

## In the Works: The Integrated Center for Math and Science

The Chemistry Department has called Smyth Hall its home for over 70 years. We are very excited to have a 74,000 square-foot, \$30.5 million state of the art Math Science building on the drawing board ready to be built. Dr. William Lammela has been the project shepherd since 2005. Faculty, staff and students from the Math Science Division worked for over a year with the architectural firm of Burt Hill and SWBR to conceptualize ideas for the building. Several options and building sites were considered. The final option, a free standing Gothic style building located south of the

Golisano Academic Center was approved by the Board of Trustees in January, 2011.



The building will have 11 Biology, Chemistry and Physics laboratories, an interdisciplinary room, an NMR room, a spectroscopy lab, a cadaver lab, microscopy labs, research

laboratories, student centers, offices and state of the art classrooms and security. Nazareth College has been raising funds as part of a capital campaign for the building since June 24, 2010 .

Nazareth College is planning to finance slightly more than half of the cost of the building and raise the remainder through a mix of grants, government aid and private philanthropy.

The building is expected to be certified at the Silver LEED level. We are looking forward to the groundbreaking community event which will take place on Monday, April 11, 2011.

## Alumni Spotlight

**Beth Burns '03 MED**

**Andrew Johnson '08 CHM Ed**



Back Row: Gene Gordon, Curt Peternell (NASA Mentor), Andrew Johnson  
Front Row: Beth Burns, Donna Himmelberg

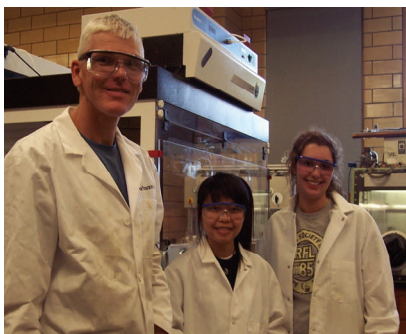
Two of our alumni, Beth Burns 'G03 and Andrew Johnson U'08 along with Donna Himmelberg (NYS Certification '91) and Gene Gordon, all Fairport High School science teachers, travelled to the Johnson Space Center in Houston, Texas to take a student designed experiment for a ride on NASA's Weightless Wonder (also known as the "Vomit Comet"). It was a once in a lifetime opportunity.

NASA joined forces with NSTA (National Science Teachers Association) to sponsor this experience. Teams from around the country competed for a place on the Reduced Gravity Flight. Fairport

High School had the only team from New York State chosen to take their experiment to Houston. During the ten day trip, the teachers assembled the student experiment, attended training for the flight and toured the Johnson Space Center. It was a wonderful opportunity for the Advanced Placement Chemistry students at Fairport High School to do a real world science experiment where the outcome was unknown.

The group visited Nazareth College on January 20<sup>th</sup> to present their experience including details about the experiment, Johnson Space Center and their (surprising) results.

## Dr. Hartmann and Students Make Biodiesel



Dr. Rich Hartmann was awarded a research grant for \$200,000 from the New York State Energy Research Development Authority (NYSERDA). The title of his project is "Biodiesel Synthesis From Waste Vegetable Oil Streams Employing Alcohol Soluble Gas Phase Catalysts For Enhanced Product Yield and Increased Fuel Availability." The goal of the project is to optimize a set of reaction parameters which will allow the efficient and inexpensive synthesis of biodiesel from any source of waste vegetable oil, thus making biodiesel more available as

well as cost effective for the consumer to use. The grant will fund research through 2012.

Dr. Hartmann worked with two undergraduate research students this past summer and nine students during the fall semester. The students will be presenting their research at the ACS National Conference this March in Anaheim, California.

The student research consists of investigating Lewis Acid catalysts such as Tin Chloride and Tungsten halides in the esterification of oleic acid. This process is a model for

treating the free fatty acids commonly found in used cooking oil.

They hope to find a better catalytic system for the waste oil reaction which will facilitate the ease of the reaction and increase the quality of the product.



## Our Sensational Seniors

This year the Chemistry Department will be graduating five exceptional students. All five took part in summer intern and research positions.

From left to right in the photo:

Jen Pier: Strong Children's Research Center Summer Training Program. *Tobacco Smoke Exposure and Severity of Influenza in Pediatric Inpatients*

Brittany Krupp: Roswell Park Cancer Institute Summer Research Program. *Isolation and Characterization of Tissue-Specific Prostate-Specific Antigen (PSA) in Benign and Malignant Prostate Tissue.*

Chistina Brule: REU in the Summer Scholars Program (a.k.a. GEBS Program) at the University of Rochester. *Transcription within the  $\beta$ -globin locus.*

Jenna Howard: University of Wyoming funded by the National Science Foundation (NSF) and the Department of Defense. Alternative energy research.

Courtney Sakolisch: Bausch and Lomb Polymer Synthesis.

# An Interview with Dr. Lammela: The Center for Integrated Math and Science



## What are the most interesting aspects of the new building?

The most unique aspect of the new building is by far the Student Collaborative Center. A student committee met with the architects throughout the charrette process to plan the Student Center. The Center



is the focal point for the building. It will be a place to study, collaborate on projects, and to socialize. Students will have access to the Center 24/7.

Other interesting aspects are:

- Two green roof sections
- A full kitchen on the first floor
- A green house which has three

- different growing environments
- A Gothic architectural façade including brick, color pattern and synthetic slate roof (renewable material) which matches GAC and Smyth Hall

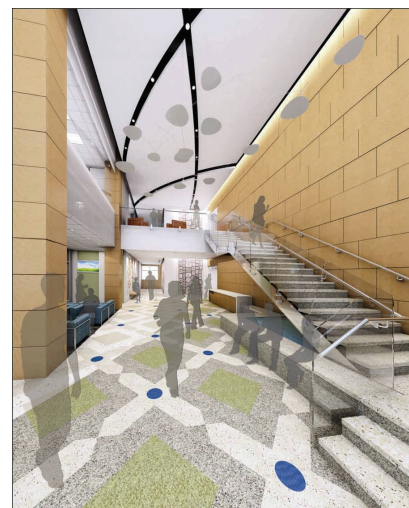
## What were the most challenging aspects of the new building?

Balancing the needs and wants with the reality of the costs of the project was by far the most challenging aspect of the overall project. The charrette process included three right-sizing redos of the entire building layout.

## How will the student experience change in the new building?

Every student will have space to take part in undergraduate research. This will be a big change from our present set up where research is taking place in shared spaces with class laboratory sessions.

We will have the space to add more instrumentation which will allow the students to have a broader understanding and experience with a variety of analytical methods. Having a variety of study spaces from hallway niches to larger collaborative areas to lab lecture rooms will change the way we teach students, the way we interact socially and ultimately enhance the entire learning experience for the students.



## NSF Scholarships

This is the second academic year that Dr. Lynn O'Brien has been administering two NSF grants—the **Science and Mathematics Scholars Program (SaMS)** and the **Robert Noyce Scholar Program**.

There are 13 undergraduate science and math SaMS scholars. They have formed a strong cohort through participating in community service and social events.



Scholarship applications are presently being accepted for transfer students at the third year level for the 2011-2012 academic year.

<http://www.naz.edu/dept/chemistry/sams/>

Six students have been awarded the Robert Noyce Scholarship. This scholarship is available to future teachers of mathematics and science in high-needs K-12 schools.

<http://www.naz.edu/dept/chemistry/noyce/>



SaMS scholars

### Professor Root Receives RAC Award

Nazareth Chemistry and Biology Professor Sheila Brady Root was recently recognized by the Rochester Area Colleges Center for Excellence in Math and Science (RAC-CEMS) at the fourth annual Rochester Educators Collaboration last October. Root was recognized for her commitment and leadership to teaching and Science, Technology, Engineering, and Mathematics (STEM) education.

Sheila has been a lifelong learner as well as a teacher. She began her education at Boston University where she majored in Biology and Chemistry. She did research at Woods Hole Oceanographic Institute



in Massachusetts with the blood of Lumulus (horseshoe crabs). She taught high school as well as college biology, chemistry, microbiology and botany while living in Ohio. She furthered her education at the University of Chicago where she

studied radiation at the Argonne National Lab and at Duke University where she studied electron microscopy.

Sheila taught at St. John Fisher for over 25 years and still maintains a nonteaching position there. This is her tenth year at Nazareth where she teaches Nutrition and Biology Laboratory classes. Her passions today are STEM education, undergraduate research, service learning, ice skating and her family.

Congratulations Sheila on your award and for all your many contributions to the fortunate students you have taught during your career.

### Jenna Howard Wins WCC Eli Lilly Travel Award

The ACS Women Chemists Committee (WCC) and Eli Lilly and Company sponsor a program to provide funding for undergraduate, graduate, and postdoctoral female chemists to travel to meetings to present the results of their research. Through this program, WCC and Eli Lilly and Company continue to increase the participation of women in the chemical sciences.

Jenna Howard was awarded this prestigious travel grant along with nine other women from around the country. Jenna will present her research on catalyst development for biodiesel production at the 2011 ACS National Conference in Anaheim, CA



in March.

The award also provides networking opportunities at poster sessions, receptions, special luncheons and dinners at the ACS national meeting. Congratulations Jenna for winning this prestigious national award and for representing Nazareth College at the ACS National Conference.

### Jane Shebert Receives ACS Award

Jane Shebert was recently presented the ACS Special Recognition Award at the ACS local section Awards Night in October. Jane received this award for her work on the ACS High School Chemistry Award Ceremonies. During two evenings in May, 2010, over 500 area high school students received chemistry awards in the Nazareth Arts Center.

The Chemistry Department looks forward to hosting the event at Nazareth College again.



### Kelly Hutchinson-Anderson, PhD

- '04 Nazareth CHM with Adol Ed
- '09 Purdue, PhD Chemistry

Kelly comes to us from Medaille College in Buffalo where she was an Assistant Professor of Education. She taught both graduate level and undergraduate level education courses. Kelly married Jason Anderson in June 2010 in Bennington, NY outside of Buffalo. They now live in Batavia. Jason is an Assistant Professor of Chemistry at MCC.

This year, Kelly is teaching General Chemistry lecture and lab and education classes. While a student at Naz, Kelly was part of the group who painted the periodic table in the Science Center. Kelly plays flute and is still a member of the Marilla Marching Band.



### Lauren O'Neil, PhD

- '03 St. John Fisher, BS Chemistry with a concentration in Biochemistry
- '08 University of Notre Dame, PhD, Organic Chemistry
- Post-Doc with Dr. Martin Forstner Syracuse University Biophysics

Lauren lives in Weedsport, NY which is located west of Syracuse. She married Ed O'Neil in 2003. Ed graduated from Nazareth College with a degree in Biochemistry in 2003. They have three daughters ranging from 11 months to 5 years old. Lauren is a visiting professor and is teaching organic chemistry. She is an avid reader.



### Dr. Timm's Departure

It was with great sadness that we said farewell to Dr. Timm last Spring. Dr. Timm left his position of Professor of Chemistry at Nazareth College for a position at the United States Air Force Academy in Colorado Springs, Colorado. This year, Timm is teaching Scholars Chemistry and Organic Laboratory at the Academy. Many of his former students returned to campus for his farewell party last May. All of us here at Nazareth wish Dr. Timm and his family the best of luck with their new life in Colorado.



Dr. Timm displaying a farewell gift from his organic students...

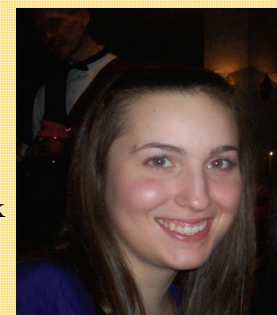
### Jen Pier Will Present at SRNT Meeting

Jen Pier will be presenting a poster as lead author at the 17<sup>th</sup> annual Meeting of the Society for Research on Nicotine and Tobacco (SRNT) in February, 2011. The title of her topic is "Tobacco Smoke Exposure and Severity of Influenza in Pediatric Patients."

Jen conducted this research during her Summer Training program at Strong Children's Research Center in 2010. She worked under Dr. Karen Wilson, MD, MPH Senior Instructor of Pediatrics .

Jen has been accepted to medical school and will attend the fall of 2011.

Congratulations and Good Luck Jen!



## **Joan Ewing '55 CHM**

I retired from Xerox Corporation in 1997 and have been living in Fairport the last 26 years. I enjoy the canal which is next to my back yard.

## **Kathleen Kelly, MD, U'68 CHM**

I continue to work and have worked in many positions throughout my career including: lab tech in Immunology lab sequencing protein NYU; NYU School of Medicine; Surgical Residency training at St. Vincent's Hospital, NYC; Surgical Critical Care Fellowship at Mt. Sinai Hospital, NYC; Director Surgical ICU, General and Trauma surgeon at Hackensack Medical Center, Hackensack, NJ; Director ICU and Associate Director Trauma at Morristown Memorial Hospital, Morristown, NJ.; Director and Medical Leader in clinical research and development at Johnson and Johnson.

I have been married 41 years and have one son, Sean and on one grandchild, Brandon. I enjoy theater in NYC and keeping up with family.

## **Catherine Aiken LaBombard '70 BS CHM, MA Liberal Studies**

I was a student at Nazareth in the late 1960's, a time of much political turmoil over the Vietnam War and civil rights. After graduating in 1970, I taught chemistry, math, physical, and environmental science for 32 years and my husband, Jack, and I raised three children. Jane, a professional engineer, works on the Everglades restoration project in Florida; John is an architect/project engineer for Turner Construction in NY City, and Margaret works for the service workers unions in NYC.

I have been retired for two years and my passion for mitigating my carbon footprint is volunteering and serving on the Board of Directors of the Lake George Association. (Oh, and I drive a Prius!!) I chair the Water Quality Committee of the LGA and am a volunteer with our "Floating Classroom" program. Every year the LGA reaches out to 1000 students from area schools and teaches them about the physical aspects of the Lake George Watershed. We take them out on the lake in our new 40 foot catamaran where they do hands on field work sampling the water for chemical and biological analysis. The students measure water clarity using a sechi disk, identify zooplankton and phytoplankton, take pH, dissolved oxygen, and coordinate them with temperature measurements.

Along with getting my family involved in the CSLAP program, I regularly take samples from Lake George and send them to the DEC labs where they are analyzed for nitrates, phosphorous, dissolved oxygen, algae growth, etc. From 1995 until my retirement in 2007, over 300 of my students participated in the Hudson Basin River Watch Consortium. We sampled and tested the waters of the Hudson and Sacandaga Rivers at four different sites twice a year and presented our results at the annual consortium. I wrote grants and was able to procure a high tech Hach field spectrophotometer to test for nitrates, chlorides, and phosphates. My high school students learned the titrating method to determine dissolved oxygen. We also tested for conductivity and chlorides and grew cultures to count E.coli/fecal coliform. I am very fortunate to have been blessed with a wonderful career in science that has made a life-long impact on the lives of so many young people.

## Carol Papdopoli Basi '62 CHM

I have been married 48 years to the same wonderful person! We dated through the last years of high school and throughout my 4 year residence at Nazareth. My husband and I divide our time between homes in Florida and Illinois. Since we have 6 children (5 sons, 1 daughter), we should have foreseen the possibility of now having 13 grandchildren - the light of our lives, by the way. No time for pets, as we travel extensively. We had an assortment of pets while our children were growing up (dogs, rabbits, gerbils), but we have "moved on," so to speak.

I do keep a very close relationship with several Nazareth classmates. Nazareth has meant more to me than I ever could have realized when I was younger. I will do everything in my power and influence to direct my 6 granddaughters to attend college at Nazareth (yeah, I know guys go there, now, too, but I'm from the days of the all girl school!).

That's the most important stuff, right there, although, in my spare time, I still have hopes of writing the Great American Novel - move over, Huck!

## Chris Amesbury '02 CHM

I am entering my 9th year teaching chemistry at Gates Chili High School. I live in Chili with my wife Erin and three children - Maggie, Chris and Evie. My three children are enough work - we do not need any pets!!

## Mary O'Donnell Emineke '05 CHM

Last August, I completed my research and successfully defended my dissertation. My oral presentation was titled: *Learning in the Analytical Laboratory and Investigating Children's Ideas about Chemicals*. However, my written dissertation was titled: *What is a Chemical? Fourth-Grade Children's Categorization of Everyday Objects and Substances*.



This picture is from the day of my defense with three of my committee members: Dr. Jennifer Blue (Physics Education Research), Dr. Marcy Towns (Chemistry Education Research, Purdue University), and my advisor, Dr. Stacey Lowery Bretz. Last September, I began a post-doc position at Iowa State University working with Dr. Tom Holme, director of the ACS Exams Institute in Ames, Iowa.

In November, 2009, I was married to Bright Emenike.



**Save the Dates: September 30 — October 3, 2012**  
**ACS North Eastern Regional Meeting (NERM 2012)**  
**Radisson Hotel, Rochester NY**

## Adam Rall, '10 CHM

I am working in the Molecular Ecology (Ian Baldwin) Group at the Max Planck Institute for Chemical Ecology in Jena, Germany. I'm working with Matthias Schoettner helping to deal with the vast amounts of data they generate every day using various LC/MS and standalone MS/MS instruments. We are studying the metabolomics of the *Nicotiana attenuata* tobacco plant and trying to develop structures for unknown metabolites. I'm working on the analytical side of the problem; mostly, I maintain one of our instruments and support the rest of the group with their analyses using this instrument. It has been a really interesting experience, and I have learned a lot about the practical applications of analytical chemistry.

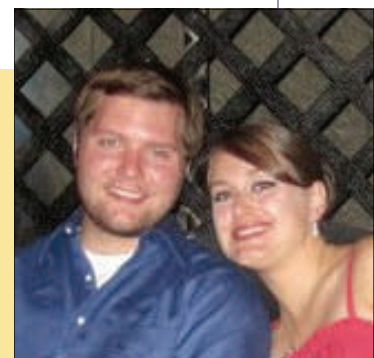
## Jen Morton '10 Art History with CHM minor

I am living in Kingston, Ontario, Canada where I am currently enrolled in the Master's of Art Conservation program, specifically the paintings treatment stream, at Queen's University. I am not married, but I am still dating Brian Hauck.

## Brian Hauck '10 CHM with AdoEd

Things are going well. I spent this past summer teaching Environmental Chemistry and Forensic Science at Explo summer camp at Yale. Jen and I are still together and she taught there as well. Afterwards, we took a road trip across the country to move me into my apartment in Washington.

Currently, I am enrolled in graduate school at Washington State University. I have rejoined Dr. Herb Hill's research group and have resumed my work with ion mobility spectrometry again. I do not yet have my own project (as time is being taken up by classes and TA duties) but I'm currently helping to work on an "accurate Ko" project. Christina Crawford, the grad student I worked with during the REU, has basically been contracted to try to get as accurate reduced mobility coefficients as possible for a set of standards under various conditions, including high and low voltage, temperature, and relative humidity.



Please submit any news, suggestions or updated email addresses to:

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