

## Biotech & Pharmaceutical

### *Life Science Developments in Idaho*

*By Brett Bawden, Bannock Development Corporation*

Life Science developments and activities are alive and well in Idaho. Over the past few decades, new ventures have added immense value to Idaho's economy and have firmly established Idaho in the high-tech age. Forbes.com ranked Idaho as #6 for "The Best States for Business". This is due to Idaho's strong economic climate, low business costs, and well established labor force. Idaho has proven particularly attractive to technology-led, entrepreneurial companies especially as it has received national attention for the unique collection of assets and cooperative arrangements. Those assets include the labor force, education and training resources, an existing and thriving technology environment, and a sophisticated, well-developed support system for companies considering locating to the region. This article will take a closer look at the activities and growth of the Biotech and Pharmaceutical industry throughout the state of Idaho. These developments have helped fuel the overall economic growth of the state, as Idaho moves to a new economy based on high-tech, advanced manufacturing and alternate energy.

We will first start in Southeast Idaho. As the economy in Southeast Idaho continues to transition into the high-tech arena, new recruitment initiatives and local expansion efforts have been very active and have strongly impacted its economy. Current industry development in the area includes ON Semiconductor, a major player in the manufacturing of chip technology in medical pacemakers; Tetridyn Solutions, an up and coming manufacturer of medical software and record keeping solutions for the medical industry; and Premier Technologies, Inc. a world leader in the manufacturing of hot cells and glove boxes for the safe handling of biologically sensitive medical materials. These three companies are major employers in the economy and all work closely with Idaho State University in research and development strategies providing linkages between industry and academia.

In addition to the current companies in Southeast Idaho, IsoRay Medical, a medical isotopes company, announced plans for a laboratory targeted to open by the later part of 2008 in Pocatello. Its proprietary medical isotope, Cesium-131, provides the latest boost in the treatment of prostate cancer and other soft tissue tumors. Playing a major role in the project is the Idaho National Laboratory's (INL) Advanced Test Reactor, the only U.S. reactor capable of producing the quantities of Cesium-131 needed to meet projected worldwide demands.

Idaho State University (ISU) has proven to be a valuable resource for Biotech companies operating in Idaho. ISU is a leader for advancements in pharmacology, nursing, pre-dental, health physics and also offers a complete curriculum of other advanced degrees, both post graduate and graduate. The College of Pharmacy at ISU has been actively involved in many research projects to advance medical innovation and improvement. One of the most prominent projects the college is heading is the Drug Use Review (DUR). The College of Pharmacy has served as the State's DUR contractor for over a decade. During this time, significant effort has been expended towards the design,

implementation, and management of a comprehensive "state of the art" DUR program. The program retrospectively reviews the prescribing and dispensing practices of outpatient prescription medications in order to assure that prescriptions (i) are appropriate, (ii) are medically necessary, and (iii) are not likely to result in adverse medical results.

Another key resource which differentiates Idaho from many other states is that it is one of the few states that house an Accelerator center. The Idaho Accelerator Center is a unique research facility operated by Idaho State University. It provides opportunities for scientists and engineers from the University, the private sector and the national laboratories to utilize specialized nuclear technology. It serves as a principal investigating conduit for R&D in nuclear physics applications in materials science, biology, homeland and national security. Currently, the Idaho Accelerator Center is working with Advanced Medical Isotope Corporation (AMIC), who is engaged in the production and distribution of medical isotopes and medical isotope technologies that are changing the practice of medicine and ushering in a new era of improved patient care for diagnosing, managing and treating diseases.

In Southern Idaho, Microbial-Vac Systems, Inc, (MSI) is a young start up company located in Jerome and moving steadily into national and international markets. MSI's unique approach to protecting human lives is opening new horizons for the company through improved bio-technology to locate, collect and help identify surface contamination such as E. coli bacteria.

Dr. Bruce Bradley, owner of Microbial-Vac Systems, Inc., has been operating in Jerome for over 25 years, serving the area with microbiology laboratory services primarily directed to identifying pathogenic bacteria in animals. Following the deadly U.S. outbreak of E. coli (0157:H7) in hamburger on the west coast in 1993, he turned a small section of his laboratory into a research area and began an R&D program in pursuit of a better way to locate and identify pathogens on meat and other foods and related processing equipment or surfaces. Dr. Bradley submitted a number of applications for Small Business Innovation Research (SBIR) grants to the USDA, National Institutes of Health (NIH) and the U.S. Army to fund this important project. He received his first Phase I SBIR grant in late 1997 to test the feasibility of his ideas. Within 6 months, the positive feasibility report and additional grant applications to FDA and NIH demonstrated to the NIH reviewers that Dr. Bradley may be on to something worthwhile. NIH awarded him another Phase I and eventually Phase II funding which allowed him to delve deeper into the project. In early 2001, he received his first grant from the U.S. Army to extend his research for Military food safety as well as into the bioterrorism arenas for improved location of possible bio-agents on environmental surfaces.

Since that beginning, he has written over 30 SBIR grant applications and received 10 SBIR awards, primarily from the U.S. Army to complete and commercialize the Microbial-Vac (M-Vac). This unique device combines a sterile surface liquid rinse and wet-vacuum collection system to allow field soldiers and food safety monitoring teams to

more accurately and safely locate and retrieve possible bio-agent or surface food pathogens.

In late 2007, MSI began marketing the first commercial version of the M-Vac system nation wide and now employs 16 people in two locations, Jerome, ID and Salt Lake City, UT.

Moving up into Northern Idaho, a pharmaceutical plant is set to open in Post Falls. Biopol Laboratory, part of the ALK-Abello Group, is building a new manufacturing and research and development facility in Post Falls.

The new facility will occupy 12.5 acres of land in Riverbend Commerce Park in Post Falls, the company said in a statement. The site will be the future home and main office for Biopol Laboratory – ALK-Abelló's largest production site of raw material for its allergy immunotherapy products.

The first phase of the construction will be approximately 68,000 square feet with an initial investment of around \$30 million. The facility should provide approximately 50 jobs when completed in 2009.

Biopol Laboratory currently operates out of five facilities in and around Spokane, Wash. and controls a 600-acre farm in Plummer, Idaho, just south of Kootenai County, where it grows a variety of grasses and other plants to produce pollens used as raw materials for allergy immunotherapy products.

Idaho is famous for its potatoes! But, as you can see, Idaho is investing in a future that keeps abreast with the changing times. With Idaho's impressive combination of academia and business, it is well on its way of being in the forefront of innovation. New developments at the INL and the Accelerator Center, partnered with the growth in the universities and businesses, gives Idaho the dynamics to deliver for the new economy.

Websites for Organizations in this article:

Idaho State University ([www.isu.edu](http://www.isu.edu))

Idaho National Laboratory ([www.inel.gov](http://www.inel.gov))

Idaho Accelerator Center ([www.iac.isu.edu](http://www.iac.isu.edu))

ON Semiconductor ([www.onsemi.com](http://www.onsemi.com))

Tetridyn Solutions ([www.tetridyn.com](http://www.tetridyn.com))

Premier Technologies, Inc. ([www.premiertechology.cc](http://www.premiertechology.cc))

IsoRay Medical ([www.isoray.com](http://www.isoray.com))

Microbial-Vac Systems, Inc. ([www.m-vac.com](http://www.m-vac.com))

ALK-Abello Group ([www.alk-abello.com](http://www.alk-abello.com))