

# Chemistry Department News 2013 - 2014

## Professor Armitage Spends a Week Collecting Archaeological Rock Art Samples from Cuban Caves

### Archaeological Rock Art Sampling in Cuba

#### A Week in the Life of an Analytical Chemist - By Dr. Ruth Ann Armitage

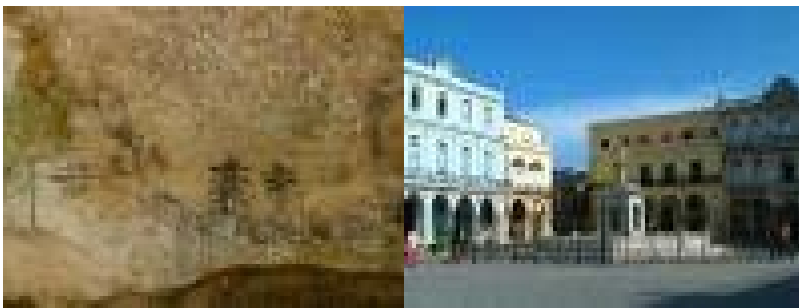
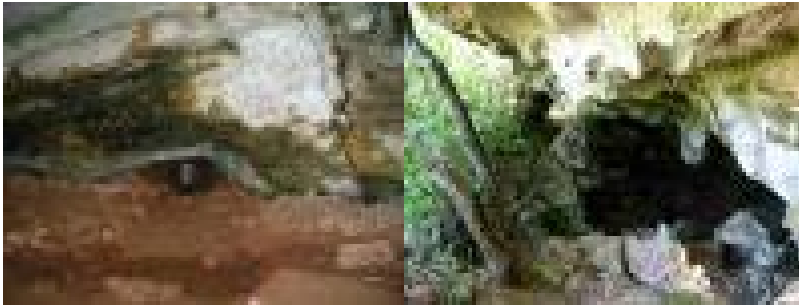
In June 2014, I had the amazing experience of traveling to Cuba to participate in a research project to undertake the first ever radiocarbon dating of rock art there. The project was initiated by my colleague, Suzanne Baker of Archaeological/Historical Consultants and Culturelink, who met the Cuban archaeologists during a UNESCO trip in 2013. After telling them about our work in Nicaragua, they were very excited about the possibility of doing a similar project in Cuba. The project came together relatively quickly, and we were able to spend one week in Cuba working with the archaeologists to select and collect samples of charcoal-pigmented images from several caves near Havana. Work is now ongoing here at EMU to determine the composition and age of the paint samples.



The USA-based part of our team consisted of Suzanne, me, and my husband and fellow chemist Daniel Fraser, of Lourdes University. Daniel has assisted with sample collection on previous projects, including the one in Nicaragua, and his help (and height) were invaluable. We traveled on Sunday, June 8, 2014 via a charter flight from Miami to Havana, where we met up with Roger Arrazcaeta Delgado, Director of the Cabinet for Archaeology of the Office of the City of Havana Historian (Gabinete de Arqueología de la Oficina del Historiador de La Habana). Roger and his colleagues took us to our rooms in Old Havana, and we met up with the rest of the archaeologists at the Gabinete on Monday morning to plan out our project in detail and obtain a rental car that would take our entire team to the archaeological sites starting on Tuesday. The plan is to determine the age of the paintings to be able to attribute them to one of three different groups from the past: pre-ceramic aboriginal peoples, later aboriginal groups who practiced farming and who had developed ceramic technologies, or post-Columbian native peoples.

The first site we visited was Cueva de la Cachimba, near Matanzas, Cuba. This large cave on a height of land overlooking the ocean contains both petroglyphs (engraved images) and charcoal pictographs. We quickly learned how to identify guao, a plant related to poison ivy and oak – a much nastier cousin – that grew along the route to the cave. The large main room of Cachimba was accessed by crawling through a relatively small opening. Huge columns loomed in the darkness, and charcoal drawings could be seen on many of the flowstone curtains and stalagmites. But to reach the depths of the cave required using a knotted rope to provide handholds in the smooth but steeply inclined walls of the next opening. In this lowest level were the petroglyph engravings on the fragile, dusty marl ceiling. We collected samples of charcoal from many of the images at Cachimba; in one case, the images were on a limestone curtain above a sloping floor that opened onto another part of the cave. To collect that sample,

one of the archaeologists had to hold my feet to make sure I didn't slide down! We spent the entire day in Cachimba Cave, and had to deal with a dead car battery before we could head back to Old Havana that night late.





Wednesday took us to the Guara Pictograph Region, less than an hour's drive from Havana. The site consists of three different cave complexes, all of which were easier to access than Cachimba Cave. The paintings in Guara are all in black and appear to be finely ground charcoal mixed with some kind of binding medium. Cueva de los Muertos has two main rooms, only one of which contained pictographs. Samples were collected from the paintings that were least affected by the modern graffiti found there. A short distance away was Cueva del Platano, so named for the large banana tree growing in the collapsed area. A large set of concentric circles and a scene of a human and animal were sampled from this cave. That afternoon we had the opportunity to visit a farm belonging to a friend of Roger, not far from the caves. We had an amazing home-made dinner at the farm of fresh corn tamales and gris, a combination of black beans and rice, along with squeaky fresh cow's cheese and refreshingly cold spring water.

We returned to Guara the following day to revisit Cueva del Platano and collect one more sample there, and to continue on to Cueva del Aguacate, also very nearby. We encountered new vicious plants (a liana called "cat's claw") and some interesting fauna, like the colorful pedorrera (Cuban tody bird) and geckoes. And gigantic 10-inch long millipedes. Aguacate Cave required some contortions to get into. The opening was small enough that you had to shimmy in on your belly and elbows. Daniel was unable to assist me in collecting samples in Aguacate because his shoulders only barely fit through the opening, and he chose to wait rather than risk getting stuck! The cave can also be accessed by climbing down the eponymous avocado tree in the middle where the roof had collapsed in. Several mostly decomposed cow carcasses awaited us inside, as they had fallen through the roof at some point in the recent past. Similar scenes of humans and animals, as well as concentric circles were found in this cave. It was a very dirty experience for this lab scientist, who then had to give a talk at the Gabinete in the afternoon about the plasma-chemical oxidation process!

The end of the week took us back to Matanzas to another cave near Cachimba: Cueva de las Plumas. In addition to charcoal images at this site was a single sun motif in red ochre, which we did not sample. We did sample two geometric images far in the back of Las Plumas for dating. This cave was very large, with many beautiful limestone formations; one room of columns was photographed several years ago by National Geographic, as it is the largest of its kind in the Americas! Friday was our last day in the field, and we ate our lunches together sharing a few jokes about our week. We navigated back out of the guao to our functioning if very dirty rental car, and back to Havana. On Saturday, we met up to finish discussing the project, look at some other artifacts excavated from the sites we visited, and complete our

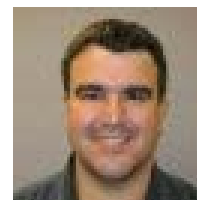
paperwork for bringing the paint samples back to EMU for analysis and dating. Our trip back to the USA was uneventful if delayed by several hours. We thank the archaeologists with whom we worked so closely – Roger, Racso, Toni, Chino, Adrian, and the others – for all their patience with our limited (or nonexistent) Spanish and their wonderful companionship and professionalism. They made our trip to Cuba an unforgettable one, and we look forward to using the technology available to us here to answer their questions about the ancient people of their beautiful island.

Posted 8/25/14.

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## **Alum Dr. Thomas Horvath Pursues Career Analyzing Medical Metabolites**

I started my academic career at EMU in 1996 as an undergraduate student in the College of Technology. My intent was to continue my studies in CAD drafting after successfully completing my Associates of Applied Science degree in Mechanical Design Technologies at Ivy Tech State College in Bloomington, IN. While completing general education requirements, I attended the first term in the introductory chemistry sequence (CHEM 121 & 122) that was taught by the late Professor Donald Phillips. I was quickly captivated by the subject material comprised in the curriculum, and thoroughly enjoyed the observation-based inquiry implicit in laboratory experimentation. My decision to switch my major area of study to chemistry was driven by a newfound interest in studying chemical and physical phenomena, and a relentless recruiting campaign by Professor Phillips.



As an undergraduate student in the chemistry department, I was able to perform physical chemistry research in the following areas: Random Sequential Adsorption of molecules onto surfaces (Prof. Ross Nord); investigations in fluorescence and Raman spectroscopy (Prof. Tim Brewer); and modeling of the energies of interaction between gas-phase analytes and stationary phase materials commonly used in GC columns (Profs Heather Holmes and Maria Milletti). I was also able to take advantage of the chemistry department's internship program to secure a two-year (paid) internship in bioanalytical chemistry within the Pharmacokinetics, Dynamics, and Drug Metabolism (PDM) department at Pfizer's Global R & D facility in Ann Arbor. In this role, I developed Liquid Chromatography-Mass Spectrometry/Mass Spectrometry (LC-MS/MS) methods, and performed assessments of new technology that were pertinent the bioanalytical scientists that worked in the PDM department.

After graduating in the summer of 2000, I went on to earn my M.S. and Ph.D. degrees in Physical Chemistry from the University of Michigan under the tutelage of Professor Raoul Kopelman, where I studied nanotechnology. After completing my Ph.D., I accepted a post-doctoral research position in the laboratory of Donald Mock, MD., Ph.D. at the University of Arkansas for Medical Sciences in Little Rock, where I developed blood and urine based LC-MS/MS assays to assess tissue-level biotin status of humans under various clinical circumstances

(e.g. pregnancy, smoking status). This body of work culminated in eight peer-reviewed publications over a two-year time period!

After completing my post-doc, I accepted a position as a Senior Research Scientist in the Methods Development group within the Bioanalytical Services division of Worldwide Clinical Trials located in Austin, Texas. In this challenging role, I developed and validated quantitative LC-MS/MS assays for the determination of pharmaceuticals and their metabolites in biological fluids in accordance with highly regulated Food and Drug Administration (FDA) and European Medicines Agency (EMA) guidances. These experiences lead me to The University of Texas MD Anderson Cancer Center in Houston, TX, where I am currently working as a Research Scientist in the Proteomics and Metabolomics Core Facility within the Bioinformatics and Computational Biology Department. My role in this position is to develop quantitative LC-MS/MS methods for the targeted analysis of endogenous metabolites in biological fluids and incubated cancer cell lines that are included in the National Cancer Institute (NCI-60) panel.

When I pause to reflect on my career, I consider the time shared with faculty and fellow students in the chemistry department as some of the fondest and most influential of my life. The theoretical and practical training provided by the Chemistry Department faculty was paramount to achieving success in both my academic and industrial pursuits. With the new Mark Jefferson Science Complex, and the department's focus on education, current students should feel confident in their choice of studying chemistry at Eastern Michigan University.

Posted 8/8/14.

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## **New Biochemistry Faculty Member to Start This Fall**

Last year the Chemistry Department conducted a search for an open Biochemistry faculty position. There were many extremely well-qualified applicants and we wished that we could have hired several of them. However, we could only select one and we are most fortunate to have Dr. Steven Backues joining us this fall.



Dr. Backues received undergraduate degrees in Chemistry and Biochemistry from Gustavus Adolphus College in St. Peter, MN, where he first became interested in undergraduate science education. He received his PhD in Biochemistry from the University of Wisconsin, Madison, where he studied developmentally important membrane trafficking pathways in the model plant *Arabidopsis* under the mentorship of Dr. Sebastian Bednarek. For his postdoctoral training he continued working in membrane trafficking, but now using baker's yeast and focusing on the field of autophagy, a medically-important cellular stress response that delivers cytoplasmic cargo to the vacuole for degradation. This work was done under the mentorship of Dr. Dan Klionsky at the University of Michigan, with whom Dr. Backues also continued his training in teaching and mentoring undergraduates.



Dr. Backues is excited to be starting at Eastern Michigan University, where he will be teaching biochemistry and leading student research into the mechanisms of membrane trafficking in autophagy.

Posted 7/16/14.

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## **Chemistry Students Receive 5 of 16 EMU Undergraduate Research Stimulus Awards for Summer 2014**

These \$2000 fellowships are awarded by the office of the Provost to facilitate research between undergraduates and faculty mentors. Chemistry student recipients (and their faculty mentors) are **Philip Ewing** (Wilmes), **RaKeenja Fluellen** (Emal), **Brittany M. Jewell** (Milletti), **Alexa Salisbury** (Holmes), and **Brandie Yambrosic** (Lindsay). The complete list of recipients and the titles of their projects is available in the [press release](#).

Posted 7/5/14.



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## **Carolyn Jackson Retires As Senior Secretary**

After more than 20 years as senior secretary in the Chemistry Department, Carolyn Jackson retired at the end of June. Carolyn is one the nicest people you could ever hope to meet and was a joy with which to work. Carolyn was exceptional at her job. Her initiative and attention to detail keep things running so smoothly that it would be easy to take her for granted. However, we always appreciated her and everything she did for Chemistry and we wish her nothing but the best in her well-deserved retirement.

Posted 7/3/14.

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## **Gavin Edwards Researches that "New Car Smell"**

### **Modeling of Volatile Organic Compounds Emission from Materials Used in Passenger Vehicle Interiors**

Travel is an everyday necessity for many people, making the environment of a passenger vehicle



a place where Americans spend a significant amount of time. New cars have been found to emit volatile organic compounds (VOCs), often called "New Car Smell". Although some find these odors enjoyable, "New Car Smell" could potentially have adverse health effects. Previous studies have indicated upwards of 150 VOCs present in new the ambient air within the cabins of new cars, including molecules like benzene, toluene and formaldehyde. While previous VOC models have been produced, there is still uncertainty in these models with respect to changing variables such as cabin temperature, and when the car doors or windows are opened/closed.

The development of an accurate and reliable model, capable of determining the concentration of different VOCs in a car cabin as a function of time, is the focus of a research project in the atmospheric chemistry research group, headed by Gavin Edwards. Dr. Edwards and his students are working on this project that involves a collaboration between EMU and the "Big Three" automakers in Detroit, as part of the United States Council for Automotive Research (USCAR) project. Currently, Dr. Edwards' group are trying to model VOCs from chamber experiments done at the Ford Motor Company. They hope that their models can be shown to work in chambers and then be scaled to automobile level analysis. Preliminary testing of these model has shown promise. Varying time points for sample collection, and various parameters such as VOC starting concentration and chamber temperature have been shown to play important roles in emission rates. Further experimental comparisons, statistical analyses, and model sensitivity testing will need to be done in the future as the project and collaboration continues.

Posted 6/25/14.

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## Noted Scientist Presents Regent Beth Fitzsimmons Lectures

This year's Regent Beth Fitzsimmons lectures were given by Dr. Elizabeth Petty. Petty is Senior Associate Dean for Academic Affairs and a Professor in the Department of Pediatrics at the University of Wisconsin. She gave two well-attended lectures on June 12 and 13. The first talk was entitled "[DNA, Defendants, and Decisions: Sherlock Holmes Meets Genetics \[PDF\]](#)". This talk was geared for a general audience. She gave a second, more technical talk entitled "[From the Bedside to the Bench to the Broader Community: How Patient Centered Research Drives Discovery](#)".



Posted June 2014.

## EMU Graduate Receives NSF Graduate Research Fellowship

Ian Pendleton, Honors College Alumni and doctoral candidate in Chemistry at the University of Michigan, was selected for the National Science Foundation Graduate Research Fellowship Program (GRFP), which helps ensure the vitality of the human resource base of science and engineering in the United States and reinforces its diversity. The program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based masters and doctoral degrees.

NSF Fellows are anticipated to become knowledge experts who can contribute significantly to research, teaching, and innovations in science and engineering. While at EMU, Ian received numerous scholarships to support his research with Dr. Harriet Lindsay.



- This story originally appeared in the EMU Honors College Newsletter.

Posted June 2014.

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## Alumni Lead Lunchtime Panel on Life after EMU

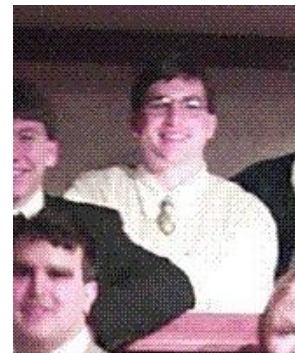
On Monday, June 23, several EMU alumni were part of a panel discussion on "Careers in Science". Each panel member is employed locally and they shared their experiences in finding positions and what life is like once school is over. All current students with an interest in pursuing a career in science were invited and encouraged to attend. The [event flyer \[PDF\]](#) has the relevant information and a list of the panelists.

Posted June 2014.



## From EMU Student to Industrial Chemist

Gerald Artman came to EMU in 1996 and was an outstanding student. After initially flirting with the idea of becoming a history teacher, he was drawn to the excitement of a career in chemistry. While at EMU, he actively participated in independent research with Prof. Arthur Howard studying the effects of microwaves in organic synthesis. He graduated with a Professional Chemistry major in 1999 and received the Bert W. Peet Award as that year's outstanding graduating Chemistry major.



He went on to earn his Ph.D. in Organic Chemistry from Penn State University. His Ph.D. adviser was Dr. Steven Weinreb (a Guggenheim Fellowship recipient in 1983). Dr. Artman has subsequently pursued a career in industrial research. After spending three years focusing on eye-related diseases at Novartis in Cambridge, MA, he moved to Kalexsyn in Kalamazoo, MI, where he continues to do organic synthesis related to drug development.

To quote Dr. Artman, "I continue to trace my success back to EMU. The dedicated professors, the intimate exposure to independent research and the challenging course work provided me with the solid foundation needed to be a chemist in these exciting times."

Read more about Dr. Artman on pages 4 & 5 of this [spring's Chemistry Department Newsletter \[PDF\]](#).

Posted May 2014.



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## SSRI Students Visit Avomeen

Upon graduation, a chemist's most likely source of employment is working for industry. So, what is life like for an industrial chemist? Students participating in this summer's SSRI program got an opportunity to find out. On May 28, a group visited Avomeen, a local contract Analytical Laboratory.

Posted May 2014.



## Summer Science Research Initiative

The SSRI is a series of supplemental activities for science and technology students who are on campus working on research projects with their faculty mentors during the summer months. The purpose of the program is to create a community of scholars consisting of both faculty and students that share ideas and get to know each other during a series of events such as general science lectures, laboratory tours, resume-building workshops, etc. Download the [2014 schedule of SSRI activities \[PDF\]](#).

Posted April 2014.

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## Outstanding Students Recognized at Annual Chemistry Banquet

More than 50 students were recognized for their academic achievements and over \$12,500 of scholarships were awarded at this year's Chemistry Alumni and Awards Banquet. A partial listing of honorees is given in this [EMU press release](#). A more complete listing is available in the [2014 banquet program \[PDF\]](#), available by clicking here.

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## April 4, 2014 News Briefs

- Probationary faculty members Jeff Guthrie and Ingo Janser have been reappointed.
- Jeff Guthrie has been awarded a Fall 2014 Faculty Research Fellowship for his project "Selection of DNA Aptamers for Small Molecules using Capillary Electrophoresis and Quantum Dots."
- Nina Contis and Jose Vites presented a webinar, entitled "Creating a Faculty Fellows Community: Developing Collaboration Through Facilitation".
- Nina Contis served as host and moderated a webinar on "80 Billion Euro Funding for Research in Europe" (broadcast on 2/6) through the ACS International Center in Washington D.C.
- Harriet Lindsay has been appointed co-chair of the EMU STEM/STEM Education Working Committee.
- Amy Johnson served on a panel for pre- and in-service writing teachers entitled "Writing for Real Audiences", which was part of the Literacy for Life program sponsored by the EMU Writing Project.
- Larry Kolopajlo and Tim Friebe conducted an outreach activity in the Organic Lab for students from Greenhills High School on April 2.
- Larry Kolopajlo gave the ACS local section Chemistry Olympiad Exam on March 21.
- Larry Kolopajlo ran an all day Science Olympiad Tournament on Crimebusters at Detroit Country Day on March 1.

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## Dr. Nord Recognized at Two Athletic Events Along with Chemistry Majors, Daylen Harrison and Julia Lombardi

Near the end of each basketball season, every player has the opportunity to recognize a faculty member as a "Most Valuable Professor". This season, senior Chemistry major Daylen Harrison selected Dr. Ross Nord, Professor of Chemistry, for recognition. At this year's Student-Athlete Award Ceremony, Daylen was recognized for having the highest gpa among members of the men's basketball team. As both a starting player on the basketball team and a chemistry major, this is an outstanding achievement and we congratulate Daylen on his academic and athletic accomplishments.



At the Student-Athlete Award Ceremony, Dr. Nord was also selected for recognition by Julia Lombardi, who was recognized as the outstanding scholar on the women's soccer team. Julia is an outstanding student and carries an almost perfect gpa as a Biology and Chemistry major. Congratulations to Julia on her well-deserved recognition.



## Drs. Milletti and Friebe Celebrate Service Anniversaries

Two Chemistry Department faculty members have notable service anniversaries in 2014. Dr. Maria Milletti is completing her 25th year and Dr. Tim Friebe is completing his 15th year.

[Dr. Friebe](#) is a synthetic organic chemist with an active research program involving students. Dr. Friebe's commitment to students has led him to assume many important service activities within the Chemistry Department, such as chair of the Assessment Committee, the pre-pharmacy adviser, and, most notably, the Undergraduate Advising Coordinator.



[Dr. Milletti](#) is a computational chemist with a background in inorganic chemistry. She leads a very active research group with many of her students presenting at the undergraduate symposium, as well as various regional and national conferences. Her recent work has been supported by an American Chemical Society - Petroleum Research Fund grant. Twice, over the past fifteen years, Dr. Milletti has been willing to step in and serve as Interim Department Head (serving for a total of 2.3 years in this capacity).



Posted April 2014.

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## March 7, 2014 News Briefs

- Hedeel Evans has been invited to give a talk at the 24th International Conference on Arginine and Pyrimidines at the University of Oxford in July 2014.
- Harriet Lindsay was awarded funds from the Provost's Research Support Award for the project, "Determining the Efficacy of an Asymmetric Aza-Cope Rearrangement -- Mannich Cyclization."
- Calvin Day (Armitage) received support from the CAS Dean's office for travel to attend the Pittcon conference in Chicago (March 2-9).
- Sylvia Torres, a senior doing undergraduate research with Dr. Armitage, was featured in the February issue of Smart News. Read about her research on developing a spectroscopic test to identify evidence of blood for forensic science.

## Two Former Students Found Software Company

Not all Chemistry majors wind up working in a laboratory. Check out these YouTube videos of two former EMU Chemistry students, [Bryan Harmon](#) and [Nick Anagnostou](#), who have gone on to found their own software company, World Lister. Bryan and Nick talk about how they apply the skills learned in Chemistry to software development.



According to its website "World Lister is the fastest, most efficient way to list items to online marketplaces like eBay. It's the only free Web application that both simplifies and demystifies the process of listing items. It can be used on any smartphone, tablet, or desktop - the way mobile eCommerce should be. World Lister intuitively guides you step-by-step and magically generates a complete, attractive listing that reflects the true value of your new or used items."



Posted February 2014.

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## February 7, 2014 News Briefs

- Debbie Heyl-Clegg was awarded funds from the Provost's Research Support Award for the project, "Fighting Bacterial Resistance: Hydrophobic Aromatic Modifications in a Linear Antimicrobial Peptide."
  - Maria Milletti was awarded funds from the Provost's Research Support Award for the project, "Molecular Modeling Calculations in Support of Three Collaborative Projects."
  - Evert Njomen (Evans) received support from the CAS Dean's office for travel to attend the ACS National Meeting (March 16-20).
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## January 10, 2014 News Briefs

- Yuan Ross (Janser), Yegi Park (Heyl-Clegg), and Philip Elugbemi (Emal) were granted Undergraduate Research Stimulus awards for Winter 2014.
- Harriet Lindsay and Maria Milletti were awarded a College of Arts and Sciences Dean's Program Development Initiative grant for their proposal entitled "Toward a Sustainable EMU Summer Science Research Initiative".
- Cory Emal and Gregg Wilmes were awarded a College of Arts and Sciences Dean's Program Initiative grant for their proposal entitled "Design of a Fermentation Science Program".
- Cory Emal, Karen Sanders, and co-authors recently had an article published: "Mechanistic characterization and crystal structure of a novel small molecule



inactivator bound to plasminogen activator inhibitor-1." Proc. Natl. Acad. Sci. USA, 2013, 110, E4941-E49449.

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## Ray Hough Retires after 23 Years

It was clear to any student who had him, or any faculty member who visited his classroom, that Ray Hough was a gifted teacher. He served as a lecturer in the Chemistry Department for 23 years, the vast majority of them he was full-time. Ray especially excelled in courses taken by less traditional audiences, including Chemistry and Society (taken for general education by non-science students) and Chemistry for Elementary Teachers. To read some of Ray's reflections upon his retirement, [download the Spring 2014 department newsletter \[PDF\]](#) and turn to page 2.



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## December 6, 2013 News Briefs

- The department joined with Gavin and Kimberly Edwards in welcoming their son Ryan Edwards, who was born on Saturday, November 30th.
- Brianna Moe (Evans), Jason Miller (Emal), Chelsea Swanson (Janser), and Sean Blackburn (Janser) each received a Winter 2014 Honors Undergraduate Fellowship.
- Vance Kennedy, whose "amazing" passion and expertise for teaching chemistry was mentioned recently at the Board of Regents by at least one-third of the 2013/2014 Presidential Scholars.
- Chris Friebe (Lindsay), was awarded a Chemistry SURF (Student Undergraduate Research Fellowship) award.
- Amy Johnson was one of 50, from a total of 650, applicants to be chosen as a curator for the middle school collection in support of the Next Generation Science Standards in Charlotte, NC .
- Harriet Lindsay was, once again, chosen as the chair of the 2014 Undergraduate Symposium Organizing Committee.
- Ingo Janser, Jeff Guthrie, and Hedeel Evans were each awarded funds from the Provost's Research Support Award.
- Hedeel Evans, Roshini Fernando, Mahalakshmi Kotichukkala, and Deborah Heyl-Clegg (and co-authors) had an article recently accepted for publication entitled "Intersubunit communication in the dihydroorotase-aspartate transcarbamoylase complex of *Aquifex aeolicus*" in Protein Science (DOI: 10.1002/pro.2396).
- Hedeel Evans, Roshini Fernando, Edward Grimley, and Melissa Cordes (and co-authors) had an article recently accepted for publication entitled "The Mononuclear Metal Center of Type I Dihydroorotase from *Aquifex aeolicus*" in BMC Biochemistry.



- Megan Connolly (Vites) and Jacinda Lisi (Vites) were awarded Women in Philanthropy Grants. Megan's project is entitled "The Science, Technology, Engineering, and Mathematics (STEM) Mentorship Program" and Jacinda's project is entitled "EMU STEM-athon" which is a project to increase the math skills of entering freshmen.
  - Briana Moe (Evans) and Sherif Hassanien (Lindsay) were awarded Senior Thesis/Project and Symposium Awards.
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## Dr. Emal Receives Teaching Award

Dr. Cory Emal was one of six EMU faculty to receive a Teaching Excellence Award from the EMU Alumni Association. Dr. Emal has taught organic chemistry at EMU since 2005. The Alumni Association of Eastern Michigan University is committed to providing encouragement and incentive for superior teaching achievement and honors faculty members who have distinguished themselves as teachers. This is the twenty-third year that these awards have been given. See a list of [previous Chemistry Department recipients](#).



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## October 4, 2013 News Briefs

- Caitlin Baumer (Milletti), Chris Friebe (Lindsay) and Yuan Ross (Janser) were awarded summer Summer Undergraduate Research Fellowships (sponsored by a grant from the Dreyfus Foundation, Camille Henry).
- Ruth Ann Armitage had two articles published:  
Baker, S.; Armitage, R.A. Cueva la Conga: First Karst Cave Archeology in Nicaragua, *Latin American Antiquity* 24(3), 309-329, 2013.

Fraser, D.F., Selvius DeRoo, C., Cody, R.B., and Armitage, R.A. Characterization of Blood in Encrustation on an African Mask: Spectroscopic and Direct Analysis in Real Time Mass Spectrometric Identification of Haem, *Analyst*, 138, 4470-4474. DOI: 10.1039/C3AN00633F.

- Sherif Hassanien (Lindsay) received a Fall '13 Honors Fellowship.
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## September 6, 2013 News Briefs

- Tim Brewer was promoted to Full Professor.

- Vance Kennedy, received an outstanding teacher/mentor award from the Honors College (nominated by Erika Van Goethem).
  - Jeff Guthrie was one of three selected (out of 43 applicants) to receive a William Fennel Symposium Faculty Mentor Award (nominated by Joshua Hunt).
  - Larry Kolopajlo received a TARDEC grant to run a CSI summer camp for Scarlett Middle School students.
  - Gregg Wilmes and Ruth Ann Armitage received FRF cash awards for research supplies from the Provost's Office.
  - Ingo Janser had an article published "Ethacrynic acid as a lead structure for the development of potent urease inhibitors" (accepted in April, Comptes Rendus Chimie 2013, vol. 16, 660-664).
  - Caitlin Baumer, Amanda Dewyer, and Mordechai Sadowsky (Milletti) were awarded Fall 2013 Honors Undergrad Fellowships.
  - Yuan Ross (Janser) received the Chemistry SURF (Summer Undergraduate Research Fellowship) Summer 2013 Award.
  - Christine Hart (Janser) received support from the CAS Dean's office for travel to the 43rd National Organic Chemistry Symposium in Seattle, WA.
  - Ruth Ann Armitage had her research featured on the back cover of Analyst, 2013, 138.
  - Jamie Scaglione resigned her faculty position and relocated to the state of Wisconsin.
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## Don Schoolmaster, Manager of Chemical Stores, Retires

Don Schoolmaster retired at the end of June after 25 years as Manager of Chemical Stores. Don received both his B.S. and M.S. in Chemistry from EMU. He had previously served the EMU Chemistry Department by working as the Lab Services Specialist and as a part-time lecturer. To read Don's reflections upon his time at EMU, [Download the Spring 2014 department newsletter \[PDF\]](#) and turn to page 3.



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## April 12, 2013 News Briefs

- Probationary faculty members Jamie Scaglione, Jeff Guthrie, and Ingo Janser have all been reappointed.
- Ruth Ann Armitage gave a presentation on "Analyzing the Past: Chemistry, Art and Archaeology," at TEDxEMU (March 15).
- Seven Chemistry Department faculty have received Faculty Research Fellowships from the Provost's Office for the 2013-2014 academic year: Ruth Ann Armitage (50% Fa/50% Wi), Cory Emal (100% Winter), Debbie Heyl-Clegg and Hedeel Evans (one 50% release each for Fa or Wi), Ingo Janser (100% Fa), Harriet Lindsay (100% Fa), and Gregg Wilmes (100% Wi).

- Jevit Tith (Brewer), Olufunke Oyelade (Emal), Calvin Day (Armitage), Cristian Chiroasca (Lindsay), and Caitlin Baumer (Milletti), each received Undergraduate Research Stimulus awards for Summer 2013.
- Debbie Heyl-Clegg was selected as a Spring Writing-Across-the-Curriculum fellow.