ZeptoMetrix CORPORATION

ZeptoGram

No.2/Summer 2006

Construction projects complete

Franklin, Massachusetts facility

It was just over two years ago that ZeptoMetrix acquired Impath-Bio-Clinical Partners, Inc. from Impath, Inc. Impath-BCP is located in Franklin, MA, and when this acquisition took place, ZMC acquired all of the assets of BCP. The Franklin facility originally housed 3 companies owned by Impath: BCP, Genebank, and ICTN (Impath Clinical Trials Network).

Prior to the acquisition, Impath invested approximately $6 million in building improvements and equipment acquisitions. In the spring of 2004, ZMC purchased all the assets of the infectious disease business. During the acquisition, ZMC preserved the jobs of 10 key individuals who were able to continue running and growing the core business.

Some assets that ZMC acquired consisted of all the facilities, equipment, infrastructure, computers, biological archive, etc. After the acquisition, ZMC donated over $100,000 worth of histology equipment to the U. of Massachusetts.

Franklin, MA division; shipping & receiving dock

Over the past year, to maximize operating efficiency, ZeptoMetrix has reorganized its entire Franklin, MA's facility. This project has included construction of 3 large freezer rooms, reorganization of nearly all inventories, and implementation of a Part 11 compliant inventory management system. The massive amount of data on more than 1 million clinical specimens housed at ZMC has also been reorganized into a large filing system with database access. The power for the 365KVA backup generator has been re-routed. All the security, telephone, and server equipment were also moved and re-wired.

Today this acquisition has proven to be a major asset to ZeptoMetrix Corporation. Our Massachusetts facility continues to grow, hiring more employees and expanding our business.

This reorganization was a major moving and construction project and a majority of this work was completed by our own staff. The company is extremely thankful to all the Franklin employees who took on this project on top of their normal work duties.

ZMC internship program

ZMC partners with the State University of New York (SUNY) at Buffalo in internship programs to provide students with an opportunity to gain laboratory and industry experience.

Inside this issue:

Although this program is still fairly new, there have already been several success stories. Our most recent successful partnerships have proven to be beneficial for both parties.

First, Erica Borriello began working as an intern in January of 2005. She was an undergraduate student in the Biotechnology Program at UB. She worked in the immunology department at ZMC under the guidance of Douglas Mason, PhD, Manager of the Immunology Department.

Erica is now in the Biotech Graduate Program at UB and has begun her graduate research work in partnership with ZMC. She is currently working with Jane Smigiera, Manager of Oxidative Stress, at ZMC, on the design and development of an enzyme immuno-assay for human serum paraoxonase 1 (PON 1). With the help of Erica, ZMC hopes to have the new ELISA kit on the market by this fall. The application of the kit will then be used in conjunction with ZMC's Arylesterase kit. The two combined will determine the paraoxonase status (i.e.: activity and concentration) in biological samples. This will be applied to a study being done by Erica's mentor Dr. Richard Browne, PhD, assistant professor in Biotechnical and Clinical Laboratory Services at UB.

Top to bottom: Erica Borriello, UB student, Jane Smigiera, Manager Oxidative Stress, ZMC

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Words from the President

Jim Hengst, PhD

When we came up with the concept of ZeptoMetrix, we started with the vision of creating an innovative research products corporation that would, 1) help researchers do even better research, 2) create new technologies that will help people, and 3) be an exciting place to work for people who really savor scientific excellence. We also started ZeptoMetrix with the vision of being a major contributor, long term, in the fight against human diseases.

In terms of point one, today, ZMC's products are used by the world's leading researchers who are seeking cures for AIDS, developing more sensitive methods to detect infectious diseases, unraveling the role of oxidation and antioxidants in health and disease, and creating means to detect and respond to terrorist attacks with biological agents.

As far as creating new technologies, we've done some amazing things. For example, we're close to receiving our first patents on our NATtrol products. These products are noninfectious, refrigerator stable, clinical controls that replace the old infectious materials that had to be stored at –80º C and were shipped as expensive, infectious, dry ice shipments.

Finally, to say that ZeptoMetrix is an exciting place to work is an understatement. We're focused on ways to improve the diagnosis and treatment of diseases and we're also focused on ways to accelerate and improve basic medical research. Every day we collaborate with some of the world's leading scientists. We've created a fun loving culture where everyone is proud of where they're working, everyone strives for scientific excellence and does everything possible to make the company a success. I feel blessed to be associated with such bright, enthusiastic people.

ZMC offers valuable tools for the biotech research industry

Nucleic Acid Testing (NAT) is an important tool that is becoming more and more popular in today's research due to its invaluable applications. Some of its uses include the detection of hereditary diseases, identification of genetic fingerprints, diagnosis of infectious diseases, cloning of genes, paternity testing, and screening of blood donors.*

This in turn has created a need for NAT extraction controls. ZeptoMetrix offers a full line of Nucleic Acid Test Controls (NATtrol™) for many viruses and bacteria. In addition, we can custom manufacture controls for infectious disease agents that are not currently available off the shelf.

By offering these controls, we can aide in infectious disease research and work hand-in-hand with the world's leading scientists. Our NATtrol™ controls are a valuable tool in today's biotechnology community because they provide a non-infectious, refrigerator stable, whole intact virus control. This is an alternative to the historically common DNA or RNA controls. Our controls are full process controls that control for sample handling, extraction, and detection steps in NAT.

What is NAT?

Nucleic Acid Testing can be done by PCR, TMA, or branched chain DNA. It is a method of detecting minute amounts of DNA or RNA.

ZMC has recently purchased its 3rd NAT instrument. This machine is a real time multiplex instrument that will enable us to rapidly and accurately perform most of our quality testing on our controls and other products in house.

**Information from http://wikipedia.org/*

Internship program

Continued from page 1

In September of 2005, Peter Trabold, PhD, began an internship with ZMC. Peter has his PhD from the Roswell Park Cancer Institute in Molecular Biology. He is currently enrolled in the MBA program at UB, with a concentration in Biotechnology Management.

Peter originally began as a research intern. Last semester, through the LEAP (learning experientially in an academic practicum) program at UB, he did a marketing analysis for the company. ZMC was considering becoming a distributor for another company in an effort to expand one of our product lines. Peter's research showed that it would not be a good venture, since the products did not meet ZMC's high quality standards.

Peter Trabold, PhD, running PCR machine

Today, Peter is currently working under Michelle Ferreri-Jacobia, PhD, Director of Virology at ZMC, on developing new HBV and HCV controls with high titers. These new products are ones that have been requested by many of our customers. He is also running PCR assays to be used for QA/QC purposes in the manufacturing of controls.

ZMC welcomes opportunities such as these, where we can support our students that continue to bring their hard work and dedication to the company. This program has also provided ZMC with several other employees that began as interns and were asked stay on as full-time employees after graduating. We are pleased to continue to provide students with a chance to further their laboratory and business experiences.

Tour one of ZMC's Biosafety Level 3 plus laboratories

The Biosafety Level 3+ laboratories at ZMC are fully equipped with the latest technology. One of these laboratories is used to work with airborne viruses and select agents. This is a limited access lab due to the issuance of our select agent permit. All employees must undergo fingerprinting and a full FBI background check, and even so, not all employees have access to the lab, only key individuals. All access is monitored to ensure the highest level of security.

Upon entering the lab, all personnel must dress in a full Tyvek suit including booties and a double layer of gloves. The suit completely covers the individual, closing them off from the environment and protecting them from any outside contaminants. A battery Powered Air Pressure Respirator (PAPR) Unit is worn and secured around the waist. This provides breathing air to the suit.

Once entering the full containment laboratory, the lab is under negative pressure, so as to ensure that no contaminated air escapes the lab into the environment. All exhaust air is run through a series of High Efficacy Particulate Air (HEPA) filters. The air handling system has redundant ventilation as well as complete emergency generator backup.

All open container work is performed in one of the Laminar Flow Biosafety Cabinets (LFBSC). All materials and waste are decontaminated before being taken out of the cabinet. Extra sleeves are also worn over the Tyvek suit; these are removed in the cabinet to keep any possible aerosols or contaminants inside the LFBSC. Viruses that must be transferred from the safety cabinet to a centrifuge are done in a sealed container that does not allow anything to escape.

In this lab mostly small scale virus production is done, however it also has the capabilities for very large-scale production. Hundreds of liters of infectious materials can safely be handled in this lab. It also contains three large incubators and five different size centrifuges, including two ultra centrifuges.

Mainly cell culture work is done in this lab. The incubator in the picture below contains mostly adherent cell culture lines growing in a monolayer along the bottom of T-175 flasks. These flasks will eventually be infected with a virus that can then be harvested and purified.

This lab is also in the process of undergoing some major changes in order to bring it up to even more enhanced BSL-3 requirements. These renovations will include a shower, as well as a separate air lock to exit the lab. Once these changes are complete, ZMC will continue to expand its work in biodefense. In the future, this lab will be used to handle lethal primate viruses, avian flu and mumps/measles. We will also be working more with bacteria like anthrax and pertussis.

Product Spotlight

NOW FEATURING

New Seroconversion Panels

HIV, HBV & HCV

Brand new, never before released panels
Consistent, Accurate & Objective Data
Data from every possible test on the market

ZeptoGram *is published quarterly by ZeptoMetrix Corporation. We strive to be a partner to each customer and we welcome your comments and suggestions. We wish you much success in your research.*

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ISO 9001:2000 CERTIFICATION Intertek

ISO 13485:2003 CERTIFICATION Intertek

Bulletin Board

Welcome New Employees

Franklin, MA

Karen Pailes	*Manufacturing Technician*
Evan Rossignol	*Summer Intern*

Buffalo, NY

Deanna Knighton	*Laboratory Technician*
Annette North	*Laboratory Technician*

Happy Birthday

Erica Borriello	*7/7*
David Reinlander	*7/15*
Greg Chiklis	*7/20*
Wayne Roy	*8/12*
Kathi Jordan	*8/24*
Laura Wolfe	*8/28*
Michael Roy	*9/21*
Andrew Macqueen	*9/28*

Visit us at:

AACC Clinical Laboratory Expo
McCormick Place Convention Center
Chicago, IL
July 25th-27th, 2006

XVI International AIDS Conference
Metro Toronto Convention Center
Toronto, Canada
August 13th-18th, 2006

ZMC bids farewell

ZMC says goodbye to Andrea Henson, PhD, of Virionyx Corporation Ltd, in Auckland, New Zealand. Andrea is a recent graduate of Auckland University and a scientist at Virionyx, one of ZMC's collaborators. She came to Buffalo in March to learn suspension cell culture techniques as well as run neutralization assays in our BSL 3+ facilities. While Andrea worked and studied at ZMC for about 2 months, we found that as much as we taught her, she taught us. We are sad to say goodbye and wish her much luck in her future career at Virionyx.