



SGIM *Forum*

Society of General Internal Medicine

FROM THE SOCIETY: PART I

JOIN YOUR COLLEAGUES VIRTUALLY AT #SGIM21

Francine Jetton, MA; Joe Hinkley

Ms. Jetton (jettonf@sgim.org) is the director of communications and publications for the Society of General Internal Medicine. Mr. Hinkley (hinkleyj@sgim.org) is the marketing manager for the Society of General Internal Medicine.

The challenges of 2020-21 brought with them a sea of innovation—our generalist colleagues have had to adapt and pivot in new directions, and so has SGIM. This year's annual meeting transcends the boundaries of physical space to bring you a vital and energizing learning experience through our new virtual platform. Learn more about how we are all “Transforming Values into Action” at the SGIM 2021 annual meeting, Tuesday-Friday, April 20-23.

Daily Events at the Meeting

Each day of the meeting brings many new opportunities for education, networking, and peer-to-peer interaction.

Plenary Sessions

Our exciting and varied speakers help focus us at the beginning of each day.

- Tuesday: Fawn Lopez, Publisher and Vice President of *Modern Healthcare*. “Leading Through Values: From Lessons of the Pandemic to Leadership Shifts for the Next Normal”
- Wednesday: Dr. Vivian S. Lee, President of Health Platforms at Verify Life Sciences. “Lessons from *The Long Fix*—Leading the Transformation to Value”
- Thursday: Dr. Dayna Bowen Matthew, Dean and Harold H. Greene Professor of Law at The George Washington University Law School. “Realizing True Health Equity—An Equal Opportunity to be Healthy For All”

- Friday: LaShyra “Lash” Nolan, Harvard Medical School Student Body President. “It’s Never Too Early to Become an Agent for Change”

Distinguished Professor Special Series

Join a different Distinguished Professor each day during their Keynote Lecture. Each Distinguished Professor will also lead discussion in a Virtual Poster Walk & Talk focused on their area of expertise.

- Tuesday: Distinguished Professor of Geriatrics (DPG) Mara A. Schonberg, MD, MPH
- Wednesday: Distinguished Professor of Health Equity (DPHE) Alicia Fernandez, MD
- Thursday: Distinguished Professor of Hospital Medicine (DPHM) Rebecca A. Harrison, MD, FACP
- Friday: Distinguished Professor of Women and Medicine (DPWM) Redonda G. Miller, MD, MBA

Events throughout the Meeting

Opportunities for education and networking are packed into the annual meeting schedule. SGIM attendees will also still find plenty of “traditional programming” with dozens of LIVE Workshops, Interest Groups, and Mentoring Panels as well as pre-recorded sessions like Special Symposia, Clinical Updates, and Oral Abstracts. New innovations include all-day poster sessions (see as many as you want—at your convenience), Clinical Update Jeopardy featuring regional teams, and discussion

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jean.kutner@cuanschutz.edu

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mfeldman@medicine.ucsf.edu

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reena.karani@mssm.edu

Rita S. Lee, MD | Denver, CO
rita.lee@ucdenver.edu

Margaret Lo, MD | Gainesville, FL
margaret.lo@medicine.ufl.edu

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pignone@austin.utexas.edu

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ebschwarz@ucdavis.edu

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jjackson@mcw.edu

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Tiffany I. Leung, MD, MPH, FACP, FAMIA | Maastricht, NL
Editor.SocietyGIMForum@gmail.com

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Dan.hunt@emory.edu

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ovingtonk@sgim.org

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Director of Communications and Publications

Francine Jetton, MA | Alexandria, VA
jettonf@sgim.org

FROM THE EDITOR

KEEP CALM AND KEEP ON LEARNING

Tiffany I. Leung, MD, MPH, FACP, FAMIA,
Editor in Chief, *SGIM Forum*

I recently had the tedious administrative task of counting and collecting certificates for my continuing medical education (CME) hours for professional reporting purposes. Over time, a great deal of our work has come to count as CME: these include searching for point-of-care clinical information to support patient care decisions to routine professional activities, like reading journal articles and attending conferences. More recently, emerging CME activities include listening to podcasts and even engaging in CME-accredited tweetorials.¹

Despite learning from officially accredited CME activities, physicians at any career stage are constantly learning from non-accredited yet similarly educational resources as practicing clinical medicine is such a knowledge-intensive discipline. Articles in this month's *Forum* offer such essential learning: Oboh, Student National Medical Association president, discusses why Black students cannot stand alone in transforming undergraduate medical education; Bussey-Jones offers her advice on how to diversify academic leadership; Graves, et al, share experiences of quickly launching a combined virtual regional meeting; and Jetton previews the upcoming virtual annual meeting.

The annual meeting marks a leadership transition as well as Jean Kutner, SGIM President, offers her final president's column before Monica L. Lypson, SGIM President-Elect, begins her term. Green, Dunne, and Bass provide updates on collaboration between SGIM and UpToDate for learning content development; McNamara, et al, review the Women and Medicine Commission's collaboration with the Health Equity Commission on Career Advising Program updates; and Ahson shares a case report where a PaO₂ saturation gap can be a vital clue for making a critical diagnosis.

Reading and reviewing articles from SGIM members for *Forum* is a treasured part of my routine learning even without the official badge of CME accreditation. What else do you do to keep on learning?

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SGIM

BUILDING ON A STRONG FOUNDATION AND LOOKING AHEAD TO THE FUTURE

Jean S. Kutner, MD, MSPH, President, SGIM

... SGIM has excelled over the past year in advancing goals thereby further cementing general internists and SGIM as leaders in addressing the complex issues we face now and in the future. I close out my president year with deep gratitude to the SGIM staff, the volunteer leadership, and to each of you for keeping us moving forward in our mission of cultivating innovative educators, researchers, and clinicians in academic general internal medicine. Each of you is a leader.



The last President's column has traditionally been one of reflection—on what has transpired during the presidency year and on hopes for the future. As I consider this past year during which it has been my pleasure and honor to serve as your president, my first thought is that I can't believe that it has been a year already. Without the usual cadence of our professional lives, I, like many, have lost track of time. I think back to when Dr. Tom Gallagher first called me on a Friday morning in early January 2019 to ask if I would consider running for SGIM president. I clearly remember where I was when Tom called—in the mountains taking our nephews to ski lessons. It was a beautiful winter day, filled with blue skies and sunshine. Remembering back to that day, and the ensuing weekend where I contemplated whether or not to accept the nomination and reviewed

the statement that I included in my nomination packet, it struck me that what I felt and said then is even more strongly reinforced now, as I close out my year as your president. I wrote the following:

"....In this rapidly changing environment, there are distinct opportunities for general internal medicine, which has always led the way for whole person care. Academic general internists have what our institutions and the broader health and health care environment needs. Care across the continuum? Check. Social determinants of health? Check. Population health? Check. Use of evidence to inform high value health care and related policy? Check. Integrating learners with the quality, safety, and value goals of the institution? Check. Innovative approaches to care delivery? Check. Team-based care? Check. Underserved populations, health disparities and advocacy? Check."

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SGIM Forum

Editor In Chief

Tiffany I. Leung, MD, MPH, FACP, FAMIA
Editor.SocietyGIMForum@gmail.com

Managing Editor

Frank Darmstadt
frank.darmstadt@ymail.com

Past Editor In Chief

Joseph Conigliaro, MD, MPH
jconigliaro2010@gmail.com

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jindal.kittu@gmail.com

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Shanu_Gupta@rush.edu
Tracey L. Henry, MD, MPH, MS
tlhenry@emory.edu
Christopher D. Jackson, MD
cjacks67@uthsc.edu
Francine Jetton, MA
jettonf@sgim.org
Megan McNamara, MD, MS
Megan.Mcnamara@va.gov
Somnath Mookherjee, MD
smookh@u.washington.edu
Susana Morales, MD
srm2001@med.cornell.edu
Avital O'Glasser, MD, FACP, FHM
avitaloglasser@gmail.com

Tanu Pandey, MD, MPH
tanumd@gmail.com
Shobha Rao, MD
shobha_rao@rush.edu
Jorge Rodriguez, MD
jarodriguez1@partners.org
Gaetan Sgro, MD
gaetan.sgro@va.gov
Elisa Sottile, MD, FACP
Elisa.Sottile@jax.ufl.edu
David Walsh, MD
dawalsh@augusta.edu

The SGIM Forum, the official newsletter of the Society of General Internal Medicine, is a monthly publication that offers articles, essays, thought-pieces, and editorials that reflect on healthcare trends, report on Society activities, and air important issues in general internal medicine and the healthcare system at large. The mission of the Forum is to inspire, inform, and connect—both SGIM members and those interested in general internal medicine (clinical care, medical education, research, and health policy). Unless specifically noted, the views expressed in the Forum do not represent the official position of SGIM. Articles are selected or solicited based on topical interest, clarity of writing, and potential to engage the readership. The Editorial staff welcomes suggestions from the readership. Readers may contact the Editor, Managing Editor, or Associate Editors with comments, ideas, controversies, or potential articles. This news magazine is published by Springer. The SGIM Forum template was created by Howard Petlack.

Q & A WITH SGIM'S CEO ON WORKING WITH UPTODATE TO IMPROVE PATIENT CARE

Eric H. Green, MD, MSc, FACP; Leslie Dunne, MPA; Eric B. Bass, MD, MPH

Dr. Green (erichgreenmd@gmail.com) is the DIO and internal medicine program director at Mercy Catholic Medical Center, clinical professor of medicine at Drexel University College of Medicine, and the leader of SGIM's UpToDate Reviewers Lead Group. Ms. Dunne (dunneL@sgim.org) is the director of finance and administration for SGIM. Dr. Bass (basse@sgim.org) is the CEO of SGIM.

Most SGIM members are intimately familiar with UpToDate—its goals are to make its chapters evidence-based, peer reviewed, continually updated, and inclusive of actionable recommendations. The full contents of UpToDate are used by more than 38,500 institutions and 1,900,000 individual users in 191 countries through a variety of platforms including online and mobile applications.

Why Has UpToDate Partnered with SGIM?

Many UpToDate chapters are authored by specialists who are content experts in their topic. To ensure that UpToDate remains useful to general internists at the point of care, UpToDate has partnered with SGIM for the past two decades. SGIM members review chapters from a general internist's perspective to help UpToDate better align its content to their needs. These SGIM reviewers provide feedback on more than 100 UpToDate topics annually. Their recommendations are incorporated into the final chapters produced by UpToDate. In addition, UpToDate is piloting a new process where SGIM members will help shape the future directions of UpToDate by generating questions that future chapters will answer.

In addition to the benefits that individual members have derived from SGIM's partnership with UpToDate, the partnership has benefited the Society as a whole. SGIM is paid royalties and an honorarium each year in recognition of its ongoing contributions to UpToDate. This income supports other valuable activities of the Society. Also, SGIM has partnered with UpToDate to provide free subscriptions to clinics in underserved areas that are unable to afford access to UpToDate.

Why Become an SGIM UpToDate Reviewer?

Through their peer reviews, SGIM's UpToDate reviewers share their expertise in general internal medicine

with a broad range of clinicians throughout the world. Participation in the review process itself also helps to support the career advancement of reviewers. For junior clinician-educators, in particular, participation provides invaluable experience and knowledge-building in the fundamentals of high-quality peer review work. New reviewers receive feedback from more senior SGIM members on their reviews. In addition, reviewers gain national recognition for their role in the peer-review process of a widely used medical reference tool. Finally, reviewing is a good way to network with more senior SGIM members in the SGIM UpToDate Reviewers Lead Group.

What Does It Take to Be a Reviewer? Can I Join?

SGIM is always looking for new reviewers! Any SGIM full member who spends at least 20% of his/her time practicing ambulatory general internal medicine is eligible. Reviewers are not expected to be content experts in the areas of the topics they review as their role is to represent the needs of general internists and help UpToDate understand how the chapter would be received by that audience. Reviewers typically spend 2-3 hours on a chapter's review and receive about 5-7 requests for reviews annually. The UpToDate team allows ample time for reviews and when needed works around clinical or personal conflicts. New SGIM reviewers are aided by senior SGIM members in the UpToDate Reviewers Lead Group. These senior members provide vital mentoring on how to perform high quality reviews and how to critically analyze the evidence or recommendations presented in the chapters.

What Do I Do Next?

If you are interested in becoming a reviewer, please e-mail Ms. Leslie Dunne (dunneL@sgim.org). SGIM will conduct regular training sessions throughout the year.

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SGIM thanks the following reviewers and members of the Leadership Group for making this valuable partnership with UpToDate a success:

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BLACK STUDENTS ARE TRANSFORMING AMERICAN MEDICAL SCHOOLS

Osose Oboh, BS, MPH

Ms. Oboh (president@snma.org) is a fourth-year medical student at Michigan State University College of Human Medicine and serves as the National President of the Student National Medical Association (SNMA).

When I gaze upon the (virtual) fresh faces of students starting medical school, I am struck by the few Black faces present. As president of the Student National Medical Association (SNMA), America's largest student-governed organization dedicated to addressing the needs of underrepresented medical students and underserved communities, I am starkly aware of our lack of representation in many spaces in American society. The long-standing physician shortage experienced by the poor and by communities of color in the United States has only worsened with the COVID-19 pandemic.¹ Notably, there are disproportionately few Black physicians in the United States.² This not only negatively impacts patient care for people of color³ but also increases the burden of representation Black medical students face as we manage our educations and our additional responsibilities: fighting for racial justice within the medical community.

Giving Black Patients the Care Needed

When a Black patient is admitted to my service on the wards, I instinctively request that he or she be placed on my patient list. This instinct comes from years of seeing Black patients receive substandard care due to systemic beliefs or stereotypes that Black people are “non-compliant,” “drug seekers,” have a “higher pain tolerance,” or “put themselves in these situations” because of their “poor life choices.”

I had one Black male patient who was described as “non-compliant.” I sat and listened to him, and I heard frustration and hints of mistrust as he told his story. He had been placed on many medications to treat his primary health issues, with extra drugs added to treat side effects, without his receiving appropriate counseling about each medication. As my patient experienced side effects, he—like any reasonable human—would stop taking the medications and attempt to make a follow-up appointment with his physician, which would take from weeks to months to be scheduled. By the end of our conversation, I knew he was someone greatly misunderstood by the healthcare system, burdened by poor access to care, and poor quality of care. He had just won his battle with

cancer and was tired. I reviewed each of his medications and why each one was necessary. Once we were done, he expressed feeling reassured and better able to make informed decisions regarding his health. Unfortunately, rather than his providers trying to understand his situation, his skin color led to a rushed judgment as “non-compliant.” I worked to correct these dangerous errors of the medical team, but I worry about the countless other Black patients whose perspectives get erased in our racially unjust healthcare system. Patient experiences like this one have unfortunately been regular occurrences during my medical training.

Doing the Work that Others Cannot and the Burdens of 2020

In addition to my medical studies, I attend multiple committee meetings on diversity and equity at my medical school. I am tasked with representing the “Black voice,” and I am not alone in paying the “minority tax.” Black students are highly underrepresented in medical school, yet Black students do the heavy lifting in anti-racism work for our institutions, whether by providing feedback and solutions to inappropriately racially stereotypical cases presented during problem based learning sessions, standing up for Black patients treated unfairly in the clinical setting, or creating curricula that encompass diverse communities.

This list is not exhaustive. Black medical students serve as leaders and carry the burden of championing justice, often without acknowledgement and support for our central role. Concerningly, students are often reproached for being over-extended and not studying enough. We are expected to perform academically at the same level as our peers, in addition to working for institutional change—a burden that isn't equitably placed on our peers.

The year 2020 has presented even more burdens for Black medical students. We see our Black brothers and sisters dying disproportionately from COVID-19. Many of us have lost family members and friends. We see our Black brothers and sisters dying disproportionately at the hands of law enforcement and a racially biased justice

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system. We also face racism from our own classmates and teachers. A former medical student defaced a George Floyd memorial; this is but a small snapshot of the racial prejudice we experience from our peers. All of this contributes to Black students being overtaxed, compounded by the lack of diverse representation in medicine.⁴

Despite this, we are expected to go about our medical training and duties as if everything is business as usual. However, these traumas are rarely acknowledged in our daily interactions in our healthcare institutions, while at the same time we participate in working groups and task forces to discuss racial climate concerns and provide solutions.

Call to Action

SNMA has long provided a voice and support for Black medical students, and we call upon academic medicine to support Black students in medical school, recognize our contributions, and prevent early burnout. Medical schools are not providing us with the resources we need to heal from the trauma stemming from the heightened emotional impact of today's climate and succeed academically in spite of it.

We need medical schools to invest in Black students, increase our numbers, and increase the diversity in faculty and leadership. We need diverse leaders who can make change and serve as role models for Black medical students. Black, Indigenous, and People of Color (BIPOC) members of the medical community tend to be relegated to positions of deans of diversity and inclusion, as if they cannot contribute their wisdom and skills to other areas such as deans of academic affairs, as chairs, division chiefs, and other roles. There must be representation of individuals of diverse backgrounds in all types of leadership positions who can identify bias and racism within our institutions and be empowered to provide solutions. By addressing this issue now, we will in part address the

snowball affect it has on the future of academic medicine for faculty of color.⁵

Medical schools must ensure that *all* students know about the history of racism in medicine. This would include teaching students about the formation of systemic racial inequities and medical mistreatment of Black people by this country. It is crucial to provide context to the patients we see today; without it, we cannot give Black patients the quality comprehensive care they need. This educational content will train *everyone* to speak out against injustice, and it will build the next generation of physicians of all races and ethnicities who will stand up boldly for what is right when it concerns the health and well-being of communities of color.

Acknowledgments: Eloho Akpovi, MS; Kameron Matthews, MD, JD; Thomas Pak; and Melissa Palma, MD, for help with editing.

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SGIM

PRESIDENT'S COLUMN

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These attributes have been even more evident as SGIM, and each of you, have led through the unprecedented events of this past year.

Dr. Giselle Corbie-Smith, in her last President's Column in April 2019, talked about the work done during her year to "to clarify our vision, refocus our mission, better understand our organization's capacity, and identify how we may capitalize on our collective strengths."¹ She described it as "...a time of active reflection, planning, and gearing up for forward momentum."¹ Specifically, during Dr. Corbie-Smith's presidency, SGIM clarified its vision, mission, and values and underwent a strategic planning process, articulating four broad organizational goals and strategic priorities:

1. fostering the development of future leaders in academic general internal medicine;
2. catalyzing and disseminating innovations and scholarship in high-value, evidence-based, person-centered, population-oriented approaches to improving health;
3. advocating for our vision of a just health system that brings optimal health for all people; and
4. ensuring organizational health and a thriving SGIM staff.

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DIVERSITY IN LEADERSHIP MATTERS: A PERSONAL ACCOUNT

Jada Bussey-Jones, MD, FACP

Dr. Bussey-Jones (jcbusse@emory.edu) is professor of medicine and vice chair of diversity, equity and inclusion at the Department of Medicine at Emory University School of Medicine. She is also assistant dean of professional development at Emory at Grady and chief at Grady Section of General Medicine and Geriatrics.

Despite national efforts to increase diversity in U.S. medical schools, faculty remain predominantly white (64%) and male (59%). This trend is amplified in senior academic ranks and in leadership positions. Prior research suggests that when underrepresented in medicine (URiM) faculty are recruited to academic institutions, they are less likely to achieve senior promotion, remain in rank longer, report lower levels of job satisfaction, and more likely to leave academia. Barriers to success for URiM faculty include less mentoring than peers, overt and covert bias and racism, and a disproportionate share of non-career advancing activities.

Despite this concerning lack of progress, increased diversity remains the ideal and can be expected to have a significant positive impact. Diversity is associated with expanding market share and profit margin, attracting high caliber recruits, and improving innovation and decision making.^{1,2} In academic medicine, it has been associated with an improved learning environment. In clinical care, studies have linked race, language, and gender patient-provider concordance to improved patient satisfaction, adherence, trust, along with decreased post MI mortality and infant mortality.³⁻⁵ While increasing the diversity at all faculty levels would address these concerns, increasing the number of URiM leaders may lead to unique approaches that further drive change.

I share my own leadership journey as a Black woman in leadership as one example. My career has largely been at Emory which, like most institutions, has fewer women and URiM faculty in senior ranks and leadership positions. My clinical practice is based at Grady hospital, an urban safety-net hospital set apart from Emory's main campus with approximately 700 faculty who are committed to caring for the underserved and are more diverse than Emory overall. Historically, Grady-based faculty have had high clinical demands. In addition to the physical separation from the Emory campus, faculty often feel their work is less visible to departmental and school of medicine leadership. In my

role as chief of the Grady section and now as assistant dean, this paucity of diverse senior leader models and separation represent institutional barriers to the success of the diverse faculty I lead. I established the following innovations in several domains to address these barriers.

Compensation

One of my most memorable experiences as a new chief was seeing, for the first time, the salaries of the faculty directly reporting to me. I was surprised by the realization that salaries were inexplicably different for people who seemed to be doing the same job. Some faculty who had been at Emory for a shorter time and were at lower academic rank were making more than others—including me. I assumed no malicious intent, however, given the lack of clear trends around the inequities, but I concluded that some had advocated for themselves and received higher salaries while others (like me) did not. While I remain unclear about the source of this discrepancy, I was certain of the impact. As a woman and person of color, I was acutely aware of the impact on culture and trust when pay inequity is suspected and certainly when it is realized.

In collaboration with other stakeholders, we proposed, developed, and implemented a compensation plan where academic promotion is the major currency for salary increases. Since 2013, we have used AAMC benchmark guides and set our salaries based on a simple metric of academic rank and years of service. Faculty at the same level can be assured they are making the same salary. This aligns salary with our broader mission of academic advancement. It also mitigates the impact of historic social norms that may influence women and minorities who, like me, may be less likely to ask for salary increases. Finally, this has made my job easier—there are no salary negotiations for new hires or intermittent discussions about *worth* for current faculty. Instead, there is a clear message for recruits and current faculty about our values—transparency, equity, and

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academic advancement. This issue was important not only for individual faculty members but also for the organization as a whole. In 2017, I was elected by my peers to serve on our school of medicine-wide compensation committee where, anchored in principles of transparency and equity, we review salaries across each unit to ensure there is no pattern suggesting gender or racial differences.

Transparent Leadership Development

This experience made me even more aware of my own biases and the potential impact of social norms that often limit self-advocacy among women and minorities. As a result, I have worked to standardize evaluation and selection processes. For example, our division has open announcements about all leadership opportunities. In addition to addressing bias by not hand-picking candidates for roles, this process addresses perceptions of exclusion often felt when faculty are unaware of opportunities and cannot express interest or be considered. The interview and selection process has allowed me to better recognize previously unknown interests and talent among a broader candidate pool. Further, the interview and selection process itself has propelled the eventual recruit toward better preparation and a rapid start.

Transparent Annual Review

In another example, I established clear and transparent criteria for annual review. I developed a standard rubric with input from the faculty which clarifies, for example, specifics about the number of publications, grants, and external research presentations required for commendable, accomplished, or exemplary ratings in the research domain. This process provides a common and transparent language that defines success and areas that need improvement. Importantly, it minimizes the impact of my own biases as I evaluate faculty with whom I have had long-

term mentoring and even personal relationships.

Proactive Coaching for Promotion

For my final example, I will share a program about which I have tremendous pride. I developed and initially chaired the Faculty Review Committee which provides proactive, standardized, and transparent review and development for the Grady section of general internal medicine and geriatrics. The inaugural committee members had themselves been promoted within the prior two years and were familiar with the promotion process and willing to pay it forward. This section-wide program regularly reviews faculty profiles and identifies opportunities for 1) faculty development, 2) participation in unique service, leadership, and teaching roles, and 3) recognition and reward within the division, department and beyond. We created an extensive database that included general medicine grant opportunities, career development and training programs, and awards. Each faculty member review is done on a rotating basis a minimum of two years prior to the next potential promotion date. The review is followed by an individualized faculty report that suggests a promotion pathway, provides a list of recommended activities, and recommends a timeline for promotion. Our process also includes administrative support for promotion packet preparation and assistance with award nominations and applications, if applicable, to bolster success.

This program began in 2013 and has a track record of successful academic promotion of women and URiM faculty that is unparalleled across academia. We have one of the most diverse divisions in the department and school of medicine (26% URiM, 66% women). Through 2020, 46% of our URiM and 55% of women faculty have achieved a senior academic rank.

My background and experiences have informed my leadership values, driving me to stand up programs

that proactively maintain transparent and consistent methods to compensate, reward and support faculty. These intentional, standardized, collaborative, and systematic processes demonstrate that diverse faculty are more than capable of academic advancement when provided with early and clear guidelines and support. Our innovative programs that promote leadership and equitably and proactively map out individualized plans for career advancement have been pivotal to faculty success. Diverse leadership matters.

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COMBINING FORCES IN CYBERSPACE: MOUNTAIN WEST AND NEW ENGLAND JOIN FOR A VIRTUAL MEETING

Kencee K. Graves, MD; Matthew Tsai, BS; Anna Cassell, MPhil; and Halle G. Sobel, MD

Dr. Graves (Kencee.Graves@hsc.utah.edu) is an associate clinical professor in the department of internal medicine at the University of Utah School of Medicine. Mr. Tsai (tsai@uvm.med.edu) is a fourth-year medical student at the Larner College of Medicine at the University of Vermont, planning to match into Internal Medicine. Ms. Cassell (Anna.Cassell@hsc.utah.edu) is a fourth-year medical student at the University of Utah and is matching into Internal Medicine-Pediatrics. Dr. Sobel (Halle.sobel@uvmhealth.org) is an associate clinical professor in the department of general internal medicine and an associate program director for the internal medicine residency program at the Larner College of Medicine at the University of Vermont.

The New England and Mountain West Regions combined virtual regional meeting on November 6-7, 2020, was marked by many firsts. By nature, it was the first time both that regions held a virtual meeting, teamed up to present a regional meeting, and called a historic presidential election during the meeting, causing both angst and excitement. Overall, the combined regional meeting was successful with feedback from attendees that a strong sense of community was present. The theme, “Reaching our Patients, Colleagues, and Learners in a Changing World,” helped participants feel connected to purpose when there is so much out of our control.

While the thought of transitioning to a virtual platform was daunting, SGIM selected Swapcard, which was very user-friendly. Upon logging in, meeting attendees were directed to an agenda and then to welcome videos from the regional presidents. The meeting was presented using a hybrid model of pre-recorded sessions for the oral abstracts, updates in medicine and plenaries; then live workshops and mentoring round tables. This hybrid allowed for a seamless way to hear the presenters and interact with them via a chat feature. Posters were uploaded to Swapcard for several days prior to the meeting that allowed attendees to view them on a flexible schedule. Presenters uploaded a short video describing their poster, and there was an hour segment to allow attendees to interact with authors via chat.

Merging with another region halfway into meeting planning wasn't without challenges. Fortunately, the initial Mountain West and New England themes were similar and this allowed for alignment behind a common theme. Both leadership teams felt strongly that SGIM meetings were valuable for establishing and fostering

relationship within and between the regions; thus, it was important that some content be available for individual regions while other content could be shared. Our leadership teams agreed that clinical updates should be shared, each region be represented equally, and oral abstracts and poster sessions kept separate.

Selection of our speakers was one of the most important and enjoyable parts of planning a shared meeting. Using our theme of “Reaching Our Patients, Colleagues, and Learners in a Changing World,” we elected to include both of our individually planned plenary speakers.

The first plenary was presented by former New England SGIM Leadership member and current Assistant

Professor of Pittsburgh School of Medicine and the VA Center for Health Equity, Dr. Utibe Essien.¹ His talk on “Bending the Arc Towards Justice in Health” shared his personal path as a Black medical student and resident which sparked passion for his work towards improving health equities over the last several years. Dr. Essien spoke not only on health disparities at the clinical practice level but also at the health systems level. He left us with five take-home points which he called the 5 Ds: 1) Desegregate

healthcare in the United States, 2) Divest from racist practice and policy, 3) Diversify the medical workforce, 4) Develop antiracist medical curricula and 5) Deepen community investments.

The closing plenary session was Dr. Sanjeev Arora's presentation, “Democratizing Knowledge for Better Healthcare,” in which he described his career work on Project ECHO (Extension for Community Healthcare Outcomes).² Project ECHO aims to reduce health dis-

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The SGIM New England and Mountain West regions joined together to hold a virtual meeting in place of their separate meetings. While there were significant challenges, the meeting was engaging and well attended, giving those present a feeling of connectedness and purpose. #SGIMNE20 #SGIMMTW20 @KenceeMD @thematttsai @AnnaCassell6 @HalleSobel

parities in underserved communities and uses expert teams to provide knowledge to physicians and clinics who would not necessarily be able to access that level of care otherwise. Project ECHO is now used across the country in many medical specialties. Dr. Arora discussed development of the program, and the key components of sustainability, including ongoing education for participating physicians.

Trainee engagement was a major highlight of this conference. Trainee participation on the leadership planning team served to ensure our first virtual meeting provided an excellent trainee experience. In the past, travel expenses and time away from coursework, registration costs, clinical experiences, and residency/fellowship interviews have presented barriers for trainees to participate in non-virtual conferences. This conference eased traditional pressures by waiving registration fees for all trainee SGIM members—the result was extensive trainee involvement throughout the conference. The virtual platform also allowed trainee presenters to share their work with a broader audience than typically possible in a physical conference setting.

The second day of the meeting started with Dr. Cassie Shaw from the University of New Mexico presenting Updates in Hospital Medicine. Her presentation was structured so that updates were presented in the sequence of events in a hospitalization, starting with admission, addressing issues that commonly arise during the treatment plan and ending with discharge. Throughout, she used humor about the uncertainty of caring for patients with COVID-19, and helped us see some levity in an otherwise challenging year.

The conference also featured an Update in Primary Care co-pre-

sented by Dr. Katie Jobbins from the University of Massachusetts Medical School in Baystate and Dr. Jennifer Gilwee from the University of Vermont. They began with a walkthrough of four recent studies and their takeaways for primary care. The second half of the talk focused on the pandemic-inspired shift towards telemedicine, from lessons learned to innovations shared. Following this, roundtable mentoring groups were lively discussions with invited mentors on how to advance work in each respective area.

Lessons Learned

The first virtual meeting was not without struggles and frustrations. Due to platform selection a short time before the regional meeting, meeting planners had limited time to understand and prepare for the meeting format. In addition, navigating multiple time zones made it challenging to pick a block of time to present the content to both regions. There was much debate about pre-recorded versus live sessions prior to the meeting, but having one hour of live session per half-day seemed to go quite well for the meeting.

From an attendee standpoint, one of the drawbacks of the virtual conference was that it was more difficult to network with and meet other attendees, often noted as one of the main benefits of attending in-person conferences. These face-to-face interactions may lead to future mentorship or collaborations, and the human interactions that facilitate this can be lost on the virtual platform. However, there were also tremendous benefits of the virtual meeting, including cost savings for attendees without travel expenses, flexibility for families, the comfort of one's own home or office, and the

ability to interact with colleagues outside of the region. These features are relevant, and likely more actualized, in the upcoming SGIM national meeting.^{3,4}

Despite some of the challenges, attendee feedback and member participation showed that this conference was a success. The virtual platform allowed attendees to learn and to share their academic work with the SGIM community. Perhaps more importantly, this meeting offered a much-needed sense of connection in the spirit of its theme, “Reaching our Patients, Colleagues, and Learners in a Changing World.”

Please note that the complete agenda of the SGIM Mountain West and New England Combined Regional Meeting is available via the following link: <https://www.sgim.org/File%20Library/Unassigned/NE-MTN20-Agenda-V2-for-Web.pdf>.

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There were also tremendous benefits of the virtual meeting, including cost savings for attendees without travel expenses, flexibility for families, the comfort of one's own home or office, and the ability to interact with colleagues outside of the region.

TRANSFORMING VALUES INTO ACTION: OPTIMIZING DIVERSITY, EQUITY, AND INCLUSION IN SGIM'S CAREER ADVISING PROGRAM

Mia Williams, MD, MS; Megan McNamara, MD, MS; Christina Cruz, MD; Chavon Onumah, MD, MPH, MEd

Dr. Williams (mia.williams@ucsf.edu) is an assistant professor of medicine at the University of California San Francisco and co-chair of the WAMC's Career Advising Program. Dr. McNamara (megan.mcnamara@va.gov) is a professor of medicine at Case Western Reserve School of Medicine and co-chair of the WAMC's Career Advising Program. Dr. Cruz (christina.cruz@mountsinai.org) is an assistant professor of medicine at the Icahn School of Medicine at Mount Sinai Beth Israel and co-chairs SGIM's Minorities in Medicine Interest Group. Dr. Onumah (conumah@mfa.gwu.edu) is an assistant professor and director of Department of Medicine Council for Diversity, Equity, and Inclusive Excellence at the George Washington School of Medicine and Health Sciences. She also serves as co-chair of SGIM's Health Equity Commission.

“When you’ve worked hard, and done well, and walked through that doorway of opportunity, you do not slam it shut behind you,” Mrs. Obama wrote in *Becoming*. “You reach back and you give other folks the same chances that helped you succeed.”¹

Mrs. Obama has had many memorable quotes, but this is a favorite. In a few brief words, she creates a compelling visual representation of sponsorship, which is defined as “active support by someone appropriately placed in the organization who has significant influence....and who is advocating for, protecting, and fighting for the career advancement of an individual.”² Sponsorship and mentorship are distinct concepts, with the former focusing on a strategic and transactional relationship and the latter cultivating a personal and longitudinal bond.^{2,3} Recent literature suggests that sponsorship is essential for the career advancement of women.³

The Society of General Internal Medicine’s Career Advising Program (CAP) was developed to advance the careers of physician women through sponsorship. In 2013, members of the Women and Medicine Commission (formerly Women in Medicine) launched CAP by pairing faculty sponsors (associate professor or higher rank) with protégés (fellow or assistant professor rank) based on shared academic interests and career paths. Over a two-year period, sponsors help their protégés expand professional networks, improve curriculum vitae, and join high-impact committees.⁴ One hundred sixty-eight protégés have participated in CAP to date and report increased confidence in professional self-advocacy and curriculum vitae development.⁴

The overwhelming success of CAP prompted us to consider how the program’s benefits could be extended

to other groups who experience disparities in academic advancement and promotion. Studies have shown that underrepresented in medicine (URiM) faculty are vulnerable to inequities in advancement, and disparities in the receipt of sponsorship may be one contributing factor.⁵

In October 2020, we reached out to colleagues in the Minorities in Medicine (MIM) interest group and the Health Equity Commission (HEC) regarding our interest in collaborating on sponsorship efforts for SGIM’s URiM members. We were met with excitement and developed the CAP-MIM-HEC workgroup which has met monthly to develop initiatives that promote greater equity and inclusion, as listed below:

- *Collaboration on co-hosted webinars.* Our first co-hosted webinar, “Executive Presence in the Virtual Environment,” was held March 2021 for members of all CAP, MIM, and HEC. This presentation helped audience members to identify strategies for effective virtual communication and presentation.
- *Intentional recruitment of URiM members.* Approximately 7% of past and current CAP participants self-identify as URiM. We are developing strategies to increase this percentage by advertising CAP to the larger SGIM community and encouraging applications from URiM members who might benefit.
- *Data collection and analysis.* We will reevaluate how we collect data on applicants for review of equity in acceptance to the CAP cohort going forward.
- *Pilot a scalable model of career advising.* We will pilot an alternative CAP model to pair one sponsor to two protégés. This would expand CAP’s capacity for matches and provide protégés with the opportunity to serve as near-peer sponsors.

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SGIM also developed a set of metrics and targets by which to judge our progress toward meeting these goals.

As I entered my president-elect year in 2019, it was clear that this work had created a strong foundation upon which SGIM could move forward.

During Dr. Karen DeSalvo's presidency year, not only did she focus SGIM on the theme of social determinants of health but also advance the rejuvenated organizational goals and strategic priorities that resulted from the just-completed strategic planning. As Dr. DeSalvo described in her first column as SGIM President in May 2019, in addition to focusing on social determinants of health, SGIM would carry forward the developmental work by: building Web site functionality, defining metrics and targets for the organizational goals and strategic priorities, further strengthening SGIM's financial standing, encouraging cross-cutting efforts, enhancing career development efforts, and augmenting partnerships where we have mission alignment.² In her last President's Column in April 2020, Dr. DeSalvo noted the following:

"The reality is that some of the successes we achieved this year have been years in the making.... SGIM presidents also strive to see that the members, staff, and our key partners see continuity year over year in our strategy, major organizational priorities, and work effort. This means respecting the work that was started in prior years and ensuring that we follow through. It also means seeking to minimize distractions from the many competing priorities and issues that daily come through the inbox of SGIM leadership. We are constantly working to find balance in maintaining a focus on core priorities that can be achieved within our resources against the issues and new opportunities that arise every day."³

It is on this solid foundation that I assumed the SGIM presidency one year ago, just as the COVID-19 pandemic was gathering steam and defining our lives, as individuals and as an organization. If not for the thoughtful planning that was achieved during Dr. Corbie-Smith's presidency which was expanded upon and operationalized during Dr. DeSalvo's presidency, I don't think that SGIM would have weathered this turbulent year as well as it has. It is due to this strong foundation, exceptional SGIM staff, and volunteer engagement and leadership and the commitment of each of you that SGIM has had such a remarkable year. To be fully transparent, there have been rocky moments—as we realized the financial impact of loss of income from in-person annual meetings—and also incredible achievements and accomplishments. I am confident that SGIM has continued advancement of the four organizational goals and strategic priorities set forth in 2019 as well as the challenge that we issued to ourselves and the broader community related to social determinants of health.⁴ If anything, as I said in my first President's column in May 2020, "We are well suited to be at the forefront of addressing the complex clinical, social, political, educational, and research aspects of the COVID-19 pandemic."⁵ At that time, I also wrote, "I'd hate for us to get so caught up in solving the immediate problems that we lose sight of the priorities that we have identified as a field, as an organization, and as individuals. We must simultaneously solve the immediate problems in front of us and look to the future while staying true to our fundamental values."⁵

I am confident SGIM has excelled over the past year in advancing these goals, further cementing general internists and SGIM as leaders in addressing the complex issues that we are facing now and in the future. I close out my president year with deep gratitude to the

SGIM staff, the volunteer leadership at all levels, and to each of you for keeping us moving forward in our mission of cultivating innovative educators, researchers, and clinicians in academic general internal medicine, leading the way to better health for everyone. Each and every one of you is a leader. And, with your engagement, we will achieve our shared vision of a just system of care in which all people can achieve optimal health.

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MIND THE GAP: THE UTILITY OF THE SATURATION GAP IN A WELL-APPEARING PATIENT WITH HYPOXIA

Minal Ahson, MD, MSPH

Dr. Ahson (mahson@usf.edu) is an assistant professor and hospitalist in Internal Medicine and Pediatrics at the University of South Florida Morsani College of Medicine. She is a lecturer and director for courses on global and refugee health.

A 60-year-old female was transferred to our quaternary center for evaluation of refractory hemolytic anemia after undergoing an elective L3-S1 laminectomy and posterior fusion. Her post-operative course was complicated by significant anemia (hemoglobin <7 g/dL) requiring multiple blood transfusions over a four-week period. Her past medical history included COPD, chronic pancreatitis, and chronic low back pain on chronic opioid therapy.

Review of Outside Hospital Records

Post-operative evaluation of the anemia was consistent with hemolysis with an elevated reticulocyte count, low haptoglobin and elevated lactate dehydrogenase. The direct antiglobulin (Coombs) test was negative, glucose-6-phosphate dehydrogenase (G6PD) was elevated at 25 U/g, and ADAMTS13 was normal. She was treated empirically with high-dose steroids and received three doses of rituximab without improvement. Of note, the patient underwent a bone marrow biopsy for evaluation of pancytopenia approximately one year prior to this admission. This showed 40% cellularity with trilineage hematopoiesis, mild erythroid hyperplasia, and no increase in blastocytes.

This patient has undergone extensive workup and treatment for the typical causes of hemolytic anemia. In cases where the cause of hemolysis may be less clear, the direct antibody test can help identify autoimmune anemia, guiding further evaluation. Transfer of care provides the opportunity for a second look at the data and reevaluation for a different approach. In this case, the patient has been empirically treated for autoimmune etiologies with both rituximab and high dose steroids without improvement. Further exploration of history and physical exam may provide additional clues.

Upon Transfer

On arrival, the patient was found to have an SpO₂ 80% on 4 liters/min nasal cannula. The patient stated, "Oh that thing always goes off. They had to turn off the alarm at the other hospital." Upon further evaluation, her cardiac exam was regular rate and rhythm without any murmurs, rubs or gallops, lungs were clear to auscultation bilaterally, and it was noted that her fingers were cyanotic. An arterial blood gas showed pH 7.45 pCO₂ 33 pO₂ 140 on 7 liters/min nasal cannula and 50% FiO₂.

In light of the patient's abnormal pulse oximetry readings, prior to transfer, investigation found a right-sided pulmonary embolus and treatment with enoxaparin 1 mg/kg twice daily was started.

The mismatch between the PaO₂ (> 100) and the pulse oximetry is called discordant O₂ saturation, or the PaO₂ saturation gap. It is useful to remember that PaO₂ and saO₂ are different, but related measures of arterial blood oxygenation. PaO₂ is a measure of the pressure exerted by the very small fraction (1-2%) of total oxygen in arterial blood that is dissolved in blood plasma, whereas saO₂ reflects the remaining 98-99% of total oxygen in arterial blood that is bound to hemoglobin in red blood cells. In our patient, note the elevated PaO₂, secondary to high levels of supplemental oxygen. This effectively excludes true hypoxemia and indicates a hemoglobinopathy which would exhibit pulse oximetry values consistent with hypoxemia (decreased partial pressure of oxygen in the blood) despite no hypoxia (reduced level of tissue oxygenation). At this point, carbon monoxide (CO) poisoning and methemoglobinemia should be considered.

Despite increasing inspired oxygen, the patient continued to have an O₂ saturation of 80% with increased reported dyspnea. A repeat arterial blood gas was ordered with carbon monoxide and methemoglobin, which showed pH 7.49, pCO₂ 32, pO₂ 122, CO level of 0% and methemoglobin level of 32.1%. The patient was given two doses of methylene blue 1 mg/kg. Her repeat arterial blood gas after treatment showed pH 7.45, pCO₂ 31, pO₂ 73, and methemoglobin level of 17.9%.

Methemoglobin is an altered state of hemoglobin in which the heme iron is oxidized from the ferrous (Fe²⁺) to the ferric (Fe³⁺) state. This change causes inability of affected hemoglobin to bind O₂ while also causing normal ferrous hemes to have increased affinity to O₂, leading to

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a left shift of the hemoglobin oxygen dissociation curve and decreased delivery of O₂ to tissues. Severe illness can result from acute toxic methemoglobinemia despite administration of supplemental oxygen. Genetic causes are usually less severe.¹ Development of cyanosis correlates with the total amount of methemoglobin (total hemoglobin × percent methemoglobin = total methemoglobin), typically with levels >1.5 g/dL.²

Routine pulse oximetry cannot detect methemoglobin. A high concentration of methemoglobin causes the oxygen saturation to display as approximately 85 percent, regardless of the true hemoglobin oxygen saturation. This will not improve with administration of supplemental oxygen. More accurate assessments are by blood gas or direct quantification via a reaction with cyanide (the Evelyn-Malloy method).²

Methylene blue (MB) is the treatment of choice for acute toxic methemoglobinemia with methemoglobin levels >30. MB is also appropriate for those who are symptomatic with methemoglobin levels between 20% and 30%, especially those with pulmonary or cardiac comorbidities such as our patient. For asymptomatic patients with methemoglobin levels <30%, with or without cyanosis, they can be closely monitored after the offending agent is withdrawn. MB should not be used in patients with G6PD deficiency or those receiving serotonergic agents. In these cases, ascorbic acid can be used instead. If rapid improvement does not occur, confirm that the original diagnosis is correct and consider other interventions such as transfusion, exchange transfusion, or hyperbaric oxygen.³ At this point, etiology should be ascertained with a particular evaluation of drugs that may lead to methemoglobinemia and hemolytic anemia.

Looking Back

In hindsight, the patient endorsed a history of “inaccurate pulse ox” for the last 4 years. She did not have that issue prior to four years ago.

A thorough review of her home medications showed that she had used lidocaine patches for years for her chronic back pain. She had also received multiple topical anesthetics while admitted to the hospital for her procedure.

Most cases of methemoglobinemia are acquired, resulting from increased methemoglobin formation induced by various exogenous substances.⁴ The most commonly implicated medications include dapsone, topical anesthetic agents (such as benzocaine, lidocaine, prilocaine), and inhaled nitrous oxide. Nitrates and nitrites, which are found in high levels in well water, root vegetables, mushrooms, antifreeze, and aniline dyes, have also been associated with methemoglobinemia.^{1,3} In some cases, toxicity may be exacerbated by pre-existing conditions such as anemia, heart disease, and lung disease, or by coexistent glucose-6-phosphate dehydrogenase (G6PD) deficiency and ensuing hemolysis.⁵

And Again...

About one week later, the patient again noted dyspnea, thus a repeat arterial blood gas was drawn and showed methemoglobin level of 30.8%. At this point, it was recommended that the patient undergo red blood cell exchange. She underwent exchange of seven units of RBC with an end goal of hematocrit greater than 30. The patient’s respiratory symptoms and anemia improved and her hemoglobin stabilized.

After her discharge, genetic studies returned: α-globin mutation (commonly associated with α-thalassemia), β-globin mutation (commonly associated with β-thalassemia), methemoglobin reductase, and hereditary hemolytic anemia sequencing were all normal.

Normal genetic studies suggest acquired methemoglobinemia. Avoidance of oxidant substances that can precipitate methemoglobinemia is critical to prevention. In this case, the precipitant remains elusive, but in our patient with chronic pain

and multiple surgeries, topical anesthetics were likely triggers.

Conclusion

Although the causative agent in this particular case remains unknown, several important points are highlighted to help clinicians in the evaluation of patients with refractory hypoxia caused by methemoglobinemia:

1. Arterial blood gas provides critical data and specifically can help identify a PaO₂ saturation gap, which should raise a high index of suspicion.
2. Numerous drugs have been linked to acquired methemoglobinemia, and these often cause concurrent hemolytic anemia.
3. Treatment consists of methylene blue or ascorbic acid. Refractory disease may require exchange transfusions.

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FROM THE SOCIETY: PART I (continued from page 1)

boards where you can post about whatever interests you.

How to Access and Get Help if You Need It

SGIM has also implemented new technology to help you interact with colleagues in real time through two important online tools: our online conference planner and the SGIM

annual meeting app. Preschedule your events and then view your daily schedule by using our online conference planner: <https://connect.sgim.org/annualmeeting/online-planner>. You can browse sessions by day/type/topic and build your agenda all online ahead of the meeting. Once at the meeting, find your peers and chat online through the SGIM Annual

Meeting App (search for the Event Pilot Conference App in the App Store and use event code *SGIM21*). Need some help? SGIM staff are available throughout the conference to help solve any issues.

This year brings us ways to reinvent ourselves. Transform with us at #SGIM21.

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COMMISSION/COMMITTEE/INTEREST GROUP UPDATE (continued from page 12)

As we strive to “Transform Values into Actions,” the future steps of our CAP-MIM-HEC collaboration include joint programming with webinars that emphasize an intersectional approach and expanding the 2022 cohort of CAP to include URiM men SGIM members.

CAP has proved to be a tremendous resource for advancing the career of women SGIM members through sponsorship. We hope that our collaboration with members of HEC and MIM will allow more SGIM members to experience these rich and fruitful relationships. As we embark on this endeavor, our success

is closely tied to the generosity of the SGIM community and our volunteer advisors—we hope you will consider joining our cohort of advisors.

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