SUMMER 2023

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SUMMER 2023

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“I feel so isolated... but I still don’t want to do anything.” I joked recently that this was the motto of quite a few of my colleagues, including myself. We started the Ph.D. in English and Comparative Literature program together in 2020. Many of us did not meet in person until a year later. Instead, we came to know each other through Zoom boxes, trying to offer support in an unstable online space, holding happy hours in those squares that sometimes froze, sometimes disappeared if someone was booted off WiFi. I taught my first class to 19 squares filled with faces. Gradually, throughout the course of the semester—when it was clear many of those faces were just so tired of performing on-screen—I gave students the option of turning off their cameras. I didn’t like it, either. I was faced with a white glowing dot indicating my camera was on, staring back at me as I awkwardly tried to follow Zoom “protocol” and make eye contact with the camera, rather than give into my inclination to watch the disembodied voices on my screen. More and more black boxes with students’ names appeared while their faces disappeared, and I understood. I was taking classes on Zoom, too, ending up with headaches and fatigue while trying to keep up the performance of “achieving student.”

I too started my training at UNC in 2020, but in medicine. I took lectures from my bedroom and microbiology lab in my kitchen. I had one in-person doctoring class, where we weren’t allowed to examine each other’s heads or faces for fear of illness. The only other time we saw each other was in the anatomy lab, introducing ourselves awkwardly over donors’ bodies, who graciously let themselves be our teachers. We weren’t allowed to shadow in the hospital, and yet we were told we were “healthcare providers” who needed to be back quarantining on Christmas day so that we could be safe to return to the lab. It was continuously disorienting, trying to figure out how to live amidst something I never imagined I’d see in my lifetime. Learning medicine without the sight or touch of other people’s bodies; how could this be real? When vaccines were finally available, and I had the privilege of vaccinating older generations proudly showing their polio scars—it was the first time I felt connected to the reason I pursued medicine.

It was isolation: bodies told to quarantine. Bodies told that any contact would result in illness. Yet bodies still asked to be on camera and “on,” when all we wanted to do was collapse, cry, and be near one another. To see flesh, and not a computerized simulacrum of our friends and family. We wanted out.

Three years later, there is some freedom to be out, but the strain of isolation remains. This issue of Iris—an art and literary journal which calls the University of North Carolina School of Medicine its home—is dedicated to exploring the COVID pandemic and, in many ways, the resulting isolation. It’s truly difficult to separate the two. Yet, across the space of words and pages, we have found connections to the stories and poetry shared herein. We have found we are not alone in our feelings of despair, anger, anxiety, and even hope. Hope that out of the isolation will grow stronger communities. It is our wish that this issue of Iris will offer such a community to our readers.

– Mindy Buchanan-King & Cambray Smith for the Editors of Iris: the art and literary journal
Time of Death

By Gabriel Lupu

Last night I saw a dead man

Last night I saw a dead man and a grieving family

Last night I saw a dead man, a grieving family, and a Christopher Nolan film

Last night I saw a dead man, a grieving family, a Christopher Nolan film, and my Christmas gifts

Last night I saw a dead man and this morning I woke up to a page about autopsy paperwork

Last night I listened to a dead heart

I pricked his hand hard and he did not withdraw from pain

I got my art fancily framed for Christmas

I almost spelled his name wrong on the autopsy paperwork

Listen for one minute, I was told, even though we know he's dead

Swollen eyes surrounded me

This morning I listen to records to watch circular motion make sound

For last night color faded.
Gabriel Lupu is an Assistant Professor of Hospital Medicine at the University of North Carolina Hospital at Chapel Hill. He received his residency training at the University of North Carolina, M.D. from Brown University, and B.A. in International Studies from the University of Michigan. He also will be pursuing a fellowship in Gastroenterology and Hepatology at UNC. He is published in Plexus Magazine for poetry and The Michigan Daily. He has also published scientific literature in various medical fields.
Finally

By Michelle Lyman

Finally, MY time.
The long-awaited elective that’s been so elusive
Over these last three years.
I will follow my heart
All the way to Hospice
Where I will spend my days with passing patients.
While I watch my own family member
Evaporate from this world,
Five hundred miles away,
Over Zoom.
MICHELLE LYMAN

Michelle Lyman is in her Hospice and Palliative Medicine fellowship at the University of North Carolina, where she also completed her Family Medicine residency. She received her medical degree at the University of South Florida. During her medical training she also pursued research in combining medical education and theater through simulation cases, which you can hear more about in her TEDxUSF talk - Blurring the Line Between Science and Art: How Theater Transforms Medicine. She is published in In-Training: The agora of the medical student community on a similar topic of combining performance arts in medicine.
Spaces

By Anameeka Singh

Spaces  spaces  spaces  spaces  spaces
We live in all these ... In so little time.

In the past two years especially, I’ve spent way more time than usual in the space between my ears:
A space of flowing colors—blue, black, white, even red, orange, pink,
A space of swirling smells—joy, love, gratitude, even grief, anger, isolation,
A space of various sights—inner demons, humans, even ourselves,
A space of twisting tastes—hope, relief, victory, even despair, frustration,
A space of two sounds—the resounding echo of a heart + the deafening pulse of the neurons,
So much happens in that space.

Soon, all that internal noise builds up to a crescendo.

So I open my eyes.

Only to see that there are more spaces. An infinite number of spaces. Of so many different tenors.

These spaces are different from the one between my ears – here, I am not alone. Here, there are people: people with their own experiences, emotions, beliefs, and spaces.

What goes on in the spaces between people’s ears translates to the spaces that surround them, spaces that I sometimes find myself in. These spaces are filled with conversation – both verbal and non-verbal.

I don’t know every person that I find in each space. The heart races. Will this space be for me?

Self-preservation tells me to just listen. Listen for the signals and intuition will give me “The answer?” My brow furrows.

Test answers, grades, scores, knowledge—these noises abound in the space I’m in most. I fear for the people that only talk about these things. I know that these things matter, but they should come with a black box warning: “Side effects: stress, fatigue, burnout, unhealthy mindset, changes in personality, etc.” What if they become the docs that see symptoms, labs, and diagnostics where they should see a patient first?

What if they lose the most valuable space of all, the one that breathes between our lungs? We can’t lose our hearts in these rigid spaces. They house our morality, our instincts, our nature. They make us human.

And, after all, isn’t that who we are at the end of the day? Patients, physicians, nurses—humans.

Today, in the era of COVID, being human looks different. Everyone has lost something, maybe even someone. For all the things that COVID has stolen, it’s given us one thing: a call to connection. Connection anchors us – it gives us solace strength and acknowledgment. We yearn to be seen. We yearn to be
heard. To be in the spaces where connection blooms requires authenticity, humility, and grace.

These are gifts of the heart.

Medicine takes mind, but more importantly, it takes heart. But what happens when heroes find themselves drowning in spaces of COVID – spaces where they give their all to care for people whose views may aggravate them, whose behaviors may weather their patience, whose presence serves as a constant reminder that the seemingly unending nightmare exists within these walls and beyond?

Falling dominoes: the heart selflessness compassion anchors purposes

After endless pouring, when our cup is truly and fully empty, the heart fades into darkness.

The question then remains: how do we get it back?

By tapping into every sense.

Feel everything that you feel in this moment. Acknowledge it.
Validate it.
Taste the anger, the frustration, the hollowness, the exhaustion. Pause.
Then swallow.
Smell the fear and sorrow that fills the air. Realize you aren’t alone. Open your eyes.
See the space around you in its dark and pure magnificence. Remember why you are here.
Listen to both voices: supporting and seeking. Realize you need each equally.
You are human.
Rekindle that flame of compassion.

Ask yourself: “How do we save ourselves from burnout?”

Tell yourself: The HEaler’s ART.
ANAMEEKA SINGH

Anameeka (Annu) Singh is a third-year medical student at UNC School of Medicine. She received her B.S. in Neuroscience from the University of Pittsburgh. Prior to medical school, she cultivated her love for writing and the arts informally. At UNC, she is a Contributing Editor for Iris, a Graduate Editor for the Health Humanities Journal, and a student of the Humanities and Social Sciences Scholarly Concentration. She is looking forward to sharing more of her work with the public in the future – ask her about the memoir she’s currently writing!
The Short Rows

Anonymous

“You on the short rows now.”

I was getting my syringe ready to inject the spike protein mRNA into the smooth, ebony skin overlying her left deltoid muscle. “Huh?” I said, having no idea what she meant. “YOU are on the short rows NOW!” I still had no idea what she meant, and my face above and around my mask must have looked blank as I said nothing. I looked around for some type of clue. She mercifully broke the silence. “The car lines are getting shorter. It’s a farming term. You know, when you get to the short rows, you know that you’re almost done.”

Such was one of my interactions during the Orange County Health Department’s Mobile COVID Vaccination Clinic in Hurdle Mills, North Carolina, on the weekend of Martin Luther King Junior’s Birthday. After her vaccine was administered and she was getting ready to drive off, she rolled down the window again, thanked me, and reminded me about “the short rows.” I thanked her for teaching me a new term, waved to her, and then turned to get my syringe, alcohol swab, and Band-Aid ready as the next car pulled up.

There were all types of statements and questions posed during the clinic. “I want it in my left arm so I can swing with my right.” “Can I take a Tylenol if I have pains, headaches, or fever?” “I love to make cornbread.” “Do you jab?” “What happens if one of us has a bad reaction as we wait for the 15 minutes in our cars?” “Don’t make me make no pinto beans now.” “I don’t like shots.” I then had a new one to add: “You’re on the short rows now.”

I could handle all of the other statements and questions with confidence. This last statement, however, had befuddled me and then somehow stuck with me. Maybe it was this individual’s remarkable good cheer, or perhaps it was the concern and interest she had in me that made an impression. “Are you my vaccinator?” she asked when she first pulled up. I had been focused on getting vaccines to the seemingly endless stream of predominantly Black American men and women coming to the clinic. Their cars and trucks started and stopped down the country road as the line progressed and then turned into our makeshift clinic of asphalt, portable tents, and orange cones. Having a chance to reflect on the woman’s statement now, I can’t help but draw meaning between the day of Martin Luther King’s birth and the approaching end to a tyrannical and destructive presidency.

“You’re on the short rows now.”

It’s true that we were getting to the short rows as the sun began to set behind the Baptist Church and it started getting even colder in the parking lot. The lines of cars that had been our foreground for the majority of the day were finally shrinking. Still, I can’t help but think that she and her friend must have been feeling the same way as they got their first vaccinations that day. After almost a year of the illness decimating Black Americans disproportionately, she may have been expressing hope at getting the vaccine. They were finally getting to the proverbial short rows for them. And they were happy about it, joking with me, and gladly getting their vaccines after I had given them the list of common and rare side effects required of the informed consent process. They were brave and took the shots with remarkable grace and positivity. They were ready for this pandemic and national nightmare to be over. They were happy to see the short rows.

So am I.
When COVID-19 started making waves in the U.S., my mother asked me to re-consider going into medicine and enroll in law school. I was a 3rd-year medical student at this time, and I told her it was too late for me to go to law school. Through the remainder of medical school, I assured her that I would be fine. As I started residency, I continued to assure her of this. I had received both doses of the COVID-19 vaccine and was taking all precautions to protect myself from the virus and remain healthy. I wrote off my mother’s concerns as paranoia, as I had with her other worries she voiced throughout medical school. It wasn’t until I found out I was pregnant 2 months into my intern year that I began to understand that my mother’s “paranoia” consisted of encompassed maternal fears. As I began to have my own concerns over my unborn baby, those fears began battling with my desire to prioritize becoming a proficient pediatrician.

During my first trimester, I was on high alert. I knew these first weeks were the most crucial for fetal development and that the risk of miscarriage would be the highest. While trying to be careful around patients, I was also trying to keep my pregnancy a secret. I wasn’t ready to reveal this information to the world yet. Keeping my secret was easier on some days and seemed impossible on others. Attempting to pay attention during rounds while swallowing down my nausea was a skill that I never mastered. Some of my attendings mistook my looks of anguish for disinterest. Even if my nauseous face was confused for disinterest in rounds, this was the price I had to pay while trying to avoid vomiting in the middle of the floor of 6 Children's. Navigating around patients with COVID-19 was harder than I expected. I no longer had the medical student privilege of declining to see COVID-positive patients based on my comfort level. As a resident, my only way to avoid seeing COVID-positive was to have a medical exemption, which would be public to my team. I didn’t want to announce my pregnancy to anyone yet, so I made excuses as to why I couldn’t see these patients. These excuses got me through the first trimester, only having to see about one COVID patient a month. After I announced my pregnancy at the beginning of my second trimester, it became easier to get exempted from seeing these patients. This doesn’t mean, however, that I was able to stay away from COVID in the hospital throughout the rest of my pregnancy.

I experienced this rampage while working in the children’s ED. Every third patient was a child with a fever or upper respiratory symptom. In the first few days of my ED rotation, when a child came in with a fever, I asked my co-resident if they could see the kid, worried that they may have COVID. Soon, there were too many febrile and sneezing children to avoid, so I put on an N95 mask with a surgical mask over it, threw on a gown and gloves, found some eyewear, and went to figure out why these children were febrile. Rapid COVID/Flu/RSV nasal swabs kept coming back negative for all 3 viruses. Expanded respiratory viral panels revealed adenovirus, rhinovirus/enterovirus, and types of coronaviruses that weren’t causing global panic. I soon became more at ease with children with fevers and respiratory symptoms. As my nerves eased, the amount of PPE I dawned lessened. Gowns were becoming too hot to wear. Eyewear kept fogging up. It was too hard for my patients’ parents to hear me through the N95. A regular surgical mask was enough for me until we figured out what non-COVID virus the child had.
One day, a one-year-old came into the ED with yet another fever. I put on a fresh surgical mask and walked into the room. The child didn’t even appear sick. Rather, the child was playing in the room, laughing with their grandmother and older cousin, with a nose that was barely running. In my head, I was already telling myself that I was going to save this family a fair amount of money and not nasal swab this child, preemptively diagnosing the toddler with rhinovirus. The child’s grandmother gave me a run-down of what had been occurring with the patient and answered each question. Finally, I asked, “Has the patient been in contact with anyone who had COVID?” and heard the same “No” that every other parent told me. Having the answers I needed, I asked if either relative had any other concerns. The cousin asked me if I could talk to the grandmother about the importance of getting vaccinated against COVID, which started a small back-and-forth between the family members. I left the room with the grandmother and cousin bickering and went to staff the patient with my attending. When the attending asked me what my plan was, I told them that, despite what I previously thought, I wanted to get a nasal swab on the child, just for due diligence and to ease the family’s mind. I ordered the swab and waited.

While writing notes, I saw that the nasal swab for the one-year-old had resulted. When I read the results, I knew how I could convince the grandmother to get vaccinated against COVID. This toddler, who was the most well-appearing child in the ED, was positive for COVID. I walked over to the cart and started dawning full PPE, thinking it may be useless as I had already exposed myself just like every other worker in the ED. I walked back into the toddler’s room, getting confused looks from the grandmother as to why I was now in a gown and new mask. Her hands went over her face when I told her that her young grandchild had the novel coronavirus that was causing a global pandemic. She immediately asked the toddler’s mother to let her know about her child’s test results. The grandmother and the mother began asking worriedly what they should do now. I told them about COVID isolation guidelines for the toddler and anyone who had recently been in contact with her. I also mentioned how any caregiver for the toddler, like the grandmother, should get vaccinated as this was the main way to protect the toddler from getting COVID again. The family left the ED, and I quickly sanitized my stethoscope. As I finished my ED shift, I told myself there was no point in me avoiding COVID-positive patients anymore. I had exposed myself, and my unborn baby, to COVID with the minimal PPE and wasn’t rushed to the ICU. This patient interaction set a new precedent for me for the remainder of the pregnancy; there was no reason in my mind to backtrack.

The third trimester of my pregnancy arrived. I was very obviously pregnant and the only patients I couldn’t and wouldn’t see were those with confirmed CMV infections. Attendings and co-interns kept asking me if I wanted to switch so I wasn’t taking care of any COVID-positive patients, and I always told them that I was fine and didn’t need to switch. It got to a point on some services where there were more COVID-positive patients than COVID-negative patients. It didn’t seem fair to me for my co-interns to take on 1 or 2 more patients than me just so I didn’t have to care for someone with COVID. I didn’t want to be an inconvenience to my co-interns or make more work for them. I had been caring for COVID-positive patients for almost 3 months and hadn’t gotten sick or tested positive yet, so I continued caring for them without hesitation. I would immediately claim COVID-positive patients that popped up on our census just to show that I no longer had any apprehensions. I didn’t want it to seem like I was a slacker. The want and desire to be a competent intern that added value to the team was overpowering my need to not expose my baby to COVID-19. I was taking care of children with COVID who were having seizures that were likely connected to their viral infection and kids who had MIS-C following their infections, pushing the worries about what could happen to my unborn baby if I were to get COVID to the back of my mind for those moments. Being a pediatrician during a pandemic took priority over concerns related to impending motherhood. This hierarchy was present until I gave birth. Once my daughter was born, the guilt of exposing her to COVID while she was in utero slapped me in the face like a sopping wet rag. I felt like I had put my career over my baby and that guilt brought tears to my eyes. Even though the effects of having COVID while pregnant would have on a neonate were still being researched, I still considered how the worst could’ve happened to my baby. She was born as healthy as can be. However, I continue to think about how this could’ve been different if I hadn’t felt selfish and worried about how my colleagues perceived me. I continue to think about this, but the guilt has started to
Lessen as I watch her grow and thrive. I’ve spoken to multiple mothers, those in the medical field and in different professions, and learned “mom guilt” is universal amongst most mothers. It’s a, usually false, sense of inadequacy because you’re striving to be a “perfect mother.” If this experience hadn’t made me feel guilty, then some other experience would. Mom guilt is like matter: it can’t be fully destroyed, but it can change form and size. While I may always hold some form of guilt as a mother, my daughter’s smile and food-covered face tells me that I’m a good Mama.

In their own respects, intern year and pregnancy are hard. Together, it seems like an impossible combination. With the added fun of doing both during a global pandemic, it seems like an implausible plot for a medical drama on TV. I have the staggering privilege of being able to say that I lived this plot. While I’m pleased that there were no plot twists and a happy ending, I’m aware that this could have very well not been the case. Part of me tells myself I properly donned and doffed PPE and sanitized my equipment appropriately, so I never got COVID and gave my unborn baby COVID. Another part considers it utter luck. Either way, the pandemic continues, and I now worry about bringing COVID home to my baby; I pray she doesn’t become a patient for one of my co-residents.
Rukiayah Warner-Moxley is a 2nd year pediatric resident at UNC Children’s Hospital. She received her Bachelor’s in Chemistry from Fisk University and MD from Meharry Medical College. She has interests in increasing number of URM individuals in medicine and child abuse pediatrics.
COVID-19 for a Medical Student: Reflections from Early Stages of the Pandemic through Clinical Care Rotations

By Austin Allen

I distinctly remember learning about COVID during February of my first year of medical school in 2020. At that time, the soon-to-be pandemic was creating news in China as a severe upper respiratory illness causing an alarmingly high number of deaths. This felt like a million miles away, and even as the disease began to gain more traction abroad, it felt like the US would not face such similar impacts. It is ironic to think that everyone in my medical school social and ethics class—myself included—laughed when discussing the first mandatory quarantines in China, joking that such restrictions could never happen in the United States. Several weeks later, we also laughed about everyone wearing masks, as we fully believed that these would not help in reducing transmission of COVID-19 based on unpublished guidance at that time. Not too many weeks later, as the pandemic began to cripple the United States, we realized we were all gravely mistaken about the severity of this disease, as well as ideal practices for preventing disease transmission. This essay reflects on my experience with COVID in the months that have passed, with a particular focus on my personal and professional growth through clinical experiences caring for COVID patients.

Soon after the COVID-19 pandemic forced medical education into an exclusively online format, I participated in a COVID-19 elective that consisted of weekly seminars presenting the latest scientific knowledge about the disease. This class helped instill basic knowledge about the disease, but in hindsight I recognize how little we knew at the time. However, it was a valuable experience because I was able to witness how thoughts about diagnosis, management, and prevention of COVID changed and evolved as the scientific process unfolded. Following the conclusion of this formal course, I continued to try to stay up to date with the latest literature on COVID given that family and friends frequently asked questions about it, and it is not something I would have learned from the standard medical school curriculum.

When we reached December 2020, I shared in the optimism of much of the medical community that highly effective vaccines would soon be available and help bring an end to the pandemic. Unfortunately, though, despite an extremely careful Christmas in 2020, my dad picked up COVID-19, and everyone in the family became ill with the disease before we were able to be vaccinated. Fortunately, we all recovered without requiring intervention, but I suffered from lack of smell for several months and still remember the fever, night sweats, and headache that I experienced while ill with COVID-19 and studying for USMLE Step 1.

After starting my clinical rotations in March 2021, I was fortunate to have recovered from the disease and to have received two doses of the Pfizer vaccine. Thus, I felt protected from developing COVID-19 again at that time and was enthusiastic about any opportunity to help care for COVID patients given the huge impact the disease has had on my medical training. As spring turned into summer, it seemed that the country was finally pulling out of the COVID-19 pandemic. However, the Delta variant quickly changed that and placed the health care system in a very precarious situation. As a student in clinical rotations at this time, I observed what happens when the health care system is stretched thin. Non-emergent surgeries were canceled. All available spaces in the hospital were quickly repurposed to allow maximum capacity for care of COVID patients. During the highest periods of the surge, almost all dedicated medical and surgical ICU beds were utilized as rooms for critically ill COVID patients. This forced patients typically cared for in the MICU and SICU settings to be treated in a makeshift unit set up in the usual postoperative recovery unit. It was
in the MICU and SICU settings to be treated in a makeshift unit set up in the usual postoperative recovery unit. It was about this time that a COVID clinical care elective was created, which provided an opportunity to join the front-line team fighting against this horrible disease. Although it created a significantly higher work volume for me while I tried to balance both the COVID elective and standard clinical rotations, I am very glad I pursued this opportunity and am extremely thankful for the lessons I learned as a result of the experience.

Throughout my time in the COVID elective course, I helped in a variety of settings, including the COVID ICU, standard COVID floor, and outpatient COVID programs, including a COVID at Home program and a COVID monoclonal antibody outpatient infusion program. My experience in the inpatient floor and ICU was the most impactful as I learned clinical treatment algorithms for COVID-19. In brief, the mainstay of treatment at that time involved supportive ventilation; immunosuppressive therapy, such as steroids and cytokine inhibitors; and prophylactic measures. I participated in the invasive interventions that can serve as a final effort to help patients battle against COVID, such as intubation, central line insertion, and arterial line placement. I cared for previously healthy children who developed croup or presented with MIS-C that required ICU-level care, striking terror into families and caregivers. I witnessed how lungs deteriorate to the point where even mechanical ventilation is not enough to sustain life. I felt the pop of ribs as I performed CPR. I experienced multiple patient deaths in a single day. I then witnessed the despair that families experience after their loved one passes away.

One of my main takeaways from inpatient COVID care was that even though we can provide supportive care to try to prevent hypoxia, there are currently very few options to actively treat the disease pathophysiology itself. Thus, when a patient began to spiral into a critically ill situation in the ICU, it was a helpless feeling to see how little could be done to prevent their death. I believe this feeling of helplessness played a key role in driving the burnout that many providers developed and drove patients to seek whatever treatment was offered or popular online, even if lacked little evidence for clinical benefit. However, I continue to struggle with the numerous times I observed patients who were unwilling to take an evidence-based preventative vaccine, yet were willing to try highly experimental drugs once sick. I wish there was a way for everyone to witness the horrible destruction and regret that severely ill COVID patients experienced so that preventative measures would be taken more seriously. While I recognize that this would not be possible, reflecting on this predicament with COVID has provided insight into one of the biggest struggles in medicine: preventative care (healthy diet, sleep, exercise, and appropriate chronic disease management) is not prioritized. It is easy to blame individual patients for these factors; however, our overall economic and health care systems do not provide financial incentives that would allow appropriate preventative care to be a priority for all.

As much as the inpatient setting helped me gain a greater respect for the awful complications of COVID, my involvement in the outpatient setting helped shape my perspective on the varying stages of disease with COVID-19. I saw how desperate patients were to obtain a monoclonal antibody treatment after becoming infected, and the benefit this therapy could have on clinical symptom improvement during the Delta wave. Through the COVID at Home program, I called to check on patients recently diagnosed with COVID. Via a series of survey questions, I helped to gather data on the severity of the disease and to connect patients with a higher level of care if needed. This process directly benefitted patients as it helped to ensure they had everything needed for optimal care and helped the hospital system to evaluate clinical needs and adjust care service lines to ensure optimal resource utilization.

One particularly unique aspect of my outpatient involvement was that it provided me with an opportunity to gain experience with the important skill of assessing whether a patient is “sick or not sick.” Making this judgment is an important developmental step for any physician, and I am very thankful to have gained experience with this so early.

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in my career. For example, one of the patients I followed had a significant psychiatric history and was very anxious about his COVID diagnosis. Although he was extremely worried, and his clinical symptoms were worsening, I was able to help coordinate a trial of outpatient home oxygen therapy and helped him to achieve a satisfactory outcome with his disease and manage it comfortably at home, rather than needing to come to the already stretched-thin hospital.

Even with all the positive learning benefits that I have described, I have also been forced to reflect on difficult life experiences associated with a pandemic. Seeing so much death and struggling and the toll that it takes on other healthcare workers is not easy. It is particularly concerning to see the burnout that many residents and critical care physicians face. There was a specific instance during the Delta surge where a critical care physician went on a social media rant, posting a very explicit and vulgar statement about people who chose not to get vaccinated. This scenario forced me to reflect on my view of clinical medicine and the limits that providers face. I realized that it is extremely important for me to be aware of burnout and to prevent development of an apathetic attitude. I also developed an even greater appreciation and respect for the profession through this experience because I witnessed what resiliency looks like. Even when they were tired, frustrated, burnt out, and wanted to be anywhere besides the critical care unit in the hospital, the healthcare staff that I worked with put forth their best effort and worked to try to save all patients impacted by COVID. Briefly taking part in and working in the trenches alongside these providers helped strengthen my desire to be a compassionate healthcare provider who always puts the needs of patients ahead of my own desires.

Reflecting on these clinical experiences, I realize how much I have grown through my involvement in learning about and treating COVID-19. I have gone from someone who was a passive, casual observer consuming the media’s latest clickbait to someone who was up to date with the latest scientific literature on treatment and prevention. I also developed the ability to objectively assess patients impacted by COVID-19 and to utilize my knowledge of the disease to judge the best possible treatment for a patient. This knowledge has translated into improved conversations with family, friends, and patients regarding COVID-19. I feel that I am now prepared to have a productive conversation about vaccination, the severity of the disease, and other ramifications of political decisions regarding masking and other mandates with everyone I encounter. This growth in multiple areas has served me well in other clinical domains and will be of great benefit to me as I continue with the medical training process.
AUSTIN ALLEN

Austin Allen is a fourth-year MD/MBA student at UNC School of Medicine and Kenan-Flagler Business School. He previously attained a Bachelor of Science in Biochemistry from the Honors College at East Carolina University, where he was a member of the NCAA Division I Pirate Tennis Team. Austin is pursuing a career in neurosurgery and will be applying to residency in the 2023-24 match cycle. His academic interests center on improving the value and efficiency of healthcare as a means of increasing access to care.

Follow Austin on Twitter @AustinJAllen24 to connect or learn more about his work.
Fixing the Shingles

By Max Diddams

A zit.

At 38 years old, Aleksei Gargarin Chekov was far from puberty, but he did not need another reminder that he was the youngest and least experienced member of the crew. The stress of the micro-meteor strike on the solar charging arrays already had personalities flaring, and as the crew’s head engineer, the burden had fallen on him to lead the repairs. For 72 hours now they had been on a continuous cycle of Extra Vehicular Activity missions to cobble together enough of the grid to guarantee they wouldn’t run out of power, 52.732 hours of which his EVA suit’s radiation counter told him he had personally spent outside.

An accomplished rower back on the ground, he had a lean, youthful build with a baby-faced complexion made insufferably cherubic by microgravity. No matter how he stretched his neck or angled the camera, his required social media reports to home always came out looking like an Olympic athlete with a baby doll head screwed on top. There was even a well-edited Valentine’s Day card of him as an unflattering Cupid circulating around their internal Slack channel, and he had the added misfortune of accidentally being caught on camera rushing pink-faced to his room when he saw it.

At least, he had to believe it was accidental. They were supposed to be professionals, after all.

Ground control had tried to encourage him to take the attention in stride. Sentiment analysis showed he was popular by their metrics and “inspiring future astronauts everywhere.” They encouraged him to finish the “Social Media and Me” wellness modules on the NASAcCare health app. Meanwhile, several online fan clubs had started, and his wife Anya had already moved from bemused to angry at the loads of messages she was receiving from his admirers.

Aleksei had earned his spot on the mission for several insightful advances in autonomous flight management, leapfrogging several other more senior choices. Choices that happened to be favored by several of his crewmates, including the commander, which was not lost on him. But when Aleksei’s research team managed to send an autonomous ship through the trash belt at orbital speeds without collision or unsafe G-forces, a silent bidding war for his work erupted. His PhD-mentor-turned-CEO of their start-up Dr. Troy had been advertising early results of their data to several space agencies behind his back, promising completely autonomous ship flight and collision avoidance with a “fully invested implementation team.” Not only would Dr. Troy pledge his own life to the safety of the system, he would even send his chief engineer Dr. Chekov in his stead. Dr. Troy had always been a giver.

While this rocketing career progression won accolades from mentors and friends, in pre-flight the shrinks noted that “this crew’s interpersonal reactions during training are acceptable for mission tasks but fall short of aspirational. Recommend continued team building exercises.” It hadn’t been overt, but Aleksei felt the cliquishness. A missed email “he didn’t need to be on.” Running into the rest of the crew at a bar without him. They would always apologize and invite him over, but shy as he appeared, deep down he was too proud and would wave them off with some excuse. He had dedicated his life to this work, and everything was riding on his success. If they didn’t respect him on Earth, then
he would prove himself in orbit.

For the first few days after launch the installation had gone well.

Several mission-critical firmware updates had gone smoothly, and Aleksei was starting to feel a mote of acceptance after the first few navigation simulations were completed. He got particularly good marks for a roll arrest that stopped with so little jerk it caused a wave of paradoxical nausea in the commander. It had felt good to not be the one laughed at, and the commander’s belches from the observation window had been comically out of character from his normally stoic demeanor.

They performed docking and undocking procedures with record-breaking consistency, and the forward-facing impact detection array proved sensitive enough to cause a small international kerfuffle by picking up an unmarked military satellite just outside their orbit. A few tweaks were needed, and there was much more research to be done, but he had smiled to himself as he began installing the last module. The ship would drive itself from now on.

Then there was a deafening clang and the power went out.

Batteries came rapidly back on line, but low red light bathed the crew as groans of complaint and multilingual obscenities were exchanged at his expense.

“Surely it’s just a safety breaker thrown by the maneuver,” he mumbled to no one in particular, as hot sweat beaded in tiny confluent puddles along his close-cropped hair. Three other crew members popped their restraints and went to check on the lab systems, while he and two others ran diagnostics at breakneck pace.

The power interface showed all solar voltage at zero.

Dread seized his spine.

Did I break the panels off?

This did not turn out to be the case, but in his anxiety, he struggled to vocalize the concern. The last maneuver had been so inconsequential it seemed impossible to have damaged the surprisingly robust solar panels the ship relied on for power. But try as he might, he couldn’t get them back online. Cramps roiled down his abdomen and he glanced quickly at the toilet, not sure if he should stay strapped in to his chair, but one of the EVA team made the diagnosis from the window.

The solar array had been decimated by a micro-meteor swarm, and although below the level of detection avoidance, several high impact particles had peppered the main power arm and approximately a third of the surrounding panels. As he gazed upon the damage wrought, his guilt eased only to be replaced by a creeping cold sweat. Did they have enough power to stay alive?

That was 72 hours ago.

He stared at himself in the mirror in the cramped bathroom after a terrible 2.5-hour nap. A pale white pimple leered at him from a cherry red base on the tip of his nose.

Why now?
The Velcro square on the inside of his EVA helmet was a life-saver for an itchy nose in normal times, but lately he had made a nervous habit of scratching it a bit too much and now it must have gotten infected. He sighed as waves of exhaustion rolled over him.

*There is so much to do.*

Idly, he reached his hands up to his nose and gave the pimple a squeeze. Pain arced across the top right of his face and instantly a film of tears blurred his vision.

He cursed, then wiping his eyes he suddenly realized he probably shouldn’t be ejecting pus into the cabin. Glancing around with crossed eyes focused close, he searched for any matter that had achieved escape velocity. Unsuccessful, he glanced back at his face to find a weeping, watery crater.

* A blister. I was so anxious I have a nose blister. They’ll call me Pinocchio. Or Rudolf the Red, or something.

His tears burned differently now, and the pain arced across the side of his eyes again, threatening a migraine. He unwrapped his jumpsuit and took stock of himself for the first time in days. His lean, cut physique had atrophied slightly in microgravity and was paler now that they switched the lights from emergency red to fluorescent white. They had managed to supplement their remaining batteries with two of the more proximal power arrays, but they were still running out of energy.

He and the ship were both deteriorating. EVA work was exhausting despite the microgravity, and the suits were far from bespoke. Even now, a gentle red impression, probably from a seam, wandered down his left shoulder to the back of his arm with angry blotches just out of sight. His skin itched and burned.

As he shrugged on his jumpsuit, he hoped his crewmates had pulled off a miracle while he slept.

* * *

But of course, there was no miracle. Over the last three days twenty percent of the damaged panels had been restored or replaced, but a key connection needed a delicate splice. The commander knew just the man for the job.

The overt blame and silent finger pointing had passed as it became apparent that Aleksei was not at fault. Tensions eased slightly as they determined they had at least 15 days before they would need to abandon the station, but ground control assured them the repairs were doable, just at a grueling schedule.

Officially, regulations required that no more than half the crew could be out on EVA missions at once. This was coached in years of safety culture, but pragmatically they only had one suit for every two astronauts. His paired EVA counterpart was the crew physician Dr. Deb Goldmark, though they had taken to calling her Dr. G. Aleksei caught her as she finished extricating herself from the EVA suit they shared – a task best accomplished with a friend. As she turned to thank him she furrowed her brow at his erythematous face.

“Aleksei, are you alright? You look terrible!” She queried in her inoffensively cheerful doctor voice.

Aleksei coughed a chuckle. Deb looked as terrible as he felt. Sweat matted her jumpsuit, and even from floating across the airlock he could smell the sour stench of gym socks and unwashed sauna wafting from the suit. Everyone had warned him about space smelling like burnt meat, but to him, the station had conjured up the memory of when he had burned his hair as a boy leaning over a birthday cake. The main thrust of the odor had mellowed, but the taste of ashes still clung to his palette. The fact that this cheery Midwestern soccer star’s body odor could overpower space-stink and the air scrubbers finally pierced his dour mood. He smirked darkly and rankled his nose in protest.
“I’m fine, but what did you do in there?” he dodged, waving his hand in front of his nose.

She looked back at the suit and then grinned at him sheepishly. “I swear it was like that when I found it!”

He scowled, and she, sensing his mood, paused and looked him up and down. “Sorry. You’re doing great. We are doing great. Look, I know you must be taking this hard, but we’re going to get through this.”

She reached a hand up to squeeze his shoulder reassuringly, an awkward gesture given their relative geometry, but he winced and shrugged it away.

“You okay?”

“It’s fine, it’s fine. I just have a little rash from the suit there.”

“Want me to have a look?”

“No, no, no. Let’s... let’s just get this fixed.”

“I get it.” She sighed, raising both hands in surrender. “Lemme give you some time and we’ll double check to make sure you’re comfy. Sound good?”

“Yes, fine.” And after a pause, “Thank you.”

Dr. G smiled at him, but her eyes looked through him. “No problem at all. See you in a few!” she chirped as she dove past him for the sponge-bath station.

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I’m strong. I’m strong. I’m strong. I can do this.

30 minutes in and he had completely clouded his visor in humid sweat. He could barely talk, and the commander had been roused from sleep because he wasn’t staying on task.

“What’s wrong, Aleksei?” the commander’s voice crackled.

“I’m fine, I’m fine, it’s just my suit pinching.” He gasped between breaths. “I think an electrical panel or something is poking through. I’m getting electric shocks.”

“That’s not optimal,” the commander said to someone next to him. “Aleksei, are you having any system errors? Diagnostics look good here, if a little humid.”

“No, I- No errors, it’s just,” he stammered, distracted by another arcing shock. “Something is wrong, on my left side.”

From the screen bank inside, the commander watched carefully as Aleksei tried to maneuver his EVA suit to reach over his left side. First a right arm across, then the left up and over. He was flailing like a lost SCUBA diver and his breath came in ragged over the radio.

“I just, I don’t know. The readout says it’s fine, I just – FUCK!” He breathed sharply. Electricity arced across the side of his face and down his left arm. Sweat and tears formed a thick sheen on his face and sloshed into his mouth as he
struggled, choking him.

*I am strong, I am STRONG damn it!*

Aleksei had completely let go of the station and was now hanging by his tether. Muscular as he was, the EVA was not designed with flexibility in mind, and as he kicked and reached helplessly, the commander called for an emergency abort to get the panicked Dr. Chekov on board.

His EVA mate Sal Dominguez came to him, and he seized Sal like a drowning man, pulling awkwardly and sending them both into a spin.

“ALEKSEI, STOP MOVING, WE WILL GET YOU IN! HOLD STILL!” The commander’s voice barked over the radio.

Aleksei did not stop moving but Sal, an experienced SCUBA instructor, had anchored himself well and was prepared to arrest him. Locking on with a tether, Sal pushed Aleksei gently away and towed him to the airlock as he twitched and spasmed.

*I’m dying, I’m dying. He thought. I’ve been hit by a meteor and there’s an electrical fault. Oh my God I’m dying. I never, I never-*

The commander muted his garbled mumblings. Sal poked into the outer airlock door then gently reeled Aleksei’s spiraling suit in behind him, slamming Dr. Chekov unceremoniously against the inner door as he shook. As his helmet came up against the porthole, Dr. Goldmark stood stoically, eyes fixed on him like a sprinter on the line.

Three syringes were in her hand along with an oxygen mask and an ultrasound probe. Her face, held in a gentle smile, covered her mind racing through diagnostic algorithms. He seemed too well for a suit malfunction, but maybe decompression sickness with a stroke from an air embolism? Was he having a seizure? Was the arm pain actually referred pain from an evolving heart attack? Or a spontaneous carotid artery dissection? She fidgeted with the syringes behind her back in a rhythmic tick-tick-tick.

Aleksei was still reaching for his left arm even as the outer airlock slammed shut. Sal Dominguez erupted from his suit after an agonizing two-minute emergency pressurization cycle and hauled on Aleksei’s emergency release. Aleksei was still muttering in pain over the radio as the inner door cycled open, and Dr. G joined Sal in liberating the still-whimpering Aleksei from his confinement. But as the suit back opened, to their surprise, he exploded out and away from them in a shivering ball of sweat.

“Aleksei, hey, you’re ok, you’re ok,” Sal coaxed.

“Aleksei, you’re safe, what’s wrong?” Dr. G soothed.

But the panicked Aleksei was now spinning around, kicking and pushing out of reach, trying to get away from them.

“Getitoffgetitoff get it off GET! IT! OFF!” He howled as he flailed through the corridor twisting back at them.

The commander, appearing now in his path of flight, seized Aleksei around the arms from behind and locked his legs around his lower abdomen in a submission grapple. “Now, Deb! Now!”

But Dr. G was already ahead of him and deftly plunged her syringes into Aleksei’s exposed thigh. Dart delivered, she retreated to a safe distance from the flailing ball of limbs to appraise her work. Aleksei still writhed with much less
atrophied strength than expected and the commander looked at her with anxious eyes.

“What now? It’s not working!” he gritted between tumbles.

“Just give it a sec,” she replied laconically, not breaking her focus from Aleksei’s body.

*Moves all four limbs*, she thought.

“FUCK!” screamed Aleksei in a panicked rage as he tried to escape the commander.

*Curses fluently, no speech impediment. Protecting his airway.*

Slowly, his movements became more relaxed and his words turned to mumbles. He would still spasm every so often but with less intensity, and the commander slowly let him go.

“Oh, he’s sedate, should be ok. The ketamine, midazolam, and haloperidol should give us plenty of time but let’s strip him here and get an assessment,” Deb commanded.

Dull steel flashed as her trauma shears cut Aleksei free of his clothes and he floated in compression shorts before her. She felt a strong pulse, and his heart was definitely racing but coming down in rate. He was breathing quickly too, but his chest looked symmetrical and without blood or injury.

She rotated him over and as she did his arm came into view. Across his left upper back, a red, angry rash extended from the border of his spine down his left arm like a giant paintbrush stroke. Tiny blisters pock-marked the surfaces.

*Had he been burned? A localized frostbite?*

“Sal, any damage to his suit? Anything at all? No micro-meteor impact or anything, yeah?” She called out.

“Nada,” he hollered from inside Aleksei’s suite. “And nothing outside here either. We would have noted the decompression and you don’t get perforation without impact forces.”

“Ok, so no decompression injury, no trauma, no thermal injury – oh.” She paused and froze inches from his face. “Oh. Oh-ho oh no no no no. Get him back in the airlock.”

“What? The airlock? You think it’s the bends?” the commander asked. Their airlock was rated as an emergency repressurization chamber.

“Even worse. That,” she pointed at his back, “is shingles. And this,” she pointed to his face, “means it’s disseminated.”

Wheels and calculations turned in the commander’s head as he took in what she said. A dark look covered his brow, “But you can’t throw him out the airlock for that – “

“Not out – in!” she scolded, “because disseminated shingles is airborne. It spreads through the air. Go!”

When Aleksei awoke, it was to a confused dream of running late for school as a boy. He was watching himself look for his favorite socks when he should have been leaving to catch the bus, and in the weird omniscience of dreams he could both experience the smells of their old apartment – sugar pine boards, foam mattress, and warm server racks – and
see just outside the bus pulling away without him.

He ached to tell himself to get up, to get moving, to not be late again, but his voice was frozen in his throat. Just as he willed himself to look out the window and see the bus disappearing down the street, his heart sank with the memory of inevitable demerits and scolding from his father.

He started awake with the bitter remnants of his dream still coloring the world. A gentle breeze was moving across his face from an air cycler, and as he swallowed the stale saliva built up in his mouth, he soothed himself with reassurances that yes, he had made it to school that day, had even found his David Bowie socks, and was now a very successful Cosmonaut with a busy day ahead.

But the anxiety of missing the school bus still nagged at him as did the wrongness of his room's lighting, so he kicked out his limbs in a whole body stretch and immediately regretted it.

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Fire and lightning were racing along his back and somehow found their way across his jaw. Memories of the last week came flooding back and roused him to a sweaty awareness as he took in his surroundings. The pain was ebbing with care, but a new anxiety rose as he realized he was nearly naked in the main airlock, facing a mural comprised of a pink water bottle, some chocolate, a note with a smiley face, a tablet, and a condom urine bag Velcroed to the wall.

A gentle muted tap of knuckles on reinforced plexiglass drew his eyes away from the strange tableau to the inner window and a beaming Dr. G.

“Rise and shine sleepyhead!” she yelled through the shielding. She pointed to her tablet and gestured at his. He fumbled the power on.

“Hey!” her disembodied voice cooed from the tablet, “You’re up!” She could see panic rising in his face. “You’re ok! You’re ok! You’re safe! See?” She turned aside to show the empty room behind her with wall cameras wrapped in opaque specimen bags. “Just us. And you’re doing great. A bit confused is to be expected, but you’re safe.”

“I don’t remember how I got there, did I oversleep? Are we conserving power?” Aleksei started, unwilling to connect the present to some hazy memories that seemed like more than dreams.

“That’s the midazolam. It tends to cause amnesia, at least in the doses we used to make you comfortable, so let me catch you up on some things you may have missed. The station is fine for now. You’ve got a pretty nasty case of shingles. I think we have the drugs on hand to help you, but we need you to stay in here until we can make a plan. Ground control doesn’t like the idea of you blasting aerosolized zoster virus at the rest of us, and neither do I, frankly, but it’s going to resolve, and you’re going to get better.”

She gave him the rest of the details, too. The current solar array power output, how the rest of the crew were doing, and an empathetic retelling of what he needed to know of his panic attack. She made him eat the chocolate before that part. He asked for a minute to himself.

She came back with a chocolate bar of her own and was pleased to see him inspecting his face in the tablet’s front-facing camera. During the Cold War NASA had been unfairly criticized for spending millions on a space-ready ballpoint pen while Russian cosmonauts used pencils, and here was Aleksei using a ten-thousand-dollar mirror. She smirked to herself.

“Hey!” she knocked on the door. He startled slightly, then turned to her with his ice-blue eyes. His facial expression was still flat, though she couldn’t tell if that was from avoiding pain or his mood. This time, though, he called her first through the tablet.
“It doesn’t hurt as much if I don’t move,” he said with a mumble. “But I’m worried, it’s getting worse on my face here.” He pointed to the misidentified nose pimple from the morning eons ago that had now turned into a small crop of four tiny blisters with a red rash that was creeping towards his ear.

“Yeah that sounds about right,” she smiled, “but I do think they’re going to get better soon. Here’s the deal: we need you to stay in a separate airspace than us until those blisters scab over.”

Aleksei groaned with dread. “Is this some kind of quarantine?”

“Yes, well there’s good news and bad news about that.”

“There can’t possibly be any good news about that.”

“Actually,” and Dr. G leaned in concernedly, “We’re going to need you to quarantine inside your EVA suit. For safety, you know.”

A flash of terror widened Aleksei’s eyes as they darted to his former prison.

“Just teasing!” Dr. G chirped. “Some of the old-school guys down Earth-side wanted to maintain an air lock that way but I yelled at them long enough that they abandoned the idea. Realistically we’re all protected up here as adults with good immune systems, but just to be careful they want you to isolate until the blisters scab over since the ventilation is more oxygen focused than pathogen focused.”

Aleksei bowed his head in relief and offered her a twitch of a smile on his pain palsied face. Then a frown came to his eyes, and he spoke carefully through rigid lips. “I deserve something like that after the trouble I’ve caused all of you. Would it be safer?” He thought of cramming back into the suit and tried to roll his shoulders gamely the way he would when their coxswain had them all sunburnt from overwork, but he winced from the shoulder pain and again from the facial exertion.

“Easy there, bud. That’s the good news. This wasn’t your fault! We all get screened for every disease pre-flight, but the shingles virus hides out in your nerves. It’s rare, but it can reactivate even like this in young healthy adults during times of intense stress and give you one hell of a rash.”

Aleksei pondered a moment then said, “But even the stress was my own fault.”

“Now you’re just being petulant,” she scolded. “I know you’ve been under pressure since arrival, but that’s part of the good news too – the wonks reviewed your work and say it’s stellar! Your mentor, what’s this name? Dr. Malfoy?”

“Dr. Troy.”

“Yeah, him. He even called to wish you the best and a speedy recovery.”

“He knows about this?” Aleksei crunched into a ball of agony, gasping sharply as his forehead came down on the wall and propelled him in a pathetic somersault.

“Not really. When the power went down we cut all the social media feeds, and after the scare with your EVA walk I just told folks you had an overexertion injury from excess EVA time. Commander backed it up and with everything else going on nobody paid too much attention. The PR folks thought it sounded a little heroic even, and that seems to be the way your fans see it.”
Anya is going to be furious, he thought, though a knot of anxiety untwisted in his gut as he fully realized he would live long enough to face her in person.

“Annnnd we’d kind of like to keep it that way,” Dr. G continued. “It’s a bit easier to explain for now, and works in your favor for future missions. Don’t get me wrong, Sal’s spooked by some old diving PTSD, and the Commander is making me do full skin exams on him each day to ensure his mission fitness, but everyone is just glad to hear you’re well. Here, I even brought you something.”

Dr. G cracked the airlock and passed in Aleksei’s computer, a bag of meals, and a small liquid packet that definitely was not contraband cognac. Dr. G winked at him through the window.

“Just relax, send your wife a message, and stay off social media. We’ll take care of the rest.” Dr. G smiled and was just about to push off when Aleksei spoke up.

“What about the navigation system? Is someone taking over for me?”

Her smiled turned to a mischievous grin. “The ship flies itself now, Aleksei. You should know that.”

He stared at her dumbly through a crook in his elbow.

“Ok, ok. Commander’s kept an eye on it while you were out but he didn’t have to make any changes at all. Frankly, I’m not sure he entirely knows what changes to make, but let’s keep that between us.”

Dr. G’s eyes searched Aleksei’s for a response. His gentle floating through the airlock had bumped him into the opposing wall and caused him to unwind a bit. He eyed her and pushed towards the window with a sigh.

“Sounds like you all have this wrapped up pretty well,” Aleksei mumbled. “I think I’m out of a job here.”

“Your work isn’t done, Aleksei. I know the stress of the last few days feels like a disaster - and trust me, the financial guys will back you up on that one – but you are going to be remembered as the guy who built autopilot. Or how about ‘The Father of Space Navigation!”’ She pantomimed grand explosions with a sweep of her arms that sent her spinning in a slow cartwheel.

She re-oriented herself to him and grinned conspiratorially, “At least it wasn’t space puberty, right?”

Aleksei met her eyes, and with the half of his face he had left - he smiled.
Max Diddams is a 3rd year pulmonary and critical care fellow at UNC Chapel Hill. He received his MD from the University of Buffalo Jacobs School of Medicine and Biomedical Sciences and completed his internal medicine residency at UNC. He will be the interventional pulmonary fellow at UNC next year, and enjoys the humanistic application of tech to medicine. He has taught bedside ultrasound from high schoolers to attending physicians in the US and China, and he has published on robotics in interventional pulmonology in *Life Journal*. During conferences when he turns off his productivity web filters, you can find him on Twitter at @MaxDiddams.

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The great lawn to the Palace of Potsdam should be alive with people. On a warm November day, the field would be covered with picnic blankets and the sidewalks congested with families out on walks. The landscape looks pristine, but the lone trees inhabiting the lawn remind the viewer of the now nine-month battle the world has been in with Covid. The world is alive and ready to be enjoyed, but we are tired and broken, unable to live in it.
“Reunification Fountain.” The flat-faced individuals running to embrace were built to symbolize the desired reunification of East and West Germany in this quiet central German town. The sentiment now echoes loudly 30 years later. We yearn to reunite with our friends, family, and loved ones, but the worldwide lockdown prevents our embrace until, like the separation of East and West Germany, this pandemic ends.
A glance out of a window in Berlin, but it may be a window anywhere else in the world. Lockdowns have us inside, dreaming of the end of the pandemic, peering out our windows into a strange world, hoping for this present reality to end.
ERIC CAL

Eric Cal is a third-year medical student at the University of North Carolina at Chapel Hill School of Medicine. He attended the United States Naval Academy for his undergraduate degree. He took up photography to capture moments from his travels and time outdoors. His professional interests are in ultrasound, trauma care, and orthopedics. These are the first submissions of his photography.

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Sars–CoV–2

By Gabriel Lupu

Photograph, Marco Island, Florida
Catfish caught, hooked, and struggling at night
Patients and providers caught in the COVID-19 pandemic with surrounding light hard to find
Gabriel Lupu is an Assistant Professor of Hospital Medicine at the University of North Carolina Hospital at Chapel Hill. He received his residency training at the University of North Carolina, M.D. from Brown University, and B.A. in International Studies from the University of Michigan. He also will be pursuing a fellowship in Gastroenterology and Hepatology at UNC. He is published in *Plexus Magazine* for poetry and *The Michigan Daily*. He has also published scientific literature in various medical fields.
During the COVID-19 pandemic, countless immigrants lost their jobs and ability to provide for their families. Fear often colored their voices after discovering they did not qualify for a stimulus check. Despite contributing tirelessly to our shared country, they were abandoned. In his eyes, there is hope that connects him to me, my parents, and the rest of our immigrant community. He embodies an uncomfortable truth and inspirational core of the human spirit.
MARIA FONSECA

Maria V. Fonseca Bauza is a third-year medical student at the University of North Carolina School of Medicine. She received her Bachelor of Science in Biology with a minor in Chemistry from the University of North Carolina at Chapel Hill in 2020. She plans to pursue a surgical specialty that provides the means to express her art while actively addressing language and cultural barriers in medicine. This is her first published art piece and she now creates medical illustrations professionally.
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