

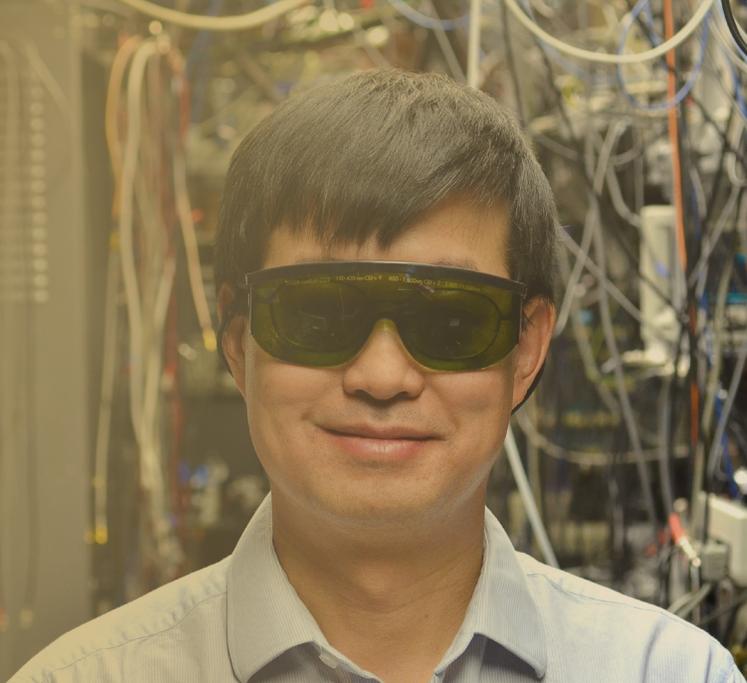


Venture Partners
UNIVERSITY OF COLORADO **BOULDER**

TRANSLATING INNOVATION:

Record-Breaking Results

2021 ANNUAL REPORT



Building a Groundbreaking Innovation Pipeline

Venture Partners at CU Boulder translates breakthrough research into economic and societal impact. We achieve record-breaking results by equipping researchers to commercialize lab discoveries with real-world insights. Our programs and processes move at a rapid pace to bring world-changing innovations from CU Boulder to the market.

Breaking Records in FY 2021

\$2.1 B

CAPITAL RAISED BY PORTFOLIO COMPANIES

\$3.7 B

EXITS BY CU BOULDER SPINOUT COMPANIES

10x

INCREASE IN ANNUAL CAPITAL RAISED AND EXIT TOTALS

WHEN IT COMES TO TRANSLATING IDEAS INTO IMPACT

at CU Boulder, the tangible results from 2021 are eye-popping, even record-breaking. Sixty-five licenses and options. Twenty new startups. \$2.1 billion in capital raised by CU Boulder spinout companies. \$3.7 billion in exits by our startups. We are incredibly proud of the “measurables” and the individual success stories of our inventors and startups. And these achievements tell just part of the story.

Our ambitions also include more expansive achievements like regional workforce development, job creation, economic impact and strengthening CU Boulder and its extended ecosystem as an innovation hub for the country and the world. That may sound like a lot, but these are benefits that the nation’s top universities can generate.

Programs we established in 2021 to accelerate commercialization of university technology exemplify how our ambitions extend far beyond campus. We have partnered with the **Buff Venture Fund**, a new venture capital fund focused on investing in companies spinning out from CU Boulder. The **Ascent Deep Tech Accelerator**, a partnership with Colorado’s Office of Economic Development and International Trade (OEDIT), leverages our full ecosystem to accelerate progress for early-stage companies from the University of Colorado Boulder, Colorado Springs and Denver campuses. And, as part of a National Science

Foundation initiative, we’re collaborating with seven research universities to form the **I-Corps Hub West Region** to help cultivate deep technology businesses in the Western United States.

Additionally, in partnership with local angel investing group Rockies Venture Club and OEDIT, we also launched the **Pandemic Hyper Accelerator for Science and Technology (PHAST)** to support the translation of these CU-developed, COVID-19 innovations into new businesses.

We wrapped up 2021 by earning the Innovation Award from the Association of Public Land-grant Universities (APLU), an honor that recognizes CU Boulder’s continuous endeavor to be the top university for innovation.

I hope this report will serve as a resource, outlining new ways we can work together to bring world-changing solutions from CU Boulder to the global community.

THANK YOU FOR YOUR SUPPORT AND COLLABORATION!



Terri Fiez
CU Boulder Vice Chancellor for Research and Innovation



Bryn Rees
CU Boulder Associate Vice Chancellor for Research and Innovation;
Managing Director of Venture Partners at CU Boulder



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– Bryn Rees, CU Boulder Associate Vice Chancellor for Research and Innovation;
Managing Director of Venture Partners at CU Boulder



Associate Professor Anushree Chatterjee, PhD (Chemical & Biological Engineering) and Dana Stamo, graduate student within the Chatterjee Group, examine microbial cultures.

Driving Results

We empower the people behind the headline-making breakthroughs. Our approach supports long-term commercial success. The proof is in our results.

FY 2021

130
INVENTIONS

65
LICENSES
& OPTIONS

20
STARTUPS

FY 2020

175
INVENTIONS

59
LICENSES
& OPTIONS

12
STARTUPS

FY 2019

144
INVENTIONS

46
LICENSES
& OPTIONS

6
STARTUPS

FY 2018

187
INVENTIONS

52
LICENSES
& OPTIONS

7
STARTUPS

FY 2017

124
INVENTIONS

49
LICENSES
& OPTIONS

9
STARTUPS

FY 2012-2016 (AVERAGE)

109
INVENTIONS

33
LICENSES
& OPTIONS

5
STARTUPS

Supporting World-Changing Companies

CU Boulder technology has launched more than 155 startups. Here are just a few:

TRANSFORMING THE WAY WE LIVE AND WORK



FACULTY FOUNDER
Dana Anderson, PhD
(Physics)

FOCUS Quantum computing and cold atom technology

CEO Scott Faris

RECENT RESULTS

- Launched Hilbert, a cloud-based quantum computer, in 2021
- Raised \$72 million in funding



FACULTY FOUNDERS
Sehee Lee, PhD,
Conrad Stoldt, PhD
(Mechanical Engineering)

FOCUS Solid-state electric vehicle batteries with increased range and safety

CEO Doug Campbell

RECENT RESULTS

- Secured \$650 million in 2021 investments
- Partnered with major investors including BMW and Ford



FACULTY FOUNDER
Eric Keller, PhD
(Electrical, Computer, & Energy Engineering)

FOCUS Network connectivity solutions

CEO & CO-FOUNDER Murad Kablan, PhD

RECENT RESULTS

- Partnered with PacketFabric and Console Connect
- Closed \$11.3 million Series A

REVOLUTIONIZING HUMAN HEALTH



FACULTY FOUNDER
Ryan Gill, PhD (Renewable & Sustainable Energy Institute)

FOCUS Digital genome engineering

CEO Sri Kosaraju

RECENT RESULTS

- Launched Onyx™ genome engineering platform in 2021
- Raised \$500 million to date



FACULTY FOUNDER
Xuedong Liu, PhD
(Biochemistry)

FOCUS New treatments for multiple cancer types

CEO & CO-FOUNDER Tony Piscopio, PhD

RECENT RESULTS

- Lead product entering Phase II clinical trials, partnered with Pfizer
- Closed \$55 million Series B in 2021



FACULTY FOUNDER
Larry Gold, PhD
(Molecular, Cellular, & Developmental Biology)

FOCUS Health, wellness and disease monitoring through proteomics

CEO Roy Smythe, MD

RECENT RESULTS

- Boasts deepest protein analysis available with SomaScan® platform
- Raised \$630 million in 2021



FACULTY FOUNDERS
Ted Randolph, PhD (Chemical & Biological Engineering)
Bob Garcea, MD (Molecular, Cellular, & Developmental Biology)

FOCUS Single-shot, thermostable vaccine formulations

CEO Matthew Raider

RECENT RESULTS

- \$7 million Series A led by Adjuvant Capital
- Partnered with Forge Nano to combine multiple vaccine doses using atomic layer deposition



FACULTY FOUNDER
Linda Watkins, PhD
(Psychology & Neuroscience)

FOCUS New treatments for osteoarthritis, neuropathic pain, and other indications

CEO Diem Nguyen, PhD

RECENT RESULTS

- Lead product in Phase II/III clinical trials
- Closed \$30 million Series C in 2021

Developing Real-World Readiness

Our programs go beyond the traditional technology transfer model to support researchers-turned-founders in scaling successful, sustainable businesses.

Transforming Innovators into Entrepreneurs



Research-to-Market (R2M) Customer Discovery Program

The three-week program walks technologists through the customer discovery process and pushes them to think about how their innovations can be adopted in markets in consultation with experienced mentors and advisors.

APPROACH:

As part of the National Science Foundation's I-Corps™ Program, R2M leverages the nationally-recognized Lean Startup and Business Model Canvas methodologies.

READINESS:

Innovators and technologists are prepared to compete in the Lab Venture Challenge, collaborate with industry partners and secure grants and investments.

Lab Venture Challenge

Venture Partners brings CU Boulder's most commercially promising technologies together for an intensive pitch competition to win up to \$125,000 in grant funds. Competitors are encouraged to participate in Venture Partners' I-Corps™ customer discovery programs and work with Entrepreneurs in Residence, mentors and Venture Partners staff.

GRANTS TO CU BOULDER INNOVATORS IN FY21:

\$1.35 million

WINNERS:

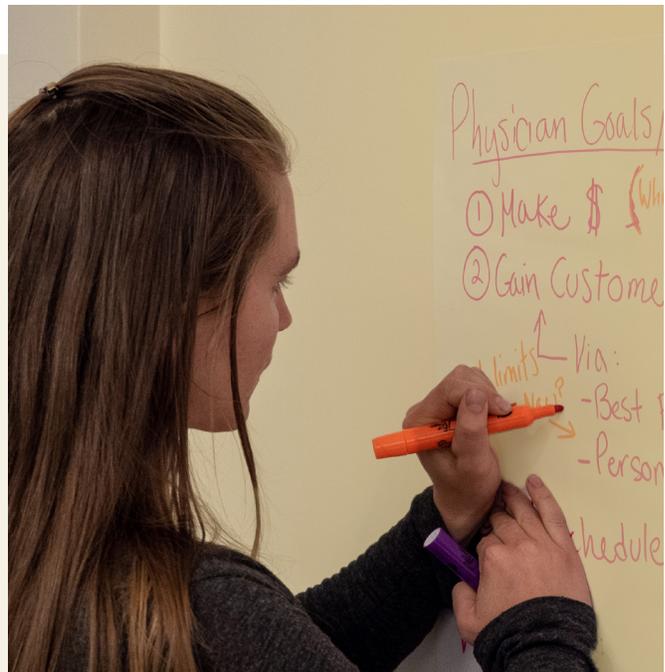
12 companies in biosciences, 4 companies in physical sciences and engineering

KEY PARTNER:

Colorado Office of Economic Development and International Trade (OEDIT)

“R2M was a fantastic program for me and the advancement of TissueForm. The feedback that we gained through these interviews has been invaluable for product design, business strategy and pitch competitions.”

Jeanne Barthold, PhD, Co-Founder & CSO, TissueForm





Assistant Professor **Carson J. Bruns, PhD** (Materials, Biomedical, Micro/Nanoscale) co-founded HYPRSKN. He completed I-Corps™ Starting Blocks and the Pandemic HyperAccelerator for Science and Technology (PHAST)

Growing a Western Innovation Powerhouse



Western I-Corps™ Hub

A \$15 million National Science Foundation (NSF) award cultivates inventions and ventures in deep technology at research universities in the Western United States. The CU Boulder hub will attract campus resources, talent and global networks to expand startup support and complement existing programming.

PROGRAM LEADERSHIP:

University of Southern California in partnership with CU Boulder and the University of California-Los Angeles

AFFILIATES:

California Institute of Technology, Colorado School of Mines, University of New Mexico, University of Utah, University of California-Riverside

Destination Startup®

The third annual and largest-ever Destination Startup® event attracted 25 startups from ten different institutions across six Rocky Mountain states in 2021. Participants pitched to investors and strategic partners from around the world.

UNIVERSITIES REPRESENTED:

Colorado State University, Montana State University, University of Colorado Anschutz Medical Campus, University of Colorado Boulder, University of Colorado Colorado Springs, University of Nebraska Medical Center, University of New Mexico, University of Utah, University of Wyoming

FEDERAL LABS REPRESENTED:

National Institute of Standards and Technology (NIST)

Moving at Market Speed



PHAST Accelerator

The Pandemic Hyper-Accelerator for Science and Technology (PHAST) supports rapid translation of CU Boulder-developed pandemic inventions into new businesses. Through a partnership with Rockies Venture Club and its Hyperaccelerator program, participants in the 34-week program focus on commercialization strategy and prepare for venture capital investment.

SUPPORT FOR CU BOULDER COMPANIES:

Entrepreneurial training, funding and mentorship valued at \$75,000

KEY PARTNER:

Rockies Venture Club

PROGRAM FUNDING:

\$500,000 in federal funding; \$125,000 local match

Ascent Deep Tech Accelerator

Deep tech startups are disruptors that face unique challenges. They often require more funding and longer lead times for commercialization. A new accelerator created for CU Boulder deep tech innovators addresses these hurdles.

Beginning in 2022, the program transfers the knowledge gained from spinning out more than 150 deep tech startups, with a focus on understanding critical milestones faced by founders.

TOPICS COVERED:

Building a team, product development, finance, equity and raising funding

SPECIALIZED CONTENT:

Biotech, quantum, energy/cleantech

Driving Venture Capital Investment in University Startups

Destination Startup®

Creating Value for Investors

Venture Partners at CU Boulder launched Destination Startup® in 2019, with the goal of attracting investors that might otherwise miss opportunities in Colorado and surrounding states. Collectively, universities across the Mountain West region boast excellent startup generation. Destination Startup® participant universities spun out 45 new companies in 2018, according to the Association of University Technology Managers. This combined number of startups is greater than MIT (25) or Stanford (24).

Destination Startup® attracts investment capital for regional startups and builds value in those companies. The program trains and develops entrepreneurial skillsets and builds the innovation talent pool across participating universities. During the application process, participants are paired with mentors from Venture Partners' extensive network. Each company has multiple opportunities to hone its investment pitch in practice sessions with mentors, often refining not only the company's pitch but also its underlying business model and path to market. Destination Startup® participants are offered an opportunity to join a formal Pitch Academy training session delivered by Rockies Venture Club.

Expanding Participation Through Virtual Engagement

In 2021, Destination Startup® shifted to a virtual format to accommodate the ongoing pandemic, and this new platform increased engagement across the board. In addition to the participating Colorado research institutions (University of Colorado, Colorado State University, Colorado School of Mines, and the National Institute for Standards and Technology in Boulder), Destination Startup® 2021 welcomed startups from the University of Utah, Montana State University, University of Wyoming, University of Nebraska and University of New Mexico. A total of 23 startups were selected and represented the best-of-the-best across the region. Investor engagement also increased, with 133 registered investors from all over the country and strong representation from coastal venture capital firms. In 2022, Destination Startup® will expand to include startups from the University of Arizona.

Destination Startup® Results Since 2019

57
STARTUPS

143
INVESTORS

\$189 M
FUNDS RAISED

PARTICIPATION:
10 INSTITUTIONS
ACROSS SIX STATES

Providing Regional Leadership

By increasing the visibility of university-originating startups to coastal venture capital, Destination Startup® has grown the innovation ecosystem in Colorado and throughout the Mountain West. Venture Partners at CU Boulder takes pride in raising the profile of not only its own startups but those of our neighboring universities and federal laboratories. The multi-institutional approach to Destination Startup® is rooted in a commitment to strengthening entrepreneurial opportunities for all.

Supporting Startup Success

Our team works closely with innovators to commercialize cutting-edge science. Together, we shape discoveries, identify opportunities and determine how to develop the final product, service or solution to appeal to target markets.



Intellectual Property (IP) Management

Protecting the most compelling and transformative innovations and technologies



Funding

Offering translational and proof of concept grants, and helping innovators and startups obtain capital to advance technologies and startups



Entrepreneurial Training

Providing innovators and startups with commercialization tools and resources



Licensing & Industry Partnerships

Providing business-friendly licensing, and bringing world-class research into consumer markets



Mentorship & Advising

Coaching innovators and startups on their pathways to commercialization



Bryn Rees (Managing Director of Venture Partners), **Tin Tin Su, PhD** (Founder of Suviga and Professor of MCDB), **Mark Rentschler, PhD** (Founder of Aspero Medical and Associate Professor of Mechanical Engineering), and **Doug Campbell** (CEO of Solid Power) participate in a panel discussion during Destination Startup®

Working with Us

The Venture Partners at CU Boulder team builds connections to commercialize world-changing breakthroughs. We support our up-and-coming innovators and develop relationships with industry leaders and investors from across the country.

Leadership



Brynmor Rees
*Associate Vice Chancellor for Research and Innovation;
Managing Director, Venture Partners at CU Boulder*

IP & Licensing



Joshua Bennett
*Licensing Manager,
Physical Sciences & Engineering*



Amy Dodenhoff
*Licensing Manager,
Physical Sciences & Engineering*



Kate Havey
*Senior Licensing Manager, Physical Sciences
& Engineering—Chemistry/Chemical
Engineering/Materials Sciences*



Hannah Nelson
Licensing Analyst



Annalissa Philbin
Senior Associate University Counsel



Dipika Singh
*Assistant Director of Licensing;
Lab Venture Challenge Director*



Marta Zgagacz
Director of Licensing

Venture Development



Collin Bunch
Programs Coordinator



Nicole Forsberg
Business Development Executive



Scott Fox
SpectrumX Director for Commercialization



Sally Hatcher
Senior Director of Venture Development



Mark Lupa
Senior Advisor, Investment Fund



Stephen S. Miller
Director of Venture Development

Administration, Communications & IT



Nathan Chen
Senior ERA Application Administrator



Joe Davidek
Patent Manager



Kayle Lingo
*Senior Marketing &
Communications Specialist*



Lynn Pae
License Administrator





Venture Partners

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