

BUDDING BIO-HUB

Local firm may foster thriving biotechnology industry

By WAYNE HEILMAN THE GAZETTE

Colorado Springs economic development officials are trying to nurture a budding biotechnology industry around a company started by a local biology professor.

Business officials envision a cluster of biotech companies here that would further diversify the economy, employ thousands and bring prestige and attention to the city.

The city already is home to more than three dozen mostly small biotech firms, including Agada Pharmaceuticals Inc., started as Newellink Inc. in 2002 by Karen Newell. She is scientific director of the Institute of Bioenergetics at the University of Colorado at Colorado Springs.

Local business officials hope Agada will be the home run that will put the Springs on the nation's biotechnology map.

"Her (Newell's) research is earth-shattering; it is our winning ticket," said David White, vice president of marketing for the Colorado Springs Economic Development Corp., which is heading the effort to expand the city's biotech industry. "Her work is very much at the center of our strategy to build a biotechnology hub in Colorado Springs."

Biotech companies focus on converting research in biology, chemistry and other biosciences into viable commercial products. Such companies can run the gamut from pharmaceutical firms to equipment companies to research labs.

Newell's research is centered on cancer treatment. She found that dichloroacetate, a chemical compound, robs cancerous tumors of the energy they need to grow. She said Agada has 25 patents awarded or in various stages of approval covering the compound and its use to treat cancer.

"We try to identify and target the energy sources of cancer cells and leave normal cells alone," Newell said. "We are not a pharmaceutical company that is developing a cure for cancer. We are a biotherapeutic company focused on treatments for cancer."

Newell's research and the compounds she has developed "could be the kind of breakthrough technology that is truly revolutionary," said Maurice Gaubatz, president of Springs-based Pyxant Labs Inc., which tests drugs being developed by pharmaceutical companies.

Newell, 56, came to UCCS after teaching at Dartmouth University and University of Vermont. She followed an unconventional career path, earning a biology degree in 1972 before getting married and spending the next 10 years raising children.

She earned a doctoral degree in microbiology and immunology from the University of Colorado Health Sciences Center in 1987 and did postdoctoral work at McGill University in Montreal and the National Jewish Center for Immunology and Respiratory Medicine in Denver.

Newell's career skyrocketed after she published a groundbreaking paper in the early 1990s about what happens to T cells in an AIDS patient. She taught in 1995 at UCCS while working at National Jewish and "really loved the students and environment and wanted to stay in Colorado" but got a better offer in Vermont. She returned to UCCS in 1999.

Despite her academic successes, Newell nearly failed at running a business. Earlier this year, Newellink had spent all but "a few thousand dollars" of the \$2.1 million it had raised from a California family that developed and two years ago sold the Nature's Gate line of skin- and hair-care products.

"We didn't have a whole lot left in the bank and had a lot of debt," Newell said. "Our management team had no experience in creating a company, and we had gone through three interim managers, so we realized that the company needed to be restructured."

Newell sought out David Drake to lead the restructuring. The Longmont-based entrepreneur had earlier helped patent her research discoveries and set up Newellink while he was heading a nonprofit set up by the University of Colorado to license technology developed by its researchers.

Drake also headed the Fitzsimmons BioBusiness Incubator in Aurora, was chief executive of a Boulder software company, worked for two Denver-area venture capital funds and served as a board member, executive or consultant to several Denver-area startup technology firms. At the time, Canadian researchers were getting publicity for showing that dichloroacetate, long used to treat rare metabolic disorders, helps kill cancer cells. That fueled interest in Agada's patents on the compound. Drake raised \$600,000 in March to pay off Newellink's debts and recruit a management team to turn Newell's research into marketable products.

Agada is now trying to raise \$1 million from private investors by September and \$5 million to \$10 million by year's end from investors and venture capital funds to begin clinical trials by mid-2008. It could cost up to \$100 million to complete clinical trials, Drake said.

Adam Rubenstein, assistant director of Fitzsimmons BioBusiness Partners, which operates the state's only biotechnology business incubator, said Agada's patents could draw "a lot of interest" from venture capital funds that specialize in biotech startups.

Agada's management team also includes veteran Denver-area biotechnology executive Joanna Money as chief operating officer and David Sebasta, a former executive with NeXstar Pharmaceuticals Inc. and Ribozyme Pharmaceuticals Inc., as a consultant.

Agada is a virtual company — it has no offices and just one employee, Drake. Money, Sebasta and Newell work for the company as consultants. The company plans to contract out its financial, accounting and other administrative operations, Drake said.

Much of the initial investment in Agada came from the Weinstein Family Trust, which had been headed by Nature's Gate founder Leo Weinstein until he died of cancer in 2005. Drake said the trust boosted its investment in the company as part of the March financing.

The company changed its name in April to Agada, which in Sanskrit means "free from disease, healthy."

Officials hope Agada is successful not only for itself but also because of its connection to UCCS — and the potential to build biotech here.

UCCS Chancellor Pam Shockley-Zalabak called Newell's research "an important component in the university's long-term goal to create a research park" housing companies that develop practical uses for results of scientific research conducted by faculty.

That process of turning research into products — technology transfer — is a key element in growing Colorado's emerging biotechnology industry, said Tom Roach, a Denver-based partner who specializes in the health sciences industry with accounting giant Ernst & Young LLP. "There is certainly a significant number of small biotech companies that have grown out of universities because of the emphasis they have put on technology transfer," Roach said.

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MAJOR LOCAL BIOTECH PLAYERS

Colorado Springs is home to 25-30 biotechnology companies employing 2,500, according to the Colorado Springs Economic Development Corp. Here are a few of the major players:

c SYNTHES USA

Address: 1051 and 1101 Synthes Ave., Monument

Local employees: 580 Opened: 1979 Owner: Synthes GmbH, Switzerland

What it does: Manufactures orthopedic implant devices, mostly nails and screws used to repair broken bones; distribution center for North America for medical devices.

New developments: None

c SPECTRANETICS CORP.

Address: 9965 Federal Drive Local employees: 215 Opened: 1984 Owner: Public, trades on Nasdaq, SPNC

What it does: Corporate headquarters of medical laser manufacturer.

New developments: Won U.S. Food and Drug Administration approval earlier this month for new catheter to clear blockages in upper-leg arteries and expand use of catheters to clear partial blockages anywhere in leg arteries.

c WESTONE LABORATORIES INC.

Address: 2235 Executive Circle

Local employees: 200 Opened: 1959 Owner: Private, Morgan family of Colorado Springs

What it does: Manufactures custom-fit earpieces for health care, industrial and recreational uses; also makes in-ear monitors for professional musicians and music players such as the iPod.

New developments: Started manufacturing in 2005 custom earpieces used by military personnel for hearing protection and communications.

c CEA TECHNOLOGIES INC.

Address: 1735 Merchants Court

Local employees: 100 Opened: 1992 Owner: Marcus Boggs

What it does: Contract medical manufacturer of custommade medical devices, including cables and other parts used for heart surgery, breast biopsies and other medical procedures.

New developments: Planning to start construction late next year on an addition that will more than double manufacturing space, with plans to hire up to 60 employees by 2010.

c PROVIDENT PHARMACEUTICALS LLC

Address: 4831 Centennial Blvd.

Local employees: 70 Opened: 2003

Owner: Private What it does: Contract manufacturer of prescription cough and cold drugs for midsize pharmaceutical companies.

New developments: Will expand in next six months to making capsules in addition to liquid and tablets.

c DPIX LLC

Address: 1635 Aeroplaza Drive

Local employees: 50-75 Opened: 2006 Owner: Private, spinoff from Xerox Corp.

What it does: Manufactures X-ray image-sensor-array devices used instead of X-rays and in treatment of heart disease and cancer as well as in dental and veterinary offices.

New developments: Completed remodeling of former semiconductor plant and taking delivery of manufacturing equipment. Planning test manufacturing runs by year's end with full production by mid-2008.

Plans to increase staff to 100 by year's end.

c PYXANT LABS INC.

Address: 4720 Forge Road, Suite 108

Local employees: 24 Opened: 2000 Owner: Private What it does: Provides analytical chemistry laboratory services to pharmaceutical companies during clinical trials.

New developments: Plans to close fifth round of financing later this month to continue company's growth. Company has raised \$2 million from venture capital funds and investors in four previous rounds of financing.

c COAST INDEPENDENT REVIEW BOARD LLC

Address: 5475 Mark Dabling Blvd., Suite 351

Local employees: 15 Opened: May Owner: Private What it does: Monitors safety of drugs and medical devices during clinical research trials.

New developments: Will move into permanent office next month and plans to hire up to 50 more employees by year's end.

c BAL SEAL ENGINEERING INC.

Address: 880A Elkton Drive Local employees: 11 Opened: 2006 Owner: Private, Pete Balsells What it does:

Manufactures electrical contacts for pacemakers and neurostimulators for pain management.

New developments: Plans to grow within five years to 40 employees, same size as similar California operation.

Plans to build own plant within 10 years.

c HEMOGENIX INC.

Address: 4405 N. Chestnut St., Suite D

Local employees: 4 Opened: 2000, relocated from Columbia, S.C., in 2003

Owner: Private What it does: Contract research for biotechnology and pharmaceutical companies to determine safety and effectiveness of drug candidates; sells chemical analysis kits to companies to do testing.

New developments: None

SOURCE: Gazette research



MARK REIS, THE GAZETTE Karen Newell examined culture cells at the Institute for Bioenergetics at UCCS, where she is the scientific director.



THE GAZETTE FILE Spectranetics employee Victor Smith helped build a laser catheter to be used for cardiovascular patients. The firm recently won Food and Drug Administration approval for a catheter designed to clear blockages in upper-leg arteries.