

# Ceramics Corridor®

Ceramics, Glass & Advanced Materials Newsletter

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The Ceramics Corridor® runs along I-86 in the Western and Central Southern Tier of New York State

## \$3 Million from NYS Boosts Photonics at Alfred University

The State of New York has provided a \$3 million grant to help create the Advanced Research Center in Photonics, which is being established on the campus of Alfred University. Specifically, the center is slated to move into CCIC's Alfred facility before the end of this year.

When it's up and running, the ARC will function as a prototype manufacturing facility to train technicians and engineers in the rapidly growing field of photonics. Indeed, much of the photonics research and development occurring in the Ceramics Corridor region of New York State's Southern Tier traces its beginnings directly to CCIC's Painted Post facility.

In a recent interview with *Alfred* magazine, Dr. Alexis Clare, associate professor of glass science at AU, explained that "photonics is the equivalent of electronics, except that it uses light instead of electrons to communicate, manipulate, create and detect signals." The principal market, according to Dr. Clare, involves network applications powering the Internet, covering the full optical fiber bandwidth by transmitting, combining, amplifying and switching signals via photons.

Applications that are currently being developed include telephone, Internet cable television, optical computers, and a variety of sensing, data storage, photovoltaic and medical devices. Already a \$100 billion industry with an 18% annual growth rate, photonics is generally considered to be about where electronics was about three decades ago in terms of its development.

The new research facility is planned to operate under the direction of New York State Office of Science, Technology and Academic Research (NYSTAR), which separately awarded \$800,000 to the project. According to Dr. Russell Bessette, executive director of NYSTAR, only two institutions in the state of New York were successful in all three of the grant competitions his office has conducted this year—Alfred and Cornell universities. Alfred's application for the ARC grant, "was one of the most outstanding ones we've seen," according to Bessette.

The ARC will be staffed by members of the AU faculty and students enrolled in ceramic engineering and materials science programs. They will collaborate with scientists and engineers from Corning Incorporated, as well as with faculty and students from the Rochester Institute of Technology, and their work will focus on solving problems relating to the photonics manufacturing process.

"This funding from New York State will allow the university to move into the forefront of training the future employees for this dynamic and growing field," AU President Charles M. Edmondson told *Alfred* magazine. "This project will enhance the education of many of our students. We think that the work of Dr. Clare is a brilliant example of how academic research can contribute to technological progress in ways that will enhance the quality of our lives."



Dr. Alexis Clare

# Back to Business

I've had to write proposals, business letters and a variety of other professional documents

during my career, but seldom have I had something as difficult to write as this column. The tragic events of September 11 are now several weeks old, but they are no less vivid



Jon M. Wilder

because they were so devastating and because the story is still evolving. Ultimately, the events of September 11 changed our lives and our world forever.

It's not just a matter of waiting longer to get on an airplane, and of having people go through every item of our bags. At least from now on those people will likely be well trained.

It's not just that this story will be with us for a very long time—we will read and hear about it and all of its implications every day for years to come.

And it's not just that two 110-story towers—symbols of our economic and financial might—are simply gone, turned to dust and debris by people with a twisted, misguided cause. The bricks and mortar will likely be rebuilt in some form.

Besides all of that, what's really changed is our whole attitude about life. We're no longer invulnerable—not that we ever really were. But the global terrorist agenda has been brought right to our shores in its most devastating form, threatening our homes, our businesses, and our lives. We now know, clearly, how difficult it is to stop people who, because they don't agree with us and all that we stand for as a nation, will murder thousands of innocent civilians and destroy billions of dollars worth of property. But we have to stop them, and I am confident that we will.

The reality is that everything has changed. We can no longer look at the world and our place in it in the same way. Have we ever truly gotten over Pearl Harbor? We commemorate that dark event on December 7<sup>th</sup> of every year. Has the world ever really gotten over Hiroshima?

The events of September 11<sup>th</sup> were of that magnitude, and it will shape the rest of our lives. But while the term "business as usual" may be difficult for many to utter right now, we must nonetheless say it—and do it. We owe it to those who have sacrificed so much to get back to business as best we can.

*Jon Wilder*

Executive Director

## IST at Ground Zero

When the New York City Police Department continued to search the rubble of the World Trade Center in the wake of the September 11 attacks, one of its valuable tools in the effort was the Dotcam. The Dotcam is a small diameter camera produced by Imaging and Sensing Technology Corp. of Big Flats, NY. In New York City on unrelated business, IST project manager Bob Evans supervised the use of the camera as searchers used the four-in. by one-in. cylindrical device, which can be lowered into confined—and otherwise inaccessible—spaces.

Using a monitor, searchers are able to scan a small, designated area at a time. The camera, which is no bigger than a flashlight battery, also has built-in lighting for spaces that lack natural light.

IST teamed up with the Chemung-Schuylar Chapter of the American Red Cross, along with VanGo Transportation of Horseheads, NY to transport a half-dozen Dotcams, along with five monitors and five rechargeable battery packs to the site.

Besides its mission to Ground Zero, IST continues to develop innovative industrial CCTV systems for hazardous environments such as nuclear and high temperature systems. Its latest, introduced this past summer, is VENTUS (patent pending), which was added the company's Quadtek line of high temperature cameras. VENTUS needs no electricity—it's powered exclusively by air. The totally portable color camera provides continuous video images of high-temperature processes, including power plant boilers, incinerators, cement kilns, glass tanks and steel industry applications. *IST's website is [www.istimaging.com](http://www.istimaging.com).*



Thomas E. Franklin  
Bergen (NJ) Record



Dotcam

The Ceramics Corridor® newsletter is published quarterly by the Ceramics Corridor® Innovation Centers for ceramics, glass and advanced materials entrepreneurs and corporations.

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## Got News?

*We're already working on our next issue of the Ceramics Corridor® Newsletter, & we want to hear from you! Information on new staff members, awards, new product development, patents, & any other business & professional activities should be directed to Jon Wilder, Executive Director, Ceramics Corridor Innovation Centers, 200 North Main Street, Alfred, NY 14802. Call (607) 587-9444, or e-mail [corridor@ceramicscorridor.org](mailto:corridor@ceramicscorridor.org).*

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# Profile: Corning Optical Networking Devices

“We’re in a start-up mode—we’re halfway between product development and manufacturing,” is the way Tom Meierjurgan of Corning Optical Networking Devices (OND) explains the company’s current operational mode. Part of Corning Incorporated’s Science & Technology Division, OND moved into 5,000 sq. ft. of space at CCIC’s Painted Post facility earlier this year and currently has a staff of about 20.

At the heart of what Corning Optical Networking Devices is doing is the Liquid Crystal Switch (LCX), a component related to Corning’s wavelength management products. “Our customers build network systems,” Meierjurgan explains. “Our charter is to eliminate the points of change from optical to electronic switching and back. We’re making the part that accomplishes that.”

And it’s very much a work in progress at this point: “We are now manufacturing samples, while on the development side we’re working on the next iteration of the product,” Meierjurgan says. “We’re learning as we go. Product development, for us, is a matter of learning what our customers want and need.”

OND began the build-out of its Painted Post premises back in March, and started up its operations at Painted Post in late May. Full production is a near-term goal, although the timetable remains very fluid. That’s due, in large part, to the fact that while “we are actively seeking customers, they have decidedly different requirements. We will continue to evolve,” he concludes.

## New Tenant at CCIC’s Alfred Facility

Dr. William LaCourse, Professor of Glass Science at the School of Ceramic Engineering and Materials Science, Alfred, has established Santanoni Glass and Ceramics at CCIC’s Alfred facility. LaCourse is also co-founder of Saxon Glass Technologies.

Santanoni’s focus is on bone china compositions with a twist—the company uses the cremated remains of pets to make a variety of memorial objects for their owners. A survey by the Alfred University School of Business helped the company develop its product line, which includes picture frames, urns and plaques. Santanoni Glass and Ceramics’ primary marketing focus is the veterinary community.

The company is currently in a manufacturing mode and is already considering expanding its product line. Under development are various porous glasses for catalytic applications. Santanoni is also an affiliate of the New York State Center for Advanced Ceramic Technology (CACT), which offers a variety of technology transfer benefits.

## People in the News... Craig, Tranter, Welch Join ATRI’s Board of Directors

**Charles R. Craig, G. Thomas Tranter, Jr. and Suzanne D. Welch** have joined the board of directors of Alfred Technology Resources, Inc., parent organization of CCIC’s business incubator program.

New board member Charles R. Craig is the division vice president of strategic planning and innovation management for the Science & Technology Division of Corning Incorporated. He joined Corning in 1974 and has held technology management positions in Manufacturing & Engineering and in Science & Technology. At Corning Engineering, he led the startup of three small businesses in analytical environmental and engineering services. He was appointed director of strategic technology planning and innovation management at S&T in March 1999, and to his current position in December 1999.



*Charles R. Craig*



*G. Thomas Tranter*



*Suzanne D. Welch*

The second new member, G. Thomas Tranter, Jr., is director of state and local government relations for Corning Incorporated, assuming that position in June, 2000. Prior to joining the company, he served as the Chemung County executive and as Horseheads Village manager and budget officer. He is currently the chairman of the board of directors of the United Way of the Southern Tier and serves on the boards of the Chemung County Industrial Development Agency, The Clemens Center and the Boy Scouts of America.

Finally, Suzanne D. Welch is vice president of corporate marketing for Corning Incorporated, a position she assumed in December 2000. She joined Corning in April, 1999 as the division vice president of corporate marketing, and previously was vice president of international development for PictureVision, Eastman Kodak Co.’s industry-leading Kodak PhotoNet online service.

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# Business Notes...

**Silicon Carbide Products**, a graduate of CCIC's Painted Post facility, has expanded beyond its 6,000-sq.-ft. facility at Airport Industrial Park in Horseheads, NY, leasing 2,500 sq. ft. of space in Big Flats, NY. The company, which recently passed its second surveillance audit for ISO 9001, produces high-performance ceramic components. The leased space is temporary—SCP is working on expanding its existing facility by as much as 10,000 sq. ft., according to company president *Martin Metzger*. No specific timetable has been set for the expansion. Also, SCP has added Alfred University graduate *Paul Bronson* to its growing staff as a senior process engineer and project manager. The company's staff currently numbers 10.

**IMR Test Labs**, Lansing, NY, has gained G.E. Aircraft Engine (GEAE) certification after meeting the program's standards in a recent audit, according to quality manager *Deena Crossmore*. The approval adds to the company's list of quality certifications, including, earlier this year, approval from the National Aerospace & Defense Contractors Accreditation Program (NADCAP). IMR analyzes and tests composites, process chemicals, metals, plastics, rubber and electronic circuits for the automotive, aerospace, consumer products and industrial goods industries. The company, which has a staff of 35, recently moved into a new 14,000-sq.-ft. facility

Another company recently receiving G.E. Aircraft Engine (GEAE) certification is **XYLON Ceramic Materials, Inc.**, located in CCIC's Alfred facility. XYLON has been recognized as an Approved Source for PVD Thermal Barrier Coating Ingot. "As a result, we have expanded our facilities at Alfred," according to XYLON's *Paul Johnson*. "We expect to hire additional employees by the end of the year." XYLON is a manufacturing-based company specializing in structural ceramics and ceramic powder production centered on the development and commercialization of zirconia-based ceramics. "High strength and corrosion resistance make zirconia alloys well-suited for a large number of biomedical and industrial applications," according to Johnson.

**Kimon Papadopoulos, Ph.D.**, of the Intellectual Property Group of the law firm of *Harter, Secrest & Emery*, Rochester, NY, has passed the U.S. Patent & Trademark Office's Patent Bar exam and is now a Registered Patent Agent. As such, he's entitled to represent clients in the patent application process. Past and current clients include Eastman Kodak, Westinghouse and Brockway Glass. Papadopoulos is a member of the American Ceramic Society and a number of other professional organizations. The Intellectual Property Group's technical expertise and experience includes such fields as material science (glass and ceramics); electrical, chemical, mechanical and optical engineering; computer hardware and software, plastic components; and biomedical, among others.

**Carol Wittmeyer**, President of Raymond Family Business Institute was named to *Business First Buffalo's* 40 Under Forty honor roll for 2001. The honor is awarded annually to 40 of the most promising young leaders throughout Western New York under the age of 40 for their professional success and community involvement. This year's honorees were selected by an independent panel from a group of almost 300 nominees.

Wittmeyer has more than 15 years' experience in higher education, beginning in 1984 as an assistant to the vice president for academic affairs at St. Bonaventure University. She was registrar for St. Bonaventure from 1985 to 1991, and held several other positions before accepting a position with Alfred University in 1997. She was promoted to associate vice president for University Relations in 1999.

She holds an associate's degree from Alfred State College, a bachelor's degree and an MBA degree in accounting from St. Bonaventure. She completed her Ed.D. degree in educational administration at the University of Rochester in 1992. Wittmeyer received a program certificate from the Harvard Graduate School of Education. Wittmeyer is a member of the Olean General Hospital Foundation board of directors and has been a board member of Olean Community Schools, the Montessori Children's House of Olean, and the Olean YMCA. She serves on the University of Rochester's Warner School of Education Advisory Board, and has been an adjunct instructor at the University of Rochester.

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