



A YEAR OF GROWTH AND EXPANDING
IMPACT OF OUR ***MISSION IN MOTION***

CMU
CENTRAL MICHIGAN
UNIVERSITY

College of
Medicine



OUR *MISSION...*

The CMU College of Medicine prepares diverse, culturally competent physicians focused on improving access to high-quality health care in Michigan with an emphasis on rural and medically underserved regions.

Our graduates will aspire to excellence in providing patient-centered and evidence-based care to their patients and their communities.

We will engage physicians in leading health care transformation, lifelong learning and team-based education.

...IN MOTION

- New partnerships with hospitals, physicians, private companies and other universities
- Leading public health engagement on opioid abuse, childhood trauma, mental health, suicide prevention, infant health and more
- Growth in clinical care delivery for medically underserved patients
- Increased opportunities for student, resident and continuing medical education
- Achieved strategic goal to earn final medical school accreditation
- Expanded regional and geographic footprint



Class of 2021



CMU College of Medicine Dean George E. Kikano, M.D.

MESSAGE FROM THE DEAN

By all measures, the 2017-2018 academic year at Central Michigan University's (CMU) College of Medicine was a complete success. We grew significantly, accelerated positive progress and expanded our impact in education and health care.

Our undergraduate medical students continue to perform above national averages on standardized tests. Our resident medical education program recently graduated 33 physicians and welcomed 38 new residents to our Saginaw campus. We are thrilled that 10 of our graduating students chose to continue their training in our residency programs in Saginaw.

Evidence of Our Mission in Motion

The Class of 2018

The second graduating class from the College included 93 new doctors (an increase of 33 percent) and 32 residents in six years of specialty.

Full Accreditation

We received full accreditation from the Liaison Committee of Medical Education, which is a testament to our success in developing the people, processes and infrastructure for high-quality medical education. In addition, the Accreditation Council for Continuing Medical Education accredited our program with a commendation for our work to support more than 4,000 faculty and community physicians.

Comprehensive Community Clerkship (CCC) Expansion

Our unique CCC program, which provides third-year students with clinical learning experiences, added many new partner locations and more than 500 community-based, volunteer physician practices across the state. We significantly expanded the geographic footprint of this program in southern Michigan and northwest Ohio.

100 Percent Residency Placement

All of CMU's new graduates secured residency programs across the nation, while 'in mission' placements increased, with 75 percent of graduates choosing primary care, 54 percent remaining in Michigan, and 10 graduates electing to join our own program in Saginaw.

Community Health and Wellness Leadership

CMU's Interdisciplinary Center for Community Health and Wellness engaged broadly across campus and externally through public health summits and topic-specific seminars focused on the region's public health priorities. We contributed actively to a Great Lakes Bay Region strategic initiative called THRIVE (Transforming Health Regionally In a Vibrant Economy) aimed to improve health and foster health care related economic growth. Our faculty and students led progress on significant public health issues such as opioid addiction, childhood trauma, mental health, infant health and suicide prevention.

New Surgery and Podiatry Residency Programs

The Accreditation Council for Graduate Medical Education fully accredited two new residency programs in General Surgery and Podiatry, adding to five existing residencies in Emergency Medicine, Obstetrics and Gynecology, Family Medicine, Psychiatry and Internal Medicine.

Health Care Innovation Partnership

The College of Business Administration, College of Medicine and BlueWater Angels Investment Network created the new Michigan Health Care Innovation Partnership that emphasizes entrepreneurship in medicine by fostering educational collaboration and creating new small businesses and jobs within the state.

World-leading Faculty

Our faculty members are increasingly recognized for excellence as evidenced by many

high-level appointments. For his contributions to cell biology, **Robert Petersen, M.D.**, chair of Foundational Sciences, recently was named a fellow of the American Association for the Advancement of Science. **Sethu Reddy, M.D.**, chair of Medical Disciplines, was appointed as the next secretary of the American Association of Clinical Endocrinologists. **John Blebea, M.D.**, was named advisor to the American Medical Association Relative Value Update Committee (RUC). This organization recommends reimbursement rates for physicians. **Furhut Janssen, M.D.**, has been elected as chair of the American Osteopathic Board of Neurology and Psychiatry.

I am awestruck at the incredible accomplishments and the progress of our journey in a short amount of time. Our dedicated leaders at CMU, our bright students and the fantastic network of community leaders, financial benefactors, health-care organizations and volunteer physicians across the state deserve credit for the increasing economic, social and individual impact of the College.

While this past year has seen our mission in motion in ways and places never seen before, I am even more excited to see where our journey takes us next year as we focus on our strategic blueprint, geographic footprint and how we touch the lives of people with our handprint.

George E. Kikano, M.D.
Dean, CMU College of Medicine

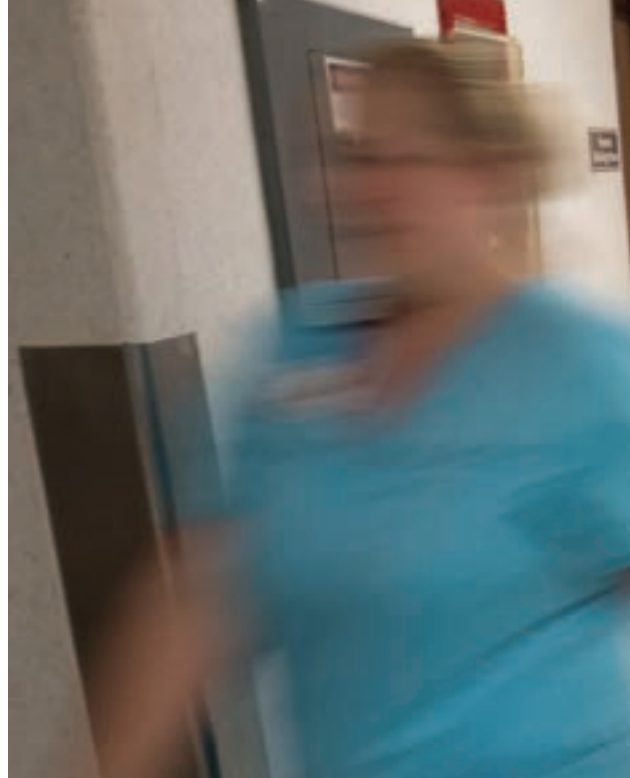
CMU HEALTH DELIVERS HIGH-QUALITY PATIENT CARE

CMU Medical Education Partners and CMU Health serve as the graduate medical education and clinical arms for the CMU College of Medicine. Together, these train the next generation of highly qualified physicians and provide care for the community. In 2018, over 7,000 medical students applied to our Emergency Medicine, Internal Medicine, Family Medicine, Obstetrics and Gynecology, Podiatric Medicine and Surgery, Psychiatry, and General Surgery programs.

Covenant HealthCare and St. Mary's of Michigan serve as the primary referral hospitals for patients throughout mid- and northeastern Michigan. CMU Health's clinical locations offered multiple specialties and provided ambulatory care for 52,000 patients in 2017-18, making it one of the largest providers of quality patient care in the region.

"We have a remarkably advanced medical education program, the most up-to-date facilities and state-of-the-art technology. Our patients recognize this and are confident that they are receiving high-quality care from our resident physicians and expert faculty specialists."

Samuel Shaheen, M.D.
Executive Director
CMU Medical Education Partners



CLASS OF 2018 PREPARED TO LEAD AND SERVE

In 2018, the CMU College of Medicine conveyed degrees to 93 graduating doctors. The achievements of these students on Match Day 2018 reflects the positive contributions they will make in the future.

Together with the Class of 2018, they continued to build a legacy for the College of Medicine's growing program and embodied our mission to improve access to high-quality care in underserved areas.

Military Graduates

Joshua Forsyth, M.D., of Chesaning, Michigan, will complete his residency in Family Medicine at CMU Medical Education Partners in Saginaw.

Ricardo Galindo, M.D., will complete his residency at San Antonio Military Medical Center.

John Geselman, M.D., of Carson City, Michigan, will complete his residency in Family Medicine at Darnall Army Medical Center in Fort Hood, Texas.

Soham Parikh, M.D., will complete his residency at Medical College of Georgia at Augusta University.

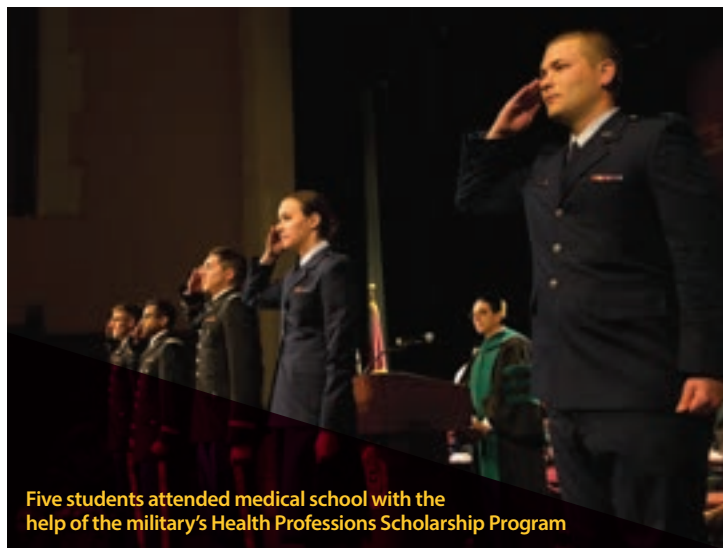
Laura Virgo, M.D., of Ypsilanti, Michigan, will complete her residency in Psychiatry at Wright-Patterson Air Force Base Medical Center in Dayton, Ohio.

	2013-14	2014-15	2015-16	2016-17	2017-18
CLASS SIZE	64	104	104	104	104
TOTAL APPLICANTS	2,765	3,007	4,603	4,854	5,443
IN-STATE STUDENTS ENROLLED	57	95	80	78	81
UNDERREPRESENTED IN MEDICINE	0	1	15	14	13

Match Day Results

- » 100% residency placement rate
- » 10 students will join our residency program in Saginaw, Michigan
- » 54% will join programs in Michigan
- » 75% chose to serve as a primary care provider

The CMU College of Medicine saluted five new doctors in its graduating class who attended medical school with the help of the military's Health Professions Scholarship Program. Combining their military service with scholarship helped these five new physicians maximize their educational investment through the College.



Five students attended medical school with the help of the military's Health Professions Scholarship Program



Katelyn Bonkowski at her Comprehensive Community Clerkship placement location in Standish, Michigan

COMPREHENSIVE COMMUNITY CLERKSHIPS *CHANGING LIVES AND BUILDING RELATIONSHIPS FOR PATIENT CARE*

Involvement in the community is a deeply held ethic and way of life for students and faculty throughout CMU's College of Medicine. All third-year medical students engage in a Comprehensive Community Clerkship (CCC), guided by a community educator physician in rural and urban medically underserved areas throughout Michigan.

The 24-week clerkship immerses students in a single medical practice to experience health care within a community, rather than move them through the more traditional 6- to 8-week family medicine rotations. There is no other program like it nationally.

Through the clerkship, students learn primary care skills in a fully-integrated manner. The goal is to give students enough time to gain the skills and confidence to become an integral part of a practice and to understand the community where the patients live. They gain experience in the longitudinal care of patients from introduction through diagnosis, treatment, management and follow-up.

According to students and preceptors, the CCC difference is clear.

Student **Katelyn Bonkowski** was assigned to the five-year-old family medicine practice of **Brodi Lynch, M.D.**, part of the St. Mary's of Michigan Standish Hospital health-care team. "The program's six-month structure speaks for itself," remarked Dr. Lynch. "If a student came in and only spent a few weeks with me, which is how it is traditionally in family medicine rotations, I do not think that they would ever develop the relationship with patients and their preceptor or get to see the scope of family medicine from beginning to end like Katelyn did. I give CMU a lot of credit for that."

Bonkowski agreed, "It was one-on-one, so all of Dr. Lynch's knowledge and experience was directed toward me. You are there for so long that you develop relationships and become trusted. It validated for me that I want to work where I can create the relationships like I had in Standish."

Fellow medical student **Manjit Bhandal** had a similar positive experience with the CCC. "This is one of the best experiences I've had throughout my time in medical school and, honestly, probably the most worthwhile experience of my academic career," she said of her placement with faculty member **Paul Simmons, M.D.**, in Mount Pleasant.



EXPANDING RESEARCH ENGAGES FACULTY AND STUDENTS

The CMU College of Medicine's expanding research agenda is gaining momentum and recognition, as our highly qualified faculty continue to push the boundaries in areas of basic and translational research while engaging their students.

CMU Neuroscientist and College of Medicine faculty member **Ute Hochgeschwender, M.D.**, is introducing students to the world of bioluminescent-optogenetics and leading research using organic light to study how to repair damaged cells in the brain and other parts of the body. Bioluminescence is the production of light by living organisms that makes them glow. The field of optogenetics uses light to both activate and inhibit the firing of neurons.

Through a \$2.25M grant from the National Institutes of Health and \$1M funding from the W. M. Keck Foundation, Ute and research colleagues are working to expand the concept of bioluminescence-driven optogenetics, as well as applying it to spinal cord injury models and mouse models of neuropsychiatric disorders.

Julien Rossignol, Ph.D., directs the Rossignol Lab, which is part of the Field Neurosciences Institute (FNI) Laboratory for Restorative Neurology. FNI is part of the Brain Research and Integrative Neuroscience (BRAIN) Center. Current research focuses on devising potential treatments for neurodegenerative diseases, particularly Huntington's disease, Parkinson's disease and Alzheimer's disease.

"Our work engages medical students to work side-by-side with neuroscience undergraduate and graduate students on cutting-edge approaches. The initiative seeks to deepen understanding of the inner workings of the human mind and improve how we treat, prevent and cure disorders of the brain," Hochgeschwender said.

In 2018, the American Heart Association awarded an Institutional Research Enhancement Award of \$154,000 to Rossignol, who is leading a project that will focus on a novel dendrimer-based delivery platform for endogenous brain repair after a stroke.

"We educate and integrate students in high-level neuroscience research. Our recent work with nanoparticles, which involved undergraduate, graduate and medical students, has great potential in the near future to treat brain diseases and stroke," Rossignol said.

CMU HEALTH PATIENT CARE



52,000

AMBULATORY CARE
PATIENT VISITS



52

PHYSICIANS



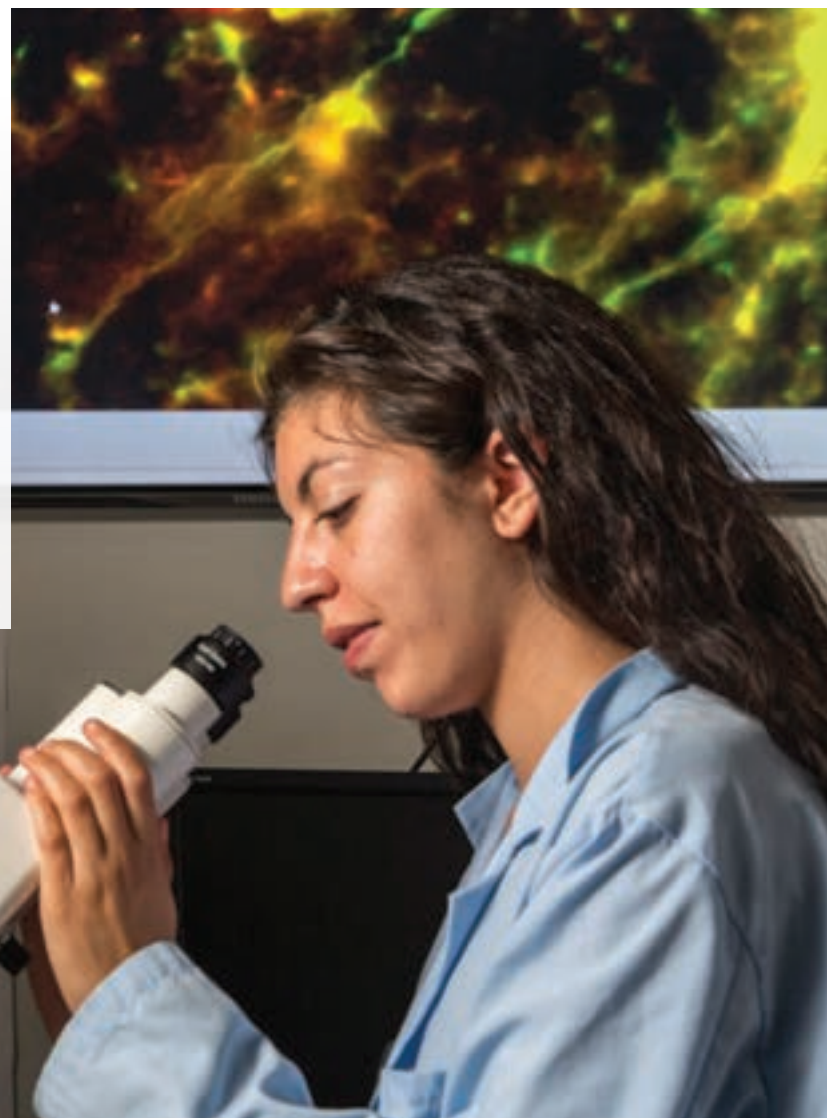
900

DELIVERIES



7,800

SURGICAL
PROCEDURES



**Olivia Lossia tracking nanoparticles
in a rat's brain using a live in vivo imager**

COLLABORATING AND INTERVENING TO PREVENT SUICIDE

Primary care providers play a crucial role in connecting people to needed specialty care, especially when they collaborate or formally partner with behavior health-care providers. According to the Suicide Prevention Resource Center, up to 45 percent of individuals who die of suicide have visited their primary care physician within a month prior to their death. Additional research suggests that up to 67 percent of those who attempt suicide receive medical attention as a result.

The Michigan-based Barb Smith Suicide Resource & Response Network (SRRN) (formerly Survivors of Suicide), in partnership with Central Michigan University, was awarded a \$50,000 grant from The Dow Chemical Company Foundation. The grant is funding evidence-based educational programs for health care and medical students, as well as residents and faculty. The educational programs are intended to increase awareness about mental health, provide skills for suicide intervention and help patients and families understand suicide prevention.

The CMU College of Medicine houses the SRRN at its Saginaw campus location.

“We are honored to collaborate with the CMU College of Medicine in offering trainings for suicide awareness and intervention skill development for the next generation of health-care professionals, with a focus on patient-centered care,” said Barb Smith, executive director, SRRN. “Implementing this training is an opportunity to be on the cutting edge for suicide prevention.”

SRRN focuses on prevention, intervention and aftercare for those impacted by suicide. Over the last year, SRRN provided *safeTALK* training for medical and audiology students at CMU. Additionally, SRRN partnered with a national expert to conduct trainings for physicians and residents on the Chronological Assessment of Suicide Events (the CASE Approach).



Maher Ghanem, M.D., offers robotic-assisted surgeries

CMU HEALTH A LEADER IN ROBOTIC SURGICAL PROCEDURES

New minimally invasive operations are becoming possible through robotic-assisted surgery that offers many benefits for patients including, smaller incisions, less post-operative pain, quicker recovery time and faster return to normal activities. The robotic surgery team is using the da Vinci™ robotic surgical system for colorectal, general, gynecological, thoracic and urological procedures.

Maher Ghanem, M.D., a fellowship-trained surgeon in hepatobiliary surgery from the University of Pittsburgh Medical Center, recently performed a robot-assisted distal pancreatectomy and splenectomy.

Additionally, Dr. Ghanem and **Samuel Shaheen, M.D.**, performed the first pancreaticoduodenectomy (Whipple procedure) in the area using the da Vinci™ robotic surgical system.

Elizabeth Paulus, M.D., the area's only board-certified surgical oncologist, also performs these procedures. The Whipple procedure, used to remove tumors from pancreatic cancer patients, is an extensive operation that involves the removal of sections of the pancreas, gallbladder, part of the small intestine, bile duct and stomach; followed by reconstruction of the digestive tract.



MEDICAL *EDUCATION*

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

PATIENT *CARE*

MOUNT PLEASANT

CMU Health (Primary & Specialty Care)

2600 Three Leaves Drive
Mount Pleasant, MI 48858
989.774.7585

CMU Health

Student Health Services
Foust Hall 200
Mount Pleasant, MI 48859
989.774.6599

BAY CITY

CMU Health (Surgery)

615 South Euclid, Suite 3
Bay City, MI 48706
989.667.5700

SAGINAW

CMU Health (Internal Medicine, Pediatrics, OB/GYN)

1000 Houghton Avenue
Saginaw, MI 48602
989.746.7500

CMU Health (Family Medicine)

1575 Concentric Boulevard, Suite 1
Saginaw, MI 48604
989.746.7500

CMU Health (Surgery)

912 South Washington Avenue, Suite 1
Saginaw, MI 48601
989.790.1001

CMU Health (Primary Care)

5421 Colony Drive
Saginaw, MI 48638
989.790.3141

Advance Health Care in Michigan by Supporting Our Students.

Medical student indebtedness is a significant challenge. By providing support through student scholarships, we help CMU medical graduates choose specialties that support our mission and serve the medically underserved people of Michigan.

Donate now at www.cmich.edu/colleges/cmed/Giving; select the Shaping a Healthy Tomorrow Scholarship Fund.

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