



Southern California  
Biomedical  
Council

# SoCalBio SYNERGIES

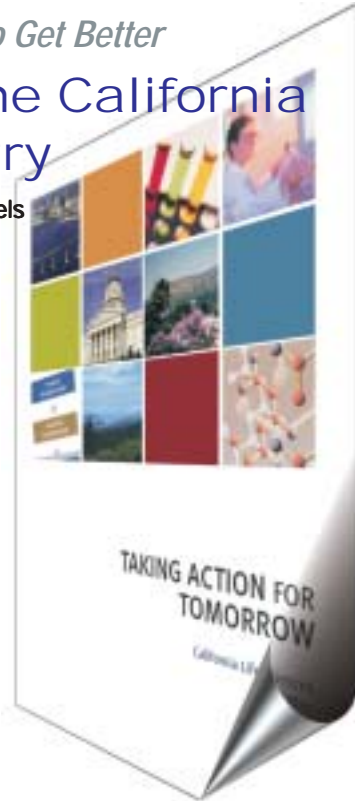
The Voice of the Life Sciences Community in the Greater Los Angeles Region

**Public Policy:**

*The Best Must Continue to Strive to Get Better*

## An Action Plan for the California Life Sciences Industry

By Joan Chu, Matthew Le Merle & Nancy Michels  
Monitor Group



Over the past quarter-century, California Life Sciences firms have established the industry's global gold standard for innovation and creativity. They have done so with access to the State's unparalleled human, natural, and financial resources. As a result, California's Life Sciences have generated more ideas, jobs, businesses, capital investment, and economic value than anywhere in the world.

About 40% of the world's more than 6,250 Life Sciences firms are located in California, including six of the top 15 largest biotechnology companies in the world (by market capitalization). These are Amgen, Genentech, Gilead Sciences, Allergan, Invitrogen, and Chiron. Three of the State's centers of innovation and creativity – the Bay Area, San Diego, and the Los Angeles region – are world-class in their own right; a fourth, Sacramento, is taking steps to join them.

Aware that proactive measures must be taken to maintain and enhance this competitive position, the California Life Sciences industry has issued **Taking Action for Tomorrow: the California Life Sciences Action Plan**. This 10-year plan presents Governor Schwarzenegger with concrete ways the State and the industry can work together. The goal is to ensure the continued prosperity of a sector projected to be a major driver of economic growth for California and the nation over the next 30 years.

The report was sponsored by eight regional organizations and NGOs -- including BayBio,

BIOCOM, CHI, and the SCBC -- and produced with the support of a leading strategic advisory services firm, Monitor Group.

The plan provides recommendations that focus on six key areas:

- ◆ Improving the financial environment;
- ◆ Reforming and streamlining federal, state, and local regulations;
- ◆ Accelerating technology commercialization and new business formation;
- ◆ Preparing adequate human capital;
- ◆ Resolving critical infrastructure needs; and
- ◆ Inspiring Life Sciences community collaboration.

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**Workforce Development:**



California has created the largest and most technologically dynamic Life Sciences industry in the world. Our State's competitive advantage in biocommerce is rooted in its excellence in basic research and education, wealth of risk capital, and abundance of entrepreneurial talent.

A sizeable portion of California's Life Sciences industry, mostly composed of medical device firms, exists here in our own backyard. Companies located in Greater Los Angeles communities --including St. Jude Medical in Sylmar, Medtronic MiniMed in Northridge, Diagnostic Products Corporation in West Los Angeles, Biosense Webster in Irwindale, One Lambda in Canoga Park, North American Scientific in Chatsworth, and Advanced Bionics in Valencia -- have become leaders in their respective fields. Not only do these companies employ thousands of local residents, they also touch the lives of millions around the world.

To help retain and grow our region's Life Sciences industry cluster, my office -- in partnership with the City's Workforce Investment Board (WIB) and the City Council -- recently launched the **Los Angeles Life Sciences Employment and Training Initiative**.

This regional workforce development effort is supported by \$1.1 million in grants -- \$500,000 from the State of California and \$600,000 in matching grants from workforce investment boards in the Greater Los Angeles region.

The Los Angeles Life Sciences Employment and Training Initiative brings together our educational institutions, workforce development agencies, and other training providers to meet some of the critical skill development needs of the growing number of life-science companies in our region. The initiative reinforces our commitment to growing our Life Sciences community through the development of human capital.

The initiative will create high-paying jobs through a training model that currently includes the Alfred Mann companies, Diagnostic Products Corp., Precision Dynamics Corp., Beckman-Coulter, Medtronic MiniMed and other local biotech and medical device manufacturers. Funds for the initiative will be utilized to develop a pilot bio-career pathway program that provides the training necessary to

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**Technology Development:**

## LA BioMed Brings New Possibilities to the Greater Los Angeles Region

By Kenneth P. Trevett, J.D.  
President and CEO  
LA BioMed



For 52 years, physician-scientists at the Research and Education Institute (REI), located on the grounds of the Harbor-UCLA Medical Center in Torrance, have made major contributions to the advancement of medicine. Working in the shadows of larger institutions, these men and women developed the modern cholesterol test, the thyroid deficiency test now administered to virtually every newborn in the United States, a screening procedure for Tay-Sachs Disease which has radically diminished the incidence of that terrible condition, and most recently, an enzyme replacement therapy for another insidious genetic condition, Hurler's Syndrome.

REI investigators have also participated in the development of stent technology to surgically treat devastating abdominal and thoracic aneurysms, as well as artificial surfactants that have saved the lives of thousands of premature babies. They have pioneered the rehabilitation of victims of Chronic Obstructive Pulmonary Disease -- the fourth largest killer of adults in the United States -- and have developed novel techniques for treating pediatric cardiac disorders. The list goes on, as the tradition of creating practical solutions to important medical issues is deeply ingrained in this organization.

On July 1, 2004, the REI becomes the **Los Angeles Biomedical Research Institute** at Harbor-UCLA Medical Center, or **LA BioMed** for short. With this change of name, we are not turning our backs on the history of a very influential organization, but instead, seeking to better identify ourselves with a region that has become a world leader in biomedical research.

California attracts more funding from the National Institutes of Health (NIH) than any other state, and Los Angeles was the leading County within the State in securing such funds, attracting 28% of the total. Altogether, more than a billion dollars comes into this region from the NIH each year, a remarkable record of research achievement.

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**Startup Profile:**

## Los Angeles-Based Startup Combines UCLA Research with High-Tech Company's Savvy & VC Funds

*ORFID Corp. represents a business model bridging the gap between the academic lab and the marketplace*

By Jeyling Chou  
UCLA

Technology developed by the lab of UCLA materials science and engineering professor, Yang Yang, has found a niche in industry.



*ORFID's co-founders: Yang Yang of UCLA (left) and Jon Lasch of Convergent Ventures discuss research progress in front of a brand new Omicron Multiscan Lab for high resolution structural and chemical surface analysis.*

Yang's work on organic transistors and printable conductive polymers resulted in the 2003 launch of ORFID Corporation. This is a startup that merges three local forces: cutting-edge UCLA research, the business savvy of Precision Dynamics Corporation -- a San Fernando Valley-based high tech company -- and venture capital from Convergent Ventures of West Los Angeles. ORFID's mission is to further develop Yang's technology and bring it to the marketplace.

Yang holds a position on ORFID's Board of Directors, and is chairman of its Science and Engineering Advisory Board. Convergent Ventures and Precision Dynamics Corp. contributed to the initial management of the company and to its Board of Directors. ORFID also received seed funding from both companies. "We're quite happy that this technology has moved from the academic research lab to industrial application," Yang said.

The patent rights for two of Yang's inventions regarding organic electronics were licensed to

ORFID by the UCLA Office of Intellectual Property Administration (OIPA), and serve as the technology platform upon which the company was formed. The patent rights involve the production of organic electronic devices and systems using a hybrid inkjet printing

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## GRANTS

### LA Area Winners of New NIH SBIR/STTR Grants January - May 2004

Grant Type	Phase	Company (City)	Investigator	Grant Focus	Amount
SBIR	Phase II	Armagen Technologies (Santa Monica)	Ruben Boado	Neuroprotection in Stroke Drug Development	\$44,900
SBIR	Phase I	BioCatalytics (Pasadena)	Inmar Munir	UDP-Glucuronic Acid Regeneration System	\$100,000
SBIR	Phase I	BioCatalytics (Pasadena)	Ling Hua	Optimizing Escherichia Coli for Carbonyl Reduction	\$100,000
SBIR	Phase I	Calhoun Vision (Pasadena)	Shiao Chang	Adjustable Injectable Intraocular Lens	\$187,786
STTR	Phase I	Core Microsolutions (Westwood)	Chang-Jin Kim	Handheld Bioagent Detector by Digital Fluidics	\$497,920
STTR	Phase I	Cytopro (Hacienda Hights)	Wei Dai	Mammal Cecropins as Antibiotics for Corneal Infections	\$100,000
SBIR	Phase I	Insert Therapeutics (Pasadena)	JianJun Cheng	Development of Novel Polymeric Prodrugs of Camptothecin	\$292,940
SBIR	Phase I	Lifetechniques, Inc. (Santa Barbara)	Jerome Hahn	Improving Treatment Impact Among Military Smokers	\$171,950
SBIR	Phase I	Maxwell Sensors (Santa Fe Springs)	Winston Ho	Optical Thermal Mapping Catheter for Vulnerable Plaque	\$100,259
SBIR	Phase I	Nova R&D (Riverside)	Tumay Tumer	A Multi-Function Surgical Probe	\$99,888
SBIR	Phase I	Photon Imaging (Northridge)	Carolyn Tull	New Multi-Channel ASIC and Si Detector for Gamma Cameras	\$100,000
SBIR	Phase I	Photon Imaging (Northridge)	Carolyn Tull	Large Solid Angle Spectrometer for Synchrotron Microbeam	\$100,000
SBIR	Phase I	Photon Imaging (Northridge)	Neal Hartsough	Fast Low-Dose CT Detector for Small Animal Imaging	\$165,000
SBIR	Phase I	Praevium Research (Santa Barbara)	V. Jayaraman	Probe for Quantitative Tissue Spectroscopy	\$199,934
STTR	Phase II	Proactive Oral Solutions (Los Alamitos)	Paul Denny	Saliva Test for Caries Risk	\$323,182
STTR	Phase I	Thuris Corp. (Irvine)	Gary Lynch	Kinase Inhibitors against Neurodegeneration	\$235,528

## FINANCING & IPOs

### MannKind Corp. (Valencia):

On April 30, MannKind Corp. -- a biopharmaceutical company focused on the development and commercialization of therapeutic products for diseases such as diabetes, cancer, and inflammatory & autoimmune diseases -- filed to go public. The company's lead product -- a dry powder formulation of insulin and an inhaler -- is currently in Phase II clinical trials. UBS Investment Bank is the lead IPO underwriter. MannKind's IPO filing followed the company's announcement in March that it has completed a \$50 million private placement.

### IntraLase Corp. (Irvine, CA):

This provider of laser-related software and disposable devices for ophthalmic surgery filed on May 28 to raise \$92 million via an IPO. Since its inception in 1997, the company has raised over \$70 million in VC funding from institutional sources including Brentwood Associates, Domain Associates, EDF Ventures, InterWest Partners, Meritech Capital Partners and Versant Ventures. IntraLase was featured during the 2001 SoCalBio Investor Conference at UCLA.

## M&As

### Advanced Bionics Corp. (Valencia and Sylmar):

On June 1, Boston Scientific announced its acquisition of Advanced Bionics -- a maker of neurostimulators including cochlear implants. Boston Scientific will pay \$740 million in cash, plus earn-out payments tied to future performance milestones. Advanced Bionics was created in 1993 by LA's prolific biomed entrepreneur and SCBC Chairman Alfred Mann. The company is expected to generate \$82 million and \$128 million in sales in 2004 and 2005 respectively.

## LICENSING

### Cougar Biotechnology (West Los Angeles):

Cougar -- a private biotechnology company established to in-license and develop early clinical-stage drugs with a specific focus on oncology -- announced in April that it has signed a licensing agreement with BTG of West Conshohocken (PA). Cougar was granted worldwide exclusive rights to develop and commercialize abiraterone acetate, a potential novel therapeutic for treating advanced prostate cancer. BTG will receive an upfront cash payment and will benefit from further development milestones and a royalty on sales.

## CLINICAL FINDINGS

### Clearant, Inc. (West Los Angeles):

*Biotech Week* reported on April 7 that clinical findings presented at the annual meeting of the American Association of Orthopedic Surgeons showed that patients who received human tissue allograft implants benefited from Clearant's new pathogen inactivation method. The latter virtually eliminated the risk of bacterial and viral infection in soft tissue allograft implants without compromising the quality of the tissue. Clearant Inc. -- a biotechnology company headquartered in West LA -- specializes in pathogen inactivation for biological products.

### Zengen (Woodland Hills):

On May 20, Zengen Inc. -- a biopharmaceutical company utilizing peptide technologies to combat infections and inflammation -- announced positive phase I/II results for its proprietary molecule CZEN-002 for the treatment of vulvovaginal candidiasis (VVC), commonly known as vaginal yeast infection. The open label, non-randomized study was designed to evaluate the safety, tolerability and pharmacokinetics of CZEN-002 in patients with VVC.

## PMA's

During the first four months of 2004, the FDA granted 15 Premarket Application (PMA) approvals. Two Greater LA region-based firms -- DakoCytomation and Advanced Bionics Corp. -- were among those that received PMA's during this period.

### DakoCytomation California, Inc. (Carpinteria):

Dako obtained FDA approval last February for its EGFR pharmDx, a qualitative immunohistochemical kit system to identify epidermal growth factor receptor (EGFR) expression in normal and neoplastic tissues routinely-fixed for histological evaluation. EGFR pharmDx specifically detects the EGFR (HER1) protein in EGFR-expressing cells. EGFR pharmDx is indicated as an aid in identifying colorectal cancer patients eligible for treatment with ERBITUX.

### Advanced Bionics Corp. (Valencia and Sylmar):

On April 27, Advanced Bionics' Precision™ Spinal Cord Stimulation (SCS) System -- the first and only rechargeable implantable spinal cord stimulation system for the treatment of chronic pain -- was approved by the FDA. The SCS device is approved for adults with chronic pain of the trunk and/or limbs, including unilateral or bilateral pain associated with failed back surgery syndrome and intractable low-back and leg pain.

## BDAs

### Medsep (Covina):

Medsep -- a subsidiary of Pall Corp. that manufactures blood processing & storage bags -- was the only Los Angeles area-based company that received a new Biological Device Application (BDA) approval from the FDA during the first 4 months of 2004. The approval was for its enhanced Bacteria Detection System (eBDS). This system offers a sensitive and easy method enabling blood banks to detect low levels of bacterial contamination in platelets whether derived from apheresis or random donor collection procedures.

## NDA's

The following Los Angeles region-based companies received New Drug Application (NDA) approvals during the January - May, 2004 period:

### International Medication Systems (South El Monte):

During February, IMS -- a pharmaceuticals maker owned by the Rancho Cucamonga-based Amphastar -- won approval to use an injectable form of Amiodarone Hydrochloride to treat patients with ventricular tachycardia or ventricular fibrillation for whom oral amiodarone is indicated, but who are unable to take oral medication.

### Amgen (Thousand Oaks):

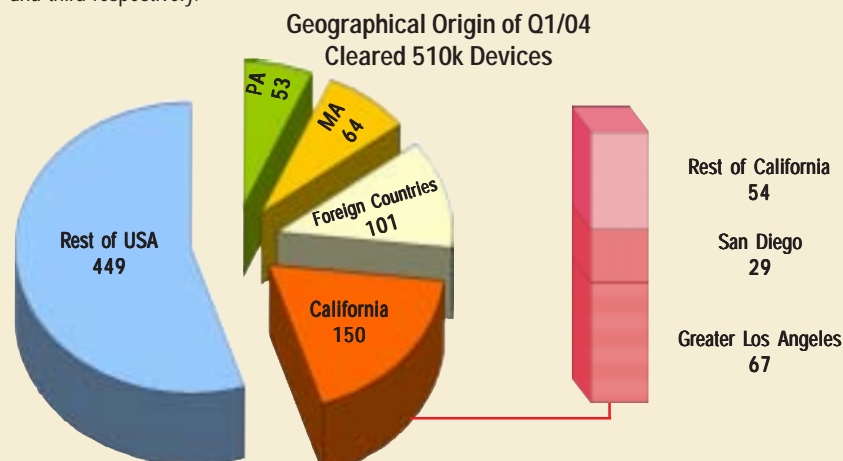
The world's largest biotech company won approval during March for the use of Sensipar Cinacalcet Hydrochloride -- a new molecular entity -- for the treatment of secondary hyperparathyroidism in chronic kidney disease patients on dialysis, and the treatment of elevated calcium levels in patients with parathyroid carcinoma.

### Ista Pharmaceuticals (Irvine):

The FDA approved Ista's Vitrase (hyaluronidase for injection) in May. Vitrase, a sheep-sourced form of hyaluronidase, is an injectable drug approved as an adjunct to other injected drugs to increase their absorption and dispersion. It has been used most commonly in combination with local anesthetics in the setting of ophthalmic surgery.

## 510(k) DECISIONS

During the first quarter of 2004, the CDHR cleared 817 substantially equivalent (510k) medical devices for marketing. The graph below illustrates that California maintained its standing as the main source of the cleared devices. Massachusetts and Pennsylvania followed as distant second and third respectively.



In California, the Greater Los area was the main source of 510k devices. The region produced 45% of the State's cleared medical devices during Q1/04. The list of area companies receiving 510k decisions is topped by:

- ◆ **Clinical Data** in Brea, which received clearance for five reagent systems;
- ◆ **Masimo** in Irvine, which got clearance to market five products including its hand-held signal extraction pulse oximeter; and
- ◆ **Bio-Rad Laboratories** in Irvine, which had four chemistry controls cleared for marketing.

The list also includes well-known companies such as **Diagnostic Products Corp.** in West Los Angeles (cleared to market its reagent system for the determination of creatine kinase isoenzyme MB in serum or heparinized plasma) and **Beckman Coulter** in Brea (cleared to market its Access DHEA-S reagent assay).

Newcomers on the list include **BioCentrex** of Culver City which received a 510k for its cardiac panel. The latter is used with the BioCentrex Analyzer to measure cardiac troponin I (cTnI), creatine kinase-MB, and myoglobin concentrations in whole blood, serum or plasma specimens.

## ORFID

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process.

"UCLA actively encourages startup activities and we're pleased to have a local venture capital firm invest in our technology and have our inventor involved as well," said Emily Loughran, director of licensing for OIPA.

Loughran worked with members of ORFID's management team through the negotiations of the licensing deal, and established an agreement that was equitable for all parties involved. "While discharging its fiduciary responsibilities to UCLA, OIPA was also mindful of the constraints that a startup company might have," said Jon Lasch, ORFID's chairman and CEO, and one of Convergent Ventures' managing directors. "OIPA was really helpful at a critical time for ORFID."

ORFID hopes to apply Yang's organic transistor technology initially to improve the existing designs of flat-panel displays used in everything from cell phone screens to electronic billboards. "We're interested in flexible electronics, in polymeric semiconductors," Lasch said. "The organic transistor would work with organic light emitting diodes (OLEDs) to make flexible displays. This would make them more economical to produce and expand their applications," he added.

Yang's technology promises to open innumerable other gates. Precision Dynamics Corp. is already utilizing some of his inventions to provide wristbands with RFID technology to hospitals for patient identification, and to triathlons to monitor athletes.

Yang himself has personally experienced the utility of these high-tech wristbands. "When my wife delivered our son and checked into the hospital, they put a wristband on her with her name and blood type," he said.

By licensing the inkjet printing technology from UCLA, ORFID believes that the practical possibilities could be endless. "Using the UCLA technology, we expect to develop many types of organic electronic components that will be useful in a wide range of devices," Lasch said.



Walter Mosher, Jr., Ph.D., Chairman & CTO, Precision Dynamics Corp. & Vice Chairman, Southern California Biomedical Council. Mosher's San Fernando Valley-based Precision Dynamics Corp. co-invested in ORFID with Convergent Ventures.

Some of the many applications in healthcare involve the use of printed devices, such as sensors and transponders on thin patches for continuous monitoring and recording of patient vital signs. These will have the added benefit of wireless data transmission, thus reducing the need to tether patients to cumbersome equipment, while reducing the number of personnel-generated recording errors.

Additional uses include printable RFID labels for managing and tracking pharmaceutical inventory, delivery and dosage, as well as other forms of asset tracking within the healthcare environment. Also, organic transistors will allow for the development of truly flexible displays that will make many medical devices smaller and lighter, yet easier to read. The continuing development of organic semiconductors will allow the field of flexible electronics to evolve. This will lead to lighter, brighter, thinner, and more economical devices in the medical world.

ORFID plans to base its headquarters in West Los Angeles. The company's geographical proximity to UCLA provides many benefits in that the technology and the people involved in its development wouldn't have to stray far from home. "When we open ORFID's permanent lab, we'll do it close to UCLA," Lasch said. "Because of the nature of the company, we think it would be good if scientists and engineers from UCLA had close access to the company so that technology could be appropriately transferred and developed faster."

ORFID is a unique model of bridging the gap between academia and the marketplace within the Los Angeles area.

"By building companies such as ORFID, we can create high quality jobs and bring investment capital into the area so that Los Angeles continues to grow as a technology center," Lasch added. ♦

*The original version of this article appeared in UCLA's research collaboration newsletter: What's Bruin in the Labs, Spring, 2004 (<http://www.whatsBruin.com>). Reprinted with permission.*

## Meet New SCBC Members



Founded in 1997, **Ceres** develops breakthrough plants and plant-based products for a number of diverse industries using state-of-the-art genomic technologies. Ceres' integrated technology platforms have been recognized by industry leaders as a prime source of innovation in the industry, and as a powerful engine for the generation of intellectual property. Through license-based collaborations and internal product development, Ceres is applying its proprietary plant genomic knowledge to a number of opportunities in the agrochemical, chemical, food, feed, fiber and pharmaceutical industries.

To learn more, visit the web at: <http://www.ceres-inc.com>



The Santa Clarita Valley-based **College of the Canyons** is a learning-centered community college that provides academic education and workforce training. Since its beginnings over 35 years ago, the College of the Canyons has fostered business partnerships throughout the region. As a result, the College has played an important role in training, retraining and educating members of the local workforce so that businesses don't have to look far for quality employees. The College now offers workforce training services to medical device and biotech companies.

To learn more, visit the web at: <http://www.coc.cc.ca.us>



Founded in April 1984, **One Lambda, Inc.** is a medical diagnostic company based in Canoga Park, California. With about 180 employees, the company develops and distributes histocompatibility reagents and semi-automated laboratory equipment for hospitals, research centers, and institutions involved in human organ transplantation and paternity testing.

To learn more, visit the web at: <http://www.onelambda.com>



**UVP Inc.** is a San Bernardino County-based company specializing in gel documentation, image capture, image analysis, image acquisition systems for chemiluminescent, electrophoresis, chemifluorescent, fluorescent and colorimetric imaging. UVP manufactures ultraviolet lamps, transilluminators, crosslinkers, hybridization ovens, incubator, UV intensity meters, ultraviolet cabinets, and Pen-Ray light sources. Equipment is designed for many applications including sterilization, sanitation, fluorescence, inspection, lapidary, forensics, thin layer chromatography, calibration, UV curing, science and education instruction.

To learn more, visit the web at: <http://www.uvp.com>



**DDL** has full-service testing laboratories in Eden Prairie, Minnesota and Costa Mesa, California. The company provides the expertise to validate the efficacy of package systems for sterile medical devices which must perform consistently under variable sterilization procedures, manufacturing conditions, and distribution hazards. The company offers single-source solutions to product and packaging engineers who want to ensure compliance with domestic and international regulatory agency requirements.

To learn more, visit the web at: <http://www.testedandproven.com>



**BSI** offers management systems registration to help organizations achieve continuous performance improvement in the areas of business performance and risk management. It helps clients by registering their management systems as meeting the ISO and other quality system standards, such as ISO 9000 (Quality Management), ISO 14001 (Environmental Management), OHSAS 18001 (Occupational Health and Safety Management), and BS 7799 (Information Security Management).

To learn more, visit the web at: <http://emea.bsi-global.com/IntroToMS/Index.xalter>

### The Monroe Agency, Inc.

The Monroe Agency is a Monrovia, California-based recruitment firm specializing in placing executive management and sales & marketing personnel in the high technology and life sciences industries.

To learn more, contact Debra Wilkens, President, at: 626-357-2767 or send e-mail to: [dwilkens@lx.netcom.com](mailto:dwilkens@lx.netcom.com)



Dr. Yang Yang (on the right, first row) with his lab team at the UCLA School of Engineering

Although much attention is currently being given to organic electronics, the relatively new field is not expected to overtake its older, solidly established counterpart -- the silicon semiconductor industry. Organic electronics, like those being developed by ORFID, will serve as useful and complementary technology. "Silicon is not going to go away," Lasch said. "ORFID extends the current technology into other applications that otherwise might not be possible."

In addition to applications for flat panel displays, Yang's organic electronics technology may start a revolution of its own. His inventions enable the low-cost manufacturing of radio frequency identification (RFID) tags similar in function to the ubiquitous applications of modern day bar-codes. Today, for example, drivers who flash their permits to a machine in order to enter the gates of UCLA parking structures are using radio frequency technology. "The machine sends out a radio wave, and this card receives the wave and ... sends back a corresponding wave to the receiver," explained Yang. "The wave tells them who you are, and the gate opens."

## Bio-Skills Development

Continued from page 1

prepare participants for successful employment in the Life Sciences industry, while at the same time providing firms with the trained workforce they need to grow and thrive in Los Angeles.

The City of Los Angeles recognizes the importance of the Life Sciences industry to the future growth of our regional economy. Other regions throughout the country are seeking to lure California's device and biotech companies, and are using attractive incentives as enticements. Local incentives such as the Los Angeles Life Sciences Employment and Training Initiative are meant to meet our competitors' enticements head-on.

By attracting the Governor's discretionary Workforce Investment Act (WIA) funds, the City of Los Angeles is creating an opportunity to demonstrate a high rate of return on investment — both for workers and businesses — by working with the Life Sciences industry. Our initiative invests in the infrastructure supporting continued job training and, in the process, establishes rewarding career pathways for workers.

Consistent with these priorities, this initiative lays the foundation for my **Jobs Growth Fund**. This is a joint investment with the City's Workforce Investment Board seeking to create new employment opportunities through customized training in partnership with industry. The Jobs Growth Fund applies the model adopted by the Los Angeles Life Sciences Employment and Training Initiative to a broader set of growth industries with promising career opportunities and a need for skilled workers. It emphasizes my priorities for Los Angeles by helping to support the economy through investing in our most precious asset: **people**. ♦



Representatives of some of the Los Angeles Life Sciences Employment and Training Initiative's participating companies and training providers gathered for a planning meeting on May 14 at CSUN. The meeting was organized by the Southern California Biomedical Council and the LA Business Team, and hosted by CSUN's College of Science and Math. Visible from left to right are: Ron Miller & Cliff Wong (One Lambda), Fabian Grijalva & Kimberly Barnes (Precision Dynamics Corp.), Bernie Perez-Gilbert (LA Valley College), Scott Sherman (Medtronic MiniMed) Lennie Ciufo (LA Valley College), and Izzy Goodman (Pierce College).

## LA BioMed

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Furthermore, revenues doubled in the 90s, and the same kind of growth is expected through this decade. Los Angeles has rapidly become a biomedical knowledge hub. Unlike the Silicon Valley boom and bust, this boom keeps growing.

As one of the largest independent biomedical research institutes in California, LA Biomed is an important player in this success. We have nearly 1,000 research projects ongoing, conducted by 200 MDs and PhDs with 1,100 full- and part-time employees overall. The numbers above include an average of 125 clinical trials ongoing at any one time, sponsored by the federal government, industry and the Institute itself. In addition, we receive over \$30 million in federal funding, \$25 million of which comes from the NIH.

Our present research projects include work on the next generation of antimicrobials, new therapeutic and diagnostic approaches to chronic lung disease, refined methods for earlier identification of Type II diabetes, and the identification of a common pathway for several autoimmune diseases.

The "new" LA BioMed is clearly a significant economic engine and technology generator for the South Bay. The new technologies provide lucrative business opportunities for venture-based as well as established companies.

The discovery of our Hurler's Syndrome drug, Aldurazyme, is an example. Upon entry of this product to the market, our licensee became the 25<sup>th</sup> largest capitalized biotechnology firm in the US.



LA BioMed researcher -- Lynne Smith, M.D. -- uses the Institute's confocal microscopy facility

What can we all do to promote commercial biomedical development in the Los Angeles area? While we have the basic elements for success in place, we need to encourage developers and biomedical entrepreneurs to think about the LA region. We need to proactively market this region, and bring representatives of different academic and commercial organizations together as part of that marketing effort. We need to think of organizations such as LA BioMed as magnets for commercial ventures.

If we meet this challenge, the beneficiaries will include not just LA BioMed and other academic organizations, but also companies, the economy of Los Angeles County, and the general public.

Let's work together to ensure the biomedical promise of the Los Angeles region. It makes good economic sense and very sound public policy. And we think our new name can help in furthering these objectives. ♦

## California Action Plan

Continued from page 1

These steps address a series of global trends in the Life Sciences industry that challenge California's leadership. These trends include:

- ♦ Increased competitiveness both across the US and internationally;
- ♦ A concentration of assets in the industry through joint ventures and mergers;
- ♦ A focus on downstream activities within firms; and
- ♦ Increased regulatory and public scrutiny of the core research and business decisions driving the industry.

While these trends pose potential difficulties for the Life Sciences industry as a whole, they

also offer opportunities for growth and success for those well positioned and determined to take advantage of them.

California's Life Sciences industry needs to marshal all of the considerable resources at its disposal, including its human capital, knowledge reservoir, financial assets, and natural resources. It also needs to work with all stakeholders, especially State government where appropriate, to sustain the leadership position it has achieved. ♦

*Monitor Group is a family of professional service firms with offices in Los Angeles, San Francisco, and Palo Alto. It includes Monitor Action Company, a consulting firm of 800 professionals, and Monitor Merchant Banking Group, with \$1.6 billion under management. More information on the regional and summary Life Sciences action plans can be found at [www.monitor.com/cgi-bin/iowa/ideas/index.html?article=190](http://www.monitor.com/cgi-bin/iowa/ideas/index.html?article=190).*

Thanks to SYNERGIES' Sponsor:



**Precision Dynamics Corporation (PDC)** is the global leader in wristband identification, delivering innovative and reliable solutions to organizations and governments in over 100 countries worldwide. To learn more, visit the web at: [www.pdcorp.com](http://www.pdcorp.com).

## ABOUT SYNERGIES

SoCalBio SYNERGIES is a publication of the Southern California Biomedical Council (SCBC). The SCBC is the trade association of the Life Sciences Industry in the six counties of the Greater Los Angeles region. To learn more about the SCBC, please visit our web site at:

[www.socalbio.org](http://www.socalbio.org)

### SoCalBio SYNERGIES

Editor-in-Chief ..... **Ahmed A. Enany**  
213/236-4890 . [enany@socalbio.org](mailto:enany@socalbio.org)

Managing Editor ..... **Erik Deutsch**  
323/851-2455 . [erik@socalbio.org](mailto:erik@socalbio.org)

For advertising opportunities, contact Erik Deutsch, Managing Editor, at: **323/851-2455** or send e-mail to: [erik@socalbio.org](mailto:erik@socalbio.org)

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