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MedChi
The Maryland State Medical Society

Maryland Medicine

VOLUME 24 ISSUE 3

Innovations in Medical Education

The New College of Osteopathic Medicine at Morgan State

Debut Novel Is Prophetic Thriller About Dangers of AI in Health Care

From the President...

James York, MD

Academic medicine is undergoing tremendous change brought on by the pandemic, the racial reckoning that came with COVID-19, and new developments in technology. These emerging new trends in academic medicine are the theme of this issue of *Maryland Medicine*.

A paradigm shift is also occurring in the health care industry toward team-based care.

The archetypal image of the physician as the decision-maker and sole care provider is increasingly deemed outdated. Instead, interdisciplinary teams comprised of physicians, nurses, nurse practitioners, physician's assistants, nutritionists, therapists, social workers, and pharmacists are collaborating to deliver consultative care. Health science education has already taken steps to address this change by adopting more team-based and interprofessional curricula.

An article written by students Karen Qi and Rose Pagano (p. 9) underscores the fact that students clamor for a learning model that is fair, community based, and in keeping with public policy. Qi and Pagano identified a gap in their training: first-year med students had limited access to naloxone administration training. With perseverance and due diligence, the students were able to get a resolution passed at MedChi's House of Delegates session that successfully advocated for the inclusion of mandatory naloxone training in the curriculum.

Students who think more holistically about the issues their patients are experiencing and collaborate with others across the system represent the new norm. And educational leaders have taken note, as evidenced by the recently proposed Meritus School of Osteopathic Medicine, which you can read about in Paula Gregory's article on page 7.

Medical schools will redefine and adjust their approach to diversity, equity, and inclusion (DEI). Diversity and inclusion have become increasingly important issues within our society, and academic health is no exception. As academic institutions have become aware of their shortcomings in representational diversity, they have developed policies and programs to increase the diversity of leaders, faculty, staff, and learners. The newly proposed Maryland College of Osteopathic Medicine at Morgan State University (p. 5) aims to include educating students about the impact of social and economic factors on health outcomes and providing them with the skills to work with communities to address these issues.

Technology in medical education — artificial intelligence, virtual reality, and simulation-based learning, are here to stay The traditional methods of medical education, which have been in place since the Industrial Revolution, are being questioned. Active learning and simulation methodologies have emerged as key supplements or even replacements for conventional approaches. New technologies such as artificial intelligence (AI) and virtual reality (VR) are now used for hands-on aspects, such as learning how to perform complex surgeries without risking harm to any patient. Moreover, VR in education offers a robust technological environment, an immersive experience, and training that affords students the time to practice and use tools at their own pace.

The future of health professions is marked by rising global demand, a shift toward active learning and simulation methodologies, team-based care, and the transformative impact of AI. These changes reflect the dynamic nature of health care and the constant need for innovation to meet the evolving needs of patients and society at large. By bringing to the academic curricula the latest technology, the spirit of innovation, new learning models, and the commitment to health equity, we will keep health care in this country at the forefront of pushing the boundaries of what health should be in the future.

What You Need to Know Now

- Effective July 1st, **adult-use cannabis became legal** in Maryland pursuant to Senate Bill 516/House Bill 556: Cannabis Reform. More information can be found here: https://www.medchi.org/Cannabis-Reform, which includes a link to the emergency regulations that went into effect that same day. The newly named Maryland Cannabis Administration also has good resources for the public on adult-use cannabis and a section dedicated to medical cannabis: https://mmcc.maryland.gov/Pages/home.aspx.
- **The Centers for Disease Control and Prevention and the U.S. Food and Drug Administration are reporting limited supply and impending depletion of stock for select Bicillin® L-A** (penicillin G benzathine injectable suspension) **and Bicillin® C-R** (penicillin G benzathine and penicillin G procaine injectable suspension) **prefilled syringes**. While these estimates may change, the earliest anticipated recovery date is the second quarter of 2024, according to a recent letter issued by Pfizer. More information can be found at: https://www.mbp.state.md.us/forms/Clinician_letter_Bicillin_06232023.pdf.

Innovations in Medical Education and Patient Care at the University of Maryland School of Medicine

Mark T. Gladwin, MD, and Donna L. Parker, MD, FACP

Innovation in medical education and patient care is no longer an option or a separate field of focus within academic medicine. In medical education, we must always respond to generational challenges in society and medicine that impact how and what we teach our students. These challenges include the rapid emergence of new zoonotic viral pandemics, like avian flu, ebola, and SARS-CoV2. This includes the non-communicable pandemics of mental health and substance use disorders, gun violence, obesity, and the aging of our population. We also face major changes in the delivery of health care driven by the revolutions in computation and information technologies. The latter challenge is illustrated by the use of the electronic health records and artificial intelligence systems for population health care delivery. The University of Maryland School of Medicine (UMSOM) is at the forefront of innovation in medical education and patient care. With a vision to create a transformative learning experience for our students and to prioritize the well-being of future physicians, the UMSOM has implemented various initiatives and embraced emerging trends in medical education to enhance the medical student experience while increasing the quality of patient care. Additionally, we have recognized the post-COVID lessons and challenges, incorporating health equity and improved access to care into our new MD curriculum.

A significant aspect of enhancing both the student and patient experience includes embracing technological advances in medicine and education. Our faculty use advanced pedagogical approaches to teach our students, such as a "flipped classroom" model for many sessions to promote active learning. Our students also receive instruction through both standardized patient encounters with professional "patients" and high-fidelity simulation utilizing technologically advanced mannikins. This allows for learning through repetition and observed feedback without risk to patients. We developed a point-of-care ultrasound curriculum that we are currently piloting with 30 students, with plans to expand it to every incoming student. This program teaches students to utilize this revolutionary technology, dubbed "the stethoscope of the future," which will improve the delivery of care at the bedside and directly impact patient safety.

We are actively exploring how to integrate artificial intelligence (AI) into the curriculum, using tools like ChatGPT. As our students learn about various disease processes and their management, they input information about the presentation into ChatGPT and critique the response provided as part of their clinical decision-making sessions. We are also developing simulators utilizing AI to provide experiential learning through a more gamified approach. Finally, as we renovate our anatomy lab, we're creating space for the use of augmented reality/virtual reality (AR/VR), which will enable learners to repeat dissections they have learned on anatomical donors, or even practice life-saving procedures in virtual reality.

We're already seeing questions and discussions in the medical education community about the use of generative AI in medical education, and medical education will continue to integrate this and other technology more extensively in the coming years. AR/VR will be used to enhance immersive learning experiences, allowing students to practice medical procedures in a simulated environment. Advanced simulations will provide realistic patient scenarios for hands-on training to prepare students for real patient interactions.

With the increasing availability of health care data through electronic records, medical education will incorporate more data-driven approaches to patient care through the analysis of large datasets. Students will use AI algorithms to identify patterns and engage in evidence-based practice and personalized or "precision" medicine. Patient care will become more outpatient-based with an aging population, so we will prepare our students to harness technology and use quality metrics to drive care in an age-friendly manner, ideally bringing care to patients in their own homes. This

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Innovations in Medical Education, *continued from pg. 3*

will also require working collaboratively with advanced practice providers, pharmacists, and others to achieve the best outcomes. Residency programs are already thinking in terms of "competencies" and "milestones," rather than simply time in training to assess learner progress through their curricula. Medical education will undergo a further shift toward this model by assessing individual student strengths and weaknesses, and tailoring delivery of educational content and resources accordingly. This approach will optimize learning outcomes and help students progress at their own pace.

Given the current high rates of anxiety and depression in medical students nationwide, we're actively implementing initiatives to enhance and prioritize the well-being of future physicians. In addition to providing access to traditional support such as individual meetings, short-term counseling services, and workshops aimed at enhancing overall well-being, our school has a proactive Wellness Committee that convenes monthly to address student concerns and strategize initiatives tailored to meet their specific needs.

Our Office of Student Affairs has spearheaded a Personal Growth Program designed to empower students, equipping them with essential skills and fostering resilience. Given that many faculty interact with the medical students over the course of their training, the Office of Student Affairs has prioritized ongoing faculty training to ensure students can seek support in a multitude of places. We now expect all core teaching faculty to attend training for on- and off-campus resources. Additionally, our Medical Education Leadership Academy (MELA) is sponsoring a Mental Health First Aid training opportunity for faculty this coming fall. Thirty core faculty will participate in this day long training to become certified in providing Mental Health First Aid to students and colleagues in need.

As an institution that provides care to the underserved West Baltimore community, the University of Maryland School of Medicine addresses health inequities every day. In 2018, we embarked on curricular reform, and an important part of that effort was the meaningful integration of topics addressing diversity, equity, and inclusion (DEI) across the curriculum. We appointed a faculty DEI champion to help our course directors effectively address issues of inequity in our organ system classes, and to make students aware of the different outcomes that still exist in this country solely based on race and socioeconomic status. We additionally developed a lecture series in our clinical curriculum that explores the history of the effect of institutional racism on outcomes in medicine. Finally, we have instituted an accountability process by which all our educational material is reviewed through a DEI lens, to ensure that we are using inclusive language, images, and materials for our students. COVID-19 only confirmed our approach as the population we serve suffered higher rates of morbidity and mortality during the pandemic. The pandemic also highlighted the need for more telehealth education. Telehealth became the primary means for most outpatient care, and a means to deliver health care to those who lack resources to travel to their providers, or patients who live in areas of the state where no specialty care exists. We developed lecture and small group sessions and simulated patient sessions solely for telehealth due to the pandemic, and these sessions continue today.

With both the volume of medical information growing rapidly and the incredible advancement of technology mentioned earlier, we must take a continuous quality improvement approach to the curriculum to quickly assess where changes should be made across the four years of medical school. In this way, we work to keep pace with the latest advancements and nimbly incorporate them into the curriculum while maintaining a balance with traditional approaches to medical education, including hands-on clinical experiences and patient interactions. Today's medical students have different learning styles and preferences, so we are constantly seeking the most effective ways of engaging them. This may involve strategies such as implementing interactive teaching methods, utilizing multimedia resources, and incorporating active learning methods. All these innovations require resources for faculty development to ensure they have the skills needed to deliver medical education in new and exciting ways. The residency application process has become much more competitive, and we continue to develop ways for our students to differentiate themselves through longitudinal electives in which they can pursue areas of interest beyond our standard curriculum. This includes themes such as Medical Spanish, Social Justice, Rural Health Equity and Access, Global Health, Primary Care, Humanism, Occupational and Environmental Medicine, and Medical Education. This content also prepares them to work in an increasingly diverse and complex health care environment.

Today's generational challenges are more complex than ever, so we must re-train our brains to think and strategize in novel ways to solve these issues. We're proud to say that the University of Maryland School of Medicine is stretching itself in ways we've never done before, and we are actively shaping the future of health care delivery.

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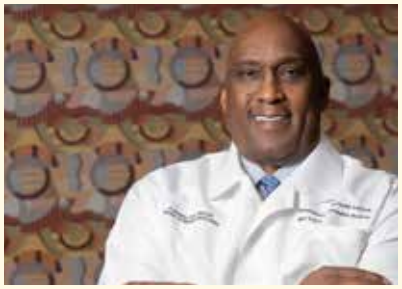
Health Care for Communities in Need: The Vision of the New Maryland College of Osteopathic Medicine

John Sealey, DO

From the earliest days of the 21st century, the Sullivan Commission Report on Diversity in the Healthcare Workforce declared a crisis in the U.S. national health care system — a gap in health status and impaired access to health care experienced by a significant percentage of the population — due to a severe imbalance in the makeup of the nation's physicians, dentists, and nurses.

Access to a health profession career remains largely separate and unequal, the Commission reported. The report called for (1) changing the culture of health professions, including health profession schools; (2) commitment at the highest level of government and in the private sector; and (3) exploring new and non-traditional paths to the health professions.

The proposed Maryland College of Osteopathic Medicine (MDCOM) at Morgan State University will respond to each of these areas comprehensively for Maryland and the nation.



John Sealey (top), DO, FACOS, and Barbara Ross-Lee, DO (bottom), founding dean and president, respectively, of the proposed Maryland College of Osteopathic Medicine at Morgan State University.

First, the proposed new college will address the deficiency of local health care capacity. Although Maryland's population has doubled since 1960, its physician workforce has not kept pace and is virtually nonexistent in some communities. Second, it will address the lack of diversity and minority representation in health care by educating and developing qualified and diverse health care professionals. And, finally, it is developing new pathways for entry into medical school, including partnering with colleges for students to go from college to medical school seamlessly.

The proposed MDCOM is to be housed on the campus of Morgan State University, the largest Historically Black College and University (HBCU) in Maryland. MDCOM will become the first medical school on a HBCU campus in fifty years, and the first osteopathic medical school on an HBCU campus, and the fifth medical school affiliated with an HBCU in the nation — critical steps toward increasing the numbers of minority health professionals and addressing the nation's persistent racial and ethnic health disparities.

Our mission is to produce human-centered, caring, competent, and diverse osteopathic physicians for all the specialties of medicine and contribute to the expansion of biomedical knowledge. As osteopathic medical students, MDCOM students will be trained in all medical modalities and specialties and will specifically train students to use their hands to diagnose, treat, and communicate care to their patients.

Health is a critical determinant in the well-being and development of any society. Access to quality health care has a significant impact on both individual employment, poverty, and quality of life, and public health, economic growth, and development. The global, national, and local shortages and inequality in quality health personnel keeps individuals, communities and entire ethnicities and nations from reaching their full potential.

Our vision is to prepare diverse and underrepresented minority students who will contribute to the practice of medicine in underserved communities and thereby contribute to reducing health care disparities and enhancing total population health and well-being.

MDCOM students will spend their first two years at the campus in Baltimore and their third and fourth years at community learning environments (i.e., clinical facilities, hospitals, and physician's offices) throughout Maryland, Delaware, and the District of Columbia.

Along with our anticipated articulation agreements with multiple HBCUs and universities in our geographic region, Morgan State University is developing a proposed master's in biomedical science to further develop pipeline programs to lead to medical school.

With a fall 2024 anticipated date for our first class to matriculate, plans are actively underway to develop the curriculum and recruitment of faculty to provide an innovative learning environment for MDCOM students.

John W. Sealey, DO, FACOS, is the Founding Dean of the proposed Maryland College of Osteopathic Medicine at Morgan State University. He can be reached at sealey@marylandcom.org.

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Curricular Innovations for the Medical Student of the Future

Paula M. Gregory, DO, MBA

Students who will become future physicians have a bright and exciting future. We need to anticipate the needs of the future physician to drive meaningful curricular changes. Students will stand on the accomplishments of those great thinkers of the past and future visionaries of medicine. Advances in care, access to care, and new technology are on the horizon to enable student learning. Students need to be nimble thinkers who understand not only the pathophysiology of the cell and manipulation of that system but also large population metrics. In fact, the future is now with a rapid rise in the amount and kinds of connections to our patients.

The future of medicine mirrors the medical school curriculum and needed changes in medicine with the early intervention and care of the patient with technologically enabled devices.

Just-in-time care delivery at the patient's home allows intervention in situations that were once not hopeful, such as stroke care and amelioration of chronic conditions. Early diagnosis of cancers and treatments are showing great success with precision snipping tools that are not damaging to the genome in the CRISPR studies.

Physicians of the future will be technologically enabled by the internet of things (IoT) and will have real time data prior to a patient visit. The future physician will also be able to monitor in real time. Patients with chronic care illnesses will have access to digital health applications that feed directly into the patient's record, and windows of safe and unsafe data will be available for monitoring a condition. Earlier and tighter control of chronic disease modifiers translates into timely intervention. An example of this is seen in the morbidity for women and children. Directly linked to mortality of women and children is the lack of monitoring and intervention by the primary care physician. This can be related to transportation, or other issues related to access to care.

Data now that is monitored and fed directly into the patient's chart and to the physician will control these risk factors. Physicians will again become the point of care — rather than transcribing into the chart fragmented information and operating on past data. The physician of the future will be able to make judgements on patient care before and at the time of a visit, not retrospectively.

The disruption of health care and medical education though COVID-19 has taught us that we can access the patient remotely and dive into targeted exams in the patient's home. Patients with acute symptoms can be accessed virtually and treated prior to an emergency room visit. Emergent patients, who are acutely in need, will be seen and treated, avoiding disability from strokes, for example, as lifesaving care is done via communication with the physician from the home.

Rural and elderly patients can have medical care with technologically enabled devices that feed into the system and the patient's chart. This care will alert the physicians of dangerous evolving situations and become less costly and widely available. Behavioral health can be delivered and managed with real-time reductions in waiting for intervention, allowing the patient access to care when needed by linking to needed services. Devices have become the standard of care and affordable for diagnosis, monitoring, and care.

Therefore, medical students will benefit from robust curricula that allow critical thinking and concepts linked together. Diseases, such as diabetes, dementia, and certain cancers, can be diagnosed earlier, or averted completely with personalized medicine that includes a deeper dive into the confounding factors of a case, such as delay in care, poverty, substance abuse, and other metrics that keep a patient from receiving care. Students will learn about health care and societal issues that impact the patient's health.

Previously challenging diseases such as cancers, and other genetic diseases, can be diagnosed early and treated with a genetic evaluation that can be done at the home, and changed by more advanced precision snipping tools. Altering the amount of genetic curriculum is needed for the future physician to know how to manage this system.

Diagnosis of problems using the microbiome of skin, oral, and other areas with links to certain diseases will be evolving.

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Bringing Naloxone Training to Medical Education

Rose Pagano and Karen Qi

We cannot remember a time when the opioid epidemic was not a topic of conversation in medicine. As medical students, every pharmacology course, research conference, or summer internship we participated in even prior to attending medical school took time to emphasize the irreversible impact of opioids in America. On a more personal note, we know people whose lives have been dramatically altered by addiction, and after years of waiting, we finally had the opportunity to initiate change as medical students.

We attend medical school in Baltimore City. Baltimore, like the rest of the state and the country, has been ravaged by the opioid epidemic. In fact, Maryland was one of the top five states for opioid-related overdose death rates between March 2020 and March 2021. Moreover, overdose deaths in Maryland have increased at an annual rate of 5 percent over the last three years, which manifests as more than six additional fatalities per day.

These statistics represent the devastating reality of opioid use in Maryland and were frequently emphasized in our medical education. Lecturers, patients, and mentors urged us to pay attention to this problem and be a part of the solution. In our courses, we learned about the life-saving capabilities of naloxone. It is easy to use, and everyone should learn how to administer it. This was the messaging our medical communities wanted to spread to the public.

However, our medical school curricula did not provide hands-on experience with naloxone administration during our first year. We watched several video tutorials and discussed the drug's pharmacology in lectures, but many of us still wanted to physically practice. Although there were student organizations that offered naloxone training, these events had limited space, and our class schedules sometimes conflicted with the training sessions. Many students were unable to receive the training, which stands in stark contrast to the messaging about the accessibility of naloxone.

We believe that our education needs to accurately reflect the dialogue around naloxone and further destigmatize its use. Naloxone does not have the potential for abuse, and it does not discourage people with an addiction from getting help. In fact, naloxone may create the opportunity for people to seek treatment. Research shows that basic training is sufficient for individuals without a background in health care to recognize the signs of an overdose and administer naloxone. There is no reason this information should not be equally accessible as CPR techniques or the Heimlich maneuver.

We felt that integrating naloxone training into Basic Life Support training, which is already required by medical schools, would address any uncertainty, hesitation, or fear surrounding the administration of naloxone. Although our undergraduate medical education is packed with content, naloxone administration is a skill that is life saving and immediately applicable, and it should be taught as soon as possible to medical students. We decided to write a resolution proposing that MedChi advocate for the integration of mandatory naloxone training for opioid overdoses into the undergraduate medical education curricula at institutions in Maryland.

Rose Pagano (top photo) and Karen Qi (bottom photo).

Resolution 1-23 was passed during the Spring 2023 MedChi House of Delegates session. Following passage of 1-23, MedChi sent letters to Maryland medical schools requesting that they integrate mandatory naloxone training for opioid overdoses into the curriculum. The University of Maryland School of Medicine responded to MedChi's letter stating that although they incorporate naloxone training for third-year students prior to starting on the hospital wards, they will now also have a mandatory training for all first- and second-year students, and these students will be provided with a Narcan Nasal Spray device during their first week of classes.

Similar positions promoting naloxone accessibility were adopted by the AMA at their House of Delegates meeting in June. The MedChi Opioid Committee, AMA Opioid Task Force, and many other organizations, have maintained their efforts to formulate policy solutions in response to new data. We hope to continue to take action based on all of the available research and information.

Rose Pagano is a second-year student at the University of Maryland School of Medicine; Karen Qi is a second-year student at Johns Hopkins School of Medicine. For a complete list of sources, contact rpagano@som.umaryland.edu or kqi5@jhmi.edu.

Thriving?
Or merely surviving.

Is your daily habit compromising the quality of your life? If so, you may have a maladaptive coping mechanism.

Maladaptive coping refers to coping strategies or behaviors that are ineffective, harmful, or counterproductive in dealing with stress, adversity, or difficult situations. And while chronic stress may not directly cause health problems, bad habits developed to cope with stress, such as comfort eating, smoking, excessive drinking and lack of time or energy for exercise, do. Not to mention the toll that bad habits take on your relationships with your family, your friends, and your quality of life. Don't wait to get help.

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Curricular Innovations, *continued from pg. 7*

Evolving knowledge on the microbes and virus linked to cancer and inflammatory diseases is a forward-looking curriculum change.

Diagnosis, treatment, and technology will be easier and more targeted for the physician of the future. Physicians in the near future will understand how to harness technology to examine patients at their home and to advise if an office visit or ER is needed, virtually linking patients to the right place at the right time and treating diseases in real time.

Students will have access to a curriculum that dives deeply into disease modification, genetics, the microbiome, cellular proteins and synthesis, which the are key to the future of the physicians. The students will know how to alter genetics of the system (RNA, DNA, RNA libraries, biomarkers to avoid medication resistance or other forms of cellular changes) at the point of change. A large CRISPR knock-out library targeting the 18,080 genes that have drug resistance has been cataloged, and the future physician can use drugs for cancer that will work. Students will learn how to utilize these resources, and access to information on managing the patient's diagnosis and treatment will avoid or avert diseases.

Classroom teaching has changed to active learning, a process that allows the student to become the teacher. The person who teaches is the one who understands the topic at a deeper level. Research shows that students learn in packets, first pass is didactic information, reading and understanding the topic. Students now have that information delivered and tested prior to coming to class. Next, cases and information are part of the team metrics. All teams will work together on a set experience. The students begin to understand medicine as a team and to think through the issues with others accelerating knowledge acquisition. Questions may center on an intercellular, biochemical, or macro model. Students are guided by experienced faculty and are challenged to show knowledge and linking concepts.

Learning through scripting allows students to recall a prototype case and the different clues on cases as if the information is assimilated on a tree with branches. Students that are able to discuss cases and describe what is happening will be learning at a higher level than listening to lectures and memorizing data.

Curricula will include more information on the care of the patient with chronic care issues. Immediate changes and feedback will show how interaction with prescription nutrition, advice, and care alter the case from sickness to wellness. Integrating the social determinants of health into research, interprofessional activities, and clinical medicine will aid the student's understanding of the complexities that can be changed to improve our patient's health.

These curricular challenges will allow students time to learn, and not depend on an algorithm for care. Each patient is unique, and often technology provides one metric without the confounding areas. The physician of the future will have the tools to critically think through the diseases that are commonly encountered.

Medical schools of today utilize systems such as virtual anatomy, saving hours in the dissecting lab. Students can use this time for study. If they select a surgical specialty, they will have opportunities to work with surgeons on living tissue when the time comes. Other innovative tools, such as virtual anatomy, immersive simulation of real experiences, and human patient simulators are tools that are utilized now. Simulation with the human patient simulators can portray a number of different situations that allow the student to learn and practice interventions and improve skills. Students can deliver babies with nuchal cords, vert a baby, or insert a fetal scalp monitor during the labor process. Students learn heart sounds that previously were only heard in the clerkship year through devices on a standardized patient. The future holds promise with immersive technology and virtual rooms. Procedures can be done by holographic techniques that simulate real-life situations, such as clearing a newborn airway and advanced surgical techniques.

The rapid paced changes in technology, disease modifying tools, and agents will have an exponential growth in physicians' practices and student learning tools.

Students must demonstrate competency. Testing didactic knowledge has not changed; however, skills that a physician must know are important and will be tested during the preclinical years and prior to clerkships.

Diagnostic tools like the point of care ultrasound will give the students the ability to quickly access a patient and if there is a need to urgently accelerate care at the bedside or examination room. Students will enter the clinical world knowing the body at a deeper level due to these teaching devices.

Students, indeed, are standing on the shoulders of giants as they learn from the advances in medicine and technology. We are excited for them and encouraged as we walk with them toward a fair and equitable future or all.

Paula M. Gregory, DO, MBA, is dean and CAO of the proposed Meritus School of Osteopathic Medicine. She can be reached at Paula.Gregory@meritushealth.com.

Montgomery County Medical Society Encourages Engagement of a Different Kind During Summer Months

Susan G. D'Antoni, FAAMSE

While MCMS physician members are prioritizing their own well-being this summer, with time off away from the rigors of their medical practice, MCMS is offering unique ways to be engaged.

On Wednesday, August 2, MCMS members came together outdoors on the lawn at Strathmore Performing Arts Center for one of their free concerts featuring Incendio, a globally inspired guitar ensemble. This type of event allows physicians to enjoy comradery and a night out away from medical practice meetings and after-hours documentation responsibilities. On Tuesday, August 22, the patio at Gringos & Mariachis will be the setting for a fun-filled networking event open to all members. MCMS will encourage their newest members to attend to connect with colleagues, to build relationships, and to enjoy an adult beverage and conversation.

MCMS physician members are traveling this summer near and far. Using MCMS's successfully adapted Rosie the Riveter icon who became Rosie the Physician, which was deployed during the legislative session, MCMS is encouraging members to take "Rosie on the Road." Members are invited to share their summer travel plans, and, so far, members have reported they've traveled to beaches and mountains in the domestic U.S. and to faraway places like India and Italy. A world map, regularly updated with physician adventures, is being shared in enews.

Another crowdsourcing initiative is to encourage more MCMS members to share why they are proud to be physicians. MCMS launched this campaign before COVID-19 to celebrate physician members and their dedication to their profession and patients. The Proud To Be a Physician Campaign has been promoted through collegiality dinners and giveaways, and the profiles are featured on social media and the MCMS website (https://montgomerymedicine.org/profiles-of-proud-physicians/).

Encouraging balance is a primary purpose of the National Capital Physicians Foundation's PRN Physician Counseling program. PRN provides independent, complimentary, confidential counseling to physicians in Montgomery County. This service is available year-round to those physicians striving to find balance in their personal and professional lives. For more information, go to dedicatedtohealth.org.

MCMS is also in the midst of planning fall activities for physician member engagement. Stay tuned.

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EDITORIAL STATEMENT

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Instagram for doctors.

Baltimore County Medical Association Honors Incoming and Past Presidents

Russel Kujan

Baltimore County Medical Association (BCMA) held its Installation of Officers & Annual Dinner at Eagle's Nest Country Club in May to honor three BCMA presidents: Amit Bhargava, MD; James Williams, MD; and Wanda Ward, MD. This pandemic-delayed celebration featuring dinner and live music was a huge success.

Pictured from left to right: Amit Bharghava, MD; James Williams, DO; and Wanda Wicks, MD.

Amit Bhargava, MD, was installed as Baltimore County Medical Association's new president. Dr. Bhargava is medical director of Advanced Interventional Pain and Sports Medicine Center. He is a member of Maryland State Prescription Drug Monitoring Program (PDMP) board, past president of Maryland Society of Physical Medicine & Rehabilitation board, and past president of American Association of Physicians of Indian Origin-Maryland Chapter. He is developing an artificial intelligence program for spinal problems and has been named one of Baltimore's Best Doctors.

BCMA recognized immediate past president, James Williams, DO. Dr. Williams is an emergency medicine physician with Meritus Health and Northwest Texas Healthcare System. He serves as Baltimore County Trustee to the MedChi Board of Trustees. He was Director of Emergency Medicine, Co-Chair of Quality Improvement at the Methodist Healthcare System and Chief of Staff at Methodist Specialty and Transplant Hospital in San Antonio. For two years, Dr. Williams served on the Board of Directors of the American College of Emergency Physicians.

Also recognized was past president, Wanda J. Wicks, MD, a family medicine physician who has been with Kaiser Permanente for more than three decades. Before joining the Mid Atlantic Permanente Group, Dr. Wicks owned a private practice in Montgomery, Alabama. While at Kaiser, Dr. Wicks was Physician Director for three outpatient facilities with a team including primary and subspecialties caring for over 33,000 patients. She also chaired the Quality Improvement Committee and oversaw their integration of electronic health records and was Kaiser's Assistant Physician in Chief for Service and the Assistant Physician in Chief for Access.

BCMA was very proud to honor and celebrate its physician leaders at this event.

Russel Kujan is Executive Director, Baltimore County Medical Association. He can be reached at rkujan@medchi.org.

Howard County Announces P.E.A.C.E. Project

The Perinatal Equity and Care for Everyone (P.E.A.C.E.) Project provides clients, families, and professionals with information about prenatal, postpartum, and infant resources available in Howard County. Anyone in Howard County is eligible to request a referral through this program.

The Perinatal Care Navigator assists clients, families, or providers in determining which services best meet the client's needs and interests. The navigator will then link the client to community resources/services and will follow up on the outcome of the referral. For more information about this project, email HCHDpeace@howardcountymd.gov or call 410.313.7540.

Baltimore City Medical Society presents the inaugural annual educational symposium

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$99 - BCMS and other MedChi Members
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- **Introduction to Personal Finance ~ Ty Bullard, MD**
- **Debt Management ~ AJ Schneider**
- **Asset Protection ~ Jeff Steiner, DO**
- **Negotiations ~ Arnold-Peter Weiss, MD**
- **Physician Entrepreneurship ~**
  - **Real Estate ~ Julius Kunle Oni, MD**
  - **Private Medical Practice ~ Sarah Merritt, MD**
  - **Home Health Care Business ~ Ariel Warden-Jarett, MD**

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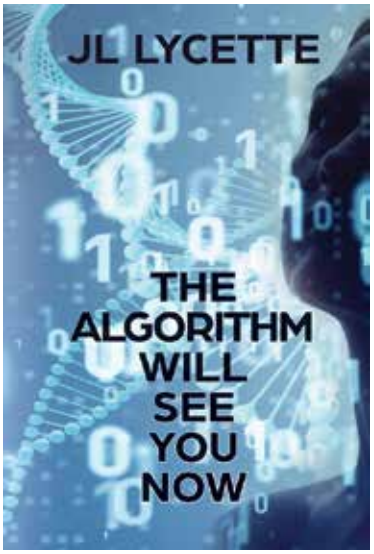
A Speculative Thriller Explores the Perils of Using AI in Health Care

***The Algorithm Will See You Now*, by JL Lycette, MD**
Reviewed by Stephen Rockower, MD

The year is 2035. At PRIMA, short for "Prognostic Intelligent Medical Algorithms in Seattle," all is well in the hospital. Or is it?

PRIMA is the foremost in diagnosis and prognosis. According to the algorithm, all patients who are accepted to the program will survive their illness. But, sometimes, patients fail the algorithm. They're "non-responders" to the precision care offered by PRIMA. The protagonist of the book, Dr. Hope Kestrel, is dealing with one of those non-responders.



Such is the setup for *The Algorithm Will See You Now*, a fast-paced speculative thriller that explores the use of AI in health care. Dr. Hope Kestrel, the protagonist, holds the position of High Resident (what would be called the Chief Resident in any other hospital). Rather than a yearly position, her position is constantly fluctuating, depending on the points awarded or removed by the Online Speech and Language Recognition system (OSLR). As such, her career nemesis, Dr. Leach, finds every opportunity to make her look bad so that he can replace her as High Resident.

Medical technology has come a long way by 2035, as diagnosis and treatment is performed at PRIMA entirely with AI and a voice-powered chart assistant called Osler. The PRIMA health system's AI determines upfront whether a patron (its word for "patient") will benefit from a particular treatment or is instead likely to be a "non-responder." The goal is to "optimize." If this were a perfect system, the AI would free both patients and doctors from the fallacy of choice. The logic being that algorithms are more trustworthy than people.

And therein lies the problem.

The algorithm is far from infallible, as Dr. Kestrel will eventually find out. A pivotal plot point occurs when the algorithm selects one of Dr. Kestrel's patients as a responder, which turns out to be wrong. Intrigue and tragedy ensue until eventually Dr. Kestrel is called to the COO's office and is criticized for the insubordination of not immediately reporting the non-responder.

The Algorithm Will See You Now is a futuristic medical thriller that explores the problems raised by Artificial Intelligence, or Augmented Intelligence (AI) in medicine. Computers have a great wealth of information in their memory banks, but is there any judgment? When presented with a scenario for which there is scant or no background information, what is the outcome? As physicians we are subjected to this every day in the prior authorization process, as the computers may not have all the information and must rely on limited statistics to make important decisions.

Studies of AI in medicine have also shown that bias can be incorporated into the algorithm when biased information is fed into it. It's the "Garbage In; Garbage Out" phenomenon. When researchers at Duke University constructed an algorithm for pediatric sepsis, they found it discounted Hispanic children, because the ER docs seeing them had waited longer to draw appropriate labs. (One cause for this might be difficulties in translation.) The computer models decided Hispanic children got sicker slower, but in fact it was our own ingrained biases and disadvantages being fed into the computer model. PRIMA suffers from the same faulty logic.

In the end, Dr. Kestrel proves victorious by uncovering the errors of what was fed into the algorithm and by whom. Along the way there are some highly questionable decisions and actions, such as when the High Resident in Medicine performs life-saving surgery on a patient she has had to sneak into the hospital during weekend hours.

Ultimately the book is a quick read, and aptly points out the dangers of relying blindly on computer output when training and intuition may point us elsewhere. It is possible that technology will eventually catch up, but in the meantime, we must be ever vigilant to the needs of the patient who is in front of us.

Stephen Rockower MD is a past President of MedChi. His Twitter handle is @DrBonesMD.

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MedChi's Newest Physician Members

MedChi welcomes the following new members, who joined between April 30, 2023, and July 8, 2023.

Michael K Abraham, MD — UMMS
Mostafa Mahmoud Ahmed, MD — Montgomery Otolaryngology Consultants
Oluremi R Akinlade, MD — Remi Akindlade Medical Assocates
Olubukunola Awosika, MD, FACOG, MBA — Kaiser Permanente
Nancy T. Behram, MD
Michael Bond, MD — University of Maryland Medical Center
Eric F. Ciganek, MD — Ciganek LLC
Nicole E Cimino-Fiallos, MD — Kaiser Permanente
Kate Poropatich Dominguez, MD — Kaiser Permanente
Paul K. Dyer, MD — James & Dyer Ophthalmology
Jamal Fadul, MD
Brock Harting Gamez, MD — Kaiser Permanente
Roopa Gupta, MD
Sam Hash, MD — Kaiser Permanente
Mahrukh Hussain, MD — Kaiser Permanente
Saied Jamshidi, MD — S. Jamshidi, MD, PC
Nataley Kavita Jhingoeri, MD — Kaiser Permanente
Malav Joshi, MD — Kaiser Permanente
Ashley Cristina Augustus King, MD — Kaiser Permanente
Jocelyne Toukep Kouatchou, MD — Kaiser Permanente
Rida Laeeq, MD — Kaiser Permanente
Benjamin Lawner, DO — UMMS
Anne Lee, MD, MPH — Frederick Health
Jason M Lee-Llacer, MD — Doctors Community Hospital & Affiliates
Edward McCarthy, MD
William Merritt, Jr, MD — The Johns Hopkins Hospital
Duane Monteith, MD, FACS
Theresa T Nguyen, MD — Greater Baltimore Medical Center
Jennifer Teitelbaum Palmer, MD
Anthony S Park, MD — Kaiser Permanente
John Rabine, MD
Camille Y Richards, MD — Kaiser Permanente
Natasha Alison Rodney, MD — Kaiser Permanente
Anthony Roggio, MD — UMMS Leadership
Abdel Kader Sawan, MD — Kaiser Permanente
Bradford Edward Schwartz, MD — Kaiser Permanente
Noor M. Siddiqui, MD — Allegany Medical
Shahab Z. Siddiqui, MD — Allegany Medical
Agnes Sierocka-Castaneda, MD — Adventist HealthCare White Oak Medical Center
Benjamin C Silverman, MD — Kaiser Permanente
Angela D Smedley, MD — UMMS Leadership
Talbot Smith, MD
Mark Sutherland, MD — UMMS Leadership
Raymond Tu, MD
Pankaj Vaidya, MD — Chhabra and Sait, MD, PA
Alexander M Vu, DO — Kaiser Permanente
Justin D Waltrous, MD

SAVE THE DATE

HOUSE OF DELEGATES MEETING

The Hotel at Arundel Preserve

SATURDAY

28 OCTOBER

www.medchi.org/HOD

MedChi
The Maryland State Medical Society

Are you interested in serving on a MedChi Council or Committee?

We'd love to have you!! Browse our council/committee listing on www.medchi.org and see what interests you most in organized medicine. Don't miss your chance to network with colleagues and to help strengthen MedChi.

- 7 councils to choose from that focus on a variety of topics like Advocacy, Communications, Diversity, and more.
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A Pioneer in Academic Medicine: Sir William Osler, MD

It isn't only the most recent physicians, professors, and teachers who have introduced new trends in academic medicine; it has happened throughout history. In fact, one of MedChi's own, Sir William Osler, MD, was instrumental in changing how medicine was taught.

For generations, medicine was purely academic: lectures and books were the order of the day. Students barely saw patients. But in the early 1900s, Doctor William Osler moved the teaching of medicine from the lecture hall to the bedside. He took his students into the wards. He showed them how patients looked, touched their skin, and observed changes in skin, eyes, and demeanor. He asked the patients questions about how they felt, what changes they had noticed, and let them have their first taste of autonomy.

In 1892, Dr. Osler published *The Principles and Practice of Medicine,* a ground-breaking book, which remained in publication until 2001. In this book, he previewed some of his thoughts on moving from academia to hands-on practice. He established the first residency program at Johns Hopkins Hospital in its early years so that the students he was teaching would have the opportunity for practical work. Residency programs quickly gained favor in English-speaking nations, and then around the world.

When he was president of the Medical & Chirurgical Faculty in 1896, he encouraged old and young physicians to mingle at the Faculty's building, believing that they could each learn from the other. He requested that the faculty subscribe to a wide range of local, national, and specialty medical journals, so that all physicians would have access to them. These journals are still housed in MedChi's stacks library today, although most are available online.

One of Dr. Osler's most well-known quotes is still relevant today, more than one hundred years later: "Medicine is learned by the bedside and not in the classroom. Let not your conceptions of disease come from words heard in the lecture room or read from the book. See, and then reason and compare and control. But see first."

MedChi Calendar of Events

A complete list of MedChi and component events can be found at: http://www.medchi.org/Calendar-of-Events.

AUGUST

16: Maryland Neurosurgical Society (MNS) Board Meeting
22: MCMS Members Networking Happy Hour, Gringos & Mariachis in Parc Potomac

SEPTEMBER

5: MedChi Cannabis Committee Meeting
9: Baltimore City Medical Society Financial Seminar
12: MedChi Gender Pay Equity Subcommittee
13: Baltimore County Medical Association Board of Governors' Meeting
13: Maryland Society of Eye Physicians (MSEPS) Board Meeting
14: Baltimore City Medical Society Board Meeting
17: MedChi Presidents Meeting
20: MedChi Ethics Lecture
21: MedChi Board of Trustees Meeting
26: IDEA Committee Meeting
27: Orioles v Nationals Member Social Event
27: Baltimore County Medical Association CME Event

OCTOBER

11: Maryland Dermatologic Society Membership Meeting
12: Baltimore City Medical Society Board Meeting
15: MedChi Presidents Meeting

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