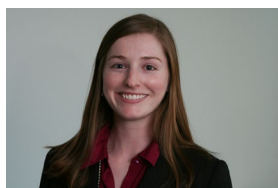


## A Message from the International Health Team



**Susan Helfrich, MBA, RN, BSN**  
Program Director, International Health

In my role as Director of our International program, I've had the pleasure to meet many of you and look forward to the upcoming months to build and strengthen all our relationships. We thank you for entrusting your patients to us, and we remain highly committed to providing excellent care. In the last several weeks we have had some changes in our department along with some significant challenges in the world but this will not stop us from being connected to our patients and our partners. We are a strong, cohesive group and will get through this together!



One of the changes in our department is with our management team. I'm delighted to introduce you to **Ms. Lindsey Kreutzer**, our new Senior Practice Manager. Lindsey joins us from a Manager position in Quality at Northwestern Medicine where she has led many quality projects in our health system to help optimize clinical operations. She is enthusiastic to meet you all after she joins us in early May. Lindsey has an educational background in international studies and global health.

She is eager to start her new role and apply her background in quality to our international team and the patient experience. We are excited to have her on our team.

As you may know, we bid Laura Jaros, our former Senior Practice Manager, farewell as she has been promoted into a Program Director role in the Brain Tumor Institute at Northwestern Medicine, one of the world's leading centers for brain and spinal cord care and brain tumor research.

As we continue to expand, we are very excited to introduce you to **Ms. Jessica Morrissey**. Ms. Morrissey will be leading international relations for Canada, Latin America and Asia and Elizabeth Crane will focus exclusively on the Middle East. Jessica has a strong background in international relations having previously led the development and growth of the international program at a NCI designated cancer center and most recently the build and opening of a private healthcare system in China.



We face unprecedented times as a health care system while Northwestern Medicine physicians and staff, our International Team, and friends and family must cope with a challenge none of us could have imagined months ago. Northwestern Medicine helps care for some of the most complex problems and conditions in medicine. Since we value our relationship with you, we thought you would want to know how we are responding to the crisis, both for our patients and our caregivers on the front lines. We are also passing along some suggestions for your own well-being during this time of stress.

Beginning in mid-March, we began focusing all our resources on COVID-19. Many of the outpatients have been redirected to "e-visits", or appointments have been postponed when possible. Our surgeons continue to perform urgent and emergent operations. We closely follow the news, and communicate with our friends and contacts around the world, to try to understand the time course when this will resolve. The next 2-3 weeks will be critical as we try to "flatten the curve" and reduce spread of the virus in the region and the U.S. which will reduce the drain on NM hospital resources.

### In This Issue:

- Messages from International Health: Ms. Susan Helfrich, Dr. Jared Robins, and Dr. Daniel Derman
- Dr. Karla Satchell, PhD working to stop COVID-19
- Colon cancer rises among the young: Northwestern doctors try an old tool in a new way to help
- COVID-19 drug trial launches at Northwestern Medicine

Of course, as we fight this pandemic, we remain committed to our international partners. We will continue to provide second opinions for patients and support for physicians while we prepare for a high volume of patients as we return to normal operations. We appreciate the opportunity to continue partnering with you and your colleagues to ensure that your patients receive the highest quality medical care available both in your country and ours.

Our leadership team is regularly communicating and providing updates, such as the information below which includes tips on how to cope with the unknowns, and the steady stream of concerning news. In addition to social distancing, hand washing, and isolating I thought you or your family might gain some insights from this as well.

#### Friends and Family Resources

- Coping Tips-additional resources compiled to help you and your family cope with COVID-19 outbreak.
  - [Mental Health and Coping with COVID-19](#)  
Centers for Disease Control and Prevention, 2020

#### Things you can do to support yourself:

- Avoid excessive exposure to media coverage of COVID-19.
- Take care of your body. Take deep breaths, stretch or meditate. Try to eat healthy, well-balanced meals, exercise regularly, get plenty of sleep and drink plenty of water.
- Make time to unwind and remind yourself that strong feelings will fade. Take breaks from watching, reading, or listening to news stories. It can be upsetting to hear about the crisis and see images repeatedly. Try to do some other activities you enjoy returning to your normal life.
- Share your concerns and how you are feeling with a friend or family member. Maintain healthy relationships.
- Maintain a sense of hope and positive thinking.

Please always feel free to reach me for any issues or concerns. My email is [susan.helfrich@nm.org](mailto:susan.helfrich@nm.org)

We are grateful for our relationships with you and are thinking of you during this difficult time. Be safe and stay well!



**Jared C. Robins, MD**  
Medical Director, International Health

I am excited about joining the International Medicine team and look forward to meeting with each of our International partners. Many of our partners may know me because, as a fertility doctor, I have already been taking care of many international patients during my seven years at Northwestern. As Chief of Reproductive Medicine at Northwestern Medicine, I have established several protocols to perform second opinions on international patients and have treated many of these patients in Chicago. I am looking forward to extending this experience to help expand Northwestern Medicine's International Program throughout the globe.

I have joined the team during an unprecedented world crisis. Obviously, the Covid-19 pandemic is having a major impact on how Northwestern Medicine conducts its business. It is crucially important to Northwestern leadership and to our International Team that we remain close with our global colleagues during these stressful times. Covid-19 is taking a significant toll on all our health systems. Our team is working to find ways that we can share information and experience on battling this virus together. Please feel free to reach out to me if you have ideas or suggestions. We truly appreciate the trust that you place in Northwestern Medicine to care for your patients. I hope to continue to build on that trust as we continue to grow. I hope to hear from you soon.



**Daniel Derman, MD**  
President, International Health  
Chief Innovation Office and Sr. Vice President, Northwestern Memorial HealthCare

I am thinking of you at this time. I hope you are well and safe. Please reach out to me if you need anything.

# Northwestern Medicine Leads an International Team of Scientists Investigating the Structure of the SARS CoV-2 Virus, the Virus that Causes COVID-19, to Understand How to Stop it from Replicating



**Karla Satchell, PhD,** **Principal Investigator** for the Center for Structural Genomics of Infectious Diseases and professor of Microbiology-Immunology at Northwestern, is leading the international team of scientists' investigation.

A potential drug target has been identified in a newly mapped protein of SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19). The structure was solved by a team including Northwestern University Feinberg School of Medicine (Principal Investigator), the U.S. Department of Energy's (DOE) Argonne National Laboratory, University of Chicago, and the University of California, Riverside School of Medicine (UCR).

The scientists said their findings suggest drugs that had previously been in development to treat the earlier SARS outbreak could now be developed as effective drugs against COVID-19.

The protein Nsp15 from Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is 89 percent identical to the protein from the earlier outbreak of SARS-CoV. Studies published in 2010 on SARS-CoV revealed that inhibition of Nsp15 can slow viral replication. This suggests drugs designed to target Nsp15 could be developed as effective drugs against COVID-19. The structure of Nsp15 was [released](#) to the scientific community March 3 on the RSCB Protein Data Bank.

Northwestern is the lead site for the international center that comprises eight institutions. The center has committed resources across all eight sites since the news of the new coronavirus was made public in January. The structure of Nsp15 is the first structure solved by the center.

Northwestern's Center for Structural Genomics of Infectious Diseases is funded as a contract from the National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health (NIH), in part to serve as a response site for structure biology in the event of an unexpected infectious disease outbreak.

**Satchell and her team are well prepared for the challenges that come with developing drugs to fight the virus. The Center for Structural Genomics of Infectious Diseases at Northwestern, established in 2007, has mapped more than a thousand parts of lethal bacteria and viruses in three dimensions, exposing an intimate chemical portrait of diseases. This view offers scientists a window into the bacteria or virus' vulnerabilities enables them to create drugs to disable it or vaccines to prevent it.**

# As Colon Cancer Rises Among the Young, Northwestern Doctors Try an Old Tool in a New Way to Help

*Article excerpts from the March 20, 2020 Chicago Sun-Times*



**Sean O'Reilly** faces a tough fight but says: 'Negativity leads nowhere. I don't view this as a death sentence anymore, I view it as: I'm going to beat it, or I'm going to live with it.'

"In August 2017, Shannon Harrity found out she was pregnant. Two days later, her husband Sean O'Reilly learned he had metastatic cancer. It had started years earlier in his colon, then spread to his liver. O'Reilly's previous doctors had puzzled over his stomach problems, his bloody stools. Maybe hemorrhoids, they speculated. He was so young — in his late 30s. Too young to bother with a colonoscopy. Too young to worry about what the Northwestern doctors found — colon cancer, Stage 4.

Chemotherapy started two weeks later. In a second irony, while he was at Northwestern Memorial Hospital's Lurie Comprehensive Cancer Center for his first chemotherapy session, as the virulent chemicals were dripping into his veins, his wife was across the street at Northwestern's Prentice Women's Hospital, learning she was carrying twins.

His wife wishes they had more aggressively pursued answers. "Sean had symptoms for years," says Harrity, crying. "He went to the doctor, time after time, and was told: It's nothing, don't worry about it. They were using language that made us believe they were taking this seriously. But they weren't.

"This could easily have been caught much sooner, and it's important that people know these types of symptoms. He was fatigued. He had blood in his stool. Several times he said, 'Should I go have a colonoscopy?' and the doctor said, "Don't worry, it's not necessary."

By the time Dr. Ryan Merkow, a surgical oncologist at Northwestern Memorial Hospital saw him he said, "We'd run out of options. He'd been through every type of systemic chemotherapy. Its ability to control his liver disease was becoming less effective."

Merkow decided to treat Sean with a hepatic artery infusion pump, an older treatment but with new types of anti-cancer drugs, it is being revived as a way to concentrate the chemo directly at the site of the cancer. Merkow said, "There are only three or four hospitals in the Midwest using it. We're the only ones using it in Illinois."

"Putting the pump in, we can have higher doses, more intensive therapy," Merkow says. "The drug is completely metabolized in the liver, so there really are no side effects from chemotherapy."

"We've achieved disease control," Merkow says. "He's had a very good response. In these situations, where we can't remove everything, we convert it into a chronic disease, trying to achieve the best possible outcome."

O'Reilly hasn't missed a day of work. His twins Madelyn and Vivian are now almost 2 — one named for a particularly friendly staffer at Northwestern — and are "curious and rambunctious girls."

"In a way, it's a blessing," he says. "Because you are living a life so much deeper than it ordinarily would have been. When you're living in the present more, you really understand and value every moment you have with your children. You're not taking them for granted. You are living in the here and now."

# COVID-19 Drug Trial Launches at Northwestern Medicine

*Remdesivir was developed for Ebola and has antiviral activity for coronaviruses*



**Dr. Babafemi O. Taiwo**, Chief of Infectious Disease in the Department of Medicine at Northwestern

Northwestern Medicine has enrolled its first participants in a [new international clinical drug trial for COVID-19](#). The drug being tested is remdesivir, a novel anti-viral drug developed to treat Ebola and which has subsequently been found, in animal models, to have antiviral activity against coronaviruses including MERS and now SARS-Cov-2, the virus that causes COVID-19 disease.

The randomized, placebo-controlled, double-blind trial will evaluate the safety and efficacy of the drug in hospitalized adult patients diagnosed with COVID-19.

The first Chicago-area patient to receive the drug at Northwestern Memorial Hospital is an 89-year-old man in intensive care. “His family was very excited about it,” said principal investigator Dr. Babafemi Taiwo, chief of infectious diseases at Northwestern University Feinberg School of Medicine and Northwestern Medicine.

“I think it’s fantastic this trial is off the ground,” Taiwo said. “It puts something in our hands that we can investigate in a rigorous fashion in the quest for therapies that may be effective and widely adopted to treat the pandemic.”

Before the clinical trial, remdesivir was used to treat a handful of patients on a compassionate access program basis. “It’s too early to say if there is an effect because some of them are still receiving the treatment,” Taiwo said.

Participants in the trial receive either a placebo drug or remdesivir intravenously once a day for a maximum of 10 days. If a patient recovers sooner, the treatment is stopped. The patient will be evaluated for 30 days. About 50 sites around the country will enroll 440 patients in the trial.

While the study will last three years, the results may come in sooner. “I think we’ll get our results soon because the enrollment pace is very quick,” Taiwo said. “I hope that in a matter of months, we’ll be able to tell whether this therapy is effective or not.”

In four studies of healthy people and participants in Ebola trials in Africa, the drug led to elevation of liver function test in some recipients, meaning the liver has to be carefully monitored. This effect was transient. Other participants had some abnormality in blood clotting tests and gastrointestinal side effects. None of these were serious.

The trial is sponsored by the National Institute of Allergy and Infectious Diseases/Division of Microbiology and Infectious Diseases of the National Institutes of Health.