200 years of ‘Frankenstein’

By Hoda Fakhari — hfakha2@uic.edu

As a sophomore in high school, I read Mary Shelley’s infamous Frankenstein for the first time. We were asked to mark passages that highlighted some of the novel’s themes: the role of nature, the relationship between the creator and created, and the relationship between man and monster, among others. At the time, the message seemed clear: when man opposes nature, he is punished.

Then, as a freshman in college, I picked the same copy of Frankenstein for my course in English literature. I learned that Shelley actually published two very different versions of the novel and the messages I had previously extracted were, in fact, much more ambiguous than they ever were clear. Frankenstein’s heroic ambition represents the driving force of scientific discovery, and the novel does not necessarily criticize that ambition, but rather society’s reaction to it.

During an event hosted by the UIC Institute for the Humanities for the 200th anniversary of Frankenstein’s publication, I was once again prompted to supplement what now seems to be an elementary understanding of the text with more complex ideas.

Sara Guyer from the University of Wisconsin at Madison discussed how the novel revels in uncertainty but only to offer the reader a way of gaining time while consuming it. Everyone has probably encountered some version of the story and this transcendence across time is what allows for a continuous supply of newer and more relevant interpretations. Nasser Mufti of the UIC English department said that the work expresses the terror of a split society and the attempt to reconcile it, similar to concerns that are prominent in today’s society. Bioethicist Tim Murphy from the UIC College of Medicine related the creation to contemporary efforts to genetically intervene into the lives of descendants, framing the novel as a cautionary tale about irresponsible research.

These diverse readings of Frankenstein are the reason it has lived to celebrate its 200th anniversary. Despite being situated in a historic time, the novel continues to prove relevant and engaging for a modern audience. Most of the literature taught in high school likely has the same effect and if you return to those old books, I’m sure you’ll find something new to think about.

Want to contribute a story? E-mail Christy Levy at christyb@uic.edu

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Study debunks fears of increased teen suicide risk from popular flu drug

By Jackie Carey — jmcarey@uic.edu

A new study published by UIC researchers suggests that the drug oseltamivir — commonly known as Tamiflu — does not cause an increased risk of suicide in pediatric patients.

The U.S. Food and Drug Administration originally approved the drug in 1999, but subsequent case reports of abnormal behavior in adolescents who used the medication led the agency in 2006 to require that all packaging of the drug include a warning label about potential neuropsychiatric side effects, such as hallucinations, delirium, self-harm and even suicide.

However, clinical studies examining the association between the use of Tamiflu and neuropsychiatric side effects in children, including suicide, have so far been inconclusive and limited by methodology and potential confounding factors.

“When the FDA puts a warning out about a drug, doctors and the public take notice,” said corresponding author James Antoon, assistant professor of clinical pediatrics in the UIC College of Medicine. “While the warnings are necessary, they are often not based on conclusive clinical data, which can make it difficult for physicians to truly know the potential side effects of a drug as they evaluate its possible benefits for individual patients.”

To fill this gap, Antoon and his colleagues in the UIC College of Pharmacy retrospectively studied the association between the use of Tamiflu — the only commercially available medication approved by the FDA to treat the flu — and the most consequential of those reported side effects: suicide.

“The potential link between a drug and suicide is a particularly difficult topic to study,” Antoon said. “Many events, which can happen simultaneously or over time, can influence a person to attempt suicide, as can an illness itself — so it can be difficult to study scientifically.

“That’s why we used a novel method called a case-crossover design,” Antoon said. “This analysis is different because it allowed us to use each individual subject as his or her own comparison — we retrospectively studied how patients behaved when on Tamiflu and compared it to their behavior when they were not taking the drug.”

The researchers identified 21,047 children between the ages of 1 and 18 who attempted suicide during five recent flu seasons (2009-2013) from a national administrative claims database. Of this group, 251 of those children were exposed to Tamiflu, which was determined based on outpatient pharmacy dispensing data. The mean age of this group was 15 years, 61 percent were female, and 65 percent had an underlying mental health diagnosis.

“For each of the 251 patients, we assigned the 10-day period immediately before the suicide attempt as the case period and we identified up to four earlier control periods of the same length, in the same flu season,” Antoon said. “This helped us to account for within-person confounders, like depression, mental health, trauma and abuse, and other factors, like race or ethnicity.”

The researchers repeated the analysis with flu diagnosis alone, without the use of Tamiflu, to see if the infection itself could have been a confounding factor associated with suicide risk.

“We did not find any association between exposure to Tamiflu and suicide in pediatric patients,” Antoon said.

While Antoon believes the findings, which are published in the Annals of Family Medicine, will help to alleviate some fears health care providers may have about prescribing the medication in healthy children, he says doctors will likely continue to prescribe Tamiflu with caution.

“I think physicians will welcome a large, rigorous study on this topic and factor this information into their decision-making process,” he said. “While this study addresses suicide, there are still many other questions about other possible neuropsychiatric side effects of the drug, which we plan to study in the future. There are also other reasons to use caution when prescribing the drug, including resistance and efficacy in children.”

Co-authors on the paper are Rachel Harrington, Sruthi Adimadhyan, Todd Lee and Glen Schumock from the UIC College of Pharmacy.

An international experience without leaving city

By Farooq Chaudhry — mchaud23@uic.edu

The UIC Office of Global Engagement and Office of International Affairs have made it possible for UIC students to gain international experiences without leaving Chicago.

Both offices have opened channels and made connections with international consulates in Chicago to provide students with internships opportunities there.

Partner consulates currently include Pakistan, Mexico, Australia, and the list keeps growing.

Internships are available for students across a variety of majors — not just those studying international affairs, said Nora Bonnin, senior director of the Office of International Affairs.

“Internships build résumés and open a world of opportunities to more career paths than what we usually think. The case is that international internships are not only for students planning to be diplomats, we also need students in business, engineering, in food security or human rights issues,” she said.

Katherine Taylor, a senior in political science, says she has benefitted tremendously by interning this semester in the Office of the Consul General at the Consulate General of Mexico in Chicago.

“My position as a political analyst allows me to prepare reports on United States policies affecting Mexican-Americans in the Midwest,” she said. “I’m very excited to spend the spring semester interning at the Consulate. While I’m only the intern in my department, my team has been very welcoming and always helpful.”

Neal McCrillis, UIC’s vice provost for global engagement, hopes international learning is a part of every UIC student’s experience.

“From my perspective, in terms of global engagement, I want every UIC student to have the opportunity to directly experience the world,” he said. “Whether it’s going abroad, connecting with an international student on campus, or working with a foreign consulate. The same end can be achieved.”

The internships with the consulates are just one step in a larger vision McCrillis has for the university.

“We need to feel, and every student should feel like, ‘Oh, we’re actually connected to the whole world. I can see it. How can we make UIC everything it is and more, and demonstrate to people that is the case,’ he said. “They have to see it and feel it. That’s really what we’re trying to do in terms of internationalization.”

For more information on internships and international experiences, contact the Office of International Affairs at oia@uic.edu or 312-996-5455 to set up an appointment.
Med school dedicates classroom to family of graduates, donors

By Jackie Carey — jmcarey@uic.edu

The College of Medicine dedicated the Dr. and Mrs. John C. Mason Sr. and Dr. and Mrs. John C. Mason Jr. classroom at a ceremony held Dec. 9 at its Chicago campus.

The classroom honors alumnus Dr. John Mason Jr., of Danville, Illinois; his father, the late Dr. John Mason Sr.; and his entire family. The Mason family, which includes three generations of doctors who received their medical degrees from the college’s Chicago campus, has a long history of supporting the College of Medicine through active participation in the alumni association and planned giving.

The Mason family has long supported the College of Medicine with individual gifts and donations from both John Mason Sr. and John Mason Jr. dating back to 1965, and a combined gift from the whole family in December.

“The Mason family continues to show their support for the most promising and talented physicians of tomorrow,” said Dr. Charles Ray, acting dean of the college, “and we are pleased to recognize their support and generosity by dedicating this space to them.”

The classroom is located on the second floor of the College of Medicine Learning Center, which was renovated in 2015 and boasts three floors of updated classrooms and education spaces within the College’s historic West Tower.

John Mason Jr., who was accepted early into medical school after fulfilling his pre-med coursework at Urbana-Champaign in three years and then graduated from the Chicago campus medical school in 1955, says that his education was possible because it was affordable. Dr. Mason also completed his residency training at the University of Illinois at Chicago.

“There is no question that the training I received as a medical student has been the most important part of my education,” Mason Jr. said. “It made my education possible, in part, by the affordability at the time.”

Following military service, Mason Jr., an OB/GYN, returned to Danville and went on to practice medicine for 40 years. During this time, he delivered or assisted in more than 10,000 births and served as a faculty member at the Urbana campus. Mason Jr. retired from the Carle Clinic Association and Lakeview Medical Center in Danville in 1999, and his legacy of giving includes the establishment of an endowed scholarship for students in the College of Medicine, which was founded with the help of his late wife, Donna. Mason Jr. and Donna Mason also funded endowed and named scholarships for students interested in medicine at the Danville Community College and the Carle Foundation.

Mason Jr. attended the ceremony with his four children — Dr. Jeffrey Mason, Steve Mason, Michael Mason and Dr. John Mason. Jeffrey Mason earned his medical degree from the University of Illinois College of Medicine in 1986. Steve and Michael Mason, both attorneys, and John Mason, a dentist, all attended the University of Illinois at Urbana-Champaign.

Seeking the origins of fibromyalgia

By Sharon Parmet sparmet@uic.edu

Fibromyalgia — a disorder characterized by widespread musculoskeletal pain accompanied by fatigue, sleep, memory and mood issues — is difficult to diagnose, and patients’ pain is often dismissed as psychological because there has been no definitive test for it.

But in 2013, the FDA approved a test for the disease that will help more patients get diagnosed.

Dr. Frederick Behm, the Frances B. Geever Professor and head of pathology in the UIC College of Medicine, partnered with Dr. Bruce Gillis, CEO of EpicGenetics, to develop a test for fibromyalgia called the FM/a test. The test looks for protein and blood cell biomarkers in the blood and was developed based on findings from a clinical study led by Behm at UIC.

Several thousand people have taken the FM/a test since it has been available. Now, Behm and Gillis, together with colleagues at the University of California, Los Angeles, will look for genetic markers in the blood of patients who tested positive for fibromyalgia using the FM/a test. Behm will lead the genetic sequencing efforts at UIC.

The group hopes to enroll several thousand people in the study who test positive for fibromyalgia through the FM/a test, and compare their genetic sequences to those without fibromyalgia.

“As more and more patients take the test, we will have more samples to interrogate for genetic markers that may help us zero in on the cause and ultimately an effective treatment, for this debilitating disease,” Behm said.
MEETING THEIR MATCH
Match Day an emotional milestone for medical students

By Christy Levy — christyb@uic.edu

At 11 a.m. Friday, the UIC Forum erupted into cheers and happy tears. Together, members of UIC’s College of Medicine Class of 2018 opened envelopes that held the reward for their hard work in medical school. On Match Day, the fourth-year medical students learned where they will train for their residency programs for the next three to seven years.

“It’s four years of blood, sweat and tears all culminating into a really meaningful day and excitement for the next chapter of life,” said Christiana Shoushtari, who will train in internal medicine at Advocate Lutheran General Hospital in Park Ridge.

More than 30,000 students at medical schools nationwide were matched to residencies this year through the National Resident Matching Program.

At UIC, 162 students matched with residency programs, and the top specialty was internal medicine. About 33 percent of UIC students will stay in Illinois, and the top placements were UIC, University of Chicago and Baylor University.

“Today, you’ll see the reward of your dedication and labor,” College of Medicine interim dean Charles Ray told students before they opened their envelopes. “With you at the helm, the future of medicine is bright.”

“Residency will be tough, but worth every effort,” added Robert Barish, vice chancellor for health affairs.

Fifty-three students from the College of Medicine’s Rockford campus, 56 from Peoria and 24 at the Urbana-Champaign campus received their placements on Match Day.

Elizabeth Zavala cried and hugged UIC faculty members as she learned that she had received her first choice and would remain at UIC, training in family medicine.

“The faculty is tremendous, the diversity and patient population are important to me — UIC is just a leader in family medicine,” she said.

Katarzyna Rojek and Trevor Thompson opened their envelopes together and were thrilled to learn they will both complete internal medicine residencies at the University of North Carolina Medical Center. A couple since the first year of medical school, they had requested to match together.

“We applied on a whim, but we just fell in love with Chapel Hill,” Rojek said.

Arron Cole matched with his first choice: otolaryngology at NewYork-Presbyterian, a hospital affiliated with Cornell and Columbia universities. Cole said his training at UIC has prepared him well for his residency program.

“UIC really puts you in the field — we’re in the trenches in a lot of ways,” Cole said.

He’s ready to begin the next stage of his medical career.

“This is the first time it’s really starting to feel real,” he said. “And it’s super exciting.”
Algorithm shows differences between nurse, doctor care

By Jackie Carey — jmcarey@uic.edu

A multidisciplinary team of UIC researchers has published the first quantitative study on the divergent scopes of practice for nurses and doctors. The study uniquely leveraged computer science technology to compare individual-level patient care provided by nurses and doctors using information routinely documented in the electronic health record.

The researchers analyzed the electronic health records of 58 randomly selected patients who had a medical diagnosis of heart failure and sought care at a single academic medical center over the course of eight years. Each health record included a physician discharge summary, and nursing plans of care were created for the study using the information found in the discharge report.

A computer algorithm developed at UIC was used to identify the key biomedical terms used in each summary and to link synonyms or related terms via a graph traversal — a network representation that shows the integrated relationships of language and health terminology. Barbara Di Eugenio, professor of computer science in the College of Engineering, led the development of the algorithm.

The researchers found that only 26 percent of patient records showed an overlap in terms. On average, only four terms between the professions were related to the same concept. Physicians typically used about 27 terms and nurses about 18 terms.

“We’ve created a more unified picture of health care professionals’ perspectives on their patients,” said corresponding author Andrew Boyd, assistant professor of biomedical and health information sciences in the College of Applied Health Sciences.

Previous studies on this topic have been limited by their reliance on qualitative, observation-based data collection or costly survey methods — ours is the first to objectively measure the scope of practice when nurses and doctors care for the same patients.”

Co-author Karen Dunn Lopez, assistant professor in the College of Nursing, said the findings help to illustrate how nurses and doctors focus on different aspects of patient care.

“Patients who are hospitalized need hands-on nursing care in addition to the treatments ordered by a physician,” Lopez said. “This is the first evidence of its kind that illustrates how the scope of nursing practice runs parallel to, but independent of, ‘doctor’s orders.”

Some of the common terms for doctors were highly technical, including “decreased translucency” and “radiographic examination abnormal,” where nursing terms were more likely to focus on symptoms and responses to illness, such as “acute onset of pain.” While the researchers did not expect the language to be identical, they were surprised to see such significant differences emerge based on documentation review alone.

“The collaboration between nurses and doctors is unique in a modern setting in which multiple nurses work with multiple doctors over the course of the numerous shift changes,” Boyd said.

“Because providers are changing, the dynamics of collaboration are also changing — this underscores the importance of the electronic health record as perhaps the single most important communication tool used to coordinate care across disciplines in hospitals today,” Boyd said. “As the algorithm used in the study can be universally applied to any health record, it has incredible potential for identifying gaps in care and even improving quality and quality reporting.”

For example, Boyd says, hospital metrics typically focus on physician care, not nursing care. “This study offers foundational evidence that quality reporting may be more reflective of care and patients’ experiences if it expands to equally include nursing care documentation,” Boyd said.

Lopez agrees and views the findings as proof that there is a need for detailed nursing documentation.

“Without documentation from nurses, health records only show part of the whole,” Lopez said. “I hope this study is viewed as a first step in identifying how the combination of nursing care and medical care work together to improve patient outcomes.”

The findings are published in the International Journal of Medical Informatics. Additional co-authors on the study are Camillo Lugaresi, Tamara Macieira, Vanessa Sousa, Sabita Acharya, Abhinayaa Balasubramanian, Khawlah Roussi and Michel Burton from UIC; Yves Lussier and Jianrong Li from the University of Arizona; and Gail Keenan from the University of Florida.

Are you involved in an east-west collaboration? Email christyb@uic.edu and we may feature your story!
New compound may stop bacteria from causing strep, scarlet fever

By Jackie Carey — jmcarey@uic.edu

A study published in the *Journal of Biological Chemistry* is the first to describe a signaling pathway that affects communication — a process called quorum sensing — between streptococcus bacteria cells. This type of bacterium is responsible for illnesses like strep throat, scarlet fever, and some cases of soft tissue infections and pneumonia. In extreme cases, or when bacteria become resistant to antibiotics, these common but serious infections can lead to death.

The UIC researchers who wrote the paper have been studying streptococcus bacteria and have hypothesized that quorum sensing pathways are ideal drug targets for manipulating bacterial activity and suppressing virulence.

“Quorum sensing is how bacteria regulate their behavior as a collective,” said corresponding author Michael Federle, associate professor of medicinal chemistry and pharmacognosy in the UIC College of Pharmacy. “This social regulation may provide many benefits to bacteria and, in the case of bad bacteria, may help promote survival and help defend against the immune system.”

That is why Federle and his colleagues in the UIC Colleges of Medicine and Liberal Arts and Sciences have worked together to develop a tool to help study the quorum sensing signaling pathways. The technology allows them to easily monitor specific gene activities and whether chemicals or other conditions affect gene expression.

“Dr. Federle’s interest in quorum sensing dovetailed nicely with our interest in developing new ways to make nitrogen-rich heterocycles from aryl azides,” said Tom Driver, professor of chemistry in the UIC College of Liberal Arts and Sciences. “Once Dr. Kiira Ratia, a collaborator from the Research Resources Center, identified an N-heterocycle hit, it was easy to bring our two areas of expertise together thanks to previous collaborations facilitated by the UICentre for Drug Discovery, a campus-wide academic drug discovery initiative.”

Using this innovative technique, the UIC scientists have unlocked part of the communication process and identified a small molecule that promotes quorum sensing in streptococci. This molecule stabilizes the chemical signal — called a pheromone — transmitted between cells. More specifically, the compound works by blocking the enzyme that would otherwise degrade the pheromone before it can deliver a message, thus promoting its ability to act as a signal.

“We identified a molecule that disrupts inhibition of signaling,” Federle said. “Now that we identified this pathway and this chemical compound, we can look further for ways to manipulate quorum sensing and even silence the communication between cells.”

By silencing this communication, Federle says it might be possible “to convince bacteria to remain in a non-hostile state,” something he considers vital in the face of rising antibiotic resistance in society. “We’re losing the war with bacteria,” he said. “Every antibiotic we’ve come up with has some level of resistance in nature. We need a way to stop bacteria before they become a threat and require treatment.”

Federle said this is analogous to finding a diplomatic solution or mediating a conflict before it causes harm.

Driver said he is happy to see that science from his lab is contributing to translational research. “As chemists, we typically focus on designing new reactions, but this collaboration is one in which we are particularly interested because the potential it has to effect health outcomes,” Driver said.

The National Institutes of Health (grants AI091779 and AI125452) and the Chicago Biomedical Consortium, with support from the Searle Funds at the Chicago Community Trust, funded this study, which was co-authored by Driver, Tiara Perez Morales, Kiira Ratia, Duo-Sheng Wang and Artemis Gogos.
MARCH 22
SPECIAL EVENT

THE STATE OF OUR WATER: AN OVERVIEW OF THE MOST CRITICAL ISSUES FACING WATER IN ILLINOIS
Speakers with backgrounds in science, government and nonprofits will provide expert updates on water supply planning, water pollution, water infrastructure, water conservation, and more.
8 a.m.–1 p.m. / Student Center East

MARCH 21
CONCERT

JAMEY AEBERSOLD JAZZ CONCERT SERIES
Featuring the Eric Schneider Quartet and presented by the UIC School of Theatre & Music.
7:30–9:30 p.m.
Recital Hall L285
Education, Theatre, Music & Social Work Building

MARCH 22 & APRIL 13, 25
SPECIAL EVENT

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.
March 22: 3–4 p.m., 139 College of Nursing
April 13: Noon–1:30 p.m., Room 1-470 Daley Library
April 25: 3–4 p.m., Women’s Leadership and Resource Center, 1101 W. Taylor St., third floor

MARCH 23
DISCUSSION

RADIOLOGY READING ROOMS OF THE FUTURE
Matthew B. Schabath of Moffit Cancer Center discusses “Radiomics in Lung Cancer Precision Medicine.” Lunch will be provided.
Noon–1 p.m.
765 Neuropsychiatric Institute

APRIL 3
LECTURE

VELAZQUEZ, AESOP, AND WAR
Lecture by T.J. Clark, professor emeritus of art history at the University of California, Berkeley, and 2017-2018 Institute for the Humanities Visiting Fellow. Sponsored by the Institute for the Humanities.
4–6 p.m. / Institute for the Humanities, lower level, Stevenson Hall

APRIL 3
LECTURE

VOICES
Lecture by artist Sky Hopinka.
6–7:30 p.m.
Gallery 400
Art and Design Hall

APRIL 4
SPECIAL EVENT

THE STATE OF UIC ADDRESS
UIC Chancellor Michael Amiridis will discuss UIC’s accomplishments, current challenges and future plans to be Chicago’s premier public research university.
3:30–4:30 p.m. / UIC Forum
RSVP, bit.ly/2Do8Tli

APRIL 6–14
EXHIBIT

AS WE RECOMPOSE
Gallery 400 exhibit features work from MFA students Daniel Haddad Troconis, Sarah O’Neil, Jennifer Webster, and Emme Williamson.
Exhibit Hours: Tues.–Fri.: 10 a.m.–6 p.m.; Sat.: Noon–6 p.m.; and by appointment

gallery400.uic.edu

Send information about campus events at today.uic.edu/submit-an-event
Researchers investigate the role of arsenic in the development of diabetes
By Sharon Parmet — sparmet@uic.edu

A five-year, $2.7 million grant from the National Institute of Environmental Health Sciences will help UIC researchers answer basic questions about the role of arsenic in the development of diabetes and examine the mechanisms by which selenoproteins — found in the human body in 25 different forms — counter the effects of arsenic.

Diabetes is a metabolic disease characterized by either a lack of adequate insulin or insulin resistance, which can cause dangerous spikes in blood sugar levels, as well as long-term complications such as blindness, kidney failure, amputations and cardiovascular disease. It is projected that diabetes will affect more than 693 million people globally by 2045.

Recent evidence has implicated environmental pollutants, including arsenic, in the development of diabetes, but little is known about how arsenic exerts this effect.

Arsenic currently contaminates drinking water sources used by more than 100 million people globally. More groundwater sources are expected to be affected by arsenic due to fracking, which produces arsenic-tainted waste-water that can seep into underground aquifers, explained Dr. Robert Sargis, assistant professor in the division of endocrinology, diabetes and metabolism in the UIC College of Medicine and principal investigator on the grant.

“We really need to know how arsenic affects the cells that produce insulin in the pancreas and identify factors that might counteract arsenic, such as selenoproteins, which we know have a protective effect, but what we don’t know is exactly how they do this,” he said.

Sargis and colleagues will use the grant to examine how arsenic behaves in pancreatic beta cells — the cells that produce insulin. They will also look at how arsenic exposure affects mice that selectively lack selenoproteins in their beta cells. Using synchrotron X-ray fluorescence microscopy, they will map the locations of arsenic and selenium in beta cells.

“By looking at the locations of these two players in beta cells at very high resolution, we should be able to learn more about how arsenic poisons beta cells and how selenoproteins protect or mitigate the damage caused by arsenic in these cells,” Sargis said.

The researchers will also examine the function of a specific selenoprotein implicated in an increased risk for diabetes — glutathione peroxidase — to determine how it impacts arsenic-induced beta cell dysfunction.

Finally, they will examine whether selenoprotein polymorphisms — differences in the DNA that code for these proteins — might alter the impact of arsenic on beta cells and overall metabolism in mice.

“If our studies find that there is a specific selenoprotein polymorphism that causes an increased risk for diabetes, and if we later find that polymorphism in a specific population, we could develop interventions to lower exposure to arsenic in these populations or develop interventions to boost good selenoproteins,” Sargis explained.

Other investigators on the grant include Alan Diamond, Dr. Brian Layden and Barton Wicksteed of the University of Illinois at Chicago; Marcelo Bonini of the Medical College of Wisconsin; Dr. Alexandra Dumitrescu and Manami Hara of the University of Chicago, and Kenneth Kemner of Argonne National Laboratory.

Robert Sargis (Photo Jenny Fontaine)
Reducing deaths from opioid overdoses
By Brian Tibbs — btibbs@uic.edu

The Illinois Department of Human Services estimates that 1,826 people died in 2016 from opioid related overdoses — an increase of more than 70 percent compared with 2013. The opioid crisis is a growing problem throughout the state, and across the nation, but the addiction can follow different pathways in different areas.

“Far and away, most overdoses and opioid-related overdose deaths in Illinois are now caused by heroin use, often in combination with potent synthetic opioids such as fentanyl and carfentanly,” said James Swartz, professor in the Jane Addams College of Social Work. “In states such as Tennessee or Ohio, it’s been more predominantly a problem of prescription opioids, but looking at the data in Illinois, it appears to be increasingly heroin/fentanyl.”

To combat this growing problem, Swartz has been working with the IDHS Division of Alcoholism and Substance Abuse on two aspects of the opioid epidemic in Illinois: reducing the number of deaths from overdoses and gaining a better understanding of the epidemiology of addiction in Illinois.

IMPROVING OUTCOMES FROM OVERDOSE REVERSAL
Naloxone is a substance that temporarily blocks the effects of opioid drugs and has proven successful in reversing opioid overdoses. For the last year, Swartz has been working on a project called “Illinois Prevent Prescription Drug/ Opioid Overdose Deaths.” In six Illinois counties known to have high numbers of opioid-related overdoses — Cook, DuPage, Lake, Madison, St. Clair and Will counties — the project has increased the availability of naloxone reversal kits, as well as training in their use.

Sites within these counties have come up with their own approach to implementing the project. Each site is also implementing unique interventions, such as increasing “warm hand-offs” of overdose survivors between the police and other first-responders and health care providers, to encourage increased treatment participation.

Swartz will analyze data collected from each site to determine best practices.

“Each site is almost like a unique laboratory, and we’ll be doing a careful examination of the data to see what practices are most effective for reducing overdoses and overdose-related deaths as well as use of opiates,” he said.

To help achieve that goal, Swartz will collaborate with the UIC Center for Clinical & Translational Sciences to create an Internet-based app that can be accessed on computers or mobile devices to capture information about naloxone administration from first responders and bystanders in the field.

“The project is being conducted under a five-year federal grant from the Substance Abuse and Mental Health Services Administration/Center for Substance Abuse Prevention, administered in Illinois by the Division of Alcoholism and Substance Abuse.”

THE EPIDEMIOLOGY OF THE OPIOID CRISIS IN ILLINOIS
Swartz is also conducting an epidemiological analysis of data from a variety of sources.

“I’m trying to collect data from as many sources as I can to help us understand how the State of Illinois can best direct its resources to reduce opioid overdoses and use,” he said.

“For example, the state has epidemiological data on the general population, but it has never been examined side-by-side with data from the criminal justice system, for people screened as they enter prison. We’ve also never looked at veterans, and we really don’t have comprehensive data for the LGBTQ communities.”

Swartz added that he would also like to include data collected by the Illinois Youth Survey. “They collect information on high school age youth, and we want to look at that because young people have one of the highest prevalence rates of nonprescription opioid use.”

A better understanding of the social factors that lead to opioid addiction is also needed.

“The social drivers can be very different. What drives it in Chicago communities is different than in DuPage county, for example, where people become addicted to opiates via a different pathway,” Swartz said.

He explains that a person might start by using a friend’s or family member’s prescription opioids, then transition to heroin if those become difficult to obtain. Another person might start by snorting heroin but then move to injection use to obtain a better high as tolerance develops.

“We don’t at present know the percentages of people who follow these different pathways,” he said, “let alone which pathway is more likely to lead to chronic use, addiction and high risk for overdose.”

Socioeconomic factors may also affect a person’s propensity for use and addiction.

“Many of our poorest neighborhoods in Chicago and in other parts of the state, often disproportionally composed of racial and ethnic minorities, have been especially hard hit by this epidemic,” Swartz said. “And we also know that chronic stress and trauma exposure increase the chance of developing an addiction. But addiction is by no means bounded by socioeconomic status or race. Everyone has some susceptibility to becoming addicted to these potent drugs.”

“The dean of Jane Addams College of Social Work, Creasie Finney Hairston, adds, “The lives of so many people are being devastated by the opioid crisis, often in communities where access to health services is very limited. As social workers, it is our responsibility to ensure that communities are made whole and well. Only through community well-being and health equity will we achieve social justice.”
Tim Johnson
Survey expert honored for service, leadership

By Brian Flood — bflood@uic.edu

Tim Johnson, professor of public administration, has been named the recipient of the Association of Academic Survey Research Organizations’ 2018 John M. Kennedy Achievement Award for his service and leadership to academic survey research.

Johnson, who has directed the Survey Research Laboratory in the College of Urban Planning and Public Affairs since 1996, was honored earlier this month during the group’s annual meeting in Los Angeles.

Johnson’s research has focused on measurement and nonresponse errors in surveys, as well as health behaviors in disadvantaged populations. Part of his investigation in the latter area has involved cultural variability in the processing of survey questions, which is often a factor that contributes to nonresponse and measurement errors.

The American Statistical Association named him a fellow in 2015 for his work exploring cross-cultural issues in survey research. Funding for his research has come from the National Institutes of Health, the National Science Foundation and the Robert Wood Johnson Foundation.

“Aside from Tim’s service and academic contributions to survey and public opinion research, he has been a source of wisdom to me and many others on how to navigate the often-difficult waters of managing a survey research organization,” said Ronald Langley, director of the University of Kentucky’s Survey Research Center. “Additionally, his mentorship of staff and students, who are regular co-authors on articles and conference presentations, shows his dedication to developing the future leaders in our profession.”

Johnson is a frequent presenter at conferences around the world and a sought-after expert on best practices and assessment methods related to designing, conducting and analyzing public opinion polls.

He also serves as president of the American Association for Public Opinion Research, a professional organization of public opinion and survey research professionals in the U.S., with members from academia, media, government, nonprofits and industry.

The Association of Academic Survey Research Organizations, which was established in 2008 to support and promote excellence in survey research conducted in academic settings, is made up of more than 65 academic survey research organizations from across the country.

AWARDS

Elise Archias, assistant professor in art history, received the 2018 Frank Jewitt Mather Award for Art Criticism from the College Art Association for her book, The Concrete Body: Yvonne Rainier, Carolee Schneemann, Vito Acconci. The book examines the 1960s performance work of three New York artists who adapted modernist approaches to form for the medium of the human body.

Margarita Saona, professor and head of Hispanic and Italian studies, was awarded a 2017 Luces Prize for best poetry book in recognition of her book, Corazón de tinplate. The honor, which is based on reader votes for the year’s greatest creators in film, television, music, theater, gastronomy, literature and visual arts, is presented by Peru’s El Comercio newspaper.

Krishna Reddy, professor of civil and materials engineering, was named the winner of the 2018 Wesley W. Horn Award by the American Society of Civil Engineers. He was recognized for his paper, “Modeling Coupled Hydro-mechanical Behavior of Landfilled Waste in Bioreactor Landfills: Numerical Formulation and Validation.”

UIC’s Residence Hall Association took home two awards at the Illinois Residence Hall Association conference in February. UIC’s group won for best banner submission for a banner created by Brian Evans, and Lexi Rosenbery was named Illinois Communications Coordinator of the Year.

Joshua Muniz is the recipient of the William J. Grove Award, which is given each year to an outstanding M4 medical student in the College of Medicine. Students are selected for outstanding academic performance, both in the basic science and clinical years, and strong demonstrated leadership qualities in College of Medicine activities in community and professional affairs.

HONORS

Walter Podrazik, adjunct lecturer in communication, was elected to a three-year term on the board of directors of the Library of American Broadcasting, housed at University of Maryland-College Park. Founded in 1967, the library’s collection is widely recognized as the preeminent national repository for broadcast history, policy and tradition.

Dick Simpson, professor of political science, was a plenary speaker at the American Political Science Association’s Teaching and Learning Conference in Baltimore, Maryland, where his 2017 co-edited book, Teaching Civic Engagement Across the Disciplines, was featured.
Men’s basketball team advances to CIT quarterfinals

By Dan Yopchick — yopchick@uic.edu

UIC will continue its run in the CollegeInsider.com Postseason Tournament at 7 p.m. tonight when the Flames take on the Austin Peay Governors in Clarksville, Tennessee, in a quarterfinal match-up.

The Flames (18-15) are coming off a convincing 84-61 victory over Saint Francis in the opening round March 14. It was both the largest margin of victory and the most points scored in a postseason game in program history. Six UIC players scored in double figures, led Clint Robinson with 15 points in 18 minutes off the bench, matching a career high. Tarkus Ferguson added a double-double with 11 points and 10 rebounds.

The Flames have won seven consecutive road games since Jan. 4. It’s the longest road winning streak in program history since the 2003–04 season, which culminated in UIC’s most recent NCAA Tournament appearance.

Austin Peay (19-14), which plays in the Ohio Valley Conference, won its first CIT battle over Louisiana Monroe on March 15, 80-66. The Govs got 27 points from Averyl Ugba on 11-of-16 shooting from the floor.

After being picked 11th in the conference, Austin Peay finished third in its conference in the regular season and reached the semifinals of the conference tournament for the second time in three seasons. Ugba is averaging 15.8 points per game, and Terry Taylor has been adding 15.1 points.

Watch the quarterfinal game online at WatchCIT.com

Softball player receives award from White Sox

By Jenn Zoellick — jennz@uic.edu

UIC softball’s Karissa Frazier escaped the cold recently with a trip to Arizona, where the Chicago White Sox presented her with the Roland Hemond Award. Frazier received the award for her outstanding efforts with Gift of Life.

Frazier, a redshirt junior in public health, spent a day at the White Sox Spring Training home, Camelback Ranch. She was given a personalized jersey, treated to a tour of the facilities and more.

“It was such an incredible experience,” Frazier said. “I was blown away by the entire Chicago White Sox organization’s hospitality, class and kindness. I got to meet some incredible people including the legendary Roland Hemond himself, which was a huge honor.”

Frazier also met White Sox manager Rick Renteria and threw out the first pitch before sitting back to enjoy the preseason game against the Los Angeles Dodgers.

“Mike ‘Kash’ Kashirsky caught my first pitch and showed me true, genuine kindness throughout the weekend,” she said.

The Chicago White Sox created the Roland Hemond Award to honor those who are dedicated to bettering the lives of those around them.

Frazier earns the distinction for her dedicated involvement with Gift of Life, a public bone marrow and blood stem cell registry. Since becoming a campus ambassador in September 2016, the pitcher has swabbed more than 1,000 individuals for the registry and has gone to great lengths to facilitate drives and raise awareness.

Friday, March 23
Baseball vs. Oakland
4:05 p.m.
Curtis Granderson Stadium

Saturday, March 24
Baseball vs. Oakland
2:05 p.m.
Curtis Granderson Stadium

Sunday, March 25
Baseball vs. Oakland
12:05 p.m.
Curtis Granderson Stadium

Tuesday, March 27
Baseball vs. NIU
4:05 p.m.
Curtis Granderson Stadium

MORE SPORTS AT uicflames.com