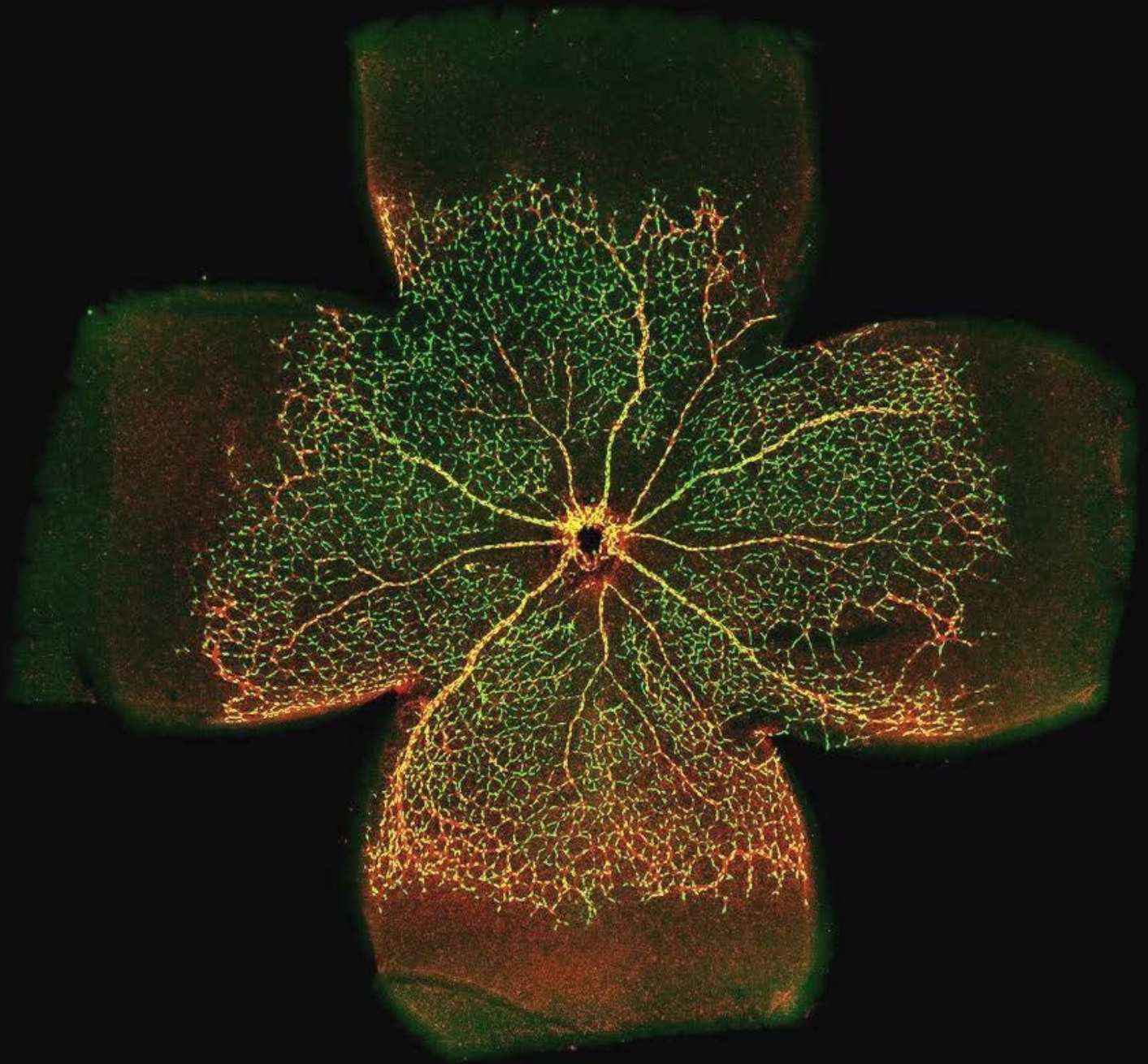


HARMONY

Humanism explored through art and writing

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College of Medicine

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CHASING FIREFLIES AT MIDNIGHT | Dustin Grinnell, MFA, MS

I had just finished dinner when I received a phone call from a nurse at Maine Medical Center. She informed me that my grandmother was in the intensive care unit and might need dialysis. My grandmother, Anne, didn't have COVID-19, thankfully, but her kidney disease had advanced, according to the critical care physician, who wasn't hopeful about her prospects. As soon as I got off the phone with the nurse, I left my apartment in Boston to drive up to Maine.

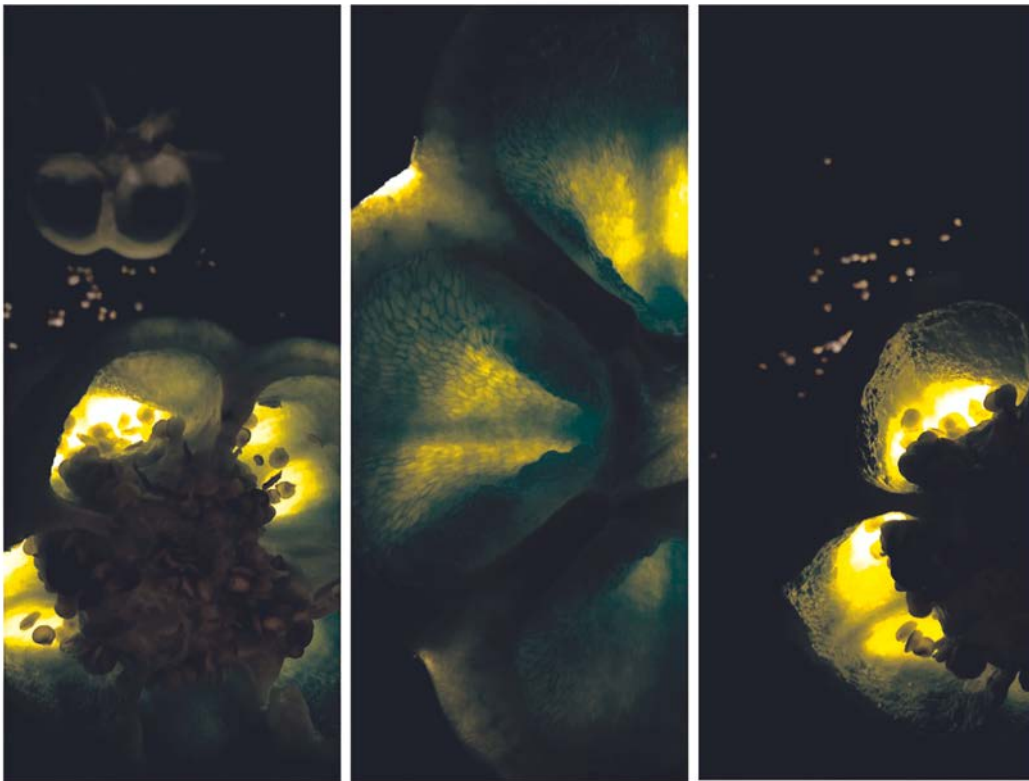
When I entered her room a few hours later, Anne's skin was pale, and she was having trouble staying awake. The doctor had just given her an anti-anxiety medication, which made her drowsy, but she insisted on talking with me, wanting to know how my latest article was coming along. I told her I had submitted the final draft to my editor and the story was going to be the magazine's cover story. Anne smiled, clutched my hand, and

closed her eyes. I sat back in my chair and wondered how much longer I would have with her.

I hadn't been close to my grandmother growing up, and in my twenties, I was so focused on the future that I charged forward, trying to find my place in the world. I didn't pay much attention to family history as the idea of digging up the past seemed like a waste of time. Meanwhile, Anne researched our family's lineage, read history books, and visited our ancestors' graves. She mapped our heritage exhaustively, while I ignored it.

It was only a few years earlier, sometime in my thirties, that I realized learning more about my past could help me know not only where I had come from but also where I should go. Recognizing this, I began trying to get to know Anne better and encouraged her to share stories of her life.

Blooming Seeds | Sanjana Sreenath



Photograph

This collage was an attempt to capture the hidden beauty of seeds and fruits as well as draw attention to nature's natural beauty.

Every few months, Anne would send me mini pieces of memoir that captured slices of her life: Dropping out of college after getting married. Going to graduate school in her late thirties to study public policy after a divorce. Meeting her second husband and becoming politically engaged in the seventies. The excitement of the feminist movement and the thrill of becoming a democratic delegate for Massachusetts. My father moving to New Hampshire after high school to become a “mountain man” and start a construction business. Through her, I learned that I came from a long line of rabble-rousers—the origin of my revolutionary spirit.

Anne thought of these as her piecemeal memoir. We both acknowledged the essays probably wouldn’t find publication, but that was never the point. She just wanted to record the past for the family, and maybe for herself too. And because neither my father nor my younger brother seemed to have any interest in learning the details of her life, I would have to become the family historian.

It’s unfortunate that few seem interested in Anne’s stories. She lived a common life, but every life has extraordinary bits when examined closely. How my father takes for granted the traits he inherited from his mother! Indeed, he values education highly and pursued an associate’s degree in adulthood to better himself. Yet he forgets his mother pursued a master’s while raising him. When Anne’s second marriage fell apart, she packed up her belongings and drove from Boston to Los Angeles to start a new life. My father, brother, and I fancy ourselves risk-takers, yet we forget Anne’s pioneering spirit runs through our veins.

After a year of struggling to secure employment, Anne was considering returning home to Boston when she found a job as a city planner in Los Angeles. She’s now been retired for almost twenty years, but to my surprise, she looks back on her twenty-year career as a city planner with some regret. She considers her pension vital, but what she always wanted was to become a journalist.

Anne’s city planning office stood across the hall from the offices of the *Associated Press*. She revered the *AP* for its top-notch journalism, but she never found a way in with them. In fact, she had sophisticated ways of talking herself out of such a career path. She wasn’t a natural storyteller, she convinced herself. She wasn’t resilient enough to pursue a story when doors were slammed in her face. She wasn’t a bulldog like the reporters in her favorite movie, *All the President’s Men*. She thought she was too gullible to see through subjects’ lies. So for twenty years, Anne worked on the wrong side of the hallway.

Though she has never admitted it, I think my grandmother envied my writing career. I wasn’t the type of “balanced” journalist Anne had wanted to become, though. I was a science writer for a biomedical research institute—a hired gun for a development team at the Galen Institute in Cambridge, Massachusetts. Everything I wrote was designed to raise money for scientists’ research projects. I wrote and edited grants, proposals, and letters to grant-making institutions, philanthropic groups, and wealthy donors. I interviewed scientists and wrote feature articles.

I enjoyed the work, but like my grandmother, I revered journalists. I admired them on *60 Minutes* for speaking truth to power during difficult times. I’d been romanced by movies like *Spotlight* and *The Insider* that depicted investigative reporters exposing deep injustices in society.

Haunted by my grandmother’s cautionary tale of working close to the *AP*’s office, I decided to try my hand at freelance journalism. I wrote and eventually published a few pieces of literary journalism in consumer magazines. The writing and rewriting with editors took immense effort, and the pay wasn’t as good as corporate work.

Thinking I could perhaps merge my commercial and journalistic interests, I pitched the idea of writing a feature article to the editor of the Galen Institute’s magazine, *Cellular*.

No doubt the editor thought I was a hack who couldn't write objectively, but he was impressed enough by my clips to let me take on the piece. It was one I had wanted to write since my arrival at Galen two years prior: a story about a plant biologist at the Institute who studied how and why fireflies lit up, a natural phenomenon called bioluminescence.

When I told Anne over the phone that I was writing an article about fireflies, she said that she'd always been fascinated by the insects. When she was a child, she and her father would use nets to catch them late at night. In retirement, Anne became something of an amateur scholar on fireflies. She regaled me with facts about fascinating creatures.

Apparently, fireflies use quick flashes of light to communicate with other fireflies. The flashes also ward off predators and help the fireflies find mates. Each firefly has a distinct courtship signal, with males being the primary signalers. The females remain grounded during the males' courtship displays. If a female likes a male, she responds by flashing back. The females prefer males who give off longer-lasting flashes. A pair will flash back and forth until they've mated. Once they do, they stay together all night. It's as if the flashes are love songs, my grandmother supposed.

As I began writing the article, I immersed myself in the scientific literature the lab had produced. The lab's mission was to explore the biochemistry of plants from all over the world. The lab studied the dizzying array of chemicals plants used to defend themselves against threats, like other creatures, droughts, and lack of light.

I was working on the article one weekend, when I took a break to read Anne's most recent memoir pages. It was then that I sensed we might not have much more time together. She was eighty-three and suffered from various health issues, including chronic kidney disease. She wrote in her piece that she hadn't realized how vital kidneys were until they became deficient.

She also found it strange living in Maine because she had lived in Southern California for most of her adult life. She would have spent the rest of her life in California except she fell and fractured a hip, stripping her of her cherished independence. After the injury, my father convinced her to return to the East Coast. Eventually, Anne decided to move to Kennebunkport, Maine, a charming town she'd always adored and visited whenever she came to see us. In summers, my father, brother, and I would ride bikes around Kennebunkport, stay in a local bed and breakfast, and visit Sharon's Seafood restaurant for lobster rolls.

A week before visiting Anne in the hospital, I stood on the lawn of Acadia Senior Living, and we talked through her window. Since the COVID-19 pandemic began, safety measures have kept people at a distance from high-risk populations like the elderly, as eight out of ten deaths have been among adults over sixty-five. She had spent the last year mostly cooped up in her room; I had been sequestered in my apartment, working from home. A year into the pandemic, we chatted about "caution fatigue" and how tired we were of isolation. The toughest thing about the pandemic for Anne was not being able to touch anyone. She said her "touch tank" was low, and she just wanted a damn hug. She seemed melancholy, even depressed, and had been relying on her anti-anxiety medications to sleep every night.

Most of all, Anne was bored. She was tired of tinkering with a memoir that would never be published and no one but her grandson would read. She was on her third book about kidney disease and hadn't read for enjoyment in months. And the assisted living facility was getting on her nerves. The mind-numbing chair yoga each morning, the painting classes, the daily ritual of gathering around the television and watching *The Price is Right*. Until she moved into an assisted living facility, she had assumed a love of bingo was a myth; it wasn't. Sunday bingo was like Christmas for most of the residents.

TIGERSNAKE IN THE SHADOWS | Perri Hartenstein, MD



*Watercolor, Gouache
on Watercolor Paper*

A rattlesnake found in Tucson emerges from the shadows, I used predominantly complementary colors.

The pandemic had made her living conditions insufferable, Anne told me through her window. Most residents were glued to their televisions or computers all day, soaking up news reports. During socially distanced meetings, people worried about the virus and how their health issues put them at risk. Anne said she'd lived a long life and had gotten her fill. If the virus got her at eighty, so be it.

The sense that Anne needed a project—an adventure, something to take her mind off the pandemic—led me to visit her facility in the middle of the night. With a ten o'clock curfew in Boston, I should've been home like everyone else. Yet I drove an hour and a half north to break my grandmother out of Acadia, dressed in dark jeans and a black T-shirt to avoid being seen. It was midnight when I arrived.

After parking the car, I tiptoed to her window and tapped on the glass. The curtain slid aside on the second knock, and my grandmother appeared in the window, rubbing the sleep from her eyes. She glanced at the clock on the wall. "What the hell are you doing here so late?" she asked shrilly.

"I'm getting you out of this prison to go on an adventure." I reminded her of our last conversation and of how fed up she was with the living conditions. I, too, had been feeling cooped up sitting in front of the computer all day and gorging on the news at night. I had lost touch with the natural world. I felt I'd lost touch with myself.

Anne protested, reminding me of the curfew. The risk of infection.

"It's midnight," I said. "Not another person in sight." I pulled a fresh mask from my pocket for her. "There's enough hand sanitizer in my car for the population of Switzerland. And we'll be home in a few hours."

"I don't like surprises," she said when I dodged her question about where we were going. She eventually agreed, though, and went to get dressed.

Ten minutes later, Anne appeared in the window. Holding her legs and then her lower back, I carried her through the window and placed her on the ground. I helped her adjust her face mask and then led her to my car. "Stay low and keep your voice down," I said as we began to cross the lawn.

Suddenly, a set of automatic lights illuminated the lawn, and we ducked behind some bushes. A window snapped open, and a man with snow-white hair leaned out. "Who's out there?"

When he spotted Anne, she stepped out from behind the bush. "I'm with my grandson, Hank."

"What about the lockdown? And the curfew?"

"Go to bed, Hank. If I'm not back in time for chair yoga, cover for me."

On the highway driving north of Kennebunkport, Anne told me about Hank. "He's one of my only friends at Acadia. I don't much care for the guys he associates with, though. They're lazy. Every day, Hank and four others meet for coffee: same time, same table, same orders. Such a waste of time, idly passing the hours talking about politics or bragging about their kids' accomplishments." Anne's days were different. She took classes on politics and history, organized the Acadia Book Club, and had video conferences with the League of Women's Voters in Los Angeles.

Dodging another question about where we were going, I turned left onto Laudholm Farm Road and took another left onto Skinner Mill Road. Minutes later, I parked in the lot at Wells National Estuarine Research Reserve, a 2,250-acre network of trails that hugged the Maine coast. I hopped out of the car and circled around to open the door for Anne. I squirted a glob of sanitizer into her hands, while she fumbled with her mask. I offered to help, but she said she could do it herself. Opening the trunk, I put two nets in my backpack. After clicking on a flashlight, I studied a paper map. Laudholm Beach was less than a mile away.

I led Anne past a visitor center and onto Knight Trail. We walked the wide, grassy path. Grasshoppers chirped all around us, and waves crashed in the distance. We took a right onto Barrier Beach Trail, passing an estuary that emitted a pungent odor of sulfur. We kept moving, and the woods opened out to a parking area. From there, we followed a boardwalk to Laudholm Beach.

I kicked off my sandals, putting them in my backpack, and offered to put Anne's shoes in as well. When her shoes and socks were off, she pressed her feet into the cool sand. The soft crashing of waves was exciting, and the salty air was invigorating. The nearly full moon lit up the beach. We walked along the shore, admiring the darkened houses along the coast.

As the beach turned to rocks, I led Anne to a grassy meadow. "Wait. Watch."

She didn't understand until we spotted a faint, eerie glow.

Anne's face brightened. Letting out a giggle, she scurried toward the flickering insect. When she was a foot away, the green glow stopped, and she paused. The glow appeared a few steps farther away, and she skipped after the firefly, around a sand dune. I followed, pulling a glass jar from my backpack.

Anne stepped in close to the firefly and cupped her hands together, but she missed the light. The next time, the beetle was in her hands. She watched the firefly crawl across her palm as it blinked. Removing the lid, I nodded for her to drop the firefly in the jar.

"Did you poke holes in the cover so the fireflies won't be hurt?"

I nodded that I had.

She placed her hand over the jar, gave it a tap, and the firefly fell to the bottom. I handed her a net, and we continued along the beach.

Just then, sparks of light rose all around us, and the beach became luminous, ethereal. Filled with awe, we laughed and used our nets to sweep the insects out of the air. After twenty minutes, the jar was glowing with

fireflies.

"It's likely filled with mostly males," Anne said, examining the jar. "They'll glow all night if we add more females."

To find females, we searched the grass for glows that lasted longer. Soon, we had caught a handful of females, and Anne guessed the jar was filled with about a hundred insects. She pulled a few leaves from a shrub and put them inside, explaining that food would also help keep the fireflies blinking all night.

We strolled toward the ocean and sat down on a beach towel. The fireflies flitted across the glass jar in front of us as waves crashed in the background. When I pulled two sandwiches from the backpack, Anne unwrapped the tinfoil to find a lobster roll from Sharon's Seafood. She smiled widely, and we ate in silence. Once finished, Anne balled up the tinfoil.

"Thank you for breaking me out of Acadia. This has been so exciting. I'm getting cold now, though, and I think I'm ready to go home."

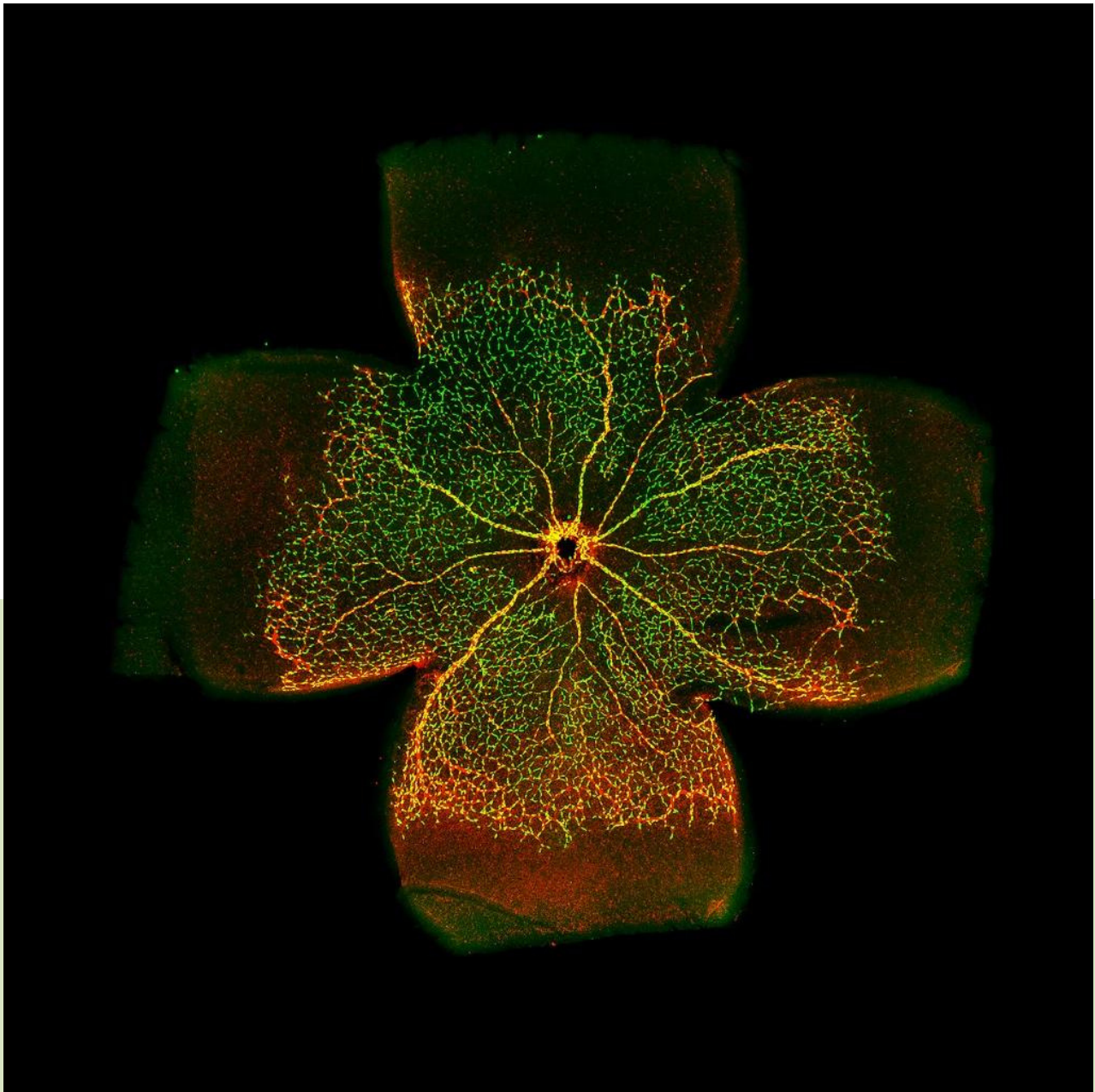
On the drive back, Anne held the glass jar in her lap, mesmerized by the twinkling insects. Back at the assisted living facility, I picked Anne up and slid her back into her room. She gave me a hug through the window and then asked me to wait. After a moment, she returned with a binder.

Anne passed the binder through the window. "This is my research on fireflies."

I flipped through the pages, briefly stopping on an article to read a headline or a passage Anne had highlighted. There were dozens of articles and notes she'd taken. I stopped on what looked like a transcript of an interview.

"A few weeks ago, I interviewed an entomologist from Harvard," Anne said. "Anyway, I knew that I'd never get around to writing something. I want you to have the research. Hopefully, you'll find it useful."

A few days later, I was working on my firefly article at home. The research my grandmother had collected was extremely valuable. It detailed the courtship behaviors



Digital Media

“Looking Glass” depicts the early development of the retina. The flower-like structure shows the intertwining vasculature sprouting from the central optic nerve.

of fireflies, as well as how other animals, like deep-sea creatures, had evolved the ability to glow in the dark. Anne had dug up news reports that proved firefly populations were dwindling in the United States due to development that encroached on forests, fields, and meadows where fireflies lived. The light pollution produced by humans also disrupted firefly populations by obscuring the signals they used to find mates.

These articles became a background for my piece; I cited a few studies and used a couple of quotes from the entomologist. In my interview with Galen's plant biologist, I had learned that the scientists had successfully sequenced the insect's genome and had finished several experiments that revealed the basic chemistry involved in the firefly's bioluminescence. According to the biologist, bioluminescence had likely evolved to ward off predators and then evolved into a way to attract potential mates.

When I visited Anne after she was admitted to the ICU a few days later, the nephrologist said her kidneys had begun to fail and she

didn't have long. When I got to her room, Anne's eyes flickered open, and she smiled. We talked for a few minutes, reminiscing about our adventure. Opening my bag, I pulled out a jar of fireflies I had collected the night before.

She examined the jar and then asked, "How is the article coming?"

I told her the article was finished, and that I'd used a lot of her research to write it.

"I'm proud of you," she said, a smile spreading across her face. "I'm glad someone in this family became a writer."

From my bag, I also retrieved a copy of the new issue of *Cellular*. I had worked with an illustrator to create the cover art. It had a beautiful graphic of a firefly in a meadow at Laudholm Beach. "Check out the article," I urged.

Anne flipped the magazine open to the article and paused. Next to my name was hers. It had always been a dream to see her name in print. Her eyes welled with tears, and she didn't say a word. I sat in my chair, watched the fireflies flicker in the jar, and let her read the story we had written together.