“Project Splash” Puts Fish at Hub of City’s Economic Revival

Lowell’s Cambodian community, a colleague remarked to Cheryl West not long ago, “have a hole in their heart, and a hole in their pocket as well.”

“And that,” she says, “is when it really hit me—that these are people we absolutely have to help.”

Lowell’s Cambodians, devastated by decades of war and dislocation in their own country and facing the never-distant specter of poverty in ours, are not the only target of Cheryl West’s new initiative. But they are probably the most natural one, only partly because they are apt to be poor. The other part has more to do with their history and heritage—which have always been bound up, economically, in the catching and cultivation of fish.

Fish, in this case the several dozen tilapia that swim in a 700-gallon tank in Kitson Hall, are the raw material of a project by the Center for Family, Work and Community (CFWC) that seeks to put food on the tables of Lowell’s poorest families—and, ultimately, to provide them with the means to earn the money to buy more. It is called “Project Splash.” Its reach, so far, has not been extensive—its only community locus, as of late November, was the eighth-grade homeroom at the Calvary School in Kitson Hall, are the raw material of the program.

The staff, teaching assistants and students of Project Splash, from left: Pamela Johonen-Prevon-egal, Engineering in MASS Collaboration program coordinator; Cheryl West, Project Splash coordinator; Matthew Espinola, a student at Rogers Middle School; Latha Kotha, UMass Lowell graduate student assistant; Susie Sim, Tiago Nenenes, and Sophall Tom, all students at Rogers; John King, Rogers School teacher of Consumer Science; Fenna Hanes, director, New England Board of Higher Education Technology.

The U.S. Army has awarded the Submillimeter-Wave Technology Laboratory a $25.1 million, five-year contract—the largest single award ever given to the campus.

Instead, the Submillimeter-Wave Technology Laboratory, were pleased to hear Prof. Jerry Waldman, left, and Dr. Robert Giles, co-directors of the Submillimeter-Wave Technology Laboratory, were pleased to hear.

Giles, co-directors of the Submillimeter-Wave Technology Laboratory, were pleased to hear about the U.S. Army’s five-year contract for more than $25 million.

STL serves as the research and development arm of the Army’s ERADS project. ERADS, an acronym for Expert RADar Signature Solutions, is directed by the U.S. Army National Ground Intelligence Center and includes researchers at the Aberdeen Proving Grounds and the University of Virginia, as well as UMass Lowell.

In recognition of the project’s importance, the U.S. Congress appropriated an additional $2 million in fiscal 2001 funds to the ERADS project. U.S. Rep. Martin T. Meehan led the Massachusetts delegation in the initiative for funding.

U.S. Army Gives $25 Million Contract to Research Center

How does a soldier in the field know that the image on his radar screen is an enemy tank, or how does the computer program advising him “know” what real object the image represents?

Research and testing are the obvious answers, yet full-scale field research would be prohibitively expensive. Instead, the Submillimeter-Wave Technology Laboratory (STL) at UMass Lowell conducts unique research using precisely scaled models of targets matched to the equivalently scaled radiation (submillimeter-wave length or terahertz) in place of radar. The research determines the significant imaged elements, known as radar signature data, that can be used to develop target recognition algorithms for the computer.

To continue this work, the U.S. Army has awarded the Submillimeter-Wave Technology Laboratory a $25.1 million, five-year contract—the largest single award ever given to the campus. Dr. Robert Giles, co-director of STL, said, “Over the past two decades our staff have overcome very challenging technological barriers to achieve performance levels that meet or exceed the Army’s requirements. The new five-year award will enable us to further advance this unique capability for the national defense effort, as well as expand the breadth of our activities. Continuous innovation is necessary to remain at the forefront in this challenging field and we anticipate that the pace of activity will only quicken over the next decade.”

Physics Prof. Jerry Waldman, co-director of STL, explained that the target recognition information is becoming increasingly valuable, as sophisticated field radar systems capable of gathering radar images are presently being deployed on unmanned airborne vehicles and satellites. The all-weather, round-the-clock capability of radar reconnaissance is an important alternative to optical or infrared remote sensing systems, which are constrained by weather and darkness.

Contract to Research Center

Criminal Justice Captures a Grant to Study Intimate Partner Violence Cases

U.S. Representative Marty Meehan recently announced that UMass Lowell has been awarded a $428,189 federal grant from the United States Department of Justice’s Office of Justice Programs. The grant will support a two-year national examination of the police response to domestic violence, with particular emphasis on what is known as “dua arrest” —where both parties in a domestic incident are arrested. Prof. Eve Buzawa and David Hirschedel, Criminal Justice, and Melissa Reuland of the Police Executive Research Forum (PERF), based in Washington, D.C., will manage the large two-phased study.

There is tremendous variation in police action throughout the country. Buzawa says that, in one state, as many as 30% of domestic disturbance cases result in a dual arrest. This occurs often because it is difficult for police to determine who the “primary aggressor” is, particularly if no weapon or injuries are involved and there are no witnesses. This is considered a problem because there is great concern that the “true” victims, females in particular, are being unjustly arrested.

Another possibility is that there is no primary aggressor; that, in fact, the situation the police encounter is one of “mutual conflict.” In these cases, there may be no arrest at all.

“Should police assume,” Buzawa asks, “that the man, just because he is stronger, should be arrested? Further, if they can’t decide who the primary aggressor is, what is the situation the police should use?”

In order to sort out the conflicting practices, the study will provide an empirical assessment of police policy in these cases. Phase One will examine the...
Expectations are Great for Dickens Conference

On July 3, 1842, Charles Dickens toured Lowell, Massachusetts—a one-day “excursion” during his six-month tour of the United States—to visit the factories of the young republic’s first planned industrial city. Now, 160 years after this landmark event, Dickens will once again stroll the streets of Lowell.

This time, it’s Gerald, not Charles, who’ll be making the trip. Gerald Charles Dickens is the great-great grandson of the famed author, and a world-renowned actor in his own right. Dickens, who portrays the writer in various stage productions, is appearing as a part of “Dickens and America: Literature, Industry and Culture Conference,” hosted by UMass Lowell and to be held April 4-6, 2002.

Conference coordinator, Prof. Diana Archibald, English, says the list of invited speakers boasts many well-respected Dickens’ scholars including Jerome Meckier, Natalie McKnight and David Paroissien, with the keynote address by Nancy Metz. “These people are huge figures in the field,” she says.

Archibald is expecting attendees from all parts of the globe. “We’ve already received inquiries from as far away as India,” Archibald said. “It’s amazing how many people have visited our Web site already.”

In addition to scholarly presentations, conference attendees will be treated to an array of special events including a concert, Victorian teas and walking tours of sites visited by Charles Dickens. Other activities are planned for sites throughout Lowell.

Gerald Dickens will also perform a world premiere of “The Republic of My Imagination,” a dramatization of Dickens’ 1842 visit to America. Special performances by Dickens will be open to the public and made available to Lowell High School students as well. Funding provided in part by Massachusetts Foundation for the Humanities will help support his appearance.

There will also be an exhibit, “Illustrating Dickens,” featuring objects from the Worces ter Polytechnic Institute’s Robert D. Fellman Dickens Collection of diverse selection of Dickens material.

Faculty and Staff Discuss Course Enhancements

▼ Faculty and staff gathered in the Faculty Lounge at Lydon Library Nov. 8 for a Conversation Dinner with a theme of “Course Enhancements Sampler: Community Technology & Applied Learning.” The event, sponsored by the Council on Teaching, Learning, and Research as Scholarship, featured several talks, a panel discussion, and a question-and-answer period. Among the participants were, first row, from left, Asst. Prof. Nicole Champagne, Prof. Bob Gamache, Asst. Prof. Doreen Arcus, Asst. Prof. Michael Pierson, Reference Librarian Marian Muskievicz; second row, from left, Assoc. Prof. James Canning, Sheila Riley-Callahan, director of academic services in the Centers for Learning, Mary Beaudry, director of the Faculty Teaching Center, and Prof. Gilbert Brown.

New Book Explores the University’s Role in the Region

Not often can a single piece of work reflect the intellectual ideas of a collection of scholars from fields as varied as economics, history, political science, ergonomics, race and gender studies, industrial practice and public health. But a newly-released book, “Approaches to Sustainable Development: The Public University in the Regional Economy,” published by University of Massachusetts Press, does exactly that.

In 1993 a core group of faculty members at UMass Lowell launched an interdisciplinary study to find ways for the University to help stimulate Lowell’s regional development. The editors are Profs. Robert Forrant, Jean L. Pyle and William Lazoniczak, all of the Department of Regional Economic and Social Development, and Prof. Charles Leventein, of the Department of Work Environment.

Workshops Hone Job-Seeking Skills

Not too long ago — that is, before the recently acknowledged recession — job hunting was a seller’s market. Companies were recruiting heavily in quest of college-educated employees.

Now that the business climate has cooled considerably in contrast to the boom of ’90s, graduates must be more aggressive in their quest for employment.

Or, in the words of John Mattson of Career Services, “Students need to become more assertive. They must be the masters of their own job search.”


At the three sessions, students learned how to identify career options best suited to them, how to gain information about potential employers, and how to prepare for various types of interviews.
Konarka Technologies Aims to Capture the Sun

A solar-powered shirt could run your Walkman. A soldier could pitch a tent that powers a radio. And many of the people in the world who have no access to electricity could use inexpensive roofing materials to provide power to a light bulb.

These are some of the dreams behind Konarka Technologies, a startup company based on intellectual property that the late Sukant Tripathy had been developing for 10 years; he was about to launch a company at the time of his death last December.

Louis Petrovic, director of external funding, technology transfer and partnering at UMass Lowell, was convinced the new technology had merit and a commercial venture could move forward. Petrovic recalled, “We stopped and said, ‘We still have something here.’ The potential was still exciting.”

Paul Wormser had worked with Tripathy researching commercial applications, and agreed to become president and chief operating officer of the new company. Board members were recruited, including Nobel laureate in chemistry Alan Heeger.

The next step was funding. The first round of seed financing, $500,000, came from Zerostage Capital. Konarka now has $1 million in support and already has a $2 million contract with the U.S. Army labs in Natick.

Konarka’s unique technology combines photovoltaics with advances in dye-sensitized optical polymers. The first market the company is targeting is portable electronics. Unlike traditional solar panels, the new technology works with flexible materials that can be embedded throughout a product.

“Over time we’ll go from the portable electronics applications to something you can put onto your jacket...”

Paul Wormser

we’ll go from the portable electronics applications to something you can put onto your jacket. If you want to think of far out ideas, it could be incorporated into a window. It is absolutely mind-boggling in terms of what this can do.

In place of silicon, the dye-sensitized solar power uses titanium dioxide and dye. Layers of tiny titanium dioxide particles are liquefied and applied in strips to a thin film polymer. The particles are coated with dye that absorbs light and generates a charge carried through wire conduits in the material. The technology can even work indoors under fluorescent lights.

Besides the advantage of flexibility, the new technology is than solar panels, which weigh about four to six pounds per square foot. The new technology has the additional benefit of low cost of raw materials.

Tripathy’s vision was to develop a product that would improve the quality of life for millions, especially in rural India, where most people have no electricity. Said Petrovic, “He wanted everyone to be able to have one light bulb in their house.”

Company officials, searching for a name that would acknowledge his contribution, called Tripathy’s wife Susan for inspiration. She said that Konarka, a temple in Orissa, India, was Tripathy’s favorite place because of its beauty. Fittingly, the temple is dedicated to Surya, the Indian god of the sun.

Konarka now has 17 employees and a drive to succeed.

“There are six billion people in the world. Two billion will never have electricity. They will never get an outlet in their house,” Wormser said.

“Sukant’s dream was to change the world.”

Two Toy Drives Gather Gifts on Campus

Two holiday toy drives are underway at UMass Lowell, gathering toys from the campus community for boys and girls in the area.

WJUL, the campus radio station, has placed collection boxes throughout the campus where faculty, staff and students can leave new, unwrapped toys. The boxes are in the Dugan Hall lobby outside the Admissions Office, the Sheehy/Concordia Link, Fox Hall SIC, and the North and South Campus Student Information Centers. For more information on the WJUL toy drive, go to http://wjul.cs.uml.edu.

Meanwhile, the Faculty/Staff Toy Collection is beginning its third year collecting new and used toys, having gathered nearly $1,000 worth last year for the Chelmsford Community Exchange. Bring toys to the recycling room in Falmouth 210, to the North Campus carpentry shop between 11 a.m. and noon, or call Tony Kounmantelis at ext. 4154.

Defense Grant Funds Research at Hanscom, UMass Lowell

Advanced, high-speed electronics and imaging for military applications will get a boost from new research at UMass Lowell and Hanscom.

The Defense Advanced Research Projects Agency (DARPA) has granted $1.5 million over three years to a combined research team at UMass Lowell and the Air Force Research Laboratory Optoelectronics Technology Group at Hanscom Air Force Base. The Hanscom group has made an additional $400,000 grant direct to UMass Lowell.

Physics Prof. William Goodhue, director of the Photonics and Optoelectronics Device Design and Fabrication Center, is the principal investigator, with collaboration from Assoc. Prof. Changmo Sung, of the Chemistry and Nuclear Engineering Department and the Center for Advanced Materials.

Goodhue explains the technology being investigated: “Our goal is to produce uniquely engineered wafers with uniform electrical properties for advanced electronic devices. The military has an interest in high-speed antimonide materials for high-speed electronics, photonics and thermal photovoltaic work. All these technologies require high-quality antimonide substrates in order to grow epitaxial layers for the various devices, and that high quality is not currently available for high-speed, high-volume applications.”

The project is the first research on campus to be funded by DARPA. DARPA is the central research and development organization for the Department of Defense (DoD). According to its Web site, “DARPA manages and directs selected basic and applied research and development projects for DoD, and pursues research and technology where risk and payoff are both very high and where success may provide dramatic advances for traditional military roles and missions.”

Area Health Professionals Attend Occupational Health Conference

A recent conference on Occupational Health and Safety in the Changing Healthcare Industry attracted about 75 area professionals from the region’s healthcare industry. Panelists touched on the responsibilities healthcare workers have as those who must care for the general population. Healthcare workers who face their own illnesses or injuries often fail to attend to their own needs — physical, emotional and spiritual — because of their responsibility for others.

The conference was organized by Craig Statile, of Health and Clinical Sciences, left, and Jody Lally, conference coordinator, second from right, and Perry Honeychurch, project administrator. They are joined by Sherry Baron, MD, MPH, of the National Institute of Occupational Safety and Health, which has funded the five-year Promoting Health and Safe Employment in Healthcare (PHASE) grant at UMass Lowell which covered costs of the conference. Baron moderated a panel.
“Project Splash” Puts Fish at Hub of City’s Economic Revival

Rogers School in Lowell—but that will change in short order if Cheryl West has her way.

"By January, I hope to have at least 50 students involved—between [Rogers] school and Housing Authority. By the end of next year, if it was up to me, we’d have the fish in every middle-school in Lowell.”

It is a simple enough concept: Bring the tilapia—a Hardy, African breed that looks like a cross between a bass and goldfish—into the schools, where the students learn the rudiments of their care and feeding; breed them, increasing their numbers (they are precociously fecund); then, over time, oversee their migration from the schools to the students’ homes, where—at least in theory—they would come to breed.

Some of the offspring are eaten, providing the families with food; the overflow are sold at market, providing income and a trade. And all this for not much more than the prince of a plastic tank.

“The families eat, and learn commerce in the process,” says Cheryl West, who is overseeing the project on behalf of the CFWC. “The students learn something about fish and fish-farming, and [in the case of the Cambodians] about their heritage, too. It’s a mix of science, culture, economics, and the environment. And everybody wins.”

Project Splash, which now has four tanks in John King’s eighth-grade homeroom, and several children—half of them Cambodian—who stay after school to learn the tilapia’s care, is funded in part by the National Science Foundation, the Massachusetts Department of Food and Agriculture, and the Lowell Public Schools. The funding was raised in part by CFWC co-director, Linda Silka, who wrote the grants with Cheryl West. Other grant co-authors include Mechanical Engineering Prof. John Duffy and Dan Twomey of the CFWC staff.

West, who tends to think ambitiously, sees major potential long-term: “Did you know,” she asks, “that 60 percent of the fish we eat in this country are farm-raised abroad?”

“As long as we have the resources, wouldn’t it make sense to be doing more of that at home?”

It would. And if this transplanted Californian aquaculturist has her way, it someday probably will.

Chancellor Affirms Financial Stability for the Campus

In meetings held with faculty and staff on Nov. 15, Chancellor William T. Hogan assured members of the UMass Lowell community that, despite the current downturn in the state’s economy, the campus is “very well positioned financially to carry out its mission.

Saying he wanted to “dampen any rumors,” the Chancellor assured his audience that there would be no layoffs or cuts in classes or programs.

“We have been very careful about our financial plan,” he said, crediting the entire campus community for its contribution to that effort. Referring to the seven-year period of realignment and reallocation that ended in July 2000, he said, “I know how hard you worked to make that successful. Thank you for that.”

The Chancellor said the University has accumulated a “quasi-endowment fund” of more than $6 million, in addition to other reserves, and that the Lowell campus is the only one in the university system to have established such a fund. By deferring current contributions to that account and treating it as a short-term resource to offset budget cuts, he asserted that the campus could “sustain a fairly serious” downturn in the economy.

One goal of the reallocation effort was to strengthen the campus’ financial position through increased endowments, the expansion of Corporate Education and Continuing Studies, and increased benefit from the commercialization of intellectual properties. He predicted that these initiatives would generate some $5 million a year by 2005.

Recruiters’ Best Friend—CVD Company Provides Online IT Skills Testing

Recruiting isn’t an easy job—wading through resumes, assessing skill levels and conducting countless interviews. The advent of the Internet and online job boards has only increased the number of applicants without a valid way to prescreen applicants.

A new start-up, eSkill, in the Commercial Venture Development (CVD) may very well become a recruiter’s best friend. Founded by Eric Friedman, president, Vassile Buciuaman-Coman, chief technology officer, and Christine Bolzan, vice president of business development, eSkill offers an online skill assessment test that will help recruiters rank candidates’ IT abilities before bringing them in for an interview.

“Our competitors have online technical skills testing, but they are usually short or long, beginner or advanced,” said Friedman. “We differentiate ourselves by offering multi-subject, job-based tests that map to customers’ unique needs.”

The product, eSkill Quiz,” is a multi-subject assessment test that can be created by the recruiter or hiring manager and fully customized to correlate with the necessary skills for the job. For example, an NT administrator would need a certain skill set, but eSkill Quiz can test for particular skills within a job, such as a certain program or level of expertise. The test score is emailed with the application package to the recruiter, who then can scan the subject lines and open messages with the highest scores first.

Although recruitment is a natural fit for this technology, eSkill can be adapted to other applications.

“Companies can use this for training and promotion purposes,” said Friedman. “Studies show that people would like to know how they rank in terms of skill level.”

eSkill’s second product, JobSkill, is a web-based administration of customized tests that can be integrated into a company’s Web site or Intranet for between $100,000 and $150,000 including consulting. The test can be administered in tutorial mode, allowing the candidate to learn to correctly answer. As with eSkill Quiz, JobSkill can quickly identify a potential employee’s strengths and weaknesses.

eSkill employees worked for 18 months developing questions in 65 IT areas. The questions range from easy to hard and are all peer reviewed. For most of that time, eSkill has been part of the UMass Lowell Commercial Venture Development (CVD) located in the Wannalancit Mills. A major benefit of collaborating with the CVD is the availability of student talent. Last summer, five computer science students helped develop the eSkill software. This fall, four computer science students are working on refining question content.

“By editing the questions, the students are learning more because the answers are so robust,” Friedman commented. “eSkill is another excellent example of students learning how to contribute solutions to real world problems and opportunities,” said Louis Petrovic, director of external funding, technology transfer and partnering at the Research Foundation.

eSkill will also draw on faculty and alumni, as well as students, to help validate the test questions.

“It’s a wonderful arrangement. We have access to hardworking people with reasonable prices,” said Friedman.

Survey Charts the Impact of Globalization on Companies in China

Prof. Ed Steinfield of MIT’s Political Science Department and the Sloan School of Management discusses how regional culture and patterns of ownership have made it difficult for many Chinese firms to compete internationally. Findings are part of a World Bank survey of 1,500 firms across China to uncover their “best practices.”

Steinfield appeared as part of the Department of Regional Economic and Social Development’s weekly seminar series, jointly sponsored by the Center for Industrial Competitiveness.
Community Grants Improve Local Environments

The Toxics Use Reduction Institute (TURI) has funded six community projects for 2002, the seventh year of the Toxics Use Reduction Networking Grants program. To date, 51 projects have been funded. The grants are intended to encourage citizen involvement in toxics use reduction and to develop model projects that other communities could replicate.

Project leaders made presentations at a recent seminar hosted by Eileen Gunn, coordinator of the grants program. The community grants for 2002 were awarded to:

- A project to identify and safely manage hazardous chemicals in the cosmetology departments of vocational schools in western Massachusetts.
- A pesticides awareness campaign, begun in Wellesley and expanded to other towns, that includes a variety of media, displays, educational efforts, an information hotline, a Web site and list of participating landscapers.
- An initiative for pesticide-free schools that helps to implement a new law requiring schools and day care centers to protect children from unnecessary pesticide exposures.
- A project by the Lexington Health Department to investigate pesticide use and other toxics in restaurants, school cafeterias and corporate cafeterias.
- A plan by Family Services in Lawrence to raise awareness about toxics in home environments.
- A program by the Massachusetts Health Officers Association to provide training to health officers and post resource information on their Web site.

Music Prof. Is Guest at “Last Lecture” Series

Prof. Richard Schilling of the Music Department was the guest lecturer Nov. 27 at the first regularly-scheduled event of this year’s “Last Lecture” series.

The series, sponsored by the UMass Lowell Multi-Faith Council, takes place typically as a luncheon on the fourth Tuesday of the month. The main presenter, a member of the UMass Lowell faculty, addresses the group for roughly 20 minutes in response to the question, “If this were the last lecture you were to give, what would you say?”

For information on future events, contact Imogene Stulken, Protestant campus minister, at (978) 934-5014.

UMass Press Book Feted at Library Book Party

A recent release by the University of Massachusetts Press, “Approaches to Sustainable Development: The Public University in the Regional Economy,” was the focus of a book party Dec. 6 in O’Leary Library.

The book, which explores the role of the public university in sustainable development, includes essays by nearly two dozen members of the UMass Lowell faculty, as well as a preface by Chancellor William T. Hogan.

The editors are Prof. Robert Forrant, Jean L. Pyle and William Lazonick, all of the Department of Regional Economic and Social Development, and Prof. Charles Levenstein of the Department of Work Environment.

Chancellor’s Holiday Fete Will Be Dec. 14

Chancellor William T. Hogan, as he does annually, has invited all members of the UMass Lowell faculty and staff to a Holiday Gathering, to take place in the alumni-faculty lounge of Lydon Library on the North Campus, from 2:00 to 4:00 p.m. on Friday, Dec. 14.

Faculty and staff are invited to bring their families, or a guest.

BFA Student Work on Display at University Gallery

The work of the Fall 2001 BFA candidates—“Senior Studio Thesis Work in Fine Arts and Graphic Design”—will be on display at UMass Lowell’s University Gallery from Dec. 15 through Jan. 12, 2002.

Gallery hours are Monday through Saturday, noon to three and by appointment. A reception to kick off the exhibit will take place Dec. 15 from 2:00 to 5:00 p.m.

UML “Factbook” Is Hot off the Presses

All full-time faculty and most professional staff should by now have received the UMass Lowell official “factbook” for the 2000-01 academic year, according to Millicent Kalaf, Director of Institutional Research.

“We welcome your comments (constructive), questions (inevitable), and criticism (gentle),” Kalaf wrote recently in an e-mail accompanying the factbook’s release.

Communications should be addressed to Millicent_Kalaf@uml.edu.

Student Chapter in Elastomers Opens on Campus

The elastomeric materials program in Plastics Engineering has formed a student chapter of the Rubber Division of the American Chemical Society. Aust. Prof. Joey Mead, center, the Freudenberg-NOK professor of elastomeric materials, is joined by students, from left, Zheng-hong Tao, Nikhil Jain, Nantiya Vidyasankar, Ketan Maniar, Kevin Patenaude, Samira Farhoodmanesh, Michael Johnes and Cristina Emphasis.
Environmental Activist is Featured Speaker at TNEC Event

Lois Gibbs, among the leaders in the fight for the clean-up of New York’s Love Canal in the early 1980s, will be the featured guest at The New England Consortium’s (TNEC) upcoming event, “Building Alliances for Environmental Justice Movements: A Dialogue with Lois Gibbs,” on Thursday, Dec. 13 at 1 p.m. in the Cumnock Hall auditorium.

Gibbs, who won relief for hundreds of families in the Love Canal region, later drew on her experience to build a national and international movement through the Center for Health, Environment and Justice.

The event will be hosted by TNEC, and co-sponsored by the Center for Public Health Research and Health Promotion; the College of Health Professions; the Committee on Industrial Theory Assessment; Regional Economic and Social Development; the UMass Lowell Labor Extension Program; the Department of Work Environment; Environmental J.O.B.S.; the Center for Family, Work and Community; the Center for Women and Work; the Lowell Center for Sustainable Production; the Council on Diversity and Pluralism; and MassPirg.

The event will be free and open to the public. Light refreshments will be served.

TNEC is a partnership of UMass Lowell and the Coalitions for Occupational Safety and Health in Connecticut, Massachusetts, New Hampshire and Rhode Island.

Environmental Activist is Featured Speaker at TNEC Event

TURI Sponsors Innovative Program to Help Industry Tame Toxics

The Toxics Use Reduction Institute (TURI) at UMass Lowell directs innovative peer mentoring programs in industrial environmental management. With support from TURI, lead companies can develop and implement environmental management systems while sharing their experiences with small, motivated work groups from other Massachusetts firms.

Last year, TURI funded two peer mentoring work groups with matching grants: at Nypro in Clinton and M/A-COM in Lowell.

Nypro, a world leader in plastics molding, is headquartered in Clinton, Mass. and has facilities around the world. The Clinton facility’s Environmental Management Systems (EMS) team led a workgroup of representatives from ten Massachusetts companies, primarily in the plastics industry, through their development and implementation of an ISO 14000 compliant system. Nypro received its ISO 14000 registration for the Clinton facility in July 2001.

M/A-COM, a unit of Tyco Electronics, is a world leader in radio frequency and microwave technologies and is headquartered in Lowell. M/A-COM hosted an EMS work group with participants primarily from the electronics industry. The group worked with a consultant and focused on the EMS development process.

TURI is sponsoring two new work groups this year—hosted by Teradyne in North Reading, Mass., and by Gentex Optics in Dudley, Mass.

After-School Computer Center Opens With Grant

School children (and some grown-ups) will learn computer skills, build Web sites and have fun along the way in a new computer center at the Center for Family, Work and Community (CFWC).

The 10 new computers and networking hardware are the result of a $45,000 equipment grant, funded by PowerUP, a consortium of corporate and foundation funders that includes America Online, Gateway Computers, Hewlett-Packard and the Waitt Foundation. The grant included after-school program software such as “The Magic School Bus,” Encarta Interactive Encyclopedia, Creative Writer and 125 free AOL accounts. The AOL accounts, including email, can be accessed at the center and from any other computer using AOL account information.

Toomey plans to open the center from 2:30 to 6:30 p.m., weekdays, for students from ages 6 to 21. Most of the children will come from the Center for Family, Work and Community’s existing programs: GEARUP Middle School Mentoring, Project Splash (a science-based project) and the Environmental Justice High School Program. In addition, he is coordinating with the Lowell Housing Authority to transport children from the Mercier and Flanagan centers.

More than half of the 20 UMass Lowell students participating in a service learning program funded by Massachusetts Campus Compact will be involved in the PowerUP program at the center as mentors and coaches. Service learning students receive credits for combining community service with classroom study. The students will divide their efforts between coaching the youth on fun and educational computer activities and developing program activities.

A special offering for adults will be Spanish-language tutoring and software in computer basics, so that parents can keep up with the skills their children are developing.
Conducting searches of student lockers, working with parents on curriculum issues, even disciplining a student caught drinking in school was all in a day’s work for Pat Anthony as principal of the Cape Cod Light House Charter School. Now Anthony has returned to her roots, higher education, with the realization of her parochial school experience as principal of a charter school to her courses in educational administration.

“As a result, teachers have to step up and take some initiative, and they realize what they’ll be facing.”

Dean Donald Pierson of the Graduate School of Education asked Anthony to consider coming back to higher education to help fill the void left by several retiring faculty members. Anthony had been principal of the charter school for five years and had begun to get a little “antsy” after being part of a public school and not having any time to conduct research. Pierson’s request couldn’t have come at a better time.

“I saw all these things happening and wanted to study them,” said Anthony. “When Don called, it all came together.” Along with teaching “School Law” and “School Finance,” she hopes to pursue research studies that involve charter schools but have implications for all of education.

“I think there’s a lot that should be examined about charter schools that should be utilized to change the way we do business in regular schools. Personally, I found being a principal a much more powerful position in a charter school than in regular public school,” she said.

Next semester Anthony will teach “Instruction Leadership and School Reform,” which will cover public charter schools—a significant chunk of education reform in Massachusetts and the country. Anthony emphasizes that charter schools are not a passing fad. More than 30 states in the country have adopted the model.

“It’s important that people who are educators from public universities know what they are,” she stated.

Anthony would also like to look at how the size of a school affects the sense of community and the experience for the students and the administration. As principal of 175 middle schoolers, Anthony said she saw kids with “tough-guy” attitudes change over the course of three years. She attributes the change to the attitude of the administration:

“People love to learn, teachers love to learn and, by the way, they care about you.”

“In middle school, you can lose a lot of kids. There can be a sense of anonymity in a larger school; it’s difficult for a principal to know every child and how they’re doing,” said Anthony. “In a smaller school, everyone knows that kid’s name and can tell how the morning’s been so far. It makes for different sense of belonging and worth. I think that’s why parents choose charter schools in middle school.”

As a result, teachers have to step up and take some initiative, and they receive recognition for stepping up. Anthony’s research will look at the role of teachers in schools and teacher autonomy, a teacher’s role of governance in schools concerning budget, policies and curriculum.

Anthony plans to look at regular public schools, as well as charter and parochial schools, but right now she is enjoying being back in the classroom with a renewed vision.

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UML Students and Alums Show High Students New Horizons

Friends Pursue Peace in Their Homeland

U

usually, a friendship between two college students would be consid-

ered commonplace—unless, of course, it is between a Palestinian and a Jew. Today, that’s news. So much so, that two unlikely companions are taking their message of friendship on the road.

Michael Bavly and Forsan Hussein were on campus recently to discuss their connection and the prospects of peace between Palestinians and Israelis at a forum in Alumni Hall. Bavly, a Jew, and Hussein, a Palestinian, both grew up in Israel. They became friends when they were students at Brandeis University in 1996. Since then, the two have been actively involved in initiating and running many projects to promote a peaceful coexistence between Arabs and Jews.

The two began the discussion by expressing holiday greetings to those celebrating Ramadan, Christmas and Chanukah. Much of their presentation centered on how their friendship and their vision of a “people’s peace process” evolved.

“One thing you should know is that this will not be about assigning blame,” Bavly began.

Funding for the event was provided by the Merrimack Valley Jewish Federation and the Protestant Campus Ministry. The UMass Lowell Peace and Conflict Studies Institute coordinated the evening which was one in a series of activities planned in the wake of the Sept. 11 attacks.

For information regarding upcoming programs, contact Rev. Imogene Stulken, 978/934-5014.
Graubard Describes the New Look of Vocational Education

Dr. Alan Graubard, special assistant to the Provost, was the guest speaker at a recent seminar on the state of vocational education. He provided a detailed look at the "academy" system in Oakland, California, that is encouraging high school students to pursue careers in engineering. The seminar was presented by the Department of Regional Economic and Social Development.

Tanner Chairs “Connections to Chemistry” Program

Chemistry Prof. Ruth Tanner chaired the program committee for “Connections to Chemistry,” a one-day program enabling high school chemistry teachers to connect to the educational resources of the American Chemical Society (ACS) and its Northeastern Section. The American Chemical Society is the largest scientific organization in the world devoted to a single discipline, with more than 160,000 members and 34 technical divisions.

The ACS has important, up-to-date resources in all areas of chemistry," said Tanner. "Our goal is to strengthen the professional and subject knowledge of teachers who teach chemistry so that, in a sense, they become chemists who teach." Resources for teachers include the many active chemists in the region who are ACS members, as well as the Chemical Education Division of the ACS and the Journal of Chemical Education.

Four workshops were offered that showcased the ACS resources for high school chemistry teachers and their students: laboratory practicals that are creative, open-ended ways to encourage students to design and complete experiments; curriculum projects incorporating computer-based multimedia; teaching calculator-free chemistry to strengthen the knowledge of background concepts; and pigments through the ages, based on the National Chemistry Week theme of “Celebrating Chemistry and Art.”

Haile Speaks on Technology at Fidelity

Donald Haile, president and CIO of Fidelity Investments Systems Company, gave engineering and management students a peek behind the scenes at the world’s largest mutual fund company, when he spoke recently in the Senior Executive Forum series.

According to Haile, Fidelity is not only one of the largest financial firms in the industry, it is also a major technology company, spending nearly $2 billion annually on its information infrastructure. About 86% of trades are electronically processed, either by voice or online.

Haile described the organization and technology used to process transactions and discussed the type of work done by the programmers, engineers, architects and operators in his organization.

Lowell Native, Georgia Tech Researcher, is Newest Math Department Hire

Prof. Dan Klain, the newest addition to the Department of Mathematical Sciences, comes to UMass Lowell with a strong background in a discipline known as “convex and combinatorial geometry,” a legacy he plans to carry over to his research studies here.

In Layman’s terms, he explains, his work has to do with the study of convex figures—in which “any two points can be connected by a straight line”—and the various possible configurations therein.

“Take, for example, a soccer ball—on whose surface you will find a pattern of 12 black pentagons and 20 white hexagons. These 32 figures are the only configuration possible if you’re looking for a symmetrical tiling of the ball.”

Heady stuff. And it doesn’t end there. A second research area is something known as the “Groebner Base”—which Klain defines broadly as “a modern computational theory for solving systems of equations.” It’s a simple enough theory in its essence, he explains—“one that could probably have been managed by most 19th century mathematicians”—but because of the number of computations necessary to effect it, it has been only since the advent of computers, in the 1960s, that it has had much practical relevance.

A recipient of research grants in geometric analysis from the National Science Foundation, Klain comes to UMass from Georgia Tech in Atlanta, where he has taught mathematics since 1994.

“His roots are as local as they get. He is a Lowell native, and was valedictorian of his Lowell High senior class. He went on from there to M.I.T., from which he earned his Ph.D.”

When he’s not busy computing geometric conundrums, he enjoys cooking and studying folk dance.

Promotions and Appointments

Erkut Gungordu, postdoctoral associate in the Physics Department, from UMass Lowell class of 2001.

Rajesh Kumar, postdoctoral research associate, from Polytechnic University of New York.

Therese O’Donnell, program administrator/Construction Occupational Health Program in the Research Foundation, from coordinator of volunteer program in the Lawrence Visiting Nurse Association Home Health program.

Leslie Sanderson, constituent director of development in University Advancement, from director of marketing at iComs.
December 12, 2001

“Friend of the City,” Loyal Booster, Mary Bacigalupo Dead at 59

Mary Bacigalupo, who was born and lived her whole life in Lowell, spending much of those years doing her utmost to guide, improve and promote it, died Nov. 7, two days after her 59th birthday, following a brief battle with ovarian cancer.

In 1999, when Lowell, on its third try, was named an All-America City, it was Bacigalupo who chaired the presentation committee, bringing together 125 locals in a coordinated effort that culminated in a Philadelphia stage extravaganza—“Lowell on the River”—whose crowning achievement was the sense of community it evoked.

“You felt good about yourself, about each other, about the city,” Bacigalupo said later of the effort in Philadelphia. “You learned something about being part of a community that went beyond your generation, your economic status, the color of your skin.”

That sort of enthusiasm and civic spirit were typical of her, say many of those who knew her.

“Whenever I hear the song ‘Proud Mary’, I think of Mary,” said Kellie Herbert, the city’s former neighborhood coordinator, to a reporter the day after she died. “She would walk into a room and light it up. When she asked how you were doing, you knew she sincerely cared.”

“She’d be standing in line at the grocery store, and would always strike up a conversation with someone,” her son Michael remembers. “And that person would end up telling Mom their life story.”

While the All-America City designation is probably Bacigalupo’s most visible triumph, she belonged to dozens of more prosaic affiliations—educational committees, youth councils, human services groups—of the sort that provide the fabric that give a city life.

A friend, Mary Sweeney, probably said it most simply—and best: “The Greater Lowell community had no greater friend than Mary Bacigalupo.”

Those wishing to make a contribution in her memory should direct their donations to:

Mary Bacigalupo Community Fund
305 Greater Lowell Community Foundation
169 Merrimack St.
Lowell, MA 01852

The Greater Lowell Community had no greater friend than Mary Bacigalupo.

American Heart Association Honors Nicolosi

The American Heart Association (AHA) will honor Dr. Robert Nicolosi, of the Health and Clinical Sciences Department, with its Dedication to the Heart Award for his “service to mankind.” The award will be presented at the AHA Heart Ball in February.

A long time supporter of the AHA, Nicolosi has served on the local, national, and affiliated boards. He is being recognized in part for his research at UMass Lowell, which focuses on diet and pharmaceutical intervention for people with diabetes, asthma, Alzheimer’s, cancer, and coronary heart disease. The UMass system recently honored Nicolosi with a 2001 Excellence in Research Award.

Nicolosi also holds faculty appointments at UMass Medical School in Worcester and at UMass Amherst. His expertise is in nutritional biochemistry, having received his nutrition training at Harvard University School of Public Health. He serves as director of the Center for Chronic Disease Control and Prevention, Director for the Office of Collaborative Research, and Co-Director for the Public Health & Engineering Initiative.

The AHA Heart Ball will be held on February 16, 2002 at the Westford Regency. There will be an auction held the same night and donations for the auction are needed. Anyone interested in contributing to or attending the event can call Maribeth McCue at 1-888-907-6933.

The Graduate School Is On the Move

The Graduate School is in the midst of a move from the North to the South campus.

The Graduate Admissions Office and the International Student Office moved last month from Falmouth Hall to Dugan Hall. The main office and the dean’s office will follow, possibly as soon as next month.

The School will continue to provide complete services during this transition period, although there may be some delays or downtime in online connections to its Web site.

Coach Barer’s Game Plan Includes Traffic Jams

Ken Barer would like to cause some traffic jams on the North Campus.

“I see a long line of cars on University Avenue and Riverside Street waiting to get into the parking lot at Costello Gym,” says the men’s varsity basketball coach.

This mental image is just one element of Barer’s vision for the UMass Lowell basketball program.

“I envision our program reaching new heights,” says the first-year coach. “I see students with faces painted red, white and blue getting to games early so they can have first shot at the best seats in a section that would be known as ‘The Hawks Nest.’ I see Costello packed to capacity, as the ‘sixth man.’

“I see a crowd of students, community youngsters and adults of all ages caught up in the excitement of River Hawks basketball.”

Barer sees no reason why his plan to generate enthusiasm shouldn’t be successful.

The River Hawks play exciting basketball, he says, in the best Division II conference in the country. And, while Lowell offers professional hockey (Lock Monsters) and baseball (Spinners), there is no professional basketball between here and Boston.

Besides, the team had a 24-7 record last year, made it to the “Sweet 16” of the NCAA Tournament, and finished ranked 25th in the nation. And the nucleus of that club is back this season.

In his campaign to pump up River Hawk basketball fever, Barer is targeting three specific groups: students, area youth groups, and businesses.

In addition to distributing flyers in the dormitories, the coach has encouraged his players to talk up the program among other students, especially athletes involved in other sports.

“It only takes a small group to get it rolling,” he says. “Once it starts, the enthusiasm builds.”

Barer also has contacted area youth groups and hopes to develop programs that will draw community youngsters to the games.

And he has met with presidents and CEOs of area businesses through the Lowell Plan’s marketing group where, he says, he has found “a good deal of enthusiasm.” He says he’d like to have these business leaders buy season passes and hand out three or four for each game to their employees.

“I think that if we can get these people there once, they’ll come back again on their own,” he says. “We give them a good show. It’s good entertainment.”

The coach’s marketing ideas also include summer camps, clinics for high school coaches, community clinics, radio coverage of home games, and a number of special events.

“I want to create an atmosphere,” he says. “I know it’s possible.” — McD

Mary Bacigalupo, with one of the many trophies and honors she received in recognition of her civic work.

Dr. Robert Nicolosi

Ken Barer
### Calendar of Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Time</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wednesday, Dec. 12</strong></td>
<td>Chancellor’s Open Hours, staff, 2 to 3 p.m.; students, 3 to 4 p.m., faculty, 4 to 5 p.m.; Trustees’ Room, Cumnock Hall, North Campus. Men’s Basketball, vs. Southern Connecticut, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Concert, Daniel Lutz, director, 7:30 p.m., Durgin Concert Hall.</td>
<td>Cumnock Hall, North Campus</td>
<td>2 to 3 p.m.</td>
<td>Men’s Basketball, vs. Southern Connecticut, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Concert, Daniel Lutz, director, 7:30 p.m., Durgin Concert Hall.</td>
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<tr>
<td><strong>Monday-Tuesday, Dec. 17-18</strong></td>
<td>Performance, STARTS Educational Field Trip Series, “A Christmas Carol,” grades K-4, 9:30 a.m. and 11:30 a.m., Durgin Hall. To order tickets, call (978) 934-4444. Concert, Graduate Recital, Timothy Peng, piano, 7:30 p.m., Fisher Recital Hall.</td>
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<td>Concert, Graduate Recital, Timothy Peng, piano, 7:30 p.m., Fisher Recital Hall.</td>
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<tr>
<td><strong>Tuesday, Jan. 15</strong></td>
<td>Women’s Basketball, vs. Pace, 5:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Men’s Basketball, vs. Pace, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<td><strong>Saturday, Dec. 29</strong></td>
<td>Friday, Dec. 21 Final exams end; residence halls close at 6 p.m.</td>
<td>Durgin Concert Hall</td>
<td>5:30 p.m.</td>
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<tr>
<td><strong>Saturday, Dec. 29</strong></td>
<td>Saturday, Dec. 29 Women’s Basketball, vs. New York Tech, 2 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<tr>
<td><strong>Thursday, Jan. 10</strong></td>
<td>Women’s Basketball, vs. St. Anselm’s, 5:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Men’s Basketball, vs. St. Anselm’s, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<td><strong>Monday, Jan. 14</strong></td>
<td>Women’s Basketball, vs. St. Michael’s, 5:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Men’s Basketball, vs. St. Michael’s, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<td><strong>Saturday, Jan. 19</strong></td>
<td>Sunday, Jan. 20 Hockey, vs. Northeastern, 4 p.m., Tsongas Arena. For information, call (978) 934-HAWK.</td>
<td>Tsongas Arena</td>
<td>4 p.m.</td>
<td>Sunday, Jan. 20 Hockey, vs. Northeastern, 4 p.m., Tsongas Arena. For information, call (978) 934-HAWK.</td>
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<tr>
<td><strong>Saturday, Jan. 26</strong></td>
<td>Friday, Jan. 25 Hockey, vs. Maine, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.</td>
<td>Tsongas Arena</td>
<td>7 p.m.</td>
<td>Friday, Jan. 25 Hockey, vs. Maine, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.</td>
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<td><strong>Saturday, Jan. 26</strong></td>
<td>Saturday, Jan. 26 Men’s Basketball, vs. American International, 4 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<tr>
<td><strong>Saturday, Feb. 9</strong></td>
<td>Monday, Jan. 14 Training, Professional development for state and local government employees, Mass. Human Resources Division. Courses for spring term continue from January 14. For more information, contact Edward Roberts, ext. 4759, <a href="mailto:change-is-good@uml.edu">change-is-good@uml.edu</a>, or visit <a href="http://intranet.uml.edu/people">http://intranet.uml.edu/people</a> soft. Men’s Basketball, vs. American International, 4 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<tr>
<td><strong>Wednesday, Feb. 13</strong></td>
<td>Women’s Basketball, vs. New Haven, 2 p.m., Costello Gym. For information, call (978) 934-HAWK. Hockey, vs. Boston University, 7 p.m., Tsongas Arena. For information, call (978) 934-HAWK.</td>
<td>Costello Gym</td>
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<td><strong>Monday, Feb. 18</strong></td>
<td>Women’s Basketball, vs. Southern New Hampshire, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK. Men’s Basketball, vs. Southern New Hampshire, 7:30 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<tr>
<td><strong>Friday, March 1</strong></td>
<td>Women’s Basketball, vs. American International, 4 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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<td>4 p.m.</td>
<td>Women’s Basketball, vs. American International, 4 p.m., Costello Gym. For information, call (978) 934-HAWK.</td>
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**Did you know...**

That the top floor of Southwick Hall on North Campus was once used as a basketball court?

**For Extra Credit...**

How many classrooms now fill this space? Answer: Seven class rooms.