



# ALL FOUR: INNOVATION

TECHNOLOGY TRANSFER OFFICE  
TECH TRANSFER  
ANNUAL REPORT 2014-15:



University of Colorado

Boulder | Colorado Springs | Denver | Anschutz Medical Campus

Founded in Boulder in 1876, the University of Colorado is a premier teaching and research university with four campuses: the University of Colorado Boulder, the University of Colorado Colorado Springs, the University of Colorado Denver and the University of Colorado Anschutz Medical Campus. With nearly 61,300 students, over 5,100 full-time instructional faculty members and an additional 1,285 research faculty members across the four campuses, CU is the largest institution of higher education in the state of Colorado.

*CU's research faculty secured more than \$878 million in sponsored research awards in FY2014-15.*

Campus	Sponsored Research Funding
CU-Boulder	\$425+ million
UCCS	\$10+ million
CU Denver	\$22+ million
CU Anschutz Medical Campus	~\$421 million

## From The President

It was no surprise earlier this year when the University of Colorado was ranked by respected international news agency Reuters as the 28th most innovative university in the world. In the past year alone, CU's Office of Technology Transfer helped establish 13 new startup companies, which have brought revolutionary discoveries to the people who need them most. Whether it's a DNA analog for treatment of Huntington's disease, or a biotech company that develops head and neck cancer treatment, or even a weather data company that provides 15-minute weather observations for fast decision-making for the transportation and agriculture industries, CU's Tech Transfer Office promotes research that benefits the greater good. The CU Technology Transfer Office pursues, protects, packages and licenses intellectual property generated from research at the University of Colorado. It provides assistance to faculty, staff and students, as well as to businesses looking to license or invest in CU technology. Tech Transfer is instrumental in helping technology transition from innovation to outcome. As Colorado's Front Range accelerates into one of the top entrepreneurial corridors, CU innovators are positioned for world-class impact. Since being established in 2001 by the CU Board of Regents, CU's Office of Technology Transfer has led the way in promoting excellence, education and job creation. In the past decade, CU ingenuity has bolstered the economy by generating nearly \$124 million in licensing revenue. Through our four campuses, the University of Colorado plays a profound role in the lives of individuals, businesses and communities in Colorado, across the country and around the world. I am proud and grateful that Tech Transfer is a catalyst in this important evolution.

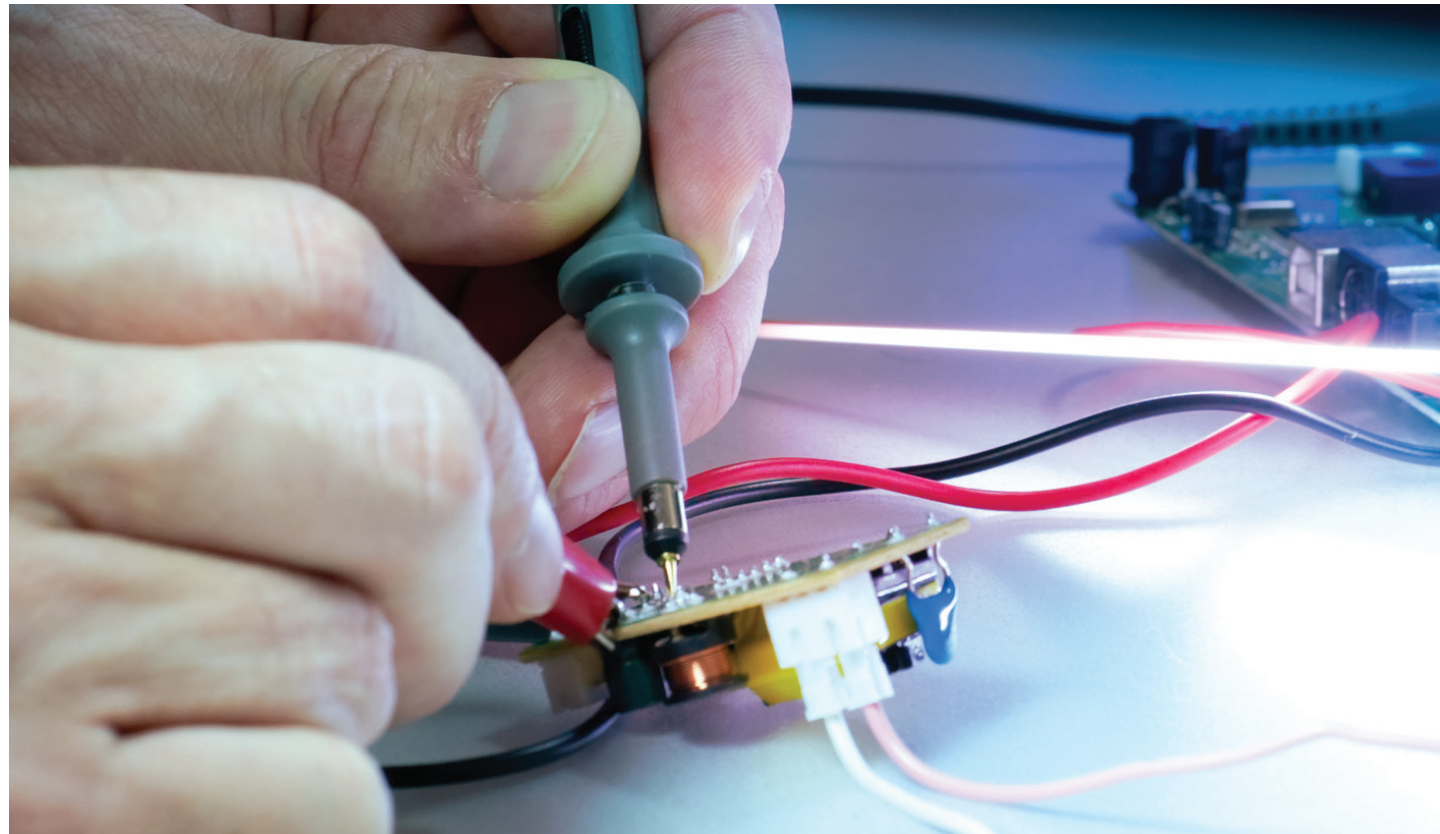
Sincerely,  
Bruce D. Benson, President, University Of Colorado

## From The Associate Vice President, Technology Transfer

Colorado's Front Range is consistently ranked as a premier entrepreneurial hub, positioning the CU Technology Transfer Office at the intersection of life-changing research and a leading entrepreneurial ecosystem. For FY2014-15, research funding at CU's four campuses was reported at \$878 million. Every day, our team works with CU researchers, faculty and students to make the most of these research projects. Behind the numbers presented here are the hours our staff spend with research groups, connecting them with resources and helping them understand the issues of intellectual property and commercialization - a vital service as federal research funding becomes more competitive. We have:

- Worked to align with campus leadership goals for innovation and entrepreneurship
- Capitalized on the expanding high-tech economy to build the growing pipeline of products based on CU innovations
- Continued to support an environment where faculty can easily engage in the commercialization process

Warm regards,  
Kate Tallman, Associate Vice President, Technology Transfer



## Major Financing Events for CU Startups

With more than 25 separate transactions, companies created based on CU technology secured over \$100 million in financing in FY2014-15. For CU startups, FY2014-15 saw an increase in acquisitions and mergers over the previous fiscal year. Cumulatively, CU startups have raised a total of over \$6.2 billion. This year's financing events were led by an approximately \$15 million DOE grant to InDevR, \$15 million in funding for Globeimmune, and an over \$8 million financing round for MiRagen Therapeutics. Flashback, BiOptix, Endoshape and others also received significant financing for FY2014-15.

Grants/Gifts	\$15,000
Federal Grants	\$20,100,000
Seed/Bridge	\$10,615,287
Series A	\$9,300,000
Series B	\$34,400,000
Series C/D/E/F/other	\$14,700,000
State funding	\$1,010,000
SBIR/STTR	\$485,403
Other	\$75,000
<b>Total Financing</b>	<b>\$105,884,490</b>

## CU Startup Sustainability

Since 1994, **155** companies have been formed based on CU intellectual property; 114 are known to be still operational.

Of the **114** companies known to be operating,

- **110** have headquarters or research operations in Colorado
- **19** have received CU Technology Transfer Office Proof of Concept investments
- **41** have received matching grants under the State of Colorado's Advanced Industries Accelerator and Bioscience Discovery & Evaluation Grant programs
- **9** have "gone public," becoming publicly traded companies (through an IPO or a reverse merger)
- **23** have been acquired by public companies (including seven of the above nine that have gone public)

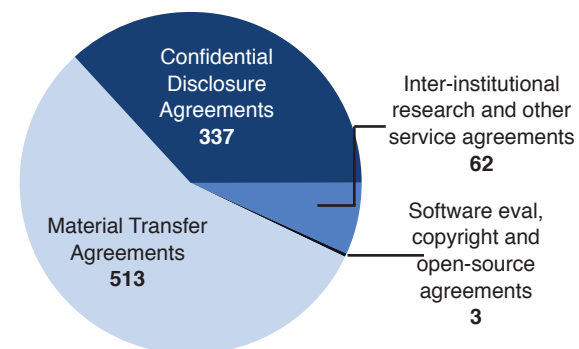
## CU's Portfolio Snapshot as of July 1, 2015

<b>413</b>	U.S. Patents in Force
<b>346</b>	U.S. Patent Applications in Prosecution
<b>188</b>	Exclusive Licenses in Force
<b>208</b>	Non-exclusive Licenses in Force
<b>126</b>	Active companies created based on CU IP
<b>74</b>	Companies in which University License Equity Holdings, Inc. (ULEHI) holds equity

## Tech Transfer Expenses FY2014-15

Salaries, Benefits, Students	\$2,684,400
General/Administrative/Rent	\$975,100
Patent Investment/Maintenance	\$1,605,600
External Commercialization Partners	\$50,000
Proof of Concept Programs	\$407,700
<b>Total Expenses</b>	<b>\$5,772,800</b>

## Service Agreements



## Tech Transfer Performance FY2014-15

<b>205</b>	Invention Disclosures
<b>113</b>	New Patent Filings
<b>212</b>	Follow-on Patent Filings
<b>54</b>	U.S. Patents Granted
<b>52</b>	Total Options & Licenses
<b>33</b>	Exclusive Options & Licenses
<b>19</b>	Non-exclusive Licenses
<b>13</b>	Start-up Companies Formed from CU IP
<b>1,011</b>	Service Agreements Executed
<b>\$3.3</b>	Revenue (in millions)
<b>\$1.32</b>	Patent investment (in millions)





## CU Startups (FY2014-15)

**Allander Biotechnologies** Novel therapeutics for oral mucositis

**Click Nucleic Acids** Novel nucleic acid synthesis

**Clinical Logic** Digital health solutions for infection control in hospital settings

**gaugewear** Wearable technology and smart apparel for athletic performance and occupational safety

**Kelvin Thermal Technologies** Thermal management technologies to control temperatures in advanced electronics

**Mallinda** Fully recyclable hard plastic polymer

**MyRoomSolutions** Dispute resolution software for university housing

**Orbital Micro Systems** Microwave sensor satellites for space-based weather observation

**PRAAN Biosciences** Single molecule sequencing of human genomes

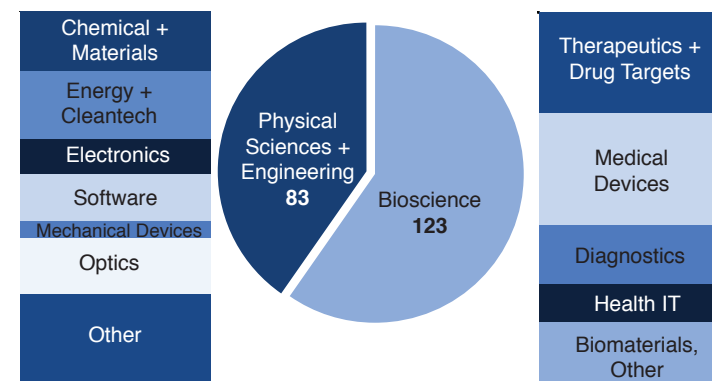
**Popneuron** Software supporting neuroscience-related research tools

**Red Cloud Communications** Optical communication components

**SilLion** Advanced materials for improved battery longevity

**Ubifocal** Extended depth-of-field optics for correcting presbyopia

## New Inventions



## From Innovation to Impact

The CU Technology Transfer Office has become a mature organization and an integral part of Colorado's innovation ecosystem. As Colorado's Front Range accelerates into one of the top entrepreneurial communities, CU innovators are uniquely positioned to create a significant impact in health care, science, aerospace, education and the environment.

From fiscal year 2006-2015, CU Tech Transfer has:

- Reviewed 2,362 invention disclosures
- Filed 869 U.S. patent applications
- Negotiated 579 license agreements
- Generated nearly \$124 million in licensing revenue

### FY 2015:

The state's Advanced Industries Accelerator program replaces the Bioscience Discovery Evaluation program. State proof-of-concept funding led to the creation of 20 CU startup companies and over \$260 million in follow-on funding.



### FY 2012:

124 startup companies formed based on CU intellectual property; 98 still known to be operating with 88 operating in Colorado



### FY 2010:

Colorado Institute for Drug, Device and Diagnostic Development launches first call for proposals for early-stage funding for Colorado life science companies.



### FY 2009:

CU-Boulder hosts the inaugural New Venture Challenge (NVC), CU's cross-campus entrepreneurship competition.



### FY 2006:

Bioscience Discovery Evaluation Grant program established by the state of Colorado to provide proof-of-concept funding to advance university technologies toward commercialization.



### FY 2005:

CU partners with Boulder community leaders to establish the Innovation Center of the Rockies (ICR), formerly Boulder Innovation Center. With a network of 1,800 volunteer business advisers, ICR is now one of the nation's premier entrepreneurial support organizations.



### FY 2003:

Invention disclosures more than double to 124 per year. CU, Colorado State University and the Fitzsimons Redevelopment Authority work with business community leaders to establish the Colorado BioScience Association.



### FY 2001:

CU Board of Regents establish an internal technology transfer office. CU TTO generated a strategic plan to:

- Increase the quantity and quality of invention disclosures
- Instill effective licensing practices
- Establish sustainable policies and procedures
- Promote service excellence
- Enhance communication and continued education across all audiences



University of Colorado

Boulder | Colorado Springs | Denver | Anschutz Medical Campus