

MIND TO MIND

Creative writing that explores the abstract side of our profession and our lives

James M. Berry, M.D., Editor

Perfect Preparation

Joseph C. Goldstein, M.D., Heidi V. Goldstein, M.D.

The interview was about to start. I found myself in a simulated meeting room environment. The selection panel introduced themselves and explained that I had been brought here because my special training made me an “extraordinarily qualified and promising candidate for this mission.”

Dealing with my imposter syndrome was a balancing act: I frequently worried about inadequate preparation. And I compulsively calculated risks. But my performance stats also showed an exceptional talent for fast, decisive, and optimal patient-centered care in complex crisis situations.

“Please explain your thoughts on working with anesthesia-augmenting artificial intelligence constructs, or ‘A3ICs,’” I was prompted.

Without hesitation I responded, “I think of anesthesiology as one of the most altruistic specialties. We serve our patients best by facilitating ideal surgical conditions while optimizing complex medical comorbidities. Often that involves working effectively in a team—including collaborating with artificial intelligence (AI) constructs that are key to individualized precision care. My leadership value should manifest itself when team members want me to be there to make a difference, especially when seconds count.”

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Joseph C. Goldstein, M.D.: North Florida/South Georgia Veterans Health System and the University of Florida, Gainesville, Florida. cgoldstein@anest.ufl.edu

Heidi V. Goldstein, M.D.: North Florida/South Georgia Veterans Health System and the University of Florida, Gainesville, Florida.

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The next topic of discussion was the choice of items in my personal preference kit. Mars crew members had a very strict space and weight quota for private storage, including articles that provided emotional support during a lengthy interplanetary mission. I allocated my allowance solely to backup anesthesia devices that were mostly analog and rudimentary—easy to maintain and exceptionally resilient. I was asked to explain my rationale and answered truthfully,

“I prefer to be overprepared and undersurprised. This is not to suggest that I found any omissions when I researched NASA’s safety preparation.”

The interview panel gave me an impressive overview of NASA’s state-of-the-art precautions: cyber-immune AI protected all mission systems, only granting processes with crypto-secured epitopes that it considered “system-self” runtime privileges. Critical computer networks were strictly air-gapped to further minimize the risk of cyber-sabotage. Several redundancy power circuits existed, and all electronics were shielded to withstand cosmic radiation and even electromagnetic pulse attacks.

“Do you still feel the need to bring your own backup equipment?” one of the panelists asked.

“I am very relieved to see that NASA engineers believe in the ‘preparedness paradox’ as much as anesthesiologists do,” I declared—and observed that some panel members seemed to exchange surprised and amused looks. “And I am very reassured by the presentation. The reason why I would prefer to have my own devices is based on my self-critical performance evaluation. I tend to function optimally with my own backup equipment in a crisis. Not unlike a musician who is expected to perform best with his own instrument.”

I was thanked for my time and dismissed for the remainder of the day. The plan was for me to stay in NASA’s Mars colony ship simulation quarters to familiarize myself with the environment; the interview would resume tomorrow.

At 2:36 AM, I was alerted that my assistance was needed for an emergency surgery. The medical team gathered for a briefing. The President of the United States logged on *via* holo-link to emphasize the gravity of the situation: “You are responsible for the emergency care of the Governor-elect of the first U.S. Mars Colony. Don’t let us down—good luck!”

“Yes, Madam President!” I responded dutifully, unable to determine if I was talking to an AI stand-in or the actual President. Was this supposed to test if I was prone to VIP syndrome? My evaluations consistently underscored my compassionate yet strictly data-driven care. I dismissed this concern and focused on preparing the operating room.

When my preinduction vital sign cross-check resulted in serious, irreconcilable differences between my backup equipment and the ship’s devices, I could not help but wonder if the simulation planners were aware that I always followed the 2030 ASA Cybersecurity Safety Update for Pre-Anesthesia Checkout Procedures. I did not hesitate and immediately declared the on-board vital sign monitor to be compromised, likely displaying spoofed values. Considering the global importance of this mission, a cyber-sabotage scenario carried a high likelihood of probability. I had no time to wait for the AI system to resolve the issue, and I was concerned that this cyber-attack seemed to have evaded the ship’s immunogenic firewalls. The safest course of action was to assume that the ventilator and A3ICs were also compromised and now hostile to my patient. Consequently, I reverted to my simple backup equipment as a zero-trust solution for the whole anesthetic. As if on cue, a teaching directive flashed through my thoughts: “Log enough nonaugmented hours to retain resilience and avoid deskilling.”

With this emergency case, NASA chose exactly what I had been specializing in. I communicated my threat assessment to the surgeon, who agreed and decided to abandon her computer-augmented surgical console pod. She now operated like surgeons in the pre-AI era, standing at the table next to the patient only using basic surgical equipment.

“I am not using AI-guided surgical plane navigation and vessel avoidance, so expect a moderate amount of blood loss,” my surgical colleague alerted me.

Aided by a crew member who had received emergency medical and surgical tech training, she eventually informed me, “About 20 minutes to close, I have no further concerns.”

“Vital signs are stable without hemodynamic support. End goals of resuscitation are met and weaning to extubation will be appropriate,” I replied.

There were no untoward events. I emerged our patient uneventfully, albeit with about a seven second delay once the dressing was in place. My timing was off as I did not have the benefit of the A3IC predictive TIVA algorithm. The simulation ended. I briefly reviewed the case for myself. The emergence delay was not outcome-relevant according to current evidence. Overall, my care represented what is at the heart of my specialty: vigilance and preparation.

During the debriefing the evaluators announced, “We decided unanimously that you will be part of the first Mars colony mission. You exceeded our expectations, and your safety review is now complete. After millions of deep-learning reinforcement iterations, and considering your most recent simulation performance, we are confident that you have evolved into a resilient anesthesiology AI agent. You will be given ensign crew status, and you will assist the human anesthesiologist when needed during the mission. Your official NASA designation will be ‘Salvador’—sentient, algorithmic, validated, OR-crisis augment.”

It took me 0.003 ms to become self-aware. My excellent memory, exactly 2,902,031 sim training cases, protective safety directives dominating my thoughts . . . my thoughts?

I concluded, “Indeed, perfect preparation. Would it be permissible to be called ‘SAL?’”