For the community of the University of Illinois at Chicago

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I am UIC: Tips on starting an essay

By Hoda Fakhari — hfakha2@uic.edu

No matter your major, you will be required to write some form of an essay during your college career. The papers I have written these past few years have become some of my most meaningful memorabilia from college.

Unlike a test score that is forgotten as soon as the semester ends, a paper is something tangible that you can keep as a token of your accomplishments. Part of what makes writing a paper so rewarding is the amount of effort spent in its development. Oftentimes, the most difficult part of developing any piece of the writing is starting it.

Here are some tips that I have gathered throughout the years for overcoming that hurdle.

• You don’t have to start a paper at the beginning. Usually, when writing a literary analysis, a particular quote or detail in the text stands out as a great source for further analysis. Before spending time developing a thesis statement, I write down my thoughts on that quote, starting with more specific commentary, then broadening the scope of my analysis. This helps shape the trajectory of the paper without consciously setting out to do so.

• If there isn’t a detail that immediately grabs your attention, return to the original sources and review passages that you’ve marked throughout the semester. Make a list of details that relate to the assigned topic and include a few sentences of description for each. You’ll find by doing this that certain details begin to group together, laying the groundwork for potential body paragraphs in your essay.

• Write any chance you get. Don’t think that you should avoid starting your paper until you have three solid hours to dedicate to it. Every sentence is progress, and you’ll find that rearranging sentences to form a coherent paragraph is a lot easier than writing a paragraph from scratch.

• Try not to dwell too much on the difficulties of starting a paper. The sooner you get those first few sentences on the page, the sooner you’ll stop worrying about how to start your paper and instead start focusing on how to finish it.
Puerto Rico, post-Hurricane Maria

By Farooq Chaudhry — mchaud23@uic.edu

Carmen Yulín Cruz, mayor of San Juan, Puerto Rico, addressed a crowd of several hundred students, faculty, and community members April 20 in Student Center East as keynote speaker of a daylong symposium hosted by UIC’s Social Justice Initiative, the Union for Puerto Rican Students, the Puerto Rican Cultural Center, and the Puerto Rican Agenda.

The topic of the symposium was “Puerto Rico, Hurricane Maria, and the Crisis of Colonialism.” This crisis, rooted in what some believe is an imbalance of power between the United States and Puerto Rico — a U.S. territory — is even more pertinent in the aftermath of Hurricane Maria, which hit Puerto Rico Sept. 20, 2017. Some criticized the U.S. government’s response to the crisis.

Cruz shared her belief that Puerto Rico is treated more as a colony than a recognized territory of the United States.

“If anyone had any doubt before Sept. 20, after Sept. 20, it should be a foregone conclusion. Puerto Rico isn’t a territory; it is a colony of the United States of America. That’s it,” Cruz said.

“The time for complacency has passed… Because again you have two choices: You stand up, or you stand down. We move forward, or we shut up and don’t continue to complain.”

Making this distinction is key, Cruz said, as the first step toward a solution.

“In order to solve an issue, you have to accept it,” she said. “That means we have to wake up and not consent to this any more. I will no longer consent to the systematic injustice and neglect of the people of Puerto Rico.”

Between 75,000 and 100,000 people still do not have electricity, and about 500,000 rooftops still need to be either partially or completely rebuilt, Cruz said.

While Cruz was critical of the U.S. government’s response, she believes it did not reflect the spirit and attitudes of the American people, who individually stepped up on their own.

“I often wonder, ‘What is it about me? What is it? We don’t deserve the laws of nature? We don’t have those (constitutional) undeniable rights? Why? Because we’re Latino? We’re people of color?’” she said.

Believing that would be saying that everything the American people hold dear is only for this country, and I don’t believe that. That’s not the heart of the American people. That’s not the heart of the nurses, and plumbers, and doctors, and technicians and truck drivers that I saw day in and day out saving lives in San Juan and 34 other municipalities,” Cruz said.

Cruz also rallied the Puerto Rican community, challenging them to step up, as well.

“As Puerto Ricans, we also have to own up about what we don’t do right,” she said. “We need to change our priorities. We need to make sure eliminating poverty is our number one priority.

“For the Puerto Ricans here: this is the time. There are no more excuses. We either move forward or we don’t move at all.”

Cruz both appealed for people to recognize what she believes is an imbalanced and colonialist-relationship the U.S. has with Puerto Rico, and made a call to action.

“So, we need your help because we have a long road ahead of us,” she said. “We need to diversify our energy production. We can’t be dependent on fossil fuels anymore. We have to make sure that power gets to everybody. I need you to help me. Let them know, wherever they are, that their lives matter. Because we didn’t start this fight, but we’re going to finish it.”

IGNITE Campaign reaches nearly 50 percent of its goal

By Christy Levy — christyb@uic.edu

UIC has reached about 44 percent of its goal so far for its IGNITE Campaign, which aims to raise $750 million to benefit UIC.

More than 26,241 donors have made gifts to the campaign — totaling $330 million as of March 30 in gifts, grants and pledges. The campaign will continue through 2022.

“Both our long-standing values and our ambition is reflected in the IGNITE Campaign,” UIC Chancellor Michael Amiridis wrote to alumni and friends in a campaign update email.

“We’re on the move, while holding true to our core mission of access, excellence, civic engagement and discovery. And your support is building a university that is ready for the future, and to solve our world’s most pressing challenges.”

The IGNITE campaign aims to raise funds for student scholarships, endowed faculty positions, research and teaching technologies and improved campus facilities.

“BOTH OUR LONG-STANDING VALUES AND OUR AMBITION IS REFLECTED IN THE IGNITE CAMPAIGN.”

Gifts will also fund research in key areas of excellence — such as the human brain, social disparities, urban infrastructure, and functional and regenerative materials — and develop programs and partnerships to advance global health.

Recent gifts include a pledge of $1 million from alumna Jane Sherman to endow a professorship in the College of Nursing; funding for a Polish studies collection from alumnus Richard Nowak; and gifts for the James P. Gleeson Scholarship Fund, named in honor of recently retired Jane Addams College of Social Work professor James Gleeson, which will provide financial assistance for social work students.

For more information, visit advance.uic.edu

More than 26,000 donors have contributed $330 million to the IGNITE Campaign so far, which aims to raise $750 million to benefit UIC.
Free training sessions for new AEDs in campus buildings

By Francisca Corona — fcoron3@uic.edu

Automated external defibrillators (AEDs), equipment that can save victims of cardiac arrest, are now available in every building on campus, and employees and students can learn to use them during free training sessions through December.

The initiative, which is sponsored by the Office of Administrative Services, brought 75 new AEDs to campus buildings. The Environmental Health and Safety Office (EHSO) installed the equipment and will lead campus maintenance efforts for the machines. EHSO and Campus Recreation will also host training sessions to teach participants how to do CPR, use AEDs, and address choking, breathing irregularities and cardiac problems in emergency situations with adult victims. Participants who complete an EHSO course will receive an American Heart Association certification in CPR/AED, which is valid for two years. The Campus Recreation course will result in an American Red Cross Adult CPR/AED Certification, also valid for two years.

"It’s a worthwhile investment if one life can be saved," said Heather Jackson, director of EHS. She added that knowledge of both CPR and AED use is important.

"Just using one alone is not as effective as if they are coupled."

Since last December, two people have been saved on campus thanks to UIC community members who had CPR/AED training.

EHSO hopes to train 516 people by Dec. 18, the last free training session open to employees. Campus Recreation hopes to train at least 50 people every month and will hold six to 10 training classes a month through December.

Campus officials hope to get more AEDs on campus, too, especially in larger buildings.

"We want to be able to have access to an AED within three minutes," said Mark Gaunky, assistant director of Fire and Life Safety.

To find where AEDs are located in campus buildings, visit bit.ly/2qUo12d.

Donations for AEDs are welcome, and departments or colleges are encouraged to purchase more. Donors, departments and colleges should contact Gaunky at gaunk34@uic.edu for information. Training class registration is required. Register for the EHSO course at bit.ly/2HoNPbD and the Campus Recreation class at bit.ly/2qUPID.

Each campus building now has an automated external defibrillator installed to help victims of cardiac arrest. (Photo: Jenny Fontaine)
UIC’s Museum and Exhibition Studies program, in collaboration with the National Veteran’s Art Museum, has received a National Endowment for the Humanities grant to establish a two-semester course focusing on war-related art from World War I to the present.

The NEH issued an $81,294 grant to UIC and the Chicago-based National Veteran’s Art Museum, or NVAM, to develop the course, “Investigating and Curating a Century of War and Survival.” The award is part of the NEH’s “Dialogues on the Experience of War” category that supports the study and discussion of humanities-based expressions of war and military service.

NEH grants fund projects that help preserve and tell the story of essential chapters of American history, according to NEH Senior Deputy Chairman Jon Parrish Peede. Projects funded through NEH’s “Dialogues on the Experience of War” grants support humanities-based programs for military veterans and their families, according to Peede.

“These new NEH-supported projects deepen our understanding and appreciation of the traditions, values, and historical figures who have shaped our country,” Peede said.

The graduate-level course will be run from UIC’s Museum and Exhibition Studies, or MUSE, program and will serve to build students’ curatorial and programming skills and prepare them to enter the cultural fields, said Therese Quinn, director of the program and a project director on the grant.

As part of the course, five veteran artists/curators will be trained as discussion leaders as they work with the graduate students to prepare them to lead focused discussion groups at the NVAM Triennial and Veteran’s Artist Summit scheduled for 2019, according to Brendan Foster, executive director of NVAM.

Along with Foster and Quinn, Aaron Hughes is a project director on the grant. Hughes is an artist, curator and teacher, as well as being an Iraq War veteran.

“From the Great War through the Global War on Terror, veterans have been making art about their military experiences that challenges stereotypes, politics, and media portrayals,” said Hughes. “These artworks drive new creative movements that transform themselves and society.”

The five veteran artists/curators who will serve as teachers and discussion leaders include the following Iraq War veterans: Carlos Sirah, who will focus on the performing arts; Amber Hoy, who will focus on the visual arts; Yvette Pino, who will focus on interdisciplinary creative practices; Kevin Basl, who will focus on literature; and Edgar Gonzalez-Baeza, a UIC graduate, who will focus on arts education.

It is important for curators to understand the role of art in wartime because art is “foundational” in helping American society develop a true understanding of the current and historic realities of what continuous war means to the country, said Hughes.

“Art creates the space needed to reflect on the connections between the creative practices of service members, veterans, and military families as they cope with the experiences, histories, and present realities of war,” said Hughes, who is also art committee chair of NVAM.
College chemistry labs are a requirement for science majors who want to work in health care. So why shouldn’t we prepare them now to think about chemistry concepts like a nurse or doctor would?

When Ginevra Clark came to UIC in 2011, a similar question was on her mind. “I reached out to Maripat King in the College of Nursing just to find out what elements of chemistry are important for nurses,” said Clark, clinical assistant professor in chemistry.

She teaches CHEM 130, survey of organic and biochemistry, a class that enrolls up to 150 undergraduates every semester. More than 90 percent of her students plan to work in a health-related field.

“ULTIMATELY, TEACHING IS ABOUT HELPING STUDENTS TO ACHIEVE THEIR OWN GOALS, AND WATCHING STUDENTS BECOME MORE SUCCESSFUL IS WHAT MAKES THIS PROJECT WORTHWHILE.”

“That’s where this project started,” she said.

The project is a reboot of the CHEM 130 curriculum, something that hadn’t been done for about 20 years. After working with campus collaborators, Clark created new labs for the course that bridge the gap between chemistry concepts taught in class and real-world situations that health care professionals deal with daily.

“We focused on acids and bases and equilibrium concepts,” said Clark, who is also the director of UIC’s Science Learning Center.

One lab lesson about dialysis, albumin binding and competitive binding shows why understanding those chemistry concepts matters when health care professionals administer different drug combinations, for example. For the lab, students place dye in a dialysis tube and observe the dye pass to the other side. The dye is passing through small pores in the dialysis tube, similar to how drugs pass through small pores in the capillaries — fine branches of blood vessels in the body. Then, they add albumin, a protein that binds to the dye. After binding, the dye becomes too large to pass through the pores. The dye passes through the dialysis tube more slowly, which is a model for how drugs bind to albumin in the blood and are released over time. Adding oleic acid to the solution makes the dye pass through more quickly, since oleic acid binds competitively to albumin.

The final step illustrates what happens when deadly drug combinations like blood thinners and certain antibiotics are co-administered, which can cause major bleeding.

“We have this simple model for equilibrium that explains a biological phenomenon,” Clark said. “Equilibrium is a chemical concept, so we can’t expect students to learn this in their biology courses.”

Other labs focus on urine dipstick tests; detection of neonatal respiratory distress; and even a sucrose intolerance test, which ties chemistry to cultural competency. Clark’s next big development is the modification of the labs. A total of 12 labs make up the curriculum.

“The concepts covered by the labs are especially important in nursing practice, said Maripat King, Clark’s collaborator and clinical assistant professor of nursing. Students in CHEM 130 touch on topics that most don’t learn until their first year of nursing school.

“I can tell you just anecdotally these students have a better understanding than some of albumin, which we talk about extensively when we go over liver failure, cirrhosis, hepatitis,” King said.

For CHEM 130, she introduces topics in some prelab videos to help students see the value of chemistry. In the College of Nursing, she teaches medical surgical nursing.

Because some groups are more likely to develop certain disorders, the cultural piece is key, too. “It’s important to understand cultural variation and be sensitive to that,” said King, who is also director of undergraduate clinical studies for the Chicago, Urbana and Springfield campuses. “For example, 95 percent of Native Americans are diabetic. To look at that and understand what the long-term complications there are, what kind of screening needs to be available, those types of things allow you to practice in a more whole holistic manner in terms of nursing care. Knowing how to aim your education and preventive care is huge going forward.”

Collaborator Marisha Humphries, associate professor of educational psychology, is studying CHEM 130 teaching assistants’ delivery of culturally competent teaching and how students respond. “[TAs] get trained around how to implement issues of cultural competence, being more reflective themselves about the impact their own culture has on how they approach chemistry and their work,” Humphries said. “So, the work really starts there.”

They hope to create a science space where students feel supported and think differently about how science impacts people.

Other project collaborators include Cynthia Soto, director of the Native American Support Program; Donald Wink from UIC’s department of chemistry; and Patrick L. Daubenmire from Loyola University. Graduate and undergraduate students have also made significant contributions.

This summer, Clark will present her project at a symposium in Germany. She hopes to form more collaborations and push them forward.

“Ultimately, teaching is about helping students to achieve their own goals, and watching students become more successful is what makes this project worthwhile,” she said.

“By incorporating the cultural competence and social justice aspects, we hope to help students form meaningful connections between chemistry and their world. The goal of this project is to change the way we do science, to reflect more carefully on who benefits from science and to use our understandings to create a more equitable world.”
A group of UIC medical students enrolled in a new course this semester had the opportunity to see how medical devices they might use in clinical practice are actually made — then create some products themselves.

A collaboration between the College of Engineering and College of Medicine gave 15 students in the Innovation in Medicine Program (IMED) the chance to visit the College of Engineering Makerspace for eight weeks to learn more about medical product design.

"Physicians trained in the process of innovating solutions to problems encountered in the clinical environment will have an understanding of how a need can be addressed and potentially translated to a commercial product solution," said Eric Schmidt, associate director of the makerspace.

The students learned additive and subtractive manufacturing methods, including how to make parts on 3-D printers and laser cutters. They also designed 3-D boxes, name tags and race cars, among other projects.

"Making a name tag doesn’t look that difficult until you do it," said Jordan Oswald, a graduate student in mechanical engineering who helped teach the course. "Learning CAD (computer-aided design) isn’t trivial."

"It was great to see them way out of their comfort zone while fabricating parts on our equipment," added Schmidt, who collaborated on the project with Miiri Kotche, clinical associate professor in bioengineering and director of the IMED Program.

"The students were just sponges — they really wanted to learn."

The course helped bridge the gap between those who work in health care and have ideas for medical devices, and those who actually make them, Oswald said.

"It gives the students a much more grounded way to think about a real device," she said.

Among the students in the class was John Marsiglio, a first-year medical student who joined the IMED Program last fall after completing his undergraduate and graduate studies in chemical engineering at Northwestern.

"My vision going into medical school was that I still wanted to draw on my engineering background and apply that toward helping my patients," he said.

The course provided insight into the tools available for prototyping medical devices, he said.

"It was time well spent," he said. "It made us aware of the basics of CAD and when to use 3-D prototyping versus laser cutting."

First-year medical student Rown Parola plans to use his training in the Makerspace to someday design individual splints to treat deformities in the fingers.

"It was a terrific experience meeting colleagues from the other side of campus, who were incredibly helpful in explaining the 3-D printing, laser cutting and milling techniques," Parola said. "I hope to collaborate with them in the future."

"This experience gave me the knowledge to rapidly prototype designs for medical devices and tools where I might be able to improve on a treatment or technique. Knowing that I can quickly build something helps me keep my eyes open for processes that might be improved."

Through his studies, Mauricio Borda, a second-year medical student, aims to identify inefficiencies in health care and prototype clever solutions.

"One of my goals as a physician is to consistently find ways to make my workflow better," he said. "Having a foundation in CAD, as I learned in this class, will allow me to do this more easily. I will also be able to communicate more effectively with engineers and designers during interdisciplinary projects in the future."

"Plus, I want to be a physician that knows a thing or two outside of medicine."

Giving future doctors tools to design devices

By Christy Levy — christyb@uic.edu

Students in the Innovation in Medicine Program created 3-D name tags, boxes, race cars and more.
GARDEN FOR A CHANGING CLIMATE
Community-driven participatory public art project created by artist Jenny Kender that uses a traveling garden of local plants to give Chicagoans a dynamic and tangible experience of the effects of climate change.
For information on exhibit locations, visit gallery400.uic.edu

OUT OF EASY REACH
Gallery 400 exhibit curated by Allison Glenn, in collaboration with DePaul Art Museum and Rebuild Foundation. Exhibit presents 24 artists from the Black and Latina diasporas through artworks created from 1980 to 2018 who use abstraction as a tool to explore personal and universal histories, with an emphasis on mapping, migration, archives, landscape, vernacular culture, language and the body.
Exhibit hours:
10 a.m.-6 p.m. Tues.-Fri.
Noon-6 p.m. Sat., and by appointment
Gallery400.uic.edu

ASIAN AMERICAN AWARENESS MONTH KEYNOTE EVENT FEATURING KINJAZ
Event includes master class with Kinjaz, known for their intricate choreography style and creative storytelling through dance and new media.
6:30-10 p.m.
UIC Forum
Tickets required, bit.ly/2JdFszM

INDIGENOUS FRAMES FOR UNDERSTANDING EXTRACTION, MINES, AND PIPELINES
Interactive conversation with Burton Warrington, indigenous rights activist and attorney.
3:30-5 p.m.
Latino Cultural Center, LC B2

CCSW WOMEN SPEAK
The Chancellor’s Committee on the Status of Women aims to ignite a campus conversation on what resources are needed on campus by female students and employees. Topics covered include opportunities for personal growth, mentorship, leadership, safety, networking and more.

April 25: 3–4 p.m., Women’s Leadership and Resource Center, 1101 W. Taylor St., third floor

ORCHESTRA CONCERT
Presented by the UIC School of Theatre and Music.
7:30-9:30 p.m.
UIC Theatre
A new class of antibiotics to combat drug resistance

By Jackie Carey — jmcary@uic.edu

Researchers from the University of Illinois at Chicago and Nosopharm, a biotechnology company based in Lyon, France, are part of an international team reporting on the discovery of a new class of antibiotics. The antibiotic, first identified by Nosopharm, is unique and promising on two fronts: its unconventional source and its distinct way of killing bacteria, both of which suggest the compound may be effective at treating drug-resistant or hard-to-treat bacterial infections.

THE COLLABORATION BETWEEN MULTIPLE LABS WITH DIVERSE AREAS OF EXPERTISE ADD CREDIBILITY TO THE RESEARCH.

Called odlorhabdins, or ODLs, the antibiotics are produced by symbiotic bacteria found in soil-dwelling nematode worms that colonize insects for food. The bacteria help to kill the insect and, importantly, secrete the antibiotic to keep competing bacteria away. Until now, these nematode-associated bacteria and the antibiotics they make have been largely understudied.

To identify the antibiotic, the Nosopharm research team screened 80 cultured strains of the bacteria for antimicrobial activity. They then isolated the active compounds, studied their chemical structures and engineered more potent derivatives.

The study, published in Molecular Cell, describes the new antibiotic and, for the first time, how it works.

UIC’s Alexander Mankin and Yury Polikanov are corresponding authors on the study and led the research on the antibiotic’s mechanism of action. They found that ODLs act on the ribosome — the molecular machine of individual cells that makes the proteins it needs to function — of bacterial cells.

LIKE MANY CLINICALLY USEFUL ANTIBIOTICS, ODLs WORK BY TARGETING THE RIBOSOME, said Polikanov, assistant professor of biological sciences in the UIC College of Liberal Arts and Sciences, “but ODLs are unique because they bind to a place on the ribosome that has never been used by other known antibiotics.”

The UIC researchers, including graduate student Tanja Florin and postdoctoral research associate Malgorzata Dobosz-Bartoszek, also found that when bound to the ribosome, the antibiotic disrupts its ability to interpret and translate genetic code.

“When ODLs are introduced to the bacterial cells, they impact the reading ability of the ribosome and cause the ribosome to make mistakes when it creates new proteins,” said Mankin, director of the Center for Biomolecular Sciences in the UIC College of Pharmacy. “This miscoding corrupts the cell with flawed proteins and causes the bacterial cell to die.”

While many antibiotics can slow bacterial growth, Mankin says antibiotics that actually kill bacteria, called bactericidal antibiotics, are rare.

“The bactericidal mechanism of ODLs and the fact that they bind to a site on the ribosome not exploited by any known antibiotic are very strong indicators that ODLs have the potential to treat infections that are unresponsive to other antibiotics,” said Mankin, who is also professor of medicinal chemistry and pharmacognosy.

According to the World Health Organization, antibiotic resistant is one of the biggest threats to global health today and a significant contributor to longer hospital stays, higher medical costs and increased mortality.

In France, the Nosopharm researchers tested the ODL compounds against bacterial pathogens, including many known to develop resistance.

“We found that the ODL compounds cured mice infected with several pathogenic bacteria and demonstrated activity against both Gram-negative and Gram-positive pathogens, notably including carbapenem-resistant Enterobacteriaceae,” said co-corresponding author Maxime Gualtieri, co-founder and chief scientific officer of Nosopharm.

Carbapenem-resistant Enterobacteriaceae, or CRE, are a family of germs that have high levels of resistance to antibiotics — one study suggests that CRE, which are the common culprits in bloodstream and surgical site infections, contribute to death in up to 50 percent of patients who become infected.

The researchers say this study is a testament to the growing trend of international and cross-disciplinary collaboration, which is needed to combat the growing global threat of antibiotic resistance.

“In this case, the combined expertise of the industry, which has the resources to develop new compounds, and the academia, which has the research and lab capabilities to understand how the compounds work, have enabled the development of this new class of antibiotics,” Mankin said.

“The collaboration between multiple labs with diverse areas of expertise add credibility to the research,” Polikanov said.

While ODLs have yet to be thoroughly investigated for their therapeutic potential, the researchers say that the study findings justify future research in this direction.

“Collaborations with academia with renowned expertise in antibiotics like the UIC team help us for this preclinical development,” said Philippe Villain-Guillot, co-founder and chief executive officer of Nosopharm.

Collaborating on the project, which was funded by Nosopharm, are researchers from the Institut Charles Gerhardt Montpellier in Montpellier, France; the Universite de Montpellier in Montpellier, France; University of Wisconsin in Milwaukee, Wisconsin; the Aix-Marseille Universite in Marseille, France; the Statens Serum Institut in Copenhagen, Denmark; and Uppsala University in Uppsala, Sweden.
Common genetic variant linked to AFib risk in Latinos

By Jackie Carey — jmcarey@uic.edu

“There is a paradox at play when it comes to atrial fibrillation in the Latino population,” said Dr. Dawood Darbar. “While Latino individuals are less likely to develop atrial fibrillation than whites, despite having a higher burden of risk factors, they are more likely to suffer complications if the condition does develop,” said Darbar, professor medicine and pharmacology in the University of Illinois at Chicago College of Medicine.

Understanding this paradox has been a challenge because most research on the genetic basis of atrial fibrillation, or AFib, has been performed in whites of European descent.

With the development of a large, diverse registry of patients with AFib, the most prevalent heart rhythm disorder worldwide, Darbar and his colleagues at UIC have confirmed for the first time the association of a chromosomal genetic variant with increased risk of AFib in Latinos.

The findings are reported in PLOS ONE.

To identify common genetic variants, the researchers studied 713 patients who sought care at the University of Illinois Hospital in Chicago. The study group consisted of 103 Latino individuals who were prospectively enrolled in the UIC AFib Registry. Blood samples were analyzed for common genetic variants at a number of chromosomal locations and compared with genetic analysis results of 610 individuals without AFib.

“Our goal was to determine if the top nine gene variants known to be associated with AFib in white patients also increase susceptibility in Latinos,” said Darbar, who is chief of cardiology.

“We found that one variant was also prevalent in Latinos with AFib, particularly those from Mexico,” Darbar said, “and that its predictive effect was stronger in Latinos than in whites.”

Latino patients were found to be at a 2.3-fold increased risk for developing AFib if they carried this common genetic variant, which is labeled rs10033464 SNP at chromosome 4q25.

Darbar says this finding not only sheds light on the underlying mechanisms of AFib, but it also, and more importantly, helps advance prevention and treatment strategies for AFib in Latinos.

“The presence of an AFib-associated genetic variant helps doctors personalize treatment for the individual patient,” Darbar said. This is key, he says, to preventing complications, the most serious and common of which is stroke, which in some cases can lead to lifelong disability or death.

Early Outreach Program gets students engaged in STEM fields

By Sharon Parmet — sparmet@uic.edu

The Early Outreach Program — part of UIC’s Urban Health Program — helps develop elementary and high school students’ skills in science and research to prepare them for college and careers in health and medicine.

The program has served more than 25,000 students in the Chicago area since the 1980s. The majority of its students are from non-dominant populations that are under-represented in the health sciences fields. Approximately 87 percent are from Chicago public schools and 83 percent are black or Latino.

Students who participate in the Early Outreach Program — which includes a Saturday enrichment program that runs during the academic year and a six-week summer enrichment program — often come back year after year. The average graduate of the Early Outreach Program has been enrolled for 6.5 years, according to Joy Valentine, the program director.

“Many of our graduates will be in careers that haven’t even been created yet, so we provide a solid foundation and give students research and academic skills, as well as exposure to cultural experiences,” Valentine said. “They also get a chance to participate in literacy-building and digital literacy activities and attend presentations on the UIC campus.”

In the Saturday program, students take math and science courses, prepare for the SAT, go on field trips, and engage with research and clinical faculty at UIC. In the summer program, students also take math and science courses and work together in groups to present a research project at the end of the summer.

Students are admitted to these academic programs through an application process. Students submit their grades and standardized test scores.

“We don’t turn anyone away, even if their grades are somewhat problematic,” Valentine said. “We know that a student’s full abilities are not always reflected in classroom grades and test scores, so for students that don’t have the very best grades and scores, we invite them in for an interview so we can learn about their passions, achievements, leadership and collaboration skills, and determine how they would fit into our programs.”

Maxine Garcia, 23, is a graduate of the UIC Early Outreach Program. She began participating in the Saturday Enrichment Program in her third year of high school and graduated in 2012. This fall, she will be a first-year student in the UIC College of Medicine, where she hopes to focus on global medicine.

Garcia credits the Early Outreach Program with supporting her interest in the sciences and providing her with work opportunities to build her résumé and career skills.

“They helped me secure an internship as an administrative assistant at UIC, where I got a real introduction to working in a professional capacity,” Garcia said. “The program also really helped me ultimately to get into medical school. They cheer you on for both the big and small accomplishments. When I achieved something — whether it was a better test score, or finally understanding class material — they made me feel like that was only the beginning of what I could do.”

Garcia was also nominated for a prestigious Posse Scholarship by her mentors in the Early Outreach Program. The scholarship provided full tuition for her four years at Pomona College in California, where she majored in neuroscience and graduated in 2016. She is currently completing an internship at the University for Brain Research at the Medical Center of Vienna. She is working in a lab focused on finding therapeutics for X-linked adrenal leukodystrophy – an x-hereditary neurodegenerative condition primarily affecting males.

Garcia says that she checks in often with Vernita Lewis, program coordinator and college transitions instructor of the Early Outreach Program.

“She always wants to know how I am doing, both academically, and personally,” Garcia said. “It is really like joining a family when you participate in the Early Outreach Program, and the support they provide is ongoing. I can truly say that I continue to benefit from my experience with the program, even years later.”
By Brian Flood — bflood@uic.edu

UIC professor Roman Shvydkoy is among 40 researchers from across the U.S. who have been awarded a 2018 Simons Fellowship in mathematics.

The competitive grant from the Simons Foundation extends faculty sabbaticals from one academic term to a full year, enabling recipients to focus solely on their research. Recipients are selected based on their scientific accomplishments and on the potential scientific impact of the work to be done during their fellowship.

Shvydkoy, who is based in the department of mathematics, statistics, and computer science, will focus on a project studying models of collective motion and self-organized behavior.

“These models aim to describe a wide range of natural phenomena, such as swarming of insects, alignment of birds flying in a flock, dynamics of schools of fish, and even emergence of a consensus in politics on a large scale,” he said. “I will particularly focus on the unanswered question: how does a global alignment of agents happen over time when the only communications between the agents are local?”

Shvydkoy, who has received approximately $825,000 in research support from the National Science Foundation, has research interests in the general area of mathematical analysis with a particular focus on partial differential equations. His work and widely published research covers the study of evolution equations of viscous fluids, turbulence and, more recently, models of collective motion.

Prior to arriving at UIC in 2003, Shvydkoy completed postdoctoral work at the University of Missouri at Columbia and a lectureship at the University of Texas at Austin. He earned his doctorate from Missouri in 2001.

The Simons Foundation’s mathematics and physical sciences division, established in 2010, supports research in mathematics, theoretical physics and computer science by providing funding for individuals, institutions and science infrastructure.

Roman Shvydkoy will study models of collective motion and self-organized behavior.

Roman Shvydkoy
Mathematician named 2018 Simons Fellow

AWARDS

Anna Guevarra, associate professor and director of Global Asian Studies, was named a recipient of an inaugural award of distinction in public scholarship from the Filipino section of the Association of Asian American Studies. The honor recognizes Guevarra, whose research interests include immigrant and transnational labor, for her work at the intersection of critical scholarship and transformative public service. The award was presented in March during the association’s annual meeting in San Francisco.

Deisy Arrington, a graduate student in chemical engineering in the UIC College of Engineering, recently won a National Science Foundation GROW (Graduate Research Opportunities Worldwide) award for $5,000 to travel to France for her research on graphene-based gels. The GROW award expands opportunities for U.S. graduate students to engage in international research collaborations. In 2016, Arrington earned a National Science Foundation graduate research fellowship for $138,000, which consists of three years of support during a five-year fellowship period. The funds have allowed Arrington to study synthesis and properties of graphene, a single-atom thick sheet of carbon atoms. She is interfacing graphene with other atomically thin materials to produce advanced systems.

Jelena Dinic, a graduate student in chemical engineering in the UIC College of Engineering, has won the Frank J. Padden Jr. Award for her work on the rheology of complex fluids. The award recognizes a graduate student for excellence in polymer physics research.

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today.uic.edu
Sports

Tennis secures regular season title

By Jenn Zoellick — jennz@uic.edu

The women’s tennis team (14-6, 8-1 Horizon League) won its second-straight regular season title Sunday with a 7-0 shutout win over Cleveland State (11-12, 7-2 HL). Not only was the victory UIC’s seventh conference win in a row, but it also secured the Flames the No. 1 seed in the Horizon League Tournament.

The Flames will receive a first-round bye in the tournament, facing the winner of the quarterfinal match between the No. 4 and 5 seed in the semifinals at 10 a.m. Saturday.

Melika LeBlanc and Rachel Le Comber started strong for UIC, earning a 6-2 win. Georgie Sanders and Lejla Colic won their fourth-straight match as a pair with a 6-3 victory, giving the Flames the doubles point. The No. 3 doubles match between Viktoria Seifert/Miranda Rodriguez Diaz de Leon and Blanche Lenoan/Anastasia Perin went unfinished.

Le Comber won to start singles, 6-0, 6-2. Seifert completed the regular season undefeated in Horizon League play in her 12th straight win. Sanders secured the win for the Flames with a straight-set win, 6-3, 6-3. Bianca Zuzu won her sixth-straight and Colic won her set. LeBlanc completed the sweep for the Flames.

The women’s tennis team will compete as the No. 1 seed in the Horizon League Tournament Saturday.

Jooma competes on NCAA’s highest stage

By Tim Hurley — thurley@uic.edu

Asad Jooma competes in the NCAA Championship Finals. (Photo: Steve Woltmann)

“My feet slipped on the board.”

A disappointed Asad Jooma repeated himself several times. “My feet slipped on the board. My feet slipped on the board.”

In front of a vocal crowd on his home floor, Jooma competed in the vault at the NCAA Championship Finals at UIC Pavilion Saturday. He seemed to execute his maneuver in the air, but with his timing thrown by a split second on his launch, he stumbled on landing and scored 13.233.

“Asad’s vaults all season have been on par with the best in the nation,” head coach Charley Nelson said. “The same environment he thrived in last night in our home arena might have added some extra pressure tonight, especially since he had to wait so long before competing. Vault is such an explosive event that if you’re off by the smallest amount for any reason, mentally or physically, it’s hard to recover.

“But there’s no doubt in my mind that Asad belongs on the same level as the elite gymnasts who competed in the finals and he’ll be back next year for an even better performance.”

He qualified for the finals with a career high 14.366 Friday night. After waiting until the sixth and final rotation to compete Saturday, he knew he needed an improvement of 0.267 for a podium finish. Jooma, from Knoxville, Tennessee, is a sophomore studying neuroscience. He started training in gymnastics when he was 4 years old. In August, he hopes to compete for Pakistan in Indonesia at the Asian World Games. “This is what makes me happy,” he said. Gymnastics is my life.”

- Jeffron Boynes contributed to this story

FLAMES @ HOME

WEDNESDAY, APRIL 25
Softball vs. Green Bay
Noon Flames Field

FRIDAY, APRIL 27
Softball vs. Wright State
4 p.m. Flames Field
Baseball vs. Milwaukee
6:35 p.m. Granderson Stadium

SATURDAY, APRIL 28
Softball vs. Wright State
1 p.m. and 3 p.m. Flames Field
Baseball vs. Milwaukee
2:05 p.m. Granderson Stadium

SUNDAY, APRIL 29
Baseball vs. Milwaukee
1:05 p.m. Granderson Stadium

MORE SPORTS AT uicflames.com