



## Biotechnology Medical Breakthroughs

### Drug approvals increase, but more can be done-New York Times Op Ed

In the first half of this year, the Food and Drug Administration approved 20 new drugs, putting it on track to double the number approved last year. But in an industry that annually invests nearly \$70 billion in drug development, there's no reason we can't approve 10 times more new drugs each year. [Read more.](#)

### Turning T-cells into cancer killers

Researchers have kept cancer at bay in three patients with chronic lymphocytic leukemia by genetically engineering the patients' own T-cells to recognize leukemia cells, and then kill the cancer cells. The approach could potentially be developed to fight not just leukemia, but other cancers as well. [Read more.](#)

### FDA approval of Roche-Daiichi Sankyo melanoma treatment is imminent

A pivotal trial found that advanced melanoma patients taking the experimental pill, Vemurafenib, were 63 percent less likely to die from the disease than patients given chemotherapy. Vemurafenib was submitted to the FDA in May, and the agency is scheduled to issue a decision in October. [Read more.](#)

### Researchers devise method for creating blood cells from stem cells

Researchers at the Salk Institute Laboratory of Genetics in La Jolla have found a way to produce increased numbers of blood cells from a patient's existing cells through an improved stem cell technique. The discovery could eventually be used in a number of stem cell therapies for conditions like cancer. [Read more.](#)

### Kaiser, UCSF understanding connection between genes and diseases

Kaiser Permanente and scientists at the University of California, San Francisco, have collected genetic and health data of 100,000 Kaiser members using electronic health records and analyzed the length of telomeres and genomes of the participants using gene microarrays. The project aims to help outside researchers study the association between genes and diseases. [Read more.](#)

## Biotechnology Economic Contributions

### Venture capital investments surge in life sciences industry

Life sciences companies throughout the U.S. saw a sharp increase in venture investment during the second quarter of 2011, compared to the prior quarter, with \$2.1 billion going into the sector. [Read more.](#)

### \$10-million biotech lab brings jobs and the fight against cancer to Seal Beach

Dendreon Corp., a Seattle-based biosciences company, is about to ramp up production of its much-heralded and FDA-approved Provenge prostate cancer vaccine, and will open a manufacturing

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facility in Seal Beach which could add at least 500 new jobs to the local economy. [Read more.](#)

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## Biotechnology Workforce Development

### Governor Brown and San Diego business leaders call on Legislature to pass California Jobs First plan

Governor Edmund G. Brown Jr. joined San Diego business leaders at Gen-Probe, Inc. on September 6th to call on the state Legislature to pass his California Jobs First plan, which eliminates a "toxic tax loophole" and offers over \$1 billion a year in tax relief for businesses that create jobs in the state. [Read More.](#)

### Melding talents with a career in bioprocessing

Bioprocessing is an expanding field encompassing any process that uses living cells or their components (e.g., bacteria, enzymes, or chloroplasts) to obtain desired products, such as biofuels and therapeutics. With advances in biotechnology and an ongoing need for pharmaceuticals and sustainable forms of fuel as well as cheaper, more effective ways to make them, the opportunities in bioprocessing, at both the undergraduate and graduate level, are looking promising. [Read more.](#)

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## Member Spotlight

### Amgen

Amgen discovers, develops, manufactures, and delivers innovative human therapeutics. A leader in biotechnology since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe, effective medicines from lab, to manufacturing plant, to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis, bone disease, and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve peoples' lives.

In 2010, Amgen reached a major milestone when the number of patients worldwide who have received its therapeutics surpassed 20 million. The company currently has 10 products on the market to treat serious illnesses and 40+ development programs from late discovery research through Phase 3 in bone-related conditions, cardiovascular disease, inflammation, metabolic disorders, nephrology, neuroscience, oncology, and hematology. More than 35,000 patients are enrolled in Amgen clinical trials in more than 50 countries around the world.

Since Amgen was founded in Southern California in 1980, the company's proven ability to discover and develop innovative medicines has helped make the region one of the nation's hubs for biotechnology. In 2004, the acquisition of Tularik Inc gave Amgen a base in South San Francisco, another thriving biotechnology center.

Amgen is committed to being an exemplary corporate citizen and employer in California while making important contributions to the state's economy, including through its sponsorship of the Amgen Tour of California, the nation's largest professional cycling race, which Amgen has tapped as a platform to launch its national Breakaway from Cancer® initiative.

As a leading biotechnology company, Amgen considers philanthropic engagement a responsibility and a critical means of building upon our mission to serve patients. Amgen's giving is diverse and focuses on access to quality care and medicines, pioneering science education programs and organizations that enhance life and strengthen services in our communities.

The Amgen Foundation is Amgen's principal philanthropic channel and reflects the company's core values. [The Amgen Foundation](#) seeks to advance science education; improve patient access to quality care; and strengthen the communities where Amgen staff members live and work. Since 1991, the Foundation has made more than \$160 million in grants to local, regional, and national nonprofit organizations that impact society in inspiring and innovative ways. It has also supported disaster relief efforts both domestically and internationally.

**Science Education** - Amgen and the Amgen Foundation are committed to dramatically improving science education and inspire and prepare the scientists of tomorrow. The Amgen Foundation makes meaningful investments in science education that provide pivotal, hands-on science experiences for students and that strengthen the quality of the science teaching workforce. Signature science education programs include Amgen Scholars, an eight-year, \$34 million program for undergraduates; the Teach For America Amgen Fellows Program; the Amgen Bruce Wallace Biotechnology Lab Program; and the Amgen Award for Science Teaching Excellence.

**Community & Staff Engagement** - Through grantmaking and staff engagement programs, the Amgen Foundation dedicates substantial resources to strengthening and enriching the communities where Amgen staff live and work. Investment in community programs helps provide important resources to meet the needs of our diverse communities, including social services, environmental programs, and the arts.

Each year, thousands of Amgen staff generously devote their personal time, energy, talents and funds to a variety of charitable organizations nationwide. Amgen encourages staff to become involved in their local communities through the Matching Gifts Program and Amgen Volunteers, which recognizes outstanding volunteers and connects staff with volunteer opportunities.

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## This Month's Digital Media Picks

Astellas Pharma US, Inc. Twitter account: [@AstellasUS](#)

OncoMed Pharmaceuticals' LinkedIn:  
<http://www.linkedin.com/company/oncomed-pharmaceuticals>

The University of California Los Angeles' (UCLA) Health DATA Blog:  
<http://www.healthdatabytes.org/>

Bio-Link's YouTube Channel: <http://www.youtube.com/user/biolinkorg>

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## Educational Material

California Biotechnology Foundation Workforce Guide  
[Click here](#) to view the CBF Workforce Guide or go to [www.cabiotech.org](http://www.cabiotech.org).

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## Calendar

October 3 - 5, 2011 - 2011 World Stem Cell Summit  
The annual World Stem Cell Summit is the flagship international event uniting the stem cell community by bringing together scientists, patients, advocates, business people, investors, educators, ethicists, policy makers, government representatives, and others to network and learn from each other. The Summit

will be held at the Pasadena Convention Center and will attract more than 2,000 attendees from 30 nations, 60 exhibitors and more than 200 endorsing organizations and media partners.  
<http://www.worldstemcellsummit.com/>

**November 9, 2011 - Thirteenth Annual SoCalBio Conference**  
The SoCalBio Annual Conference is organized by the [Southern California Biomedical Council](#) to showcase the strength and future of the bioscience industry in Los Angeles/Orange County and surrounding communities. The conference will feature business presentations by CEOs of Southern California device, biotech, IVD and pharma firms interested in raising capital and/or forging strategic partnerships. The event will be held at the Wilshire Grand Hotel in Los Angeles.  
<http://www.socalbio.org/calendar/calendar.htm>

**January 23-24, 2012 - Personalized Medicine World Conference (PMWC)**  
The Personalized Medicine World Conference (PMWC) is the only fully integrated conference to examine Personalized Medicine through a practical lens. Launched by Silicon Valley entrepreneurs in 2009, PMWC gathers thought-leaders of business, government, healthcare-delivery, research and technology into one information-rich, two-day conference. This year's PMWC 2012, themed "The Journey to Commercialization," will provide entrepreneurs and companies with pragmatic insight into Personalized Medicine in cooperation with the FDA, Big Biopharma and Payers. The conference will be held at the Computer History Museum, 1401 N Shoreline Blvd, Mountain View, CA. For more information go to <http://www.pmwc2012.com> or contact [magali@silicomventures.com](mailto:magali@silicomventures.com).

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## Thank You

Thank you for reading this edition of the *California Biotechnology News Update*. Be sure to check out the CBF website at [www.cabiotech.org](http://www.cabiotech.org) for the latest news and information regarding California's biotechnology industry.

Sincerely,  
Patty Cooper  
California Biotechnology Foundation