Colorado Bioscience

2024-2025

All IN

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2024-2025

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Letter FROM OUR PRESIDENT & CEO

COLORADO BIOSCIENCE ASSOCIATION

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Denver, CO 80203

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cobioscience.com

All,

Colorado BioScience Association (CBSA) celebrates our community's dedication, passion, and drive to improve lives. "All In" is our rallying cry, echoing our commitment to lifting each other up as we collaborate on transformative technologies to heal people and improve lives. It also calls new companies, investors, and life sciences professionals to join us in this thriving, driven ecosystem.

Together, Colorado's life sciences community is 100% committed to saving and changing lives with groundbreaking innovations from Colorado.

Our region is recognized as a leading hub for health innovation, with *CNBC* reporting on our record fundraising. In the first six months of 2024, life sciences companies and organizations in Colorado raised over $1.2 billion, showcasing our community's remarkable progress.

Colorado Hub for Health Impact, our national economic development campaign led by a collaborative group of partners, is exceeding all benchmarks, attracting new companies, talent, and investors to Colorado. This initiative underscores our collective strength and dynamic growth, making Colorado an even more exciting place to be.

Our new BioScience Colorado Magazine highlights Coloradans who are giving their all for patients, technologies from our state disrupting how we diagnose and treat disease, and people who are surviving and thriving thanks to health innovators.

Thank you for being part of this community and movement.

All In,

Elyse Blazevich
President & CEO, Colorado BioScience Association
President, Colorado BioScience Institute

> "**All In** is our rallying cry, echoing our commitment to health innovation for patients and our unity as an ecosystem."

AGC Biologics

YOUR GLOBAL LIFE SCIENCE MANUFACTURING PARTNER

Right here in Colorado

Protein Biologics | Advanced Therapies

INTERESTED IN JOINING OUR TEAM?

Both of our Colorado locations are hiring now!

Large-scale mammalian manufacturing

Cell & gene therapy manufacturing

Learn more at
agcbio.com/careers

All IN

GLOBAL COMPANIES, COLORADO PROUD

Major Investments and Milestone Anniversaries

WRITTEN BY JENNIFER ALSEVER

Watch video

Medtronic recently finished construction on a 40-acre state-of-the-art research facility in Lafayette, Colorado.

Colorado's life sciences ecosystem is an epicenter of health innovation, as newcomers plant roots, investors pour billions of dollars into the state, and long-time stalwarts double down on the vibrant medtech and scientific community.

In the Boulder-Denver area alone, the pool of qualified workers in life sciences is growing faster than the national average, and investors see opportunity. Colorado companies raised more than a billion dollars each year over the last seven consecutive years, with $1.2 billion raised in the first six months of 2024. Add to that: homegrown life sciences companies are thriving, and newcomers are choosing Colorado as the ideal hub to develop cutting-edge technologies and medical treatments. And, developers are making big investments in the state to accelerate the momentum. San Diego-based BioMed Realty, for instance, invested $625 million in the Flatiron Park campus in Boulder.

Behind that growth lies a close-knit ecosystem with companies, entrepreneurs, and researchers whose work spans decades in the Centennial State. Established companies that have long called Colorado home have deepened their commitments in the state, investing in new labs and manufacturing facilities, drawing on the state's scientific community, and building the next generation of the industry's workforce. They are all in, dedicated to making a difference for patients around the world from their vantage point in Colorado.

Medtronic Opens New Lafayette Campus

The $32 billion Ireland-based Medtronic has been in Colorado for five decades, and it has also deepened its presence here with a new campus in Lafayette.

The medical device company, which employs several thousand people across the state in its surgical business, cranial and spinal technologies, endoscopy, and its acute care and monitoring business, recently finished construction of a 40-acre, 400,000-square-foot, state-of-the-art research facility in Lafayette.

The campus includes a customer experience and innovation center for hands-on training for physicians and extensive collaboration space. The advanced training center leverages virtual reality, augmented reality, and video recording to allow physicians to train on the latest laparoscopic and robotic-assisted surgery tools.

"It isn't an accident that we built our facility here and really invested in Colorado," says Frank Chan, President of Medtronic's Acute Care & Monitoring division, which is based in Boulder but will eventually move to the Lafayette campus. The company has been able to draw its medtech workforce thanks to the state's quality of life, central location, and access to strong STEM and health science programs at Colorado's universities.

> **"It isn't an accident that we built our facility here and really invested in Colorado."**
>
> **FRANK CHAN**
> **PRESIDENT, ACUTE CARE & MONITORING**
> **MEDTRONIC**

"We can attract an incredible medtech and life sciences workforce, and we're one flight away from anywhere in the United States," Chan says.

Medtronic continues to partner with Colorado life sciences companies to expand its technologies. It has a strategic partnership with BioIntelliSense, a Golden-based continuous health monitoring and clinical intelligence company. Medtronic's Acute Care & Monitoring business has exclusive rights to distribute BioIntelliSense's BioButton, wearable for continuous patient monitoring.

The BioButton is a game changer for enabling patients to leave the hospital, stay connected to caregivers, and alert them remotely if they're at risk of declining, says Chan. It allows hospitals, facing nursing shortages, to automatically monitor patients' vital signs and take proaçtive clinical action if necessary.

"If you can't catch (decline) early, then these patients will come back to the hospital and that's a significant problem for the patients themselves but also for payers and hospitals," says Chan.

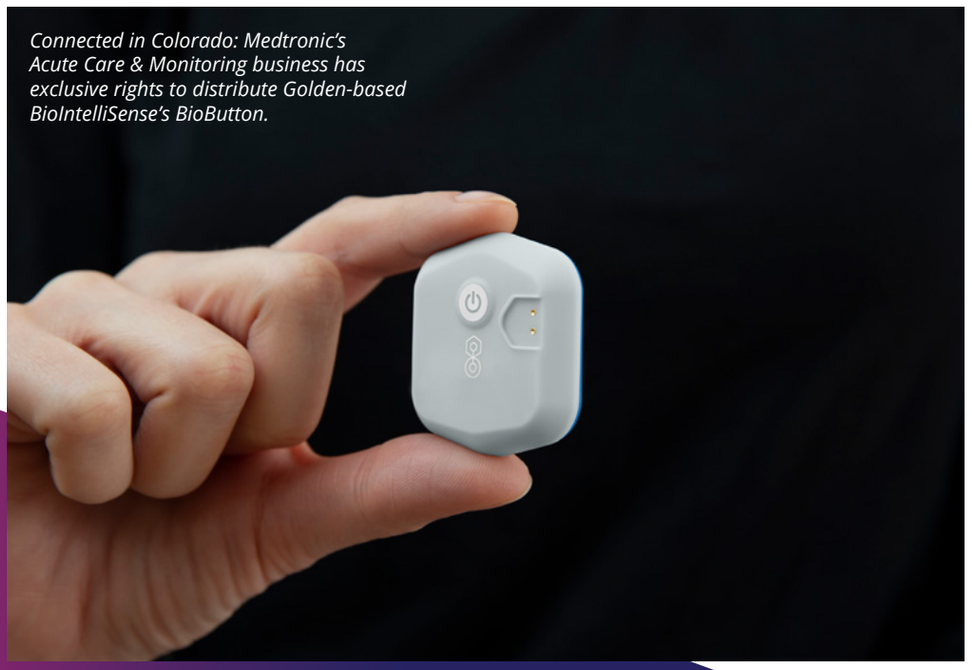
The acute patient monitoring business team is also working with regulators, researchers, and clinicians, developing a new kind of pulse oximeter, because some of the existing technology on the market has shown limitations for people with low blood flow and dark skin pigmentation. Medtronic's Nellcor pulse oximetry performs better for those patients. A recent industry independent study from the UCSF hypoxia lab evaluated the performance and accuracy of the Nellcor device and found that it works better to level the playing field for all patients.

Medtronic has invested $2.3 billion in research and development in just the past year and is continuing to expand its R&D presence in Colorado and across the globe, with more than 11,000 scientists and engineers around the world working to improve patient lives. And after five decades in Colorado, the company remains "deeply committed to this community," says Chan.

Agilent Expands $750 Million Manufacturing Operation in Frederick

Agilent Technologies was born when Hewlett-Packard spun off its measurements division in 1999. The new company would go on to be the largest IPO in Silicon Valley history and to develop cutting-edge lab instruments to measure, analyze, and understand the world down to the molecular level.

While Agilent is headquartered in Santa Clara, California, the company has made significant investments in Colorado. Its Boulder-based Nucleic Acids Solutions Division (NASD) built a 150,000-square-foot complex manufacturing building in Frederick in 2016, and it broke ground in February on a 200,000-square-foot expansion.



Connected in Colorado: Medtronic's Acute Care & Monitoring business has exclusive rights to distribute Golden-based BioIntelliSense's BioButton.

All told, the company will put more than $750 million into the campus. "Weld County and the Town of Frederick have been instrumental in helping us, as well as the state," says Brian Carothers, Agilent Vice President & General Manager, NASD.

The NASD division employs 450 people in Boulder and Frederick and manufactures therapeutic nucleic acids, short DNA and RNA molecules that serve as the active pharmaceutical ingredient for innovative biopharma drugs targeting diseases like cancer and heart disease. Clients include Alnylam and Lilly.

Carothers credits much of the growth to the strong scientific community in Boulder around oligonucleotide drug substances. Much of the evolution around the technology to manufacture oligonucleotide and short-chain materials came out of research by renowned University of Colorado biochemistry professor Marvin Caruthers (no relation). In the last few decades, it has led to startup spinoffs and a strong community of skilled scientists. Boulder-based Dicerna, now part of Novo Nordisk, manufactures this same type of material.

"A lot of the science is coming straight out of Boulder," says Agilent's Carothers. "The community of scientists, the people that truly understood this, has really grown over the years."

Above: Agilent hosts summer interns from Frederick High School's biotech-focused P-TECH program, executives hope they return as employees after finishing their educations. Below: Agilent Technologies relies on deep scientific expertise found in Colorado to manufacture therapeutic nucleic acids, used by clients including Alnylam and Lilly.

For the last five years, Agilent has been developing material called Guide RNA (gRNA), a short sequence of RNA for clients to be used with CRISPR therapeutics. CRISPR, which stands for clustered regularly interspaced short palindromic repeats, allows scientists to edit precise positions on DNA using a bacterial enzyme. The tech is transforming treatments for cancer, preventing disease spread and addressing global famine.

"The CRISPR therapeutics has the potential to be huge," says Carothers.

For Agilent, gRNA and CRISPR could mean medications that actually go into the source of genetic diseases and interfere with the defective proteins that cause them. "Instead of trying to stop the defective protein, you're actually correcting the DNA to make the right protein in the future," Carothers says.

To usher this technology into the world, Agilent is working to develop the next generation of workers.

The company is offering Frederick High School students internships at its facility as part of St. Vrain Valley School District's P-TECH program, a partnership among school districts, community colleges and employers. Colorado BioScience Institute serves as the program's industry liaison. Students can come out of high school with a good feel for the science and an interest in the industry, as well as with an associate's degree. They can either work at Agilent after high school or use the experience as a stepping stone to go finish a bachelor's degree. "Hopefully they'll come back," says Carothers.

> **"Weld County and the Town of Frederick have been instrumental in helping us, as well as the state."**
>
> **BRIAN CAROTHERS**
> **VICE PRESIDENT & GENERAL MANAGER, NUCLEIC ACID SOLUTIONS DIVISION**
> **AGILENT TECHNOLOGIES**

A trauma victim fighting to survive.

A patient living with a debilitating autoimmune disorder.

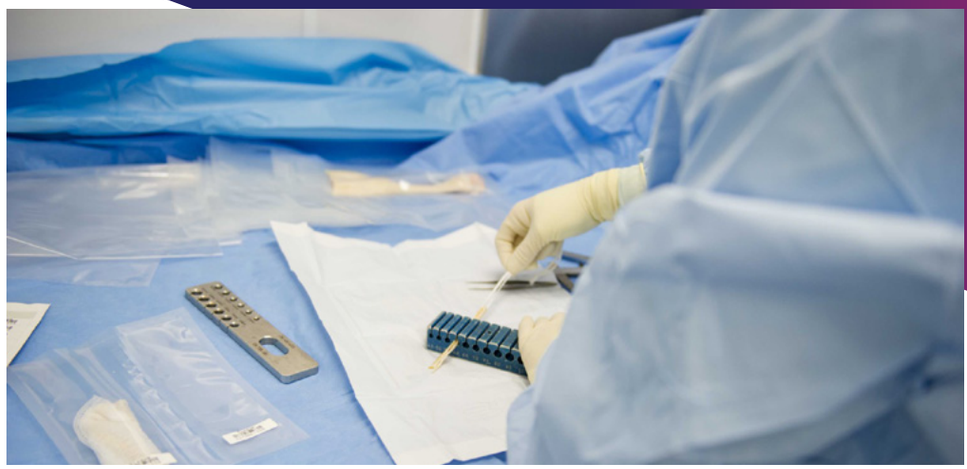
A child diagnosed with leukemia.

In these and many other instances, hope for a joy-filled future can often be found in the healing power of blood and cells.

For 60 years, the technological innovations and purpose-driven associates of Colorado-based Terumo Blood and Cell Technologies have been playing a critical role in the collection, processing, development, and delivery of blood- and cell-based therapies around the world.

Learn more about our work and career opportunities at **TerumoBCT.com/careers.**

TERUMO BLOOD AND CELL TECHNOLOGIES



Left: Tissue recipient, Diana, participates in a martial arts competition with her new donor ACL from AlloSource. Above: An AlloSource processing technician measures a tendon to confirm its size.

"We get to turn something that is so incredibly tragic into something that is so impactful in the lives of patients and patients' families."

DEAN ELLIOTT
PRESIDENT & CEO
ALLOSOURCE

AlloSource Marks 30 Years of Innovating Tissue Transplants

Thirty years ago, AlloSource set its roots down in Centennial and went on to build an international reputation as a tissue bank. Ross Wilkins, an orthopedic oncologist trained at the Mayo Clinic, came to Denver in the 1980s and helped start the Mile High transplant bank, a fledgling operation that consisted of Junior League volunteers cleaning and sterilizing donated human tissue in a garage.

Wilkins saw patients with bone trauma or cancer, which required amputation and realized that he could save patients' limbs if they could replace the damaged bone from a tissue donor. "That is where the motivation to establish and grow AlloSource originated, evolving into an organization that creates more than 200 types of allografts for surgeons to transplant," he says.

Today, as a 500-person nonprofit, AlloSource operates out of a 160,000-square-foot facility in Centennial with 37 clean rooms for processing, multiple laboratory spaces and expanded administrative offices. The operation contributed to 250,000 graphs last year.

"It's truly amazing but it's important to not forget we don't do this in a vacuum," says CEO Dean Elliott.

Unlike other medical device manufacturers, AlloSource cannot just order raw materials to create their products; their materials come from deceased tissue donors. The organization is committed to optimizing the impact of every gift of donation by ensuring it is used in the most effective and appropriate application, while honoring the generosity of donor families.

In the last decade, AlloSource has developed many products from human tissue, including an articular cartilage disc, amnion sheet, and pre-shaped skin for use across various surgical specialties such as sports medicine, spine, and plastics. The organization also developed a proprietary cartilage cryopreservation technology that uses a controlled rate freezing of fresh cartilage to maintain high cell viability for up to two years.

"We're innovating with human tissue, which is a great opportunity to help the body heal itself," says Elliott.

As a nonprofit in the tissue industry, staying on the cutting edge isn't always easy, so AlloSource finds strong partners in the state's ecosystem. The organization works closely with Colorado State University's Translational Medicine Institute and research programs at the University of Colorado, as well as with top-level surgeons across the country, including several surgeons in Denver.

That kind of creative collaboration with doctors in orthopedic medicine has led to innovations such as the company's most recent product, AceConnex Pre-Sutured Fascia, a ready-to-use sterile device designed specifically to repair early hip damage.

Looking forward, AlloSource is focused on developing more solutions for joint disease and joint injury, as well as women's health conditions such as pelvic organ prolapse and breast reconstruction following breast cancer.

"What we do every day is special," Elliott says. "We get to turn something that is so incredibly tragic into something that is so impactful in the lives of patients and patient's families, and that's an honor and a privilege."

Sixty Years of Touching Patients' Lives

Terumo Blood and Cell Technologies (Terumo BCT) doubled down on Colorado when it topped off a 170,000-square-foot expansion to its Douglas County operations in 2022.

The $250 million state-of-the-art manufacturing facility deepens the company's footprint and financial commitment to the state, where it employs 2,000 people out of its 8,000-person global workforce. The $1.5 billion division of Japanese-based conglomerate Terumo Corp. boasts a 60-year track record of success in Colorado. Its technology can collect, process, and separate blood and cells, filter donor plasma and other products for manufacturing cell and gene therapies.

"We continue to offer quality jobs while making products that touch patients' lives every second of every day," says Chris Williams, Terumo BCT's Senior Vice President of Global Manufacturing.

At full capacity, the Douglas County operation will employ 300 people and eventually run 24/7 with four production lines that are optimized for efficient, automated, precision manufacturing. Today, it employs 530 people with three highly automated manufacturing lines.

The plant focuses on single-use sets for source plasma collections for Terumo BCT's new Rika Plasma Donation System, which was cleared by the U.S. Food & Drug Administration (FDA). The automated technology aims to improve the efficiency and quality of plasma donation, while maintaining safety and plasma supply—all with donors and plasma center employees in mind. The company's mission is to contribute to society through healthcare and serve more patients.

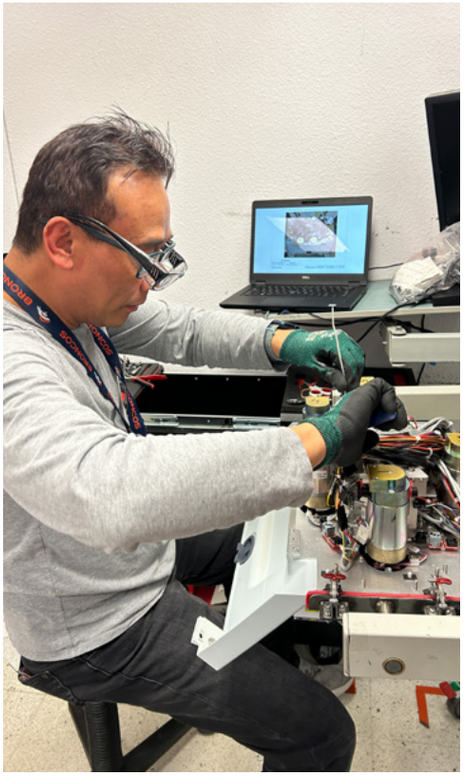
In 2023, Terumo BCT also appeared in the Connecting the Dots series, a BBC series highlighting "heroes" that are revolutionizing healthcare. Terumo BCT's story shows how its Spectra Optia Apheresis System plays a critical role in emerging cell therapies and facilitating treatments to help people struggling with a variety of diseases such as leukemia.

Veerle d'Haenens, General Manager of Terumo BCT's Global Therapeutic Systems and Cell Therapy Technologies, says the film shows the struggle endured by a family when a member battled leukemia. While stem cell treatments can save lives, not every patient has access to revolutionary cell and gene therapies.

Terumo BCT is now exploring ways to provide more patients access to such technologies and training providers on turning to therapeutic apheresis as first-line treatment of a variety of diseases. Apheresis is the nonsurgical procedure of removing abnormal cells or substances from the blood to treat diseases. One promising treatment is filtering for amyloid beta plaque, which is what causes Alzheimer's. A 10-year clinical study by healthcare company Grifols wrapped up recently, showing the promise of that technology on the disease.

"Blood is an essential medicine," d'Haenens says. "Our healthy blood and cells have the demonstrated power to bring healing."

> **"We continue to offer quality jobs while making products that touch patients' lives every second of every day."**
>
> **CHRIS WILLIAMS**
> **SENIOR VICE PRESIDENT, GLOBAL MANUFACTURING**
> **TERUMO BLOOD AND CELL TECHNOLOGIES**



Left: Amanda Stone works on Spectra Optia Apheresis System at Terumo BCT's Lakewood campus. The device is used for 94% of white blood cell collections in the U.S. and 67% worldwide. Above: Myint Zaw works on building a Spectra Optia Apheresis System pump panel. It's used in procedures such as stem cell collections, therapeutic plasma exchange, and other cell processing.

Medtronic

Healthcare innovation 75 years strong

Healthcare innovators a mile high

50 years in the heart of Colorado

For five decades, Medtronic has worked alongside visionaries, innovators, and everyday heroes in Colorado to bring groundbreaking healthcare solutions to new altitudes. And we're just getting started.

As we celebrate our 75th anniversary, we're more excited than ever about our future in Colorado. Where our Mission to **alleviate pain, restore health, and extend life** is fueled by the talent, diverse perspectives, and courage to engineer extraordinary solutions for years to come.

Ready for an epic new adventure?

Push the boundaries of what's possible. Join Medtronic and scale new heights in healthcare innovation through trailblazing technologies, partnerships, and AI-driven breakthroughs.

Medtronic 75 years

Investment Stays Strong

Resilience During a Challenging Year for U.S. Life Sciences Financings

In 2023, early-stage funding in Colorado life sciences companies grew at rates faster than most other markets in the country. Pre-Seed and Seed funding more than doubled to $29M up from $11M in 2022. Series A and B funding grew to $246M from $193M.

$1.2B RAISED IN FIRST HALF OF 2024

$1.47B IN 2023

FEDERAL FUNDING

$560.9M

TOP 3 FEDERAL FUND RECIPIENTS:

1. The University of Colorado System
2. Colorado State University
3. National Jewish Health

PUBLIC CAPITAL

$499.2M

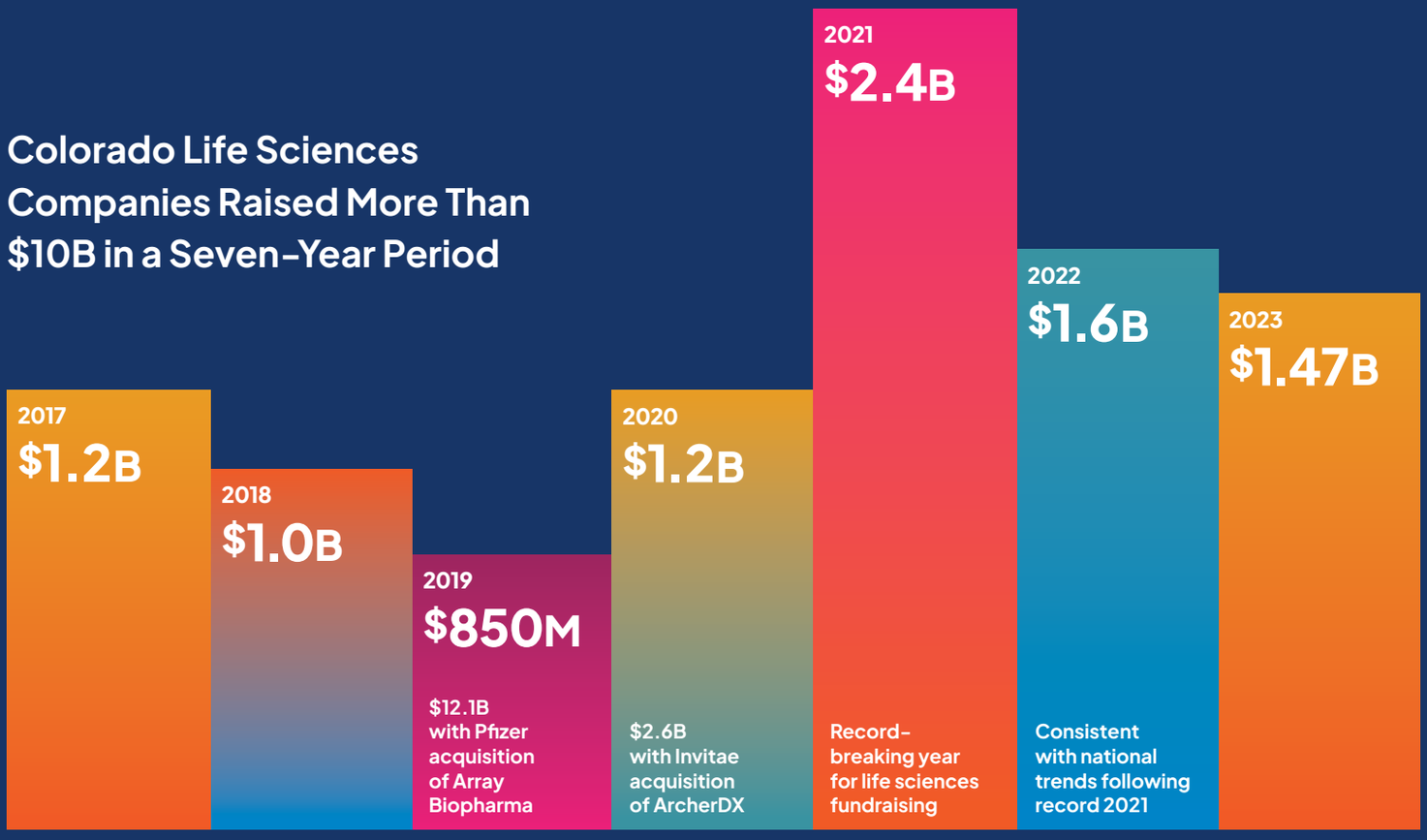
PRIVATE CAPITAL

$402.8M

PRE-SEED/SEED	SERIES A + B	SERIES C, D + LATER
$29.7M	$246.6M	$126.4M

Source: Colorado BioScience Association

Colorado Life Sciences Companies Raised More Than $10B in a Seven-Year Period



All In for
Better Outcomes

FEMALE FOCUS: *Innovating* FOR WOMEN'S HEALTH

WRITTEN BY JENNIFER ALSEVER

Innovators and entrepreneurs in Colorado seek to transform every aspect of health and care for women, with the goal of saving lives by revolutionizing the way diseases impacting women are diagnosed and treated. They are all in to improve women's health, advance critical research, and bring more women into the C-suite.

They're in good company. In the past 10 years, there has been a 1,000% increase in the number of businesses in this space nationally, according to Deloitte, and between 2016 and 2022 alone, there were 60% more startups specializing in women's health.

That's because the world is waking up to the enormous need to focus on women's health.

Billions of women go untested for potentially life-threatening diseases, according to the latest Hologic Global Women's Health Index. Research on women's health has long been underfunded and understudied. Too many of the medicine dosages, treatments, and medical school textbooks are based on men and their bodies, leading to big gaps in research and development.

Venture capital investors and executives see growing momentum for a field that's long been overlooked. Funding has been a chief roadblock for biotech companies in developing drugs or other programs. Investment in women's health companies increased 314% since 2018, according to a January 2024 report by Silicon Valley Bank, while overall investment for the health sector increased 28%.

Female founders, especially those in life sciences, need more funding to grow their companies and more support to reach the C-level.

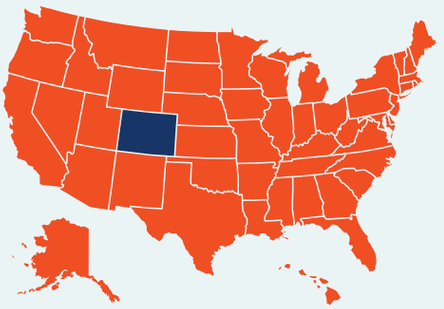
While women-founded startups accounted for 2% or less of VC funding in Europe and the United States in 2023, according to Pitchbook data, there's movement with deal volume. U.S. startups founded exclusively by women have grown their share of deals between 2008 and 2024 from 3.8% to 5.4%.

A 2023 report in *Nature* magazine indicated that women now make up 40% to 50% of employees at biotech companies in the United Kingdom, Europe, and the United States, but the C-suite still lacks gender equality, hovering around 20%.

As they break down barriers to bring their technologies to patients, Colorado company leaders are challenging perceptions about C-level leaders in life sciences.

Inroads for Ovarian Cancer Detection

When ovarian cancer is found early, about 94% of patients live longer than five years, according to the American Cancer Society. Early detection is a must to improve survival rates and help providers make quick and informed decisions. And Denver-based AOA Dx is on the path to commercialize one of the first true diagnostic tests in early ovarian cancer.



#1 STATE

for Women-Led Startups
(Merchant Maverick)

Female-founded, Denver-based AOA Dx is on the path to commercialize one of the first true diagnostic tests in early ovarian cancer.

AOA Dx chose Colorado, relocating its headquarters from Massachusetts to Denver after the pandemic.

Oriana Papin-Zoghbi, CEO, AOA Dx

All Together: At the Table

When you're used to being the only woman in the room, there's both power and inspiration in taking a seat at a table reserved for female life sciences leaders. To support strong networks for Colorado women in life sciences, improve access to capital for female founders, and create opportunities for great dialogue and information sharing, Colorado BioScience Association recently launched its inaugural Women's Mastermind Group.

The new mastermind is one example of CBSA's leadership and commitment to accelerate innovation through Diversity, Equity, and Inclusion (DEI) in our life sciences community following development of our Equity Blueprint.

Studies show that in a rapidly evolving global marketplace, integrating diverse backgrounds, skillsets, and viewpoints enables a broader understanding of complex issues and leads to more robust and creative solutions. Embodying inclusive and equitable practices in the workplace empowers people to be their whole selves, which attracts and retains an engaged and impactful workforce.

Oriana Papin-Zoghbi and Anna Jeter started AOA Dx in 2020 after learning about new research by McGill Prof. H. Uri Saragovi, who uncovered a novel biomarker in ovarian cancer. The two women licensed the scientist's work to develop GlycoLocate, a liquid biopsy platform that uses artificial intelligence to detect an entirely new set of biomarkers in ovarian cancer and other cancers, says Papin-Zoghbi.

In a recent peer-reviewed publication, AOA's technology demonstrated over 90% sensitivity and specificity to diagnose ovarian cancer across all stages, offering the potential for dramatically improved outcomes for women diagnosed with ovarian cancer. Right now, 80% of all cases are diagnosed too late—in Stage III or IV, because people don't present specific symptoms in earlier stages of the disease and there hasn't been an effective screening tool.

The odds are against those who receive a late diagnosis, with a 28% survival rate and a 94% recurrence rate.

AOA's making moves to improve the odds for cancer patients. The company relocated its headquarters from Massachusetts to Colorado after the pandemic, choosing the state's reasonable lab space rent, the outstanding quality of life, and the strong local university and scientific expertise. Papin-Zoghbi still flies back and forth to the East Coast to network, and sees a burgeoning, collaborative community in Colorado focused on women's health.

Backed by $25 million from investors, including LabCorp, which operates one of the largest clinical laboratory networks in the world, AOA now has 26 employees, an 8,000-square-foot facility and clinical trials underway at 25 sites across the nation.

Still, the path to growing AOA hasn't been easy. While more female founders nabbed venture funding in 2023 than ever before—accounting for 25% of all dollars raised—discrimination against women is still pervasive. Numerous investors dismissed AOA's technology because of Elizabeth Holmes, whose blood startup Theranos went down as one of the decade's biggest fraud cases.

"When I was compared to her and her technology, it was mind boggling and quite honestly insulting," says Papin-Zoghbi. The only similar things were that she was a woman doing something in blood diagnoses. "There was a lack of understanding."

Other potential investors questioned the two female founders' abilities to be working mothers. One even asked at one point how they would have time to run a startup if they became pregnant. AOA's team in fact birthed multiple babies over the past four years, and their company is growing as fast as their young children.

"Here we are, still standing and still succeeding," she says. "As a woman, you're constantly challenged and underestimated."

Female Physicist Drives Innovation on Neck and Head Cancers

Maria Navas-Moreno, Ph.D., has faced similar challenges as a woman building a biotech startup. A physicist by training, Navas-Moreno is now running IllumifyDx, a Broomfield company developing a blood test to detect head and neck cancers focusing on recurrence.

Yet like Papin-Zoghbi, Navas-Moreno has also been compared to Holmes because she's female with a blood test, and she has faced sexist and racist microaggressions in the life sciences industry and among potential investors.

"There are a lot of stereotypes out there," she says. Typically, her male co-founder, Randy Carney, Ph.D., has been the one triggered by the slights, whether it's Navas-Moreno being chalked up as a "fiery Latina" or told she was too confident or not confident enough.

"Randy has walked out of meetings and said, 'No one has ever talked to me like that,'" she says.

Nonetheless, Navas-Moreno and Carney, a University of California, Davis professor of biomedical engineering, have persevered in expanding IllumifyDx beyond an idea and into a five-person startup pursuing a blood test for early-detection of head and neck cancers. By the time a patient reports symptoms, it is late and the optimal window for treatment has usually

Leading Ecosystem Growth and Health

The women of Colorado BioScience Association and Colorado BioScience Institute champion the state's life sciences community and cultivate and diversify our life sciences workforce. Colorado Women's Day recognized us with the first-ever Colorado Women's Day Women In STEM Team award in 2024.

It's an honor to support this thriving ecosystem.

Meet the CBSA Team

Elyse Blazevich
President & CEO
Colorado BioScience Association
Colorado BioScience Institute

Emily Martini
Vice President, Partnerships
Colorado BioScience Association

Amy Goodman, J.D., MBE
Vice President & Counsel for Policy + Advocacy
Colorado BioScience Association

Francisca (Francis) Bermea
Member Success Specialist
Colorado BioScience Association

Danielle Cook
Marketing & Communications Specialist
Colorado BioScience Association

Meg John
Vice President
Colorado BioScience Institute

Lisa Wilder
Partnership & Program Coordinator
Colorado BioScience Institute

closed. If cancer recurrence is caught earlier, it would reduce aggressive treatments that can impair swallowing or speech or involve surgery.

IllumifyDx's technology relies on technology called a Raman spectroscopy to collect a very comprehensive snapshot of the chemistry of the blood. The process separates blood cells and plasma and collects information from molecules, such as metabolites and lipids, that have been secreted by cancer cells as an immune response to cancer. Algorithms identify relative changes in patterns between the different molecules to indicate whether there is cancer present or not. "We can detect cancer very accurately," says Navas-Moreno.

IllumifyDx has streamlined the process with a high-throughput system to analyze many samples at a time, accurately and reproducibly, says Navas-Moreno. The company, financed by Carney, Navas-Moreno and their family and friends, is now in pre-clinical trials. After building a second prototype device, it will test the technology on another 500 people.

"We are an up-and-coming company, and we are really proud of what we are doing," says Navas-Moreno.

"We are an up-and-coming company, and we are really proud of what we are doing."

MARIA NAVAS-MORENO, Ph.D.
CEO
ILLUMIFYDX

CSU Innovators Create Vaccine for Ovarian Cancer

While not a female-run business, Fort Collins-based PhotonPharma is developing technology that could dramatically improve outcomes for women's health. Think: a vaccine for preventing ovarian cancer relapses.

PhotonPharma's novel technology takes parts of solid tumors and creates a single cell suspension of those cancer cells in a liquid media. By adding riboflavin and exposing the mixture to ultraviolet (UV) light at specific wavelengths for two to four minutes, scientists can generate a photochemistry that disrupts the nucleic acids in those tumor cells without damaging the cell surface where those cell antigens or cell proteins are located.

The upshot? You now have a cancer cell that can no longer divide, doesn't cause disease, or cause further spread of disease, but has all the tumor antigens on their surface that are unique to that patient's tumor. And hopefully, in combination with selected adjuvants, it would stimulate the body's immune system to any reoccurrence of the cancer.

"We're developing what you would call a therapeutic vaccine," says Ray Goodrich, Ph.D., PhotonPharma's Co-Founder and Chief Scientific Officer.

The technology was a long time coming. In 2006, Goodrich had proposed the idea of creating immunotherapy for solid tumors to his former employer Navigant Biotechnologies, which was later acquired by Terumo Corp. It took the same technology used in blood treatment systems known as Mirasol PRT and applied it to tumors. But Navigant wasn't interested in jumping into cancer treatment.

Instead, he found the collaboration and support he needed within his community of researchers and leaders at Colorado State University (CSU). In 2016, as head of the Infectious Disease Research Center at CSU,

Rising TO THE C-SUITE

Antoinette Gawin Leads $1.5 Billion Bioscience Business

Terumo Blood and Cell Technologies President & CEO Antoinette Gawin grew up in a rural community and pursued higher education thanks to the encouragement of an EY partner.

Antoinette Gawin, President & CEO of Terumo Blood and Cell Technologies, took the helm in 2019, after running M&A deals under Jack Welch at General Electric (GE) and then decades in VP roles at GE Healthcare and Baxter. She was the head of global commercial at Terumo BCT for three years before becoming president.

Despite her Fortune 500 resume, Gawin didn't originally see herself in such a career. Raised in a Polish immigrant community in rural Michigan, Gawin grew up picking berries with migrant workers and working as a maid for wealthy people. She never considered college until one of those cleaning clients, EY partner Dick Baker, suggested she apply to the University of Michigan.

"When you're a farm girl in the middle of nowhere, and you don't know anyone who's going to school, you can't imagine yourself doing things like going to work at GE or being an officer," Gawin says. "So it was important to have somebody who said 'It doesn't matter if you don't know what it is, you're just going to go to school. And, trust me, it's a good idea.'"

Gawin gained a reputation over the decades as someone who could come in and turn around a business. That's what Terumo BCT wanted, since the division's sales had been flat for years. "I knew how to grow organizations and make it stick," she says.

But in the middle of that turnaround, the pandemic struck, and Gawin pivoted the company to use its blood filtering technology to help COVID patients before a vaccine emerged. Terumo BCT's device, Spectra Optia, was used by healthcare providers to filter COVID patients' blood for cytokines, or the immune response triggered by the body to attack COVID, because cytokines would otherwise overwhelm their bodies and kill them. The hope was that COVID patients could leave the intensive care unit faster.

The company also worked to ensure Terumo BCT could provide enough products amid demand for convalescent plasma.

"We had a 24/7 war room mentality, talking to customers on a daily basis trying to figure out where there might be a need," Gawin says. "We hired several hundred people in Colorado to keep our factories going and ramp up."

Terumo BCT is still absorbing the huge costs from COVID, but top-line growth has indeed surged. Now Gawin is working to strengthen global operations, simplify Terumo BCT's global footprint and lean into products to automate blood processing, automate the manufacturing of cell and gene therapies, and expand therapeutic applications, such as filtering blood for genetic markers to treat certain genetic disorders.

The opportunity to use technology to combat disease appeals to Terumo's inspirational leader. "That's wildly exciting for us," says Gawin.

Goodrich teamed up with Amanda Guth, Ph.D., DVM, Senior Principal Scientist at Zoetis and an associate professor who was doing research on cancers in animals. She was intrigued by his idea, and the two set out to put the technology to the test and create PhotonPharma in 2018. Goodrich's longtime friend and colleague Alan Rudolph, Ph.D. joined as CEO in 2023 after retiring from his role as CSU's Vice President of Research.

PhotonPharma targeted ovarian cancer initially because it produces numerous tumor cells, and half of the patients will relapse within the first three to five years after conventional treatment. If they do relapse, the survival rate drops to 30%.

PhotonPharma's pre-clinical studies in mice and pre-clinical safety study in dogs with tumors proved successful. Now, backed by $4 million from investors, the startup is starting Phase I human clinical trials, and in February it received clearance for its investigational new drug application from the U.S. Food & Drug Administration.

"It's opening up new opportunities for patients to receive treatment who had very little hope," says Goodrich. "Our goal is not only to deliver something that is safe and effective, but also affordable."

Above: Ray Goodrich, Ph.D. found the collaboration and support he needed at CSU to launch PhotonPharma. Previously, he led the Center for Infectious Disease Research at CSU, one of Colorado's 34 federal labs. Left: Ray Goodrich, Co-Founder & Chief Scientific Officer, PhotonPharma

"I am alive today thanks to two clinical trials that saved my life. It is so important that we continue to support these breakthrough technologies and treatments, as they will be where cures are found and lives are saved."

SIRI LINDLEY
WORLD CHAMPION TRIATHLETE
BUSINESS PERFORMANCE COACH

Life Saved by CU Anschutz Clinical Trial

GIVING OUR *All*

Patients and Advocates Share the Impact of Health Innovation

WRITTEN BY TODD NEFF

Watch video

Advancing the frontiers of medicine is not for the faint of heart. There are no textbook answers for the development of new therapies or medical devices. Success brings great rewards, so competition is fierce, the business and regulatory challenges many, and the margin of error slim. Overcoming all that takes the passion, drive, and commitment of very smart people engaged over the long haul—going all in and staying all in.

Fortunately, the life sciences ecosystem is powered by a motivational advantage that few other industries enjoy. We routinely help people—many people—feel better, stay healthy, heal, and recover. Often, too, we save lives.

The opportunity to make an impact attracted many of us to life sciences. That's why hearing patient stories is especially rewarding—but we don't hear them every day. They're out there, and they're motivational indeed. The three you're about to read certainly are, and their messages to the Colorado bioscience community align: Keep up the great work, and stay all in.

Siri Lindley, a world-champion triathlete turned coach, animal-welfare advocate, and motivational speaker, was saved by an innovative Colorado-based clinical trial of a drug to treat her acute myeloid leukemia (AML). **Brooke Eby**, diagnosed with amyotrophic lateral sclerosis (ALS) two years ago at age 33, has taken to social media to raise more than $1 million for ALS research. And **Tom Whitehead** and his family launched a foundation to advance the science and availability of CAR T-cell therapy that saved his daughter Emily's life 12 years ago now.

These patients and patient advocates share their stories to provide hope and encourage investment in health innovation to audiences across the country, including at CBSA events.

Siri Lindley
Champion Triathlete Credits a CU Anschutz Clinical Trial for Saving Her Life

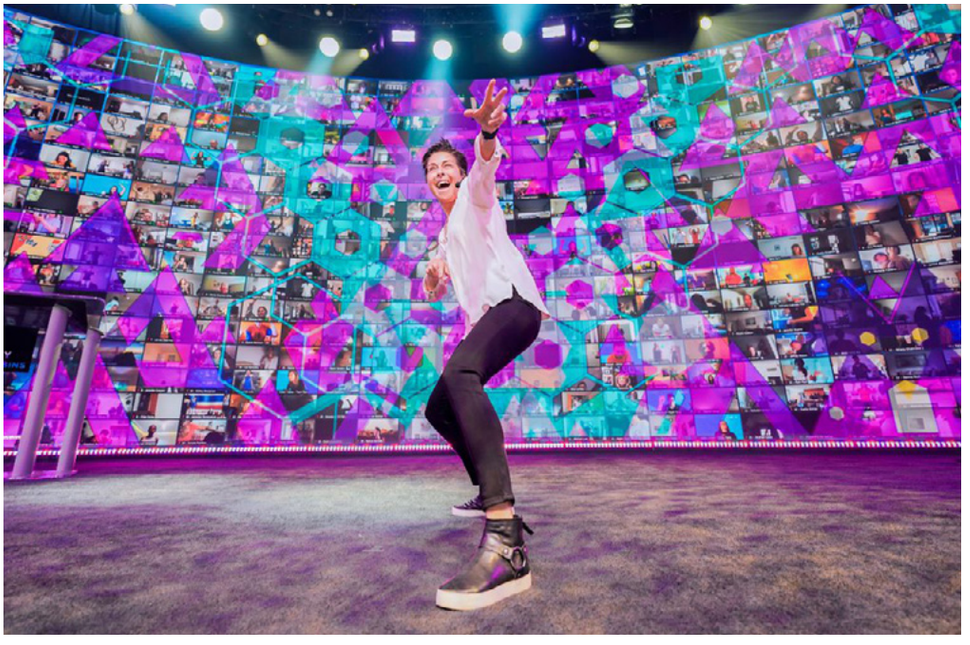
Hall-of-fame triathlete Siri Lindley understood mental and physical exhaustion. It was 2019, and the 50-year-old was 17 years removed from her second-consecutive world triathlon championship and subsequent retirement from the sport. She stayed equally busy coaching elite triathletes, cofounding two animal-welfare nonprofits, writing books, working with her wife Rebekah Keat on fitness programs for everyday folks, and emerging as one of the most sought-after speakers on the Tony Robbins team.

But she didn't understand why she felt exhausted just standing still watching others train at the same level that had led to her two triathlon world championships.

She limped along, literally and figuratively, until she had some bloodwork done in preparation for hip replacement surgery. Her tests came back with an answer nobody expected. Lindley had acute myeloid leukemia (AML), which hits hard enough that she would probably die within weeks if untreated. Complicating matters, genetic testing showed her to be a poor candidate for intensive, month-long induction chemotherapy treatment. That treatment, the standard of care since the 1970s, aims to kill a maximal amount of cancer cells. It's the long first step along an arduous AML care path culminating in a bone-marrow transplant.

Lindley lived in Boulder at the time, and it probably saved her life. That's because she soon landed with a University of Colorado Cancer Center team led by Daniel Pollyea, M.D., at the University of Colorado Anschutz Medical Campus in Aurora. Building on bench research done in the early 2010s by the University of Colorado School of Medicine hematologist Craig Jordan, Ph.D., Pollyea was launching a clinical trial testing the effectiveness of a drug called venetoclax on younger patients with AML.

The U.S. Food and Drug Administration (FDA) had just approved venetoclax plus chemotherapy for treating AML patients ages 75 and older who couldn't withstand induction therapy. Pollyea believed the venetoclax-chemotherapy combination's ability to kill AML stem cells would make it a better first-round treatment than induction chemotherapy for patients of all ages. Lindley became the trial's first participant.



A sought-after speaker and coach, Siri Lindley now advocates for federal legsislation for all patients to access cutting-edge clinical trials.

Brooke Eby raises awareness and funds to advance the development of therapies that address the root cause of ALS.

> **"The tech culture moves so quickly. How can we translate this to the science world?"**
>
> **BROOKE EBY**
> **ALS PATIENT AND ADVOCATE**

It wiped out her AML in a matter of days and with negligible side effects. Other participants—though not all—have experienced the same results. If a larger trial now underway shows similar outcomes, FDA approval for younger patients could come in a couple of years, Pollyea says.

Lindley then joined a second clinical trial led by Pollyea's colleague Jonathan Gutman, M.D. He was testing a combination of donor cells and umbilical cord blood to speed up the recovery of blood cell counts after a stem cell transplant. Lindley says it's the toughest thing she's ever been through, and that's saying something.

Five years later, she is in complete remission, and she has added to her long list of activities being a high-profile advocate for national legislation (H.R. 3503) to ensure that all patients have access to cutting-edge clinical trials, regardless of where they live.

"I am alive today thanks to two clinical trials that saved my life," Lindley says. "It is so important that we continue to support these breakthrough technologies and treatments, as they will be where cures are found and lives are saved. I will do everything in my power to raise awareness of the importance of supporting this work so others like me can continue to live this miracle of life despite a dire diagnosis."

Brooke Eby
Advocates for Research Funding on Social Media

Brooke Eby's openness, sense of humor, and utter lack of self-pity leaves viewers wishing for a cure for her incurable disease if only to save this one compelling person. It adds up to a lot of wishing: Eby, a.k.a. "limpbroozkit," has 167,000 TikTok and 123,000 Instagram followers talking in short videos about life as a young, female person with amyotrophic lateral sclerosis (ALS).

The topics are diverse: a morning with her first cold since ALS (it hit hard), a hair tutorial ("Some people have working legs; others of us heads of hair."), the fashionability of her life-alert necklace, the ins and outs of a Hoyer lift and a pulmonary function test, and the acquisition by parents Ginny and Cliff of a wheelchair van, among many others.

Eby did her first video in July 2022. She had been diagnosed that March, three years after colleagues at Salesforce, where she still works in partnerships, noticed a limp. The idea was to show people firsthand that there are exceptions to the rule that ALS, an incurable neurological disease which leads to progressive paralysis, affects mostly older men. She also found doing the videos psychologically therapeutic, which is nontrivial when just 10% of those with ALS live more than eight years after diagnosis.

Her motivations have evolved. Eby's goal now is to help raise awareness and money to advance the development of therapies to get at the root of ALS's causes and either stop it from manifesting or reverse its course. The seven FDA-approved treatments available today can only delay the inevitable and manage symptoms. She's been on an experimental therapy through expanded access.

She has raised more than $1 million and counting. But her efforts are about more than writing checks. She brings different perspectives from her experiences at a major global technology company and encourages the the research community to consider diverse perspectives and look for new approaches from different industries.

"The tech culture moves so quickly," Eby says. "How can we translate this to the science world? And maybe we can't, but there are certain things I think we can do knowledge transfer on."

That understanding, she hopes, will boost momentum toward an ALS cure that has proven evasive for so long—and, ideally, one that would keep limpbroozkit rolling for years to come.

Tom and Kari Whitehead launched the Emily Whitehead Foundation in 2015, and it has since raised more than $2 million to help fund research.

Tom Whitehead
Father of the First Pediatric CAR T-cell Therapy Patient

It was 2012, and Tom and Kari Whitehead's daughter Emily, age six, had relapsed despite months of chemotherapy. Her acute lymphoblastic lymphoma (ALL) had progressed to the point that a bone marrow transplant was out of the question. Emily's providers recommended in-home hospice care. Emily's parents refused to give up on her.

Their determination brought them to Children's Hospital of Philadelphia, which was about to launch the first CAR T-cell pediatric clinical trial, one led by University of Pennsylvania researchers. The experimental therapy would train Emily's immune system to "see" cancer cells that otherwise remain hidden. The process would involve extracting T cells from Emily's blood and reprogramming them by adding a gene for a chimeric antigen receptor (the "CAR" in CAR T) that would bind to a cancer-cell protein otherwise cloaked from her own T cells. They would multiply the engineered T cells in the lab, and then infuse them back into the sick child. Emily's immune system, now unblindfolded to ALL, would take it out.

But there's more to the story. The human immune system is a dizzyingly complex machine, one pieced together over eons through evolutionary trial and error. We tinker with it at our peril. In Emily's case, levels of the inflammation-producing protein IL-6 shot up 1,000 times above normal, and it nearly killed her. She was saved by an enterprising physician whose daughter took an IL-6-suppressing drug for rheumatoid arthritis. They tried it with Emily. Targeted immunosuppressants are now commonly prescribed along with CAR T-cell therapy.

Emily now attends the university whose scientists and physicians cured her, and there are six FDA-approved CAR T-cell therapies. Meanwhile, the University of Colorado School of Medicine's HI3 Initiative, the Gates Biomanufacturing Facility and ClinImmune at Fitzsimons Innovation Community, and others in Colorado have developed deep CAR-T expertise, and it's helping patients in the Mountain West.

CAR T-cell therapy has come a long way, but there's still much to learn. Tom and Kari Whitehead launched the Emily Whitehead Foundation in 2015, and it has since raised more than $2 million to help fund research,

Now more than 11 years cancer free, Emily Whitehead is a thriving college student.

advocate for all patients who can be treated with advanced therapies and, more recently, target bottlenecks in manufacturing, treatment, and access that are creating long patient backlogs.

"We're just not delivering enough of these treatments," Tom Whitehead says. "Just 20% of those eligible have received it. We're looking to advocate for patients in a meaningful way."

The Emily Whitehead Foundation's advocacy highlights a reality familiar to the Colorado life sciences community and beyond. We must innovate on many fronts, from lab research through care delivery and across the organizational processes that provide health care as efficiently and effectively as we possibly can. The stories of patients like Emily Whitehead, Brooke Eby, and Siri Lindley remind us not only of why it's so vital to continue to innovate, but also why it's worth going all in as we move health care forward.

All In for PATIENTS

Colorado's life sciences leaders share the importance of mission-driven work in life sciences and how their work makes patients lives better.

"My son was diagnosed with one of the rarest cancers. It's just kindled that passion to make a difference in those disease areas."

MAX COLAO
CEO
ONCOVERITY

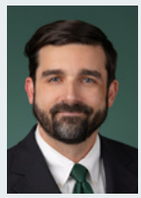
"I love taking on a challenge and solving problems. This community is solving problems for people."

ETHAN MANN
CEO
ORGANISHIELD
CBSA BOARD OF DIRECTORS CHAIR

"When I realized I could do something to help people, I was all in."

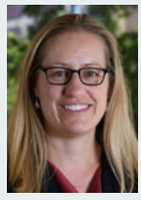
BYRON HEWETT
FRACTIONAL CEO
GENERAL INCEPTION
CBSA BOARD OF DIRECTORS VICE CHAIR

"We are starting to be able to use words like 'cure' with confidence."



RICHARD FREED
CEO
RHEUMAGEN

"We help patients to actually heal faster."



MELISSA KREBS, Ph.D.
FOUNDER & CEO
GELSANA
CBSA BOARD OF DIRECTORS MEMBER

FLATIRON PARK

A BioMed Realty property

BOULDER'S NEXT WAVE OF LIFE SCIENCE AND TECHNOLOGY INNOVATION IS HAPPENING AT FLATIRON PARK

THE CAMPUS IS HOME TO 1M SF OF LAB AND OFFICE, WITH MOVE-IN READY SPACE STARTING AT 6K SF

FOR MORE INFORMATION CONTACT
Jennifer Chavez | Director, Leasing - Boulder
jennifer.chavez@biomedrealty.com | 303.522.9652
biomedrealty.com

All READY

Real Estate Developers Invest for Innovation

Colorado offers room to grow. Welcoming innovation communities and real estate developers bring a deep understanding of life sciences companies and their needs. With millions of square feet of life sciences lab and office space ready to lease, under construction, or being planned, there's abundant space for companies at every stage of commercialization.

AURORA

Fitzsimons Innovation Community

5-building innovation community with 427,000 square feet of custom laboratory, office, and meeting space with retail and residential amenities

DEVELOPER: Fitzsimons Innovation Community and Aimco

STATUS: Move-in ready

BROKER: CBRE

BOULDER

Element Research Center

7-building life sciences center

DEVELOPER: Steelwave

STATUS: Move-in ready

BROKER: CBRE

Flatiron Park

23-building life sciences campus spanning 1M square feet

DEVELOPER: BioMed Realty

STATUS: Move-in ready

BROKER: BioMed Realty

HATCHlabs @ Wilderness Place

Successful conversion of the historic Boulder Beer Company Brewery building into an innovative hub for emerging companies in the life sciences industry.

DEVELOPER: NexCore Group and HATCHspaces

STATUS: Move-in ready

BROKER: Dean Callan & Company

Pearl East Innovation Campus

11-building life sciences campus with lab and office space

DEVELOPER: Beacon Capital

STATUS: Move-in ready

BROKER: CBRE

Ridgeway Science + Tech

112,000-square-foot net zero energy and all-electric life sciences and technology campus

DEVELOPER: Conscience Bay Company

STATUS: Planned delivery in 2026

BROKER: JLL

BOULDER - *CONTINUED*

Terra Boulder

Two buildings; 207,000-square-foot life sciences and technology campus

DEVELOPERS: Schnitzer West, Brue Baukol Capital Partners

STATUS: Planned delivery in 2026

BROKER: JLL

Wilderness Place

Two buildings with life sciences lab and office space

DEVELOPER: Beacon Capital Partners

STATUS: Move-in ready

BROKER: JLL

BROOMFIELD

Colorado Real Estate Exchange (CoRE)

3-building, 450,000-square-foot life sciences lab and office campus

DEVELOPERS: Lincoln Property Group and FCP

STATUS: Accepting inquiries

BROKER: CBRE

FORT COLLINS

Innosphere Ventures

7,800-square-foot facility with labs for startup and scaleup companies

STATUS: Move-in ready

BROKER: Innosphere Ventures

Research Innovation Center at CSU

7,500-square-foot BSL-2 wet lab space and office space

STATUS: Accepting inquiries

BROKER: CSU

GREENWOOD VILLAGE

Colorado Health & Tech Centers

175,000-square-foot life sciences and technology campus

DEVELOPER: Safavi Applied Life Sciences, LLC

STATUS: Move-in ready

BROKER: Newmark

LONGMONT

Max Tech Center

475,000-square-foot life sciences and technology development

DEVELOPER: Broe Real Estate Group and Alvarez & Marsal Capital Real State

STATUS: Move-in ready

BROKER: CBRE

LOUISVILLE

Infinite Labs

167,000-square-foot life sciences facility with spec suites available

DEVELOPERS: Steelwave and Rialto Capital Management

STATUS: Move-in ready

BROKER: CBRE

Centennial Valley Innovation Campus

30+ acres, 100,000- to 500,000-square-foot facilities

DEVELOPER: Koebel and Co. and Vitrian

STATUS: Planned delivery in 2026-2027

Redtail Ridge

2.55M-square-foot campus with life sciences lab and office space, and AdventHealth Avista Hospital

DEVELOPER: Sterling Bay

STATUS: Construction slated to begin as early as 2025

BROKER: CBRE

SUPERIOR

Coal Creek Innovation Park

270,000 square feet of new, purpose-built lab space with fully furnished lab suites

DEVELOPER: PMB and Montgomery Street Partners

STATUS: Planned delivery in 2026

BROKER: CBRE

Colorado HUB FOR HEALTH IMPACT

All In for Changing and Saving Lives Through Health Innovation

Watch Colorado Hub for Health Impact Video

In the center of the United States where beautiful blue skies frame the Rocky Mountains, life sciences innovation thrives in Colorado, the Hub for Health Impact. Advancing Colorado as an epicenter for health impact is the focus of a national economic development campaign, with support from leading organizations including life sciences companies, economic development groups, local governments, developers, and builders. The initiative reflects the state's collaborative culture.

We are attracting high-growth companies, top-tier talent, and significant investment to Colorado, fostering a vibrant ecosystem that drives breakthroughs in health and care. "Our partnership shares a vision for Colorado's future as a world-class hub for health innovation," says Elyse Blazevich, President & CEO of Colorado BioScience Association, which serves as the lead organization for Colorado Hub for Health Impact. "This first-ever, large-scale investment is bringing more life sciences companies, talent, and investors to Colorado, resulting in even stronger collaborations and breakthroughs that save and change lives around the world."

Colorado is the right choice for companies, investors, or talent considering expansion or relocation, with the country's top talent transforming every aspect of health and care. Our community is right-sized for high-growth organizations, with excellent infrastructure, lab and office space, outstanding academic and research institutions, and successful companies at all stages of commercialization.

> **"Our partnership shares a vision for Colorado's future as a world-class hub for health innovation."**
>
> **ELYSE BLAZEVICH**
> **PRESIDENT & CEO**
> **COLORADO BIOSCIENCE ASSOCIATION**

"Colorado's central location gives companies a competitive advantage," says Afshin Safavi, Ph.D., Founder, CEO, and President of Colorado Health and Tech Centers. "With one of the world's top international airports, a rate-friendly freight environment, and move-in ready or customizable lab space, Colorado has the room to build, developers who understand the life sciences industry, and a location that attracts talent."

Intersection of Innovation Industries

Colorado Hub for Health Impact seeks to advance a sustainable, innovative ecosystem that fosters continuous growth and development. By highlighting the state's unique advantages, the campaign aims to position Colorado as the premier destination for life sciences and emphasize the convergence of innovation industries.

"At the center of the country, and the intersection of innovation industries including life sciences, high technology, and quantum computing, Colorado and the Metro Denver region attract big thinkers and problem solvers," says Raymond H. Gonzales, President of Metro Denver Economic Development Corporation. "Whether they're lifelong residents, graduates of our top-ranked universities, or newcomers here for opportunities and outdoors access, they share a commitment to saving and changing lives around the world."

Success Stories and Impact

Colorado's life sciences sector has a proven track record of success. Steve VanNurden, President & CEO of Fitzsimons Innovation Community, underscores this sentiment, saying, "We welcome life sciences organizations looking to call Colorado home and to collaborate with a robust community already in on the secret: the health and life sciences industry in Colorado is strong and making a global impact on the future of health."

The U.S. 36 Collaborative, representing Boulder, Broomfield, Louisville, Lafayette, Superior, and Westminster along the high-tech U.S. 36 corridor connecting Denver and Boulder, is home to leading aerospace, climate resilience, life sciences, technology, and quantum computing companies and organizations. "Colorado is recognized as the Hub for Health Impact due to its highly educated, innovative, and inclusive population. This is a perfect blend of academics, business leaders, and entrepreneurs. Cities represented by the U.S. 36 Collaborative make up more than 30% of the state's life sciences assets and are proud to invest in the growth of an industry that's vital to our region and state," says Joseph E. Hovancak, Vice President of Economic Vitality at Boulder Chamber and Executive Director of Boulder Economic Council.

Our Critical Factors: Key Reasons Why Companies, Investors, and Talent Choose Colorado for Relocation or Expansion

Talent + Inclusivity: All Are Welcome

Colorado is home to some of the brightest minds in life sciences. With the highest concentration of biomedical and bioengineers in the country and leading in post-secondary educational attainment, the state offers a rich pool of talent. The 38,000 life sciences professionals in Colorado earn an average salary of $120,000, reflecting the high value placed on their expertise and contributions. This educated, motivated, and welcoming community is a key reason why life sciences companies should consider relocating or expanding to Colorado. We are all in for our people, fostering an environment where every individual can thrive and contribute to the bigger picture.

Capital + Growth: More than $10B Raised Over Seven Years

Funding is the lifeblood of innovation, and Colorado excels in this area. In 2023 alone, life sciences companies in the state raised $1.47 billion, marking the seventh consecutive year of surpassing the $1 billion mark and 2024 is tracking to be an outstanding fundraising year with $1.2 billion raised in the first half of the year. The state's ability to attract substantial investments from public, private, federal, state, and foundation sources fuels our life sciences success. Notably, Colorado's life sciences sector broke records in 2021, raising an impressive $2.6 billion in capital. Investors recognize our community's 100% dedication to saving and changing lives with breakthroughs that start right here in Colorado.

Location + Real Estate: 3.5M Square Feet of Lab Space

Strategically located, Colorado offers a competitive edge with our central position and robust infrastructure. Denver International Airport, the largest in the U.S. and the second largest globally, provides direct access to over 200 nonstop destinations. This connectivity is crucial for life sciences companies that need to transport life-saving cargo efficiently. Additionally, Colorado offers ample room for growth, with 3.5 million square feet of life sciences lab and office space planned or under construction and supportive partners collaborating with companies on every step of their journey.

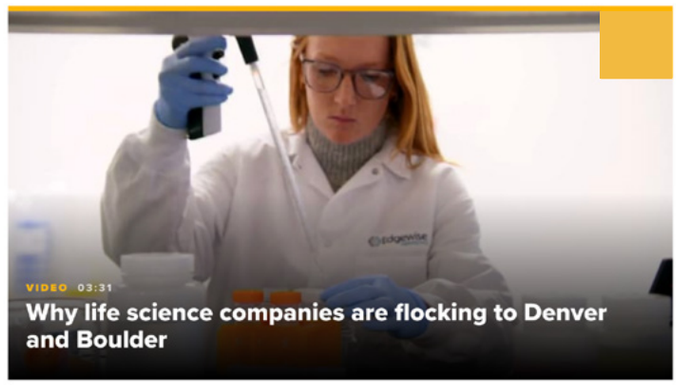
[Critical Factors continued on page 34]

Aerial view of Fitzsimons Innovation Community, a Colorado Hub for Health Impact partner.

CNBC COVERS COLORADO'S *Fundraising Momentum*

CNBC highlighted the momentum in Colorado's life sciences community, including record funding, top talent, innovative collaborations with our leading academic and research institutions, and investments in lab space as part of its "Cities of Success" series on Denver/Boulder.

"Investors from Colorado as well as across the coasts are seeing opportunities here," said Elyse Blazevich, President and CEO of the Colorado Bioscience Association. "Our ecosystem has raised in excess of a billion dollars for the past seven consecutive years—and early-stage funding in Colorado in 2023 grew faster than other life sciences markets around the country."



Watch *CNBC* Coverage

The story includes interviews with:

BioMed Realty CEO Tim Schoen on the company's $625M investment in the Flatiron Park campus

Edgewise Therapeutics Co-Founder & CEO Kevin Koch on the company's growth in Boulder

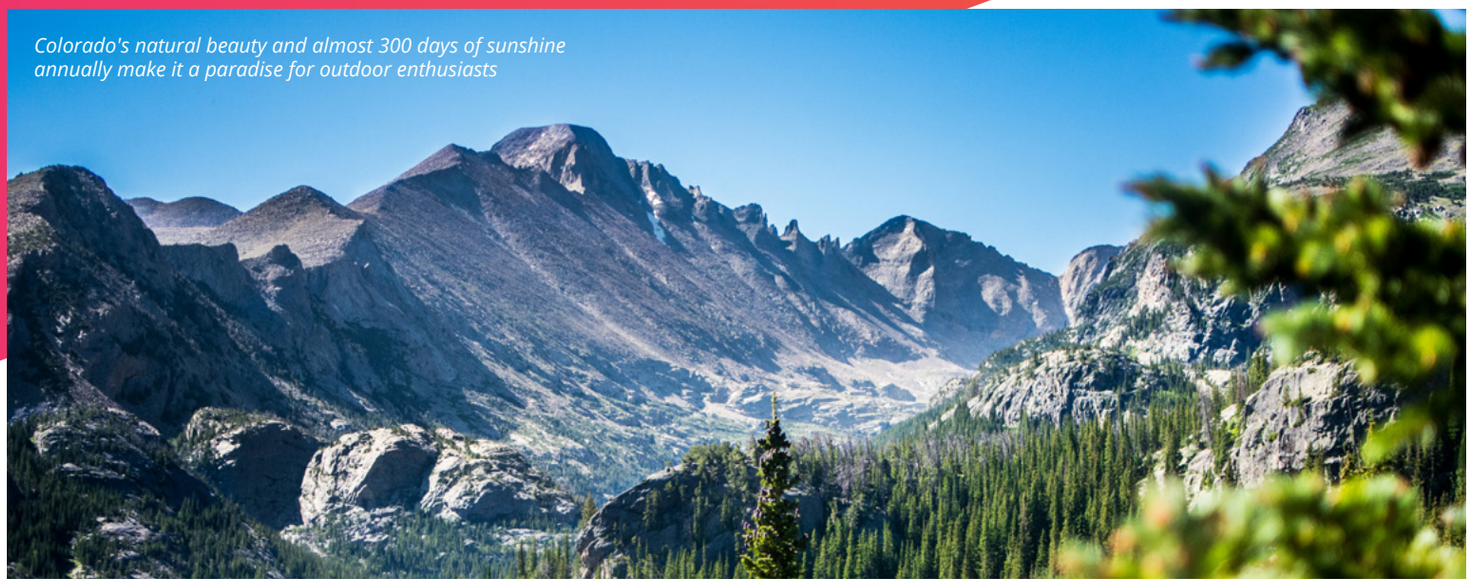
Dan Labarbera, Founding Director, Center for Drug Discovery, University of Colorado Anschutz Medical Campus, highlighting the connections among academia, clinicians, and commercial companies

CAPITAL + GROWTH

MORE THAN $10B

Raised Over a Seven-Year Period

(Colorado BioScience Association)



Colorado's natural beauty and almost 300 days of sunshine annually make it a paradise for outdoor enthusiasts

Lifestyle + Culture: Unbeatable Quality of Life

Balance comes naturally in Colorado. And quality of life is a big draw for top talent. The state's life sciences professionals build their careers and raise their families in cities ranked among the top 10 places to live in the country. Coloradans enjoy legendary outdoor activities, Michelin-starred restaurants, and leading professional sports teams. Colorado's natural beauty and almost 300 days of sunshine annually make it a paradise for outdoor enthusiasts, further enhancing our state's appeal to those looking to balance work with an active, fulfilling personal life. We are all in for our community, ensuring a vibrant and inclusive environment that attracts and retains top talent.

Costs + Incentives: State Support for Relocation and Expansion

Compared to coastal hubs, Colorado offers lower costs without compromising on amenities, space, or quality of life. The state provides significant support for companies seeking relocation or expansion, including various incentives and a favorable business environment. Colorado ranks third in the U.S. for economic stability and potential, making it an attractive destination for business. By offering competitive advantages, we are all in for creating a fertile ground for life sciences companies to flourish.

> **"Colorado is recognized as the Hub for Health Impact due to its highly educated, innovative, and inclusive population."**
>
> **JOSEPH E. HOVANCAK**
> **VICE PRESIDENT OF ECONOMIC VITALITY, BOULDER CHAMBER**
> **EXECUTIVE DIRECTOR**
> **BOULDER ECONOMIC COUNCIL**

Community + Infrastructure: Collaborative by Nature

Colorado's life sciences community is right-sized for collaboration, with clusters along the Front Range that encourage partnership and innovation. The state boasts five R-1 designated research universities, including the University of Colorado System, which ranks fifth nationally for startup formation. Additionally, Colorado hosts more than 30 federal labs, one of the highest concentrations in the U.S., contributing to a robust R&D environment and scientific mindset.

Colorado Hub for Health Impact: Join Us

Colorado is a thriving ecosystem of innovation, collaboration, and growth. The Colorado Hub for Health Impact represents a bold vision for the future, one where life sciences companies, talent, and investors come together to drive transformative change in healthcare. With our strategic location, robust infrastructure, and unparalleled quality of life, Colorado is poised to become America's leading hub for life sciences innovation.

We are all in for innovation, collaboration, and making a difference.

Colorado's Clinical Assets

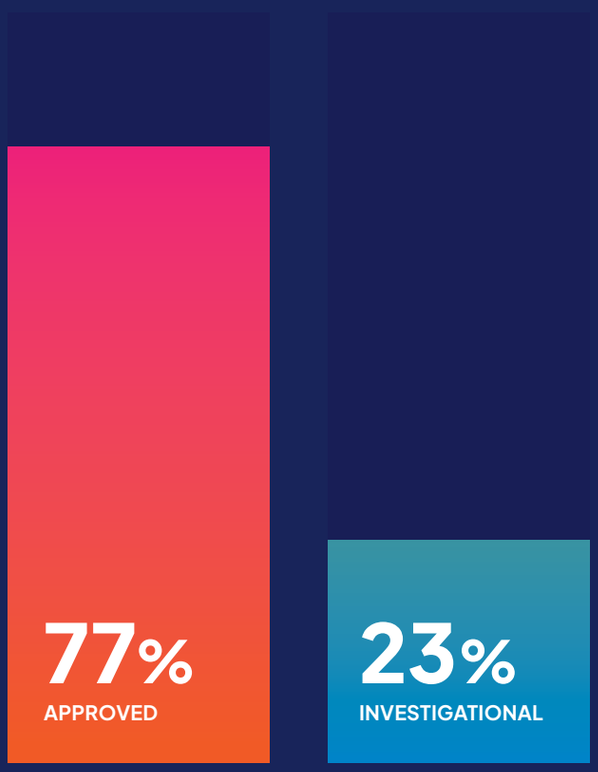
MEDICAL DEVICES

MEDICAL DEVICE APPROVALS AND DEALS

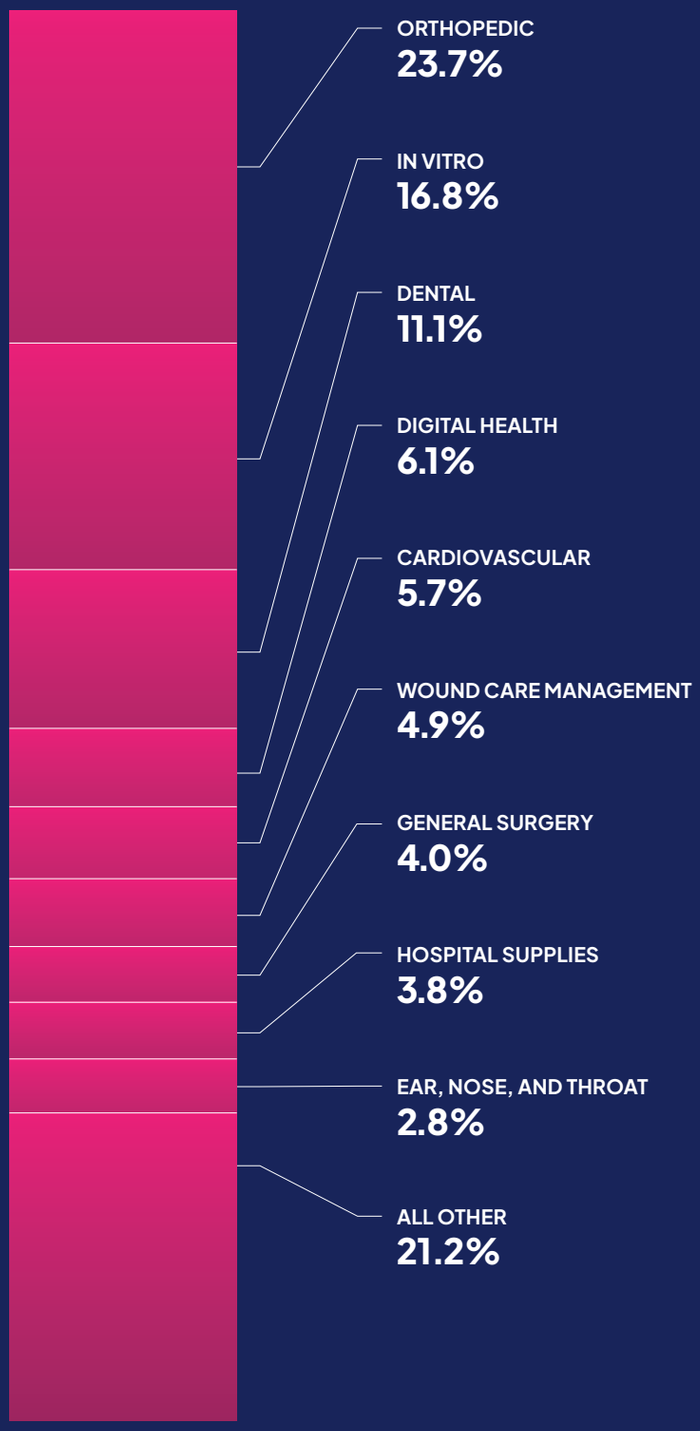
98 510(K) + PMA
JAN 2020–APRIL 2024

42 M&A
OR STRATEGIC
ALLIANCE DEALS
JUNE 2022–APRIL 2024

DEVICE APPROVALS BY TYPE *2010-2023*



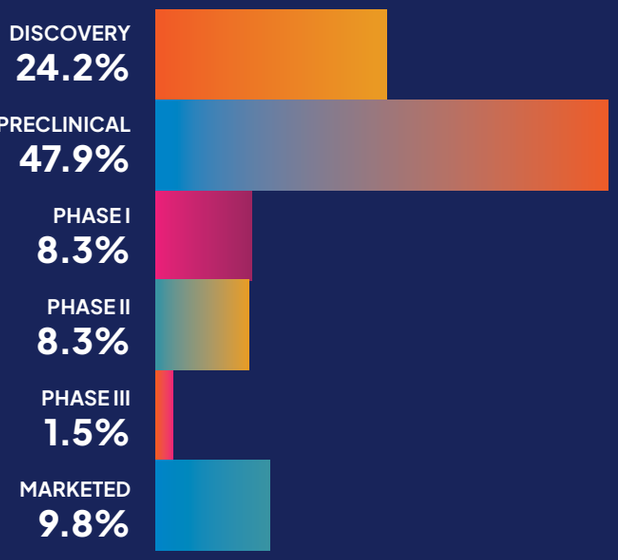
DEVICES BY SPECIALTY



DATA COURTESY OF GlobalData.

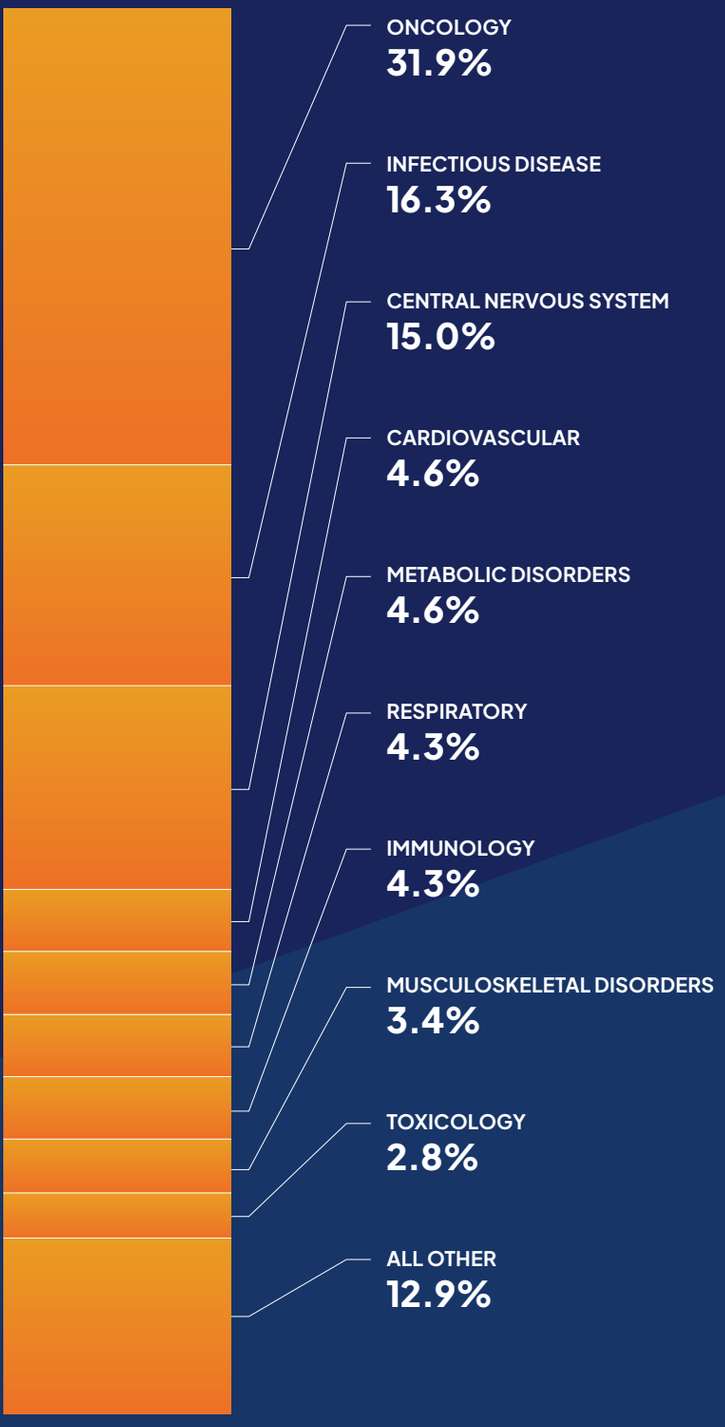
DRUGS

DRUGS BY PHASE



ONGOING DRUG CLINICAL TRIALS

DRUGS BY SPECIALTY *ALL PHASES OF DEVELOPMENT*



Biotechnology Innovation Organization

Be a Part of What's Next

2024-2025 BIO EVENTS

BIO Asia-Taiwan
July 24-28, 2024 | Taipei, Taiwan

BIO Investor Forum
October 15-16, 2024 | San Francisco, CA

BIO Patient & Health Advocacy Summit
Fall 2024 | Washington, DC

BIO-Europe
November 4-6, 2024 | Stockholm, SE

BIO Partnering @ JPM Week
January 2025 | San Francisco, CA

BIO CEO & Investor Conference
February 10-11, 2025 | New York, NY

BIO International Convention
June 16-19, 2025 | Boston, MA

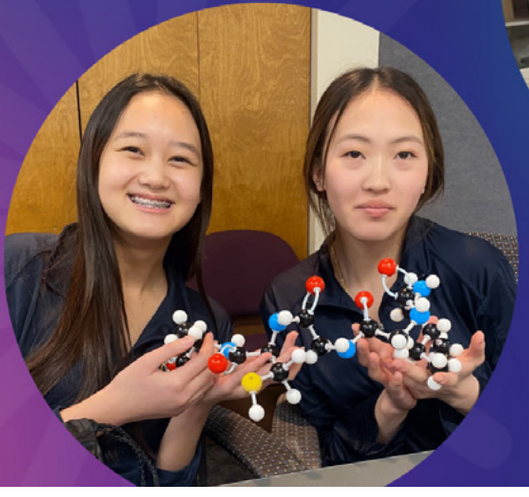
For more information about BIO events visit bio.org/events.

COLORADO BIOSCIENCE INSTITUTE

Colorado BioScience Institute cultivates and diversifies our state's life sciences workforce, from classroom, to campus, to career.

Get Involved:

- **Mentor a Student**
- **Host a Teacher**
- **Share Your Expertise**
- **Sponsor a Program**



Learn more at **cobioinstitute.org**

All In for EARLY-STAGE COMPANIES

Colorado Life Sciences Incubation Program Expands to Six States

The U.S. Economic Development Administration validated Colorado's collaborative approach to building a major national and international life sciences hub. Our Colorado-grown life sciences incubation program, designed to accelerate leading-edge startups, is growing thanks to a $2 million federal Build to Scale Grant. The proven program now supports 35 companies, including 18 from Colorado, developing innovative concepts into investment-ready business plans.

With the federal grant, the Colorado Life Sciences Incubation Program, originally developed through a partnership with Innosphere Ventures, Colorado BioScience Institute, and Colorado BioScience Association, expanded to partner organizations across the six-state region. The original program was funded by an Advanced Industries Business Accelerator Grant from the State Office of Economic Development and International Trade.

Program graduates celebrate in 2024 after completing the nine-month, intensive program offering targeted access to funding, mentorship, and an investor network.

Kevin Noble of Innosphere Ventures leads the incubation program, which serves as a launchpad for pioneering startups.

Photo Credits: Kevin Noble and BCDigital

Robin Shandas, Ph.D., joined the incubation program to accelerate his company, EnteroTrack. He is a Distinguished Professor and Founding Chair of the Department of Bioengineering at CU Anschutz and CU Denver.

PROGRAM PARTNERS

Bio Nebraska

BioUtah

Colorado BioScience Association (CBSA)

Colorado BioScience Institute (CBSI)

Colorado State University (CSU) and CSU STRATA

Medical University of South Carolina, Zucker Institute for Innovation Commercialization

Texas Tech University, Office of Research and Innovation

University of Colorado Anschutz Medical Campus

University of Colorado Boulder

University of Nebraska – Lincoln (UNL), NUtech Ventures

University of Nebraska Medical Center (UNeMed Corporation)

University of New Mexico

University of Utah

2024 COLORADO-BASED COHORT COMPANIES

Abrux

Coaterra, LLC

Decorum Medical Innovations

Emet Surgical

ExOcular Dx

FOLD Therapeutics

Gelastomerics

GenoFab, Inc.

GrittyWork

Jura Health

MedFoam

Numiera Therapeutics

Onconaut

Pearl Scientific

SusMer, Inc.

Tangible Industries

VitaWave Technologies

boettcher FOUNDATION®

GRANTS GROW COLORADO'S *Top Scientific Talent*

Funding for Life-Changing Discoveries

WRITTEN BY AMANDA CARY | PHOTO CREDIT: SARA HERTWIG PHOTOGRAPHY

Bioscience requires big thinkers who love to take on challenges. It attracts innovators and inventors with a passion for impacting human health. That's what drew 2024 Boettcher Investigator Andrew Quesada Tan, Ph.D., to biomedical engineering. After discovering the difference he could make for patients by combining his interests in engineering, medicine, and biology, the former mechanical engineer switched fields.

This led to his current position as an Assistant Professor in the Department of Integrative Physiology and Director of the Sensorimotor Recovery and Neuroplasticity Lab at the University of Colorado Boulder.

Improving Quality of Life

Quesada Tan's lab focuses on reversing the effects of paralysis and improving motor control in individuals with spinal cord injuries. According to the National Institute of Health, around 282,000 people in the United States are currently living with a spinal cord injury. For a patient with this kind of traumatic injury, even the smallest, slightest improvements during recovery can have significant, life-altering impacts.

Quesada Tan is one of eight 2024 Boettcher Investigators, biomedical researchers selected to receive a total of $2 million in grant funds from the Webb-Waring Biomedical Research Awards. The funds support up to three years of independent scientific research.

Now marking its 15th year, the Webb-Waring Biomedical Awards program supports and retains top scientific talent in Colorado and allows Boettcher Investigators to compete for private and federal grants. The program's impressive track record of success included $21.1 million in federal grant funding received by Boettcher Investigators in 2023.

Quesada Tan is using his Webb-Waring award to research acute intermittent hypoxia (AIH), a promising intervention involving moderate exposure to low oxygen levels. The treatment has potential to speed up recovery time for patients, supporting improvements in walking speed, endurance, and motor functions.

"It's about restoring independence and improving quality of life," said Quesada Tan. "The more we can help them [patients with a spinal cord injury] restore independence and mobility, the more integrated in society they can become."

> **"It's about restoring independence and improving quality of life."**
>
> **ANDREW QUESADA TAN, Ph.D.**
> **ASSISTANT PROFESSOR, DEPARTMENT OF INTEGRATIVE PHYSIOLOGY**
> **DIRECTOR OF THE SENSORIMOTOR RECOVERY AND NEUROPLASTICITY LAB**
> **CU BOULDER**

Andrew Quesada Tan, Ph.D., Assistant Professor, Department of Integrative Physiology Director of the Sensorimotor Recovery and Neuroplasticity Lab, CU Boulder

Meet the 2024 Class of Boettcher Investigators

COLORADO STATE UNIVERSITY

Kathryn Wilsterman, Ph.D.

Assistant Professor, Department of Biology: Using evolutionary innovation to understand susceptibility and resilience to gestational complications.

NATIONAL JEWISH HEALTH

Lauren Zell-Baran, Ph.D., M.P.H.

Assistant Professor, Division of Environmental and Occupational Health Science: Classification of cardiopulmonary exercise testing patterns among deployed military veterans with respiratory symptoms: informing treatment options.

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS

Benjamin J. Kopecky, M.D., Ph.D.

Assistant Professor, Division of Cardiology, Section of Heart Failure/Transplant: Dissecting the smooth muscle cell pathobiology driving cardiac allograft vasculopathy.

Jennifer McKey, Ph.D.

Assistant Professor, Department of Pediatrics, Section of Developmental Biology: Investigating the contribution of follicle activation in the perinatal ovary to the establishment of female fertility.

Jessica Nelson, Ph.D.

Assistant Professor, Department of Cell and Developmental Biology: Molecular-genetic mechanisms underlying establishment of sensory thresholds.

UNIVERSITY OF COLORADO BOULDER

Andrew Quesada Tan, Ph.D.

Assistant Professor, Department of Integrative Physiology and Director of the Sensorimotor Recovery and Neuroplasticity Lab: Identifying predictive biomarkers for intermittent hypoxia induced motor recovery and learning in persons with incomplete spinal cord injury (isci).

UNIVERSITY OF COLORADO, COLORADO SPRINGS

Marissa Baranauskas, Ph.D.

Assistant Professor, Department of Human Physiology and Nutrition: Implications for the timing of energy availability on menstrual cycle function.

UNIVERSITY OF DENVER

Allegra T. Aron, Ph.D.

Assistant Professor, Department of Chemistry: Targeting human-gut pathobionts using native siderophore-antibiotic conjugates.

He says AIH is an incredibly useful tool to couple with other healing techniques to support patient recovery.

"If this works, we can really reduce the time in the clinic doing rehab," said Quesada Tan. "The dose we're applying is just one hour a day for five consecutive days; when you combine that with walking training, a lot of literature is showing that we can achieve the same performance as a six-to-eight-week rehab walking training."

Collaborating with Colleagues and Patients

For this 2024 Boettcher Investigator, being all in means fostering collaboration across fields and areas of study to create the best possible outcomes for patients. This also means including and empowering patients, whenever possible, to be active participants and advocates in the research process.

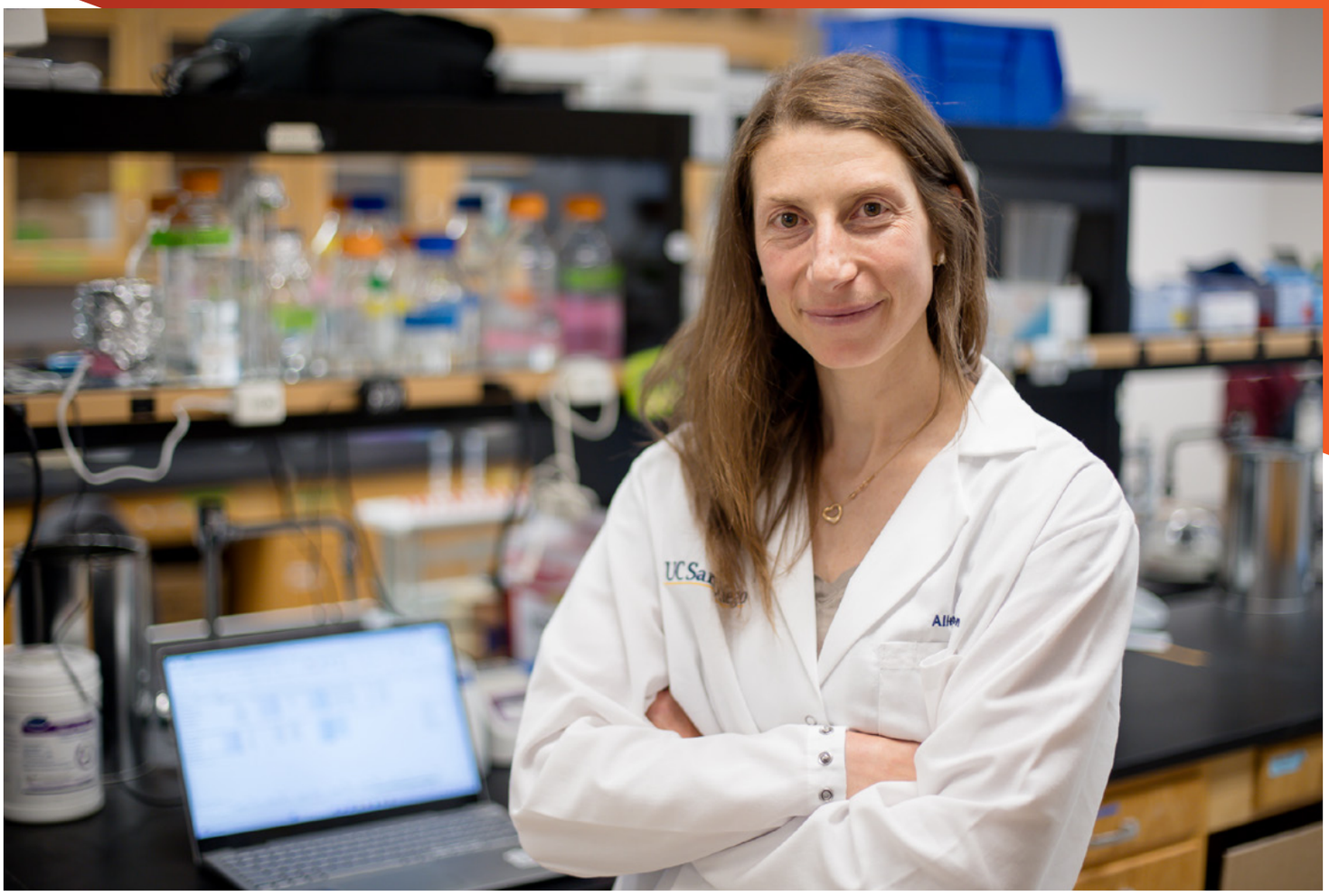
"All in is about collaboration across fields," he said. "To really tackle neurorehabilitation, we need engineers, clinicians, basic scientists, and others working together to address the problem, and not only that, but also expanding it to the participants who come into our lab."

Personalizing Medicine to Improve Outcomes

At the University of Denver, another 2024 Boettcher Investigator, Allegra Aron, Ph.D., Assistant Professor in the Department of Chemistry, is working to understand metal-binding molecules and their role in microbial interactions within the body. Compared to other biological molecules, less attention and research is often given to metals and the potential role they can play in therapeutics.

"Metals are essential in biology; every organism needs metals," said Aron. "Even though metals may not be as appreciated as other elements, they are fundamental in biology."

Aron is using her Webb-Waring grant to research how microorganisms that switch from



Allegra T. Aron, Ph.D., Assistant Professor, Department of Chemistry, University of Denver

being harmless to being pathogenic, called pathobionts, use metals. More specifically, she is investigating the microbial community in the gastrointestinal tract. The goal is to figure out how to "hijack" the metal uptake pathways of these pathobionts in order to leverage them for targeted therapeutics.

Similar to Quesada Tan, Aron is also working toward a world in which medical treatments can be more personalized to improve outcomes and mitigate negative side effects of treatments.

"The impact of this research could be creating personalized medicine for better patient outcomes, and also thinking about how we can use narrow spectrum antibiotics to fight antibiotic resistance," said Aron.

All In for Patient Care

Aron also believes collaboration across fields and organizations is a huge part of being "all in" for patient care. She appreciates the opportunity to forge partnerships across the state, including partnerships with individuals at the CU Anschutz Skaggs School of Pharmacy and Pharmaceutical Sciences and the CU Anschutz School of Medicine.

Whether it's improving a patient's healing journey after a traumatic spinal cord injury or researching how to leverage metals to create more targeted, narrow spectrum antibiotics, the Boettcher Investigators' research plays a meaningful role in the "all in" approach needed by Colorado's health innovators to change lives and the global health landscape.

"The impact of this research could be creating personalized medicine for better patient outcomes."

ALLEGRA T. ARON, Ph.D.
ASSISTANT PROFESSOR
DEPARTMENT OF CHEMISTRY
UNIVERSITY OF DENVER

CELEBRATING AND INSPIRING *Our Community*

20th Annual Awards Celebration *Presented by AGC Biologics*

Colorado's life sciences community toasts our ecosystem's growth and success each year at our annual awards celebration.

CBSA honored the educators, business leaders, policymakers, and health innovators who are collaborating for patient impact. The glittering evening brought together a community dedicated to saving and changing patient lives as we drive to become a top five hub for life sciences in the U.S.

Keynote speaker Nick Santonastasso, an author, global speaker, entrepreneur, philanthropist, and mental health advocate, delivered a transformative keynote presentation with his story of defying the medical odds since birth.

2023 Award Winners

Company of the Year:
PharmaJet

Rising Star of the Year, Sponsored by Willis Towers Watson:
Foresight Diagnostics

Educator of the Year, Sponsored by Fisher Scientific:
Lindsay Schultz, Academy High School, Mapleton Public Schools

Institute Leadership Award:
Amy Claeson, Ph.D., ZimVie Spine

Business Partners of the Year:
BIO and PhRMA

Legislators of the Year:
Sen. Dafna Michaelson Jenet and Rep. Matt Soper

Building Momentum Award, Sponsored by Fitzsimons Innovation Community:
Metro Denver Economic Development Corporation

Volunteer of the Year:
Rita Sanzgiri, J.D., Ph.D., CBSA Executive Board Member and Chair, DEI Committee

Top left: Heather Callender-Potters, Co-Founder of PharmaJet, accepted the Company of the Year Award for global vaccine delivery using their needle-free injection system. Middle: Nick Santonastasso, an author, global speaker with the Tony Robbins Foundation, entrepreneur, philanthropist, and mental health advocate gave a transformative keynote presentation. Bottom: CBSA President & CEO Elyse Blazevich emphasized Colorado's commitment to saving and changing lives around the world.

CBSA also thanks AGC Biologics, Presenting Sponsor of CBSA's 20th Annual Awards Celebration and Sustaining Sponsor throughout the year, our event sponsors, and table hosts.

COLORADO LIFE SCIENCES INNOVATION *Forum*

Colorado Life Sciences Innovation Forum brings together the big thinkers and bold leaders from our state who work on the leading edge of health innovation.

In 2023, CBSA welcomed more than 25 speakers and panelists to share insights and expertise with our community. We thank the leaders who are contributing to Colorado's reputation as a leading hub for life sciences innovation and our speaker, panel, and event sponsors.

Pioneering CSU researcher, Temple Grandin, Ph.D., emphasized different thinking styles. Her book signing supported workforce cultivation, led by Colorado BioScience Institute.

Panelists David Walker, Esq., Sheridan Ross; Kanchana Iyer, M.S., Halloran Consulting Group; David B. Trollinger, National Jewish Health; Vik Bebarta, M.D., CU Center for COMBAT Research; Gary Pestano, Ph.D., Biodesix, Inc.; and Sally Dyer, Umoja Biopharma discussed partnerships for innovation.

The Colorado Life Sciences Innovation Forum included a trade show with opportunities to learn about life-changing products and services.

Colorado Health & Tech Centers Founder & CEO, Afshin Safavi, introduced the morning keynote on Colorado's rise as a leading life sciences hub.

Jeff Porter, Prader Willi Syndrome Association; Michele M. Oshman, BIO; Jessica Wolfe, M.B.A., Jazz Pharmaceuticals; Mike Mattoon, Acadia Pharmaceuticals; and Clay Smith, M.D., OncoVerity discussed taking on rare disease research.

AT DOWNTOWN SUPERIOR

THE LIFE SCIENCES WORKPLACE REDEFINED

A purpose-built life sciences community in Boulder giving forward-thinking companies a place to thrive

270,000 SF

SF Total Campus
(Flexible Floor Plans)

PURPOSE-BUILT

Life Science Campus
Available for Lease

NEW CONSTRUCTION

Est. Delivery Q4 2026
Pre-Leasing Available Now

MOVE-IN READY

60/40
Lab/Office Suites

DOWNTOWN SUPERIOR

160 AC Mixed-Use Town Center
Walkable to Main Street Retail & Restaurants
Public Parks, Trails, & US36 Bikeway Access

2 BUILDINGS

100k SF +
170k SF

LIFE SCIENCE SPECS

Increased Live Load, Vibration, Water, Electrical, Lab Exhaust, Ventilation & Back-Up Power Capacity

ACCESSIBLE

10 Minutes to Boulder
25 Minutes to Denver

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ERIK.ABRAHAMSON@CBRE.COM
WWW.COALCREEKINNOVATIONPARK.COM

PMB ADVANCING HEALTHCARE REAL ESTATE
MONTGOMERY STREET PARTNERS
CBRE

INVESTMENT *Attracts* FOLLOW-ON CAPITAL, SUPPORTS COMPANY FORMATION

State-Funded Grant Program Delivers ROI

Colorado's advanced industries play a vital role in the state's economic growth and stability. They are research and development (R&D) and engineering-intensive companies, contributing to the state's thriving entrepreneurial ecosystem.

The Advanced Industries Accelerator Grant Program, managed by Colorado Office of Economic Development and International Trade (OEDIT), is a critical source of non-dilutive funding for Colorado early-stage life sciences companies and organizations. It demonstrates a significant return on investment, delivering value back to the state through company creation and high-paying jobs.

COLORADO
Office of Economic Development & International Trade

The success metrics since program inception across all advanced industries include:

$150.8M
AWARDED

$2.9B
IN FOLLOW-ON CAPITAL

830
AWARDS

5,036
NEW JOBS CREATED

5,223
JOBS RETAINED

124
NEW COMPANIES CREATED

788
PATENTS FILED

Advanced Industries Accelerator Grant Program

PROOF-OF-CONCEPT
Grant Recipients

Researchers translating breakthrough discoveries into life-saving technologies for patients receive up to $150,000.

University of Colorado Anschutz Medical Campus

University of Colorado Boulder

University of Colorado Denver

UNIVERSITY OF DENVER

University of Colorado Anschutz Medical Campus

Miguel Flores-Bellver, Ph.D.
Early detection test for age-related macular degeneration.

University of Colorado Boulder

Wei Tan, Ph.D.
Stent coatings to reduce inflammation and thrombogenicity associated with vascular implants.

University of Colorado Denver

Caroline Clevenger, Ph.D.
Interactive digital wayfinding assistant to support people living with intellectual and developmental disabilities.

University of Denver

Casey Myers, Ph.D.
An automated surgical planning tool for total shoulder arthroplasty.

Dali Sun, Ph.D.
A miniaturized elliptical dichroism spectrometer for the molecular analysis in chemistry and biochemistry.

CBSA also congratulates all of our partner academic and research institutions for grants advancing research in the state's other advanced industries, including Colorado School of Mines and the National Renewable Energy Lab (NREL).

EARLY-STAGE CAPITAL AND RETENTION *Grant Recipients*

Companies commercializing innovative technologies receive up to $250,000 to develop or manufacture products in Colorado. These grants provide critical, non-dilutive funding and have a proven history of attracting follow-on investment.

Afference, Inc.
Boulder
A fingerless glove to stream data from extended reality content to create the sensations of touch.

Alta Resource Technologies, Inc.
Boulder
Technology platform that uses synthetic biology to extract rare earth elements from conventional and unconventional streams.

Aspero Medical, Inc.
Broomfield
Balloon overtube for gastric and esophageal intraluminal endoscopic surgical procedures.

Boulder Sterilization
Boulder
Kits to convert ethylene oxide sterilizers to chlorine dioxide.

Cascade Biocatalysts
Denver
Resin technology that makes enzymes rugged and reliable for long-lasting use in chemical manufacturing processes.

Cobio Diagnostics, Inc.
Aurora
Diagnostic platform for fast and direct testing of multidrug resistant pathogens.

Commense Bio, Inc.
Boulder
Live biotherapeutic to treat patients suffering from invasive infections.

EnteroTrack, LLC
Aurora
Simple, at-home screening test to sample the upper gastrointestinal (GI) system in children and adults without the need for endoscopy.

GelSana Therapeutics, Inc.
Aurora
Superior hydrogel wound dressing technology for chronic wounds.

HYPRSKN, Inc.
Boulder
Disruptive tattoo ink for patients undergoing radiation therapy.

Lasa Health
Boulder
End-to-end patient engagement platform that enables clinics and health systems to accelerate the diagnosis and care of chronic pelvic pain in women.

LicenseLead, Inc. (dba ScaleIP)
Telluride
Intellectual property monetization software that helps corporations, labs, and universities find licensing partners, generate revenue, and reduce maintenance costs.

MFB Fertility, Inc. (dba Proov)
Erie
At-home hormone test that tracks hormone patterns across a woman's cycle to determine their phase of menopause.

Mother's Milk Is Best, Inc.
Fort Collins
Point-of-care, single-use human milk concentration device for neonatal feeding.

MyUTI, Inc.
Parker
Comprehensive, fast, and convenient at-home test for urinary tract infections in women.

Origin Healthcare, Inc.
Fort Collins
Tech-enabled platform that provides advanced medical care at home.

PAGE Technologies, Inc.
Boulder
Affordable biochemical sensors that monitor plant nutrients in real-time.

PhotonPharma, Inc.
Fort Collins
Autologous cell immunotherapy to mitigate the progression and prevent relapse of primary cancer, as well as treat metastatic cancer.

RheumaGen, Inc.
Denver
Outpatient therapeutic for treatment-resistant rheumatoid arthritis.

SiNAPTIC Technologies
Lafayette
Printable silicon nitride slurry for on-demand 3D printed technical ceramics for medical and industrial products.

Vortex Biotechnology Corporation
Westminster
First-in-class molecule to treat metastatic prostate cancer.

Grants awarded November 2023 and May 2024.

LEADING FOR *Patient-Focused* GROWTH

CBSA Board of Directors

Colorado BioScience Association's Board of Directors leads the growth and health of Colorado's life sciences community, making the state a leading hub for health innovation.

They are: C-level leaders at publicly traded companies, serial entrepreneurs who have taken promising concepts all the way to patient bedsides, renowned scientists, academic leaders, recognized experts in finance, law and operations, respected investors, and forward-thinking leaders developing the critical infrastructure our ecosystem needs.

Their vision for Colorado is inspired by their commitment to saving and changing lives around the world with innovations from Colorado.

Colorado BioScience Association Board of Directors leaders provide guidance, counsel, and expertise, supporting and representing our unified life sciences ecosystem.

Board of Directors Executive Committee

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Chief Executive Officer
OrganiShield
Board Chair

Byron Hewett
Fractional Chief Executive Officer
General Inception
Vice Board Chair
Chair, Strategic Planning Committee

Kathleen (Kiki) Traylor, M.D.
Director, State Government Affairs
Amgen
Past Board Chair

Robin Harper Cowie
Chief Financial Officer
Chief Compliance Officer
Biodesix, Inc.
Board Secretary

Jim Wilson
Partner
EY
Board Treasurer

April Giles
Executive Director
End Drug Shortages Alliance (EDSA)
Chair, Development Committee

Bob Reddy
Vice President, Global Marketing, Medical Education and Training
Medtronic Enabling Technologies
Past Board Chair
Chair, Nominating Committee

Alan Rudolph, Ph.D., M.B.A.
Chief Technology Officer
Innosphere Ventures
Interim Chief Executive Officer
Photon Pharma
At Large

Rita Sanzgiri, Ph.D., J.D.
Intellectual Property Attorney - Biotech, Pharmaceuticals, and Life Sciences
Chair, DEI Committee

Dan Wittenberg
Partner
Snell & Wilmer, LLP
Chair, Governance Committee

COLORADO BIOSCIENCE *Connect*

Powered by KBI Biopharma

Interactive Resource Offers Data and Tools for CBSA Members

Colorado BioScience Connect is our comprehensive, interactive resource that offers CBSA members powerful new ways to access data about our life sciences ecosystem. It offers easy-to-use tools and curated data about the organizations, resources, people, opportunities, and activity in Colorado's life sciences ecosystem to empower and grow our community.

This robust new technology centralizes vital information and resources to unite and strengthen CBSA members and your networks.

CBSA is proud to foster stronger industry connections and deliver greater value to our members with Colorado BioScience Connect, which replaces our traditional print directory of life sciences companies and service providers.

INTERACT & ENGAGE

coloradobioscienceconnect.com

A Global CDMO with Roots in Colorado

KBI Biopharma, a JSR Life Sciences company, is a contract development and manufacturing organization (CDMO), that provides accelerated development and biologics manufacturing services to over 500 life science companies. With six sites across the United States and Europe, KBI is committed to investing in local communities and fostering opportunity and equity for the next generation of scientists through the support of organizations like CBSA and The Colorado BioScience Institute.