

Laying the Foundation for Big Changes

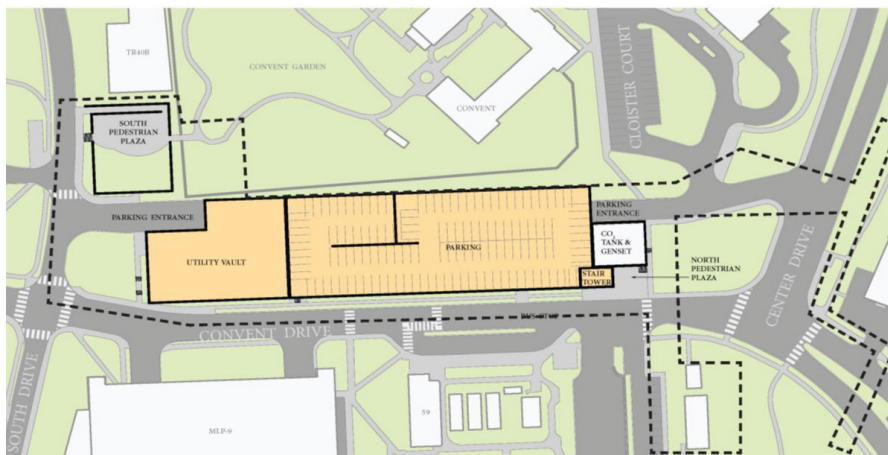
Construction Work Strengthens Hospital Infrastructure

NIH's Office of Research Facilities (ORF) has started work on three new projects: the installation of new electrical duct banks and relocation of critical infrastructure, the addition of a new utility vault and the construction of a new parking garage. The duct bank and utility vault will support equipment essential to hospital operations, while the new parking garage will relocate almost 800 spaces from the parking garage below the Building 10 Ambulatory Care Research Facility (ACRF)

What's Happening Now

The walkways and pediatric play area are making way for some new developments. Adjacent to the hospital's West Laboratory Wing, crews are working on electrical duct banks to bring in power to the hospital. Duct banks are conduits that provide pathways and protection for electrical wiring. Usually installed underground, they protect power cables from damage and consolidate wiring, which can streamline future construction work.

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Schematic site plan of the utility vault and new parking garage.

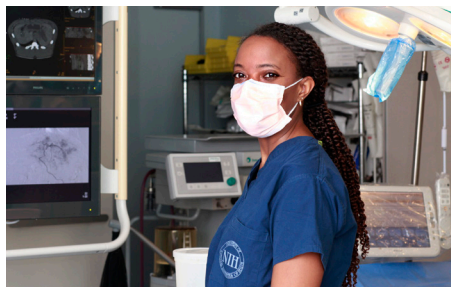
The Medical Research Program Thrives Through the Pandemic

Students navigate challenges for a rewarding experience

This year the NIH Clinical Center has overcome many obstacles to continue providing outstanding patient care and world-class research. The Medical Research Scholars Program (MRSP), NIH's year-long research immersion program, has been able to adapt and thrive despite the international health crisis.

The MRSP is a residential research program for medical, dental and veterinary students aiming to become clinician-scientists. But how does a residential program need to change during a pandemic? And why would a student take the risk to put medical school on hold, move to a new city and work in a hospital?

Sheridan Reed chose to participate in the MRSP between her third and fourth years at Michigan State University's College of Human Medicine, and it turns out that it was more rewarding than she had even imagined.



Medical Research Scholar Sheridan Reed in the Bradford Wood radiology lab.

Reed explained that her choice to take a year off of medical school was met with some gentle questioning from her peers. There is a momentum toward finishing a program that takes some discipline to resist against. "Taking the time for introspection is incredibly important in research," she said.

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The Clinical Center Celebrates Black History Month

Hospital COO emphasizes opportunity, communication



February is African American History Month or Black History Month - commemorating leaders, achievements and the deep-rooted history of African and Black Americans in the United States. It is also an opportunity to understand, reflect and work together to create a better, brighter and safer future for next generations.

Pius Aiyelawo, FACHE, who serves as Chief Operating Officer of the NIH Clinical Center, took a few moments to share his thoughts on what Black History Month means to him.

"Black History Month is truly about awareness and the challenges and struggles of African-Americans," said Aiyelawo, "Second, it's about celebrating the accomplishments and achievements of African Americans and its influence" as well as providing a brighter future for the younger generation in America. The result and impact of the accomplishment of African American trailblazers were especially inspiring to Aiyelawo.

With over 27 years of experience in the U.S. Navy and 30 years of federal service overall, he has seen many reforms and policies impact the workforce and livelihood of Black Americans. Two of the biggest changes Aiyelawo has seen is the increased opportunities for leadership positions in healthcare and the Affordable Care Act passed by Congress in 2010 which assisted millions in gaining health insurance. This is important as African Americans experience health disparities due to factors such as status and accessibility and are generally at higher risk for heart diseases, stroke and cancer, among other diseases or illnesses.

2020 was a challenging year with managing a research hospital through the COVID-19 pandemic, national racial justice protests and a tendency throughout America for people to yell at instead of talk to one another. But in a crisis, good leaders find opportunities.

In the Clinical Center, COVID-19 shifted priorities in the hospital: telework was implemented NIH-wide and leaders were tasked with motivating and inspiring staff to continue working together to serve the NIH/CC mission. As an African American leader, Pius believes racial injustice needs to be condemned as it still happens today and we must be able to find ways to engage each other and the community at large. "To be able to allow them [staff] to vent also to be upset and heartbroken and more importantly to be able to reaffirm our commitment at the NIH and the NIH Clinical Center...that we will always strive to cultivate a workplace that values equality, diversity and inclusiveness, which are our priorities here."

A diverse and inclusive work environment is key to Aiyelawo as a healthcare leader. No matter what grade or job title you may have, every single person contributes to the mission. Treating everyone with dignity and respect is a priority as a leader and individual in the workplace.

"We have to be able to respect different points of view and the communication styles that are very different from our own because when we do that, we will enhance our overall inclusiveness and create a positive workplace environment that people will be very much want to be part of." Respect should also happen when no one is watching, "We got to do that 24/7 not only when people are watching you, but also when people are not watching you, always treat individuals with dignity and respect," said Aiyelawo.

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Reed explained that after being accepted, the first six weeks of the program were entirely online. Her school had already transitioned to a half remote, half clinical program – so she was somewhat accustomed to working from home but it was new to integrate into a team virtually. Everyone was welcoming and friendly but it was markedly different to meet new people over a video platform.

Reed had graduated with a degree in biomedical engineering and had worked in medical research for three years before starting medical school. She wanted to join the MRSP in part because it is one year of dedicated focus – without having to worry about your clinical rotation or the next test, licensing or any of the myriad of other obligations of medical school.

“I wanted to explore research with the clinical context that I now have. Things look differently, you approach problems differently and you ask questions differently after having more medical knowledge/experience.”

Reed was not sure exactly what specific type of research she wanted to do, and NIH has an enormously diverse body of work to consider. She did some self-reflection about the research that she could use more exposure to, as well as the work she had enjoyed in the past and began to miss some of the math and engineering she used to do. She emailed a number of labs and ended up joining the NIH Center for Interventional Oncology lab headed by Dr. Bradford Wood.

In the program, Reed has worked on a number of projects that combine her engineering background with clinical research, including a device that is worn by asymptomatic COVID-positive patients to help protect healthcare workers and other patients from transmission.

She has considered changing her professional focus because of her fantastic MRSP experience. “I personally think the program is amazing...The program truly made me realize how much I enjoy research and how innovative medicine can be. I am in an environment where my opinions and my questions and my ideas are treated with validity.” The Bradford Wood lab does a great deal of collaboration between

departments – which Reed explains is not a given in your traditional hospital, where different departments typically keep to themselves.

This sentiment was echoed by James Dickey - another MRSP scholar who is studying the transmission of infectious disease. Dickey felt the Clinical Center was less insular than in a typical university lab, leading to a sense of community. He described the atmosphere in the Clinical Center as unique, driven by people who are very excited and passionate about research.

Dickey is between his third and fourth years at the Medical College of Georgia and is studying the spatial distribution of SARS-CoV-2 aerosols in patient rooms with the Emerging Pathogens Section headed by Dr. Daniel Chertow. He had a positive experience working at Emory University's evolutionary microbiology lab for a year after finishing his undergraduate program and grew a great deal as a researcher. He later applied to the Medical Research Scholarship Program and is having an “absolutely positive experience, working with a fantastic group of smart, hardworking people.”

When asked how they felt about the Medical Research Scholarship Program, Dickey responded, “What you gain at NIH, it's invaluable. Taking a year off, prolonging graduation, is minor compared to the skills and insight...and the connections you can make through this program.” Reed added, “I one hundred percent endorse the program.”

-Daniel Silber



Medical Research Scholar James Dickey in the Chertow critical care lab.

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-Daniel Silber

Featured Studies from the NIH Clinical Center's Office of Patient Recruitment

NIH is looking for patients and healthy volunteers for hundreds of research studies

Researchers Looking at Asthma and Allergies in African Americans (Study 19-HG-0092)

People of African ancestry have a higher incidence of asthma and allergic diseases compared to other population groups. Researchers at the National Human Genome Research Institute are investigating whether there is a genetic cause for this. Understanding the role that genes play may someday lead to better treatments for these conditions. Consider volunteering, if you are at least 18 years of age and self-identify as Black, African, African American or African Caribbean—both healthy volunteers and adults diagnosed with asthma are needed. For more information, contact our Office of Patient Recruitment at 866-444-2214 or prpl@cc.nih.gov. Refer to study #19-HG-0092. (800-877-8339 TTY/ASII). <https://go.usa.gov/x7RXQ>

Learn more about this and other research, including Covid-19 studies, by visiting cc.nih.gov/recruit/index.html

Clinical Center Mask Portraits Inspire Researcher



Clinical Center Chaplain Cantor Mike Zoosman takes a look at the COVID Portrait Series artwork

In the early months of the pandemic, Dr. Maren Laughlin, Program Director with the National Institute of Diabetes and Digestive and Kidney Diseases, created the COVID Portrait Series, 25 portraits made from acrylic and fabric on canvas, as a tribute to resilience and community during the COVID-19 pandemic.

“At the beginning of the pandemic there was so much controversy and fear, and it struck me that the real heroes of the moment were the people that were just doing what they were asked to do in order to try and to protect each other's health.”

The minor task of wearing a mask inspired Dr. Laughlin to start working on a colorful art project that would reflect individuality, community and respect for each other's well-being. Dr. Laughlin reached out to friends and family and asked each to send a selfie with their face mask, and started painting a project that would take four months to complete.

Collaborating with friends and family recreated a sense of community by being able to “share our collective experience at a distance,” as actually visiting loved ones has been difficult during the pandemic.

Laughlin contacted the NIH Clinical Center's Art Program about displaying the portraits in the Clinical Center, in hopes that the art would bolster people's spirits. The hospital's art program usually features professional artists, but accepted this unique exhibit and its health-related message.

The portrait series is currently on view on the fifth floor of the NIH Clinical Center (near the staff asymptomatic Covid testing site) and can also be seen on Twitter by using the #MarenLaughlin hashtag. Dr. Laughlin encourages everyone to wear a mask and keep each other safe.

-Janice Duran

VIEW MORE ARTICLES ONLINE:

www.cc.nih.gov/ccnews



Dr. Frances Gavelli OREF Clinical Research Award

Office of Patient Recruitment seeks healthy volunteers

Covid-19 antibody study underway

Clinical Center News

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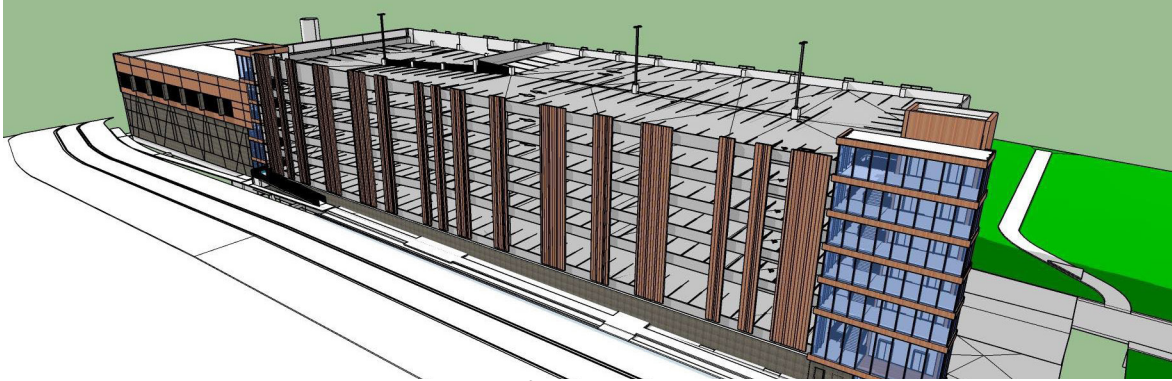
News, article ideas, calendar events and photos are welcome. Submissions may be edited.

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Clinical Center

Site preparations are also starting for the construction of a new Utility Vault and Patient Parking Garage.



Conceptual rendering of the utility vault and new parking garage.

The new utility vault will replace aging electrical equipment. The new vault will be a hardened concrete structure designed for blast resistance, which will reduce the threat risk to this critical lifeline for the hospital. Once completed, the vault will host electrical capacity and emergency generators capable of powering the entire Building 10 research complex. It will also be the new home for the clinical data center and ICU generators as well as carbon dioxide storage tanks currently hosted elsewhere on campus.

The new garage will allow NIH to shift some parking out of the ACRF. The ACRF, located in the middle of the hospital, was added to the Clinical Center in 1982 and houses an underground parking garage under the clinics and care areas. In the almost forty years since it opened, the garage has developed serious structural deficiencies.

Restoring the garage is expensive as work crews have to minimize the impact on hospital patients using the floors above.

The repurposed space could accommodate:

- 1. A consolidated freezer farm for biospecimens;**
- 2. A new location for high fidelity imaging equipment that would leverage the stable, vibration-resistant, below-grade area; and/or**
- 3. Relocating scientific and administrative supplies from other parts of the Clinical Center, freeing up space in a hospital currently filled to capacity.**

Vibrations from jackhammers and heavy equipment can affect surgeries and other sensitive procedures during

the day and keep patients awake at night. Shifting parking to a different location will solve this problem.

The new garage will be located to the west of the hospital, next to the new utility vault, and will connect to the Clinical Center by a pedestrian tunnel to keep visitors safe and avoid traffic. Planners expect construction completion by the spring of 2022.

The Office of Research Facilities anticipates using the new garage as a staging area during the construction of an addition to the hospital. When the addition is complete, some of the parking in the ACRF garage under the Clinical Center will shift into the new garage. And what would happen to the new space available under the hospital? ORF is studying options.



Conceptual rendering of the eight-story addition to the Clinical Center.

Future Developments

As the infrastructure of the hospital improves, there is a more ambitious long-term plan to address the needs of the Clinical Center.

Plans are in development to add an eight-story addition to the Clinical Center that will house the departments of Perioperative Medicine (surgery), Interventional Radiology, Radiology and Imaging Sciences and Laboratory Medicine. These departments involve some of the most advanced and technology dependent programs supporting NIH's research.

The addition would be located next to the hospital's West Laboratory Wing between the Clinical Center, Convent Drive and Center Drive. The new wing would include a below-grade Cardiovascular Intervention Program suite and, once construction is complete, existing NCI research labs would move to the new addition.

NIH is doing what it can to improve the Clinical Center's critical infrastructure now in the hope that bigger and better improvements are coming in the not-so-distant future.

For more information got to, <https://go.usa.gov/xsGhP>

NIHers rose to the Combined Federal Campaign challenge this year and made significant contributions to countless lives and causes.

Clinical Center employees generously contributed more than \$100,000 during this year's campaign. The Clinical Center Combined Federal Campaign (CFC) coordinators and keyworkers worked together to reach out to all hospital staff with reminders and encouragement.

The CFC campaign ran from September 21, 2020 to January 15, 2021. Clinical Center fundraising activities were all online, and included Halloween mask contests and Holiday outfit photo contests.

"This year was especially challenging, having to navigate and create a virtual campaign - yet through

appealing international recipes, hilarious outfit photo contests, you made it happen!" said CC Executive Officer Dan Lonnerdal in a message to the Clinical Center's CFC Core Team and Keyworkers.

Overall, NIH exceeded its 2020 CFC goal by raising more than \$1 million for local, national and international charities. NIH donated more funds in this year's campaign than any other agency within the Department of Health and Human Services. Furthermore, for the first time in NIH history, the goal was reached within the first eight weeks of the campaign.



Clinical Center Increases Support for Personalized Medicine

Plans to double hospital capacity by the end of 2022

While the patient census has been reduced during the pandemic, projects to improve the hospital have continued. A new addition to enhance the Clinical Center's ability to create personalized medical treatments has come online. A newly constructed facility for the Center for Cellular Engineering (CCE) has completed construction and is expected to be fully operational in late Summer.

The new facility is expected to help the CCE meet the increasing demand for customized cellular-therapy products and services that are needed for personalized treatments and represents the most recent expansion of the Clinical Center's Department of Transfusion



New Center for Cellular Engineering was built on the NIH Clinical Center Southeast patio as seen in this photo taken in 2019.

Medicine's growing capacity to support intramural cellular-therapy protocols.

NIH researchers have increased demand for cellular research including CAR-T immunotherapies and gene therapies to treat cancers and rare diseases, pluripotent stem cells to treat macular degeneration and therapies creating faster and more effective treatment for sickle cell and other diseases. With additional capacity, the CCE plans to move innovative therapies quickly and efficiently through the product life cycle.

The new facility is awaiting commissioning,



New Center for Cellular Engineering facility at the NIH Clinical Center.

performance qualification and an inspection. Once it has been approved, the Clinical Center will begin renovation on other CCE operations in the hospital to further modernize and increase capacity.

Currently, the Cell Processing Section staffs 11 active rooms for cellular engineering as well as laboratories to develop and characterize novel cellular products. The CCE anticipates providing 15 active cell development spaces by the end of 2021 and 22 operational areas by the end of 2022.

-Maria Maslennikov

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As a senior leader at the Clinical Center making decisions that impact thousands, Aiyelawo's leadership philosophy is "to listen, to learn and to lead." And he had some advice for new employees starting to work at the hospital: "I believe in treating each other with dignity and respect - our patients, fellow employees, visitors and others. Regardless of your position and where you sit at the Clinical Center, each and every one brings incredible value to the table and what we do daily contributes to our dual missions of safe healthcare delivery and clinical research. If you maintain that focus, you are going to be successful. I also believe listening up and down the chain of command definitely makes a big difference, including different perspectives, concerns, ideas and suggestions on how we accomplish our tasks."

"When I'm listening, I'm also learning from others as well...[W]e don't know everything. We don't know it all. We need to see ourselves as being teachable, as being learners and this is where humility comes into the equation."

-Janice Duran

Clinical Center Welcomes New Deputy Chief Information Officer

Sano brings IT, nursing experience to the job



At the end of 2020, the Department of Clinical Research Informatics (DCRI) added a new Deputy Chief Information Officer (CIO) and Chief of Clinical Informatics at the NIH Clinical Center. Jeffery Sano, DNP, MSN, RN-BC, assumed this role after serving as the

Director of Informatics at MedStar Washington Hospital Center from 2015 until 2020. Prior to that, he was a Clinical Informatics Specialist at MedStar, where he had also worked as a nurse in the Emergency Department and Intensive Care Unit.

"My goal in this role within DCRI is to utilize technology to promote patient safety, increase quality of care and enhance EHR usability in order to enhance clinical research and improve human health for everyone," said Dr. Sano.

The role also aims to ensure the hospital's clinical information systems work seamlessly and effectively in supporting staff as they care for patients and support NIH's research goals.

In addition, the Chief of Clinical Informatics represents DCRI in preparation for Joint Commission accreditation - an important role with an inspection visit expected in the summer of 2021. As the Chief of Clinical Informatics, Sano will provide general day-to-day supervision, management, guidance and administration for four IT development and maintenance teams.

Sano received his MS in Information Technology from Kettering University in 2006, an MSN from Walden University in 2013 and a DNP from the University of Alabama in Huntsville in 2018. Sano is board certified in Nursing Informatics (RN-BC).

CC Staff Discuss Black History



"Persons with diverse personalities, experiences and backgrounds may have different things to bring to the table when working together to achieve a common goal. I would caution against striving only for the appearance of diversity, and encourage

leaders to nurture diversity of ideas, perspectives and approaches. I also understand that representation is important. A new experience for me when I joined the faculty in the Clinical Center was that African Americans would bring their children to meet me, just to see a Black woman from Jamaica in a position like mine. It's both moving and a little sad for me to think that they would think of that as strange, since in Jamaica black doctors, lawyers and other professionals are the norm. But I am happy to be able to show those persons that race does not exempt you from achievement." - Dr. Kamille West, Chief, Blood Service Section, Department of Transfusion Medicine



"Black History Month is a call for reflection on all that our ancestors endured and overcame. It is a time to look introspectively and forward to the challenges still ahead of us with pride, patriotism and belonging. Every day I am honored to be an American and to help build a brighter future for

the next generations." - Bernard Harper, Chief, Materials Management and Environmental Services Department



"The reflection and celebration that comes with Black History Month (BHM), much like that of other cultural recognition months, creates awareness and opportunity for all people to learn about a past and progression, a marginalized

people of which they likely have little understanding or knowledge of, particularly in respect to their contributions to American history. I'm sharing two quotes I believe underscore the importance of BHM and really of understanding your own history as well as the importance of why others should understand that history:

"In recognizing the humanity of our fellow beings, we pay ourselves the highest tribute." - Thurgood Marshall

"A people without knowledge of their history, origin and culture is like a tree without roots." - Marcus Garvey

Ila Anita Flannigan, MHS, FACHE, Deputy Executive Officer, Clinical Center