

2020-2021



ARNUAL REPORT







A letter from the dean

As we look back on the Central Michigan University College of Medicine's 2020-21 academic year, we will remember how we met the challenges, were leaders in education and research, and the tremendous hope we hold for the future.

The COVID-19 pandemic affected all of us on both a personal and professional level. Whether you became ill or knew someone who did, whether you worked from home or in your workplace, whether you were at home with young children or separated from your family, we all experienced a difficult year requiring us to exhibit patience and grace to all those around us.

In addition to COVID-19, the United States confronted a pandemic of systemic racism. The College of Medicine explored how we can better prepare physicians to actively address health care disparities and firmly committed to becoming an anti-racist, non-bias institution.

As educators, faculty, staff and administrators across the university worked together in a highly collaborative manner to fulfill our promise to keep the university open and our students and employees safe.

As health care providers, we battled the global pandemic on the front lines with knowledge, skill and compassion. We participated in research to identify potential outbreaks early and to provide protocols for treating some of our most vulnerable patients. We experienced relief when vaccines were developed and, with our students, volunteered to lead inoculation efforts in our region.

The students, faculty and staff of the College of Medicine have been responsive and resilient, caring and courageous, determined and dedicated. As we welcome 104 new medical students in August of 2021, we are well positioned to succeed into the 21st century and beyond.

Thank you for your trust in us and your steadfast support of our mission and our students.

Sincerely,

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George E. Kikano, M.D. CMU Vice President for Health Affairs Dean, CMU College of Medicine









When the academic year began in August 2020, the state of Michigan was still experiencing rising numbers of COVID-19 cases and deaths. In contrast to prior years, when a White Coat Ceremony welcomed medical students and their families to CMU, the College of Medicine began the pre-clerkship program for first and second-year students using a HyFlex model of in-person and virtual educational delivery.

While there were challenges in delivering virtual instruction, the pandemic also enriched the students' education. The third and fourth-year students, who are placed with our hospital and clinical partners, donned PPE and treated patients on the front lines of an unprecedented public health crisis.

By May, the availability of vaccines and a reduction of COVID-19 cases nationwide allowed for a safe, in-person Commencement.

"Ultimately, our students performed at the same levels on exams as previous years," said **Tina Thompson**, Ph.D., senior associate dean of academic affairs. "They did beautifully, and we are really proud of their resilience and flexibility."

College of Medicine emphasizes diversity, equity and inclusion

COVID-19, superimposed on a national social injustice crisis, brought to the forefront the impact systemic racism has had on health care delivery and health outcomes.

A call to action by medical students led faculty, staff and administrators to develop a strategy to address these inequities through a multi-pronged approach including: 'framing the issue,' advancing curricular change, examining the learning environment, and improving communication.

Framing the issue includes providing resources and opportunities to educate the college community on the underlying issues, addressing personal biases, and creating safe spaces to discuss complex and sensitive topics.

Advancing curricular change involved creating a Curriculum Committee Racism Task Force to develop new program objectives for a focused curriculum development.

While the College of Medicine recognized that initially it fell short regarding communication, significant progress has been made particularly through regularly scheduled open forums. Students offer conversation sessions about racism to new students and the college.

The college is committed to continuing conversations, education, and actions designed to address racism and social injustice within medical education and health care.



» Match Day a milestone of student success

On March 19, thousands of fourth-year medical students across the United States and around the globe learned where they would continue their training after graduating from medical school. The majority of CMU students matched in residency programs of their choice.

Our graduates embody the college's mission of training culturally competent physicians to provide comprehensive health care and services to underserved populations in Michigan and beyond.

90 CMU students participated in Match Day

61% Matched to primary care residencies

47% Remained in Michigan

Faculty Awards



Dr. Jocelyn Ang

Dr. Jocelyn Ang, CMU professor of pediatrics-infectious disease and physician at University Pediatricians/DMC Children's Hospital of Michigan, was named by Crain's Detroit Business as one of Crain's 2021 Heath Care Heroes. Ang's expertise in infectious diseases and clinical research placed her at the forefront of recognizing, diagnosing and treating Multisystem Inflammatory Syndrome in Children (MIS-C) linked to COVID-19. She was instrumental in developing protocols to diagnose and treat the novel MIS-C.



Dr. Nicholas Haddad

Dr. Nicholas Haddad, CMU associate professor of internal medicine-infectious disease and the program director of the CMU Medical Education Partners Internal Medicine Residency Program, was appointed by the National Collegiate Athletic Association to its COVID-19 Medical Advisory Group. The committee, comprised of 16 infectious disease, public health and medical experts from across the U.S., provides guidance to the NCAA regarding COVID-19 testing and mitigating the spread of the virus in training, practices and competitions.



Dr. Therese Mead

Dr. Therese Mead, CMU assistant professor of emergency medicine and associate program director of the CMU Medical Education Partners Emergency Medicine Residency Program, was awarded the American College of Emergency Physicians' National Emergency Medicine Junior Faculty Teaching Award. The award honors outstanding education and recognizes efforts to advance the specialty. Mead also serves on the board of directors for the Michigan College of Emergency Physicians.



Dr. Delicia Pruitt

Dr. Delicia Pruitt, CMU associate professor of family medicine, physician at CMU Health and Saginaw County Health Department medical director, was appointed to the bipartisan Protect Michigan Commission. Housed within the state's Department of Health and Human Services, the commission was created to raise awareness about the safety and effectiveness of COVID-19 vaccines.



Dr. S. Sethu K. Reddy

Dr. S. Sethu K. Reddy, CMU professor of internal medicine-endocrinology and medical sciences discipline chair, was recently selected by his peers for the prestigious honor of president-elect for the American Association of Clinical Endocrinology. Reddy will serve as president-elect for one year, and then become president of the AACE in May 2022. An internationally recognized clinician-scientist, Reddy has been involved in clinically relevant projects with the AACE for 25 years and has served on the organization's board of trustees.



Dr. Samuel Shaheen

Dr. Samuel Shaheen, CMU professor of surgery and executive director of CMU Medical Education Partners, was named to The Children's Foundation's Board of Trustees. The Children's Foundation supports pediatric research, education, community benefit programs and other initiatives that improve the health of children in Michigan.

CMU, Covenant HealthCare and Ascension St. Mary's sign historic education commitment

Health care in the Great Lakes Bay Region took a significant step forward in July 2020 as Central Michigan University and two Saginaw hospitals committed to a long-term education partnership.

CMU, Covenant HealthCare and Ascension St. Mary's Hospital — the founding members of the collaborative organization CMU Medical Education Partners — reaffirmed their commitment to graduate medical education by signing a <u>25-year affiliation agreement</u>.

"This historic agreement provides a sustainable framework for resident education and increases the health care capacity for the region," said **Dr. George E. Kikano**, CMU vice president for health affairs and dean of the College of Medicine.

Mission-driven: providing compassionate, comprehensive care

Dr. Olivia Bolen has always been passionate about family medicine. Growing up in East Tawas, Mich., she idolized her family doctors. She loved how they met their patients' needs and understood how socio-economic status impacts individuals' health.

When applying for medical school, the mission of the CMU College of Medicine appealed to her desire to provide comprehensive medical care to underserved communities. She chose a family medicine residency at CMU Medical Education Partners in Saginaw because she wanted hands-on experience with a variety of patients.

After completing her residency in June, she became a CMU instructor of family medicine and a physician with CMU Health. "CMU has a drive to make Saginaw a better, healthier, more beautiful place," said Bolen. "I think that's great, and I want to be a part of that."

Growing our own: College of Medicine graduate returns home



Dr. Taylor Gaudard's roots run deep in her hometown of Saginaw. While she spent her youth working in a greenhouse — a business owned by her family for three generations — she developed an interest in medicine as a college student.

"I was working as a nursing assistant at a long-term care facility," said Gaudard, CMU assistant professor of family

medicine and a physician with CMU Health. "I built connections with the patients and became passionate about medicine as a profession."

She was attracted to the mission of CMU Health to educate physicians to care for patients in rural and underserved areas. As a third-year medical student, her Comprehensive Clinical Clerkship placed her for six months in a family medicine practice in Sebewaing, Mich., and she found her calling.

She recently completed her family medicine residency in Grand Rapids and is excited to return home to Saginaw. Gaudard said, "I enjoy having a personal relationship with each of my patients and love the opportunity to care for entire families."



CMU Medical Education Partners Residency Program Graduates 2021

34

Total graduates

60%

Remaining in Michigan

33%

Remaining in Mid-Michigan

CMU Medical Education Partners welcomes 45 new residents in 2021 - the largest incoming class of residents in the program's history.

Social Impact - COVID-19

Keeping Central Michigan University and the community safe

CMU's response to COVID-19 required a multi-stakeholder team effort, including key personnel from the College of Medicine. With one objective — to keep the campus safe — the team met frequently, sometimes more than once a day, to address pressing concerns such as social distance measures, increased hygiene and mask wearing.

The College of Medicine implemented multiple screening and diagnostic tests for students, faculty and staff. College of Medicine students, faculty and staff volunteered to support campus vaccination efforts, including the largest mass vaccination clinic in the history of the Central Michigan District Health Department.

CMU's partnerships and coordination with the community and the health department were of particular value to keeping the university open, continuing classes, and holding live, in-person Commencement ceremonies for the classes of 2020 and 2021 in May of 2021.



Making a difference in testing and vaccination clinics

When COVID-19 began spreading throughout Central Michigan, CMU College of Medicine students were on the front lines. Whether testing, treating or inoculating, hundreds of medical students supported their communities through a public health crisis of immense proportions.

At the end of 2020, third and fourth-year medical students were quickly vaccinated along with other front-line medical care providers. They immediately joined faculty physicians in volunteering to administer vaccines to thousands of vulnerable Saginaw residents.

Once first and second-year students were given the opportunity to be vaccinated, they also immediately began assisting with vaccination efforts in Mount Pleasant.

From schools to shopping malls, from a university campus to church parking lots, College of Medicine students were a vital part of efforts to end the pandemic — an experience that will forever shape their careers.

"We were scared of the unknown... I learned the importance of mental, physical, and emotional wellness, and I will be bringing that forward to my patients."

Dr. Dorothy Yu, '21



Dr. George E. Kikano

A physician's decision launches CMU into national spotlight

The first question came at the end of January 2020 – should a CMU basketball game be cancelled due to the opposing teams' potential exposure to a student returning from China with symptoms of a new virus that was spreading worldwide? **Dr. George E. Kikano** made the call – the game was not worth the risk.

Kikano told the Wall Street Journal that in January of 2020, scientists didn't know how the virus was spread, yet they knew the situation in China was grave. "It was just connecting the dots together and being careful," Kikano told the newspaper that lauded the move as a case study in decision making. It was the first collegiate athletic contest cancelled due to COVID-19.

From that point on, in Kikano's dual roles as CMU's vice president for health affairs and dean of the College of Medicine, the physician was at the helm of CMU's medical response to the novel virus. "COVID created an opportunity for the College of Medicine to be fully integrated into the university and crisis management," said Kikano. "We are grateful to have been of service to CMU and our community."



Dr. Nicholas Haddad

A calming presence for a frightening time

When COVID-19 cases in the Great Lakes Bay Region began to rise and the public was seeking up-to-date, factual information, the voice they frequently heard was that of **Dr. Nicholas Haddad**, CMU associate professor of internal medicine-infectious disease and the program director of the CMU Medical Education Partners Internal Medicine Residency Program, and the region's only infectious disease specialist.

"This was a completely novel situation," said Haddad. "Pandemic is an uncommon word—and it happened in our lifetime."

Through television, social media and the CMU website, the region became familiar with Haddad's plant-filled office and natty ties as week after week he spoke in layperson's terms about the virus and measures to end the pandemic. He encouraged mask-wearing, explained the importance of testing and advocated strongly for vaccinations. "We did not expect such rapid development of the vaccines, so people were skeptical," said Haddad. "There was also a lot of misinformation."

"Saginaw is more than the place I work, it is my home," said Haddad. "At a local level, I tried to clarify the unknown, to encourage people to remember this pandemic would not last forever, and to remind them of the things we could do to protect ourselves."



Dr. Delicia Pruitt

A champion for public health

Dr. Delicia Pruitt, CMU associate professor of family medicine, physician at CMU Health and Saginaw County Health Department medical director, grew up in Saginaw, Mich., and is a fervent advocate for public health in her community. Whether she is spearheading a "Walk with a Doc" program to tackle obesity or researching end-of-life decisions in the African American community, she is an energetic, down-to-earth inspiration for the general public and for students and residents of the CMU College of Medicine.

In her role with the Saginaw Health Department, she broadcast her first COVID-19 vaccination live on the health department's Facebook page. "I'm going to get the vaccine so you can see us, the people you trust...which may give you more confidence that this is safe," Pruitt said during the live feed. She was also tapped by Michigan's governor to serve on a statewide commission to raise awareness about vaccine safety and effectiveness. She continues to use her impactful voice made a real-world difference in the fight against COVID-19.



Leading the way with research and innovation



Dr. Ute Hochgeschwender

The National Institute of Neurological Disorders and Stroke, part of the National Institutes for Health, awarded **Dr. Ute Hochgeschwender**, CMU professor of neuroscience, a three-year, \$3.2 million grant for her research titled: The selective control of synaptically-connected circuit elements by interluminescence. Hochgeschwender's long-term interest has been explaining the molecular basis of brain functions that mediate behavior.



Michael J. Conway

The Michigan Department of Health and Human Services approved a two-year grant of more than \$1.7 million for the <u>wastewater research</u> of **Michael J. Conway**, Ph.D., CMU associate professor of microbiology. Conway's lab is part of a statewide network testing and evaluating the levels of COVID-19 virus in wastewater, which can serve as an early warning to public health departments so they can quickly begin mitigation efforts.



Dr. Usha Sethuraman

The National Institutes for Health awarded \$1.5 million to College of Medicine pediatricians to fundamentally change the diagnosis and management of severe COVID-19 related illness in children. This study is only one in eight in the nation funded by the NIH to develop approaches for identifying children at high risk for Multisystem Inflammatory Syndrome in Children. Dr. Usha Sethuraman, CMU professor of pediatrics-emergency and physician with University Pediatricians, and her team are developing approaches for identifying children at high risk for MIS-C. Two of the co-investigators on the grant are also from the College of Medicine: Dr. Kathleen Meert, CMU's Schotanus Family Pediatric



Alison Arnold



Dr. Furhut



Neli Ragina

Chair and president of University Pediatricians, and **Dr. Nirupama Kannikeswaran**, CMU professor of pediatrics-emergency and physician at University Pediatricians.

Central Michigan University is a key beneficiary of two grants awarded to the Michigan Department of Health and Human Services from the U.S. Centers for Disease Control and Prevention. The funds will help reduce men's suicides and increase awareness of adverse childhood experiences, or ACEs, in Michigan. The grants will provide CMU more than \$400,000 from the state over five years as part of a total statewide \$4.25 million grant for suicide death prevention and a \$1.5 million grant to prevent ACEs. Alison Arnold, Ed.D., director of CMU's Interdisciplinary Center for Community Health and Wellness: Dr. Furhut Janssen. CMU assistant professor of psychiatry. director of Behavioral Health and director of the CMU Medical **Education Partners Psychiatry** Residency Program; and Neli Ragina, Ph.D., CMU associate professor of genetics, director of students and residents clinical research are members of the research team for the suicide prevention grant. The second grant of \$1.5 million, administered by Arnold, will raise awareness about traumatic events occurring in childhood and build community partnerships to address chronic diseases related to trauma.



Karin Przyklenk



Dr. Kathleen Meert

Pediatric research and care expanded through establishment of a new Clinical Research Institute

The College of Medicine and University
Pediatricians built on their existing partnership by
expanding their affiliation to include clinical and
translational research, a collaboration that will
benefit children across the state of Michigan.

"Physicians who do research are on the cutting edge of medicine. This expansion of CMU's educational partnership ensures the children of Michigan receive the most up-to-date care," said **Dr. Kathleen Meert**, CMU Schotanus Family Chair of Pediatrics and president of University Pediatricians.

Establishing the Detroit-based CMU Clinical Research Institute provides a support structure to foster faculty research and manage grants and awards in collaboration with DMC Children's Hospital of Michigan.

Karin Przyklenk, Ph.D., has been named the Carman and Ann Adams Endowed Chair for Pediatrics Research and CMU professor of pediatrics. A renowned cardiovascular scientist, Przyklenk will oversee research at the CRI, mentor faculty to advance their careers and grow the research portfolio.

The CRI is generously supported by grants and endowments from The Children's Foundation.



Support access to primary care through student scholarships

CMU established the College of Medicine to address a pressing need — a shortage of physicians to provide comprehensive care to rural and underserved areas of Michigan and the U.S.

Establishing an endowed medical scholarship for CMU students is an opportunity to support education, public health and community development — because the economic, social and cultural vitality of communities relies, in part, on access to high-quality, primary medical care. At the same time, reducing financial barriers increases the likelihood a medical student could choose primary care practice in an underserved area.

To contribute to a legacy of excellent health care, support student scholarship at the CMU College of Medicine.

For more information, please contact Michael Zehnder, senior director of development, 989-774-7548, mike.zehnder@cmich.edu

College of Medicine names first endowed chairs

With the generous support of The Children's Foundation, the College of Medicine has named four endowed chairs. The Children's Foundation administers the endowments that are funded by donors wishing to provide a legacy in their communities.

- **Dr. Kathleen Meert** is the CMU Schotanus Family Chair of Pediatrics. Meert is a CMU professor of pediatrics, president of University Pediatricians and the pediatric specialist-in-chief at DMC Children's Hospital of Michigan.
- Dr. Yegappan Lakshmanan was awarded the Frank Bicknell, M.D. Chair for Pediatric Urology Research. Lakshmanan is a CMU clinical professor and the chief of pediatric urology at DMC Children's Hospital of Michigan.
- Hitomi Kobayashi, Ph.D., R.N., holds the Elizabeth Schotanus
 Professorship for Pediatric Nursing Excellence. Kobayashi is a CMU
 clinical assistant professor and the director of the Center for Excellence in
 Pediatric Nursing at DMC Children's Hospital of Michigan.
- Karin Przyklenk, Ph.D., was named the Carman and Ann Adams
 Endowed Chair for Pediatrics Research. Przyklenk is also a CMU professor of pediatrics.

Research leads to early treatment, better outcomes for children

In the first year of the COVID-19 pandemic, more than 70 children were admitted to DMC Children's Hospital of Michigan for serious illness, including heart and circulatory system illness associated with COVID 19. "These children we saw were very sick," said **Dr. Gautam Singh**, CMU professor of pediatrics and chief of cardiology at University Pediatricians and DMC Children's Hospital of Michigan. "Sixty percent of these children required intensive care for vital organ support and in some cases life support with a "blood oxygenating machine."

Approximately three to four weeks after contracting COVID-19, children were developing multi-organ inflammatory conditions. Singh and his team found, by using sensitive ultrasound measures of heart function, that children with significant abnormal heart function at presentation are more likely to develop serious illnesses. Those sensitive measures of heart function evaluation allow for early treatment and are now part of a National Institutes for Health research initiative and multi-center protocol for treating patients.

Singh and his team continue their research, now including the long-term effects of MIS-C on children's health. "Fortunately, we see normalization of heart function in four to six months after the onset of the disease," said Singh.









Dr. Sabrina Heidemann

CMU pediatrician research on COVID-19 related MIS-C published in prestigious medical journal

Dr. Sabrina Heidemann's research into COVID-19 and multi-inflammatory syndrome in children has been published twice in the New England Journal of Medicine. Heidemann is a CMU professor of pediatric critical care and is a member of University Pediatricians. In June 2020, The NEJM published Multisystem Inflammatory Syndrome in U.S. Children and Adolescents, co-authored by Heidemann, focusing on recognizing COVID-19 related MIS-C, a disease leading to serious and life-threatening diseases in previously healthy children and adolescents.

Heidemann and her colleagues continued their research, and in June 2021, the NEJM published: Treatment of Multisystem Inflammatory Syndrome in Children – Initial Therapy and Outcomes. The second manuscript focuses on the treatment of COVID-related MIS-C. Heidemann and her co-authors conclude that initial intravenous immunoglobin (IVIG) therapy combined with glucocorticoids lowers the risk of serious short-term outcomes, including new or persistent cardiovascular dysfunction, as compared to IVIG alone.



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Medical student clerkships with University Pediatricians

Clinical Research Institute opens doors for future pediatrician

In November of 2020, an announcement about a new Clinical Research Institute at CMU caught the eye of third-year CMU medical student, **Ashley Dean**. "I read the announcement and reached out. It was awesome to get my foot in the door," said Dean.

Dean assisted with two pediatric research projects — one involving structural heart defects in newborns, the second investigated the increase in accidental and non-accidental trauma to children during periods of quarantine due to COVID-19.

In addition to the research, Dean completed a four-week pediatric clerkship at DMC Children's Hospital of Michigan with physicians from University Pediatricians. Dean says her experience with the team at the Children's Hospital was incredible. "I came into med school thinking pediatrics, and this research and my clinical rotation pushed me toward this population."

After graduation in May 2022, Dean looks forward to a pediatric residency and a lifetime devoted to improving the health and wellbeing of children.



Ashley Dean

Mount Pleasant Campus

1280 East Campus Drive Mount Pleasant, MI 48859 989-774-7547

Saginaw Campus

1632 Stone Street Saginaw, MI 48602 989-746-7504

Detroit Campus

University Pediatricians
DMC Children's Hospital of Michigan
3901 Beaubien Boulevard
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CMU, an AA/EO institution, strongly and actively strives to increase diversity and provide equal opportunity for all individuals, irrespective of gender identity or sexual orientation and including but not limited to minorities, females, veterans and individuals with disabilities, 20144 MGX (9/21)