

Cropsolution Becomes First Investment for Aurora Ventures IV

In April, Cropsolution, an agrochemical company focused on the discovery of molecular compounds for use as herbicides, pesticides and fungicides, became the first investment from Aurora Ventures IV. Aurora led the \$6.4 million Series A round, which included investors ATP Capital, Research Triangle Ventures, Charlotte Angel Partners, The Atlantis Group and other individual investors.



A spinout of Denver-based Invenux, Inc., Cropsolution uses Evolutionary Chemistry™ for the discovery of novel molecular compounds that have utility as agrochemicals. Evolutionary Chemistry is a proprietary technology that permits the synthesis and selection of thousands of times more molecules than can be achieved with any other technology.

New compounds discovered by Cropsolution will be partnered with major manufacturing companies such as BASF, DuPont, Dow Chemicals, Bayer and Monsanto for product development, production, marketing, and sales. "Currently, we are the only start-up company performing chemical discovery for agrochemicals," says Eric Ward, CEO of Cropsolution. "Large multinational corporations have reached a saturation point in exploiting their traditional methods of discovery, and their internal discovery channels cannot keep pace with the demand for new products. Now they're looking to acquire new chemical compounds from external sources." In addition, because those partners are developing the consumer products based upon the compounds, they would be responsible for registering the chemicals with the EPA. "This way we can focus our resources on compound discovery instead of government regulation," says Scott Uknes, Ph.D. and president of Cropsolution.

"Basically, the current method of molecular discovery is screening, meaning that one molecule is tested at a time," says Uknes. "Evolutionary Chemistry technology is a selection process, so literally millions of different molecules can be tested at once, and the most effective molecule can be selected from the millions." According to Uknes, Evolutionary Chemistry can cut at least two years off the time needed to develop an agrochemical. Cropsolution has the exclusive license for Evolutionary Chemistry in agriculture.

Agrochemicals form a \$30 billion worldwide market annually. And though the entire market could benefit from the discoveries of Cropsolution, Ward concedes that the actual market is probably about half. "Products made using our discoveries will appeal more to the upscale market. Lower-end markets are less interested in innovative new products."

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<i>The Aurora Funds Holds Annual Meeting May 21st in Durham</i>	
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"The technology and potential market for Cropsolution are really outstanding," says Jeff Clark, Managing General Partner of The Aurora Funds. "But what really made the company an attractive investment was the management team." In addition to being experts in their fields, several members of the management team have proven track records, including Paradigm Genetics, which went public in 2000. Ward and Uknes met 20 years ago in graduate school, and have worked together at other companies. In addition, Michelle Hunt, Ph.D., Director, strategic marketing, worked with Ward at Novartis prior to joining Cropsolution. Both Ward and Uknes were approached separately to help spinout and build Cropsolution, and both agreed to sign on.

Cropsolution's next steps will be to focus on developing products from their technology. The management hopes to have a research and development agreement in place in the next nine to twelve months that would allow the company to reap 80% of the fungicide market. In addition, they are talking with companies that have new technologies complimentary to Evolutionary Chemistry. "We're not hindered by our existing technology," said Ward. "We'll explore all options to be successful."



Aurora Companies in the News

HAHT Commerce, a provider of Demand Chain Management applications, was awarded UPSIDE Magazine's 2002 Hot 100 Award. The annual award recognizes excellence and innovation among the leading privately held technology companies. UPSIDE is publishing the Hot 100 Award winners in its June 2002 issue and has unveiled complete list of winners online at UPSIDE.com. HAHT Commerce's UCCnet interoperable solution, HAHT Commerce Suite 7.0, was certified on UCCnet Foundation Services release 2.1. in early June.



Alerts, Inc., a provider of real-time, personalized business intelligence, announced in June 2002 that TogetherSoft Corporation, the market-momentum leader in improving the quality, cost and speed of collaborative software development, is currently using SalesAlerts™ for Siebel eBusiness Applications. The integration of SalesAlerts™ 2.0, and Siebel eBusiness Applications version 6 was successfully validated by Siebel Systems in May 2002.



Cropsolution, Inc., a life science company focused on the discovery and development of new agrochemicals, closed a \$6.4 million Series A financing in May 2002. The round was led by **The Aurora Funds**, with additional investments from ATP Capital, Research Triangle Ventures, Charlotte Angel Partners, The Atlantis Group, and other individual investors.

Blackboard Inc., an e-Education software company, unveiled the Blackboard Learning System ML™, the multi-language edition of its market-leading course management system, at the World Education Market 2002 in May 2002. The system is scheduled for release mid-year 2002. Blackboard also announced record revenues of \$14.7 million, representing 103% growth from first quarter 2001 revenues of \$7.3 million and 5% growth from fourth quarter revenues of \$14.1 million, for the first quarter ending March 31, 2002.



Emageon, a provider of enterprise solutions for diagnostic imaging, formed an agreement in May 2002 to provide the University of Chicago Hospitals and Health System with upgraded software and hardware. The system is an enhancement of the current Emageon software that has been in place since September of 1999. The University of Chicago Hospitals were selected among the 15 best hospitals in the United States for the fifth year in a row by U.S. News & World Report in their annual survey of America's nearly 7,000 hospitals.



NOBEX Corporation formed a strategic alliance for the development and commercialization of orally administered insulin products for the treatment of diabetes with GlaxoSmithKline in May 2002. Under the terms of the agreement, GSK will fund product development, manufacturing, and marketing. GSK will pay NOBEX an upfront fee and milestone payments related to development progress, regulatory submissions and approvals, and to the achievement of certain sales level thresholds, resulting in \$283 million in potential payments to NOBEX over the term of the agreement, in addition to royalties on product sales.

Porivo Technologies, a provider of end-to-end Web performance management products that measure performance from the perspective of end-users, announced a major new release of its peerReview Web performance testing service in April 2002.



The Aurora Update is a quarterly publication of The Aurora Funds, Inc., a Research Triangle Park, NC-based venture capital partnership that invests in early stage life science and information technology companies in the southeastern US. Carolyn Foy edited this edition of The Aurora Update.

Aurora in the Community

Scott Albert, Managing General Partner, was a panelist for Pricewaterhousecooper's *Shaking the Money Tree* forum in May 2002. Albert has been active with area business schools, serving as a guest lecturer on venture capital for Dr. Karlyn Mitchell's *New Firm Financing* class at the North Carolina State University School of Management. He was also a panelist for the session *Venture Capital, Strategies for 2002* at the Fuqua School's Duke Business Technology Forum, e.vision.

Jeff Clark, Managing General Partner, has been helping lead the Council for Entrepreneurial Development's *Innovation to Impact* campaign through service on the CED development committee, which won the *Chairman's Service Award* at the annual CED awards ceremony June 18th. On May 7th, Clark served as a guest presenter at the Florida Venture Forum in Orlando, discussing current trends in venture capital investing.

Richard Brown, General Partner, served as a panelist for the Northern Virginia Technology Council's *Capital Connections* in April. He served as a member of the CED's Venture 2002 Business Plan Review Committee, and is currently a member of the Capital Connections Steering Committee. Brown served as a panelist for the CED's workshop on bridge financing, and as a panelist for the 5 Ventures program at the Belk College of Business Administration, the University of North Carolina at Charlotte.

Doug Gooding, Associate, was a panel member for the CED's Venture 2002 Later Stage Funding Workshop: *Preparing Your Company for a Series B Round*, and served on a panel on funding early stage companies at the Office of Technology Transfer for the University of North Carolina at Chapel Hill. Gooding also spoke at the Three Rivers Venture Fair in Pittsburgh, where he served on the panel *How to Attract the Investor of Your Dreams—Life Science*. He was a judge for the final round of competition at the Venture Capital Investment Competition, which draws business schools from around the country. Gooding also served as a judge for the Kenan Flagler Business School Launch Tournament, a course taught by the Business School Dean Robert Sullivan.

Portfolio Talk

Mobile-Mind Focused on Path to Profitability



Mary Cronin, CEO



Scott Guthery, Ph.D.

An ever-increasing demand for wireless and smart card systems is driving Mobile-Mind, a company that designs, engineers and develops secure wireless applications and advanced smart card systems, towards profitability. Based in Boston, the three-year-old company is growing its revenues and gaining customers in North America, Europe and Asia.

Mobile-Mind develops systems and application software for mobile phones, providing smart card and wireless software design, development, testing and related technical services for corporate and public sector clients who require secure solutions. "We are the leading U.S. expert for SIMs," says Mary Cronin, CEO and co-founder of Mobile-Mind. SIMs (Subscriber Identity Module) smart chips are used inside GSM phones and other wireless devices, increasing the level of functionality for phones, including greater security

and other desired features. Smart Cards are cards that store valuable data in an embedded chip. She notes that Handspring selected Mobile-Mind, with its in-depth expertise in SIM software design and development, to test the critical functions of the SIM that is built into every new Treo™ device.

Cronin explains that the company's competitive advantage over other U.S. wireless software developers is that Mobile-Mind's SIM technology functions across all standards compliant platforms. "Wireless carriers and other smart card customers have become more insistent on interoperability," says Cronin. "Many of our competitors develop proprietary wireless applications for use specifically on their operating systems." According to Cronin, these vendors are finding that customers are demanding the functionality offered by independent developers such as Mobile-Mind. To reach international markets, Mobile-Mind's sales and marketing team works with content and channel partners in Europe and Asia Pacific.

Mary Cronin has been a member of Aurora's Engineering Advisory Board for several years, further increasing Aurora's comfort level for investing in her company. Aurora was the sole investor in Mobile-Mind's \$1 million Series A round, which closed in December 2000. "Aurora has been, and continues to be, a tremendous partner for us," says Cronin. "Not only are they experts in growing a company, but they provided invaluable strategic help throughout our partnership."

Cronin says the main focus of the company is to continue generating positive cash flow through increased revenues. "For the next nine to 12 months, we are concentrating on building our revenues instead of positioning ourselves for another round," says Cronin. "Certainly we will consider seeking another round when a significant growth opportunity arises, but currently our resources are concentrated on sales."

Mobile-Mind will open a sales office in Asia this August. The company plans to announce the details of the Asian office and other key sales and marketing personnel later this summer. Mobile-Mind also plans to grow its presence in Europe, where it is predicted that the number of Smart cards sold will reach 295 million by 2004 (Forrester Research).

Last year's revenues for Mobile-Mind increased dramatically over the previous year, and 2002 revenues are projected to double over 2001. Major customers include Fujitsu, which has formed a partnership with Mobile-Mind to design and develop the HIPERSIM smart card operating system and wireless solutions in partnership with Fujitsu's Electronic Devices Group.

Cronin, a well-known Internet strategist for Fortune 500 companies with years of operational experience working with e-

commerce companies, founded Mobile-Mind in 1999 with Scott Guthery, Mobile-Mind's CTO. Guthery was a member of the team that developed the first Java-based smart card and the Windows smart card. "The wireless market is an extremely fast-paced market, and it takes a very talented team to be successful," says Scott Albert, Managing General Partner of The Aurora Funds and member of Mobile-Mind's Board of Directors. "Mary and Scott (Guthery) have put together a terrific team to move the company forward, and we are very pleased with how they have grown the company."

Life Sciences

Cogent Neuroscience, Inc.	www.cogentscience.com
Cropsolution	www.cropsolution.com
Emageon	www.emageon.com
Insect Biotechnology, Inc.	www.insectbio.com
MERIX Bioscience, Inc.	www.merixbio.com
Nexan	www.nexan.com
Nobex	www.nobexcorp.com
Norak Biosciences, Inc.	www.norakbio.com
Quartet Biosciences, Inc.	
StemCo Biomedical, Inc.	www.stemcobiomedical.com
TissueInformatics, Inc.	www.tissueinformatics.com
TriVirix International, Inc.	www.trivirix.com
United Emergency Services	www.unitedemergency.com
Volumetrics	
Xanthon	www.xanthon.com

Information Technology

Alerts, Inc.	www.alerts.com
Blackboard	www.blackboard.net
Broadband Home	www.broadbandhome.com
Engenia Software	www.engenia.com
Foresight	www.foresightcorp.com
HAHT Commerce,	www.haht.com
InPhonic	www.inphonic.com
MicroMass Communications	www.micromass.com
Mobile-Mind	www.mobile-mind.com
Porivo	www.porivo.com
psiloQuest	www.psiloquest.com
Unitive	www.unitive.com
VetCentric	www.vetcentric.com

Exited Companies

Accipter	DataFlux	Brightpod	GadgetSpace
	Natus Medical	ViroLogic	



Portfolio Spotlight:

StemCo Biomedical, Inc.

Improving the Success of Transplants

Durham-based StemCo Biomedical, Inc., a therapeutic medical device company, is developing a series of clinical reagents that will improve the way stem cell transplants are performed and the outcome of these procedures. StemCo's technology will initially impact bone marrow transplantation, a therapeutic procedure that permits the regeneration of the blood forming tissues of cancer patients. A spinout of Duke University, the company is building on technology for identifying, counting, and isolating by hematopoietic stem and progenitor cells (HSC) that are the active cells in bone marrow grafts. This proprietary technology was developed by researchers at the University's Comprehensive Cancer Center and Stem Cell Transplant Program, and will also have application in the therapy of diseases other than cancer, including autoimmune diseases and regenerative medicine.

Worldwide, about 100,000 transplants are performed each year as a part of cancer treatment, and tens of thousands of which fail using current methods. StemCo's reagents could significantly reduce the number of failures. "There's an urgent clinical need for our reagents," says Jonathan Lawrie, Ph.D., president and CEO of StemCo. He believes the directly addressable market for StemCo's products is \$1 billion.

Lawrie projects StemCo's procedure will cost between \$5,000 and \$10,000. "The cost of a bone marrow transplant is about \$150,000 if there are no complications," says Lawrie. "However, if there are complications, such as incompatibility, those costs can reach \$500,000 per transplant, and the patient often does not survive." According to Lawrie, nearly 20% of bone marrow transplants encounter complications that could be detected by StemCo's procedure. While other companies are investigating ways to improve the success rate of transplants, none are focusing on stem cell research.



Because the company's products use widely accepted sources of HSC's that are not derived from fetal or embryonic tissues, controversy over stem cell research does not affect StemCo. "Bone marrow transplants have been a part of cancer treatment for the last 20 years," says Lawrie.

StemCo's management team consists of experts in biotechnology as well as building start-up companies. In addition to Lawrie, former Director of Business Development for Becton Dickinson Technologies, as well as president of

Cardiovascular Diagnostics, the team boasts Malcolm Thomas, Ph.D., also formerly of Becton Dickinson, Dr. Lisa Beth Ferstenberg, who has 18 years of experience in pharmaceutical development, and Andrew Balber, Ph.D. formerly of the Office of Science and Technology for Duke University.

The company's first product, a clinical reagent kit, will hit the market at the end of 2002. Its second product, a diagnostic kit, is entering clinical trials and will be released in 2003, and will be followed by a cell selection product in 2004. "Our clinical trials involve a known quantity for the FDA, so the testing can be less strenuous than for a new technology," says Lawrie.

"We were attracted to StemCo because of the tremendous existing market for the technology," says Jeff Clark, Managing General Partner with Aurora. "We are also impressed with future potential applications of the technology." According to Lawrie, StemCo is exploring applying its technology in therapy for neurological damage, such as damage caused by stroke.

StemCo raised a \$6 million round of Series A funding from Harbinger/Aurora Fund and Intersouth Partners, closing on the last of three tranches in December 2001. The company plans to raise a second round of \$15 million later this year. "When we first met with Jeff Clark, he immediately understood what we were doing and how successful it could be," says Lawrie. "The great part about working with Aurora is that they know venture capital, and they know the technology."



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