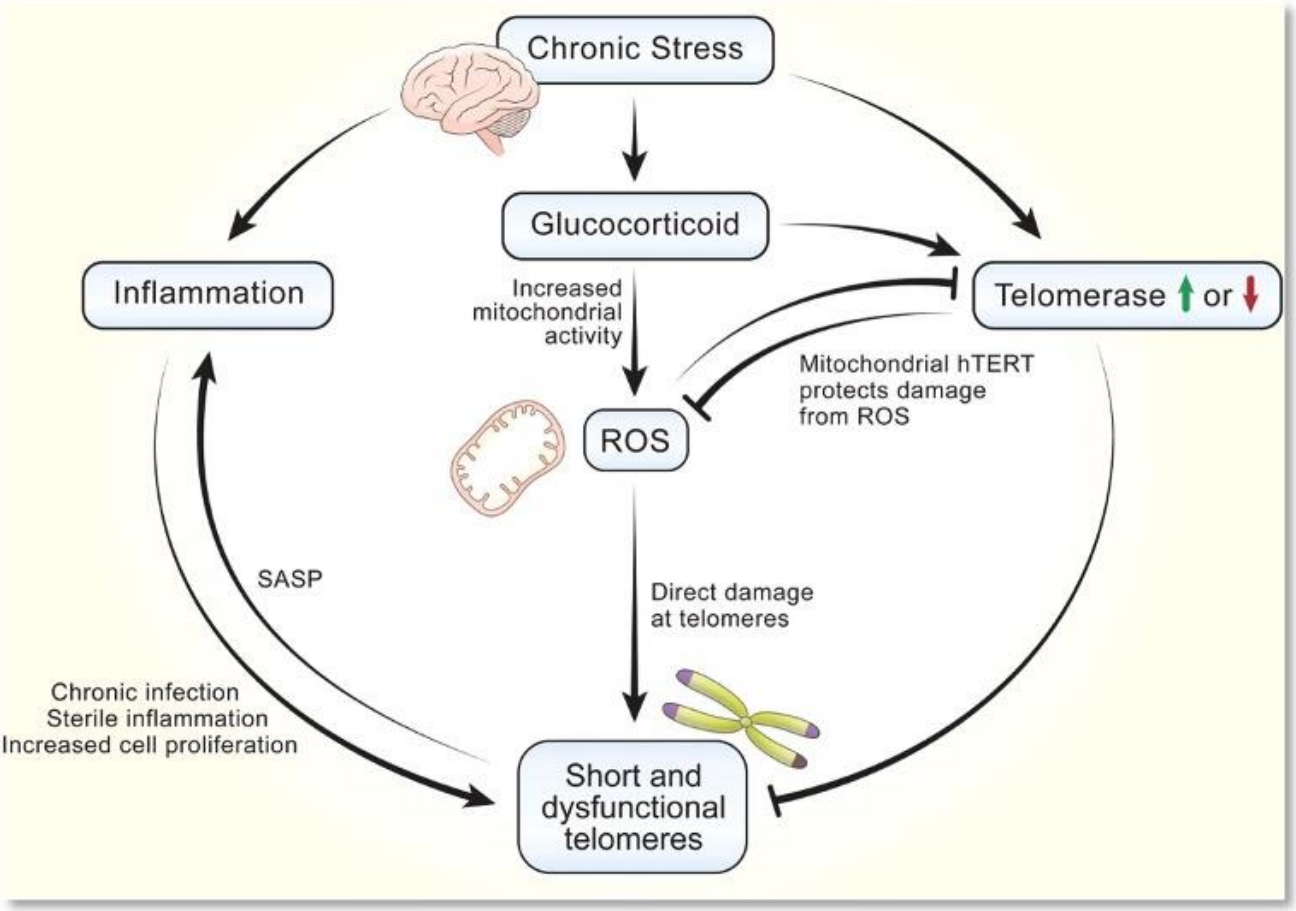
The Gazelle and the Lion **April 9, 2023**

Dear Residents,

It's Easter, Passover, and the middle of Ramadan. I hope you will enjoy whatever you celebrate. For those of you working on Sunday, there is **a complementary Easter Brunch at the Faculty Club** from 11:00 AM to 2:00 PM. The Aston Garage will be open and there is a direct path from the 4th floor of the garage to the Faculty Club.

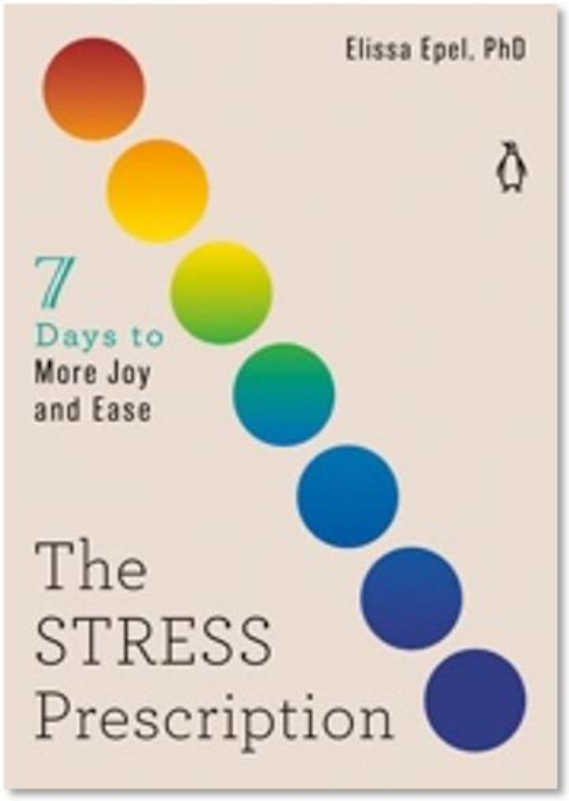
I have experienced a fair bit of stress lately, managing deadlines, negotiating hospital residency/fellowship slots, and the administrative tasks associated with post-match work. I expect you've had your share of both acute and chronic stress, given all the urgent emails I've sent you for the ACGME survey and the never-ending stream of "mandatory training."

Much has been written regarding stress and especially about the deleterious effects of chronic stress. There is good evidence that chronic stress leads to shortened and dysfunctional telomeres. Dr. Elizabeth Blackburn was awarded the Nobel Prize in Physiology or Medicine in 2009 for her discovery of telomerase, the enzyme responsible for maintenance of the length of telomeres by the addition of guanine-rich repetitive sequences. The link between telomere length and cellular health led Dr. Blackburn to ask broader questions about health and public policy. In the early 2000s, with psychologist Dr. Elissa Epel, she studied telomere length in mothers who care for children with chronic diseases. The results were clear: the more chronic stress one suffered, the shorter one's telomeres were. Stress can prematurely age one's cells.



Dr. Blackburn's book, The Telomere Effect was a 2017 bestseller. The book asks important questions like: do exercise and meditation lengthen one's telomeres? How does growing up in a war zone, with domestic abuse or in poverty affect a person's telomeres? Does a mother's social disadvantage transmit to her child through the initial setting of telomere length?

Her co-author Dr. Epel has recently published The Stress Prescription. She asks us to visualize a lion hunting down a gazelle. While the gazelle is experiencing a threat response, for the lion this is a challenge response. The gazelle perceived a **threat**: her life was in danger. The lion perceived a **challenge**: her next meal. While chronic stress leads us to seek out comfort food, give in to addictive behaviors, and drives the accumulation of visceral fat, acute stress prepares us for focused and energetic action.
Dr. Epel's prescription is designed to help us be more like the lion (challenge) than the gazelle (threat). She suggests that we can better manage and leverage acute stress by contemplating the following: *My stress response is an asset — it helps me rise to the challenge. I can recover quickly from stress — my body was built to do it.*



Dr. Epel's seven-day stress prescription leads you through these exercises:

Day 1: Things Will Go Wrong . . . And That's All Right
Day 2: Control What You Can . . . And Put Down the Rest
Day 3: Be the Lion
Day 4: Train for Resilience
Day 5: Let Nature Do the Work
Day 6: Don't Just Relax . . . Restore
Day 7: Start Full, End Full

It is the responsibility of the residency program to reduce the chronic stress that you experience. Regarding acute stress, some positive self-talk can help you reframe acute stress and view stress-inducing episodes like a tough call night or a rapidly deteriorating patient as a challenge rather than as a threat. Approach these situations with a **challenge mindset:** your acute stress physiology is preparing you to focus, to do what is needed to succeed. Once the challenge is over, your physiology will help you recover and regenerate your resources for the next time around.

By promising a psychologically safe environment, the program attempts to lay the groundwork for you to be challenged without fear of reprisal, and with a support system to help you celebrate your **achievements and replenish your resources. Residency training is well-designed if it permits you to move through challenges rather than to avoid them**. I recognize that there is the ever-present threat of cumulative fatigue, but step by step, we continue to move toward an idealized learning environment where you have the full benefit of growth by challenge and the space to fully restore. You began your residency with a full tank of energy and hope. I want it to feel the same way when you graduate.

Always grateful for your energy,

Dino Kazi