

10:15 – 11:45 a.m.

Building a Workforce for a Biotech Future

The workforce promises to be one of the most important factors affecting the biotech industry in the coming years and will add an increasing workload for senior management. As rapid growth continues, it is important to learn from best practice for fear of falling back in the race to success. Comparing and contrasting different strategies across the industry and nation will give valuable insight into this evolving issue.

Chair: Michael A. Finney, *Vice President, Emerging Business Sectors, Michigan Economic Development Corporation*

Speakers:

George F. Vande Woude, Ph.D., *Director, The Van Andel Institute*

Peter M. Pellerito, *Managing Director, PMP Public Affairs Consulting, Inc.*

Mary Campbell, MBA, *General Partner, EDF Ventures*

Laura Schwab, Ph.D., *President, STATPROBE, Inc.*

Monday, June 25

4:00 – 5:30 p.m.

Visions of Top Management

Learning from the Biotech Experience: Our Successes and Failures

The vision of the future can only be built on the lessons of the past. Top leaders within biotech, biopharmaceuticals and government will discuss the major trends within the industry and how the management team contributes to success in a challenging environment.

Chair: Ernesto Bertarelli, *CEO, Serono*

Tuesday, June 26

4:00 – 5:30 p.m.

Building Entrepreneurial Companies with Strategic Alliances

Learn more about the critical role of strategic alliances in developing entrepreneurial companies. Join experts from Iowa's life sciences industries to learn about strategic alliances that have contributed to the success of their companies. Presenters will discuss the importance of collaborative relationships in growing a company as well as the challenges and opportunities in biotechnology start-ups.

Chair: John A. Greaves, Ph.D., *President, Kemin Americas*

Speakers:

John A. Greaves, Ph.D.

Mark T. Campbell, J.D., *Corporate Vice President, COO, General Counsel, Integrated DNA Technologies, Inc.*

Kurt Heiar, *CEO, Advanced Analytical Technologies, Inc.*



Symposia & Sessions

Policy/Ethics

Sponsored by Pfizer Inc.
and Agouron Pharmaceuticals

Monday, June 25

10:15 – 11:45 a.m.

State Policy Conference

The State Biotechnology Policy Symposium attracts top-level state officials to discuss the economic and public policy issues facing the biotechnology industry in the states. This session has been designed to shed light on the financial and policy issues facing today's biotechnology companies. The session will focus on what state policy makers can do to foster the growth of the biotechnology industry and provide a forum to interact with industry leaders and policy makers from other states.

Monday, June 25

4:00 – 5:30 p.m.

Impending Changes in Medicare and Implications for Drug Discovery and Innovation

As our national demographics shift toward an increasingly older population, our health care system must change. Included in these changes will be the expanded access by seniors to prescription drugs under Medicare. The method of providing such expansion can have profound implications on both the federal budget and the availability of capital to fund the research and development of some of our most innovative products. This session will review the public policy issues around balancing the desire for minimizing Medicare's health care expenditures with the incentives required for developing innovative products, including a review of proposed or pending federal legislation.

Wednesday, June 27

2:00 – 3:30 p.m.

Conserving Endangered Species in the Genomics Era

The emerging interest in comparative genomic studies and the concern for conservation of biological diversity may now find common ground. Samples of cells and DNA that include linked information on the source population (e.g., geographic and ecological information), as well as the demographic and parentage information on individuals will serve as a crucial resource for future studies involving humans and non-human species alike. Studies of the great apes, the closest relatives of humans, provide information about the evolution of and variation within the human genome. New data from genomic approaches to biology will provide the basis for informed population assessments, monitoring and management of small populations for conservation. This session will bring scientists working at the interface of genomics and conservation from the world-famous San Diego Zoo, the biotechnology industry and the Human Genome Project to present new research findings and initiatives for benefiting endangered species.

Chair: Oliver A. Ryder, Ph.D., Kleberg Genetics Chair,
Center for Reproduction of Endangered Species

Speakers:

Robert A. Feldman, Ph.D., *Production Sequencing and Collaborations Manager, Molecular Dynamics, Inc.*

Joseph G. Hacia, *Department of Biochemistry, Keck School of Medicine, University of Southern California*

Mark Schrenzel, *Research Pathologist, Molecular Diagnostics Group, Center for Reproduction of Endangered Species*



Symposia & Sessions

Product Development/ Manufacturing

Sponsorship Available

Monday, June 25

8:15 – 9:45 a.m.

San Diego Moves to Local Biopharmaceutical Manufacturing - How and Why?

San Diego has long been acknowledged as a center of biotechnology research and development. Over the last decade a gradual move to local manufacturing has developed, despite significant regional challenges. Now significant volumes of manufacturing are done locally, and some of the largest sustained manufacturing facilities in the world are under development. How San Diego supported this transition and what other regions can learn from these experiences will be discussed by key representatives from four of San Diego's most established biotechnology manufacturing companies.

Chair: Brent Jacobs, Senior Vice President, Life Sciences Group, Burnham Real Estate Services

Kennon W. Baldwin, AIA, President, McGraw/Baldwin Architects

Speakers:

John Longnecker, Ph.D., President, SkyePharma Incorporated

William P. Rastetter, Ph.D., President and CEO, IDEC Pharmaceuticals Corp.

Lyle Turner, President and CEO, Invitrogen Corp.

Michael Fredericksen, Director of Facilities, Gen-Probe Inc.

Monday, June 25

10:15 – 11:45 a.m.

Getting Personal: The Development and Practice of Personalized Medicines

Evidence is accumulating that individual diseases are more diverse than historically believed, suggesting that personalized medicines will play an ever larger role in healthcare. Speakers represent the spectrum of personalization of medicine - from autologous products, where each patient's tissue is utilized to manufacture a product for that specific patient - to medicines customized for groups of patients, expected to emerge from the predictive capabilities of genomics. Discussion topics will include development strategies for increasing the proportion of patients who respond to therapy, navigating the regulatory environment for autologous biologics and delivery of personalized medicines to the patient.

Chair: Elma S. Hawkins, Ph.D., M.B.A., Vice Chairman, Antigenics Inc.

Speakers:

Elma S. Hawkins

Anthony Altala, M.D., Associate Professor of Surgery/Director, Tissue Engineering and Cell Therapy, Children's Hospital/Harvard Medical School

Michael Kauffman, M.D., Ph.D., Vice President of Medicine, Millennium Pharmaceuticals, Inc.

Monday, June 25

2:00 – 3:30 p.m.

Protecting Patient Confidentiality in Biomedical Research

Chair: Edward W. Holmes, M.D., Ph.D., Vice Chancellor for Health Sciences and Dean of the School of Medicine, UC San Diego

Speakers:

E. Greg Koski, M.D., Ph.D., Director, Office of Human Research Protections (OHRP), Department of Health and Human Services

David Korn, M.D., Senior Vice President for Biomedical and Health Sciences Research, Association of American Medical Colleges

Bertram A. Spilker, Ph.D., M.D., Senior Vice President, Scientific and Regulatory Affairs, Pharmaceutical Research and Manufacturers of America

Charles Nelson, Associate Director for Health Education, National Association of Persons with AIDS

Monday, June 25

4:00 – 5:30 p.m.

Enhancing the Value of Biotechnology Products: Formulation and Drug Delivery Strategies

Enhanced formulations and advanced drug delivery systems can provide "enabling technology" and greatly increase the patient acceptance, convenience and compliance with biotechnology drugs. Speakers will cover partnering strategies and provide examples of successful drug delivery technologies that have been applied to biotechnology products.

Chair: Mary L. Martin, Ph.D., Managing Director, Elan Biotechnology Research

Speakers:

Gregory M. Glenn, M.D., Senior Vice President and Scientific Director, Iomai Corp.

Barrie J. Carter, Ph.D., CSO, Targeted Genetics Corp.

Mary L. Martin, Ph.D.

Symposia & Sessions

Product Development/Manufacturing (continued)

Tuesday, June 26

10:15 – 11:45 a.m.

Glycosylation in the Era of Proteomics: Will Sugars be the Limiting Factor in Protein Production?

Glycoproteins secreted by recombinant cell expression systems or transgenic organisms frequently contain sugar chains that lack sugar units present in the native molecule and may contain sugars or linkages units never expressed by human cells. Many new protein expression systems are being developed to keep pace with the rapidly expanding set of new protein drug opportunities created by the genomic and proteomic revolution. This session will include descriptions of factors that affect glycoform expression in commonly used CHO cell systems, patterns of carbohydrates characteristic of nonmammalian recombinant and transgenic systems, and a novel method for *in vitro* enzymatic remodeling of carbohydrate chains using glycosyltransferases.

Chair: David Zopf, Vice President, *Drug Development, Neose Technologies, Inc.*

Speakers:

William P. Sisk, Ph.D., Section Head *Gene Expression, Biopharmaceutical Process Sciences, BioGen*

Nigel Jenkins, Ph.D., Senior Research Scientist, *Lilly Research Laboratories*

Lawrence J. Thomas, Ph.D., Senior Scientist III, *Avant Immunotherapeutics, Inc.*

Tuesday, June 26

2:00 – 3:30 p.m.

Plants as Production Vehicles for Therapeutic Proteins

Plants and plant cells have become increasingly popular as a vehicle for the production of therapeutic proteins and peptides. The speakers in this session will describe the most recent advances in the use of plants as production hosts for therapeutic proteins. This presentation will cover the use of a wide variety of products produced in different crops using different production systems.

Chair: Gijs van Rooijen, Ph.D., Head, *Cellular and Molecular Biology, SemBioSys Genetics, Inc.*

Speakers:

Elizabeth E. Hood, Ph.D., Vice President, *Technology, ProdiGene*

Klaus Düring, Ph.D., President and CEO, *MPB Cologne GmbH*

Gijs van Rooijen, Ph.D.

Mich B. Hein, President, *Epicyte Pharmaceutical, Inc.*

Tuesday, June 26

4:00 – 5:30 p.m.

Bio-Med Manufacturing Facilities: Case Studies

Once a company has made the decision to move a product from research into manufacturing, critical and timely decisions are required to bring the facility on line, on time and within the cost and performance parameters required for successful production start up. Using case studies from several companies which have recently brought new manufacturing facilities on line, this session will focus on identifying what key decisions need to be made, and when. The program will open with presentations by the panelists on how their company's recent facility was accomplished from the inception through facility construction and into start up. The session will conclude with a panel discussion highlighting lessons learned from the design and construction of bio-med manufacturing facilities.

Co-Chairs: Robert Mellott, *Principal, Brian Paul & Associates, Inc.*

Robert Wang, Ph.D., Associate Director, *Center for Bio/Pharmaceutical and Biodevice Development, San Diego State University*

Speakers:

Wolf Berthold, Ph.D., Senior Vice President, *Biopharmaceutical Sciences Division, IDEC Pharmaceuticals Corp.*

Karen I. Brockwell, Director of Technology, *Genentech, Vacaville Operations*

Jim Ferguson, AIA, Principal, *McGraw/Baldwin Architects*

Richard Murawski, Vice President, *Global Manufacturing for Recombinant Products, Baxter Healthcare Corporation, Hyland Immuno Division*

Wednesday, June 27

8:15 – 9:45 a.m.

Outsourcing Production - Can It Work?

Recent events call into question the viability of companies offering process development and manufacturing services to companies that are developing biotech products. The session will explore the needs and concerns of customers and service providers and attempt to identify one or more successful business models.

Chair: Charles A. Schwartz, *Business Development Manager, Biotechnology, The Dow Chemical Company*

Speakers:

Daniel D. Adams, President and CEO, *Protein Sciences Corporation*

John H. Brown, President and CEO, *Covance Biotechnology Services Inc.*

Sandra J. Fox, MBA, President, *High Tech Business Decisions*

Symposia & Sessions

Wednesday, June 27

10:15 – 11:45 a.m.

Outsourcing and Seamless Integration — A New Paradigm for Pharmaceutical Development

The need to fulfill growth expectations in pharmaceutical development has generated a drive to boost throughput and cut time-to-market for new products. Various approaches have been adopted by pharmaceutical and biopharmaceutical companies based on both limited outsourcing strategies and more creative approaches, and this seminar will discuss these. However, more needs to be done, and the seamless integration of development services through outsourcing offers a new paradigm for pharmaceutical development with market skills allied to service and novel technologies promoting high-quality, faster development of new therapeutics.

Co-Chairs: Tony Barrett, *Department of Chemistry, Imperial College of Science, Technology and Medicine*
Ed Robinson, *Vice President, General Manager, Solutia Pharmaceutical Services*

Speakers:

Jim Nash, *Vice President, Manufacturing, Millennium Pharmaceuticals, Inc.*

Archie Campbell, *Vice President, Biologic Process Research, Pharmacia Corp.*

Tim Wright, *Business Development Director, DevCo Pharmaceuticals*

Wednesday, June 27

2:00 – 3:30 p.m.

A Worldwide Shortage of Biomanufacturing Capacity for Monoclonal Antibodies

Humanized monoclonal antibodies (Hu-MAbs) play an important role in medicine by providing a safe and effective class of therapeutics indicated for many chronic unmet medical needs. Although exquisitely specific, Hu-MAbs generally are administered in large doses requiring hundreds of kilograms of recombinant product to be biomanufactured each year. This presentation looks at the dynamics of the Hu-MAb market, current global biomanufacturing capacities and new technologies for producing these products; it also provides scenarios for meeting future biomanufacturing needs for Hu-Mabs.

Chair: Bryan Lawlis, Ph.D., *Chairman, Covance Biotechnology Services Inc.*

Speakers:

Parrish Galliher, *Vice President, Manufacturing, Millennium Pharmaceuticals, Inc.*

Patrick Murphy, *Vice President, Manufacturing, Abgenix, Inc.*

David Jackson, *Vice President, Manufacturing, EntreMed, Inc.*

Ken Seamon, *Senior Vice President, Manufacturing, Immunex Corporation*

Andrew Shearer, *Vice President, Engineering, Facilities, Strategic Planning and Support, Genentech, Inc.*

Wednesday, June 27

4:00 – 5:30 p.m.

Clinical and Preclinical Progress on Transgenically Sources Biopharmaceuticals

Presentations will be made by three companies that currently have in human clinical trials products that have been produced in the milk of transgenic animals. A status report will be given on the clinical progress of each of these products. Products actively in development by these companies will also be discussed.

Chair: Michael W. Young, *Vice President, Commercial Development, Genzyme Transgenics Corp.*

Speakers:

David Ayares, Ph.D., *Vice President, Research and Development, PPL Therapeutics, Inc.*

Frank Pieper, Ph.D., *Vice President, Research and Technology, Pharming BV*

Timothy Maines, *Director of Quality, Genzyme Transgenics Corp.*



Symposia & Sessions

Sales/Marketing

Sponsorship Available

Tuesday, June 26

8:15 – 9:45 a.m.

How Will the Biotechnology Revolution Affect the Current U.S. Health-Care Supply System?

At this lively, interactive session you'll hear an expert panel flesh out issues that will arise because of forthcoming biotechnology therapies. Based on an in-depth study, you'll hear what impact new biotechnology drugs may have on today's therapies, treatments sites, delivery systems and payment mechanisms. These insights hold major implications for healthcare stakeholders and must be addressed before the benefits of biotechnology pharmaceutical will be realized.

Chair: Marsha Millonig, Vice President, Research and Information, National Wholesale Druggists' Association

Tuesday, June 26

10:15 – 11:45 a.m.

E-Business Initiatives - Current Options and Future Prospects

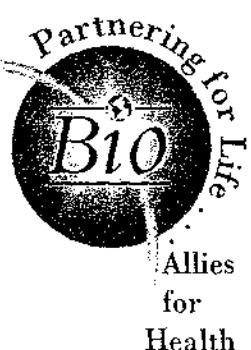
The session will discuss e-business initiatives relating to pharmaceutical sales and marketing environments. It will focus on methods, for example "e-detailing," that offer pharma and biotech solutions to sales and marketing issues.

Chair: Robert Keith, Vice President, Commercial Strategy and Marketing, Dura Pharmaceuticals, Inc.

Speakers:

Robert Keith

Michael Grey, CEO, LION bioscience, Inc.



Tuesday, June 26

2:00 – 3:30 p.m.

From Indication to Franchise

Biopharmaceutical companies often face the challenge and opportunity to expand from an initial indication to multiple, potentially disparate markets for their products. In doing so, they face strategic challenges in pricing and positioning the product across different audiences with different needs and expectations, and they face organizational challenges in developing core competencies that build from a product/indication focus into a franchise. The panel will draw on experiences at Allergan and other companies to offer a strategic framework as well as practical advice in addressing these challenges.

Chair: Alexander Johns, President, *bioStrategies Group, Inc.*

Speakers:

Greg Brooks, Vice President, *BOTOX Global Marketing, Allergan, Inc.*

Robert E. Bancroft, Director of U.S. Marketing, *BOTOX, Allergan, Inc.*

Monica Alfaro-Welling, Director of Global Marketing, *BOTOX, Allergan, Inc.*

David Perkins, Team Leader, *Endocrine Products, Genentech, Inc.*

Tuesday, June 26

4:00 – 5:30 p.m.

Is Your Molecule Ready to Market?

Incorporating Marketing Objectives into Clinical Development

Historically, the biotech industry and much of pharma focused solely on the NDA — not on enhancing the value of the approved product when planning clinical trial design. This myopia often resulted in unnecessary marketing limitations due to an unnecessarily restrictive label. Each panelist will discuss new strategies for ensuring that your product will be able to reach its full potential after FDA approval. The discussion will key off of case studies that focus on early-stage molecules.

Chair: Mark King, Managing Director, *Kendall Strategies*

Speakers:

Tom Joyce, Director, *Global Marketing Planning, Antivirals Agouron Pharmaceuticals*

Kathryn M. Jones, Assistant Vice President, *Business Intelligence Global Strategic Marketing, Wyeth-Ayerst Global Pharmaceuticals*

Alain Goulet, Senior Brand Manager, *Pfizer Canada, Inc.*

Symposia & Sessions

Sales/Marketing (continued))

Wednesday, June 27

8:15 – 11:45 a.m.

Emerging Drug Discovery Tools Companies and Commercialization Models for Value Creation Symposium

A bioStrategies Group analysis of business models and value creation in the Drug Discovery Tools Companies segment will be presented. Then selected leading companies representing a variety of the tools discovery sectors including genomics, proteomics, expression analysis and bioinformatics will present commercialization models, business strategies and analysis of the market dynamics and drivers for their respective sectors.

Chair: Gary Sams, *Principal, bioStrategies Group*

Speakers:

John Chiplin, *President and CEO, Geneformatics*

Lawrence Bloch, *CFO and Vice President, Business Development, Applied Molecular Evolution*

Harry Stylli, *Senior Vice President, Commercial Development, Aurora Biosciences*

Richard Brown, *Vice President, Marketing and Sales, Discovery Partners*

David Coffen, *CSO, Discovery Partners*

Michael Grey, *CEO, LION bioscience, Inc.*

Brad Gordon, *CFO and Vice President, Finance, Signal Research Division, Celgene Corp.*

Peter Barrett, *Executive Vice President and Chief Business Officer, Celera Genomics Corporation*

Riccardo Pigliucci, *CEO, Discovery Partners*

Richard Eichholz, *Principal, bioStrategies Group*

Wednesday, June 27

2:00 – 3:30 p.m.

Outreach: Building the Ties with Patient Advocates for Long-Term Success

Company success is ultimately achieved through product acceptance. Outreach to the consumers and their advocates early in the process can build the relationships that lead to this success. This session will include specific examples on working with patient organizations to gain rapid acceptance/use of new products; case studies on working with patient organizations to develop accelerated enrollment of patients in clinical trials; discussion on best practices in working with patient groups; and CEO presentations on outreach to support broader corporate goals and building shareholder value through outreach. Presentations will also include patient advocates and others from the patient community who can influence company success.

Wednesday, June 27

4:00 – 5:30 p.m.

Effective Pricing - Maximizing the Potential of Biotechnology

Even though pricing plays a critical role in the success or failure of biotechnology companies through its direct impact on sales, revenues and profits, biotech companies usually focus more on the capabilities of their products and less on fully exploiting market potential. In this session, we will look at the role of pricing at all stages of the product life-cycle in maximizing the success of biotech companies. Speakers from biotechnology, pharmaceutical and consulting companies will share their knowledge and demonstrate state-of-the-art approaches to effective pricing.

Chair: Dr. Klaus Hilleke, *Senior Partner, Simon-Kucher & Partners*

Speakers:

Dr. Boris Simkovich, *Partner, Simon-Kucher & Partners*

William E. Aliski, *Vice President, Health Services, Transkaryotic Therapies, Inc.*

David J. Wierz, *Senior Director, Global Commercial Investment and Performance, Wyeth-Ayerst Pharmaceuticals*



Symposia & Sessions

Science 1

Sponsored by Merck & Co., Inc.
Arena Pharmaceuticals

Monday, June 25

8:15 – 9:45 a.m.

Understanding Biotechnology

This session is a training course for professionals with little or no training in biology. It will cover the basics of molecular biology, such as the structure and replication of DNA as well as protein composition and function. The function of enzymes and the importance of mutations in disease will be detailed. Subcloning, PCR, DNA sequencing and genetic mapping will be explained. A discussion of the Human Genome Project and its importance for all biology is followed by explanations of DNA array technologies, especially as they relate to expression analysis, and participants will learn about the processes of drug discovery, testing, trials and approval. Functional genomics and systems biology are examined, with an explanation of cloning technologies and stem cells capping off the seminar.

Chair: Laurie Hassell, *President, ISTR, Inc.*

Speakers:

Roger Bumgarner, Ph.D., *Department of Microbiology, University of Washington*

Susan Mockus, Ph.D., *ISTR, Inc.*

Monday, June 25

2:00 – 3:30 p.m.

Research Begets Biotech: The San Diego Story

This panel discussion will explain the genesis and rapid development of the San Diego biotech industry. The concentration of world-class research and educational institutions in San Diego sparked the development of one of the three largest and fastest growing centers of biotech innovation in the world. Learn how a variety of nonprofit organizations have collaborated with industry to advance basic technology.

Chair: Joe Panetta, *President and CEO, BIOCOM/san diego*

Speakers:

Cheryl Moore, *Vice President and Chief Administrative Officer, The Burnham Institute*

Fred Cutler, *Director, UCSD CONNECT*

Stanley Kim, *Patent Counsel, The Salk Institute*

Alan Paau, *Director, Tech Transfer and IP Services, UCSD*

Stuart Gordon, *Director, Technology Transfer, San Diego State University*

Monday, June 25

4:00 – 5:30 p.m.

Post-Genomics: Making Sense of DNA's Secrets

While completion of the first draft of the human genome has been hailed as a historic achievement, the genome sequence actually represents a new starting point for science and medicine. A multi-faceted effort is already under way to functionally analyze the human genome in order to understand the genes involved in inherited traits, differentiation and disease. This session will focus on important post-genomic technologies that provide solutions for developing better therapies, diagnostics and biomedical products through approaches such as Gene Regulation, Functional Genomics, Pharmacogenomics and Proteomics.

Chair: Mary E. Harper, Ph.D., *CSO, CISTem Molecular Corp.*

Speakers:

Charles R. Cantor, Ph.D., *CSO, Sequenom, Inc. and Sequenom GmbH*

Willem Stemmer, Ph.D., *Vice President, Research and Development, Maxygen, Inc.*

Mary E. Harper, Ph.D.

David H. Mack, Ph.D., *Vice President, Genomics Research, Eos Biotechnology, Inc.*

Tuesday, June 26

2:00 – 3:30 p.m.

Optimizing Genes and Proteins with Directed Evolution Technologies

This panel will include members of the major companies in the burgeoning field of directed evolution discussing the technology, applications and case studies of their technologies in fields such as human therapeutics, agriculture and industrial enzymes. The panel will be of interest to pharmaceutical business development executives, representatives of agricultural and biotechnology companies in all capacities and financial community members. The overarching theme will be the ability to customize novel and improve existing compounds "to order."

Symposia & Sessions

Tuesday, June 26

4:00 – 5:30 p.m.

Animal, Mineral or Vegetable: Which Model for Product Discovery

At the birth of the genomics industry, new companies were formed, each with their own innovative method for discovering gene function. This panel provides the opportunity for a lively discussion about the utility of different gene-based discovery models. These developments have influenced the success of the genomics industry and have drawn significant attention from the investment community.

Chair: John A. Ryals, Ph.D., *President and CEO, Paradigm Genetics*

Speakers:

George A. Scangos, Ph.D., *President and CEO, Exelixis, Inc.*

Arthur T. Sands, M.D., Ph.D., *President and CEO, Lexicon Genetics, Inc.*

Wednesday, June 27

2:00 – 3:30 p.m.

Hitting the Target - Accurate Drug Delivery

There is an increasing reliance on the use of drug delivery 'enabling technologies' to facilitate the commercialization of biotech products. A positive early interaction between biotech and drug delivery can have synergistic benefits in hitting both the clinical and commercial targets of new drugs. The panel of speakers has been chosen to provide a broad overview of the current 'state of the art' in biotech drug delivery and will provide thoughtful, provocative insights into the challenges and opportunities ahead for the industry.

Chair: Paul Drayson, Ph.D., *CEO, PowderJect Pharmaceuticals plc*

Speakers:

Paul Drayson, Ph.D.

Steven Powell, Ph.D., *CEO, KS Biomedix Holdings plc*

Ian Wilding, Ph.D., *CEO, Pharmaceutical Profiles Limited*

Glyn Edwards, MBA, *CEO, Antisoma Research Limited*

Gillian E. Francis, D.Sc., *FRCPath, Managing Director, PolyMASC Pharmaceuticals plc*

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on the BIO 2001 program.

Science 2

Sponsorship Available

Monday, June 25

8:15 – 9:45 a.m.

Innovations in Inflammation: Novel Approaches in the Treatment and Management of Inflammation

This presentation will highlight a number of different and innovative approaches to the management and treatment of chronic inflammatory disease.

Chair: David Molowa, Ph.D., *Senior Analyst, Health Care and Biotechnology, Chase H&Q*

Speakers:

Barbara Finck, M.D., *Medical Director, Clinical Development, Immunex Corp.*

Kevin Mullane, Ph.D., *Senior Vice President, Research and Development, Inflazyme Pharmaceuticals Ltd.*

Barrie Carter, Ph.D., *Executive Vice President and Director, Research and Development, Targeted Genetics Corp.*

Monday, June 25

10:15 – 11:45 a.m.

TNF Blockers: The Next Billion-Dollar Market

The recent clinical and commercial success of the anti-TNF therapies Enbrel and Inflixinab has created tremendous interest in exploring these protein drugs for many diseases involving inflammatory processes, including autoimmune diseases and congestive heart failure. One approach to creating cheaper, patient-friendly, small-molecule drugs that block TNF production involves modifying thalidomide. This symposium is intended to offer an overview of the current and future approaches to blocking TNF and to outline their very exciting clinical and commercial potential.

Chair: Caroline Copithorne, *Vice President, Morgan Stanley, Equity Research*

Speakers:

Gary S. Firestein, M.D., *Professor of Medicine and Chief, Division of Rheumatology, Allergy and Immunology, UCSD School of Medicine*

Sol J. Barer, Ph.D., *COO, Celgene Corp.*

Alan J. Lewis, Ph.D., *President, Signal Research Division, Celgene Corp.*

Symposia & Sessions

Science 2 (continued)

Monday, June 25

2:00 – 3:30 p.m.

Attacking Tumor Vasculature - A Cure for Cancer?

Therapies that inhibit the growth of new blood vessels — so-called angiogenesis inhibitors — offer considerable promise as anticancer agents. Recent insights into the heterogeneity of tumor vasculature and dissection of the complex network of mechanisms that controls tumor angiogenesis have revealed novel targets for development of therapeutic strategies for cancer treatment.

Monday, June 25

4:00 – 5:30 p.m.

The Return of Monoclonal Antibodies in the Fight Against Cancer and Infectious Diseases

This session will deal with the birth, death and rebirth of this novel disease-fighting tool . . . monoclonal antibodies. It will address the growth of the fully human monoclonal antibody business and how it is shaping new treatments in the areas of oncology and infectious disease.

Chair: Martin Becker, Ph.D., CEO, XTL Biopharmaceuticals, Ltd.

Speakers:

Michael Hanna, Ph.D., Chairman and CSO, Intracel Corporation

R. Scott Greer, Chairman of the Board, President and CEO, Abgenix, Inc.

Laurence Jay Korn, Ph.D., CEO and Chairperson, Protein Design Labs, Inc.

Donald L. Drakeman, J.D., Ph.D., President, CEO and Director, Medarex, Inc.

Louis Weiner, M.D., Chairman, Medical Oncology

Lee Nadler, M.D., Chair, Department of Adult Oncology and Professor of Medicine, Harvard Medical School

Tuesday, June 26

8:15 – 9:45 a.m.

Apoptosis-Based Therapies

Defects in apoptosis are estimated to directly or indirectly contribute to the pathogenesis of nearly 70 percent of all human illnesses, for which adequate therapies are currently lacking. Recent insights into cell death mechanisms are revealing strategies for development of new pharmaceuticals and other types of therapeutic strategies for combating defective apoptosis regulation during disease.

Tuesday, June 26

10:15 – 11:45 a.m.

Biotechnology at the National Laboratories

This session will provide an overview of biotechnology research at the U.S. Department of Energy national laboratories. Speakers from four DOE Office of Science multiprogram laboratories and the Joint Genome Institute will highlight scientific advances in proteomics, structural genomics, genome sequencing, microbial and plant biotechnology, bio-computing and biotechnology applied to production of chemicals and energy from biomass. Capabilities at national scientific user facilities available to industry will be highlighted, including the synchrotron light sources, high field NMR and mass spectrometry, neutron sources and accelerators, and the National Biotechnology Center.

Co-Chairs: Reinhold Mann, *Life Sciences Division Director, Oak Ridge National Laboratory*

F. Blaine Metting, Ph.D., *Fundamental Sciences Division, Pacific Northwest National Laboratory*

Speakers:

F. Blaine Metting, Ph.D.

Reinhold Mann

Mark Finkelstein, Ph.D., *Director, Biotechnology Division for Fuels and Chemicals, National Bioenergy Center*

Carl Anderson, Ph.D., *Chair, Biology Department, Brookhaven National Laboratory*

Paul Predki, *Joint Genome Institute*

Tuesday, June 26

2:00 – 3:30 p.m.

The Future of DNA Microarrays and Bioinformatics in Research and Diagnostics

In the post-genomic era, gene expression DNA microarray technologies are rapidly helping researchers discover biomarker genes. Microarrays can identify signature biomarker genes for cell- and tissue-type specificity, as well as sentinel biomarker genes for responses to various treatments, such as pharmaceuticals, drugs or toxins. Recent applications demonstrating the power of microarrays and advanced bioinformatics technologies in identifying differentially expressed biomarker genes will be presented.

Chair: August Sick, *Senior Manager, Business Development, Invitrogen Corporation*

Speaker:

Thomas Dooley, Ph.D., CEO, *IntegriDerm Inc.*

Symposia & Sessions

Tuesday, June 26

4:00 – 5:30 p.m.

Raiders of the Lost Genome: Gene Analysis on the Post-Genome Era

The task of sequencing the DNA in the human genome has generated substantial quantities of raw data. As a result, a number of new and exciting enabling technologies for analyzing genetic data have emerged. These technologies facilitate the deciphering of genetic data, providing gene function information for product development. This panel will review and discuss a variety of new technologies currently "raiding" the genetic databank.

Chair: Teresa W. Ayers, CEO and Director, *Genomica*

Speakers:

Michael Kranda, CEO and Executive Director, *Oxford Glycosciences (UK) Ltd.*

Erik Wallden, President and CEO, *Pyrosequencing, Inc.*

Bruce Carter, Ph.D., President and CEO, *ZymoGenetics, Inc.*

Craig Liddell, Ph.D., Vice President, *Informatics, Paradigm Genetics*

Teresa W. Ayers

Wednesday, June 27

10:15 – 11:45 a.m.

Methods for Phenotypic Evaluation of Transgenic and Knockout Mice

Technological advancements enabling investigators to genetically engineer mice quickly and efficiently have created a deluge of models available for research today.

Unfortunately, not all mice are created equal. The trend toward comprehensive genotyping/phenotyping programs at the outset of drug-discovery efforts aids in the selection of the best study models, ultimately saving valuable research time and money in bringing therapeutics to market.

Chair: Jacqueline Crawley, Ph.D., Chief, Section of Behavioral Neuropharmacology, National Institute of Mental Health

Speakers:

Jacqueline Crawley, Ph.D.

Kathleen Murray, DVM, M.S., Director, Technical Operations, *Charles River Laboratories*

Carolyn Moyer, DVM, Head, Special Pathogenomics, Pathology Associates International

Bruce Elder, Ph.D., Senior Manager, Molecular Genetics, *Charles River Laboratories*

Wednesday, June 27

2:00 – 3:30 p.m.

Regenerative Medicine: Sustaining Human Health by Harnessing the Body's Regenerative Capabilities

Regenerative medicine seeks to harness the body's inherent ability to repair damage caused by disease, trauma or age. It holds the potential to keep the human body's systems functional into old age, to improve the quality of life for the elderly, and ultimately to disassociate disability from aging.

Co-Chairs: Doros Platika, M.D., President and CEO, *Curis, Inc.*

Daniel Hartmann, Faculty of Pharmacy

Wednesday, June 27

4:00 – 5:30 p.m.

Stopping Global Pandemics in Their Track – Is A Solution Around the Corner?

Chair: Franklin Berger, Senior Analyst, *JP Morgan*

Speakers:

John Barr, President and CEO, *Vitex*

Una Ryan, Ph.D., President and CEO, *Avant Immunotherapeutics, Inc.*

Paul Ewald, Ph.D., Professor of Biology, *Amherst College*

Stuart Peltz, Ph.D., President and CEO, *PTC Therapeutics, Inc.*

Dennis Panicali, Ph.D., President and CEO, *Therion Biologics*

Kleanthis G. Xanthopoulos, Ph.D., President and CEO, *Anadys Pharmaceuticals, Inc.*



Partnering & Investor Forum

Partnering & Investor Forum Monday, June 25— Wednesday, June 27

Sponsored by Arthur Anderson, AstraZeneca, Credit Suisse First Boston and Finnegan, Henderson, Farabow, Garrett & Dunner, LLP.

BIO 2001 will again feature the Partnering & Investor Forum. This Forum provides participating biotechnology companies with multiple opportunities to increase their exposure to both investors and potential corporate partners. Likewise, participation in this program gives pharmaceutical companies, large-cap biotechnology companies and investors an unparalleled opportunity to learn more about a wide variety of biotechnology companies from around the world in one place, at one time. This Forum will span three-days and will feature two tracks of individual company investor presentations and an expanded corporate partnering forum during which we anticipate accommodating over 2000 private meetings.

Participating in the Investor Forum

Applying to Present at the Investor Forum

More than 120 companies will be selected to present at the Investor Forum. All biotechnology companies attending BIO 2001, both public and private, are invited to apply to present at the Investor Forum. Privately held companies applying to present should have completed their first round of funding at minimum. To apply to present, please visit BIO's Business Development Web site: www.investinbio.com.

Attending the Investor Forum

This year, presenting companies will be organized by category and development stage to make it more efficient for

potential investors and corporate partners to attend the presentations of those companies they are most interested in learning more about. The schedule of presenting companies and their profiles will be posted at BIO's Business Development Web site: www.investinbio.com. Investors, pharmaceutical licensing executives, representatives of large-cap biotech companies and other potential business partners are strongly encouraged to visit this Web site to review the profiles of presenting companies.

Participating in the Partnering Forum

Requesting Partnering Meetings

All biotechnology companies, pharmaceutical companies and other potential corporate partners registered to attend BIO 2001 can also register to participate in the Partnering Forum. BIO will pre-schedule 30-minute meetings between participants in the Partnering Forum. A list of all participants and their profiles is available on BIO's Business Development Web site: www.investinbio.com. The Web site also contains a meeting request form.

To Reserve a Dedicated Meeting Booth

BIO will build private meeting facilities on the third floor of the San Diego Convention Center. Pharmaceutical companies, large-cap biotechnology companies and other potential corporate partners may secure one of these dedicated meeting booths in this facility. The cost of this space is \$3500 and it includes two full meeting registrations. To apply for a dedicated meeting booth, please visit BIO's Business Development Web site: www.investinbio.com.

Non-Dedicated Meeting Booths Available

A limited number of non-dedicated meeting booths will be available for private meetings between any Partnering Forum participants. These booths will be assigned on a first come, first served basis for 30-minute meetings.

Fees & Deadlines

Fee

Deadline

Application to Present:

US \$25 BIO Member

March 30, 2001 to Apply

US \$50 Non BIO Member

Notification date

(Non-refundable)

April 27, 2001

Presentation Fee

US \$450 BIO Member

Due June 15, 2001

(Includes Partnering Forum)

US \$900 Non BIO Member

Partnering Fee

US \$295 BIO members

Due June 15, 2001

US \$595 Non-BIO members

Partnering & Networking Opportunities

The Technology Partnering Forum Monday, June 25 – Wednesday, June 27

Sponsored by Battelle/PNNL, Heller Ehrman, Turku Bio Valley and Wyeth-Ayerst Pharmaceuticals.

The Technology Partnering Forum is the place to view the "latest and greatest" in our industry. The Technology Partnering Forum will be a novel event for early-stage companies, universities, non-profits, scientists and other individuals to showcase their technologies available for licensing or commercialization, as well as to network with those interested in the same area of research and development. In addition to the opportunities for the audience (including companies, investors, law firms and development companies) to see and learn cutting-edge technology, because of the increasing interest in start-ups and partnerships, the Technology Partnering Forum is a wonderful venue for the presenters and the audience to network and discuss developing start-ups, joint ventures and other such affiliations. The Technology Partnering Forum will bring scientists, business development professionals and investors together to share their science and experience to bring scientific research one step closer to useful applications.

The Technology Partnering Forum will focus on cutting-edge technology in several areas of research. In order to maximize the number of participants, as well as the number of technologies, the Technology Partnering Forum is formatted to allow multiple institutes and individuals, from all over the world, to display their technologies in one of the several topic-oriented poster presentations. This allows interested licensors and investors to view the best available technologies in a short period of time, without committing to several drawn-out presentations. In addition, this format allows maximum interaction between participants and the audience to discuss the potential commercialization and development of science and technology.

Two sessions will be held each day of the three-day event, one in the morning and one in the afternoon, for a total of six sessions. By organizing the theme of each session to run in conjunction with the other events at BIO 2001, we expect the Technology Partnering exhibit to be one of the biggest draws of BIO 2001, where science and business can come together.

What topic areas are appropriate for the Technology Partnering Forum?

We will be looking for submissions to showcase available technologies in the following areas:

- Cancer
- Cardiovascular /Autoimmune/Inflammation/Infectious Diseases
- Agriculture/BioProduction
- Devices/Delivery/Diagnostic
- Bioinformatics/Screening
- Central Nervous System/Neurology

New—International Brunch Sunday, June 24

Sponsored by Serono.

Check in at registration then join other international attendees from around the world! Full-meeting registrants from outside the U.S. are invited to the San Diego Convention Center ballroom on Sunday morning for a global, networking brunch. The event will feature a keynote address pertinent to all members of global biotechnology. Each delegation will be invited to staff a table to facilitate networking opportunities and answer questions.



Other BIO Programs

BioParks 2001 Saturday, June 23

BioParks 2001

Begin your stay at the world's largest event for the biotechnology industry by attending BioParks 2001. This special one-day conference is devoted to the trends and issues

affecting research parks with a specific focus on life science research and technology. Hosted by the *University of California, San Diego* (UCSD) and the *California State University Program for Education and Research in Biotechnology* and jointly sponsored by the Association of University Related Research Parks (AURRP) and the Council for Biotechnology Centers of BIO (CBC), BioParks 2001 will focus on the development of the biotechnology industry in San Diego: in particular, the impact of the local universities on cluster development and how businesses, institutions and communities can work together to build new technologies, new businesses and the "new" economy.

Major topics to be addressed:

- The San Diego Story: Cluster Development and the Role of the University of California, San Diego
- Education in Biotechnology
- Bioinformatics
- CONNECT - Biotechnology Forum
- Technology Transfer in Biotechnology
- High Rise and Multi-Tenant Biotech Facilities
- Biotech Build-To-Suits: Developers' Perspectives

REGISTER NOW @ <http://bioparks2001.ucsd.edu>

Conference Location

BioParks 2001 will be held at the Institute of the Americas on the UCSD campus in La Jolla. Transportation information will be provided with your conference confirmation.

BIO GENEius Awards Sunday, June 24 – Wednesday, June 27

Sponsored by Aventis Pasteur and Aventis Pharmaceuticals.

The BIO GENEius competition and awards ceremony recognizes the top biotech high school science projects from the southern California region. Selected from students competing at San Diego Science Fairs, the best ten projects will be exhibited at the BIO 2001 HealthFest on Sunday, June 24th. The best of these projects will receive cash awards from \$1,500 up to \$4,000. The Wednesday plenary breakfast will include a special awards ceremony for these students. As demonstrating the biotech industry's commitment to education, cities hosting previous BIO International Conventions continue to award their top local biotech science projects with a cash award.

Council of Biotechnology Centers Sunday, June 24

The Council for Biotechnology Centers' opening event for BIO 2001 will be *Fostering Entrepreneurship in Europe and the United States*. This two-part program focuses on the critical issues facing not-for-profit centers in the international biotech community, and innovative programs developed to encourage for profit entrepreneurial endeavors.

Part one will focus on the efforts of not-for-profit organizations to foster entrepreneurial activity in their region. We will offer illustrations of successful programs in the mid-western United States and western Europe. In part two, we will present case studies of for profit European and American companies that sprang from the not-for-profit environment. The cases will be reviewed by a panel of experts in the fields of Tech Transfer, Venture Capital, Incubator Management and from a successful biotech Start-up Company. Time will be allocated after each part for questions from the audience.

Confirmed speakers include Nancy Sullivan, M.S., Assistant Director of New Business Initiatives, ITEC Center, Chicago, Illinois; Dr. Chris Copple, COO, NeuralStem Biopharmaceuticals, College Park, Maryland; Jo Bury, General Director, VIB. Invited speakers include representatives from Imperial College, Unysis and Signal Corporation. The program will be chaired by Jo Bury, General Director, Flanders Interuniversity Institute for Biotechnology, VIB; Alicia Loffler, Director, Kellogg Center for Biotechnology, Northwestern University, and Antonio Moreira, Vice Provost for Academic Affairs, University of Maryland, Baltimore.

Teachers Professional Development Program Saturday, June 23 – Monday, June 25

Sponsored by Fish & Neave, Genzyme Corporation and Wyeth-Ayerst Pharmaceuticals.

This year BIO partners with Bio-Link to create opportunities for industry and educators to interact in an industry-rich Teachers Professional Development Program. On Saturday, events include lecture sessions on biotechnology and a reception, dinner and keynote speaker for educators and industry participants on Saturday evening. On Sunday, hands-on workshops will be led by industry at San Diego City College. On Monday, a Workforce Breakfast will be followed by a symposium on "Best Practices in Workforce Development". The Teachers Professional Development Program wraps-up on Monday afternoon.

Other BIO Programs

Eighth Annual Seminar for Operating Officers/Materials Managers/Procurement & Finance Professionals **Monday, June 25**

Revolutionizing the Supply Chain Process through Cost Management and Web-Enabled Strategic Sourcing

BIO and BIOCOM/san diego will be offering a one-day seminar that will focus on improving customer/supplier competitiveness and profitability as well as contracting process effectiveness. Attendees will also be trained in steps to managing costs throughout the supply chain. This workshop is free and will be offered to attendees on a first-come, first-served basis. The workshop will take place at the San Diego Marriott Hotel and Marina and will include the lunch and access to the exhibit hall.

Register at <http://www.bio.org/events/2001/bbs.htm>. For general questions about the seminar, please contact Laurel Noble at lnoble@bio.org.

Seminar Overview:

9:30 - 11:00 a.m.

Power of Cost Knowledge

This session will help professionals gain a better understanding of the cost structure of goods or services procured. Overviews to include "Should Cost Models" and "Price Discipline."

Speakers: Jimmy Anklesaria, *Professor of Cost Management, University of San Diego*
Sanjit Menezes, *Anklesaria Group, Inc.*

11:00 a.m. - 1:00 p.m.

Lunch (to be provided) and Exhibit Hall

1:00 - 2:30 p.m.

E-business Strategies and Strategic Sourcing

Speaker: Kevin B. Johnson Ph.D., *Senior Director, Strategy & Operations, Inceutica.com*

Dr. Johnson will discuss new Web-based business models that have the potential for revolutionizing the research and development process. Areas of focus include, Web-enabled strategic sourcing, strategic sourcing lifecycle, Web-facilitated business management, lessons from other industries and traditional sourcing vs. B2B electronic marketplaces.

2:30 - 5:00 p.m.

Breakthrough Cost Solutions

This session will involve the development of a written cost management strategy and implementation plan. Learn cost reduction strategies for commodities, services and capital equipment.

Speakers: Jimmy Anklesaria, *Professor of Cost Management, University of San Diego*
Sanjit Menezes, *Anklesaria Group, Inc.*

HealthFest 2001 **Sunday, June 24**

Sponsored by Baxter Healthcare Corp. and Pfizer Inc./Agouron Pharmaceuticals.

Embarcadero Park North

12:00 - 4:00 p.m.

Partnering for a Healthy Community

NEW! HealthFest 2001 is an opportunity for local voluntary and government health services associations along with Biotechnology Industry Organization (BIO) and BIOCOM/san diego members to educate the community about the work they are doing to help people with diseases and disabilities.

This public education event will provide BIO 2001 attendees, their families and the San Diego community with an opportunity to learn about local resources, health and social support and biotech products that are currently available, as well as those in the pipeline.

HealthFest 2001 will be organized into three areas - Youth, Adult and Senior with a general area for those that outreach to all age groups. Anchoring each of these three areas will be an interactive pavilion to accommodate hands on activities pertinent to each age group. Surrounding the pavilions are tables for company and agency information. Additionally, there will be a special area created for diseases that afflict animals, and information on animal care. Food and beverage carts will be on-hand and games and activities for kids, along side a main stage and music to create a festive atmosphere.

Current exhibitors include:

Agouron Pharmaceuticals	Chron's and Colitis Foundation
American Cancer Society	Hemophilia Association of San Diego
American Heart Association	Hollis-Eden Pharmaceuticals
American Liver Foundation	IDUN Pharmaceuticals
American Lung Association	Juvenile Diabetes Research Foundation
American Melanoma Foundation	KyXy
American Parkinson Disease Association	The Leukemia and Lymphoma Society
Arthritis Foundation	Mental Health Association
Alzheimer's Association	National Kidney Foundation
Bayer Corporation	Pfizer Inc.
Baxter Healthcare Corp.	San Diego Hospice
Being Alive AIDS/HIV Service	
Burn Institute	

Sponsorships and exhibit space are still available! For more information on HealthFest 2001, please contact Jennifer Andrews, jandrews@biocom.org, Michael Losow, mlosow@bio.org, or Tonia Rice, trice@bio.org.

Other BIO Programs

BIO 2001 Career Fair Sunday, June 24

Sponsored by sciencejobs.com, Amgen, BioView.com and Johnson & Johnson.

With over 60 companies and 2500 expected job seekers to be in attendance, the BIO 2001 Career Fair promises to be one of the most comprehensive life science career events ever.

Drawing on the prestige of BIO's annual convention, the audience of sciencejobs.com and BioSpace's national experience in producing career fairs, this event will attract the industry's top companies and national talent, making both recruiting and job seeking effective and expedient.

FOR COMPANIES:

For information on exhibit space and fees, please contact Heather Tahtinen of BioSpace at 415/355-6266 or heather@biospace.com. Booth space is limited, so reserve yours today.

FOR JOB SEEKERS:

To pre-register online just visit www.bio2001.org or www.biospace.com and click on the BIO Career Fair on the home page.

On-site registration is available.

Meet BIO

Booth Number 801

BIO's staff will highlight the services and resources available from the world's largest trade organization serving the biotechnology industry. BIO members gain support in many areas ranging from legislative updates and lobbying, representation with the media and press, networking through a variety of meetings, to discounts on essential services with leading industry suppliers. Take a moment to learn about your industry trade organization and how you might take advantage of the many benefits of membership in BIO.

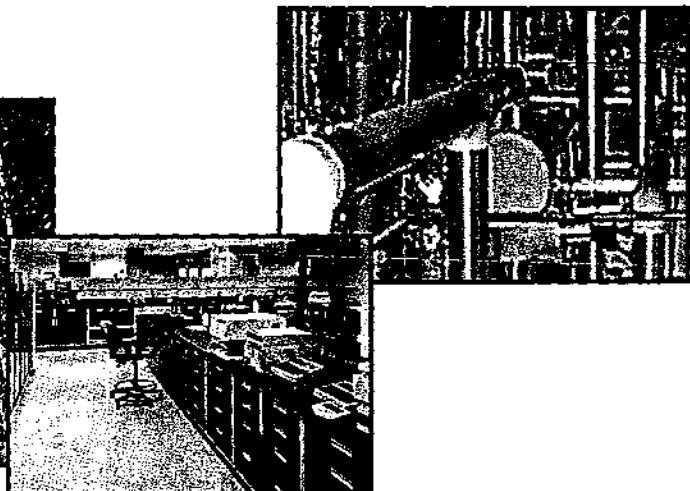


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California Department of Food and Agriculture	Economic Development Network (ED>Net)
California Manufacturing Technology Center (CMTC) and	Science Applications International Corporation (SAIC)
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Array BioPharma	French Pavilion - Invest in France	Ohio Consortium
Australia	Genencor	Pall BioPharmaceuticals
Avecia Biotechnology	Genome Therapeutics Corporation	Peco Energy
BASF Bioresearch Corporation	Genta Incorporated	Pennie & Edmonds LLP
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BioPharm	Imperial Bank - Emerging Growth	sciencejobs.com
Biopure Corporation	Division	SciQuest.com
BioQuebec	InforMax Inc.	Siegfried Ventures
BioReliance	Innovex Inc.	Solutia Pharmaceutical Services
BioSpace.com	Insignia/ESG, Inc.	Division
BioStreet	Integrated Protein Technologies	State of Delaware
BiotechWatch.com	Israel Export Institute	Team Hawaii/Hawaii Biotechnology
BioTexas	The Journal of BioLaw & Business	Council
BioView.com	Kenyon & Kenyon	TechEx
BTG International Inc.	L.E.K. Consulting	Technoparc Saint-Laurent
Burdick & Jackson	Lexicon Genetics Incorporated	The Patent & License Exchange, Inc.
Business Wire	Location: Switzerland	TherImmune Research Corporation
Celera	Long Aldridge & Norman LLP	TranXenoGen, Inc.
Cell Genesis	Lonza Biotechnology	Trega Biosciences, Inc.
Center for Biophysical Sciences and	Maine - Take Your Business in a New	United States-Israel Science &
Engineering/Univ. of Alabama at	Direction	Technology Commission
Birmingham	Maryland Dept. of Business & Econ.	VIB, Flanders Institute for
Chemical Abstracts Service - CAS	Develop.	Biotechnology
Chubb Group of Insurance	Massachusetts Works!	Virginia Economic Development
Companies	Mayo Clinic	Partnership/Virginia
CNA HealthPro	MediChem Life Sciences	Biotechnology
Colorado BioProcessing Center	Medicon Valley (Copenhagen	VitaRx
Connecticut's BioScience Cluster	Capacity/Region Skane)	Vox Medica, Inc.
Coryva International, Inc.	Metro Denver Network	Washington Biotechnology
Covance Inc.	Michigan Life Sciences Corridor	Community
Darby & Darby, P.C.	Ministry of Economic	William Gallagher Associates
DSM	Affairs/Netherlands Foreign Trade	Willis Inc.
DoubleTwist, Inc.	Agency	Windhover Information, Inc.
DuPont Microcircuit Materials	Montgomery County Maryland	Woodruff-Sawyer & Co./William
E.B.D. Group Inc.	Department of Economic	Gallagher Assoc.
Edwards & Angell, LLP	Development	YM BioSciences Inc.

BIO 2001 Exhibitors

(as of 3/12/01)

4SC AG	Australian Proteome Analysis Facility	BioScience Park Lelystad
A B S T Molecular Diagnostics	Autogen	Bioscience York
A. M. Pappas & Associates, LLC	Avecia Biotechnology	BioScreen Testing Services, Inc.
AAI, Inc.	Avidis	BioServe Space Technologies
Abbott Bioresearch Center	BAO Marketing Service GmbH	BioSpace.com
Abt Associates Clinical Trials	BASF-LYNX Bioscience AG	BioSquare at Boston University
AbTech	Battelle Pharmaceutical	biosyn Arzneimittel GmbH
Accenture	Bavarian Ministry of Economics, Transport & Technology	Biosynthetics GmbH
ActinoDrug Pharmaceuticals GmbH	Bavarian Nordic Research GmbH	Biotech Australia Pty Limited
Actipac Biosystems GmbH	Baxter Healthcare Corp.	Biotech GmbH
Aderly	Bayer Corporation	Biotech London/Lawson Health Research/Canadian Medical Discoveries
AdProTech Ltd.	BBB Biomedizinischer Forschungscampus Berlin-Buch GmbH	Bio-Technical Resources
Advance Consulting & Evaluation	BC Biotechnology Alliance	BioTechnikum Greifswald GmbH
Advanced Gene Technology Corp.	Ben Venue Laboratories, Inc.	Biotechnologieagentur Baden-Wuerttemberg
AEA	Bench International	Biotechnologepark Luckenwalde GmbH
AEPI	Benitec Ltd	BioTechPark Charlottenburg
Affymetrix, Inc.	BIO 2003 Promo Space	BjotechWatch.com
Agence Pour L'Economie En Essonne	BIO Food and Agriculture Division	BioTexas
Agency/Employment Training Panel (ETP)/California Department of Food and Agriculture	Bio Innovation SA (South Australia)	BioTop Technologiestiftung
AGI Dermatics Inc.	Bio Nova International Pty Ltd	BioTrack Marker Intelligence
Agilent Technologies, Inc.	BIO Pavilion (Biotechnology Industry Organization).	BioValley Platform Basel - Basel Area Business Development, Switzerland
AGIT	BIO Quebec	BioWorld Today
AgriGenomics Inc./PharmaChem Technologies Inc.	Bio Science Contract Production Corp.	Bio-Zentrum Halle GmbH
Ag-West/Saskatchewan Research Council	BIO Team Kentucky	Boehringer Ingelheim Biopharmaceuticals
Ajinomoto USA, Inc.	Bio21/Institute of Molecular Science and Biotechnology	Boehringer Ingelheim Cooperation
AKOS Healthcare Group	BioAlberta	Boston Probes, Inc.
Albany Molecular Research, Inc.	BioAlps	Bresagen Limited
Alberta Economic Development/Alberta Innovations and Science	BioBelt St. Louis	Brobeck, Phleger, & Harrison LLP
Alberta Research Council	BioBid.com	BTG
Alchemya Pty Limited	Biochemie Austria GmbH	Burdick & Jackson
Alexandria Real Estate Equities, Inc.	BioCom International	BUSI
Altus Biologics Inc.	BIOCOM/san diego	Business Development & Attraction, ACT Chief Minister's Department
ALZA Corporation	BIOCON, Inc.	Business Facilities Magazine
AMAXA GmbH	BIOCONTACT ON LINE	Business Wire
AMDeC	Bio-Gen-Tec-NRW	C.T.P. - Cell Tissue Progress
American Association of Pharmaceutical	BIOGNOSIS GmbH	California Manufacturing Technology Center (CMTC) and Corporation of Manufacturing Excellence (Manex)
American Crop Protection Association	BioImmunPharma GmbH	CALLISTOGEN AG
American Lawyer Media	BioIndustry Association	Cambridge Drug Discovery
American Red Cross	Bioindustry Association of Korea	Cambridge Healthtech Institute
Arigen	BioInfact GmbH	Cancer Research Ventures
AMRAD Corporation Limited	Bio-Link - City College of San Francisco	Cangene Corporation
Analytica - Munich Trade Fair	BioM AG	CAP Champagne Ardenne
ANAPHARM INC.	BioMac/Adimac	Capsulution Nanoscience AG
ANGIOGENE INC.	Biomax Informatics AG	Cardinal Health
AnorMED, Inc.	BioMed Venture AG	Cardion AG
ANTISENSE PHARMA GmbH	BioMedNet/Trends/Current Opinion.	CDC Solutions & First Consulting Group
Antisoma PLC	BioMedTec Franken	Celera
Aoris Nova Pty Ltd	BioMetT-Innovationsnetzwerk Dresden	Cell Systems GmbH
Apple Inc	Biometra	CellGenix GmbH
Aradigm Corporation	Biomira Inc.	CellTect GmbH
Area Development Magazine - The Location	Bioneer Corporation	Center for Disease Control & Prevention
Arimedes Biotechnology GmbH	Bionomics Limited	Centre D'Immunologie Pierre Fabre
Arkansas Biotechnology Association	BioPark Regensburg GmbH	CENTRE QUEBECOIS D'INNOVATION EN BIOTECHNOLOGIES
Arkansas BioVentures	BioPartner	Charles River Laboratories
Arkansas Dept. of Economic Development	BioPharm	Chem First Fine Chemicals, Inc.
Array BioPharma Inc.	Biopharm GmbH Berlin	chemagen AG
Arteb	BioPole Clermont-Limagne	ChemCon GmbH
Arthur Andersen LLP	Biopract GmbH	Chemical Abstracts Service - CAS
Asahi Glass Co., Ltd.	BIOPROSPECT LIMITED	Chemicon Australia
Association Alsace BioValley	BIOPSYTEC GmbH	ChemNavigator
Association of the German Pharmaceutical Industry	Biopure Corporation	Chesapeake Biological Laboratories, Inc.
AstraZeneca	BioQ, Inc.	Chromagen, Inc.
ATEC Advanced Technologies	BioRegio Greifswald-Rostock	Chubb Group of Insurance Companies
Atherogenics, Inc.	BioRegio Jena e.V.	CIRION BioPharma Research
ATTO-TEC GmbH	BioRegio Stuttgart / Neckar-Alb	CIT - Centre International De Toxicologie
atugen	BioRegion Halle-Leipzig Management GmbH	City of Pasadena/Pasadena Entretec
Aureus Pharma	BioRegion Rhein-Neckar-Dreieck e.V.	City of San Diego
AUSTRADE (Australian Trade Commission)	BioReliance Corporation	Clinical Investigation Specialist
Australia	Bioropa GmbH	
Australian Institute of Marine Science (AIMS)	BioScience Park Leiden	

BIO 2001 Exhibitors

(as of 3/12/01)

Clinical Network Services Pty Ltd	Fidelity Investments	InfraServ GmbH & Co. Hoechst KG
Clinimetrics Research Associates, Inc.	Fish & Neave	Inland Empire Economic Partnership
ClinTrials Research, Inc.	Fish & Richardson P.C.	Innovex Inc.
CNA HealthPro-Advanced Medical Technology	Fluor Daniel/ADP Marshall	Insignia/ESG, Inc.
Coagulation Diagnostics	Forward Wisconsin	Institut für Hirnforschung
Collaborative BioAlliance, Inc.	Fraunhofer Institut für Grenzflächen und Bioverfahrenstechnik	Insure HiTech
Colorado Bioprocessing Center	Frederick County Economic	Integragen
CONGEN Biotechnologie GmbH	Freiburg Wirtschaft und Touristik GmbH & CoKG	Integrated Protein Technologies
Connecticut's BioScience Cluster	French Pavilion	Intelligene Expressions Inc.
Connex GmbH	Front Line Strategic Management	Intelligent Implants GmbH
Consulaat-General Los Angeles	Fucell Pty Limited	Intergen Company
Contract Pharma	fundamenta GmbH	Inves,UK
Corning Incorporated	G.I.T. Verlag GmbH	Invest Australia
Corvas International, Inc.	G.O.T. Entwicklungs GmbH	Invest In France Network
Cote D'Azur Developpement	G2 Therapies Ltd/Garvan Institute	Invitrogen Corporation
Council for Biotechnology Information	Garching Innovation GmbH	Iowa State University
County of San Diego	Gemeente Den Haag	Iowa, The Smart State for Business
Covance Inc.	Gemini Genomics	IRELAND: BioResearch Irl. & IDA Irl.
Creatogen	GEMINX BIOTECHNOLOGIES INC.	Isotechnika Inc.
CSIRO	Gene Logic, Inc.	IsoTis
Ctr. for Biophysical Sci. & Engineering	Genencore	Israel Export Institute
Cytovax Biotechnologies Inc.	Generatio GmbH	Jerini BIO TOOLS GmbH
Darby & Darby P.C.	Genespan Corporation	John P. Robarts Research Institute, The
DASGIP mbH	Genetic Engineering News	Johns Hopkins University
DECHEMA e.V.; Association of German Biotechnology	Genfit	Jostra Medizintechnik AG
Decision Resources, Inc.	Genodyssee	Kelman GmbH
DECODON GmbH	Genolife	Kenyon & Kenyon
Deloitte & Touche LLP	Genomatix Software GmbH	King Pharmaceuticals
DermScan	Genome Express	La Jolla Pharmaceutical Company
Destination Irvine	Genome Therapeutics Corporation	Languedoc Roussillon Prospection
Deutsches Krebsforschungszentrum	Genopole Industries	LAROVA Biochemie GmbH
Development Center for Biotechnology	GENOVAC	Le Grand Lyon
Diatos	Genoway	Leiden University, Faculty of Mathematics & Natural Sciences
Digestar	Genset	Lemmatec GmbH
Diversa Corporation	Genta Incorporated	Lexicon Genetics Incorporated
DoubleTwist, Inc.	Genzyme Transgenics Corporation	Ligand Pharmaceuticals, Inc.
Dow Biopharmaceutical Manufacturing	Georgia Department of Industry, Trade German Pavilion	Location: Switzerland
Dr. Fenning BioMed GmbH	Gibbons, Del Deo, Dolan,	Lonza Biotechnology
DSM	Government of Canada	LSMW GmbH
DuPont Microcircuit Materials	GPC Biotech AG	Luminis Pty Ltd
DYAX Corp.	Graffinity Pharmaceutical Design GmbH	Lyon & Lyon LLP
E.B.D. Group	Gray Cary Ware & Freidenrich LLP	M.E.L. - Molecular Engines Laboratories
Economic Development Frankfurt	Greater Rockville Partnership	Maine-A New Direction for Biotechnology
Edison BioTechnology Center (EBTC)	Greater Toronto Marketing Alliance	Mallinckrodt Baker, Inc.
Edwards & Angell, LLP	greenovation Pflanzenbiotechnologie GmbH	Market Lubbock, Inc.
Elan Pharmaceutical Technologies	Greentech	Marsh Risk & Insurance Services
Elegene AG	Griffith University	Maryland Dept. Business & Econ. Dev.
Eli Lilly & Company	Groningen, Rijksuniversiteit	Massachusetts Works!
Elsevier Science	Groep Limited	Mayo Clinic
Empire State Development	Hale and Dorr	McCarthy Consultant Services Inc.
Endo Systeme	Harrison Clinical Research GmbH	Medarex, Inc.
Endpoint Research Ltd.	Healthcare Distribution Management	MEDICAGO INC.
Enterprise Florida/BIO Florida	Heidelberg Innovation GmbH	MediChem Life Sciences
Epigenomics	Helix (DMG Business Media)	Medicon Valley
Epimmune Inc.	Heller Ehrman	Medisearch Int.
ERA Consulting Group	Henkel	MEDMARC Insurance Company
ERBI	Hoelle & Huettner AG	MeGa Tec GmbH
eResearch Technology, Inc.	Humboldt Storage and Moving	MEMOREC Stoffel GmbH
Ernst & Young	Hybaid, Ltd.	Meridian Medical Technologies, Inc.
ESPS, Inc.	Hybrigenics	Metabolic Explorer
Ester Technopole Developpement	I.D.M.-Immuno Designed Molecules	Metro Denver Network
Eurasante Bio-Incubator	IBC USA Conferences	Michigan Life Sciences Corridor
Eurobiobiz	IBM	Microfluidics
Europrobe	IDB	Microscreen B.V.
EUROPROTEOME AG	Illinois Biotechnology Industry Organization (IBIO)	MIDI Pyrenees Expansion
Evans Vaccines	IMG-Innovations-Management GmbH	Migragen AG
Exonhit Therapeutics	Imnegen Pharmaceuticals Inc.	Mimotopes Pty Ltd
FE.B.I. - Federation Francaise Des Bio- Incubateurs	Imperial Bank - Emerging Growth Division	Ministry of Economic Affairs
FeBIT GmbH	Infagen	Ministry of Science, Technology & Env.
Federal Laboratory Consortium for	Inflazyme Pharmaceuticals, Ltd.	Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, Et
Federal Ministry of Economics and Technology	InforMax, Inc.	Monash University
FFF Enterprises		Monitor Liability Managers, Inc.
FibroGen		Montgomery County Department
		Montpellier Mediterraneo Technopole

BIO 2001 Exhibitors

(as of 3/12/01)

Morphosys AG
Morrison & Foerster LLP
m-phasys
MRC Technology
MTM LABORATORIES AG
Nanogen
NASA Space Product Development
National Cancer Institute
National Institute of Standards & Technology (NIST)
National Institutes of Health
National Research Council Canada
Nature Publishing Group
Nautilus Biotech
Neose Technologies, Inc.
Netherlands Foreign Investment Agency
Netherlands Pavilion
Neurotech
New Jersey Coalition for Biotechnology
New Mexico Economic Development
New South Wales Department of State & Regional Development
New York Biotechnology Association
NewLab Bio Quality AG
Nexia Biotechnologies Inc.
Niaba
Nicox
Nigeons GmbH
NIGU Chemie GmbH
Nord-Pas De Calais Developpement
Normandie Developpement
North Carolina Biotechnology Center
Nova Factor, Inc.
Nova Scotia Bio Industries Team
November AG
Noxxon
Nucleica
NuGenesis Technologies
NYC Economic Development Corp.
OBE Therapy Biotechnology
OctoPlus
Office Depot Business Services
Ohio Economic Development Council
Oligovax
Oncotest GmbH
One Northeast
Ontario Government
Optis
Organon Teknika Corporation
ORPEGEN Pharma GmbH
Ottawa Life Sciences Council
Oxford Biomedica PLC
Ozgene Pty Ltd
Pall Biopharmaceuticals
Paragon BioServices, Inc.
Paris Development Agency
PDI family of companies (PDI, TVG and PECO Energy
Pennie & Edmonds LLP
Pepco
Pepscan Systems
Peptech Limited
Pfizer Inc./Agouron Pharmaceuticals
Phage Biotechnology Corporation
Pharma Key
Pharmacopeia & Molecular Simulations
Pharmagene Plc
Pharmahorizons
PharmaLink FHI
PharmaNet, Inc.
Pharming Group N.V.
PHENOGENE THERAPEUTIQUES INC.
Pierre Guerin S.A. - Biolafitte & Moritz
Pillsbury Winthrop LLP
Polyganics
PPD (Discovery - Preclinical)
PR Newswire
PRA International
Primedica Corporation
Prince Edward Island Biotechnology Showcase
Probio Inc.
PROCYON BIOPHARMA INC.
profos GmbH
PROQINASE GmbH
Protein Sciences Corporation
ProteoSys GmbH
ProThera GmbH
Provence Promotion
Province of Newfoundland & Labrador
QIAGEN Inc.
Queensland University of Technology
RBR Biomedical
Recombinant Capital
Rentschler Biotechnologie GmbH
Research School of Biological Sciences, Australian National University
Ricerca, LLC
RiNA GmbH
Robert W. Baird & Co.
Saint
San Diego Regional Economic Development Corporation
Savoie Technolac
ScheBa Biotech AG
Scheer Partners' Biotech Services Group
Schott Advanced Processing
SCIENCE
Science Applications International Corporation (SAIC)
Science Factory GmbH
Science Park Raf Spa
Sciencejobs.com
Scientific Protein Laboratories, Inc.
SciQuest.com
SemBioSys Genetics Inc.
Sense Proteomic
Sequitur, Inc.
Serono
Siegfried Ventures
SNI Swiss Network for Innovation
SOCIETE DE PROMOTION ECONOMIQUE DU QUEBEC METROPOLITAIN
Solutia Pharmaceutical Services Division
SOURCON-PADENA AG
South Australian and Development Institute (SARDI)
Southern Bioscience
Spectrum Laboratory Products, Inc.
State Government of Victoria, Australia
State of California and California Technology Trade and Commerce
State of Delaware
State of Tennessee
Statistics Unlimited, Inc.
Statking Consulting, Inc.
STATPROBE, Inc.
STERIS Corporation
Strathmann Biotec AG
Stroock & Stroock & Lavan LLP
Sun Microsystems
Suffolk County/Long Island
SWEDEN
Switch Biotech AG
SYMATESE Biomateriaux
SynCo Bio Partners
SYNSORB Biotech Inc.
Taylor Pharmaceuticals/Akorn, Inc.
Team California
Team Hawaii/Hawaii Biotech Council
TechEx, Inc.
Technologiepark Heidelberg GmbH
Technologiestiftung Hessen GmbH
Technomark/Ballantyne Ross
Technoparc Saint-Laurent
TERAKLIN AG
TerraCell International S.A.
Texinfine
TGZ Technologie- und Gewerbezentrum e.V.
The Biotechnology Initiative of the California Community Colleges Economic Development Network (ED>Net)
The Greater Austin Chamber of Commerce
The Patent & License Exchange, Inc.
The University of Iowa
the woolf group, inc.
Therapeutic Management
TherImmune Research Corporation
TIB MOLBIOL-Syntheselabor
Transgene
TranXenoGen
Trega Biosciences
Tri-Med Australia
Triple-0 Microscopy GmbH
UK Pavilion
Ultrafine
UniQuest Pty Limited
Univ. of Maryland Biotech Institute
Univalid
University of Alberta/University of Calgary/Prairie Genome
University of California, San Diego
University of Nebraska Medical Center
University of Tasmania
University of Wisconsin - Madison
Urogenie
US Israel Science & Technology Comm.
USDA/Agriculture Research Services
UT Health Science Center at San Antonio
UV-Systems AG
Variagenics, Inc.
Varicula GmbH
Vectogen Ltd
Ventana Clinical Research Corporation
Vertex Pharmaceuticals Incorporated
Viaken Systems, Inc.
VIB, Flanders Institute for Biotechnology
Vical Incorporated
Victorian State Government, Australia
Vienna Business Agency
Virginia Economic Development Partnership
Virginia Tech Intellectual Properties
VitaGen, Inc.
Vitapharm Research Pty Ltd
VitaRx
Vox Medica, Inc.
VWR Scientific Products
Wageningen UR
Wallonia Region of Belgium
Washington Biotechnology Community
WCSR
Western Australian Biomedical Research Institute
West-Holland Foreign Investment Agency (WFIA)
William Gallagher Associates
Willis, Inc.
Windhover Information, Inc.
Woodruff-Sawyer & Co.
Wyeth-Ayerst Pharmaceuticals
Xanthan, Inc.
Xendo Laboratories
YM BioSciences Inc.
Yolo County BioZone/UC Davis Biotech Cluster/City of West Sacramento
ZAB Zukunftsagentur Brandenburg
Zurich MedNet

ALS Golf Classic

BIO 2001 Golf Classic to benefit The ALS Association June 24, 2001

The Meadows Del Mar Golf Club
San Diego, CA

This year's golf tournament to kick off the BIO 2001 International Convention promises to be a fun-filled event with a purpose. The proceeds from the event will benefit The ALS Association, the only national non-profit voluntary health organization dedicated to finding the cure and for improving life with ALS, often called "Lou Gehrig's disease."

Set at the year-old Meadows Del Mar Golf Club, located in San Diego's north county less than 5 miles from the Pacific, the club provides a dramatic setting and terrific weather for golf. The diversity of holes rivals the best the West Coast

Schedule of Events

10:00 - Noon	Registration Putting Contest/Range Opens
Noon	Shotgun Start - Four Person Teams
5:30 p.m.	Hosted Cocktails & Dinner Buffet Presentation of Team & Contest Winners

****GOLF SPONSORSHIP OPPORTUNITIES AVAILABLE RANGING FROM \$1,000 to \$25,000**

****Call Carol Levey at 800/436-7667 or e-mail to iemgolf@earthlink.net for more information.**

***Playing spot includes: Golf and cart, lunch, on-course contests, tee gift, post-event reception and bus transportation from/to San Diego conference hotels. If a spot is available, you will receive a written confirmation**

Yes, I am interested in playing and contributing to this great cause! Enclosed is \$500.00 per playing spot.

I cannot play but I would like to make a donation to this worthy cause. Enclosed is my donation for _____.

Name(s) _____ HDCP/INDEX _____

Address _____

Phone # _____ Fax # _____ E-mail _____

Please pair me with _____

CHECKS PAYABLE TO: The ALS Association. Tax exempt status section 501C (3), Federal ID 13-3271855.

Credit Card # _____ Exp. Date _____ MC _____ VISA _____ AMEX _____

Please mail with payment to: Steve Gibson, ALS Association National Capitol Office, 601 Pennsylvania Ave., NW, Suite 900 South, Washington, D.C. 20004 or fax to: 202/638-6316.



has to offer. Meadows Del Mar features a course designed by award-winner Tom Fazio with over 60 bunkers, rugged ravines, lakes and dramatic views and a Frank Lloyd Wright-inspired clubhouse

We promise you a terrific day and will have you back to your hotel in time for the opening night party. Join Tournament Honorary Chair Steve Beuerlein, Pro Bowl quarterback for the NFL's Carolina Panthers, and a strong advocate for ALS awareness. The tournament is sure to be a sell-out, so it is important to register early. Please see the information below if you are interested in becoming a sponsor for this very worthwhile cause.

We look forward to seeing you on the 24th!

**WE HAVE A LIMITED NUMBER OF PLAYING SPOTS
AVAILABLE ON A FIRST PAY, FIRST RESERVED BASIS!**

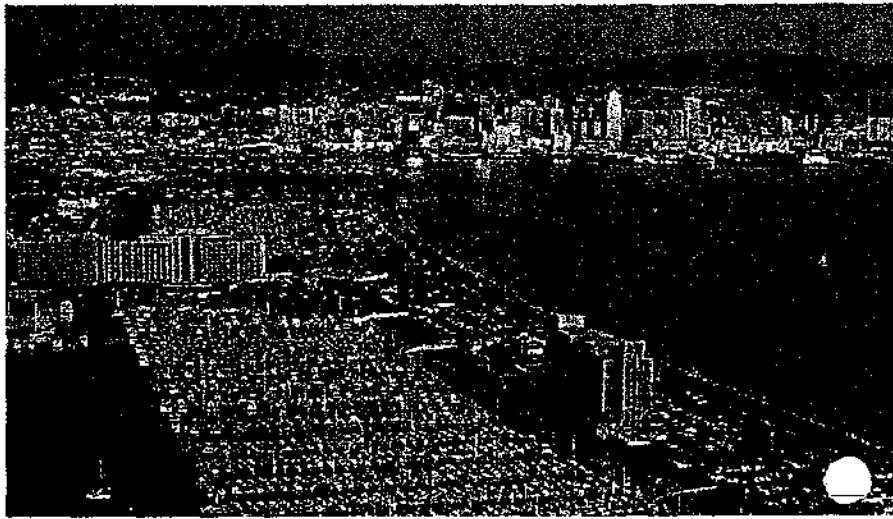
Special Area Tours & Events



BIOCalifornia Coastline & Tidepools
Enjoy a guided tour of the Scripps Campus or the La Jolla Coastline by a Scripps naturalist. This tour also includes admission to the Stephen Birch Aquarium and Museum.

Viva Italia – A Day in Little Italy
Experience the history, culture and culinary traditions of San Diego's original Italian community, discover the beauty of Little Italy's inspirational Catholic Church, and see how Italian bread is still made at Solunto, Little Italy's landmark bakery. Revisit prohibition, the rise and fall of San Diego's tuna fishing fleet and visit a turn of the century home which now serves as Little Italy's community center/museum.

Knott's Soak City U.S.A.
There's a whole new city in San Diego! Knott's Soak City U.S.A. is San Diego's newest and wildest water adventure park. Enjoy thirty-two water-logged acres packed with the most intense water rides imaginable.



Old Town . . . Where San Diego Began
Old Town State Historic Park, where San Diego began, recreates the setting of California life of the Spanish and early American periods. Its historic buildings, shops and restaurants illustrate the vast changes that have taken place in this city since it was first settled in 1769.

Jewels by the Sea
Known to many as "The Jewel by the Sea", La Jolla boasts rocky cliffs, sandy coves, palm trees and brilliant flowers. Visit the Birch Aquarium at Scripps – this beautiful facility presents undersea creatures in realistic habitats. Next, time for shopping in "the village" in the special boutiques, galleries and designer studios.

San Diego by Land & Sea
Come see it all! Visit several highlights of San Diego, California's second largest city. Take in the sites from the San Diego Bay, go back in time in historic Old Town and see the beauty of 1,400-acres of pueblo lots in Balboa Park.

A Day at the Fair
Enjoy a day at the Del Mar Fair. Here you will be able to enjoy our theme "California Dreamin'". Guests will be able to

enjoy the many new exhibits and attractions along with some dynamic Grandstand line-ups.

The Spotlight's on Film-Making at Universal Studios – Hollywood, CA
You can take a spin in the time-traveling DeLorean in Back to The Future—The Ride, and run through the fire-laden adventure of Backdraft. Universal's newest attraction is Jurassic Park—The Ride, the most technically sophisticated attraction ever created, where visitors are terrorized by a five-story Tyrannosaurus rex.



Special Area Tours & Events



as they raft through a lush six-acre preserve where scientists are busy cloning the ancient creatures.

Disneyland: The Magic Kingdom – Anaheim, CA

Known as "the happiest place on earth," Disneyland is home to such traditional characters as Mickey and Minnie Mouse, as well as mega-stars like from Aladdin and *The Beast*. Spend the day meeting these endearing characters, and experiencing a variety of animated rides, nonstop attractions, and exhibits that appeal to visitors of all ages!

Animal Adventures at the San Diego Zoo/ "Nose to Nose" at the Wild Animal Park

With more than 4,000 rare and endangered birds, mammals and reptiles, plus over 6,000 exotic plants, the San Diego Zoo is known worldwide. "Must-see" attractions include Gorilla Tropics, Hippo Beach, Polar Bear Plunge, Ituri Forest, the koalas and the children's petting zoo. For the more adventuresome, the San Diego Wild Animal Park gives you a chance to walk, talk and gawk with the animals amidst a dramatic 1,800-acre animal and plant reserve.

Fiesta Fun in "TJ"/Tijuana Border Bargains

Tijuana offers the excitement of travel to a foreign country—conveniently located is just across the international border from San Diego. The lure to Mexico is unique . . . the contrasting colors of the markets; the smell of freshly baked tortillas; and bargaining for handicrafts and Mexican souvenirs still interest the sightseer.

The Grape Escape

Temecula, one of America's most beautiful wine countries, has a unique microclimate created by the cool breezes of the Pacific Ocean. The vine-growing environment is comparable to the coastal wine-producing regions of the well-known Central and Northern California. The gentle rolling hills, boulder-strewn mountains, acres of citrus and avocado orchards, and incredible flower fields add to the region's charm.

Balboa Park Experience

Scenic Balboa Park is America's largest municipal park. Nestled above the downtown area and housing museums from two major world expositions, Balboa Park has given San Diego the largest collection of museums outside



our nation's capital. In addition to the fine museums, renowned theaters, Spanish architecture, sculptured fountains, street jugglers, mimes and musicians, there are splendid gardens and excellent restaurants to delight your senses.

Play Well at LEGOLAND California

This 128-acre park is designed for children ages 2–12 and their families as a place to seek education, adventure, and fun. There are family rides, shows, interactive attractions, shopping, dining, and, of course, the unique LEGO models — it took 30 million LEGO bricks to build the amazing animals and architectural structures!



BIO 2001 Special Area Tours & Events Form

Activity	Cost	No. Tickets	Amount
Saturday, June 23, 2001 San Diego by Land & Sea 12:00 PM-6:00 PM	\$33.00 per child (4-12) \$36.00 per adult	_____	_____
A Day at the Fair 3:30 PM-10:00 PM	\$43.00 per child (3-12) \$50.00 per adult	_____	_____
Fiesta Fun in "TJ" 5:30 PM-11:00 PM	\$82.00 per person	_____	_____
Sunday, June 24, 2001 San Diego By Land & Sea 8:30 AM-3:30 PM	\$33.00 per child (4-12) \$36.00 per adult	_____	_____
Balboa Park Experience 10:00 AM-2:30 PM	\$59.00 per person	_____	_____
Play Well at Legoland California 10:00 AM-3:00 PM	\$63.00 per child (3-16) \$73.00 per adult	_____	_____
Monday, June 25, 2001 The Grape Escape 8:30 AM-3:30 PM	\$93.00 per person	_____	_____
Old Town...Where San Diego Began 10:00 AM-2:30 PM	\$31.00 per person	_____	_____
Jewels By The Sea 10:30 AM-3:00 PM	\$29.00 per child (3-17) \$34.00 per adult	_____	_____
Animal Adventures at the San Diego Zoo 12:30 PM-5:00 PM	\$43.00 per child (3-11) \$58.00 per adult	_____	_____
Tuesday, June 26, 2001 California Coastline & Tidepools 9:30 AM-12:30 PM	\$40.00 per person	_____	_____
Tijuana Border Bargains 10:00 AM-3:30 PM	\$50.00 per person	_____	_____
A Day at the Fair 10:00 AM-4:30 PM	\$43.00 per child (3-12) \$50.00 per adult	_____	_____
"Nose to Nose" at the Wild Animal Park 10:30 AM-4:30 PM	\$47.00 per child (3-11) \$55.00 per adult	_____	_____
Wednesday, June 27, 2001 Viva Italia—A Day in Little Italy 10:00 AM-1:30 PM	\$39.00 per person	_____	_____
Knott's Soak City U.S.A. 10:00 AM-3:00 PM	\$42.00 per child (3-11) \$52.00 per adult	_____	_____
Play Well at LEGOLAND California 10:00 AM-3:00 PM	\$63.00 per child (3-16) \$73.00 per adult	_____	_____
Animal Adventures at the San Diego Zoo 12:30 PM-5:00 PM	\$43.00 per child (3-11) \$58.00 per adult	_____	_____
Thursday, June 28, 2001 Disneyland: The Magic Kingdom 8:00 AM-8:00 PM	\$88.00 per child (3-9) \$102.00 per adult	_____	_____
Friday, June 29, 2001 The Spotlight's on Film-Making at Universal Studios 8:00 AM-8:00 PM	\$91.00 per child (3-9) \$106.00 per adult	_____	_____

WAIVER

Enclosed is a check (or credit card information) in the amount of \$_____ as full payment for the Tour and Special Events Program. I understand that this is non-refundable after Friday, June 8, 2001, unless the minimum number of participants required to operate the tour is not met. Tours may be canceled, and refunds will be made by PRA Destination Management. In the event participants cancel with or without cause prior to the cancellation date, all payments shall be returned less a 10% administrative charge. Neither PRA Destination Management, nor Biotechnology Industry Organization is responsible for lost or damaged articles, traffic delays, accidents, strikes, riots, war, governmental action or regulation, acts of God, or other causes over which the parties have no control. In the event any or all of the Tours are canceled because of reasons beyond the parties' control, neither party shall incur any liability or obligation, and PRA Destination Management shall refund all deposits to participants. PRA Destination Management reserves the right to make comparable substitutions if circumstances beyond their control necessitate a change in any element of the program as stated.

I further represent that I (and/or my children) am (are) in proper physical condition to participate in all requested activities and waive all claims for myself, my heirs, and as against PRA Destination Management, Biotechnology Industry Organization, and all event sponsors and their representatives, successors, and assigns for any injury or illness which may result from my (or my children's) participation.

Signature of participant: _____ Date: _____

BIOTECHNOLOGY INDUSTRY
ORGANIZATION
SAN DIEGO, CALIFORNIA,
JUNE 23- 29, 2001

NAME: _____

ADDRESS: _____

CITY: _____

STATE: _____ ZIP CODE: _____

TELEPHONE _____

OFFICE: _____

HOME: _____

FAX: _____

Fill in the blanks that correspond with the to and special events of your choice. Indicate the number of tickets required for each event

RETURN THIS FORM AND A CHECK
(U.S. Funds only) to PRA Destination Management, by Friday, June 8, 2001. No refunds will be given for tickets after Friday, June 8, 2001. Tickets for tours that have not been sold during pre-registration will be sold site at the Tour Desk at the San Diego Convention Center. Make Checks Payable to

PRA Destination Management
2456 Broadway
San Diego, California 92102-2059

Forms can be FAXED with Credit Card Information to (619) 232-5869.

Credit Card Charge:
Visa MasterCard American Express

Credit Card Number: _____

Expiration Date: _____

Authorized Signature: _____

NOTE: All Tours and events depart from and return to the San Diego Convention Center unless otherwise noted.



2 International
0 Biotechnology
0 Convention &
1 Exhibition
June 24 - 27, 2001
San Diego
Convention Center

Hotel Accommodation

BIO 2001 • San Diego, CA • June 24-27, 2001

HOTEL RESERVATIONS FORM

A meeting registration is required to confirm a hotel room.

Hotel Information

arrival date: _____

departure date: _____

hotel selection: (List three choices in order of preference.)

1. _____
2. _____
3. _____

Reservation will be processed on a first-come, first-served basis. If all three requested hotels are unavailable, please process this reservation according to:

Comparable room rate.
 Proximity to conference site.

room type:

Single (1 person, 1 bed)
 Double (2 people, 1 bed)
 Twin (2 people, 2 beds)
 Suite (call BIO Housing Bureau)

list all occupants in room:

(Include yourself)

1. _____
2. _____
3. _____
4. _____

special needs: _____

Smoking Non-Smoking

Deposit Information

ALL HOTELS REQUIRE A GUARANTEE WITH EACH RESERVATION REQUEST.

Housing forms received without a valid credit card or check deposit will be returned and will not be processed.

(No cash deposits accepted.)

Credit Card

Please be advised that the credit card must be valid through the dates of the convention or your reservation will not be processed. Credit cards will be charged 30 days prior to the arrival date

Type of card:

American Express
 MasterCard
 Visa
 Other _____

Account Number:

Expiration Date: _____

Check

A deposit of one night's rate for your first choice hotel including tax, is required to reserve a room. Please mail check with first night deposit along with an attached housing form. Make checks payable to:

PGI Housing
2275-A Renaissance Drive
Las Vegas, NV 89119

Send confirmation to:

(Fill this portion completely)

Name: _____ last _____ first _____ m.i. _____

Company: _____

Address: _____

City: _____ State: _____ Postal Code: _____

Country: _____

E-mail: _____

Fax: _____ Phone: _____

If outside the United States, provide country and city codes along with the telephone numbers.
DO NOT SEND THIS FORM TO BIO. SEND IT TO THE BIO 2001 HOUSING BUREAU

****PLEASE USE ONE FORM PER ROOM. MAKE COPIES AS NEEDED****

Instructions

Reservations will be accepted until May 18, 2001, by choosing one of the following methods.

internet Book your reservation online using the interactive site at: www.bio.org

telephone Call the BIO Housing Bureau, 9:00 a.m.-midnight EST, Monday-Saturday, 9:30 a.m. to 9:00 p.m. EST, Sunday & Holidays at: (800) 810-3725 (US/Canada), (702) 798-6380 (international)

fax Send a complete housing form, one copy per room to (800) 667-6584 (US/Canada), (702) 795-8767 (international)

Inquiries Only: hol@pgi.com

Acknowledgements

Housing acknowledgements will be sent after each reservation booking, modification and/or cancellation. Review it carefully for accuracy. If you do not receive a confirmation via e-mail or fax or mail within 14 days after any transaction, please contact the Housing Bureau at (800) 810-3725 (US/Canada), (702) 798-6380 (international).

Room Rates/Taxes

To take advantage of the special BIO convention rates, be sure to book your reservation by May 18, 2001. After this date the official BIO blocks will be released and the hotels may charge significantly higher rates. All rates are per room per night and are subject to a 10.5 percent tax (subject to change). Hotels may charge additional fees for rooms with more than two occupants. When making a reservation, please provide room and bedding preferences in the Special Needs section of the Hotel Reservations Form. The hotels will assign specific room types upon check in, based upon availability. Please be advised that requests are not guaranteed.

Guarantees

All hotels require a guarantee with each reservation request. Requests received without a guarantee will be returned and will not be processed. Please fill out the credit card information entirely or mail a check made payable to PGI Housing. Credit cards must be valid through June 2001 to be considered a proper deposit. Checks must be received before May 4, 2001.

Modification/ Cancellation

Continue to make, modify and/or cancel reservations through May 18, 2001, via the BIO Housing Bureau. Each hotel has its own cancellation policy. Please refer to your acknowledgement for your specific hotel cancellation policy. Any cancellations after the deadline in the cancellation policy noted will be charged one night's room and tax.

Hotel Accommodations

MAKE YOUR RESERVATIONS EARLY, CUT-OFF DATE IS MAY 18, 2001

1. SAN DIEGO MARRIOTT HOTEL & MARINA

Single (Bayview): \$237 Double (Bayview): \$237

Single (Cityview): \$214 Double (Cityview): \$214

The San Diego Marriott Hotel & Marina is an extraordinary meeting place, where business is pleasure and the sights of Southern California surround you. Our 1,354 guest rooms are located in two towers, each 25 stories high. Tastefully appointed accommodations are designed for comfort and feature spectacular views of the marina. (BIO 2001 Headquarters Hotel)

2. HYATT REGENCY SAN DIEGO

Single: \$191 Double: \$211

You will enjoy spectacular bay-view accommodation, elegant dining and all the amenities of a first-class hotel and resort. The hotel is located next to the Convention Center, Seaport Village, and the historic Gaslight Quarter with easy access to the San Diego Zoo, Sea World, golf, tennis and beaches, 3 miles to San Diego International Airport, trolley to Mexico stops directly across the street. The Hyatt offers full-service spa and salon, complete with health and fitness center, tennis courts, swimming pool and whirlpool, sauna and massage facilities.

3. BEST WESTERN BAYSIDE INN

Single: \$129 Double: \$139

Ideally located by the bay in beautiful downtown San Diego. Walking distance to the Convention Center and many other downtown attractions. Amenities include rooms with private balconies, complimentary parking, free airport shuttle; we are a full-service hotel.

4. THE BRISTOL HOTEL

Single: \$149 Double: \$159

The Bristol Hotel is San Diego's only boutique hotel located downtown. At the Bristol, we offer newly renovated rooms decorated in a contemporary theme with the latest modern features and amenities that discerning clients expect.

5. CLARIION BAY VIEW

Single: \$128 Double: \$144

As a full-service high-rise hotel, we offer 312 tastefully appointed guest rooms and spacious suites. We are located in the historic Gaslamp Quarter and only two blocks from the San Diego Convention Center.

6. COURTYARD MARRIOTT

Single: \$169 Double: \$169

Housed in a 1920s bank building, this 246-room hotel has been designed to capture the drama and exquisite detail of the building's elegant architecture.

7. EMBASSY SUITES SAN DIEGO

Single: \$179 Double: \$194

Two miles from the airport, Embassy Suites San Diego Bay is conveniently located downtown near the waterfront; three blocks to the Convention Center and Gaslamp District. Across the street are the many shops and restaurants of Seaport Village. Guests enjoy a spacious two-room suite; complimentary, full cooked-to-order breakfast; and manager's reception with your favorite beverages. Courtesy airport shuttle.

8. HILTON SAN DIEGO

Single: \$199 Double: \$199

Containing 252 luxurious rooms, the Hilton San Diego is located directly across the street from San Diego's Waterfront Convention Center. All guest rooms provide the demanding business traveler with every amenity needed to keep in touch while on the road, such as high-speed Internet access, a large work desk, two-line phone with dataport and a complimentary full-service business center and fitness center available 24 hours a day.

9. HOLIDAY INN ON THE BAY

Single: \$154 Double: \$164

Located directly along the waterfront, the Holiday Inn on the Bay features 600 guest rooms with panoramic views of San Diego Bay or our beautiful downtown skyline. Gaslamp Quarter, Seaport Village and Little Italy are a few of the attractions that surround our ideal location.

10. HORTON GRAND HOTEL

Single: \$152 Double: \$152

The Horton Grand is an unparalleled, architecturally distinctive, full-service hotel that blends Old World charm with the best of today's amenities. Located in the historic Gaslamp District and only two blocks from the Convention Center, we offer guest rooms that are each individually appointed, complete with gas fireplaces, ceiling fans, personal climate controls, hand-carved armoires and period furniture.

11. TOWN & COUNTRY RESORT

Single: \$146 Double: \$166

The Town & Country Resort is located 10 minutes from downtown San Diego in Mission Valley. The property is situated on 32 acres with four swimming pools, five restaurants, four lounges and a full-service spa. We are walking distance to the Fashion Valley Shopping Center. Complimentary trolley service from resort to San Diego Convention Center will be provided to all BIO 2001 hotel guests. (Recommended for families).

12. U.S. GRANT HOTEL

Single: \$155 Double: \$175

Located in the heart of downtown, the U.S. Grant is the ultimate in convenience. With the San Diego Convention Center within walking distance, by day, the worlds of government, finance, business and retail are at hand. By night, Horton Plaza shopping mall and the Gaslamp Quarter, an elegant neighborhood of restaurants, galleries and nightclubs, are right across the street.

13. THE WESTGATE HOTEL

Single: \$150 Double: \$160

The Westgate Hotel is San Diego's only Leading Hotel of the World! European elegance, spacious rooms, five-star restaurant. Located in downtown San Diego across from Horton Plaza and the Gaslamp District. Five minutes to airport on our complimentary shuttle. Near major attractions.

14. THE WESTIN HORTON PLAZA

Single: \$205 Double: \$225

The Westin Horton Plaza, featuring 450 rooms and 30,000 square feet of meeting space, is located in the heart of downtown San Diego, with easy access to numerous shops and restaurants as well as local attractions.

15. THE WYNDHAM SAN DIEGO AT EMERALD PLAZA

Single: \$169 Double: \$169

AAA Four Diamond Award-winning hotel ideally located within walking distance to the dining and entertainment of the historic Gaslamp Quarter, featuring rooms with panoramic bay views, high-speed Internet access and marble baths.

16. San Diego Marriott-Suites Just Added!

Single: \$195 Double Suite: \$205

Conveniently located atop the historic Copley Symphony Hall in the heart of downtown San Diego. Minutes away from the San Diego Convention Center and San Diego's airport. Walking distance to Horton Plaza and the Gaslamp Quarter, downtown's major shopping and night-life areas. Our newly renovated all-suite hotel features suites that include separate living room and bedroom areas, each including full standard amenities.

17. Hampton Inn - San Diego Downtown Just Added!

Single: \$159 Double: \$159

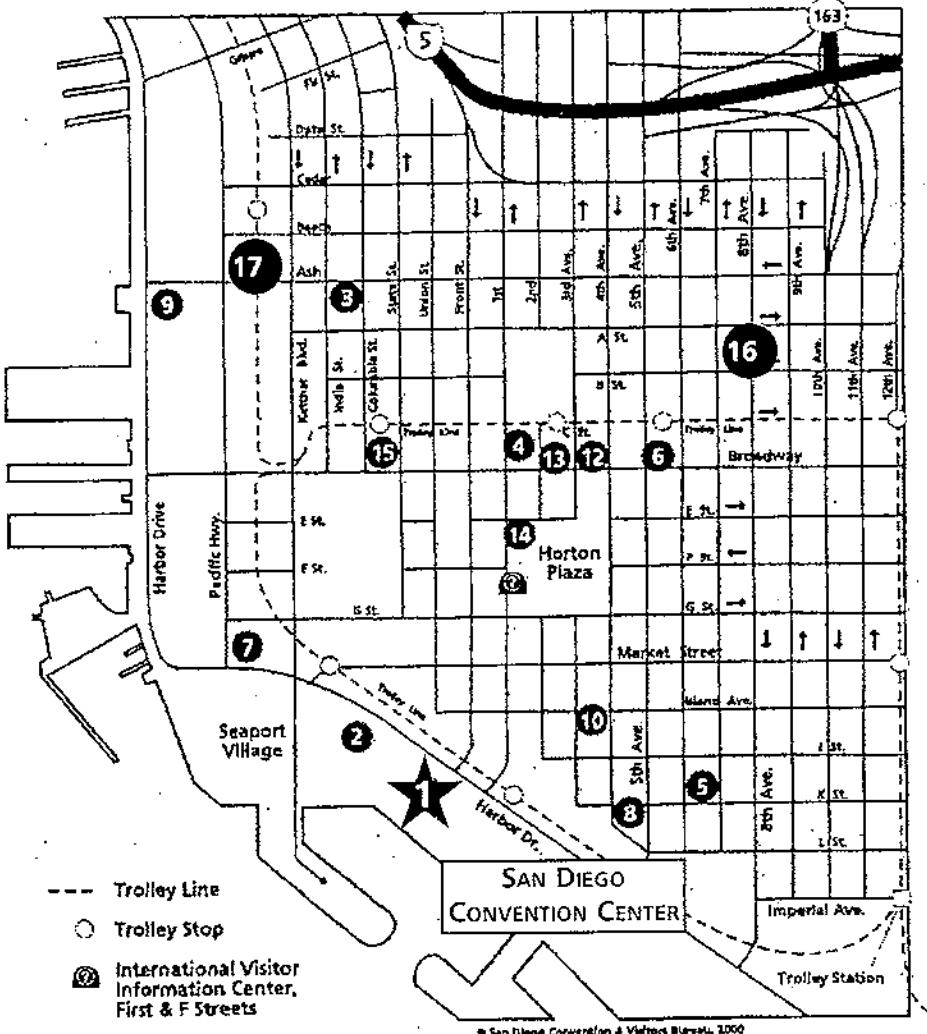
San Diego's Newest Hotel! This art deco jewel set in a vibrant urban neighborhood was created for travelers seeking stylish accommodations, exceptional service, generous amenities, a convenient location and, above all, value. From here, a free shuttle takes you to and from the airport in minutes. Just around the corner, you can hop a trolley to Old Town, Seaport Village, Gaslamp Quarter, the Convention Center, Mission Valley of downtown San Diego. A two-block stroll puts you in the heart of Little Italy of the Embarcadero along San Diego Bay.

All rooms are subject to a 10.5% room tax.

NOTE: Continuous shuttle bus service will be available during show hours between official conference hotels and The San Diego Convention Center.

OFFICIAL CONVENTION HOTELS

1. SAN DIEGO MARRIOTT HOTEL & MARINA (BIO 2001 HEADQUARTERS HOTEL)
2. HYATT REGENCY SAN DIEGO
3. BEST WESTERN BAYSIDE INN
4. THE BRISTOL HOTEL
5. CLARIION BAY VIEW
6. COURTYARD MARRIOTT
7. EMBASSY SUITES SAN DIEGO
8. HILTON SAN DIEGO
9. HOLIDAY INN ON THE BAY
10. HORTON GRAND HOTEL
11. TOWN & COUNTRY RESORT
12. U.S. GRANT HOTEL
13. THE WESTGATE HOTEL
14. THE WESTIN HORTON PLAZA
15. THE WYNDHAM SAN DIEGO AT EMERALD PLAZA
16. SAN DIEGO MARRIOT SUITES
17. HAMPTON INN - SAN DIEGO DOWNTOWN



Travel Partners

If you normally use the services of a travel agent or corporate travel department, please have them place the call to the 800 numbers so that they may obtain the discounts for you.

United Airlines

UNITED AIRLINES Special fares to BIO 2001 are available to registrants on United Airlines for roundtrip travel to San Diego. Mileage Plus members will receive full credit for all miles flown to the meeting. Book early to take advantage of promotional fares that will give you the greatest discount.

Domestic Travel

Domestic Travel
United offers a 5% discount on non-refundable tickets and a 10% discount on refundable tickets. If tickets are purchased at least 61 days prior to travel an additional 5% discount is available. United also offers special "zone fares" with no Saturday night stay required, provided all rules and regulations are met.

Reservations for these discounted tickets may be made directly through your own travel agent, through S & T Travel (301/260-9100), or United by calling their Special Meeting

Desk at (800) 521-4041 from 7:00 A.M. to 12 Midnight.
Eastern Time, seven days a week.

The United reservation agent must have the special BIO 2001 Convention ID number, 553TW, to access these special fares.

International Travel

Discounts are also available for international travel. Please fax your itinerary to S & T Travel at 301/260-9033 or e-mail to sandttrvl@erols.com.

Car Rental

AVIS. Call the Avis Meeting Reservations and Information Desk at (800) 331-1600 for information on their special BIO 2001 International Convention meeting rates. Rates are also available one week before and one week following the meeting. Rates are not available without advance reservations (three week advance booking suggested).

The AVIS reservation agent must have the special BIO 2001 Meeting ID number, K261662, to access the special discounted rates.

Registration Information

Please read this information and the registration form carefully to avoid errors that may result in delays in processing your registration. You can register by fax, mail or over the Internet. However, registrations by phone, e-mail, bank transfers or purchase order are not acceptable. *Please print or type one form per registrant; photocopy the form if needed.*

For specific questions concerning registration, please contact Customer Service at: bio01reg@expoexchange.com, or call 301/694-5243.

Discounted Advance Registration – Ends May 21, 2001

All registrants must complete the advance registration form and include full payment with their registration form. Speakers, exhibit booth personnel, and sponsor registrants, please see below.

Make checks payable to "BIO 2001 Registration." Advance registration fees apply to all complete registrations received with full payment on or before May 21, 2001. *Forms received without full payment will not be processed.*

Late and On-Site Registration

Registrations received after 5:00 P.M. (Eastern Time) May 21, 2001 will be charged the higher late/on-site fee. *Deadline for receipt of late registrations is Monday, June 4, 2001;* confirmations will be sent for registrations received by that date.

Registrations received after June 4, 2001 cannot be processed in time to send confirmation before BIO 2001. Registration (at the higher fee) will be available on-site. On-site registration begins June 23, 2001 at the San Diego Convention Center, San Diego, California.

After May 21, 2001, registration fees are non-refundable. Please note that all luncheons, receptions, and general sessions, included in the registration fee, are on a space-available basis.

Spouse/Guest Registration

A full meeting registrant may register their spouse/guest for receptions for \$100 U.S. (per event) on-site beginning June 23, 2001. Note that this fee does not include admission to any sessions or luncheons.

International Group Delegation Registrations

For information on international group delegation discounts, please contact the BIO Meetings Department at register@bio.org or call +202/857-2506.

Speaker/Chair Registration

All speakers/chairs must register for the convention. They will not automatically be registered to attend BIO 2001. This must be handled on an individual basis. The fee to attend BIO 2001 will be waived for only the day of a chairs/speakers presentation. BIO will provide each presentation contact person with registration forms and instructions.

Sponsor/Exhibitor Registration

Sponsors

Complimentary sponsorship registration forms will be sent only to the primary contact of the sponsoring company.

Exhibitor Booth Personnel

Exhibiting BIO members will receive one complimentary full meeting registration and up to six exhibit booth personnel registrations for each 10' x 10' exhibit booth. Non-BIO members will receive up to six exhibitor booth personnel passes. BIO will provide the primary exhibit contact person with forms and instructions.

Exhibit Hall Only Registration

Exhibit Hall only registration may be purchased on-site for \$100. This is a one-time fee for all three days of the Exhibit

Hall. Exhibit Hall only registrants have access to the Exhibit Hall during regular show hours and during the Exhibit Hall reception on Tuesday night, June 26.

Daily Registration

Daily registration will be available on-site beginning June 23, 2001, at the following rates: BIO Members \$700, Non-Member \$950, Government/Academic/CBC \$675. Daily registration includes access to plenary and general sessions, exhibit hall entrance, luncheon (space available) and reception for the registered day.

Registration Confirmation

Registrations received by 5:00 p.m. (Eastern Time) June 4, 2001, will be acknowledged by fax within five business days of receiving and processing the registration form and full payment. Registrants should provide a current fax number on their registration form to ensure confirmation receipt.

Contact the registration center by fax 301/694-5124 or email: bio01reg@expoexchange.com if you do not receive your confirmation or if the registration information is incorrect. After June 4, 2001 you must register at the higher on-site fee.

Registration Packets

Registration packets will be mailed in early June 2001 to all paid, confirmed attendees who have pre-registered by May 21, 2001. Registrants should bring their registration packet to the registration check-in area to receive the appropriate credentials and meeting bag. *Proper photo identification must be presented at registration check-in.*

Cancellations and Substitutions

Cancellations

Cancellations must be received in writing and faxed to 301/694-5243 on or before 5:00 p.m. (Eastern Time) May 21, 2001, to qualify for a refund. A \$150 administrative fee will be deducted for all cancellations received. Please allow two weeks for processing.

After May 21, 2001, there will be no refunds for cancellations, "no-shows," or any other registration fee received.

Substitutions

Substitutions are accepted and must be done on-site at the BIO registration desk beginning June 23, 2001. Substitutes must bring the complete registration packet for the registrant he/she is replacing. If the registration packet is not presented on-site, the substitute will be charged and expected to pay the registration fee. Registrants cannot share a registration.

How to Register

 On-line (credit card only) complete the registration form at www.bio.org

 Fax (credit card only) completed registration form with full payment to 301/694-5124.

 Mail (check, credit card, or money orders only) completed registration form with full payment to BIO 2001, P.O. Box 79532, Baltimore, MD 21272-0532.

For general questions about the convention, please contact the BIO Meetings Department at bio2001@bio.org or call 202/857-2506.

Hotel Reservations

Make your reservations early. The cut-off for delegate housing is Friday, May 18, 2001, after which rooms will be assigned on a space and rate available basis. Please see page 23 for Hotel Reservation form.

PLEASE NOTE: A MEETING REGISTRATION IS REQUIRED TO CONFIRM A HOTEL ROOM.

SAVE! REGISTER BEFORE MAY 21, 2001



2 International
0 Biotechnology
0 Convention &
1 Exhibition

June 24 - 27, 2001

San Diego
Convention Center

ALL REGISTRANTS should use this form—**EXCEPT** exhibit booth personnel, speakers and complimentary registrants.

EARLY REGISTRATION DEADLINE MAY 21, 2001

THREE WAYS TO REGISTER:

- Online, complete the registration form at www.bio.org
- Fax completed registration form with full payment to (301) 694-5124
- Mail completed registration form with full payment to:
BIO 2001, P.O. Box 79532, Baltimore, MD 21279-0532

1. Ms. Mrs. Mr. Dr. M.D. Ph.D. (Print clearly or type)

First name _____ Last Name _____

Title _____

Company _____

Address _____

City _____ State/Province _____ ZIP/Postal Code _____ Country _____

E-mail _____

Telephone _____

International numbers require city and country codes

**Fax

*** Fax number required to receive confirmation.*

2. REGISTRATION TYPE

Are you a BIO member? Yes No

FULL REGISTRATION

	BEFORE OR ON MAY 21, 2001	AFTER MAY 21, 2001 & ON-SITE
<input type="checkbox"/> (FM) BIO Member	\$ 995 U.S.	\$1,200 U.S.
<input type="checkbox"/> (FN) Non-Member	\$1,495 U.S.	\$1,700 U.S.
<input type="checkbox"/> (FG) Government/Academic/CBC	\$ 795 U.S.	\$ 900 U.S.
	Total \$ _____ U.S.	Total \$ _____ U.S.

(Includes all luncheons and receptions, sessions and exhibit hall entrance on a space-availability basis)

Please indicate which events you will attend:

<input type="checkbox"/> (SR) Sunday Welcoming Reception	<input type="checkbox"/> (MR) Monday Hospitality Suites
<input type="checkbox"/> (ML) Monday Lunch	<input type="checkbox"/> (TR) Tuesday Chairman's Cup Reception
<input type="checkbox"/> (TL) Tuesday Lunch	<input type="checkbox"/> (WR) Wednesday Closing Reception
<input type="checkbox"/> (WL) Wednesday Lunch	

DAILY REGISTRATION—ON SITE ONLY

Daily registration is only available on-site. It includes sessions, exhibit hall entrance, luncheon (space available) and reception for the registered day. See page 26 for further information.

Registration Inquiries Only: (301) 694-5243 or Email: bio01reg@expoexchange.com

For information on International group discounts contact register@bio.org or call + (202) 857-2506.

Registration is required to confirm a hotel room.

Indicate Primary Business Category: (Check one)

- 01 Accounting
- 02 Agriculture
- 03 Aquaculture/Marine
- 04 Biotechnology
- 05 Chemicals
- 06 Communications/Publications
- 07 Consultants
- 08 Cont. Manufact.
- 09 Cont. Res. Org.
- 10 Cosmetics
- 11 Devices
- 12 Diagnostics
- 13 Environ.
- 14 Enzymes
- 15 Exec. Search Firm
- 16 Finance
- 17 Food Prod.
- 18 Genomics
- 19 Industrial
- 20 Info. Tech.
- 21 Legal/Law Firms
- 22 Pharmaceutical
- 23 Platform/Tools
- 24 Supp./Dist./Ser. Pro.
- 25 Therapeutics
- 26 Vaccines
- 27 Other

Cancellation Policy—Cancellations must be received in writing. Fax to (301) 694-5124 by May, 21, 2001, to qualify for a refund. A \$150 administrative fee will be deducted for all cancellations received. Substitutions must be made on-site at check-in. No-show registrations are non-refundable. Please allow 2 weeks for processing of refunds.

3. PAYMENT INFORMATION

Registration forms WILL NOT be processed without FULL PAYMENT of registration fee.

Check, drawn on a US bank payable to: BIO 2001 Registration. Make certain registration form is attached.

Credit Card, to be charged as soon as registration is processed. Amex MasterCard VISA

Card # _____ Exp. Date: _____

Print Card Holder's Name: _____

Signature: _____

Special Services: Attendees requiring special assistance, please contact BIO's meetings department at (202) 857-2506 or register@bio.org

BIO 2001 Committee Leadership

Steering Committee

David W. Anstice
President, Human Health-The Americas, Merck & Co., Inc.

Howard Asher
Founder and Director, BioQ, Inc.

Wolf-Dieter Busse
Senior Vice President, Biotechnology, Bayer Corporation

Gregg K. Carpenter
Managing Director, Head of Office, Marsh USA

Joan Dean
Regional Director, California Trade & Commerce Agency

Bradford J. Duft
Partner, Brobeck, Phleger & Harrison LLP

Steven B. Engle
President and CEO, La Jolla Pharmaceutical Company

Steven Fisch
Vice President, CS First Boston

Jack Lief
President and CEO, Arena Pharmaceuticals, Inc.

Joseph Panetta
President and CEO, BIOCOM/san diego

Leslie Platt
Principal, Ernst & Young LLP

William H. Rastetter
President and CEO, IDEC Pharmaceutical Corporation

Norbert G. Riedel
President, Recombinant SBU, Baxter Healthcare Corporation

David E. Robinson
Chairman, President and CEO, Ligand Pharmaceuticals, Inc.

Duane Roth
Chairman and CEO, Alliance Pharmaceuticals Corp.

Kevin W. Sharer
CEO, Amgen

Frederick W. Telling
Vice President of Corporate Strategic Planning and Policy, Pfizer Inc.

Lyle Turner
President and CEO, Invitrogen Corporation

Julie Wright
President and CEO, San Diego Regional Economic Development Corporation

Executive Committee

Jennifer Andrews
BIO 2001 Liaison

Abigail Barrow
UCSD/Connect

Don Bitner
Amgen Inc.

Barbra Blake
Center for Molecular Genetics

Greg Chambers
Amgen Inc.

A. Stephen Dahms
California State University

Karin Eastham
Diversa Corporation

Steven Engle
La Jolla Pharmaceutical Company

David Geerdes
Heller Ehrman White & McAuliffe LLP

Terese Ghio
Ligand Pharmaceuticals, Inc.

Brantley Haigh
Canadian Consulate General

Guy Iannuzzi
Mentus

Debra Keel Cooper
San Diego Regional Economic Development Corporation

Stanley Kim
The Salk Institute for Biological Studies

Alan Lewis
Celgene Corp.

Steven Mento
IDUN Pharmaceuticals

Cheryl Moore
The Burnham Institute

Joseph Panetta
BIOCOM/san diego

David Robinson
Ligand Pharmaceuticals, Inc.

Duane Roth
Alliance Pharmaceuticals Corp.

Theodore Roth
Alliance Pharmaceuticals Corp.

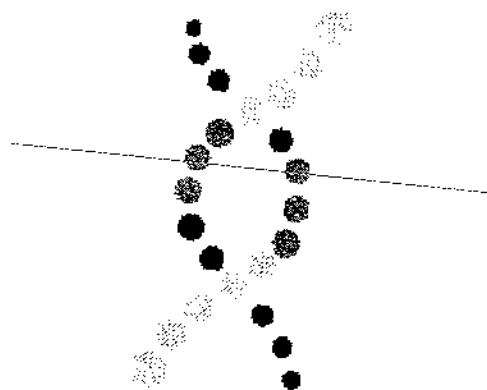
Linda Seaton
Mentus

Kathy Ward
San Diego World Trade Center

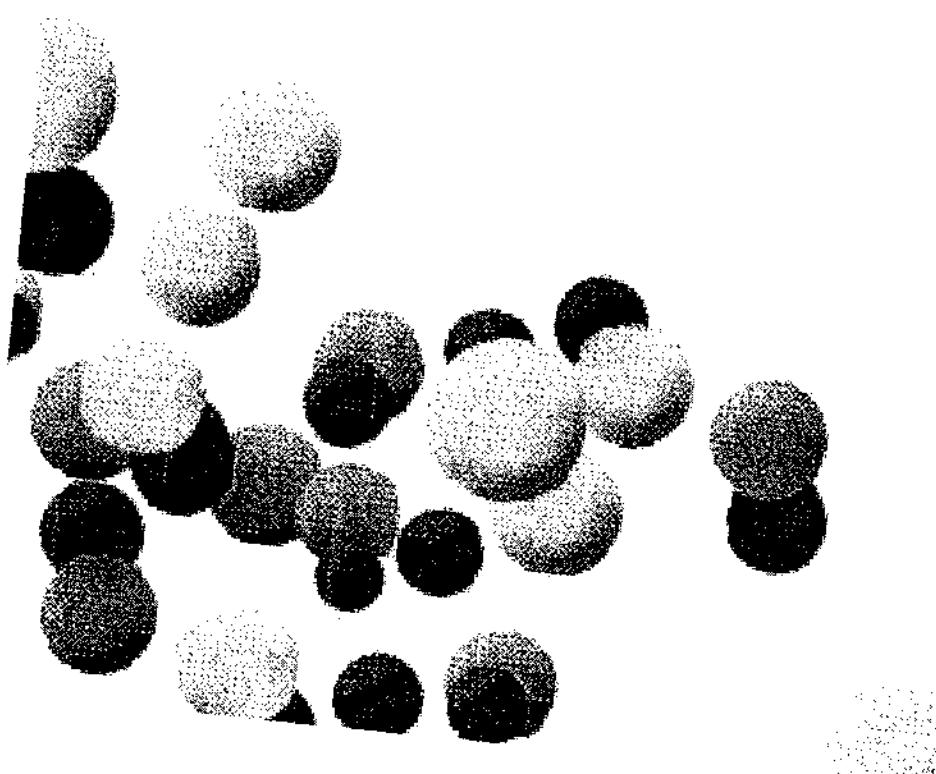
Julie Wright
San Diego Regional Economic Development Corporation

Australian Participants at
Bio 2001 San Diego, USA

June 24 - 27



Destination Australia



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Foreword

Australia is a vital player in the global biotechnology industry. As a nation we see the importance of continued research and industry development to build on our considerable achievements to date.

Our Government is committed to funding programs to foster biotechnology excellence in Australia, and that investment is reaping dividends. Our scientists are at the forefront of international research, and Australia has more biotech companies per capita than the USA. Over the 1990s, the number of Australian-invented biotechnology patents registered in the US has grown at more than twice the rate of such patents from the rest of the world.

Importantly, compared to nations across Europe, North America and Asia, Australia is one of the most cost-effective locations in the world to conduct high-quality biotech research. Skilled staff, leading edge research institutes and lower business costs make Australia highly competitive. Australian universities are producing thousands of graduates every year in relevant areas of science and technology, providing a strong supply of innovative, highly qualified scientists.

Australia's intellectual property regime is robust and complies with all the standards set by the World Trade Organisation.

In 2001, Australia is sending its largest ever delegation of more than 230 delegates to Bio 2001 with expertise in Human Health, Pharmaceutical, Agricultural and Environmental biotechnology fields. We urge you to consider Australian biotechnology, with the knowledge that our scientists and industry enjoy the full support of a government committed to the field.

The Hon Mark Vaile, MP
Minister for Trade.

Senator the Hon Nick Minchin
Minister for Industry,
Science and Resources

Alchemia's expertise and focus is the synthetic chemistry of carbohydrates and their derivatives for pharmaceutical and nutraceutical applications. Alchemia has developed a novel enabling technology that allows the efficient and cost effective preparation and manufacture of carbohydrate compounds employing purely chemical synthetic methodologies. In essence, Alchemia's technology is a suite of novel chemical reagents, or building blocks, and proprietary methodologies for their functionalization and large-scale synthesis. Employing a significant and exclusive intellectual property portfolio in the area of synthetic carbohydrate chemistry Alchemia has developed technologies that are amenable to areas including combinatorial carbohydrate chemistry for drug lead generation and optimization, the discovery and preparation of carbohydrate-based therapeutics and nutraceuticals, and, in alliance with The Dow Chemical Company, contract synthesis of oligosaccharides and derivatives.

KEY COMPETITIVE ADVANTAGES

- cost effective production of commercial-scale amounts of carbohydrate compounds for pharmaceutical and nutraceutical applications, in alliance with The Dow Chemical Company
- ability to produce combinatorial libraries using sugar scaffolds, thereby accessing previously inaccessible areas of 3-D space in producing drug leads
- novel drug delivery technology based on liposaccharide technology

EXPANDING THE BUSINESS

Alchemia is attending BIO 2001 to raise the profile of the company in the investment community in preparation for a round of venture capital raising in the U.S. and to raise the profile of Alchemia in the pharmaceutical industry in an effort to establish collaborations with companies which might benefit from our carbohydrate-based platform technologies and drug leads.

Contact

Kris Dyszynski
VP, Business Development
Alchemia Pty Ltd
3 Hi-Tech Court,
Brisbane Technology Park,
Eight Mile Plains Qld 4113
Ph: +61 7 3340 0200
Fax: +61 7 3340 0222
E-mail: kdyszynski@alchemia.net
Web: www.alchemia.com.au

AMRAD Corporation Limited is a biotechnology research and development company based in Melbourne, Australia. AMRAD's core business is to discover and develop innovative medicines to treat human diseases. Focusing on virology and cytokines (hormone-like substances), AMRAD currently has seven projects in various stages of preclinical and clinical development. Three of the seven projects are in clinical trials. AMRAD's portfolio of Research and Development (R & D) compounds have derived from both its own research programs as well as from collaborations with leading Australian medical research institutes and universities. To increase the likelihood of successful innovative pharmaceutical product development, AMRAD has focused its pharmaceutical R & D programs in therapeutic areas where there is a significant unmet medical need and substantial commercial opportunity. AMRAD's lead compounds involve treatments for neuromuscular disorders, infertility, severe chronic pain, hepatitis B infection and cardiovascular disease.

KEY COMPETITIVE ADVANTAGES

- 3 projects in Phase II trials
- extensive pipeline of new discoveries in the focus area.
- close relationships with major Australian medical research institutes
- unique platform technology in drug discover (SOCS) (background info attached)

EXPANDING THE BUSINESS

- Development partners to take Phase II products through to the market.
- Companies interested in merging complimentary technologies with SOCS.

Contact

John Grace

Chief Executive Officer

AMRAD Corporation Limited

576 Swan Street

Richmond Victoria 3121

Ph: +61 3 9208 4302

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The Australian Proteome Analysis Facility (APAF) has been established as a Major National Research Facility funded by the Australian Federal Government. APAF provides state of the art service to the research and industrial communities in the field of proteomics. Medical, pharmaceutical and agricultural biotechnology are now realising that proteomics has a potential that exceeds that of genomics.

APAF has staff with unrivalled expertise in high sensitivity, rapid throughput protein analysis, supported by the most modern equipment, enabling all aspects of proteome analysis to take place within one facility. The capability of APAF is unsurpassed worldwide. APAF conducts collaborative or contract research in conjunction with Australian and international organisations.

KEY COMPETITIVE ADVANTAGES

- Consulting with potential customers and clients to devise the optimal means by which proteomics can be applied to resolve otherwise intractable problems.
- The production of high quality, reproducible proteome maps of low abundance and/or complex organisms.
- Extracting and separating proteins that are difficult to solubilise and analyse.
- Comparison of related proteome maps to identify and analyse subtle differences in the expressed proteins.
- Using highly sensitive, rapid throughput mass spectroscopy to identify proteins.
- Analysis of secondary modifications of proteins including glycosylation and phosphorylation.
- Optimising the use of bioinformatic technology to advance projects at maximal rate.
- Ensuring that client needs and objectives, budgets and deadlines are met.

EXPANDING THE BUSINESS

Contract research organisation looking for R and D
Partners/collaborators in the field of proteomics. Discovery
research of disease markers, quality markers,
therapy/diagnostic targets

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Autogen's research & development program utilizes exclusive access to a number of human DNA collections derived from various populations around the world with high prevalence of common metabolic diseases & access to a unique animal model of human disease, the Israeli sand rat. Autogen has strategically employed more than 40 leading Australian scientists via a number of key universities & institutions and provided them with an innovative drug discovery platform, which includes state-of-the-art gene & protein discovery technology that gives Autogen a clear competitive edge.

KEY COMPETITIVE ADVANTAGES

- Research programs directed at capitalizing on the exclusive access to human serum & DNA samples. These serum & DNA collections represent one of the most comprehensive worldwide.
- Utilization of the unique animal model, the Israeli sand rat, to identify disease-causing genes.
- A number of genes related to obesity and diabetes development have been identified and 15 gene/protein discoveries are protected by patent applications.
- Autogen has a "state-of-the-art" gene and protein discovery technology platform.

EXPANDING THE BUSINESS

Autogen has established a major discovery platform and has proven the success of this high throughput facility with a number of significant gene discoveries in its obesity and diabetes research program. This program is part of a major collaborative alliance with European pharmaceutical company Merck-Lipha.

Autogen is now utilizing the strength of this discovery platform and its unique access to human DNA samples and animal models to extend its research program to include depression, anxiety, osteoporosis, cardiovascular disease and hypertension. To maximize the potential of this program Autogen is exploring a number of technology alliances with biotechnology companies with complementary strengths in discovery tools and collaborations with pharmaceutical companies with specific interests in particular diseases.

Further investments will allow Autogen to further expand its research platform.

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Autogen Limited

Benitec is a research-based biotechnology company that develops platform IP for enabling technologies in health care and sustainable bioindustries.

Benitec is developing technologies for gene silencing in animal, and importantly, human cells. This can provide a basis for target validation and a novel platform for development of therapeutics.

KEY COMPETITIVE ADVANTAGES

- Generic technology for gene silencing in mammalian cells.
- Low cost, ease of use and generality for target validation - a universal toolbox.
- Development of new modes of intervention for catastrophic and debilitating diseases - a novel platform for therapeutics.

EXPANDING THE BUSINESS

- Potential partners in research support and technology development, to extend the range of applications for target validation.
- Licensing agreements for target validation.
- Potential partners in research support and technology development for gene therapies & therapeutics.
- Licensing agreements for development of gene therapies and therapeutics.

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Benitec
Enabling the Biotechnology
Industry from the Biotech Company

Bio Nova International Pty Ltd is a tissue engineering company that creates tissue structures for surgical repair and other therapeutic uses. Biomaterials can be custom designed for specific product applications, cell transplantation and attachment as well as molecular transport.

Bio Nova manufactures the Omniflow II vascular prosthesis for use in peripheral revascularisation and arteriovenous access. Omniflow II holds TGA registration in Australia, CE Mark (Europe) and Canadian registration. Clinical trials have been completed in Japan. US FDA approval will also be sought.

KEY COMPETITIVE ADVANTAGES

The biocompatibility of Bio Nova's engineered tissues has been demonstrated with over 10 years clinical experience.

The engineered tissues are grown in animals and the process allows almost unlimited design flexibility in both the material and the three dimensional form. By careful control of the tissue building processes, Bio Nova is able to tailor the tissue properties and architecture to meet specific medical applications.

The engineered tissues act as a scaffold providing transitional function and may contain stimulants or attractants to induce the natural repair and regeneration processes leading to full recovery.

The tissue matrix can be populated with patient specific cells prior to implant. For example, by lining the inside of engineered tissue tubes with endothelial cells, a patient specific living blood vessel has been created which may be suitable for coronary artery bypass. Smooth muscle cells and fibroblasts have also been grown on the biomatrix offering the potential to produce other structures such as skin and muscle tissue.

EXPANDING THE BUSINESS

Bio Nova seeks investors / partners to commercialise existing products and to develop specific product applications. A strategic partner is sought to complete the coronary prosthesis development, testing and commercialisation. Further product development partnering opportunities include endothelialised stents, heart valves, wound and burns dressings, tissue patches, ligaments and drug and hormone delivery systems.

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Bionomics Limited is an Australian biotechnology company with a focus on genomics research. The current research direction of the company is the identification of genes that predispose to epilepsy and breast cancer and their validation as drug targets. Both these diseases represent large potential markets for drugs and diagnostics.

Bionomics utilizes a broadly based technology platform in addition to having exclusive access to clinical material and clinical insights within its chosen disease areas. These technologies and resources combine in a powerful way to facilitate rapid disease gene discovery and drug target validation.

KEY COMPETITIVE ADVANTAGES

- Exclusive access to precisely documented clinical data concerning patients with epilepsy as well as exclusive access to DNA from the relevant individuals and families involved.
- Access to a panel of breast cancer tumour DNA and RNA specimens and cell lines with genetic changes in the region currently under investigation.
- Broad based technology platform including genetic linkage analysis, cytogenetic analysis, positional cloning, high throughput mutation analysis, functional screening technologies, quantitative RT-PCR analysis, DNA microarray and transgenic animal generation.
- Identification of 4 of the 7 genes known to be mutated in epilepsy to date with provisional patents covering these genes as well as the filing of a provisional patent covering a broad framework for the discovery of further epilepsy genes.
- Identification of 4 genes with indications for an involvement in breast cancer.

EXPANDING THE BUSINESS

Bionomics' aim is to showcase its research and development abilities to an international audience and to establish contacts with companies that may want to license its research findings or participate in further development of its research through a collaborative arrangement. In addition, the company aims to identify core technologies that will enhance its ability to produce validated drug targets for specific disease areas.

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Companies
Biospecialties Australia

Biospecialties Australia Pty. Ltd. owns a world class API manufacturing facility. The facility has been designed to produce both biological and synthetic actives. The manufacturing facility was designed and built by ICI Australia and had approvals from both TGA and US FDA. The plant is provided with a high degree of instrumentation and designed for computer control. Available services include sterile air, deionised water, steam, inert gas, compressed air, cooling water, chilled water and chilled glycol. This is quite easily the largest API producing facility in Australia.

Biospecialties Australia is able to offer the manufacturing facilities for use in the manufacture of Biological Actives on a short or long term basis either by way of supply contracts or contract or toll manufacture.

KEY COMPETITIVE ADVANTAGES

Some of the competitive advantages enjoyed are:
Facility acquired at low cost resulting in low overheads.
Easy availability of skilled personnel in the region.
Competitive costs due to value of the Australian dollar.
Guaranteed supply of electrical power and fuel gas at attractive prices.

EXPANDING THE BUSINESS

The company is looking to supplying APIs and/or Intermediates to manufacturers of Pharmaceuticals and formulators of Generics. In addition the company is also seeking business development partners or agents for the US, European and Japanese markets. Biospecialties Australia is investor ready and is quite willing to discuss opportunities in venture capital or investor funding by way of equity capital.

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Biotech Australia is a leading Australian biotechnology company providing high quality development and contract manufacturing services to the biotechnology and pharmaceutical industries. Biotech Australia's GMP licences extend from laboratory scale to API manufacture and beyond to formulation, sterile filling and storage.

Over the last 20 years, the high calibre team at Biotech Australia has built up a wealth of experience developing biopharmaceutical production processes for proprietary projects. Now these services are made available to third parties. Biotech Australia has an enviable track record with large and small organisations alike for delivering a quality product on time and within budget. This is achieved by using systems that are planned systematically to reduce technical risk to meet market and client requirements.

KEY COMPETITIVE ADVANTAGES

- A GMP biopharmaceutical production facility with experienced and highly skilled staff.
- An enviable reputation in biopharmaceutical development, optimisation and production.
- Bacterial, yeast, insect cell and mammalian expression systems available.
- A quality and analytical team with extensive experience in GMP compliance issues.
- An exciting portfolio of proprietary projects.

EXPANDING THE BUSINESS

- Biotech Australia wishes to continue to expand its contract biopharmaceutical development and manufacturing services by building on its existing unique facilities and 2 decades of experience.
- In addition, Biotech Australia is looking for strategic partners for its proprietary projects. These include:
 - 1.the protein Follistatin which has a variety of exciting applications in relation to tissue regeneration,(current specific applications include liver disease, kidney disease and restenosis).
 - 2.the use of soluble Fc Receptors to treat chronic inflammatory diseases such as rheumatoid arthritis.
 - 3.oral drug delivery platforms.
 - 4.cancer targeting (both diagnostic and therapeutic).

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Companies
BresaGen Limited

BresaGen Limited has offices in Adelaide Australia and Georgia, USA and is represented by three divisions - Protein Pharmaceuticals, Cell Therapy and Reproductive Biotechnology.

The Protein Pharmaceutical division manufacture and sells veterinary somatotropin products and has a pipeline of human therapeutic candidates that include potential treatments for myeloid leukemia, rheumatoid arthritis, asthma and growth hormone deficiency.

The Cell Therapy division takes the company's position in embryonic stem cell differentiation and applies it to the treatment of neurodegenerative disease and gene based disorders.

The Reproductive Biotechnology division is developing improved cloning technologies in the pig for accelerated genetic improvement and xenotransplant applications.

KEY COMPETITIVE ADVANTAGES

Protein Pharmaceuticals Division:

- A TGA approved manufacturing facility for biopharmaceuticals
- Experience in cost-effective production of various somatotropin and cytokine proteins

Cell Therapy Technology:

(protected through patent applications)

- The Company is the first group to produce relatively pure populations of differentiated cells derived from embryonic stem (ES) cells.
- The Company's integrated product approach to neurodegenerative disease treatment that combines cells, catheter delivery device and MRI imaging is unique and offers strong branding and marketing advantages

EXPANDING THE BUSINESS

- To create an awareness amongst potential investors of the Company's technology and capabilities. The Company has a US office and a level 1 ADR listing on the OTC market with plans to list on NASDAQ by end of 2001.
- To create an awareness amongst the biotech industry of the Company's technology. This could lead to potential alliances, collaborations or licensing deals

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Companies
Chemicon Australia

CHEMICON Australia offers an extensive range of products for the Drug Discovery, Research, Diagnostic and Clinical Markets.

CHEMICON's business is focused into four key markets: Drug Discovery, Research, Diagnostics and Bulk/OEM. In the research market CHEMICON has focused on the Neuroscience, Extracellular Matrix, Signal Transduction and Infectious Disease areas as growth niches. Many of these products are used in the areas of Cancer, Alzheimers, Brain Development, Heart Disease research and as tools for Drug Discovery.

CHEMICON possesses a substantial portfolio of patented technologies available for licensing. This range includes Leukemia Inhibitory Factor (LIF) and ESGRO(tm), Bioluminescence technology (Aequorin and Renilla Luciferase) and the GST Expression system for the production of recombinant proteins (Commercial use only). CHEMICON offers its partners a diverse licensing strategy, which supports a customised approach for accessing our proprietary technology. A well-established distribution network provides opportunities for commercialisation of products and technologies.

Drawing upon our excellence as a manufacturer of quality research and diagnostic products, CHEMICON offers a comprehensive Custom Service. Utilising our international resources that include ISO9001 quality accredited, TGA approved and FDA approved facilities, CHEMICON offers a range of custom services for Molecular Biology, Immunology, Custom Antibody Manufacture, Protein Synthesis, Assay Development and Custom Conjugation.

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Clinical Network Services (CNS) assists companies achieve regulatory approval for biopharmaceuticals through the conduct of clinical trials in Australia.

Using a national network of hospitals and clinicians, CNS provides the patients and investigators, and manages the processes necessary to meet regulatory requirements, to undertake clinical trials in Australia.

In addition to a network of affiliate hospitals and clinicians, CNS is establishing affiliations with other Australian CROs and has international affiliations in USA and Europe. International affiliation permits CNS to give biotechnology companies and other sponsors of clinical trials the benefit of detailed knowledge of the FDA, TGA and other global regulatory processes. This enables CNS to effectively guide a client from the concept stage to a comprehensive strategic plan, leading to regulatory approval.

KEY COMPETITIVE ADVANTAGES

CNS benefits Pharmaceutical/Biopharmaceutical companies and CROs through:

- Efficiency by pre-establishing study areas, hospital liaison points (clinicians, pharmacists etc) patient numbers and investigator availability.
- Economy through service efficiencies and significantly lower costs compared to the USA.

To conduct its activities CNS is:

- Establishing a portfolio of study sites to cover Phase I to III clinical trials.
- Working in close co-operation with its network of investigator sites.
- Committed to the speedy and accurate return of data to the sponsors of clinical research.

EXPANDING THE BUSINESS

Establish new relationships with biotechnology companies concerned with the development of biopharmaceuticals. The main target will be "start up" and "virtual companies" seeking to add value to their products by taking them through Phase I and II clinical trials before seeking further rounds of financing (VC or float) or licensing to Big Pharma.

Contact

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Executive Director

Clinical Network Services Pty Ltd

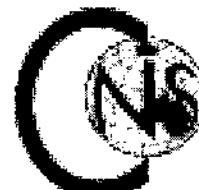
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The Garvan is the largest medical research institute in New South Wales and a cornerstone of the St. Vincent's Biotechnology Precinct. Garvan's molecular and clinical programs focus on the genetic basis of disease including; Arthritis and Asthma; cytokine regulation of inflammation, Osteoporosis and the genetic regulation of bone, Cancer (prostate, breast and ovarian), Diabetes, hyperlipidaemia and feeding disorders, Neurobiology; genomics and neuropeptides.

Garvan is an Australian leader in forging innovative links with the pharmaceutical, biotechnology and finance industries through licenses and new company formation.

G2 THERAPIES LIMITED

G2 is an independent spin-off company developing therapeutic monoclonal antibodies for inflammatory disease and cancer. G2's competitive antibody technology has attracted investors and several international biotechnology partners.

KEY COMPETITIVE ADVANTAGES

- Functional genomics in multiple disease areas resulting from Garvan program focus on disease mechanisms.
- High capacity antibody engineering program.
- Translational research including established systems for high density array gene expression and *in situ* analysis of well characterized clinical samples.
- Established record of success in commercialization of its intellectual property portfolio including strategic licenses and new company formation.

EXPANDING THE BUSINESS

The Garvan is seeking strategic commercial partners for:

- Collaborative Research and Development
- Licensing
- Investment

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Companies
GroPep Limited

GroPep develops and commercialises cell growth factors for pharmaceutical applications through three businesses.

Our Pharmaceutical Drug Development business develops human therapeutics to treat diseases where tissue growth or repair is a critical problem. The Biotechnology Reagents business sells reagents to researchers to evaluate new medical concepts. The Pharmaceutical Cell Culture business manufactures key agents that support the growth of cell types used for the large scale manufacture of bio-pharmaceuticals. We position ourselves as a value-adding link between inventors and end-product marketing companies. We use our substantial expertise in process development, pilot GMP manufacturing, and clinical trials design and management to finance and demonstrate proof-of-concept for the product and attract a product marketing partner. We are currently seeking new clinical product opportunities.

KEY COMPETITIVE ADVANTAGES

- GroPep is a public company with access to capital markets for raising development finance.
- Can develop protein manufacturing processes from concept and implement at pilot scale under GMP standards for phase II clinical trials.
- Proprietary manufacturing processes.
- Extensive clinical trials development and management experience with four products currently in clinical trials (three in phase II).
- Experienced in evaluating the commercial feasibility of biologic products and managing product development to successful commercial outcomes.

EXPANDING THE BUSINESS

- Seeks new clinical product in-license and collaborative development opportunities.
- Seeks potential development and marketing alliances for clinical products for: oral mucositis, chronic venous ulcers and osteoporosis.
- Seeks opportunities where GroPep can add value through the development of manufacturing processes on a contract or risk sharing basis.

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Mimotopes develops, markets and distributes products for proteomics (eg peptide libraries, cyclic peptides and custom peptides), small molecule drug discovery (eg SynPhase™ solid phase products for combinatorial chemistry, custom small molecule libraries and lead optimization services), and partners small to large pharmaceutical companies in novel drug discovery.

Mimotopes has developed a powerful platform of technology and know-how by combining its unique solid phase technology (grafted polymers) with expertise in solid phase chemistry, medicinal chemistry and biological applications.

KEY COMPETITIVE ADVANTAGES

- Proprietary polymer technologies for solid phase synthesis and biomolecules capture/immobilisation.
- High Throughput Synthesis of small molecules and analytical facilities.
- More than a decade of experience in international drug discovery research partnering.
- Global market access either direct or through distributors in key territories.
- Demonstrated expertise in biological applications of peptide and chemical libraries.

EXPANDING THE BUSINESS

- Potential partners in drug discovery
- Potential investors
- In- and out-licensing opportunities
- Co-marketing opportunities

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MIMOTOPES
A MITOKA COMPANY

Companies
Ozgene Pty Ltd

Ozgene is a commercial venture established to provide a global service generating genetically modified mice (GM-mice). GM-mice are the most sophisticated tools in functional genomics and drug target validation.

Ozgene's service includes the identification, isolation, sequencing and mapping of murine genes followed by the generation of classical or conditional knockouts, knockins and transgenics.

We also offer phenotypic analysis of GM-mice; thus providing a complete service from gene discovery to gene function.

We are able to produce, supply, maintain and cryopreserve GM-mice in alliance with the Animal Resources Centre, Australia's premier supplier of specific pathogen free (SPF) laboratory animals.

Ozgene's senior management team has an established track record in the generation and analysis of GM-mice as published in leading scientific journals including Nature, Science, EMBO, PNAS. Our CEO and COO were amongst the first to produce C57BL/6 knockout mice and NOD transgenic mice.

Ozgene has also a RandD program to identify antibodies with catalytic activity, CATAB. The CATAB technology is fully patent protected.

KEY COMPETITIVE ADVANTAGES

- Fast time lines to generate GM mice
- Strictly fee for service
- NO milestone payments
- NO royalty payments
- ALL Intellectual Property remains with the client

EXPANDING THE BUSINESS

- Ozgene is looking to expand its customer base for the GM mouse services.
- Ozgene is also interested to find strategic partners for its patented catalytic antibody (CATAB) RandD program.

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Companies
Peptech Limited

Peptech focuses on the research and development of peptides, which are ubiquitous in nature and mediate numerous physiological functions. The Company is continually seeking ways to enhance its expertise as a developer of peptide-based drugs through identification of novel biological targets, improved screening systems and drug delivery systems. Peptech also has an interest in therapeutic applications of antibodies.

Peptech Animal Health markets Ovuplant(r), which is a small, biocompatible implant easily administered under the skin. Its sustained, controlled release of the LHRH analogue, deslorelin, triggers the release of the mare's own hormones to stimulate ovulation. Other sustained release technologies (of up to 12 months duration of release) and products are in advanced development.

Peptech Limited holds key patents on tumour necrosis factor (TNF) binding ligands, which are used in treating a number of inflammatory conditions such as rheumatoid arthritis and Crohn's disease. Sustained release products for treatment of prostate cancer are also in development.

KEY COMPETITIVE ADVANTAGES

- Proven sustained release technology for therapeutic peptides in the animal health industry
- FDA and TGA-approved manufacturing facilities for sustained release products in the USA and Australia
- Key TNF binding ligand patent portfolio available for non-exclusive licensing
- Significant expertise in peptide technologies (identification, formulation, delivery)

EXPANDING THE BUSINESS

- Potential licensees for the TNF binding ligand portfolio
- Potential co-development partners for our sustained peptide release technology for animal and human applications
- Projects involving peptides and/or sustained delivery technologies for in-licensing and/or co-development

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Peptech Limited

ProBio is a provider of advanced Intellectual Property (IP) in animal reproduction and modification, cell therapies, genomics and associated technologies for use in agriculture and

medicine. Its orderly system of marketing fills the need for:

- Enabling, platform technologies for animal cloning and transgenesis
- Standard scientific systems for utilizing these advances
- Integrated suites of technology that are commercially viable
- Standardised licensing agreement forms
- Standardised physical product formats
- Product support systems for:
 - * Customer training * Interactive website
 - * Problem solving * Peer support & communications

KEY COMPETITIVE ADVANTAGES

- ProBio is the world's first specialist IP product development and marketing biotechnology company.
- It is supported by major website infrastructure training centres in various locations worldwide.
- In the animal biotechnology field it has developed the world's first standard forms of documentation for inwards and outwards licensing, production contracts and the like.
- In partnership with Brinkmann (an Eppendorf company), USA marketing and distribution arm.

EXPANDING THE BUSINESS

ProBio is looking for:

1. Additional research institutes and companies:

- whose IP assets we can convert to product and then market worldwide
- to whom we can provide IP advice and market guidance
- with whom we can jointly develop IP products from their existing IP resource base

2. Product companies to whom we can license IP and further develop our licensing document base.

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PROBIO

Companies
Tri-Med Australia

TRI-MED Australia has two divisions - TRI-MED International Inc.(R&D) and TRI-MED Distributors Pty Ltd. (Commercial Operation). TRI-MED is committed to research, development, manufacture and distribution of diagnostic devices, therapeutics and integrated electronic solutions for the Health sector.

TRI-MED's focus is the stomach ulcer, stomach cancer causing bacterium *Helicobacter pylori* which infects approximately three billion people worldwide. TRI-MED holds strategic patents on diagnostic methods relating to *H.pylori*.

TRI-MED maintains mutually beneficial commercial relationships including a strategic alliance and long-term contractual distribution rights with the US based multinational Kimberly Clark Corporation. TRI-MED has a network of offices, including Perth (Western Australia), Melbourne (Victoria) and Bangkok (Thailand).

In 1998 TRI-MED Specialties (formerly part of TRI-MED) was acquired by Kimberly Clark Corporation for an undisclosed figure. The manufacture of products such as CLOtest(r) was relocated to the USA without change to the manufacturing process, illustrating the world-class biotechnology and manufacturing capabilities of our organisation.

TRI-MED has initiated a research program that builds on existing research strengths in genomics to develop a DNA diagnostic test for *H. pylori*. Other examples include an ELISA based diagnostic test and novel home test kits.

Additionally, Kimberly Clark is investing in a joint research program that is also being supported by the Western Australian State government. TRI-MED has also established a research alliance with US based 'The Institute for Genomic Research' where the *H. pylori* organism was first sequenced and a patent partnering agreement with the University of Western Australia.

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The technology is the use of pig (PAV) and fowl (FAV) adenoviruses as delivery vehicles to carry vaccines and biotherapeutics to pigs and poultry. The potential commercial applications of these platform technologies are limited only by the availability of suitable vaccines and biotherapeutic genes and the attractiveness of markets for new products.

FAV and PAV expressing vaccine antigens from key viral pathogens of poultry and pigs have proved to be powerful vaccines against the respective disease (infectious bronchitis, classical swine fever and pseudo-rabies). In addition, delivery of biotherapeutics such as cytokines has resulted in health-enhanced production gains in poultry (FAV::ChIFN) and improved resistance to bacterial infection in pigs (PAV::G-CSF).

A longer term prospect for this technology is it's application in fields of human medicine such as vaccine development, gene therapy and tolerance induction for use in xenotransplantation.

VectoGen is seeking parties that are interested in participating in further research, development and commercialisation of this technology.

KEY COMPETITIVE ADVANTAGES

- Strong patent position
- Mucosal delivery vehicles (mucosa: gut, lung, reproductive tract tissue)
- Biological not chemical health enhancement and growth promotion
- Able to discriminate between vaccinated and infected animals
- Relatively cheap to produce

EXPANDING THE BUSINESS

VectoGen is seeking parties interested in:

- sub-licensing one or more applications of the PAV and/or FAV technology for commercial development.
- combining their gene IP with VectoGen's PAV and/or FAV delivery technology for use in veterinary and/or human health applications. Arrangements may be under collaborative RandD, licence or cross licence agreements

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Vitapharm Research Pty Ltd is an Australian based RandD Centre for Vital*BioTech Group which has a proven profitable track record in developing, manufacturing and distributing pharmaceutical products. Vital*BioTech Group has a strong and effective marketing network covering distribution to over 13,000 drug stores and 1500 hospitals in the People's Republic of China.

Vitapharm specialises in down-stream biological and pharmaceutical processing. The company has a platform technology in protein stabilization and non-injection delivery systems. The technology is applicable to most biological, chemical and herbal pharmaceuticals. It yields room temperature stabilised products, replaces freeze dry process, and allows products to be delivered by dermal/oral/nasal/lymphatic routes.

The technology is protected by patent, formulation know how, unique manufacturing equipment and in-house developed software. The technology was independently valued at a minimum of \$US265 million dollars in 2001.

KEY COMPETITIVE ADVANTAGES

One stop for technical and commercialisation services to efficiently convert new discoveries to profitable pharmaceutical products.

Technical Arm:

- Expert in Downstream Process - specialising in problem solving
- Patented Platform Technology to produce room-temperature-stable products at low cost.
- New Delivery Systems to create non injection user friendly products with improved safety and efficacy.

Commercial Arm:

- Access to an experienced clinical and regulatory team in China
- Direct link to a strong and efficient market network in China.

EXPANDING THE BUSINESS

To expand the pharmaceutical market to worldwide, the company plans to, and is, actively in the process of commercialising the technology outside China particularly to US, Taiwan, India, Japan and Europe. This is achieved through manufacturing and marketing some products under house labels and also by forming joint-ventures/strategic alliances with or licensing the technology to established pharmaceutical and biotechnology companies.

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Research Organizations and Support
Australian Institute Of Marine Science (AIMS)

AIMS is Australia's premier marine research institute charged among other things with identifying and developing new resources and technologies from a megabiodiverse global environment.

AIMS' biotechnology activities are focused on tropical aquaculture and the development of marine resources for commercial applications, building on the classification of Australian biodiversity. Research is undertaken in tropical aquaculture, culturing of new species for food and fine chemicals, and enhanced production as is the search for new biochemicals from Australia's diverse marine biota.

KEY COMPETITIVE ADVANTAGES

- Centre of excellence in biodiscovery of Australian Marine Biota. Over 20,000 samples of marine macro and micro-organisms in a library curated for marine natural product discovery.
- State of the art chemical and molecular laboratories and in-house screening ability on a biosecure location with full aquarium and field research facility.
- Research ability from discovery through to production of new fine chemical and food leads from marine sources.
- Specialist ability in classification, microbial culture and identification, marine production, screen development and targeted discovery programs for novel bioactive compounds.
- Novel research initiatives utilising experience in marine physiology/chemical ecology to elaborate and develop leads in bioactive molecule commercialisation.

EXPANDING THE BUSINESS

- AIMS' Marine Biotechnology Project is seeking commercial partners to build on over 10 years of research into the potential of utilising Australia's marine biodiversity for applications in medicine, industry and the environment. AIMS has a successful track record in commercialising bioproduct technologies. It is an international leader in establishing benefit sharing agreements with biodiversity resource owners.
- AIMS has a range of aquaculture and bioproduct projects ready for investment.

Contact

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Established in 1926, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is a statutory agency of the Government of Australia. We are one of the world's largest and most diverse scientific research institutions that employ 6,500 staff in more than 65 sites around Australia and overseas. Our research programs are active in 70 countries. We conduct world-class research in the industries of agriculture, communications, construction, pharmaceutical and human health, environment and natural resources, manufacturing, information technology and minerals and energy.

CSIRO biotechnology focuses on

- Biodiversity
- Biomarkers
- Biopesticides
- Bioremediation
- Animal Biotechnology
- Plant Biotechnology
- Bioinformatics
- Biomaterials
- Bioprocessing
- Biotherapeutics
- Functional Genomics and Discovery
- Proteomics

KEY COMPETITIVE ADVANTAGES

- Multidisciplinary capability deriving from expert scientific team located in Australia and overseas.
- Extensive networks and close ties with private industry, government organisations and research institutions in Australia and internationally.
- Flexibility and experience in establishing successful relationships through a range of business models including start-up companies, incubator companies, joint ventures, strategic alliances, licensing and collaborative research linkages.
- Extensive intellectual property portfolio providing opportunities for investments and collaborations in emerging technologies.

EXPANDING THE BUSINESS

- Potential partners/licensees/investors interested in either commercialisation of our existing technologies or development of new research activities.
- Scientific collaborations in the areas of R&D where synergistic outcomes can be delivered.

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Research Organizations and Support Monash Institutes of Health

The Monash Institutes of Health is one of Australia's leading medical and biomedical science research complexes located less than 20 minutes from the centre of Melbourne.

MIH is a full service biotechnology facility taking research from the benchtop to the bedside through its unique combinations of discovery and clinical scientific talent.

With a combined annual budget in excess of \$500 million and more than 2,000 highly skilled personnel, MIH has the critical mass of experts to support the development of new commercial ventures, supported by best practice technology transfer and intellectual property management.

MIH incorporates Australia's largest university, three of Melbourne's most prominent hospitals and three of the nation's leading independent research institutes.

Major Research Programs

- cardiovascular disease
- human embryonic stem cells
- endocrinology & reproduction
- epidemiology
- infectious disease
- neuroscience

KEY COMPETITIVE ADVANTAGES

- Full service facility - from benchtop to the bedside.
- 55,000 m² of incubator space currently available with an additional 60,000 m² due for construction.
- MIH includes the major teaching hospitals of Monash University which cover over 2000 beds.
- Established collaborative partnerships with over 25 biotechnology and health related companies, many with on-site laboratories.

BUSINESS OBJECTIVES

- Identify and attract biotechnology companies as on-site commercial and collaborative partners.
- Identify and attract investors for major projects.
- Identify opportunities for contract research.
- Establish strategic partnerships with pharmaceutical and diagnostic companies to commercialize development.

Contact

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Research Organizations and Support
**South Australian Research and Development
Institute (SARDI)**

SARDI leads and conducts innovative research and development to enhance growth of primary industries, sustain natural resources and improve food quality and safety for the people of South Australia. SARDI's activities cover a wide range of scientific disciplines including fisheries, aquaculture, marine environment and biodiversity, diagnostics and pathology, soils and sustainability, integrated catchment management, plant and animal breeding, tissue culture, genetic improvement and other biotechnologies, quantitative genetics and statistics and GIS based data management and decision support systems. Research programs are designed to incorporate expertise across research disciplines with the aim of developing a cohesive, innovative and multi-disciplinary research agency.

KEY COMPETITIVE ADVANTAGES

SARDI's core business is the development and delivery of technologies to the farming and fishing industries. Commercial activities in the bioscience industry include:

- Plant Biotechnology - pest and disease screening and DNA based plant breeding tools.
- Soil diagnostics - extraction of DNA from soils and quantification of the organisms present.
- Animal cloning and transgenesis, to incorporate new characteristics.
- Animal genetics and reproduction - to provide rapid genetic gain.
- Aquaculture - development of innovative feeds and technologies for aquaculture enterprises.

EXPANDING THE BUSINESS

- SARDI has expertise in plant biotechnology, DNA extraction from soil and characterisation, delivery of innovative technologies to client groups, animal cloning, transgenesis, genetics and reproduction and aquaculture development.
- SARDI enters into business arrangements with national and multinational bioscience companies to deliver bioscience products and services to market. The business arrangements can be in the form of a collaboration, joint venture or investment.

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Research Organizations and Support
Western Australian Biomedical Research Institute

The Western Australia Biomedical Research Institute (WABRI), located in Perth, is a joint venture of two of Australia's leading research Universities in the field of biomedical science. The formation of WABRI brings together the Centre for Molecular Technology and Therapeutics at Curtin University of Technology and the Centre for the Biomolecular Control of Disease at Murdoch University.

Focussing on the molecular basis of disease control, WABRI's mission is to carry out commercially focused leading edge research and development in biomedical science to provide innovative solutions to the health care, medical, pharmaceutical, and biotechnology industries.

EXPANDING THE BUSINESS

WABRI seeks to partner Bioscience companies in the research, development and commercialisation of discoveries in its field of expertise and offers well equipped, cost effective R&D facilities, highly regarded research scientists and significant expertise in managing the commercialisation process.

WABRI's links to its founding educational institutes ensures a strong pipeline of access to innovative commercial opportunities and outstanding young scientists.

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Research Organizations and Support Bio 21 Cluster / University of Melbourne

The Bio21 Molecular Science and Biotechnology Institute is a core component of the biotechnology precinct known as Bio 21, currently under development in Melbourne Australia. Bio 21 is being developed as a cluster of interconnected research institutions, clinical centres, biotechnology companies and service providers.

The principle role of the Institute will be to provide platform technologies; generate intellectual property; and facilitate the convergence of both academic disciplines and industry necessary to achieve the commercial objectives of Bio 21. The Institute will also accommodate a substantial commercial biotechnology incubator for supporting early stage start up companies.

KEY COMPETITIVE ADVANTAGES

- One of Australia's strongest and most extensive biotechnology precinct adopting a collaborative approach, with significant government support and investment.
- The largest commercially focused clinical research hub in Australia.
- Internationally recognised expertise in biomedical research.
- State-of-the-art advanced platform technologies (human and mouse genetics, genomics and molecular diagnostics, proteomics, structural biology, molecular and cell biology, nanotechnology and bioinformatics).
- Established partnerships between research, clinical and educational institutes, hospitals, private investors, industry and the Government.

EXPANDING THE BUSINESS

- Potential partners/investors in RandD and commercialisation of intellectual property.
- We have a major interest in developing a commercial biotechnology incubator. Therefore we are looking for investment/venture capital/other sources of finance to assist in this area.

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Biocomm International is a biomedical business development company based in Melbourne, Australia. It provides consulting and business development services to its members in the biomedical research community. Biocomm International's mission is to develop intellectual property and early stage opportunities into licensing deals and the formation of new companies.

Biocomm International has already attracted several prestigious biomedical research academic institutional members including the four campuses of Monash Faculty of Medicine, Victorian College of Pharmacy, Royal Melbourne Institute of Technology Faculty of Life Sciences, Peter MacCallum Cancer Institute, Murdoch and Children's Research Institute, Prince Henry's Institute of Medical Research, Mental Health Research Institute, Macfarlane Burnet Centre, Baker Institute of Medical Research, St Vincent's Institute of Medical Research, Austin Research Institute and Neurosciences Victoria.

Biocomm International will provide a range of consulting and business development services including:

- Scientific and commercial assessment of intellectual property.
- Assisting scientists and broadening the coverage of their innovations on a global scale.
- Assisting scientists to develop strategies relative to their intellectual property and developing appropriate business strategies for their technology.
- Providing a value-added global market analysis to membership and clients.
- Advise members and clients on valuation and assist them in negotiations with funds, brokers and other capital providers.
- Seed pre-commercialization opportunities that will potentially lead to the establishment and development of start-up companies.
- Seed and develop pre-commercialization technologies that are not suited for a full business platform.
- Provide a pool of capital for seeding and developing these opportunities.
- Develop partnering relationships with local and international sources of capital.

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Universities and Commercialization Companies
Adelaide University (Luminis Pty Ltd)

Adelaide University is Australia's third oldest university (est. 1874) and is recognised as an international leader in biotechnology research, development and commercialisation. Scientists work in partnership with industry, governments, hospitals and other research agencies - both globally and locally. It has broken new ground in key areas of medical, plant and animal research, and these advances have spawned numerous successful biotech companies, several of which trade on the Australian Stock Exchange. Adelaide University has the first university-linked biotechnology company in Australia to be publicly listed, Bresagen, which is currently focussed on stem cell therapy. The University has extensive experience in managing biotechnology research through all its phases - from basic research, to development to commercialisation. It develops spin-off companies, arranges licensing deals and undertakes contract research. It has strong commercial links and a track record of successful collaboration with industry. The University is home to the Southern Hemisphere's biggest agricultural research complex as well as Australia's largest university-owned technology/research park.

KEY COMPETITIVE ADVANTAGES

- Demonstrated international expertise in biotechnology R&D, with research teams in the molecular biosciences (biochemistry, genetics, microbiology and immunology), plant and animal biosciences, physiology, pharmacology, oncology, environmental and chemical engineering, etc.
- Long history of successful collaboration with industry and other research organizations, many of which are located on or adjacent to the University's campuses.
- Proven experience in taking products to market.
- Cost efficient research base in Australia available to develop partnerships with overseas companies.

EXPANDING THE BUSINESS

Adelaide University is seeking to establish new partnerships with private and public organizations interested in collaborating from early stage research through to commercialisation (e.g. licensing, spin-off companies).

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Universities and Commercialization Companies
Australian National University -
Research School Of Biological Science

The Research School of Biological Science (RSBS) is one of a number of large research institutes at the Australian National University (ANU). RSBS thus has an outstanding international reputation in bioscience research, has a diverse IP portfolio, and experience working with industry partners.

RSBS has identified 20 commercially viable opportunities in the areas of Diagnostic Technologies, Machine Vision, Pharmaceuticals, Chemical Sensors, Bioinformatics, Plant cell-cycle genes, Cellulose control genes, Self-fertilising crops, Dieback Fungus Tests, and plants that exhibit tolerance of salt, drought, and floods. RSBS has considerable experience working with commercial partners. Our new Biotechnology Research Centre will initially focus on four areas where RSBS has a strong international reputation: Biorobotics, Bioenergetics, Functional Genomics, and Ecophysiology.

KEY COMPETITIVE ADVANTAGES

RSBS' competitive advantages include:

- Experience with industry.
- Strong IP portfolio and international reputation.
- Low cost (1 Australian dollar is 52 cents US).
- Canberra is the National Capital and has Australia's most educated workforce.
- Major node in the Australian Bioscience Consortium.

EXPANDING THE BUSINESS

RSBS has uniquely broad coverage for a life sciences research institute. It therefore offers a portfolio of technologies, some of which, like cheap panoramic camera technologies (no moving parts, no expensive optics), could be brought to market rapidly and provide cash flow for longer term investments offering billion dollar outcomes.

- Potential partners/investors (marketing, RandD, commercialisation, investment, etc).
- Investment/venture capital/other sources of finance (please include the stage your project is at ie investor ready and the type of investment you are looking to attract).
- Incubator expertise.

Contact

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QUT has a well established and internationally recognised biotechnology program supported by two major biotechnology research centres - the Cooperative Research Centre for Diagnostics (CRC-Dx) and the Centre for Molecular Biotechnology (CMB).

In just over a decade the CMB has grown significantly with major research programs in Plant Biotechnology, Growth Development and Tissue Engineering, Cancer and Infectious Diseases. Many of the Centre's research scientists are recognised as world leaders in the development and discovery of novel processes underpinning product development needed to diagnose and treat critical diseases such as Prostate Cancer, Chlamydial infections, Dengue fever and Japanese Encephalitis.

The CMB is also a significant Australian leader in the field of transgenic plant development, transgenic disease resistance and the new emerging technology of plants as bioreactors. With developed national and international links and collaborative projects across the world QUT is a major biotechnology leader in Australia.

The CRC-Dx is also an Australian biotechnology leader specialising in the field of medical diagnostics and has a successful record of commercialisation of its biotechnology products and processes.

CRC-Dx researchers are developing and exploiting new diagnostic platforms to enable the diagnosis, monitoring and screening for selected diseases, conditions and predispositions. Research expertise includes nucleic acid, protein and antibody engineering, gene amplification, antibody/antigen detection and rapid genetic and infectious disease diagnosis.

Two of Queensland's most successful biotechnology diagnostics companies have their roots within QUT - AGEN Biomedical and PanBio Pty. Ltd.

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Universities and Commercialization Companies
UniQuest Pty Limited

UniQuest is the technology transfer company for the University of Queensland, with responsibility to commercialise the intellectual property developed at UQ and the expertise of its staff. UniQuest is owned beneficially by the University, and structured as a stand-alone company with its own Board of Directors. The company operates independently of the University's administration and is structured to manage the risks associated with the commercialisation of research outcomes.

UniQuest has established a leadership position in commercialising the outcomes of Australian research in the global marketplace. In addition to its more traditional IP licensing and consultancy business, UniQuest has responded to the Australian capital market's recent interest in technology-based ventures, by increasingly commercialising UQ IP by venture capital backed startup companies. As a result, UniQuest has launched 10 spin-off high technology companies and has another 19 in its pipeline. This has the benefits in that the technology remains in Australia and the employment and financial benefits accrue locally. UniQuest has a portfolio of over 150 projects sourced from all disciplines within the UQ campus.

Over the past 12 months UniQuest has established a \$20 million seed venture capital fund (UniSeed Pty Limited) in association with Melbourne Enterprises International, the technology commercialization arm of the University of Melbourne. UniSeed's charter is to provide funding for very early pre-seed and seed stage projects, and help bridge the gap between the groundbreaking knowledge being fostered in our universities and the commercial community. UniSeed is a valuable tool for UniQuest in pursuing its technology commercialisation activities.

UniQuest has highly qualified and experienced staff with a successful track record in all these methods of commercialisation, and provides a commercial interface for industry to the wealth of intellectual property and expertise at UQ.

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The University of Tasmania has developed international strengths in Antarctic studies, (including bioprospecting), population research, wilderness and environment, and agriculture, aquaculture, forestry and mining exploration.

The Menzies Institute is a research institution within the University of Tasmania, whose core research is environmental and genetic epidemiology, where the focus is on identifying causes of diseases in human population studies. It has rapidly developed the genealogical, laboratory and information technology resources that underpin its genetic projects and has been successful in achieving initial success in identifying one of the genes responsible for glaucoma, in collaboration with other research institutions. Current research includes identification of genes for multiple sclerosis, osteoarthritis, glaucoma, prostate cancer, diabetes and cataracts.

KEY COMPETITIVE ADVANTAGES

- A population which has descended largely from identifiable founder families.
- Comprehensive genealogical records.
- A modern health care system capable of identifying diseases outcomes.
- The demonstrated capacity to involve the Tasmanian population in studies.
- Organisational structures to facilitate the research.

EXPANDING THE BUSINESS

Tasmania has one of the most favourable settings for conducting gene discovery research in human populations. It has been estimated that after Iceland, Tasmania is the next most valuable resource.

The Menzies Institute with the University of Tasmania and Tasmanian Government, are seeking to take advantage of Bio2001 to increase awareness of the value and competitiveness of Tasmania for human gene discovery, and to market the opportunities to potential US investors.

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UNIVERSITY
of TASMANIA

Advance Consulting and Evaluation is an evaluation and management consultancy with special skills in technology commercialisation and introduction of new technologies and products into the Australian market. Our company understands the Australian market for biotechnology products and services and helps clients liaise with Australian government agencies in relation to regulatory requirements, grants and investment incentives. We can also assist firms to find Australian research partners, Australian-based manufacturers and distributors, and investments.

KEY COMPETITIVE ADVANTAGES

- knowledge of the Australian biotechnology industry;
- extensive and detailed databases on Australian biotechnology, device companies and research spinoffs;
- excellent informal network within biotechnology industry and government in Australia;
- links with other consultants in GMP, technical risk assessment and valuation; and
- knowledge of Australian government regulatory requirements and Australian market data.

EXPANDING THE BUSINESS

Advance Consulting and Evaluation is seeking contact with firms and researchers who are interested in exploring opportunities in Australia. This may include business planning, competitor analysis, identifying technologies in public sector research agencies and sourcing potential investments.

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Aoris Nova supports the commercialisation of new technology in biomedical sciences, biotechnology and related areas. Our principal aim in working with our clients is to help build businesses and to accelerate the innovation process, increase the value of projects and products prior to licensing and marketing and provide practical support to management in key areas. The company has hands-on experience in start-ups, licensing and business development, especially as it relates to the Australian scene.

We offer:

- Market and technology assessments, valuations, due diligence and feasibility studies;
- Business and market development plans and project management;
- Policy and strategic advice to government and industry groups;
- Packaging of information for licensing and commercialisation arrangements; and
- Partnering and funding.

KEY COMPETITIVE ADVANTAGES

- Established Australian consultancy, operating since 1993
- Located at the Australian Technology Park, Sydney
- Staff with expertise in industry, government and research
- Experience in a wide range of R&D and market environments
- Extensive contacts and clients in research and industry
- Licensed to prepare expert reports and valuations
- Professional, practical, hands-on service
- Joint venture partner in Symbiotic Research, providing clinical and regulatory services
- Commercial and technical adviser to Sage Global Pooled Development Fund

EXPANDING THE BUSINESS

Seeking partners to access investment funds and expand collaborative opportunities

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Austrade is the Australian Government's export and investment facilitation agency. With representation in more than 60 countries, we help Australians win export business and generate inward and outward investment.

Austrade's major functions include:

- the provision of information on how to export, market profiles and industry profiles;
- the identification of market opportunities for Australian companies;
- the provision of advice and on the ground support to assist Australian companies to penetrate overseas markets;
- the project management of major export initiatives such as trade fairs and missions;
- the formation of business networks to co-ordinate Australian export efforts and pursue specific opportunities; and
- the provision of financial assistance through the Export Market Development Grant (EMDG) scheme.

Austrade also assists Australian companies with outward investment in support of exports and works to bring foreign investments to Australia.

In the life sciences sector Austrade assists Australian organizations with business development. We provide strategic market research and partner searches for Australian companies and R&D organizations seeking opportunities for technology licensing, co-development, equity investments, and commercialization. We also assist international companies looking for strategic Australian partners. We encourage you to contact us about opportunities in the Australian biotechnology industry.

Contact

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AUSTRADE



Invest Australia is the Australian Government's national investment agency. It actively promotes Australia as an investment location, facilitates major projects, and provides a wide range of services to companies seeking to establish or invest in operations in Australia.

OUR SERVICES

Investment specialists in Australia and overseas help foreign and domestic companies at all stages of an investment project, from the first call to major project facilitation. Our international network extends from North America, to East Asia and the EU.

Invest Australia can assist corporations and individuals at all stages of an investment project.

Services include:

- identifying and promoting investment opportunities in Australia
- providing strategic advice
- coordinating and connecting investors with the right Federal, State, Territory or local government contacts
- assisting companies with the establishment of regional headquarters;
- streamlining the immigration process
- finding the right joint venture partner or strategic ally
- providing information on relevant foreign investment regulations in Australia
- assisting with grants to undertake pre-feasibility and feasibility studies for major investments
- for qualifying large investors, a Major Projects Facilitation service to assist companies through government approvals quickly and efficiently

Prospective overseas investors considering investing in Australia are encouraged to contact Invest Australia to discuss their investment plans and requirements and to take advantage of the services on offer.

Contact

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The vision of Bio Innovation SA is to facilitate and foster world-class Research and Development to commercialisation stage and to create and attract major biotechnology, pharmaceutical and agribusiness companies for State economic and social development. Under Bio Innovation SA's strategy, a number of major initiatives around five key objectives are being implemented:

- Generate strategy and policy;
- Build the research engine;
- Enhance the entrepreneurial culture;
- Create the commercialisation superstructure; and
- Promote and communicate.

KEY COMPETITIVE ADVANTAGES

- South Australia has a wealth of world-class assets and RandD in the biosciences;
- Three Universities
- Two medical schools and four medical research centres
- Waite agricultural RandD precinct
- Cooperative Research Centres
- A low cost-base for research compared to the US and Europe. The Australian Federal Government offers RandD support offsetting 50% of the costs of approved collaborative research programs
- South Australia is free of most major animal diseases and has multiple geographic zones for production, enabling livestock management under effective isolation conditions
- The State is highly accessible to Asia and other Australian States
- Quality of life is ranked as one of the highest in Australia and taxes are among the lowest in the country
- Bio Innovation SA has the mission of matching this State's success at capturing national bioscience research grants with a new-found success in establishing commercial bioscience enterprises.

EXPANDING THE BUSINESS

Bio Innovation SA is dedicated to the task of accelerating technology commercialisation and attracting investment to South Australia. We invite you to tell us about your plan for bioscience so we can work together.

Contact

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Bio Innovation SA

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BioInnovationSA

As Australia's national capital, Canberra, through BusinessACT, aims to become the 'clean and smart industries' capital of Australia by advancing its capability in the fields of: Biotechnology, Environment Management, Information Technology and Telecommunications, Defence, Advanced Technology, and Wineries.

BusinessACT assists the growth and development of ACT businesses and key industry sectors. This is achieved through providing business support programs that provide incentives, low interest loans, tax relief, and staff training. BusinessACT encourages and attracts business investment to expand and develop the ACT business sector and facilitate the relocation of companies and business migrants to Canberra.

KEY COMPETITIVE ADVANTAGES

Canberra has:

- Australia's most highly skilled and qualified workforce - over 30% of Canberra residents have tertiary qualifications.
- Is home to some of the world's leading biotechnology R&D institutions.
- A single tier of government - providing efficient and effective assistance to businesses.
- Strong infrastructure - excellent and well priced laboratory and testing facilities for biotechnology organisations.
- Excellent quality of life.
- Outstanding urban environment and biodiversity.

EXPANDING THE BUSINESS

- Canberra's biotechnology sector has a number of opportunities available for partnering and investment.
- BusinessACT is seeking to further develop and expand the biotechnology sector in the ACT by facilitating joint partnerships, new investments and the relocation of biotechnology organisations to Canberra.
- A biotechnology consortium comprised of key Canberra biotechnology institutions, private companies and BusinessACT is well advanced with plans for the establishment of a biotechnology business incubator in Canberra.

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The Queensland Government released its BioIndustries Strategy as part of its Smart State vision. The Strategy is a \$270 million ten-year plan that will build on Queensland's unique competitive strengths - internationally recognised science infrastructure, world-renowned researchers and extensive natural resources.

Specifically, the key roles of the BioIndustries Taskforce will be:

- Building upon the State's research capabilities, encouraging the development of an entrepreneurial climate, facilitating greater access to early stage funding and supporting the commercialisation of research;
- Identifying, developing and promoting specific activities which maximise bioindustry trade and investment;
- Providing balanced information to the community on the benefits and risks of biotechnology and enabling stakeholders and community to engage in informed discussion; and
- Working in partnership with the BioIndustry Advisory Council and other stakeholders.

KEY COMPETITIVE ADVANTAGES

The Queensland biotechnology industry is impressive in its breadth and robustness due to:

- Sound foundations in existing firms;
- A diversified domestic market;
- Tangible Government support;
- A tertiary education system supportive of the establishment of technology spin-off companies; and
- A growing venture capital industry.

EXPANDING THE BUSINESS

The Queensland Government's Smart State vision aims to make Queensland a leader in the development and commercialisation of biotechnology. Their key targets are:

- New product research;
- New technology platform development;
- Clinical trials;
- Strategic partnering;
- Contract research;
- Distribution and marketing;
- Niche manufacturing.

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Queensland
Government

The Department of State Development (DSD) is the Tasmanian Government agency responsible for the development and implementation of the Government's economic and social strategies for Tasmania. This includes:

- investment, trade and development (including trade marketing and major events)
- business support
- innovation, science and technology

KEY COMPETITIVE ADVANTAGES

Tasmania possesses key strengths in areas as diverse as, marine research, Antarctic and Southern Ocean Studies, aquaculture, forestry, communications technology and information technology. Tasmania's population resource also provides Tasmania with a distinct advantage as a centre for gene discovery research (please see Menzies Centre for Population Health Research profile).

- Tasmania is the gateway to Antarctica and the Southern Ocean
- Excellent opportunities for bioprospecting
- Emerging centre for epidemiological studies with extensive known geneology
- Outstanding areas of wilderness
- Excellent quality of life and urban environment
- Free of major plant and animal diseases
- Temperate maritime climate

EXPANDING THE BUSINESS

DSD offers a number of business support programs through the Innovation, Science and Technology Unit and Business Tasmania including:

- The Tasmanian Innovations program
- Business Growth Program
- Small Business Programs
- Enterprise Improvement Programs

We look forward to working with you to expand Tasmania's key strengths and build on your business and research capabilities.

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Tasmania

DEPARTMENT of
STATE DEVELOPMENT

The NSW Department of State and Regional Development (DSRD) is the first point of contact for companies wishing to do business in the state of NSW and its capital city Sydney. The Department works with business to secure and sustain investment and to increase the participation of NSW business in the international economy.

The Department acts as a catalyst for the expansion of NSW businesses within Australia and overseas providing targeted assistance. It provides a suite of services to improve the efficiency of enterprises and help companies export.

The Department of State and Regional Development offers:

- Tailor-made investment facilitation services for investors.
- Cuts through red-tape and helps investors over regulatory and planning hurdles.
- Coordinates Government approvals for investment projects by liaising with State and local government bodies.
- Assists with site location and other project investigations.
- Delivers post-investment services to investors and identifies further development opportunities.
- Assists with identification of bioscience business, research and investment opportunities.

KEY COMPETITIVE ADVANTAGES

- Sydney, Australia's business capital and an international city is major Asia-Pacific financial centre.
- International respected bioscience research capacity
- Rapidly expanding biotechnology and life science clusters
- Sydney is the base for many multinational pharmaceutical companies and 41% of Australia's biotechnology companies.

EXPANDING THE BUSINESS

- Opportunities for further development of the bioscience industry in New South Wales.
- International companies with an interest in global expansion into Sydney and New South Wales.

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Firm for Business

New South Wales
Department of State and
Regional Development

Global businesses recognise Australia's strengths as an investment location. The State of Victoria, in the south east of Australia, continues to win major investments across a range of sectors including information and communications technology, biotechnology, automotive, financial services and shared services. Victoria's key attractions are a highly skilled and available work force and outstanding research base.

Melbourne, Victoria's capital, offers a superior quality of life with its thriving international business centre and diverse sporting and leisure opportunities. It is one of the world's most livable cities with a vibrant community; outstanding arts, food and wine sectors; a "green" environment; a low crime rate; and affordable housing and amenities.

The Victorian Government welcomes new biotechnology business ventures and expansions and provides support and a range of assistance programs to help investors do business in Victoria. BIO 2001 provides an opportunity to showcase the best of the State's extensive biotech industry of Melbourne, Australia's biotechnology capital. Further information is available at www.biotechnology.vic.gov.au

Victoria has the largest biotechnology industry base in Australia with investment by industry in R&D three times higher than in other states. In Victoria, companies join a critical mass of research activity that promotes collaboration and provides essential infrastructure for medical and agricultural research efforts.

KEY COMPETITIVE ADVANTAGES

Victoria gives you: access to a highly skilled, productive work force; state-of-the-art education, communications and transport infrastructure; an established industry base with national leadership for R&D; strong intellectual property safeguards; metropolitan and regional hubs for "life-science" enterprises.

EXPANDING THE BUSINESS

Victoria's biotechnology sector offers investors an array of opportunities to become involved in innovative research, world-renowned institutes, start-ups, and domestic and multinational pharmaceutical and life sciences companies such as CSL Ltd and GlaxoSmithKline. The Victorian Government encourages new enterprises to enjoy • an economy larger than Malaysia, Singapore or the Philippines • a time zone bridging the US, Asian and European business days • an abundance of cost-competitive raw materials; • reliable, economically priced utilities; • competitive regional centres; • a AAA rating from Standard and Poors and Moody's in Victoria. We will continue to move ahead with projects such as the new \$400m biomedical and research precinct Bio21/Institute of Molecular

Science and Biotechnology in Melbourne and support our diverse range of pharmaceutical and biotechnology companies and R&D programs.

Victoria has significant strengths in medical research, with key areas of excellence in cancer, neuroscience, immunology, diabetes and reproduction. Victoria also has world class expertise in molecular plant breeding, and substantial research activities in agricultural and food processing biotechnology, and gene discovery from native pasture grasses.

As well as providing a cost-effective environment for world-standard clinical trials, research developed by Victorian institutions has been commercialised to produce some of the world's most innovative biotechnology developments:

- Colony stimulating factors G-CSF and GM-CSF help protect cancer patients from bone marrow damage caused by high-dose chemotherapy.
- Relenza™ to treat influenza.
- In Vitro Fertilisation (IVF)
- The Bionic Ear (Cochlear Implant) has provided hearing to 20,000 profoundly or totally deaf people (including 10,000 children) in over 55 countries.

Australia's political stability has resulted in a supportive long-term policy environment for biotechnology, backed up by sound regulatory and intellectual property practices, an open market economy and access to practical commercial services and advice, through the Victorian Government.

The Victorian Government will be using its sponsorship of the Doing Business Globally stream as a platform to highlight current successful partnerships and the opportunities for the future. In July last year, when pharmaceutical company Alpharma announced its decision to establish its Asia Pacific headquarters in Melbourne, Dr Colin Peel, Managing Director of Australian operations said, "Access to skilled staff, research institutions and a government that actively promotes the industry were all important considerations for Alpharma in choosing Melbourne over other locations."

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Government

**Department of Commerce and Trade,
Government of Western Australia**

Western Australia has individual 'pockets' of internationally competitive biotechnology based research and industry developments. There is a strong focus on bio-agriculture with a growing number of biomedical and environmental/waste management capabilities and successes.

Western Australia has excellent foundations in quality research and infrastructure to support a world class biotechnology industry, and a growing number of independent entrepreneurial small biotechnology companies.

There has been some 'natural clustering' of new companies around local research institutes with an increasing number of spin-offs associated with the State Agricultural Biotechnology Centre at Murdoch University and the recently announced Biomedical R&D Alliance focussed around the major medical research institutes and universities, which includes the Lions Eye Institute, the Institute of Child Health Research, the Western Australian Institute for Medical Research and the Western Australian Biomedical Research.

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INVEST AUSTRALIA

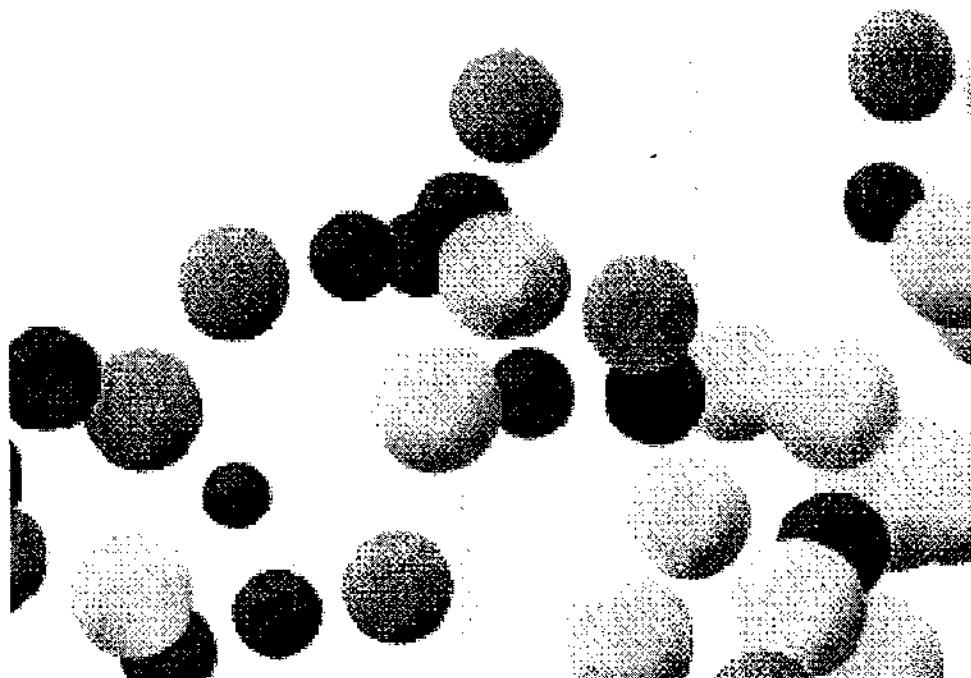
AUSTRADE



Business SA



UNITED
SOLUTIONS



BIO 2001

San Diego June 2001

Looking for Investment - Issues to Consider



INVEST AUSTRALIA

This document has been prepared to provide advice for Australian biotechnology companies attending Bio 2001. The material is provided as a tool for companies to consider in their preparations for the event. Please recognise that the booklet has been prepared so it is useful for companies with less experience in preparing investment pitches as well as more seasoned entities. Contact Kate Parker, Invest Australia for more assistance on (02) 9397 1646.

Introduction

Bio 2001 provides a unique opportunity for Australian biotechnology entities to network with representatives of biotechnology organisations from around the world. In 2001, the Australian delegation is the largest ever to Bio - nearly 300 delegates with expertise in Human Health, Pharmaceutical, Agricultural and Environmental biotechnology fields.

This event delivers a range of opportunities, and potential dividends, for Australian participants, from new contacts and associations, to market intelligence. Participants have the opportunity to promote their business, attract new talent, and further their prospects for valuable collaborations or investment - from venture capitalists, angels, large biotech, pharmaceutical or other companies.

This booklet, *Looking for Investment - Issues to Consider*, has been prepared by the teams within Invest Australia and Austrade as one source of assistance for companies interested in securing the attention of investors at Bio 2001. It was principally prepared to assist companies selected for participation in the Bio 2001 Investor and Partnering Forum. It is also being provided as information to any Australian company interested in refining their approach to Bio 2001.

The Bio 2001 Investor Forum features presentations by biotechnology companies from around the globe to an audience of professional investors, investment banks, large cap biotechnology, life science and pharmaceutical companies. More than 120 companies have been selected to present at the Forum this year, organised by category and development stage. Each company will have a unique opportunity to showcase their capabilities and increase their exposure to potential investors. The presentations run for 15-minutes followed by a half-hour breakout session. A number of Australian companies have been selected to present to the Forum. This represents a strong foundation that we can build on to ensure that more Australian companies are similarly promoted at future Bio Investor Forums, and similar events around the world.

The booklet provides advice on four themes:

- Investor expectations
- Preparing and delivering formal presentations to investors.
- One-on-one meetings with investors and support documentation.
- Further references

The booklet has been developed in part from the lessons recorded from previous biotechnology events, including Bio 2000, the US Biopartnering Roadshow (November 2000), investment sessions facilitated by the Austrade team in San Francisco with the US venture capital industry, angels and angel networks etc., and similar material from the Invest Australia representatives in North America. This material is supplemented by publicly available material identified through desk research. We have also utilised presentations on the expectations of pharmaceutical multinationals that have been presented at Australian conferences in the past year. Material was also provided by Twoeyes Ventures, an equity investment and consulting company in SA (www.twoeyes.com.au) and HellerEhrman Attorneys (Seattle, WA) <http://www.hewm.com>.

Comments on the Climate over the next 12 Months for Fundraising

US sources continue to note that the present level of fund raising is steady but remains below 1999/2000 levels. The market is reported to be focusing on identifying solid companies with solid prospects and markets. Some commentators point to a trend of money going more to existing companies than brand new companies. This has been attributed to the fact that the prevailing market conditions have prompted some companies to postpone public listing plans, therefore increasing their need for follow-on funding. The current volatility of the share market has seen some IPOs with lower share prices than estimated, lessening the appeal of this capital raising option to watching companies. It has also been commented that as VCs finalise closure on failed dot coms, they will increase their capacity to consider new deals.

Business Types and Targets in the US

The fundamental starting point for Australian participants is to identify the partnership or funding arrangement and targets that they are pursuing - and to spend some time clarifying the expectations of potential parties to these type of arrangements. This will assist Australian participants to develop and polish an appropriate 'pitch' for Bio 2001. It can be expected that the following types of arrangements and the following targets will be being sought and discussed by participants at Bio 2001:

Types	Targets
<ul style="list-style-type: none"> • Simple license arrangements • R&D collaborations • Product supply/marketing/distribution • Material transfer/confidentiality • Option/evaluation • Joint venture • Equity • Purchase/loans • Merger/acquisition 	<ul style="list-style-type: none"> • Big pharma • Medium pharma • Emerging biotech • Established biotech • Government/non-profits • Angels • Venture funding • Pensions

Big Pharma's Expectations¹

Drivers for collaboration between pharmaceutical multinationals and biotechnology companies - from the pharmaceutical perspective - include the major benefits that are seen to be delivered by such an arrangement, including leverage of external innovative technology, their increased ability to maximise research and development resources, and the obvious risk spreading. The high levels of attrition of candidates in the drug discovery process at all stages continues to emphasise the need for these organisations to optimise ways of reducing the risks. The diversity of therapeutic modalities that nowadays exist to identify and develop new drugs also underpins the interest of big pharma in collaborative arrangements.

In terms of partnering, each case is considered on its own merits, with the numerous examples of financial arrangements between multinationals and smaller firms reflecting the flexibility in this area. The specifics of the arrangement would be shaped according to what each party can bring to the partnership and what they can trade with.

¹ This section has drawn on the presentation *Big Pharma Expectations of Emergent Biotechnology* by Dr Mike Devoy of GlaxoSmith Kline Australia, 2001.

From the pharmaceutical side, risk sharing goes hand-in-hand with the concept of reward sharing and the hook comes in the form of equity, royalty or profit shares, or a combination of these. Models of collaboration include concept transfer where the multinational carries out the development, pre-clinical evaluation, regulatory process and marketing. The arrangement facilitates a transfer of the concept through such mechanisms as a licensing agreement. Other models include the shared stake arrangement where each side retains IP associated with core expertise and responsibilities are assigned for development, evaluation, regulatory approval, etc., though generally, the multinational will cover evaluation, regulation and marketing dimensions. Collaborations have been developed to carry out pivotal clinical programs where the development responsibility was retained by the originating body.

The following factors were identified as the key features that the big pharma seeks in a partner.²

Very Important	Important
<ul style="list-style-type: none"> • Strong patent position • Quality of science • Platform technologies • Products in development • Quality of scientific advisory board 	<ul style="list-style-type: none"> • Financial position • Experienced management • Collaboration with academia • Products in early research

Professional Investor's Expectations

The term 'angel' refers to a high-net-worth individual who invests in private companies. Most angels have been investing in start-ups for a decade or more and finance several companies each year. Angels sometimes form networks or groups that may meet regularly to review opportunities. The best angels are those who know/have experience in the biotech industry and can deliver guidance, contacts and advice as well as money.

Venture capitalists (VCs) are fund managers who invest mostly other people's money into private companies. Venture capitalists invested about \$1.3 billion in biopharmaceutical companies in 1999. About 6% was allocated to companies at the start up/seed stage.

When you are dealing with investors it is important to recognise that you are not selling your products, technology or assets. What you are selling is your stock and the opportunity for investors to join you in a business partnership. To accomplish this you need to demonstrate not just how great your product is, but how great your team is, and how well it is suited to the project you are undertaking. Your job is to offer a convincing story about who you are, what you have accomplished so far, and what you plan to do.

Visit the websites of a few dozen VC firms and it becomes clear that VCs commonly look for the following when seeking investments:

<ul style="list-style-type: none"> • Experienced management teams • High growth market • Proven technology or concept • Intellectual Property 	<ul style="list-style-type: none"> • Uniqueness of offering • Attractive business model • Strong revenue within 3-5 years • Logical exit mechanism
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Developing Your 'Pitch'

² by Ernst and Young in their *European Life Sciences Report 1999*

Australian companies are increasingly being provided with opportunities to present their investment proposals through events like the Bio 2001 Investor Forum, the US Road Partnering Show, the recent Invest Australia Taiwan Biotechnology workshop and other similar missions. The following 'tips' on developing a 'pitch' to investors has been provided for companies to consider in their preparations for such opportunities.

Considerable work goes into developing your 'pitch' package of a presentation, further information and support documentation. It is built around two central and related questions:

- Ultimately, what do you want to be?
- From this event, what do I most need now?

The first question dictates the answer to question number two but the second question dictates the centrepiece of the 'pitch' - the company/concept presentation. The presentation can be crafted to focus on the relevant target and type of business arrangement, while still resonating with the remainder of the audience.

— Your presentation must also tie through strongly to a short focused executive summary of your business and the opportunity - and in turn this should be derived from an up-to-date business plan. These critical documents will be used to support your pitch in follow-up meetings and should be available on request at Bio 2001.

The following themes can be in the spotlight at any stage during discussions:

- the company entity;
- company management;
- the technology/science;
- the product;
- the IP position and regulatory requirements;
- the market;
- your financials;
- financing/collaborations sought; and
- the investment opportunity
- the question of '*why invest in you*';

The tables in Attachment A provide prompts on these above themes designed to assist in your preparation of components of your 'pitch' to investors. The relevance of the prompts will vary depending on the circumstances of your particular company. Some prompts pertain to start up companies while others suit more established companies.

Formal Presentations to an Audience of Investors (Invest Forum)

The goal of the company presentation to investors is to provide sufficient and appropriate information on the investment opportunity that can be understood and appreciated by a knowledgeable layperson (e.g. business development or analyst).

Prospective partners will make a strategic yes/no decision based on the presentation - at least in terms of following up with the company for further detail. The goal, therefore, is to interest them enough that they initiate further exploration of your proposal.

It is worth considering the following general points:

- **Be prepared** - no amount of preparation is wasted either within the team, in finessing the presentation, or in seeking objective feedback from trusted mentors.
- Preparation should cover not only the topic but also contingency plans for technical failures (particularly if your plans are ambitious such as live Internet demonstrations) and team substitutions etc.
- Make sure that the presentation is **targeted, concise and compelling**. Bring out what is unique and interesting (eg, advantages of having Australian R&D partners)
- **Counter** obvious negatives, weaknesses or preconceptions - eg, 'tyranny of distance'
- **Do not oversell**. Be forthright about the risks inherent in your business but positive.
- **Do not present an overly detailed and lengthy slide show**. Use a minimal number of slides and use visuals wherever possible – if it can be put on a diagram, do so.
- Use the **most experienced businessperson** on your team to lead the presentation to investors - with back up from the scientists. Remember that both people and the idea will be subject to scrutiny.
- **Finish** the presentation on time.
- Make it clear that you are **available for follow-up meetings**

Companies presenting at the forum may wish to consider the key national strengths relating to biotechnology that will be highlighted through the Government agencies at the Australian Pavilion this year. The key messages being promoted are at Attachment B of this booklet.

The Three Key Elements of a Formal Presentation

The following three themes can usefully form the central planks of a presentation:

1. **The Company** - the Company Statement
 - the Management Team
2. **The Technology** - very short overview of the field
 - description of your technology/product
 - your IP position
3. **The Opportunity** - the Market
 - risks and rewards
 - financing sought

Meeting with Investors

One-on-one meetings provide you with the opportunity to tailor your 'pitch' to a potential partner/investor. Again, optimising this opportunity requires considerable pre-planing and preparation. One-on-one meetings require you to manage things so that you maintain the interest of your listeners. While interest does not equal commitment, it is an important pre-cursor to securing commitment. It is important to remember that for potential investors and partners, the first meeting represents the start of matching and due diligence.

A Note on Non-Disclosure Agreements (NDAs): In the context of Bio 2001, the San Francisco Austrade office has advised that it is quite common for professional investors and investor groups in the US to have an internal policy that they will not sign NDAs. This policy is based on the reality that many of these organisations/individuals look at hundreds or even thousands of deals per annum making it cumbersome to sign NDAs for all of them. They argue that they treat all information they receive as confidential unless otherwise advised and stress that not only would it be highly unethical for them to disclose confidential information, but also word would get around pretty quickly and they would stop getting business.

Preparing a compelling introduction

- Begin each meeting by asking your audience what they would like emphasised.
- If this meeting follows a formal presentation, be ready for an informal approach which does not encourage a 'real' presentation.
- Have a short introductory piece however to lead in with and recap your highlights.
- Address questions but keep the meeting on track to meet both yours and their objectives.
- Focus more on the specifics of what you are going to accomplish with the capital requested, and less on high-level market statistics.
- Explain the competitive landscape and your understanding of this.
- Emphasise any synergies with their existing portfolio companies
- Explain your assumptions - they will need to be explainable, and they may be challenged.

Support documentation

The sort of documentation that potential investors might ask for as support documentation include:

- Executive Summary.
- Business Plan.
- Management resumes.
- Lists of management references, reference customers, industry experts, competitors, analyst reports, etc.
- A current capitalization chart.

It may also be advisable to have electronic versions of the material at Bio 2001 to relieve baggage weight for interested parties.

The Executive Summary- since everyone is busy, an Executive Summary should be short and compelling but complete enough so that if it is all someone reads, they will "get it." Every source of advice on this issue stresses the need to have an Executive Summary of no more than two-three pages in length. The Austrade San Francisco office points out that Selby Ventures has a database of 20,000 business plans (and they did 13 deals last year). Similarly, Macquarie looked at 2,000 business plans in Year 2000 (and funded 9 of them). In short, some of these organisations receive about 1000 plans per month. Summaries that are longer than two pages do not get read.

It is suggested that you prepare the executive summary in a format that is accessible for the reader and allows them to pick out the information most needed. Dot points and columns are very versatile in achieving these objectives.

If appropriate, have different versions of your Executive Summary for different audiences and purposes, for example to highlight different products/investment opportunities.

Business Plan Basics - The business plan is an essential component of the fund raising process. It is the underlying blueprint for your business and reflects the major selling points of your ideas, strategy, and team. A good business plan is concise, persuasive, and realistic. In addition, the best business plan is expected to be a fluid document - it will change and adapt as your business evolves to meet the demands of reality.

The objective of your plan is not to raise money, that is a far longer process. It's also not to explain every detail of your operating plans. The purpose of your business plan is to generate enough interest in prospective investors to make them want to work with you.

A collection of relevant articles or analyst reports can sometimes be very helpful.

Financials - Show revenue, fixed costs and variable costs forecasted over 5 years for financials, along with a list of assumptions. The income statement should show projection, by month, for the next six months, by quarter for the following six quarters, and then by year for another three years (if possible).

Appropriate team preparation

Briefly cover the backgrounds of key management members.

It is expected that you will be promotional and it is essential that your team is concise, focused and well organized.

The entire team must be able to answer the following questions without a PowerPoint presentation:

- What is it I do?
- How do I do it?
- How do I help my company to make money?

Interviewing the venture firm.

- Prepare a set of questions you want to ask during your meeting.
- A good venture capitalist is a partner and an advocate for the entrepreneur. They can help hire key people, land early customers, and provide useful advice at critical junctures. Ask them about their experience in your industry and explore the value that they can provide to your business.
- This is your opportunity to become more familiar with how they operate, the amount of time they can commit to your business, and the availability and origins of their funding.

Post meeting assessment

- Have a debrief with your team after every meeting.
- Evaluate the topics that came up and ask why.

Suggested Further References

The Entrepreneur's Guide to a Biotech Start Up by Peter Kolchinsky, Ph.D Evelexa Bio Resoaks, Inc. downloadable from www.evelexa.com

Angel Investing Mark Van Osnbrugge and Robert J Robinson, 2000, Jossey-Bass Publishers, Amazon.com price \$26

GSAS Harvard Biotechnology Club's Start Up resource section at www.thebiotechclub.org/startup/resources.html This provides links to and descriptions of additional information including VC firms, law firms, tech transfer offices, angel networks etc.

For a range of useful source material on the VC and broader investment market in the US, contact www.investaustralia.com and select the Entrepreneurs button link

Further information about angels can be found at the following sites:

www.bayangels.com
www.angelcapitalnetwork.com.
http://angelinvestors.infopoint.com/
www.neoangels.net\
www.angelinvestors.ca
www.mitforumcambridge.org
www.128vcg.com

ATTACHMENT A

Key Factors to cover in developing your 'pitch' package - covering the Big Five (the company entity, including management, the technology/products, the investment opportunity, the market, finance).

Key Components	Possible Presentation Elements
<i>Title and Outline of the Presentation</i>	
<p><i>The Company Entity - introduction and a short history- "Who We Are"</i></p> <p>➤ Identifies key factors of the company, including achievements and objectives.</p>	<ul style="list-style-type: none"> - <i>Description, mission statement, focus, positioning and goals, strategy to get there.</i> - <i>Differentiate between the science, the technology, the product and the company.</i> - <i>When was your company founded?</i> - <i>How has it developed</i> - <i>Cover size, focus and objectives?</i> - <i>What phase of development are you in: concept phase, product under development, product tested/in use by customers, starting revenues (ie. >1 million annually), market expansion (\$5 million annually).</i> - <i>What milestones have been achieved- completion of the management team, research and development work, testing, IP protection, alliances, cash flow break-even and profitability targets, products, and completing profitable, growing financial years etc.?</i>
<p><i>Management "Here are our people"</i></p> <p>Describes the core competencies and strengths of the management team.</p> <ul style="list-style-type: none"> - Executive - Board of Directors - Science Advisory Board 	<p style="text-align: right;"><i>Technology.</i></p> <ul style="list-style-type: none"> - <i>There is more to having a successful biotechnology company than having a great technology</i> - <i>Does the CEO have demonstrated leadership capabilities and has she/he been able to attract key talent and money?</i> - <i>What money has been raised and what has been done with it?</i> - <i>Describe your team and why it is able to exploit this opportunity?</i> - <i>Describe management, capital, board members, scientific advisory board, alliance partners, etc.</i> - <i>Explain the collective skills mix in place to successfully execute the business model.?</i> - <i>How long have you worked as a team - track record and achievements?</i> - <i>Be ready to discuss weaknesses and</i>

	<p>strategies to over come them?</p> <ul style="list-style-type: none"> - Discuss future management enhancements
<p><i>The technology - "What We Have"</i></p> <ul style="list-style-type: none"> ➤ Provides information on your technology- its development, IP protection and possible applications. 	<ul style="list-style-type: none"> - <i>Describe what it is.</i> - <i>Provide an overview of the field to make clear the opportunity along with current solutions and their limitations.</i> - <i>Describe in accessible terms the central features of the technology and how it works.</i> - <i>Make clear the breadth - technology platform or products</i> - <i>Make clear the stage of development.</i> - <i>Make clear the novelty -Is it differentiated or unique in some way? Compare with existing and emerging competing technologies</i> - <i>Is there intellectual property involved?</i> - <i>Has it been adequately protected?</i> - <i>Existing patent filings (status, breadth, strength)</i> - <i>Has freedom to operate been established?</i> - <i>Future IP strategy</i> - <i>What is the science?</i> - <i>Validation - preclinical/clinical</i> - <i>Required regulatory approvals</i> - <i>Strategy for expediting approvals</i> - <i>Regulatory approval timeline</i> - <i>Examples of regulatory approvals for competing similar products.</i> - <i>What is the next evolution of your product/service?</i> - <i>Existing collaborations</i> -
<p><i>Markets for the technology</i></p> <ul style="list-style-type: none"> ➤ Outlines the market you are competing in, and the company's goals and reasons for competing in this market. 	<ul style="list-style-type: none"> - <i>What are the key assumptions of your business case?</i> - <i>What is the competitive market environment?</i> - <i>What is the size, scope, and nature of the market?</i> - <i>User type and numbers</i> - <i>Cost of treatment, servicers, etc</i> - <i>Projected net revenues over time</i> - <i>Marketing strategy</i> - <i>How fast is it growing?</i> - <i>What part of the market are you targeting?</i> - <i>Define your aim - market leader, segment/market share etc.</i> - <i>Do you have a defensible niche?</i> - <i>How are you going to deliver your product/service into your target markets?</i>

	<ul style="list-style-type: none"> - Do you have any customers yet? - Who are they and who might they be in the future? - Is there a clear need for your offering by your target market? - Can it deliver new efficiencies? - Will it disrupt the status quo? - Why will customers pay a premium for it? - Who are your major competitors now and who could they be in the future? - How do/could they threaten you?
<p>Financials “The Books”</p> <p>➤ Outlines the financial position of the company and provides reasons why the company is in this position.</p>	<ul style="list-style-type: none"> - Describe current funding arrangements/equity split, investors, approx. valuation of your company etc. - Where will sales come from? - How will revenues be generated? - Identify gross & net profits. - When will you be cash positive? - What are the key economic drivers of your business, now and in the future?
<p>Pitch to Investor - “What We Want From You”</p> <p>Provides investors with your requirements and the uses of their contributions.</p>	<ul style="list-style-type: none"> - What is the total capital required? (< \$0.5m, \$0.5m to \$2m, \$2m to \$5m, \$5m to \$10m, > \$10m). - Amount required to meet milestones - How milestones fit with the exist strategy - What do you intend using the money for? - How long will it last? - How much will you need at the next round? - What are you willing to offer the investor in return for the funds you need? - What else would you be looking for in an investor? Desired respective roles. - What are the most important characteristics or capabilities of the collaborator. - How and when do you propose the investor can exit? - What sort of returns do you envisage the investor will receive?
<p>Summary of why to invest in or collaborate with you</p>	<ul style="list-style-type: none"> - Summarize the 4-5 most important strengths - Summarize why, with your collaborator, your opportunity will succeed. - Outline steps from here

THE SIX KEY MESSAGES ABOUT OUR BIOTECHNOLOGY ADVANTAGES

The following messages are being promoted at the Australian Pavillion at Bio 2001.

1. More biotech companies per capita than the USA - look here for the opportunities.
2. Australia's Federal and State governments have active policies and programs in place to foster Australian biotechnology excellence.
3. Australia is the most cost effective location to conduct high quality biotech research compared to 14 other countries in Europe, North America and Asia.
4. Australia's intellectual property regime is robust, complies with WTO standards and is constantly reviewed to ensure that it is internationally competitive.
5. Australia has more graduates in relevant areas of science and technology per 1000 people than the USA, providing a strong supply of innovative, highly qualified scientists.
6. Excellence in biotechnology - discovery of Helicobacter pylori - the cause of peptic ulcers, design and development of influenza treatment RelenzaTM, and development and commercialisation of the bionic ear, etc.