



Educational Perspective

SPARCC Students Reflect on their Experiences

by Janet Rader, MD, Kristina Kaljo, PhD, Emma Grellinger, Nadia Tabit, Liliana Kasta, and Akanksha Dasari

After a two-month didactic and research program – delivered, for the first time, on-line – eight SPARCC students shared their projects with each other and a virtual audience at their graduation on August 7, 2020. The program, funded by the National Cancer Institute with support from the MCW Cancer Center, aims to develop and implement an innovative, state-of-the-art, evidence-based cancer educational activity that enhances the diversity of the nation's biomedical, behavioral, and cancer research workforce.

In her remarks, co-principal investigator Janet S Rader, MD, the Jack A. & Elaine D. Klieger professor and chair of the Department of Obstetrics and Gynecology at MCW, pointed out the diverse experience of the participants, most of whom are either nearing their college degrees or are recent graduates.

–“You arrived eight weeks ago with varied backgrounds and experiences -- you have worked for the fire department, the MCW Saturday Morning Clinic for the Uninsured, and the public library. You have performed laboratory- and community-based research, and taken on jobs as lifeguards, tutors, patient care assistants, and volunteered on advocacy hotlines and in improving literacy of children in rural South India.



“This summer, with SPARCC faculty and workshop leaders, you learned the importance of responsible research in the care of cancer patients, challenges facing URM populations, learning to advocate for patients and

to provide comfort to patients and their families during life threatening illness.

“Shortly, you will be heading back to school to complete your bachelor’s degrees, enter graduate school, or take on a new job or education opportunity. We hope you have developed new skills and strategies from your summer experience at MCW to add to your current accomplishments.”

The Challenges and Rewards of Redesigning an Eight-Week Immersion Course

Kristina Kaljo, PhD

Kristina Kaljo, PhD is an Assistant Professor in the MCW Department of Obstetrics and Gynecology. She is co-principal investigator on the NIH grant and SPARCC Program Co-Director.

Dr. Kaljo shared this with the graduates:

“The Covid-19 Safer-At-Home orders affected each of us deeply. The terms ‘new normal’ were used over-and-over in an attempt to make sense of the global pandemic that crashed around us. We watched as medical students were instructed to not return to campus, research laboratories were put into hibernation, and summer activities were cancelled at lightning speed. I still remember the afternoon my co-PI, Dr. Janet Rader and I spoke over the phone to determine the fate of this year’s Student-Centered Pipeline to Advance Research in Cancer Careers (SPARCC). With a resounding commitment to the already accepted Scholars, we agreed to forge ahead into new territory – the synchronous, virtual learning environment.



“Immediately, we began overhauling the 40-day program, including all workshops, practicums, and research opportunities to be facilitated

completely through a video conferencing learning platform. This became an education-like Apollo space mission: testing the variables of how content would be projected and anticipating glitches and technologic errors. We relied on spouses and colleagues as breakout room test-case subjects. Without losing integrity and rigor of the original curriculum, virtual SPARCC was rolled out on June 11th and every day for the next 40 days, we had the honor of engaging in a rich learning experience exploring cancer clinical trials, health disparities, and various research methodologies. The character of these Scholars was evident: perseverance, temperance, and transcendence were exhibited daily through journal clubs, workshops, problem-based learning, and group discussions. We celebrated socially distanced birthdays, told weekend stories, scored well on the MCATs, shared academic and career aspirations and networked with faculty both near and far. On August 7th, these eight, incredibly motivated and resilient SPARCC Scholars graduated, expanding the SPARCC alumni to 18.

"This work is not conducted in a silo, isolated from others. Tremendous gratitude goes out to over 100 faculty who facilitated workshops, practicums and served as research mentors to these eight Scholars.

"We thank Akanksha, Lexi, Emma, Grace, Lilliana, Jazmine, Nadia, and Zach for waking up each morning - with energy and the desire to learn - spending full days discovering the nuances of clinical trials design, health disparities, community engaged research, the etiology of cancer all through a computer screen.

"The love for teaching, learning, and research was evident this summer...We are all walking into the fall academic year not with the words "I can't...", "I won't...", or "This is impossible..." but rather, "I will", "I can..." and there is nothing like a pandemic to give you the confidence to follow your aspirations and encourage others to do the same."

Here are reflections shared by some of the SPARCC graduates:

Navigating Pre-Med Amid a Pandemic

Emma Grellinger

Emma is an undergraduate student at the University of Wisconsin–Madison. She will be entering her senior year this fall studying Genetics and Genomics and plans to apply to medical school in the Spring of 2021.

The past two months have been an educational and innovative journey navigating a career path towards healthcare amid COVID–19. By this point, my path to medicine should be filled with hands–on experiences and observational learning. Instead, it has been spent sitting in front of my computer screen.



Over the past eight weeks, I have participated in the Student–Centered Pipeline to Advance Research in Cancer Careers or SPARCC organized by Dr. Kristina Kaljo and Dr. Janet Rader. This summer program initially was to be filled with in–person clinical experiences, research, and educational sessions. However, with the ever–evolving state of the COVID–19 pandemic, we moved to a completely virtual workspace. While this at first was disappointing, I would like to applaud and recognize the hard work that Dr. Kaljo and Dr. Rader put in to make sure that the seven other scholars and I were still able to get a meaningful summer experience.

Despite the circumstances, we have still been able to participate in many of the activities SPARCC was initially designed for. Over the past forty days, we met every morning and conversed with many of the physicians at MCW that are doing groundbreaking cancer–related work. We have spoken with those leading and working on clinical trials as well as those working on the front lines to fight disparities that impact the health of underprivileged communities.

Given my interest in public health, it has been a great opportunity to learn from many of the people doing the hard work to make sure that improved health outcomes are available for everyone, and not just those that come from a privileged background. Some of these amazing faculty include Dr. Kirsten Beyer, Dr. Melinda Stolley and Dr. Malika Siker. I personally would like to thank these individuals for their hard work and for sharing their insights with us so that we can collectively work towards health equity.

In coordination with this, we were also able to speak with staff and faculty that emphasized the importance of encouraging our underrepresented students, such as our SPARCC cohort, involved in research and medicine. One of the most profound individuals we spoke with is Dr. Kunle Odunsi from Roswell Park Comprehensive Cancer Center in Buffalo, New York. Despite his numerous leadership roles and incredible accomplishments, he reminded us that “people of color have to be twice as good” to achieve the same positions. However, once having a seat at the table, Dr. Odunsi now has the tough conversations with his peers to address racial and ethnic biases and disparities that are still present in healthcare and in the workplace. He also shared with us that it is important that we continue our pathways into medicine or research.

Dr. Odunsi mentioned that addressing the racial and ethnic disparity in providers and faculty is intertwined with addressing the disparity in representation of patients in clinical trials. Incorporating a diverse set of staff and faculty in the workplace may increase clinical trial representation because patients are more trusting and comfortable with providers with whom they can identify with. Additionally, we discussed how incorporating more underrepresented minorities in healthcare starts with providing opportunities to these students to launch their pathway into healthcare.

Beyond conversations regarding health disparities, SPARCC has also incorporated weekly afternoon clinical practicum rotations and research projects within our remote work. Over the last eight weeks we have rotated with the pediatric Herma Heart Institute, gynecology oncology, palliative care, genetic counseling, and the Clinical Trials Office, and we

all were selected to work with particular research mentors from Froedtert and the Medical College of Wisconsin. Although all of this work has been remote, it is truly incredible that Dr. Kaljo and Dr. Rader have been able to make all of these things work in the virtual atmosphere.

Despite the challenges of the virtual workspace and the many “I think you’re on mute” moments, this summer has excited and invigorated me to continue my pathway into healthcare. From speaking with researchers to physicians to administrators to those working on the frontline to combat health disparities, it has been made clear to me that we all have a role in healthcare and there is much more work to be done to improve patient outcomes and achieve health equity.

While no one planned or prepared for a pandemic, it is now all of our roles to define the “new normal.” SPARCC has done an amazing job of being innovative as they chose not to give up on the program in the midst of COVID-19 and rather adapt to the challenge so they could continue to encourage aspiring physicians, like myself, to be a part of the future of medicine. Thank you Dr. Kaljo and Dr. Rader for making this summer experience adaptable to this “new normal.”

The SPARCC Isn’t Gone, It’s Just Online

Nadia Tabit

Nadia is a History/Pre-Med student at UW-Milwaukee, graduating this fall. Nadia will apply to medical school in the near future.

This February, I learned that I was accepted into the second-ever cohort of SPARCC (Student Centered Pipeline to Advanced Research in Cancer Careers) – an eight-week summer clinical research program. Soon after, COVID-19 was upgraded to a pandemic and struck the U.S., the near-total closure of school buildings created disruptions in our education systems, but where there is a will to get the better of



your logistical dilemmas, there is a way to craft an educational experience where learners are separated by time or space, or both. The answer was in the internet: Teams, WebEx, and Zoom. This is the story of how the virus changed the way we internet and how the internet changed the way we connect.

In conference calls, where it is impossible to take yourself too seriously, the interface between people and technology requires us to exchange our day-to-day jargon for the new remote world's list of specialized words and expressions. The colloquialisms include:

"You're on mute."

"Do you hear an echo?"

"Show us the dog."

"Bandwidth"

"No you go, no you go, no you."

"Can everyone see my screen?"

Amid this meteoric rise of virtual meetings, we are faced with the balancing act between being creative in how we maintain social connections and the technical difficulties and usability struggles that make this hard. Low bandwidth and unstable internet connection are constant irritants and sources of misery. Your poor audio quality will make you ask yourself "Why do I hear, but don't understand?" Finally, the stress of sharing your screen stays in a place longer than necessary.

Evidently, the virus' large-scale social changes left an indelible mark on the way we learn and work. Major paradigm shifts in how we talk or do things with other people are emerging in the midst of the COVID-19 pandemic. Our SPARCC directors, Dr. Kristina Kaljo and Dr. Janet Rader, modeled how we must be open to change in order to respond to our altered circumstances. We learned, for example, that being only a short distance away or apart from your peers was not the be-all and end-all of social activity. In truth, it *is* possible to build relationships when working remotely. The eight of us met in person once in a park, physically distanced at a minimum of six feet apart, for 15 minutes, with our faces masked. Eight weeks later, we could deliver each other's personal

elevator pitches. I learned that Grace smiles in response to the smiles of other, Akanksha asks inquisitive questions, Zach nods reassuringly, Emma is willing to speak when there is a pause in conversation, Jazmine practices careful consideration, Liliana listens to others with enthusiasm, and Alexis exudes an aura of lightheartedness. We cherished being members of a small and eclectic group of individuals who had regular contact and where our activity was creative and dynamic, even if it was online.

Understanding that I am Not an Imposter Within the SPARCC Program

Liliana Kasta

Liliana will be a Junior this fall at UW–Milwaukee majoring in microbiology. Liliana is currently looking at different Master's programs to complete a Master's in Public Health (MPH) once she graduates.

SPARCC was something that I was interested in applying for from the moment I found out about the program. I started working on my application straight away and regardless of the comments I received – whether from past mentors that I “shouldn’t get my hopes up of getting accepted” to family members who simply did not understand the point of me even applying to SPARCC. Regardless, I was still determined to be accepted into this summer’s cohort. I applied in January and waited...Fast-forward to April and I finally got the acceptance letter.



To be honest, my acceptance into SPARCC was an incredible surprise and I was elated to have been chosen to be a member of this summer’s cohort. Doubt began to set in, and I started questioning how I was accepted and whether I was worthy of being at MCW. It was a bad case of Imposter Syndrome. These thoughts kept running through my head, getting progressively worse as SPARCC’s start date got closer. Looking back, I remember how much I was actually dreading the first day. I was

constantly thinking about how others would perceive me and whether I was smart enough or whether the other Scholar's would question how I got in.

My worries dissipated progressively throughout the eight weeks of SPARCC. This was due to a combination of working on my own confidence as well as the supportive work environment. It became clear that no one in my cohort was judgmental, they were not there to denounce anyone's abilities; they were there to learn just like I was. Making sure that I was keeping all my accomplishments in perspective and separating my feelings from the facts helped a lot with my insecurity. I was constantly reminding myself that people were there to support me, rather than criticize and attack me; that really helped put me at ease. Realizing the problem that I had with my confidence really allowed me to develop in multiple ways. It showed me healthy ways to evaluate my work rather than be overly critical of myself, how to have high standards without being unrealistic, and that having good mentors can make so much of a difference in your confidence and how you view your work.

I would truly describe SPARCC as an escape. An escape from home life, an escape from constantly overthinking. It was an experience that I would describe as just being able to learn more about myself as an individual as well as a professional. All the people that participated in SPARCC, my cohort, and my mentor pushed me to a new level which made me realize that I was worthy of my position at the Medical College of Wisconsin. Working through my imposter syndrome really allowed me to understand how to treat myself better and realize that I got into SPARCC for a reason: because I wanted to make a difference and expand my knowledge on the topic of cancer and clinical trials.

Akanksha Dasari

Akanksha is a rising senior at the University of Wisconsin – Milwaukee majoring in English Studies and Pre-medicine.

Have you ever woken up from an unruly night's sleep thinking about the numerous tasks lying ahead of your present day? Where maybe after an intentional shower and quick breakfast, your mind begins to resemble that of a whirlwind machine– almost robotic in the way you progress through your to-do list, enervating meetings, and rigorous courses? On these days, our lunch may be as preoccupied as our breakfast and even though we may share a laugh or two with colleagues, or be exposed to a spell of inspiration from a mentor, there is an underlying presence of focus, drive, and computerized energy that carries us through time and space. Now imagine a restart button.



Not just for you, but for everyone. This button has been pushed for all of us amidst these last few months.

This restart button was also pushed for my eight-week SPARCC internship at the Medical College of Wisconsin. And as I found out my research internship was going to be completely virtual this summer, I began my descent into the pit of staggering questions that arose in my mind. How are we going to complete our workshops? How are we going to use the instruments in the lab? How will I be able to stand behind physicians as I shadow their extraordinary surgeries in the OR?

This was my problem, however.

I was thinking about all the opportunities I was going to lose, but not all the experiences I was going to gain. I found myself comparing these experiences to previous standards and preconceptions – instead of entering as a blank slate. As we finished up our eight-weeks, I have learned so much about the cancer world, community engagement, health disparities, IRB's, bioethics, research teams, and a great deal of exposure into how various medical professionals go about solving true wicked problems that havoc our communities today.

In addition to the newly found hard knowledge I've gained; I've been blessed with some truly inspiring mentors who were able to guide my journey of self-reflection and introspection which I will undoubtedly carry on beyond my summer spent here. In light of COVID-19, I've had valuable time that I may not receive ever again. I had time to rethink and reflect upon my priorities and strengths, to distance myself from accidental drains and unnecessary agendas, and to take a much-needed refresh from the subconsciously automated day-to-day reality I was faced with in pre COVID-19 times.

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