

Through a collaborative management approach, UC's Office of the President (UCOP), the 10 UC campuses and Lawrence Berkeley National Laboratory (LBNL) share responsibility for UC's technology transfer activities. The extraordinary innovations generated by UC researchers originate at UC's campuses and medical centers. As such, each campus actively manages its invention portfolios, fosters relationships

between inventors and industry and nurtures local entrepreneurial ecosystems. For UC's campuses and LBNL, UCOP sets overarching policy and guidance, provides legal oversight, conducts legislative analysis and manages information among other services in support of the overall program. UCOP's activities are coordinated by the Innovation Alliances and Services (IAS) and the Research Policy Analysis and Coordination (RPAC) units

within UCOP's Office of Research and Graduate Studies, and by UCOP's Office of General Counsel (OGC).

As a national laboratory managed by the University of California, certain aspects of technology transfer are different at LBNL as compared to the rest of the university. LBNL has a reporting period that covers a fiscal year ending Sept. 30, 2014, as compared to June 30, 2014, for the rest

of UC. Also, while LBNL manages inventions in a way that is generally consistent with the principles and practices of the rest of UC, there are some important operational differences, such as LBNL's greater use of in-house patent attorneys. This FY14 University of California Annual Report provides the systemwide technology portfolio that includes LBNL-managed technologies, except where otherwise noted.

## Letter from the Director

In 2014, the University of California formed a UC Innovation Council to advise the university on options that support both the needs for innovation research and education, and further enhance the development of technologies, products and processes that benefit society.

I have had the good fortune of working with the council and exploring opportunities for creating a more dynamic innovation ecosystem across the University of California. In our conversations, the council has challenged UC to be better at celebrating our faculty and students as they work to take their research to market.

This year's report highlights a few of these success stories—from creating "garages" that incubate ideas to robots that teach young people how to create, from water-saving technology to life-saving diagnostic tools. These developments are making a difference today and demonstrate our mission to teach for California and research for the world.

In FY 2014, UC researchers submitted 1,769 new inventions—an average of nearly five a day, 365 days a year—bringing UC's total portfolio to 11,963 active inventions. UC researchers also launched 86 new startup companies.

We're proud of our role in transforming today's research research results into tomorrow's commercial successes.

Sincerely,

William Tucker Executive Director Innovation, Alliances and Services



"UC is a national leader in developing new knowledge and moving our research into the market so it can benefit our society, our economy and our planet."



# Boosting brains, business

UC Riverside neuroscientist Aaron Seitz studies how the brain changes and adapts as we learn. He is pioneering a series of "brain games" and fueling a mental fitness revolution. Imagine apps on smartphones and tablets to exercise the brain.

Devices could help those with impaired cognition or brain damage, as well as healthy people looking to sharpen memory.

Last year, Seitz and UC Riverside computer scientist Victor Zordan launched a startup, Fundamental Brain Games and Services, LLC, to develop and distribute brain training apps on smart devices. It dovetails with research at the UC Riverside Brain Game Center.

The company is one of five in a downtown Riverside business incubator that opened in 2014. Riverside ExCITE is a collaboration of business, city and county government leaders and the university to nurture startups engaged in entrepreneurial research. ExCITE also hopes to create more high technology jobs in the Riverside area.

ExCITE offers workspace, technology transfer, management mentorship and access to financial resources and marketing services to these startups. It is part of an entrepreneurial ecosystem blossoming in Riverside to help innovative companies flourish.

The Goleta Entrepreneurial Magnet, a similar collaboration between UC Santa Barbara and its neighboring city, is designed to spark ideas and economic vitality. Mentorship from UCSB and local businesses helps young companies thrive.

Collaborations like these, aimed at nurturing successful startups, are springing up across the UC system.

**UCSF** neuroscientist Adam Gazzaley's research lab uncovers how the neural mechanisms of memory, attention and perception change as people age-from childhood through old ageand how one might alleviate cognitive deficits. The therapeutic model he explores is not a drug or a device—it's video gaming. Startup Akili Interactive Labs is clinically testing his science in its Project EVO gaming platform for patients diagnosed with attention deficit hyperactivity disorder, autism, depression and traumatic brain injury.

# Sum of parts, partnerships

A good robot relies on the right connections and networks. So does a fruitful graduate student-faculty mentor relationship and a successful company. Harry Cheng and Graham Ryland know this well.

When UC Davis engineering professor Cheng met then entering graduate student Ryland, both were looking for a new partnership. Ryland wanted to study robotics. Cheng researches robotics in his Integrated Engineering Lab. He also uses robotics to improve computing, science, technology, engineering and mathematics education in K-14 through C-STEM, a center that he founded.

C-STEM's pioneering curriculum is taught in more than 100 schools, reaching 10,000 students—nearly half of whom are young women and underrepresented minorities—across the state. Programmable robotic modules, called LinkBots, are integral to the success of the curriculum. The center also teaches STEM instructors and offers them professional development.

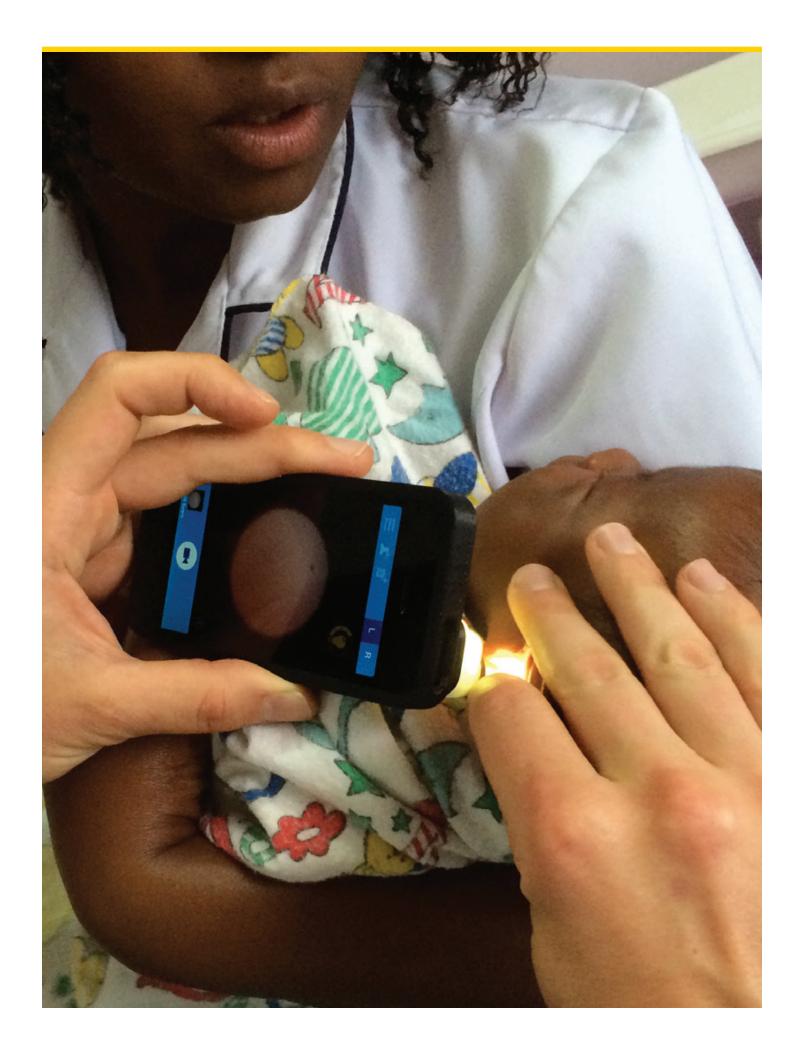
Cheng and Ryland co-founded Barobo, Inc. to design and develop the modules. Barobo currently partners with Pride Industries, a nonprofit employer of people with disabilities, to make the LinkBots.

Ryland's "startup" education began at the UC Entrepreneurship Academy, run by UC Davis' Child Family Institute. The nascent Barobo incubated at the on-campus Engineering Translational Technology Center.

Robotics may become the school "shop" class that inspires young people to pursue careers in science and engineering. Cheng and Ryland's partnership gives California's students a better way to put the parts together.

UC Berkeley bioengineering professor Amy Herr is committed to research with real-world applications and moving innovation from her lab into the market. Graduate students have founded enterprises stemming from the lab's work: Zephyrus Biosciences, which develops tools for high resolution biology, including protein fingerprinting of single cells to help scientists study tumors; Correlia Biosystems, proteomic technology that can reduce time and cost of developing drugs and diagnosing diseases; Tekla Labs, a nonprofit run by lab equipment "hackers" who want to make research tools more accessible, especially in the developing world.





# Making it big

It started as a bioengineering project to transform an ordinary cell phone into a microscope. Since 2008, technology started at the multicampus Center for Information Technology Research in the Interest of Society (CITRIS) has become a disease detector and life-saving tool in Africa, India and Asia—in some of poorest areas of the world and where equipment, facilities and on-the-ground health care are scarce.

Now, the CellScope can be a tool in home health kits. Parents can clip it to their cell phones, turn the camera into an otoscope, get high-resolution images from inside their child's ear and send it to the doctor to find out if there is an ear infection. It also is being developed for a wide range of uses as a handy alternative to the traditional microscope.

CellScope, which can magnify up to 60 times, was pioneered by UC Berkeley bioengineering professor Daniel Fletcher. It has been field-tested in developing countries to diagnose malaria, tuberculosis and parasitic diseases.

Erik Douglas, a postdoctoral fellow in Fletcher's lab, and Amy Sheng, an MBA student, spun out CellScope, Inc., to make an impact closer to home. Other applications include: detecting the cell abnormalities that cause eye diseases and oral cancer; surveying ocean microorganisms right on a boat; identifying natural flora and fauna in water to find pollution; inspecting agricultural crops for infection; in art, revealing the beauty of the microscopic world; and educating youngsters in the science classroom.

Working across the five UC medical centers, the UC Biomedical Research Acceleration, Integration & Development Consortium enhances clinical and translational research efforts. And through the UC Center for Accelerated Innovation based at UCLA, researchers are working to create companies and products to improve health care and address unmet medical needs throughout California.

### Water works

The state's severe drought worries Californians in all sectors. The economic cost of the drought in 2014 alone was \$2.2 billion, resulting in the loss of 17,100 seasonal and part-time jobs, according to a UC Davis impact report.

At UC Davis and UC Riverside—the two UC campuses where research historically has boosted the agricultural food supply and quality—new technology may help farmers weather the drought.

Tule, an agricultural startup rooted in UC Davis research, has developed a sensor and monitoring system to help growers analyze water use. The system can minimize water waste during drought, and if normal rain returns to the state, the technology will help with a critical part of agriculture—irrigation management, which determines crop quality and yield.

UC Riverside plant scientist Sean Cutler has shown how a naturally-produced plant stress hormone helps plants survive by inhibiting their growth in times of drought. Ideally, drought-threatened fruits and vegetables can be engineered to respond to a widely used agrochemical as if it were the stress hormone. The technology, for which UC Riverside has filed a patent application, could sustain crops during drought and help farmers conserve water.

At UCLA, engineers roll out and test a mobile water treatment plant in the San Joaquin Valley. Installed in a 40-foot cargo container, the technology is designed to desalinate and purify as much as 27,000 gallons of agricultural runoff and groundwater a day. That's equivalent to the average daily use of about 90 U.S. families.

In 2014, Lawrence Berkeley Laboratory scientist Ashok Gadgil was inducted into the National Inventors Hall of Fame for UV Waterworks. which has saved an estimated 1,000 children's lives. The disinfecting device uses ultra violet light to kill pathogens in water. It provides safe drinking water to 5 million people every day in India, the Philippines and Ghana. Another Gadgil invention removes arsenic from groundwater, and an Indian company, Luminous Water Technology, has licensed it for arsenic-affected villages in India and Bangladesh.





# Supersizing the garage

Many successful companies—including Apple, Microsoft and HP—trace their roots to garages where ideas flowed and flourished. But real garages can't house biology experiments.

In 2006, QB3—the California Institute for Quantitative Biosciences—borrowed the garage concept and turned a utility room at UCSF's Mission Bay campus into a 2,500-square-foot biotech incubator for a handful of startups.

The QB3 Garage@UCSF was the first technology incubator in the UC system, and later the QB3 Garage@Berkeley provided space for more fledgling companies. More than 60 companies have passed through these and other QB3 incubators, creating hundreds of jobs and more than a half billion dollars of funding.

Over the years, QB3 leaders recognized that the biotechnology startups needed equipment upgrades and a greater network of mentors, investors and community entrepreneurs. In 2013, they opened a new 24,000-square-foot full-service incubator—QB3@953—near the UCSF Mission Bay campus. It provides space and research equipment for more than 40 startups from UC and outside. The companies are developing technologies, including tests and treatments for a wide range of diseases, such as cancer, Alzheimer's, diabetes and HIV.

It is a public-private partnership. GE donated scientific equipment, and Johnson and Johnson subleases space to expand its San Diegobased life science incubator, Janssen Labs.

QB3@953 is the premier life science incubator in San Francisco, and it is a new blueprint for upgraded "garages."

When it comes to linking inventors and entrepreneurs with resources to commercialize their products, CONNECT in San Diego is regarded as one of the world's top programs. It was founded in the mid-1980s at UC San Diego, when industries in the area were on the decline. In 2005, CONNECT spun out of the campus to broaden its work in the region. In the past 30 years, it has helped develop more than 3,000 life sciences and technology companies.

# Thoughts for food

A gardening kit that starts with three plants in a handcrafted redwood planter is motivating unlikely growers to raise their own food. Each season, new seedlings are delivered to kit subscribers so that they can plant fruits and vegetables year-round.

Stella Liu, a UC Irvine student majoring in international studies, developed the kit, called OneSeed, for those passionate about local organic food but who have no gardening experience or who live in apartments. The planter can be put on a windowsill, balcony or in a backyard, and the kit comes with videos and salad recipes for the novice gardener.

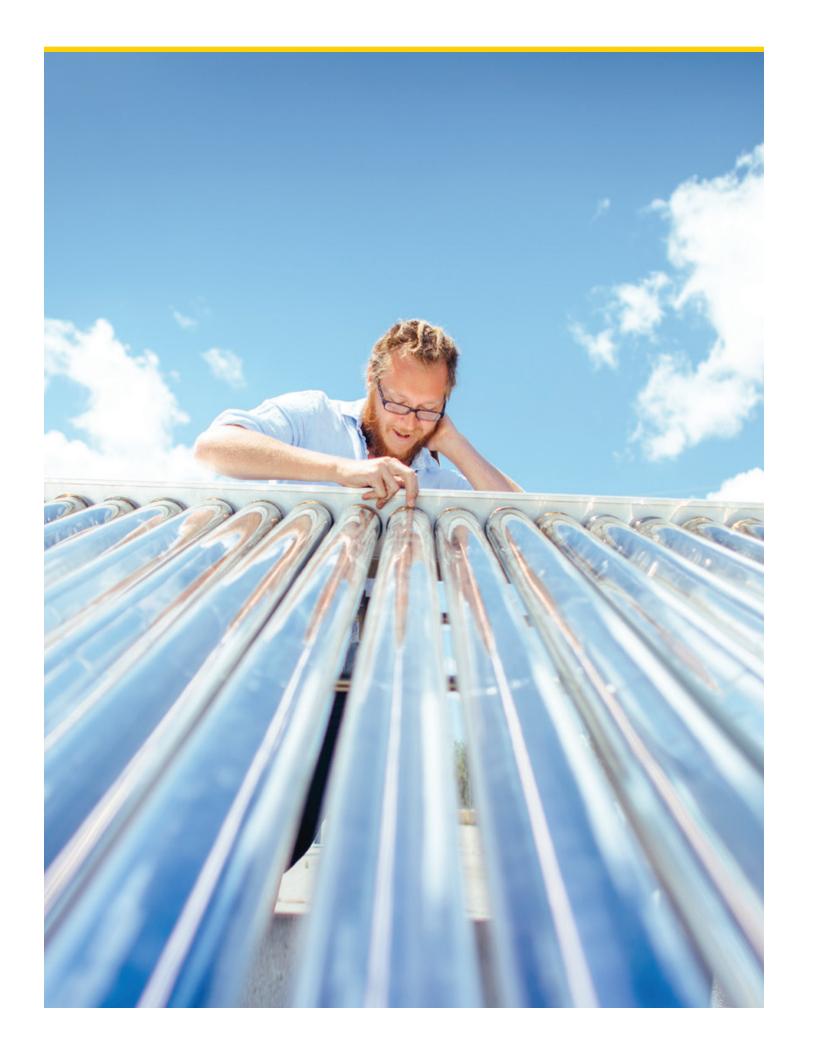
Liu unveiled OneSeed last year at Startup Weekend Orange County, where a Google-sponsored challenge brought together students and professionals to start companies. OneSeed is a model for social entrepreneurship. It's a for-profit venture, but some of its earnings are used to start community gardens in low-income neighborhoods so that families will have access to fresh, healthy produce.

As part of the UC Global Food Initiative in 2014, UC faculty, staff and students share expertise and resources to enhance healthy eating choices and sustainability in communities.

Another project, UC San Diego's Ocean View Growing Grounds, turned a vacant lot into a thriving 20,000-square community garden in a neighborhood where poverty, obesity and environmental degradation pose social and health problems.

The UC Davis Sustainable AgTech Innovation Center accelerates new ventures in sustainable agriculture practices, including water and energy efficiencies; food processing, quality and safety; and new food products. Programs include an Innovation Seed Fund for proof-of-concept development, an Ag Innovation Entrepreneurship Academy for startups, and a partnership with the Sacramento Regional Technology Alliance on an industry cluster program called AgStart. In 2014, UC Davis and Mars Inc. launched the Innovation Institute for Food and Health to build on UC Davis' strengths and deliver big impact, Silicon Valleytype breakthroughs in food agriculture and health.





# Banking on the sun

In the quest for clean energy, researchers throughout the UC system are looking at how we gather, store and use solar energy.

"Solar is our most abundant and reliable form of renewable energy, and, when used effectively, has the potential to meet most, if not all, of our energy needs," says Roland Winston, UC Merced professor and director of the UC Advanced Solar Technology Institute–UC Solar.

Funded by a grant from the UC Office of the President, UC Solar's mission is to create technologies and develop solar energy leaders and entrepreneurs. Faculty and students conduct solar research at nine UC campuses.

At UC Santa Cruz, researchers invented Energy and Collector Storage Systems for homes. The technology captures four times more solar energy than systems now in use, boosting energy collected from the sun from 20 to 80 percent.

UC Merced engineers, led by Winston, have developed highly efficient panels that concentrate available light, reducing the costly need to track the sun across the sky.

At UC Irvine, researchers are working on low-cost solar cells and thermoelectric devices that harness the sun's heat to directly generate power.

UC Solar also collaborates with industry through a consortium that attracts companies to produce, manage and invest in solar technologies. Those partnerships may help researchers create solar technologies that can be brought to the marketplace quickly.

In 2014, UC made the largest purchase of solar power by any university in the U.S. It was part of President Janet Napolitano's Carbon Neutrality Initiative, pledging UC carbon neutrality by 2025. The agreement with Frontier Renewables will supply UC with 80 megawatts of solar capacity and prevent some 88,000 metric tons of carbon annually from being emitted into the atmosphere. The power will be supplied by two solar parks to be constructed in Fresno County, creating an estimated 237 jobs in that area.

# The innovation ecosystem

The progression from basic research to innovation and to the commercial market spurs new industries, improves our quality of life and gives us products and services worldwide.

By instilling a spirit of innovation, providing opportunities for knowledge transfer between academia and industry and engaging local economic partners, UC equips faculty and students to be creative leaders in tomorrow's high-tech economy. Already, more than two-thirds of UC alumni are working and paying taxes in California—and that number doesn't include UC graduates who are self-employed or have gone on to launch companies.

UC is uniquely positioned to grow the California innovation ecosystem. For every \$1 taxpayers invest, UC generates nearly \$14 in economic output for the state every year.

Since 1980, more than 800 startups have been founded on UC patents, and some 700 of those are based in California. UC now nurtures more than 300 young companies in three dozen incubators and accelerators across the system.

The impact of these new companies on California's economy is evident. In 2014, active companies commercializing UC patents generated \$14 billion in revenue and employed 19,000 people. Since 2005, UC startups have attracted nearly \$7 billion in venture capital.

By fostering entrepreneurship and innovation, promoting regional coordination and developing technology-based networks of researchers, UC is creating a dynamic innovation ecosystem.

### **UC STARTING POWER**

Startups formed since 1980

Startup

\$11B Total venture funding

9,481 Total employees of active companies

\$390м

Total Small Business Innovation Research grants

**\$14**B

Total annual revenues of active companies

218

Companies with at least one product on the market

### UC GRADUATE STUDENTS INVENT

276

Startups by graduate students, 1980-2013





on graduate student inventions: 2000-13

UC startups based on graduate student inventions: 2009-13

\$3.8B

Total venture funding

3,404

Total employees of active companies

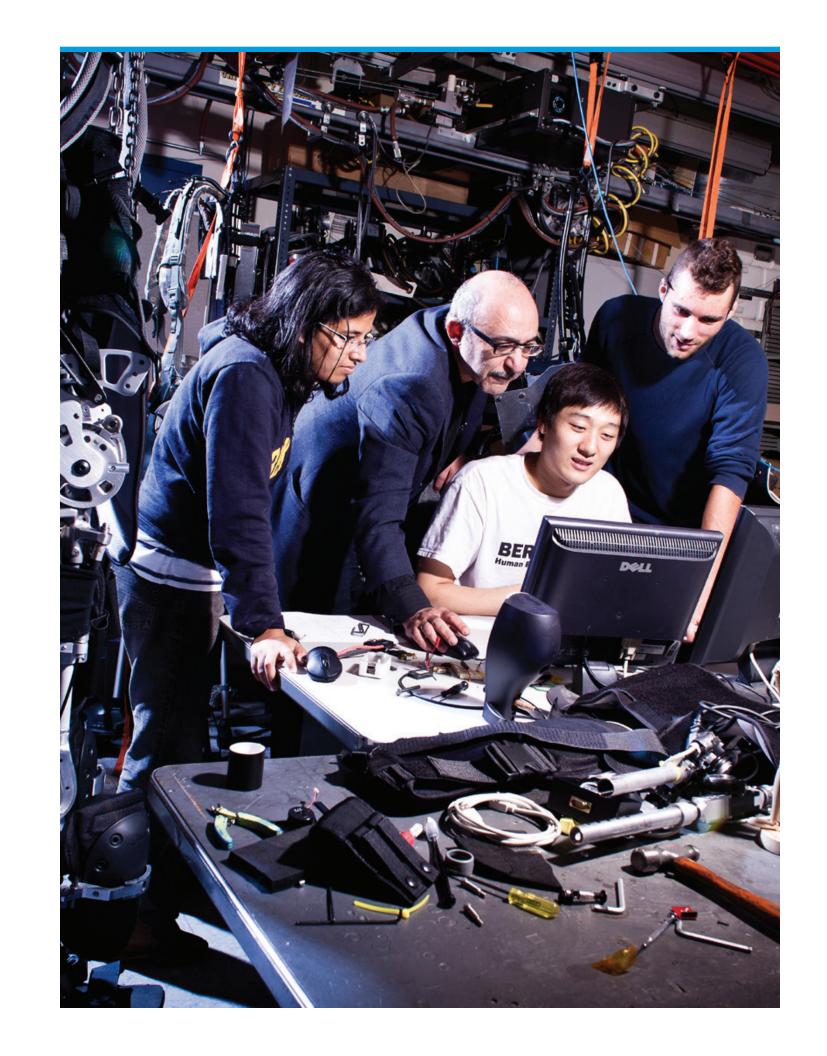
Total Small

**Business Innovation** 

Research grants

\$515<sub>M</sub>

Total annual revenues



Inventions **Patents** 

## Licensing

# Startups

## Royalty and fees

## Top-earning inventions

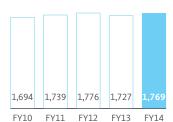
San Andreas Strawberry (DA, 2008)

Tango Mandarin (RV, 2005)

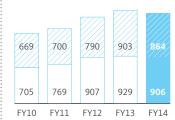
% of Total from Top 5 Inventions

% of Total from Top 25 Inventions

### INVENTIONS DISCLOSED

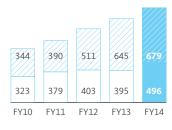


U.S. PATENT APPLICATIONS FILED



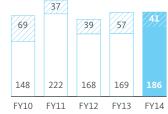
Applications - Secondary Filings Applications – First Filings

### PATENTS ISSUED



✓ Foreign Patents Issued✓ U.S. Patents Issued

### LICENSES ISSUED



Plant Licenses Utility Licenses

TOTAL ACTIVE LICENSES

627

Plant Licenses

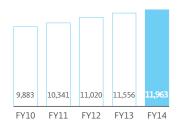
Utility Licenses

1,419 1,520 1,595 1,653

FY10 FY11 FY12 FY13 FY14

633 674

### TOTAL ACTIVE INVENTIONS



Figures do not include LBNL

1,769

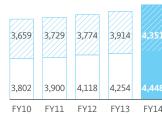
Active inventions in

UC's portfolio

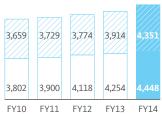
New inventions disclosed

by UC researchers in 2014

### TOTAL ACTIVE PATENTS



Total Active Foreign Patents Total Active U.S. Patents



Figures do not include LBNL

U.S. patent applications filed based on UC inventions in 2014

Active U.S. patents covering

U.S. patents issued for UC inventions in 2014

New licenses for UC's utility inventions in 2014

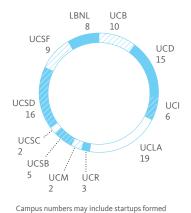
New licenses for food plant cultivars in 2014

### STARTUP COMPANIES FORMED



BY CAMPUS, 2014

STARTUP COMPANIES FORMED -

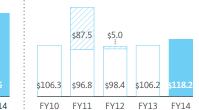


by more than one campus

New startup companies formed in 2014 from UC inventions

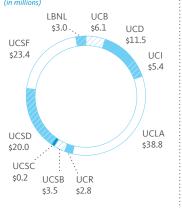
Startups founded on UC patents since 1980

### PATENT ROYALTY AND FEE INCOME



Extraordinary Income\*
Ordinary Royalty and Fee Income \* Extraordinary income includes income from the prepayment of future royalty income in FY11 and income from legal settlements in FY12.

### PATENT ROYALTY AND FEE INCOME -BY CAMPUS, 2014



Does not include \$3.7 million from previous National Laboratory inventions and income credited to UCOP.

Patent royalty and fee income to UC in 2014

### INVENTIONS FY14 (Campus, Year Disclosed) **ROYALTY & FEE** INCOME (in thousands) Prostate Cancer Drug (LA, 2003, 2004, 2005, 2006 & 2007) \$33,353 Hepatitis-B Vaccine (SF, 1979 & 1981) \$8,766 EGF Receptor Antibodies (SD, 1983) \$6,754 Bovine Growth Hormone (SF, 1980) \$5,747 Chromosome Painting (LLNL, 1985, 1989 & 1995) \$3,571 Subtotal (Top 5 Inventions) \$58,191 Firefly Luciferase (SD, 1984) \$3,143 Dynamic Skin Cooling Device (IR, 1993) \$2,204 Nephropathic Cystinosis Treatment (SD, 2006) \$2,115 Detection of Mycoplasma (IR, 1984) \$2,026 Energy Transfer Primers (BK, 1994) \$1,994 \$1,905 Albion Strawberry (DA, 2004)

Ablation Device for the Treatment of Atrial Fibrillation (SF, 1997 & 1998)

Tear Osmometer for Dry Eye Disease Diagnosis (SD, 2002)

\$1,882

\$1,872

\$1,589

\$1,275

49.2%

72.7%

Camarosa Strawberry (DA, 1992) \$1,266 Golden Hills Pistachio (DA, 2004) \$1,070 Yeast Expression Vector (SF, 1982) \$886 Optical Network Switch (DA, 1997) \$785 Universal Oligonucleotide Separator (BK, 1996) \$748 Monterey Strawberry (DA, 2008) \$730 Magnetic Resonance Imaging (SF, 1976) \$637 Ventana Strawberry (DA, 2001) \$584 Super-Resolution Microscopy (SF, 1995) \$555 Waveguide-Based Spatial Power Combining Array (SB, 1996) \$517 Subtotal (Top 25 Inventions) \$85,975 Total (All Inventions) \$118,243

This list is limited to revenue-generating inventions that have been commercialized.

## UC Technology Transfer Program-FY14

### Summary Table

	UCB	UCD	UCI	UCLA	UCM	UCR	UCSB	UCSC	UCSD	UCSF	LBNL	UC System	% change from FY13
Inventions*													
Inventions Disclosed	198	213	140	371	12	64	91	48	367	181	140	1,769	2.4%
Total Active Inventions	1,530	1,268	996	2,215	77	465	600	299	3,009	1,763	**	11,963**	3.5%
Patent Prosecution*													
US Applications Filed													
First U.S. Filings	116	92	93	223	2	32	77	22	163	50	74	906	-2.5%
Secondary U.S. Filings	84	67	68	269	4	40	67	24	112	68	93	864	-4.3%
U.S. Filings	200	159	161	492	6	72	144	46	275	118	167	1,770	-3.4%
First Foreign Filings	48	40	19	141	0	18	27	14	88	54	22	456	6.3%
Patents Issued													
U.S. Patents Issued	51	20	42	97	4	17	59	12	99	32	71	496	25.6%
Total Active U.S. Patents	687	408	401	825	8	122	475	100	859	631	**	4,448**	4.6%
Foreign Patents Issued	68	50	66	147	0	27	43	5	134	109	44	679	5.3%
<b>Total Active Foreign Patents</b>	610	463	384	818	2	166	163	33	886	859	**	4,351**	11.2%
Licensing*													
Letters of Intent (LOI) Issued	31	27	19	47	1	5	20	0	33	23	2	198	28.6%
Options Issued	14	0	7	14	1	2	0	1	2	4	13	57	21.3%
<b>Total Active Options</b>	56	7	11	23	3	10	6	4	7	11	15	148	8.0%
Utility Licenses Issued	19	15	14	31	2	3	11	4	49	42	9	186	10.1%
<b>Total Active Utility Licenses</b>	344	152	99	269	3	43	66	22	339	386	61	1,702	3.0%
Plant Licenses Issued	0	35	0	0	0	9	0	0	0	0	0	41	-28.1%
<b>Total Active Plant Licenses</b>	0	477	0	0	0	212	0	0	0	0	0	657	-2.5%
Startup companies													
Startup Companies Formed	10	15	6	19	2	3	5	2	16	9	8	86	21.1%
Royalty & Fee Income*** (in thousands)													
Running Royalties	\$2,508	\$9,395	\$2,092	\$22,340	\$0	\$2,338	\$1,178	\$0	\$13,615	\$17,409	\$348	\$74,458	n.a.
Equity Income	\$105	\$0	\$0	\$1,381	\$0	\$7	\$7	\$0	\$2,686	\$0	\$131	\$4,316	n.a.
Other Royalty and Fee Income	\$3,469	\$2,142	\$3,287	\$15,064	\$0	\$451	\$2,300	\$173	\$3,701	\$5,976	\$2,476	\$39,469	n.a.
Total Royalty & Fee Income	\$6,082	\$11,537	\$5,379	\$38,786	\$0	\$2,797	\$3,485	\$173	\$20,001	\$23,385	\$2,955	\$118,243	11.3%
Distributions (in thousands)													
Inventor Shares Distributed	\$1,685	\$4,692	\$2,336	\$4,478	\$8	\$770	\$1,175	\$51	\$8,937	\$9,440	\$657	\$35,541	-7.9%

This table only reports technology transfer activity governed by the UC Patent Policy for inventions managed by all UC technology transfer offices, including LBNL. It does not include copyright and material transfer agreement activity that is also carried out by the campus and laboratory offices.

## **UC Technology Transfer websites**

Available Technologies	Website
Systemwide	techtransfer.universityofcalifornia.edu
Technology Transfer Offices	Websites
UC Office of the President	
Innovation Alliances and Services (IAS)	ucop.edu/innovation-alliances-services
UC Berkeley (UCB) Office of Intellectual Property & Industry Research Alliances (IPIRA)	ipira.berkeley.edu
UC Davis (UCD)	
UC Davis InnovationAccess	research.ucdavis.edu/industry/ia/
UC Irvine (UCI)	
Office of Technology Alliances (OTA)	ota.uci.edu
UC Los Angeles (UCLA) Office of Intellectual Property & Industry Sponsored Research (OIP-ISR)	oip.ucla.edu
UC Merced (UCM)	
Office of Business Development (OBD)	bd.ucmerced.edu
UC Riverside (UCR)	
Office of Technology Commercialization (OTC)	ucr.edu/research/otc.html
UC Santa Barbara (UCSB)	
Office of Technology & Industry Alliances (TIA)	tia.ucsb.edu
UC Santa Cruz (UCSC)	
Office for Management of Intellectual Property (OMIP)	officeofresearch.ucsc.edu/omip
UC San Diego (UCSD)	
Technology Transfer Office (TTO)	invent.ucsd.edu
UC San Francisco (UCSF)	
Innovation, Technology & Alliances (ITA)	ita.ucsf.edu
Lawrence Berkeley National Laboratory (LBNL)	
Innovation and Partnerships Office (IPO)	ipo.lbl.gov

<sup>\*</sup> Technology transfer activity related to inventions having one or more inventors at each campus/lab. A number of inventions involve inventors from multiple UC campuses and/or LBNL. Technology transfer activity statistics for these inventions are reported multiple times, once for each campus/lab involved. Thus, for any given measure of activity, the sum of individual campus numbers may be greater than the systemwide

<sup>\*\*</sup> These statistics are not available for LBNL-managed inventions and are excluded from systemwide totals.

<sup>\*\*\*</sup> Financial activity related to inventions having one or more inventors at each campus/lab. A number of inventions involve inventors from multiple UC campuses and/or LBNL. Financial activity statistics for these inventions are pro-rated among the campuses and LBNL according to the number of inventors each campus/lab has. Since some financial activity reported here is credited to UC inventors who are not associated with a campus or with LBNL (including staff at other DOE laboratories), the sum of individual campus numbers may not equal the systemwide totals reported in the right-hand column.

