Dolores Jean Lavins Center for Humanities in Medicine presents

THE TEMPEST

MAYO CLINIC SCHOOL OF MEDICINE • ANNUAL CREATIVE ARTS PUBLICATION
It has been said that storms make trees take deeper roots.

Medical education is its own kind of tempest, a flurry of facts, figures and feelings. We confront the most intimate parts of the human experience, and to not be carried away by the swirling chaos, we must remember the things that ground us.

This publication was born as a space to create, a rock that grounds all of us to our own humanity. It was meant not only to capture our most vulnerable moments on our journey to becoming physicians, but also to remind us of the person behind the physician.

We are proud to present The Tempest: a collection of poetry, prose, and visual art meant to illustrate the growth of a medical student into a medical professional.

The Dolores Jean Lavins Center for Humanities in Medicine is pleased to sponsor this fourth volume of the Mayo Clinic School of Medicine Creative Arts Publication. The mission of the Lavins Center is to support Mayo Clinic’s primary value, the needs of the patients come first, by integrating the arts and other expressions of human culture into the healing environment.

In this digital age and beyond, navigating the challenge of medical education will increasingly rely on competencies in technology, data assessment and management, and the unending quest to understand the mysteries of our own nature. Advances in artificial intelligence will help to make possible advances only dreamt of within the lifespan of our forebears. How those advances are made to work for the flourishing of mankind, however, is a task best nested within the realm of the Medical Humanities. Creativity inherent in the collaborative study of the humanities is not only desirable but necessary to an effective clinician’s lifelong commitment to informed critical thought and generous listening in these times. This dedication to a sustainable and truly integrative model of the healing arts and sciences is well represented by students whose work is collected in this volume. We are honored to have the opportunity to help foster original work by these future leaders in the practice of medicine.
CELTLIC CEREMONY
BY ANDREA COLLINS

By an empty tray a nurse knelt, staring at my pale cheek. A face engraved across her eyelids seemed to frown while she blinked. She scribbled on a dusty notepad; ink would not run. Twelve roses under the window blushed redder with her unease. She turned away.

That window opens to more windows. From my bed I can see only across, or through. Light rain offers an illusion of movement, though I know it only beats against the glass and slays, like beads of water on a camera lens that blur a snapshot burned in eternity. If only I could wipe my hand on the other side and then return.

As the clock ticks, one life after another flattens to sheet, parallel to floor and ceiling. Parallel to sheets upon sheets.

WILL WE INHERIT THE EARTH? The piano in the atrium wakes, breathing. It comes to my room. We fly to Ireland, trying in jest to catch the wind inside a net. But Dagda spots me in the ether and strikes my spine with a boar, guarding immortal matter.

Am I welcome anywhere?

WHERE WILL I GO, WHEN I FINALLY DIE? Neon blots dance as I press my hands over my eyes. A bitter, mahogany scent of coffee leads me home. The roses by the window wilt. The nurse’s eyelids run with color. It was only ever ink. I run out to the atrium to dust the piano with my sighs.

For I am here, and I am found.

FIRST WINTER DIARIES
BY OLUWATOMILONA “TOMI” IFELAYO

I saw God in icy nature…

…when I flailed around to avoid slipping and colliding with it face-first.
When I die, I want the last thing I feel to be the touch of another human being.

He came in convulsing, his 60 year old stomach flying up and down. It was almost comical, picturing a giant invisible monster getting major air time on his beer belly. It was less funny when I realized it was no monster, no animal, no cute little dwarf hopping from right to left lower quadrant. It was Lucas.

Have you met Lucas? Or maybe you know him by his full name: The Lucas Mechanical Chest Compression Device.

Lucas wraps you up in his warm embrace, as it did that man in his last moments of life. Like a giant on a trampoline, Lucas drives its hammer-like cylinder into the sternum, with each blow jolting one more desperate heart beat out of a failing organ.

As the beat grew more powerful, her eyelids fluttered in partial surrender as the blond vessel blurred into the tan hide producing the very essence of the loud, lulling tune that almost commanded her eyes shut.

Her eyelids, fighting the imminent and inevitable, reverberated to the tune of a dazed song. The blond, well-dressed vessel for a smooth voice droned on before her, a lecture on T cells pulsing across her eardrum like a bass-heavy lullaby infused with the tonal, rhythmic talking drums of the song she’d danced to the night before.
“Saumya, why don’t you present Mr. C, a 35-year-old male with chemotherapy-resistant glioblastoma status-post surgical debidement and resection.” I was stunned. This was the first day of third year of medical school and clinical rotations, the first time I was given a patient to follow, and most importantly, the first time I was going to see a patient with a glioblastoma—the same predator my uncle succumbed to one year before—ironically, on that exact date. I profusely scribbled every word in my pocketbook, nodded to my senior resident, and embarked to find Mr. C’s room in the maze of hallways.

He lay paralyzed on the hospital bed, with one eye rolling in all directions without purpose, and the other looking straight ahead at me. The ventilator next to him hummed as regularly as a metronome beat. His wife informed me that his only method of communication was an occasional blink of his one eye, with little signs of intact mental status.

Mr. C’s glioblastoma journey had begun eleven months prior with transient seizures, similar to the presentation of my uncle’s arduous journey. In the following months, the “Cs” would make countless trips to the emergency department, transfer between world-class institutions for that one extra clinical trial, and undergo repetitive surgeries to debride infections that were a result of prior surgeries. I met Mr. C and his wife on their fourteenth hospitalization, and unlike previous visits, Mr. C presented with severe dysphagia necessitating percutaneous endoscopic gastrostomy (PEG) tube placement, a risky procedure due to his unstable condition. A goals-of-care conference involving palliative care, neurology, ethics, and Mrs. C was organized. The team emphasized the challenging crossroads they were at and the option of comfort care: undergoing another intervention was necessary for Mr. C’s life to continue, yet actually performing it would likely end his life. Despite fully understanding the situation, Mrs. C was adamant to continue with the PEG tube placement. She felt that regardless of how pain-free the process of death in comfort care would be, how could she voluntarily sign up her conscious husband to slowly starve to death? She was fully aware that every additional medical intervention was incrementally decreasing his quality of life; however, she was not ready to say goodbye. I walked out of the care conference wanting to scream but unable to. On one side, my thoughts aligned with those of the team; since day one of medical school, we have been taught to do no harm. Would having Mr. C undergo yet another procedure be considered harming him? Or should a physician’s goal always be to save a life? Was it ethically appropriate to funnel endless medical resources towards a patient whose deteriorating prognosis was certain? On the other hand, like Mrs. C, if my spouse was hanging on to the cusp of life, I do not think I could gather the courage or moral fortitude to let him pass.

Like most other ethical situations, there was no right answer to the one right in front of me. However, in that moment, I longed for an algorithm on UpToDate to help guide decision-making. It made me realize how, with endless years of medical training, we gain the privilege to study every intricacy of the human body, identify the prognostic signs and symptoms of life and death, and learn to intellectualize every situation that comes our way. At the same time, this state of no longer being ignorant of knowledge takes away the bliss that exists within that ignorance. We are faced with colliding forces: the intellectual voice that critically examines the situation and calculates every hazard ratio and survival probability based on the given patient facts, and the emotional voice that focuses on the relationship ties and tears that surround the patient and his family’s suffering. Fulfilling our duty in a way that combines the inner calculative scientist and the sympathetic human into a synergistic energy becomes a challenge.

Nonetheless, at the end of an emotionally demanding day, this role as a provider of healthcare brings more contentment and peace than any other profession imaginable.

Ultimately, Mr. C underwent PEG tube placement and was subsequently discharged. Two weeks later, I coincidentally ran into him in a different hallway of the hospital with a different medical team—although, there never was another hospitalization after that one.
TREASURE
BY NOELLE THEW

You are my rainy morning
weighty sky falls to sea
land gulps to the brim
from the gentle, but abundant
drops wet and full, each one
Redemptive

You are my winter day
wind whips bare branches creak
fire white and blue
from singed clouds darts
pressed between celestial thumb and finger tips
like spices crumbled into soup

You are my summer evening
horizontals light the trees from below
a golden timbre
a hum in the stillness
fullness of being
rises up from the ants’ saunter

You are my full moon
each leaf, pocked somewhere
now silver, no shadow wide enough
face upheld from obscurity
by the whispering shield
hung so humbly, reflect and protect

You are my enduring treasure
in the ordinary, you beckon divine

GALAXY
BY SHEMONTI HASAN

MIDNIGHT PINES: A HAIKU
BY JENNIFER DENS HIGANO

Skiis soar over snow
Through deep midnight pines with my
Artificial moon
In the beginning of cadaver lab, studying anatomy as fresh medical students, we started and ended our days looking across the table into a mirror. This mirror reflected back a colleague who just found the same structures and gained the same experience; a colleague with their unique identity and distinguishing features concealed behind surgical blue and waxy apron. The muscles of the back today, we see the same muscles. The hand tomorrow, we will see the same hand. The dance continues, two to each side, expected to turn up the same results in the exploration of all the familiar outer territories of the body. We have a deep, primitive tendency to seek and love symmetry in human appearance and nature, and in the mirror days of cadaver lab, we did.

The heart whispered the first hint of the profound, nearly horrifying secret. The heart gives way to the mismatched lungs, the irreconcilable abdomen. The outer vessel of the body brings aesthetic comfort and practicality in interacting with our daily world, but none other than tangled chaos secretly keeps it alive. The aorta gracefully arches so that it can sit off center and lopsided, refusing to take attention away from the undeterred path of the headstrong vertebral column. The liver and spleen have no counterpart, alone in their sidedness, vulnerable in an absence of protective redundancy. The recurrent laryngeal nerves lie constrained by nothing but the memory of embryonic vestigial gills, preventing them from serving as each other’s spatial counterpart. The unadulterated view of the chaos inside every human body that we experience in cadaver lab builds a greater understanding of the fragile reality of human life, and we need this understanding of the asymmetrical just as much as our mirrored faces, hands, and feet need the imbalanced internal organs to bring them vitality.

The daily bloom of skin cells, the ritual of eating and digesting, and all interactions with our world occur through a layer of asymmetrically dividing cells. Without such divisions, stem cells and keratinocytes alike lose their function and regenerative capacity. All the way from these tissues down to the two different sides of the same lipid bilayer of the cell membrane, we are built from the asymmetrical. Find this lack of balance in our physical bodies, grossly and molecularly, and find it too in our experiences and thoughts. Find it when you have difficulty understanding someone else’s pain because you have not felt it yourself; find it when someone tries to understand your own pain, or when you feel unacceptably different under others’ scrutiny. Asymmetry creates vulnerability in our emotions just as it creates vulnerability in biology because anything asymmetrical cannot enjoy the protections offered by redundancy, compatibility, and sameness. Despite this vulnerability in our anatomy and in our emotional lives, the benefits of the perspective offered by asymmetry outweigh the benefits of the safe comfort that symmetry brings. Asymmetry is the only means we have to understand our dual fragility and resilience. In a testament to its strength, imbalance prevails in the body and in our experiences with each other. Without asymmetry, there is no perspective and no life.

**ASYMMETRY**

**BY MYLAN BLOMQUIST**

**SYMMETRY**

**BY RAMYA RALLABANDI**
Somewhere amidst the snow-covered sidewalks and leafless trees of mid-January, there exists a United States of Breath.

It is a land like no other, full of four-sided mats existing like parallel universes side-by-side. A body within each of the four walls, each body a universe of its own, flowing to the beat of a shared energy.

Inhaling, extending. Exhaling, folding. Rising and falling as one people of the United States of Breath.

Each person, uniquely in tune with that special shade of red that lives behind their closed eyelids, basks in a crimson warmth, indescribable, a matrix in which they are suspended.

Eyes roll upward, hearts open to the sky looking for answers. Like a wave, the sound of breath crashes, as arms go up like kelp in a stormy sea.

Inhaling, extending. Exhaling, folding. Bodies compress, hoping to take up as little space as possible until release. An eruption of liquid gold flowing in glittering channels from head to toe, like the tingle of warm fire near skin that has just escaped from a biting cold.

They collectively surrender, thoughts floating by, sweat settling in creases of elbows and knees. They lay down together in protest of a world that moves too fast.

Inhale, extend. Exhale, let it go.

UNITED STATES OF BREATH
BY ARYA SHAH
“Well I am not sure how much the last consultant pushed for a liver transplant, so I don’t know what else I can do or say.” The consultant’s darting eyes revealed his indecision. We were discussing the case of Mrs. C, a woman on the surgical intensive care unit, whose prognosis was as unclear as the conversations surrounding her management. Mrs. C experienced extreme hypotension from ligation of a hepatic artery during an elective laparoscopic cholecystectomy at an outside institution. As her cardiovascular status descended, she was transferred by helicopter to Mayo Clinic for intensive management. Immediately after her arrival, an exploratory open abdominal surgery was conducted to ligate any sources of bleeding - none were found, and she was sent to the surgical intensive care unit. While on our unit, her status continued to precipitously decline as we escalated management interventions. Doses of phenylephrine increased, methylene blue was added, units upon units of fluids and fresh frozen plasma were loaded into Mrs. C, on top of two machines for continuous renal replacement therapy. As her pulmonary function declined and ventilation parameters were maximized, she was placed in a machine for pronation. The days passed. Diplomatic words were exchanged between the multiple services managing Mrs. C, without significant actions made other than maintaining her physiological function against declining odds. The hepatobiliary surgery team believed that her liver was damaged by the hypoperfusion, yet had faith that it and she would regain function. The intensive care unit consultants both believed she was in liver failure and rapidly heading towards a fatal course, and expressed this to the liver transplant team. The liver transplant team was not able to operate on Mrs. C unless she was transferred to their hospital a mile away, yet she was too hemodynamically unstable to transfer. Following this spider web of communication and unclear plans was enough to make my medical student head spin – what did this mean for the patient’s care?

Mrs. C grew more and more unrecognizable. She resembled an over bloated cartoon character with legions of blue suited nurses scurrying around her room in futility. Mrs. C was a 37 year old beloved pastor of her community with three young children. The image of Mrs. C’s young, blonde daughter pushing her little baby brother around in a stroller amongst the ventilator machines and IV drips was a juxtaposition I will never forget. Their father believed in the best prognosis given to him by the various consultants, and remained heartbreakingly optimistic that his wife was coming home. Mrs. C passed away in the hospital. All that was left was me, standing in the cloud of confusion floating around her care – the seeming lack of ownership that caused us to lose a life.
BLUE MOON
BY THANH NGUYEN

SUNSET TRIPTYCH
BY FARES ALAHDAB (TOP), THANH NGUYEN (MIDDLE), AND SOWMIYA PALANI (BOTTOM)
THE NAZIS AND NOW: PEDIATRICIANS’ UNDERSTANDING OF CHILDHOOD SUFFERING
BY MAGGIE CUPIT-LINK

Introduction
I am working with the pediatric palliative care team during my first elective rotation of my last year of medical school. I am about to see a patient, a 15-year-old girl who goes by Muffy. According to the electronic medical record, Muffy was born with monosomy 2p and 15q, septo-optic dysplasia, bilateral colobomas, craniosynostosis requiring a cranectomy, and hereditary long QT syndrome. She has developed autonomic instability, pituitary dysfunction, and recent heart failure with an ejection fraction of 20%. She is “nonverbal” and “globally developmentally delayed” and requires complex care as she has a tracheostomy for nighttime breathing support and a gastrostomy tube for calorie supplementation and hydration. She has been intubated multiple times due to severe respiratory infections.

Muffy’s code status is “full code.” I wonder why, because I know that Muffy’s conditions cannot improve, and I am sure that Muffy endures unbearable suffering on a regular basis. I take a deep breath and enter the patient’s room.

History
An estimated 5,000 children were murdered between 1933 and 1945 in pediatric institutions of Germany during the Third Reich. No evidence suggests, however, that physicians were punished in any way if they refused to take part in these murders. How then, did pediatricians arrive at a consensus at which murdering children was justifiable?

The ideology of the late 1920s in Germany included social Darwinism and a belief in a superior Nordic-Germanic race. Based on these ideas, it followed that that only the “genetically healthy” people should be allowed to propagate and contribute to the gene pool.

As a result, Germany initiated mass sterilization in the summer of 1933. The reported estimates of the total number of forced sterilizations prior to the end of World War II are as high as 600,000; it is likely that between 220,000 and 269,500 individuals with schizophrenia alone were sterilized or killed (73%-100% of all individuals with schizophrenia in Germany at the time).

In 1936, Dr. Gerhard Wagner, a member of the Nazi party, held a series of discussions with other physicians, many of them pediatricians. He discussed making films in “asylums and idiot homes” about “idiotic children” and “the mentality” to demonstrate the “misery” of their lives to the public. It is not uncommon for parents of disabled children to feel burdened, and with the added Nazi propaganda, the population began to feel differently about the disabled, including their own children, and whether or not they should be allowed to live. By 1938, the Nazi regime was receiving letters from parents of newborns or infants with severe deformities and/or brain damage requesting “mercy killings.”

“Mercy killings” were called such because they were said to relieve unnecessary suffering experienced by the victim. Gerhard Kretschmar, a five-month-old disabled boy, was murdered with a lethal injection after his father wrote Hitler a letter requesting that his son be “put to sleep.” The child’s cause of death was listed as “heart failure” on the documents with which he was buried.

By 1939, many physicians had already begun to practice pediatric “euthanasia”, with strategies for killing including phenol injections, morphine overdosing, and the preferred “natural” method—starvation. Additionally, Hitler’s interior Ministry issued a decree ordering the systematic annihilation of mentally and physically disabled children. The group of medical officials who spearheaded this movement included administrators, pediatricians, and psychiatrists. At least 30 institutions in Germany, Austria, and Poland organized special killing areas for children, and the physicians running such facilities were known as “experts” in their fields. When parents transferred their children to such institutions, they were told that their child would receive “the best and most modern therapy available”. Should parents oppose such a transfer, their legal guardianship was often threatened. The medical profession, thus, offered an escape to parents of children with chronic medical conditions in the form of these “mercy killings.”

“Life Unworthy of Life” in Today’s World

After studying the events leading up to the Holocaust, I noted the similarities between the mindsets of Nazi pediatricians and many pediatricians in Belgium and the Netherlands today.

In 2014, Belgium legalized elective euthanasia for children in “constant and unbearable physical or mental suffering that cannot be alleviated.” Several requirements must be met, including voluntary and explicit request for euthanasia, parental consent, and a multidisciplinary team who carefully examine the child’s capacity for discernment. Children with intellectual disability and/or mental illness are excluded from the law.

In 2005, physicians at the University Medical Center of Groningen published a set of practice guidelines: The Groningen Protocol for Euthanasia in Newborns. The protocol advocates for euthanasia among severely ill newborns with “hopeless prognoses” and “unbearable suffering.” Requirements include a certain prognosis and diagnosis, the presence of hopeless and unbearable suffering, all of this confirmed by at least one independent doctor, both parents giving informed consent, and the procedure being performed in accordance with the accepted medical standard. These are the qualifying factors for designing “life unworthy of life” among children today.

Suffering and Quality of Life

In the Netherlands, the most cited criteria for termination of neonatal life are “unbearable and hopeless suffering” and “no other proper medical means to alleviate this suffering.” While one might assume that these criteria are substantial and difficult to meet, this is not the case. Of the 200,000 children born in the Netherlands every year, about 1000 die during the first year of life. For approximately 600 of these infants, death is preceded by a medical decision regarding the end of life. Most of the newborn infants who fall into this category have a diagnosis of meningomyelocele (MMC)—spina bifida.

In the first published series of quality of life among patients born with MMC between

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1959 and 1969.11 Lorber described these patients as having “crippling disability” and “quality of life inconsistent with self-respect, leaning capacity, happiness, and even manage.”12 However, the quality of life (QoL) among survivors of MMC in the United States today is vastly different from Lorber’s description. Early surgical treatment of spinal lesions and hydrocephalus in MMC have resulted in far less mortality and morbidity. A study among 33 patients with MMC ranging from age 5 to 20 found that 64% of children assessed their QoL as good, 30% as very good, and 6% as average.13 None of these patients assessed their QoL as less than average.

That QoL is subjective is not a surprising finding. A 2014 systematic review assessed the literature on QoL of young children surviving with conditions from early infancy.14 Regardless of condition, most children reported QoL similar to age-matched controls in all areas except for physical function/health domain. Children also reported higher QoL than parents did on their behalf. The QoL experienced by a person with severe functional limitations is often considered to be of high quality by the individual and of very low quality by observers.15 Across various studies, there is no clear relationship between the degree of physical disability and health related QoL.16

Suffering—and our interpretation of suffering—are clearly highly subjective, especially among infants and children. Euthanasia is sometimes considered to be a “mercy killing” due to its potential to alleviate unbearable suffering. It is considered to be one of the pediatrician’s responsibilities to eliminate or assuage pain and suffering when possible. However, it is impossible to say what threshold of suffering would make “life unworthy of living” for another human being.

History Repeating Itself?
It is clear to me that the arguments justifying pediatric euthanasia in the Netherland and Belgium mirror the arguments used by the Nazi paediatricians to justify “mercy killings.” Both groups of physicians argue to end children’s suffering by ending their lives. Both take advantage of vulnerable populations in order to benefit the larger population. Both assume that QoL can be inferred, when in reality, it can only be experienced, when in reality, it can only be experienced.

Conclusion
I walk into the exam room, suddenly aware of the anticipatory anxiety I feel as I meet the patient. At fifteen years old, Muffy wears polka-dotted leggings and her curly hair in two pigtails on top of her head. She shakes my hand as I introduce myself. She does not use words, but she uses sign language, gesturing a response to my obligatory “it’s nice to meet you.” She gestures to her cousin that she would like to see her Grandpa Bob. No one in the family has any idea why Muffy is so obsessed with her Grandpa Bob—he’s not even her age, and she has any idea why Muffy is so obsessed with her Grandpa Bob—he’s not even her age, and she

References
UNTITLED
BY JENNY GRAUBERGER

SUMMERTIME
BY RAMYA RALLABANDI
EYE AND LIPS
BY MAX STAEBLER

REMOVER OF OBSTACLES
OIL PASTELS ON PAPER BY ARCHNA PATEL
HAIKU REFLECTIONS OF THIRD YEAR
BY MITCH HEINER

Internal Medicine
Thought I’d use things learned
Instead, I watched patients cry
And then, interns whine

OB/GYN
Residents make nests
Of Diet Coke cans at their desks
And hatch humans there

Neurology
Time to fix some brains
Wait, I think there’s nothing wrong
Oh, it’s “functional!”

Pediatrics
So many “kiddos”
“Kiddo, kiddo” sigh “kiddo”
Not kids ... nope ... “KIDDOS!!!”

Family Medicine
Four year old patient
Chief complaint: Sticker up nose
(She’d made it all up)

Psychiatry
A patient follows me
Up and down the hall we go
Then, he undresses

Surgery
Sickest patients yet
Death white skin and pitch black eyes
They’re PGY-4s

CHICAGO NAVY PIER
BY FARES ALANADAB
BODY (IN III PARTS)
BY TORI RICCELLI

Part I
nobody
everybody
then
your body

your body is a temple of the holy spirit
teacher says, you contain the Spirit, a singing fire in a broken vessel
who should light a fire to smother it in shadow?

that first shock of pain
an electric storm
ripping tearing paralyzing lightning striking

your body is a child,
whining and wailing,
unwilling to do as you order it.
insubordinate fingers,
independent.
punish it.

they say your body is a miracle
in school you learn the ways:
79 organs
206 bones
700 muscles
37 trillion cells

Part II
what you embody
then
what
embodies you?

the carved image of david, perfection embodied; 700 muscles on 206 bones.
the old woman at walmart, disintegration embodied; 37 trillion cells
shed from splintered skin, gnarled and brackish feet
in greenish holed clogs
her body, blistered,
enzymes eat the ends

Part III
my body is language
if I warm you with my touch
or free the song held in my soul.

It is the city that never sleeps
but always defiantly dreams.

Take a flight over the city lights,
they blend and melt into one.
the starry host of a thousand bodies
as you satellite across the sky.

but land and see,
cancer grows, fingering malignant vines,
prying open barren bones in the old mother,
the one who wore the vibrant colors and housed the generations.
It’s time, they say. It’s time to tear her down.

The body is a paradox
it cannot be boxed in form

It is a clay jar,
a blessing and a curse,
a temple of the Spirit,
a machine running out of miles,
a gift to be given back,
a defier of definition

spiritual | physical

like the dark tide, it churns
bringing forth the hidden depths
revelations hidden
in a reflection of starry isles
LADY AURORA
BY RAMYA RALLABANDI

We are not the same.
It’s not your fault you don’t know the forestland from where you grew; you were uprooted and replanted afar by a farmer who didn’t hear the heartbeat of his cash crop – the breath in lungs like his own. But your lungs cried for the culture you lost. Ours responded – in a tongue you didn’t know, couldn’t understand, with a puzzle. You sought to solve it, changing it to soothe your ears. But our lungs still cry. It’s not your fault, but we are not the same.

APPROPRIATE APPROPRIATION
BY OLUWATOMILONA “TOMI” IFELAYO

We are not the same.

It’s not your fault you don’t know the forestland from where you grew; you were uprooted and replanted afar by a farmer who didn’t hear the heartbeat of his cash crop – the breath in lungs like his own. But

TOMORROW
BY ANDREA COLLINS

On a train running backwards to the end of earth, two ghosts conduct us over track that lengthens while we move. A priest and bishop break bread for communion; a child tiptoes down the aisle with her hands pressed against her heart. The electricity is out. We cannot see our faces in the glass. Someone lights a match; the moth of Raskolnikov’s conscience circles the flame.

We race through dreams and time. What is our destination? The earth grows flat; will we accelerate toward our doom? The track does lengthen as we move. Are we safe, then? Or trapped? Burning wax records the hour. Flames bow now and then to silent ghosts that chill the air.

You trace your eyes and mouth along the moist windowpane. A spider’s web adheres to the glass. Exoskeletons decorate the frame. Are they within or outside the train? Will you disturb this drop of life to see? Those who see the future hold a mirror to shifting shadows cast on sands. You cannot touch tomorrow with your hand.

ARCHES
BY SOWMIYA PALANI
We are sitting across from our grandpa, my brother and I, in the nursing home facility that we have been in so many times before. My eyes are full of tears but for some reason, part of me is thinking about the walls of their little apartment – they are so white and feel so different from the bright yellow that you see on the outside of the large facility. There are small paintings hanging on the walls – snapshots from a lifetime of living, and I remember asking my mom years ago – is it okay if they put nails in these walls, they will leave big holes!" She responded, “Yes, honey, this is their home now, they can put nails in their walls just like we can put nails in our walls”. Of courseee that made sense, Mom always makes sense, but in some ways it still didn’t quite feel equivalent. In that moment I feel the pang of guilt for having been more concerned about the small holes in the wall, than I was curious about the pictures being supported by these nails. An anxiety about the future that interferes with an appreciation for the past – I feel this selfish juxtaposition immensely now, and am so grateful for my brother in that moment.

My grandma died from a stroke in the hospital that early morning, and my mom had been there all night. My brother and I drove to the nursing facility to relay the news to grandpa, for he was not able to see my grandma – it had happened so quickly. My grandpa speaks – he has tears in his eyes, and is shaking, his hands dancing in his lap. He is looking at the ground, much like I am staring at the wall.

"I know something bad has happened, can you please tell me what?"

My brother tells him the news, quiet but deliberately. Somehow, somewhere in the microscopic horizon of his brain, my grandpa knows what my brother says, because Tyler has already told him about the death of grandma several times in the past five minutes.

For years, the shared Alzheimers of my grandma and grandpa was something that we all experienced, but it never felt so concrete as in this moment. We knew that dementia was what put my grandparents in this home, what made them move to Oregon. I could always see the burden that it placed on my mom – my mom, so incredibly full of love it’s the most impossible thing. Some days, alzheimers was as simple as my grandpa asking me if I had heard the story of how he got his car, and I would say, please tell! Full disclosure, I had heard the story before, but that never took away from the delight in his eyes as he prepared to launch into the saga. My mom, smiling too with pride, would listen as well. Other days, alzheimers looks like anger, confusion, and more anger. Perhaps worse, helplessness. I am convinced there were more happy forgetful moments than terrifying ones, but, although my brain is purportedly healthy, we all have the tendency to distort and confuse memories – an important realization for empathetic understanding of dementia.

I do not know what is “best practice” for delivering tragic news in such a context. I do not know whether we did it right, I simply do not know. However, I do know this: My grandpa, sitting there, fighting, at the intersection of a brain that he doesn’t quite understand anymore and the immense love that he would always feel for grandma – his commitment to work through this intersection – that is what strength looks like, and there is so much more to his illness, but it is this unwavering strength that must begin his story.

AUTUMN MUSHROOMS
BY JENNIFER DENIS HIGANO

ILLNESS NARRATIVE
BY NATHAN ROCKEY

We are sitting across from our grandpa, my brother and I, in the nursing home facility that we have been in so many times before. My eyes are full of tears but for some reason, part of me is thinking about the walls of their little apartment – they are so white and feel so different from the bright yellow that you see on the outside of the large facility. There are small paintings hanging on the walls – snapshots from a lifetime of living, and I remember asking my mom years ago – is it okay if they put nails in these walls, they will leave big holes!" She responded, “Yes, honey, this is their home now, they can put nails in their walls just like we can put nails in our walls”. Of courseee that made sense, Mom always makes sense, but in some ways it still didn’t quite feel equivalent. In that moment I feel the pang of guilt for having been more concerned about the small holes in the wall, than I was curious about the pictures being supported by these nails. An anxiety about the future that interferes with an appreciation for the past – I feel this selfish juxtaposition immensely now, and am so grateful for my brother in that moment.

My grandma died from a stroke in the hospital that early morning, and my mom had been there all night. My brother and I drove to the nursing facility to relay the news to grandpa, for he was not able to see my grandma – it had happened so quickly. My grandpa speaks – he has tears in his eyes, and is shaking, his hands dancing in his lap. He is looking at the ground, much like I am staring at the wall.

"I know something bad has happened, can you please tell me what?"

My brother tells him the news, quiet but deliberately. Somehow, somewhere in the microscopic horizon of his brain, my grandpa knows what my brother says, because Tyler has already told him about the death of grandma several times in the past five minutes.

For years, the shared Alzheimers of my grandma and grandpa was something that we all experienced, but it never felt so concrete as in this moment. We knew that dementia was what put my grandparents in this home, what made them move to Oregon. I could always see the burden that it placed on my mom – my mom, so incredibly full of love it’s the most impossible thing. Some days, alzheimers was as simple as my grandpa asking me if I had heard the story of how he got his car, and I would say, please tell! Full disclosure, I had heard the story before, but that never took away from the delight in his eyes as he prepared to launch into the saga. My mom, smiling too with pride, would listen as well. Other days, alzheimers looks like anger, confusion, and more anger. Perhaps worse, helplessness. I am convinced there were more happy forgetful moments than terrifying ones, but, although my brain is purportedly healthy, we all have the tendency to distort and confuse memories – an important realization for empathetic understanding of dementia.

I do not know what is “best practice” for delivering tragic news in such a context. I do not know whether we did it right, I simply do not know. However, I do know this: My grandpa, sitting there, fighting, at the intersection of a brain that he doesn’t quite understand anymore and the immense love that he would always feel for grandma – his commitment to work through this intersection – that is what strength looks like, and there is so much more to his illness, but it is this unwavering strength that must begin his story.
Who is this creature before me? My stomach leaps up in my throat. I recoil, pulling myself away from suffering. Having let fear dictate my actions, I am disgusted by myself.

Did you know I was there? Soft, wincing moans echoed in your throat, my hand clasping your trembling fingers trying to hold them steady in a vain attempt at comfort.

Your tormented echoes reverberated through my ears as I bowed my head down closer to your eyes, imprisoned by swollen skin and crusty secretions. Your glasses could not fit on your face. I hesitated. I rotated my head closer to your violently peeling lips, stubbled with stalks of skin no longer smooth. I hoped that you would say something, anything.

Did you know I was there? My hands shook with yours. I love you.

You died early the next morning, finally. You endured more pain at the end than you ever caused in life.

Dad let me sleep – I had school that day – Friday? No wait, Thursday? He showed me a picture of you after you passed. He has a weird habit of doing that. In his own way, grasping for answers amidst the elusive metaphorical dimensions that are interwoven with Consciousness. Subconsciousness. Unconsciousness.

Thoughts, an infinite spiral of perfectly parallel lines always and never intersecting running between through under above the Chasm of love, effervescent orb of darkness.

I only knew you for a short era in my adolescence. An innocuous start, my Dad moved you into a retirement community, weekly check-ups, old fashioned donuts, coffee (black no sugar or cream) turned into frequent visits.

My 14-year-old-self did not feel an instant connection. "Dad, why?" "The most important gift we have is Time. Our Time means so much to Julia. You'll understand."

We sat at your kitchen table, my Dad's pen scribbling as he balanced your checkbook, something he would never do at home. His fingers popped your pillbox open and closed.

Lipstick stained your coffee cup, brightening and smearing, the donut already gone. We laughed, talked, and loved.

Time moves. Car accident, license revoked, more doctors' appointments, walker, wheelchair. Time lengthens in space between my Dad's knuckles rapping on door 02 and the door opening.

You are frantic, "Don't leave, don't leave, I am coming."

The same sparkle in your eye, only extinguished once before, that time we brought you gas station coffee instead of your favorite from Dunkin Donuts.

Nursing home, a walk through the woods south of school to visit you. Heartbroken you had to give up Maggie, I only saw her once crouched under your bed, she hated everyone but you. We tried, but she scratched Nana. We never told you we put her down. "She's living with June in Philly," we said. We even fabricated a picture to show you. I am not sorry.

How did you keep your heart full? Your father died when you were young. The Great Depression, left with a mother callous and cold, controlling you for her ends. You experienced true love, though. Married after fifty, you broke free. Your love died a few years later, sudden heart attack. Love never died in your heart, you radiated love and joy.

This is why I am sorry. You gave me more than a bike, you loved me and taught me how to love, but I could not be with you while you suffered at the end. I could only bare being exposed to your hurt for minutes, small windows of Time looking into your pain flattened me. I am a coward.

I didn't cry at the funeral. Some priest gave your eulogy. He had no idea who you were and what you meant. He never visited you in life, not even once. But he stood there, an insulting attempt to memorialize you. What arrogance.

I have only made the hour and a half drive to your grave once. So, I cannot claim to be any better.

You would have loved the pink roses.
SEVEN MINUTES
BY RAMYA RALLABANDI

(i read somewhere that when we die we have 7 minutes of brain activity
left, during which our brain plays some of the memories in a sequence.
This poem is based on that theory.)

You wish for me to stand still,
To force my hands to hold your quill,
To change your story as you please
But you, my friend, forget that I am the tide, which cannot freeze.

You thought that you had enough of me
But you my friend did not foresee.
You thought you could buy me with your false treasures
I am the most precious thing you have and you thought I was at your leisure.

I see your eyes, full of repent.
You want to get back all that you have spent,
You missed your chance to value everything around you
The breeze, the seas and the skies hue.
You missed your chance to tell him you loved him.
To tell him that you passed me by for him.

Now I see you at your last door.
I see you look back; plead me to spare you some more.
All I can give you is seven minute of me.
Seven minutes, just for your plea
Seven minutes to relive your life
Seven minutes until you cease all your strife

Your seven minutes are up; you are ready to go
I see a smile on your lips and your eyes glow
Those seven minutes have taught you your final lesson,
What you learnt, you whisper to me
I hear you say—'It’s too late, you are gone; you wont come back!'
And I, the Time agree.

THE COLORS OF WELL-BEING
BY SUZETTE ARIAS

When sickness invades our bodies, it’s
easy to feel small, scared. Like walking on
a thin branch that may break at a moment’s
notice. But when there is reason to breathe
in hope, when what was once marred is
now healthy, we can become ourselves
again. We can display all our true colors.
Suzette Arias Mejias is an MD student at the University of Puerto Rico, and Master’s student at Mayo Clinic’s Graduate School of Biomedical Sciences under the Clinical and Translational Science track. Here at Mayo Clinic her research focus is in melanoma and in creating a score that can predict risk of metastasis in patients. She was born and raised in Puerto Rico, and as an island gal of metastasis in patients. She was born and raised in Puerto Rico, and as an island gal

Fares Alahdab is an assistant professor of medicine and research fellow currently doing a Master’s in clinical and translational science. Fares is an avid runner, hiker, biker, and kickboxer. He enjoys the outdoors and loves to travel and meet new people! He is very interested in philosophy, artificial intelligence, and technology in general.

Andrea Collins is a first year medical student from Central California. An English major in college, she decided to pursue medicine after a series of life-changing encounters. Her hobbies include listening to jazz, bikes and classical music, reading, playing flute, and swimming.

Maggie Cupit-Link is a fourth year medical student who grew up in Mississippi. She is pursuing a career in pediatric hematology/oncology with an emphasis in quality of life and palliative care. She is interested in the intersection of medicine and spirituality and enjoys writing, performing, and celebrating life.

Charlene Gaw is a third year medical student from Northern California, who loves living and studying in Minnesota for medical school for the kind and intelligent community at Mayo as well as the beautiful seasons. She spends her free time reading, finding cute animals, running and with yoga.

Jenny Grauberger is a medical student currently completing her Master’s Degree in Clinical and Translational Science. She is from Western Washington state and enjoys combining her love of traveling, photography, climbing, and eating.

Jennifer Higano is a first-year medical student from Brainerd, MN. She is currently interested in pursuing a career in neurology. She is fascinated by the intersection between arts and medicine. She loves dancing, doing arts and crafts, reading comics, and watching the collected works of Hayao Miyazaki.

Mitch Heiner is a fourth year medical student. He will be pursuing a career in Urology and has been accepted to the Urology residency program at University of Utah in Salt Lake City, UT. He is a wannabe poet and philosopher, eats more breakfast sandwiches from the hospital cafeterias than he should, and is currently listening a lot of 80s synth-pop on Spotify.

April McPherson is a second year Biomedical Engineering and Physiology PhD student. She is originally from Canton, Ohio and came to Minnesota after completing her undergraduate education at the University of Cincinnati. In her time outside of the lab, she enjoys the outdoors, working out, and anything that involves food.

Oluwatomilona “Tomi” Ifelayo is originally from Nigeria, but currently lives in Houston, TX. She is a first year medical student who enjoys reading and writing and is still navigating what it means to be a student doctor.

Gohar Manzar is a third year medical student and grew up in Iowa. She graduated from the University of Texas at Arlington with a major in Biology and a minor in Chemistry, and then got her Ph.D. in Biomedical Engineering from the University of Iowa. She enjoys writing, graphic design, and DIY projects such as crafts and sewing. She is very grateful that she is part of a medical school that places a strong emphasis on the humanities, wellness, and the more personal aspects of medicine!

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Deborah Msekela is a first year PhD student from Tanzania. She is mostly fascinated by research involving the pharmacology of drugs which is why she joined the MPET track. Aside from spending time digging through scientific literature, she enjoys listening to music, more recently IndieAir (tastes vary each time). She is also not opposed to the occasionally dangerous out of blue activities such as skydiving or watching the entire series of Game of Thrones in one sitting. Also, thanks to the Mitchell student lounge, she has discovered a new way to procrastinate: ping-pong!

Thanh Nguyen is a first year Ph.D. student in Molecular Pharmacology and Experimental Therapeutics. She is interested in basic and translational research on the etiology and individualized treatment of psychiatric diseases. Her passions outside of science surround helping refugees attain higher education opportunities, philosophy and theology, and arts (particularly photography and piano).

Sowmiya Palani is a first year Biochemistry and molecular biology graduate student. She moved to Rochester from Salt Lake City. She’s basically a science nerd. Apart from science, she love to paint, organize events, listen to music and do photography.

Archna Patel is a second year medical student who has no idea what she wants to do yet. Although she misses the CA sun, she loves being a student at Mayo and exploring what the Midwest has to offer. Her hobbies beyond medicine include getting outdoors, food, binge-watching TV, food, socializing, hangin’ with her Ba, and FOOD. She desperately wishes she had a dog, but knows it’ll happen one day...

Ramya Rallabandi is a first year PhD student in the Virology and Gene Therapy department. Originally from India, she graduated from University of Florida with a Masters in Microbiology and Cell Science. Outside work, she really enjoys traveling, photography and painting. Also, as a person who has lived her whole life in the tropics, she thinks that summers are way hotter than winters!

Tori Riccelli is a 2nd year medical student originally from NY. She generally likes things that start with the letter “t” including books, Beyoncé, brownies, and basal ganglia thalamocortical loops.

Archna Patel is a second year medical student who has no idea what she wants to do yet. Although she misses the CA sun, she loves being a student at Mayo and exploring what the Midwest has to offer. Her hobbies beyond medicine include getting outdoors, food, binge-watching TV, food, socializing, hangin’ with her Ba, and FOOD. She desperately wishes she had a dog, but knows it’ll happen one day...

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Nathan Rockey is a first year medical student from Corvallis, Oregon. He studied chemistry and Spanish at Carleton College here in Minnesota before spending a year working at a small clinic in Washington DC. He is hoping to study infectious disease in the future! He thanks you for reading!

Sam Rouleau is a first year medical student from Connecticut. He enjoys nature and reading.

Arya Shah is a fourth year medical student. Originally from Southern California, she made the trek out to Minnesota for medical school, where she made lifelong friends and made a decision to pursue a career in psychiatry. Her passions outside of medicine include reggaeton, embroidery, yoga and horror movies.

Saumya Shah is a third year medical student and is originally from Southern California. She embraces the Humanities in various aspects and appreciates the life lessons, some big and others small, that every patient has taught her in her career so far. She is so thankful that MCSOM places such a strong emphasis on these *softer* facets of medicine.
PEACE
BY RAMYA RALLABANDI