

WHEN THE GOING GETS TOUGH, THE TOUGH GET CREATIVE FINANCING

BY ADAM RUBENSTEIN

Enduring economic turbulence combined with health-care legislation uncertainty has continued to pummel the entire life-sciences sector, from big pharma to the grant-supported academician. Whatever your favorite barometer of financing for our industry — be it PriceWaterhouseCoopers MoneyTree Report, the National Venture Capital Association or OnBioVC.com — the message was loud and clear: 2010 was the worst year of the past decade for venture financing in the life sciences industry. Early-stage discovery and development bioscience companies have seen access to risk capital, both from public granting agencies such as the NIH and private equity sources such as venture capital, significantly diminish.

In the face of this adverse fundraising backdrop, however, Colorado companies raised nearly \$100 million in venture capital, with financings distributed across a broad spectrum of sectors, including therapeutics, vaccines, diagnostics, medical foods and personalized medicine. Colorado's "git'er done" cowboy spirit, which permeates our life-science ecosystem, and savvy growth approaches developed by unique local sources, made 2010 another successful year of world-class biomedical research and development up and down the Front Range.

Louisville, CO-based GlobeImmune, a late clinical-stage biopharmaceutical company focused on therapeutic vaccines for the treatment of infectious diseases and cancer, closed a \$17.5 million Series E financing. Just down the road in Broomfield, CO two companies closed follow-on financings: Accera locked in an \$11 million Series D, while Biodesix collected \$7.1 million in Series C financing. Accera is developing therapeutic treatments for central nervous system disorders such as Parkinson's disease and has already commercialized Axona®, a medical food designed to address metabolic deficiencies in Alzheimer's patients.

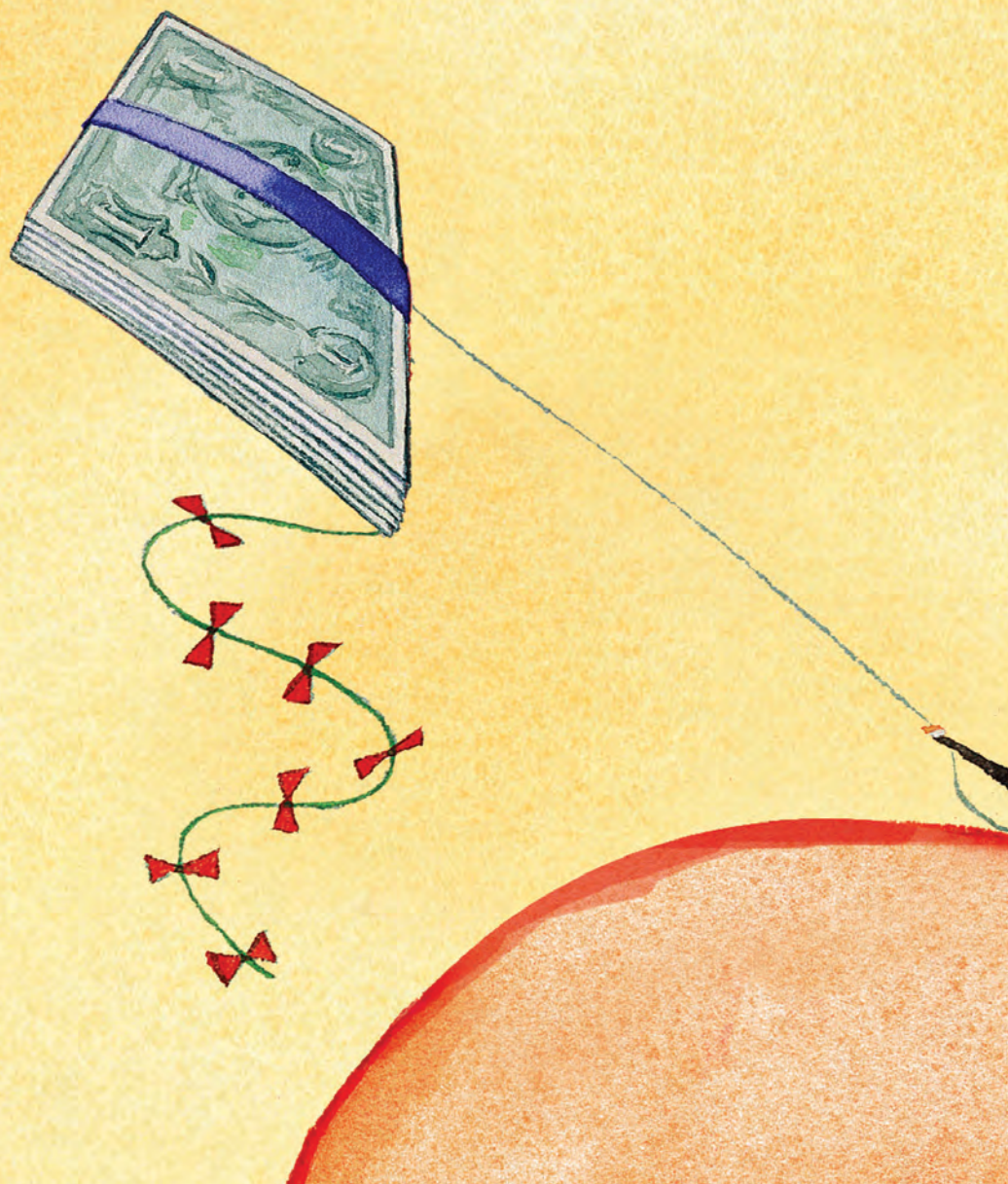
Biodesix is advancing personalized patient care by providing clinicians with important information relating to a patient's diagnosis, prognosis, or response to a specific therapy. The Company's first product, Veristrat®,

a clinically validated blood test that helps physicians guide treatment for patients with advanced non-small cell lung cancer, recently became commercially available.

Near the Flatirons, N30 Pharmaceuticals and SomaLogic, two Boulder, CO-based entities, also closed follow-on rounds. N30 booked a \$10 million Series B financing and is now a clinical-stage pharma company having dosed their first Phase I patient in September 2010 with N6022, a first-in-class inhibitor of s-nitrosoglutathione reductase for the potential treatment of inflammatory-based diseases such as asthma, chronic obstructive pulmonary disease (COPD) and inflammatory bowel disease (IBD).

If you are looking for the frontlines of the personalized medicine revolution, you need not look any further than SomaLogic, which closed a new \$15 million round. The Com-





pany is developing unique proteomic reagents known as SOMAmers®. This aptamer-based array technology unlocks biomarker discovery, enabling the detection of even the rarest of disease-associated proteins quickly, concurrently, effectively and economically.

These follow-on financings, backed by institutional capital from U.S. and international sources, speak to the progress toward regulatory approval and commercialization from a diverse set of Colorado companies.

Geographically concentrated venture financing events may be viewed as a gauge of the perceived quality of a region's innovation, intellectual property and human capital. A second metric that points toward the local quality of life-science products with a commercial trajectory is the Qualifying Therapeutic Discovery Project. The grant program, launched in 2009 by the Internal

Revenue Service and Department of Health and Human Services, approved applications for bioscience projects that show significant potential to produce new, cost-saving therapies, support job creation, and increase U.S. competitiveness. With a total of \$1 billion in credits and grants, the program awarded up to \$5 million per each eligible applicant. More than 60 Colorado-based life-science entities qualified for nearly \$25 million in Therapeutic Discovery Grant awards, with amounts ranging from \$60,000 to more than \$1,400,000. See the Therapeutic Discovery Grant map on page 11 for a list of recipients.

Colorado takes a holistic approach to developing its bioscience ecosystem, recognizing the importance of the very earliest portion of the innovation funnel that transpires in the laboratories of early-career investigators (ECIs). ECIs are faculty members who are

four years or less into their first academic appointment at a research institution. It is not uncommon for ECIs to have a difficult time acquiring support for their first opportunity at an independent research effort that aids their move out of the shadow of their mentors into their own areas of discovery.

Continuing the process, the Boettcher Foundation, Webb-Waring Foundation for Biomedical Research and the University of Colorado, formed the Webb-Waring Biomedical Research Program to support the work of early-career investigators in the biomedical field. Six grantees were named in the 2010 Inaugural Class of Boettcher Investigators, representing National Jewish Health, the University of Colorado, Colorado School of Mines and Colorado State University. Individual grant amounts ranged from \$200,000 to \$300,000, providing a total of more than

\$1 million of support per year.

Colorado has a true public-private commitment to fostering the growth of the industry. In 2006, the Colorado General Assembly created the Bioscience Discovery Evaluation Grant Program (BDEGP) to grow the biosci-

ence industry with the intent of stimulating new bioscience job growth and company creation. The program provides five years of funding through FY 2012-13, at approximately \$5.5 million each year. The funds, raised from gaming revenues, are appropriated

through the Governor's Office of Economic Development and International Trade and require a one-to-one matching source. As of April 2011, nearly \$19 million had been distributed. The legislature recently extended the program to 2018 injecting another \$25 million into the program. In addition, Senate Bill 47 was passed — creating approximately \$2 million per year in additional funding from state corporate income tax withholdings from growth of bioscience companies.

Methods of distribution include:

- Proof-of-Concept (POC) grants, of up to \$150,000, to research institutions,
- Early-Stage Company (ESC) grants, of up to \$250,000, to companies that have licensed intellectual property from a Colorado research institution, and
- Commercialization Infrastructure grants to enable the creation of a diverse set of resources often required to support translational-oriented academicians and early-stage companies.

The BDEGP has been recognized nationally as one of a handful of best-practices for state legislatures by the Biotechnology Industry Organization (BIO).

Out of 79 BDEGP POC grants awarded to date, 21 new companies have been created, with more promising Colorado companies in the pipeline. The ESC grants have aided 23 companies in achieving critical milestones in their evolution; those companies include **2C Tech, Advanced MicroLabs, Apop-Logic, BioAMPs, ClariMedix, EndoShape, Flashback Technologies, HepQuant, Hiberna, Illumasonix, InDevR, KromaTiD, MicroPhage, Oberon, PolyNew, QGents, Quest Product Development, SierraNeuro, Snoasis Medical and ValveXchange.** Between POC, ESC and Infrastructure grants, the BDEGP has accounted for 598 new direct and indirect jobs within the state, with a total payroll of more than \$44 million. An additional \$68 million has been leveraged through follow-on investment, grants and matching funds, yielding approximately 8.3 times the programs distributed funding.

A thoughtful approach to address the needs of the rapidly accelerating early-stage community has been addressed by four BDEGP Infrastructure grants. Recipients include:

Colorado State University's Colorado Institute for Drug Discovery (C2D2), which provides a suite of resources, from medicinal chemistry to PK to ADME assays, compound library screening, informatics and more. These capabilities are designed to accelerate drug discovery research statewide.



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The University of Colorado, Boulder, which is now home to the Colorado Initiative in Molecular Biotechnology (CIMB), led by Nobel laureate and former President of the Howard Hughes Medical Institute, Tom Cech. CIMB focuses on enhancing core research areas at the forefront of molecular technologies applied to biosciences, creating a magnet for attracting and retaining outstanding students and faculty, bridging disciplines by integrating research and teaching and promoting interdisciplinary collaborations, and supporting biotechnology development along the Front Range.

The University of Colorado, Denver, through the Department of Pharmacology's High-Throughput Screening (HTS) core facility, where screening of compound libraries against potential therapeutic targets is performed and validated.

The Colorado Institute for Drug Device and Diagnostic Development (CID4), a 501(c)3 not-for-profit entity. CID4's mission is to accelerate bioscience company and job growth in Colorado via select capital infusions and active management designed to help bridge the gap between life-science discovery and commercialization.

Despite a climate of relatively constrained financial resources across the country, Colorado continues to attract institutional capital along with the participation of local angels and successful serial biopreneurs. In addition to these private resources, a new and diverse

array of public resources is working to leverage follow-on resources, as finite as they might be, to continue to catalyze the world-class research, development, clinical and commercial products derived from Colorado's talented work force.



2012 Life Science Research Conferences

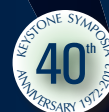
Keystone Symposia's 55 conferences in its 2011-2012 meeting season cover the full range of the biomedical/life sciences from infectious disease, immunology, cancer and cardiovascular/metabolic disease to neuroscience, drug discovery and genetics/genomics. They include:

- **High-Throughput Structural Biology** – January 22-27, 2012, Keystone Resort, Keystone, Colorado
- **Chemical Biology and Novel Tools in Pharmacology** – February 12-16, 2012, Hilton Santa Fe, Santa Fe, New Mexico
- **Addressing the Challenges of Drug Discovery – Novel Chemical Targets, New Chemical Space and Emerging Approaches** – March 19-23, 2012, Granlibakken Resort, Tahoe City, California

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