

HENRY FORD

SYNAPSE

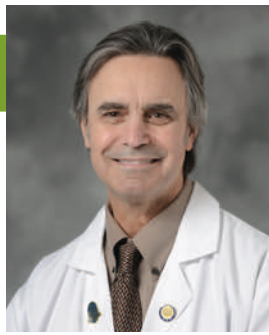
Neurosurgery

SUMMER 2020



A LOOK INSIDE

- COVID-19 Impact on Research
- Enhancing Spine Surgery Recovery
- Skull Base Tumor Case Study



Dear colleagues and friends,

ICUs at capacity. Triageing non-emergent surgical cases. Video visits.

These were some of our realities in southeast Michigan as COVID-19 cases swept the region. From our first cases in mid-March through mid-July, our state had recorded more than 71,000 positive cases and 6,000 deaths, with a disproportionate percentage hitting our key service areas within Henry Ford Health System. Many colleagues are finding themselves in similar situations as cases spike across the country, hitting urban-based academic neurosurgery departments especially hard.

Creating solutions for patients remains our priority. At the height of the surge at our flagship hospital in Detroit, we connected with other neurosurgical programs in the state that had a relatively low COVID-19 impact to facilitate transfers. By the end of July, with significant safety measures in place and reassuring texts, emails and letters to our patients, we had completed the backlog of postponed neurosurgical cases. Our refined COVID-19 treatment algorithm will lessen the impact of an anticipated second surge.

This issue of *Synapse* highlights some of our pandemic experiences to date. Notably, the long-term impact to neurosurgical research here at Henry Ford and globally remains unknown. Henry Ford hosts the world's second largest brain tumor tissue bank. The impact of samples banked during this spring's surge was significant.

Success during this pandemic will continue to rely on perseverance, best practice sharing and a healthy respect for the devastation this virus can cause. In my experiences with neurosurgical programs across the globe and in my new role as interim chair of the Henry Ford Department of Neurosurgery (see [related leadership article at right](#)), I know our collective commitment will rise above these challenges. As we look forward to our future, we will continue to push the boundaries of research and advanced patient care.

Jack Rock, M.D.

*Interim Chair, Department of Neurosurgery
Co-Director, Skull Base, Pituitary and Endoscopy Center*

Henry Ford leadership advancements

Dr. Steven Kalkanis appointed CEO of the Henry Ford Medical Group; Dr. Jack Rock named interim Neurosurgery Chair

Following an extensive national search, Steven Kalkanis, M.D., was appointed CEO of the Henry Ford Medical Group and senior vice president and chief academic officer, effective January 1, 2020. Previously Chair of the Henry Ford Department of Neurosurgery, Dr. Kalkanis is now providing strategic leadership to 1,900+ medical group members, as well as developing and advancing research and medical education programs.

Dr. Kalkanis currently serves as president of the Congress of Neurological Surgeons (CNS) and in 2018, was named a director of the American Board of Neurological Surgery.

“In my new capacity, I am more committed than ever to stewarding transformational health care,” noted Dr. Kalkanis. “My unwavering support for colleagues in neurosurgery will continue here at Henry Ford, and through our national presence – hosting the SNS Senior Society meeting in Detroit in May, and taking an active role in the combined 2020-2021 CNS meeting in Texas in October 2021.”

In announcing the appointment of Jack Rock, M.D., as interim chair of the Department of Neurosurgery, Dr. Kalkanis said, “Dr. Rock’s international reputation for excellence makes him the obvious choice for this critical role.”

Previously serving as director of the Henry Ford Neurosurgery Residency Program, Dr. Rock will continue with roles as co-director of the Skull Base, Pituitary and Endoscopy Center, co-investigator on numerous clinical trials and director of an international Myanmar neurosurgery project.

Ellen Air, M.D., was appointed residency program director (see [profile on page 4](#)). She is the first female residency program director in the department’s 75-year history and one of a select few in the country.



HENRY FORD ONLY MICHIGAN SITE TO OFFER MODERNA VACCINE TRIAL

Henry Ford Health System is the only hospital system in Michigan chosen as a Phase 3 trial site for the Moderna mRNA-1273 Coronavirus Efficacy (COVE) vaccine study, the National Institutes of Health announced July 27.

Henry Ford is enrolling volunteers into this randomized double-blind study of whether a two-dose vaccine prevents COVID-19 infection in those exposed to the coronavirus. About 90 health systems across the United States are working to enroll a total of 30,000 volunteers to participate. The study will close to volunteers once 30,000 people are enrolled.

“As a major academic medical center with more than \$100 million in annual research funding, we are committed to working with partners around the world to advance our ability to better understand, treat and ultimately prevent COVID-19,” noted neurosurgeon Steven Kalkanis, M.D., CEO, Henry Ford Medical Group and senior vice president and chief academic officer of Henry Ford Health System. “We are proud to deliver this Phase 3 vaccine trial to Michigan residents.”

Learn more about the vaccine trial by visiting henryford.com/ModernaVaccine.

MSU AND HENRY FORD HEALTH SYSTEM ANNOUNCE PLANS FOR PRIMARY AFFILIATION

The two organizations have signed a letter of intent (LOI) to significantly expand their long-term partnership, a unique primary affiliation among the first of its kind for the region between a fully integrated academic health system and major state university.

Committed to redesigning care around patients and communities through education, research and clinical care, the enhanced collaboration will focus on improving access, affordability and outcomes, especially for Detroit and Michigan’s most vulnerable populations.

“Partnerships with the potential for greater impact are more important than ever before,” says Wright Lassiter, III, president and CEO, Henry Ford Health System. “The COVID-19 pandemic and the ongoing injustices and recent protests in



STEVEN KALKANIS, M.D.

“As a major academic medical center with more than \$100 million in annual research funding, we are committed to working with partners around the world to advance our ability to better understand, treat and ultimately prevent COVID-19.”

cities across our nation have amplified the importance of and urgency for innovation and discovery that radically improves the health of all of the communities we serve.”

“Health care is one of the most important building blocks of a strong community, and for that we believe every individual deserves accessible, affordable, compassionate, quality care,” says Samuel L. Stanley Jr., M.D., MSU’s president.

“We must seek solutions to address disparities across cultural, racial and socioeconomic lines. This pandemic has demonstrated the willingness of individuals from multiple disciplines and from different organizations to unite – the time to build upon that is now.”

COMMITMENT TO DIVERSITY RECOGNIZED AGAIN IN NATIONAL RANKINGS

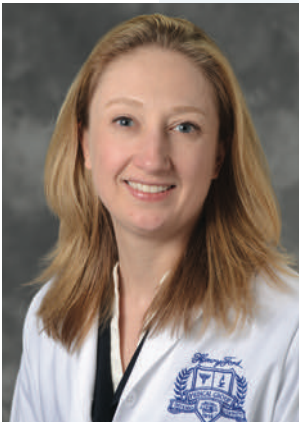


After more than a decade of being recognized as a national role model in supporting a diverse, inclusive workplace, Henry Ford has again been named to DiversityInc.’s annual list of top hospitals and health systems. Henry Ford was also named a top company for supplier diversity.

Henry Ford ranked #2 on the 2020 list of Top Hospitals & Health Systems. Northwell Health in New York ranked #1. Henry Ford came in #4 out of 15 on the list of Top Companies for Supplier Diversity after Hilton, Sodexo & Dow.



Educating the neurosurgeons of tomorrow: Q&A with Dr. Ellen Air



ELLEN AIR, M.D., PH.D.

FOCUS AREAS

- Epilepsy
- Functional Neurosurgery
- Back and Spine Pain

SELECT POSITIONS

- Residency Program Director
- Co-director, Functional Neurosurgery
- Clinical Associate Professor
- Senior Staff Neurosurgeon

SELECT APPOINTMENTS

- Chair-Elect, AANS/CNS Joint Section on Women in Neurosurgery
- CNS Executive Committee
- Board of Directors, American Society for Stereotactic and Functional Neurosurgery

Dr. Air received fellowship training in Epilepsy and Functional Neurosurgery at the University of California at San Francisco. In addition to maintaining an active research program, she serves as co-director for Functional Neurosurgery at Henry Ford and clinical associate professor at the Wayne State University School of Medicine. This spring, she was named as the first female residency program director in Henry Ford Neurosurgery’s 75-year history.

WHEN DID YOU FIRST BECOME INTERESTED IN MEDICAL EDUCATION?

I’ve always been into learning. In my residency, I liked working with medical students, and it was a natural progression for me as I got more involved in teaching and tutoring over the years.

WHAT DISTINGUISHES YOUR RESIDENCY PROGRAM?

We have great relationships within each of the resident and faculty teams, and importantly, between both of them. This collaboration is critical to ensure excellence in training, and our residents and faculty are always looking for ways to do it better.

WHAT MAKES A GOOD NEUROSURGICAL RESIDENT?

The two core qualities are intelligence and drive. What sets someone apart is the hunger for new knowledge. Residents need to operate well, thoughtfully and carefully. But they also need the ability to critically assess the literature and add to it themselves.

Our residents begin working on their own research in PGY 1, so they have to be flexible, juggling clinical responsibilities with research, and learning how to apply new knowledge to their practice – exactly as they’ll need to do in the real world.

YOUR ADVICE TO NEW RESIDENTS?

Communicate. This is how we learn best from one another, and our patients. Be

open to new ideas, and be willing to question something and find ways that we can improve. At the end of the day, it’s all about providing the best care to the patient.

HOW HAVE YOUR OWN EXPERIENCES INFORMED YOUR MENTORING?

One aspect that drew me to Henry Ford is the humility. It pushes everybody to say, ‘was this the right thing, or can I do it better?’ I feel I’ve grown even more by working with people who have the ability to question. I work to pass this on in my mentoring.

WHAT’S NEXT FOR THE PROGRAM?

My goal is to ensure that our residents are the next generation of future leaders in neurosurgery. I want people to understand the high value of our program. The leadership of those before me has been fundamental to getting us on this path.

WHAT DOES IT MEAN TO BE THE FIRST FEMALE RESIDENCY DIRECTOR?

It’s important to other women considering neurosurgery as a specialty to know that anybody can succeed in this field if you’re passionate, smart and dedicated. But, ultimately, we need to move to a point where we are viewing everyone as neurosurgeons. We’re looking for the talents of absolutely anyone we can find, understanding and addressing any bias that may keep us from finding the best talent.



FROM LEFT: Athar N. Malik, M.D., Ph.D., Steven Kalkanis, M.D., Matthew J. Koch, M.D., Ph.D., and Bryan D. Choi, M.D., Ph.D.

Award drives collaboration between hospitals and residents

In September 2019, Steven Kalkanis, M.D., then Henry Ford Neurosurgery chair, was awarded the Nicholas T. Zervas, M.D., Lectureship from Massachusetts General Hospital.

In the fall, Dr. Kalkanis visited the prestigious Harvard University Neurosurgery Residency at Massachusetts General Hospital to deliver his award lecture.

As part of the award, in February 2020, three residents from Massachusetts General Hospital – Matthew J. Koch, M.D., Ph.D. (a chief resident who graduated in June 2020), Bryan D. Choi, M.D., Ph.D. (a 6th year resident) and Athar N. Malik, M.D., Ph.D. (a 5th year resident) – were invited to visit Henry Ford Health System.

Here, they observed Henry Ford neurosurgeons and learned about advanced surgical technologies available at the System, including intraoperative MRI and laser ablation.

Research was also a big component of this exchange experience, and the Massachusetts General residents gave lectures to Henry Ford residents and learned more about Henry Ford Neurosurgery’s research program.

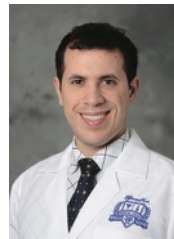
“With this type of collaborative exchange, we can help to set up these physicians for success going forward,” says Jack Rock, M.D., then Henry Ford Neurosurgery residency program director.

To refer a patient, visit henryford.com/rpo or call (313) 916-1340.

Henry Ford neurosurgery residents recognized for superior research and care

A Zoom June graduation ceremony did not diminish the celebration of outstanding accomplishments for Henry Ford Neurosurgery residents.

HESHAM ZAKARIA, M.D. (GRADUATE)



Dr. Zakaria was presented the Karen Stuck award for outstanding overall performance. He also won the CNS resident award for best overall abstract – and presented his research work during the CNS 2019 plenary session. Dr. Zakaria is beginning his complex spine fellowship at Johns Hopkins.

RIZWAN TAHIR, M.D. (GRADUATE)



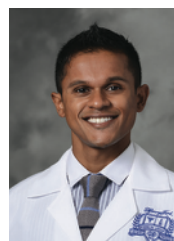
Dr. Tahir was nominated for the outstanding resident award. He is beginning his fellowship in Neurovascular Surgery and Endovascular Neurosurgery at Thomas Jefferson University.

KARAM ASMARO, M.D. (PGY6)



Dr. Asmaro was awarded the resident research award, which was renamed this year in honor of Dr. Beverly C. Walters. “Dr. Walters has been the driving force in bringing our resident research program to new heights,” notes Ellen Air, M.D., Residency Program Director.

SAM HAIDER, M.D. (PGY5)



Dr. Haider won the Garcia Award for “getting the job done” in a collegial manner.

Spine collaborative expands, experiences productive year

Support for the Michigan Spine Surgery Improvement Collaborative (MSSIC) is provided by Blue Cross Blue Shield of Michigan (BCBSM) and Blue Care Network (BCN) as part of the BCBSM Value Partnerships program.

Henry Ford Health System is the Coordinating Center for MSSIC, which has now expanded to 27 hospital sites. The last year has been very productive for the MSSIC Coordinating Center and the collaborative as a whole, with improvements in existing areas and several new developments, including:

- **Performance measures:** Exceeded goals for urinary retention and early ambulation.
- **Meeting transparency:** This fosters more site-to-site collaboration and a level of accountability as we work together to achieve Collaborative-wide goals.
- **Open house site visits:** Top-performing sites have made available, in detail, their processes, tools, protocols and order sets in an effort to assist their partner MSSIC sites. These are shared through open house site visits and presentations.
- **ERAS:** Introduced Enhanced Recovery After Surgery (ERAS) for spine surgery protocols (see sidebar at right).
- **MSSIC Minute:** Released the first issue of our quarterly newsletter in the fall.
- **Visibility:** Data analysis was presented 12 times in 2019 in published articles and oral presentations, including at the CNS Annual Meeting in San Francisco. MSSIC also gave five oral podium presentations at the 36th Annual Meeting of the AANS/CNS Joint Section on Disorders of Spine and Peripheral Nerve in Las Vegas in March 2020.
- **Website:** Completed a significant upgrade to the Provider and Patient resource tabs on MSSIC.org.
- **COVID-19:** Developed a “Guideline for Spine Surgery in the time of COVID-19” document for the newsletter and a COVID-19 resource page for the website.

DISCLAIMER STATEMENT: Although Blue Cross Blue Shield of Michigan and MSSIC work collaboratively, the opinions, beliefs and viewpoints expressed here do not necessarily reflect the opinions, beliefs and viewpoints of BCBSM or any of its employees.

Enhanced Recovery After Surgery (ERAS)

ERAS is a holistic approach to optimizing surgical care throughout the process. It uses evidence-based medicine to create a pathway for a new standard of care – helping to deliver consistency across surgical centers. ERAS has been used successfully in colorectal surgery and several other specialty areas.

- **ERAS FOR SPINE SURGERY:** The evidence to support ERAS in spine surgery has been reported in recent peer-reviewed literature, and it has the potential to enhance productivity gains and cost savings.
- **BUILDING ON QI INITIATIVES:** For several years, MSSIC has focused on identifying, developing and analyzing core quality improvement initiatives. ERAS will build on and enhance these.
- **MSSIC ERAS PROTOCOL:** This new set of detailed guidelines (including the “must haves” shown below) will be implemented at all member sites by the end of 2021.

MUST HAVE #1: PREOPERATIVE

- Formal, presurgical patient education and counseling
- Risk assessment – intervention and optimization

MUST HAVE #2: INTRAOPERATIVE

- Limited fasting, carbohydrate drink up to two hours before surgery
- Opioid sparing, multimodal analgesia *that continues through discharge*

MUST HAVE #3: POSTOPERATIVE

- Ambulation within eight hours of surgery stop time
- Formal discharge education that includes incision care and mobility recommendations



PATIENT CASE STUDY

Pharmacy tech back to normal following complex skull base procedure

Last year, I treated a 58-year-old woman who had a somewhat large skull base meningioma. Following a good resection that removed 98% of the tumor with minimal side effects, the patient is now in good health.



JACK ROCK, M.D.

*Interim Chair, Department
of Neurosurgery*

*Co-Director, Skull Base,
Pituitary and Endoscopy
Center*

The patient had initially presented at another regional health system with personality changes and mental confusion. They performed a CT scan, which showed a swelling in her frontal lobe. An MRI scan confirmed the presence of a somewhat large skull base meningioma.

THE DIAGNOSIS & PROCEDURE

The patient was referred and transferred to our Skull Base, Pituitary and Endoscopy Center, where our team admitted her and performed an angiogram to determine if we could embolize the tumor. We determined that an embolization wasn't safe.

Skull base meningiomas are complex and require multidisciplinary involvement. The patient's case was reviewed quickly by both our Skull Base Tumor Board and our Skull Base Tumor Conference. Collectively, this includes Henry Ford Medical Group specialists from neurosurgery, otolaryngology, ophthalmology, endocrinology, plastics, medical oncology, radiation oncology and interventional neuroradiology. They determined the best treatment was to perform a craniotomy surgery – a potentially high-risk procedure – with an attempt to remove as much of the tumor as possible. I performed this

surgery two days after the patient was admitted for her angiogram.

THE RESULTS

The procedure went well, and we ultimately resected 98% of the tumor. The patient had some initial trouble with double vision due to 6th cranial nerve weakness, a common side effect of this procedure, which can take some time to improve.

FOLLOW-UP

I have seen the patient for several follow-up appointments, and her vision has improved. Overall, she is doing very well. There was a very small residual amount of tumor tissue left, in an area that doesn't cause symptoms. If there is any recurrence in the future, we can treat this with radiation.

PATIENT FEEDBACK

"It's been a long road, but the alternative would be worse," says the patient, Laura of Lansing (about 90 miles northwest of Detroit). "Without Dr. Rock and the rest of my Henry Ford team, I probably wouldn't be alive."



COVID-19 forces drastic changes in research program

As Henry Ford Neurosurgery learned more about COVID-19 early in 2020, it was unclear at first how this might affect regular operations, including in areas such as ongoing research. However, as the novel coronavirus escalated to pandemic status, the research team – working out of Detroit, which would become a COVID-19 hotspot by April – relied on its innovation and commitment to move forward.

“We started learning and began planning our emergency plans pretty quickly with guidance coming from our upper leadership,” says Heather Mengel, neurosurgery research manager at Henry Ford. “They were monitoring the situation, and then as the guidance from the CDC, NIH and other Federal agencies started to be implemented, that’s when Henry Ford Health System started to put in extra measures.”

For the neurosurgical research team, it started by canceling invited speaker seminars and other academic meetings, an important part of Henry Ford Neurosurgery’s mission to collaborate with other institutions and disseminate the latest research information.

WORKING DURING THE PARTIAL SHUTDOWN

“Our clinical activities weaned down, but didn’t stop,” says Ana deCarvalho, Ph.D., neurosurgery researcher. “We had a special case, since some of our work was still considered essential. For example, we manage a very large biorepository, and of course this requires constant care.”

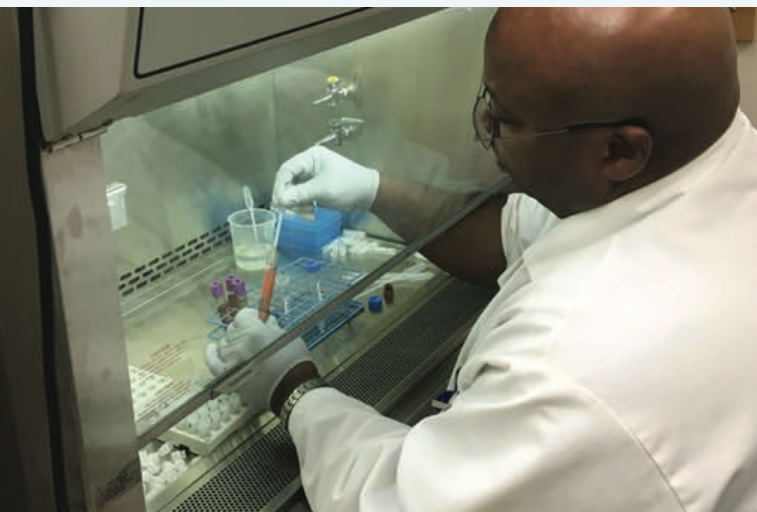
The team had to have some people onsite, to make sure that these samples were preserved and other approved research proceeded. But they needed to do so while observing specific restrictions:

- On March 15, after the announcement of the first COVID-19 patients at Henry Ford Hospital in Detroit, the research team started to prepare for modified working conditions (see sidebar at right).
- By March 17, the team had to prioritize the minimum number of mice for transfer to another facility outside of the Henry Ford Hospital main campus, to be able to continue only the most critical experiments.
- One team member was assigned to work in this facility, with no transit to the main campus, where the number of COVID-19 patients was increasing.
- The team had to review essential studies and were only able to proceed forward with those deemed critical.

CHAIN REACTION AND LONG-TERM EFFECTS

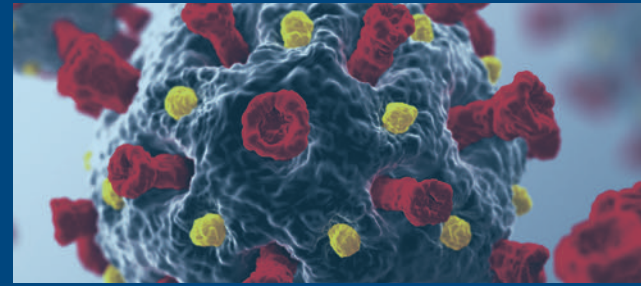
The partial shutdown and needing to work within restrictions was only part of it. “All of the facilities we use to outsource our RNA sequencing and DNA sequencing were closed,” Dr. deCarvalho says. “So that was a huge slowdown.”

In certain cases, the short-term effects were clear. “For some of our projects, such as our blood samples banked, we’re able to see the difference by looking at the year-over-year numbers,” Mengel says (see data at right). “We



Bart Thomas, Henry Ford Neurosurgery research coordinator, working onsite during the partial shutdown.

Coming together as a team, across all labs and up to senior leadership, helped to create cohesiveness in a time of chaos – and ultimately ensured that the program could continue with as much of its research effort as possible.



Lessons from a pandemic

The Henry Ford Neurosurgery research program is complex and wide-ranging, featuring both basic and clinical research. To preserve and advance as many ongoing efforts as possible – while adhering to guidelines from the CDC and Henry Ford’s Institutional Review Board – the research team needed to adapt in many ways.

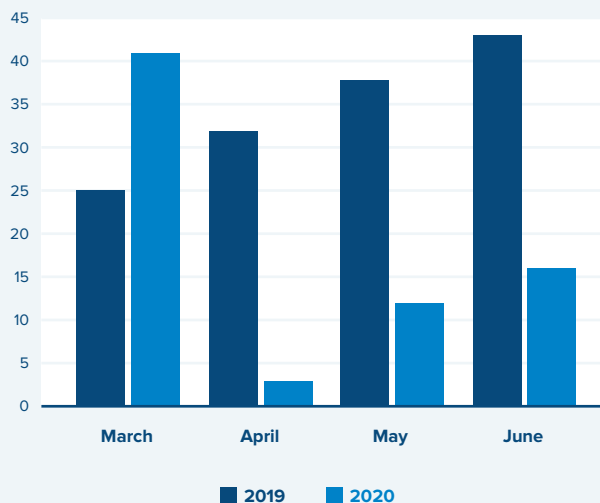
- **EVALUATE NEEDS:** Every research project was evaluated and prioritized, and some staff members were redeployed to other areas that were deemed essential.
- **ROTATE SCHEDULES:** Depending on the research ramp up/down phase we were in, staff would rotate onsite dependent on the percent allowed to be present. Projects and procedures were then able to be scheduled accordingly.
- **CONTROL MOVEMENT:** The team evaluated equipment use, typical staff movements/workflow and social distancing requirements to plan a new lab set up. Investigators were then able to re-strategize to ensure proper safety requirements for all areas of the lab.
- **BE FLEXIBLE:** When possible, team members worked from home, and were able to get appropriately creative in ways where they could analyze data remotely. In other cases, PIs stalled on current research shifted focus to finish analysis on old projects or work on manuscripts or grant preparation.
- **STICK TOGETHER:** Coming together as a team, across all labs and up to senior leadership, helped to create cohesiveness in a time of chaos – and ultimately ensured that the program could continue with as much of its research effort as possible.

also needed to put all new projects on hold. For one of our investigators specifically, he was waiting to receive samples from international collaborators, and he couldn’t get these.”

In other areas, it can be hard to quantify the immediate effects, given the variation in amount and type of research activity each year. What is clear to the team is that there may be significant long-term consequences, and Henry Ford is not alone.

“Researchers globally are discussing the incredible challenges, such as having to go back and re-breed mouse colonies, or start cells again,” Dr. deCarvalho says. “We really don’t know in the long run if we are going to be able to absorb this disruption, and resume normal research activities, or what kind of damage this will cause to science globally, six months, a year out.”

BLOOD SAMPLES BANKED



Virtual care takes root post COVID-19 surge

Prior to the pandemic, adoption of virtual care within the Henry Ford Department of Neurosurgery was like many other academic institutions – with some early adopters and others who preferred only in-person visits.

When COVID-19 cases inundated southeast Michigan and especially Detroit in mid-March, physicians rapidly adapted to serve patients and referring physicians.

While Henry Ford Health System has been offering virtual care since 2016, the pandemic forced many offices and hospital departments to limit in-person services. Virtual visits increased from a total of 1,766 in January and February, to 114,986 by mid-June.

“Our team rallied with remarkable speed to implement transformative change, ensuring that every neurosurgeon was ready to conduct virtual consults, online patient messaging and video visits,” notes Jason Schwalb, M.D., surgical director of the Henry Ford Movement Disorder and Comprehensive Epilepsy Centers.

The response from both patients and referring physicians has been excellent. “The pandemic has forced us to think out of the box, adapt to new realities, and opened the door for many innovative and unconventional approaches to patient care,” says neurosurgeon Muwaffak Abdulhak, M.D. “My most satisfying experience was with a 71-year-old patient who required urgent revision surgery. She presented with progressive proximal junctional kyphosis and loss of function. She was torn between risking long-term disability and being exposed to the virus. Online visits provided her with both immediate access and safety assurance. I was able to make a surgical decision using virtual visits and online teaching tools. She chose to proceed with the much-needed surgery and didn’t have to step foot into the clinic or the ER.”

By the end of July, all backlogged neurosurgical cases were completed. The use and benefits of virtual care continue, affording the Henry Ford Neurosurgery team the opportunity to deliver improved access and convenience, especially to patients in remote regions so that they don’t need to travel to get a consultation.

Resident draws on neurocritical care background during COVID-19



RACHEL HUNT, M.D.

In early March 2020, Dr. Rachel Hunt was in the PGY 3 year of her Henry Ford neurosurgical residency, working a functional neurosurgery rotation, when COVID-19 struck.

Her rotation was canceled, and her focus shifted to home-based research. However, as a surge of COVID-19 cases hit Detroit and Henry Ford Hospital in early April,

Dr. Hunt and some of her co-residents volunteered to help out in the units.

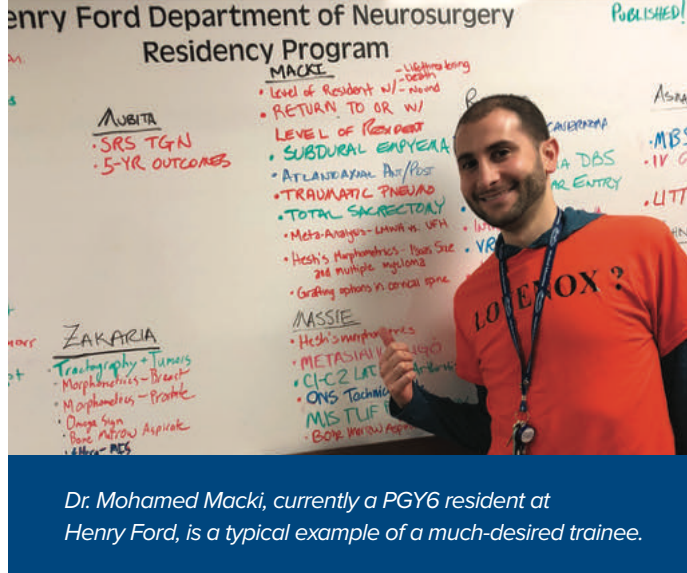
“It was quite a shock,” Dr. Hunt says. “I was working in a neuro stepdown unit that I knew, but all of the patients were really sick, and alarms were going off – for the first few days, it was chaos as we all adjusted and got into a rhythm.”

The patients also had significant nursing care needs. “Our nurses were working themselves to the bone for these patients, so I jumped in and tried to help where I could.”

As a former neurocritical care nurse, Dr. Hunt began functioning like a junior ICU resident. “I’d put in orders, call families, brief them on procedures,” Dr. Hunt says. “When it’s all hands on deck, it’s not about what your normal job is, it’s about what needs to be done.”

Of course, there was the constant fear of catching the virus while providing care. Despite having appropriate PPE, Dr. Hunt did get sick not long after she started working in the COVID-19 unit. While it was a viral infection, she tested negative for COVID-19. And she was soon feeling better and back on the floor.

“There wasn’t anywhere else I wanted to be,” Dr. Hunt says. “I was so impressed how everyone stepped up, and I came away realizing what a wonderful team we have.”



Dr. Mohamed Macki, currently a PGY6 resident at Henry Ford, is a typical example of a much-desired trainee.



RESIDENTS' CORNER

Resident applications

Every neurosurgical training program has specific goals in the evaluation of the applicants they interview for places within the program.

In particular, they are looking for candidates who have evaluations from medical school experiences in which their demonstrated acumen in critical clinical thinking is acceptable – or exceptional – and where they have worked within the operating room and shown an aptitude for technical requirements. This information is obtained either through firsthand experience with the candidates who come through on a rotation, in which case an assessment might say something like, “when he/she was on-call with our junior residents, he/she demonstrated an ability to triage patients and to quickly synthesize a unifying diagnosis from the information presented to him/her,” or “in the operating room, he/she demonstrated surgical skills that are appropriate for his/her level.”

OTHER APPLICATION FACTORS

In lacking this direct experience with the candidate, one looks at letters of reference from well-known colleagues who might give examples like “he/she took Q2 call with one other Sub-I and performed at a very high level, being eager to work every day with juniors saying that he/she functioned at the level of a junior resident on call.” During the interviews undertaken by the attendings who are evaluating the candidate, they try to bring these issues forward in conversation to assess what the applicants’ personal points of view are regarding these aspects.

A WELL-ROUNDED APPROACH

All the training programs have two major facets for resident participation: both within an apprenticeship and academic education. The primary, functional abilities as technological surgeons are focused upon by all. The second area, that of building an appropriate knowledge base used in clinical decision-making is equally embraced by all. However, many programs enlarge this part of the curriculum to include academic productivity in which residents (along with mentoring attendings) do research of various kinds that is then shared with the specialty through publication in the medical literature. For programs with that focus – such as Henry Ford – it is important to broaden the areas of interest in applicants to the program to explore their previous efforts in publications already produced, as well as presentations at national (or even international) neurosurgical meetings.

DR. MOHAMED MACKI

A typical example of a much-desired trainee is Dr. Mohamed Macki, currently a PGY6 resident at Henry Ford. Dr. Macki, a graduate from Wayne State University Medical School, was a superior student, noted by his school to have a performance “rated as exceptional due to his outstanding academic performance and his superb clinical performance” and in the top 5% of his class due to his Honors comprehensive grade in all of the first three years of medical school. After that, Dr. Macki took a year off to do spine research at Johns Hopkins University and to get a Masters of Public Health involving outstanding research in spinal disease. At the time of his application to neurosurgical residency training programs, Dr. Macki had an application that showed 33 manuscripts that had been published, accepted or under review. He had also written four book chapters and had been involved in 64 presentations to neurosurgical meetings. He was welcomed with open arms into the Henry Ford neurosurgical training program. Since his recruitment into the program, he has published over 35 articles in the medical literature and is at present preparing a chapter in the famous Youman’s neurosurgical textbook. In his application for neurosurgical residency, Dr. Macki said, “My concentration in epidemiologic and biostatistical methods for public health and clinical research equipped me with the tools necessary to develop applicable study designs and select appropriate statistical tests in order to answer interesting questions in spine surgery ... My intention is that these efforts will lay the foundation for further education and research throughout residency and hopefully a future in academic neurosurgery.” So far, so good.

BEVERLY C. WALTERS, M.D., MSC, FRCSC, FACS

Director of Clinical Research, Henry Ford Department of Neurosurgery



Clinical Trials

The Henry Ford Department of Neurosurgery is active in clinical research, and is currently offering these prospective clinical trials as a treatment option. For more information about these or other current studies, please call (313) 916-1756.

BRAIN TUMORS

ABTC 1403: A Phase I and Pilot Study of the Effect of rHL-7-hyFc (NT-17) on CD4 Counts in Patients with High Grade Gliomas and Severe Treatment-Related CD4 Lymphopenia after Concurrent Radiation and Temozolomide

ABTC 1501: A Phase I Trial of Anti-LAG-3 or Anti-CD137 Alone or in Combination with Anti-PD-1 in Patients with Recurrent GBM

ABTC 1601: Oral Microtubule Destabilizer BAL101553 in combination with Standard RT in UNMETHYLATED Newly Diagnosed GBM

ABTC 1603: Phase I Study of Neoadjuvant GMCITM Plus Immune Checkpoint Inhibitor Combined with Standard of Care for Newly Diagnosed High-Grade Gliomas

ABTC 1604: Phase 0/I Study of AMG 232 Concentrations in Brain Tissue in Patients with Recurrent Glioblastoma and of AMG 232 in Combination with Radiation in Patients with Newly Diagnosed Glioblastoma and Unmethylated MGMT Promoters

ABTC-1701: Pilot Surgical PK Study of BGB324 in Recurrent Glioblastoma Patients

ABTC-1801: Phase I/II Study of BGB-290 with Temozolomide in Recurrent Gliomas with IDH1/2 Mutations

ABTC-1802: A Phase II Study of Binimetinib in Combination with Encorafenib in Adults with Recurrent BRAF V600-Mutated High-Grade Astrocytoma or other Primary Brain Tumor

B TTC 17C0034 Pembro: A Randomized, Double Blind Phase II Trial of Surgery, Radiation Therapy plus Temozolomide and Pembrolizumab With and Without HSPPC-96 in Newly Diagnosed Glioblastoma (GBM) in Patients with Recurrent or Progressive Glioblastoma following Initial Therapy

Coping with Glioblastoma: A Study of Communication between Physicians, Patients, and Caregivers

CTS U EAF151: Change in Relative Cerebral Blood Volume as a Biomarker for Early Response to Bevacizumab in Patients with Recurrent Glioblastoma

FORMA 2102-ONC-102: Phase 1b/2 Study of FT-2102 in Patients with Advanced Solid Tumors and Gliomas with an IDH1 Mutation

FORWARD_Optune: A Phase 2, Historically Controlled Study Testing the Efficacy of TTFields (Optune®) with Adjuvant Temozolomide in High-risk WHO Grade II and III Astrocytomas

GBM AGILE GLOBAL ADAPTIVE TRIAL MASTER PROTOCOL

NRG-BN003: Phase III Trial of Observation Versus Irradiation for a Gross Totally Resected Grade II Meningioma

Orbus OT-15-001: A Phase 3, Randomized, Open-label Study To Evaluate the Efficacy and Safety of Eflornithine with Lomustine Compared to Lomustine Alone in Patients with Anaplastic Astrocytoma That Progress/Recur After Irradiation and Adjuvant Temozolomide Chemotherapy

IRB 9736: Functional Assessment of Cancer Therapy – Meningioma (FACT-MNG): Tumor Site Specific Web-Based Outcome Instrument for Meningioma Patients

IRB 9936: Validity and Reliability of Self-Reported Karnofsky Performance Status

IRB 10722: NeMeRe, a Multi-Institutional Retrospective and Prospective Registry of Neoplastic Meningitis in Adults

IRB 12357: Restriction Spectrum Imaging in Patients With Newly Diagnosed Suspected Gliomas

EPILEPSY

IRB 10701: Stereotactic Laser Ablation for Temporal Lobe Epilepsy (SLATE) Study

PAIN

IRB 12825: High-Frequency Nerve Block for Post-Amputation Pain: A Pivotal Study

SPINE

IRB 9165: Three-Dimensional Motion Analysis in Patients' Status Post Anterior Cervical Fusion and Cervical Disc Arthroplasty, a Clinical Study_MOTION STUDY (Supported by the Mentored Clinician Scientist program of HFHS)

IRB 10912: Genetic Basis of Diffuse Idiopathic Sclerosing Hyperostosis (DISH)

IRB 12228: Postoperative Pain and Opioid Use Following Spine Surgery

VASCULAR

IRB 11254: Decision Support System for Predictions of Aneurysm Rupture and DVT/VTE in Aneurysm Patients

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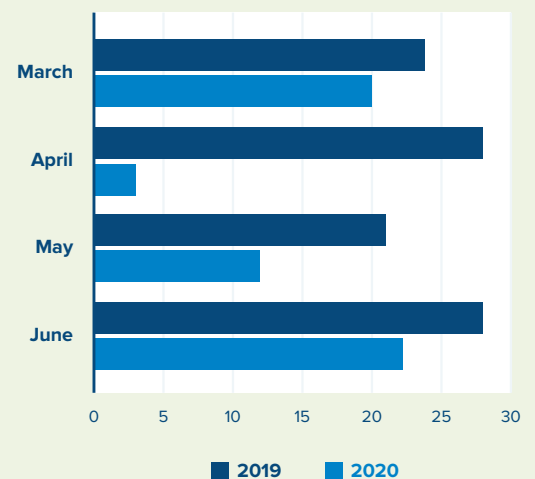
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