

# Anastomosis

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# /A•nas•to•mo•sis/

*n.* A connection between two normally divergent structures. From the Greek *anastomoun*, to provide with a mouth.

## Letter from the Editors

In the piece *Simplify, simplify*, artist Dana Leonard encourages us to “fight the impulse to examine and capture every intricacy and instead [...] take a step back and appreciate the big picture”. In this issue of *Anastomosis*, this is what we seek to do.

Medical and scientific training often feels like a very active process. We are constantly doing—seeing the next patient, writing the next grant, preparing for the next final, filling our days with back-to-back classes and meetings and events in the belief that this constant active motion will get us where we want to go.

In our haste, we tend to overlook the flip side of this coin: we forget that even the things that we do are things that happen to us, and we forget to take time to consider how we change as a result of what has happened in our lives. This issue of *Anastomosis* showcases work from authors, poets, and artists who each take a moment to appreciate their training from a few steps back—reflecting on the ways people in their lives have shaped the questions they ask, revisiting a patient encounter to consider the words that weren’t said, grappling with the weight of witnessing other people’s stories.

As they tell you their stories, we hope we can encourage you to take a moment to consider how you’ve changed as a result of your stories. It has been a delight to work with our wonderful contributors and, as always, we hope you will enjoy reading this issue as much as we enjoyed putting it together.



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# Table of Contents

**1** The Anatomy of Table 12  
MORGAN MCMAHON

**2** Simplify, simplify.  
DANA A. LEONARD

**3** Life Like Weeds  
KYLE CROMER

**9** The ABCDEs of Melanoma  
NICHOLAS LOVE

**11** The Head Block  
ELIZABETH BEAM

**13** History Significant  
ELIZABETH BEAM

**14** Axis I  
ELIZABETH BEAM

**15** Boundaries  
SARA LYNNE WRIGHT

**18** Teacup  
DANIEL D. LIU

**19** Leukocytes  
DANIEL D. LIU

**20** Sonnet of the Soul, Queen of  
the Brain  
DILLON STULL

**21** Odyssey  
CALLIOPE WONG

**26** Year One  
CALLIOPE WONG

**27** Tenshi  
MIKA TABATA

**30** Just South of Paradise  
JOSH PICKERING

**34** Auguste's AD  
NISCHAL ACHARYA

# The Anatomy of Table 12

MORGAN MCMAHON

A silence as we move the zipper that trembles,  
fearful of all that it distinctly resembles.  
A breath as we touch the winding lungs that we breathe,  
delicately, honoring her generous creed:

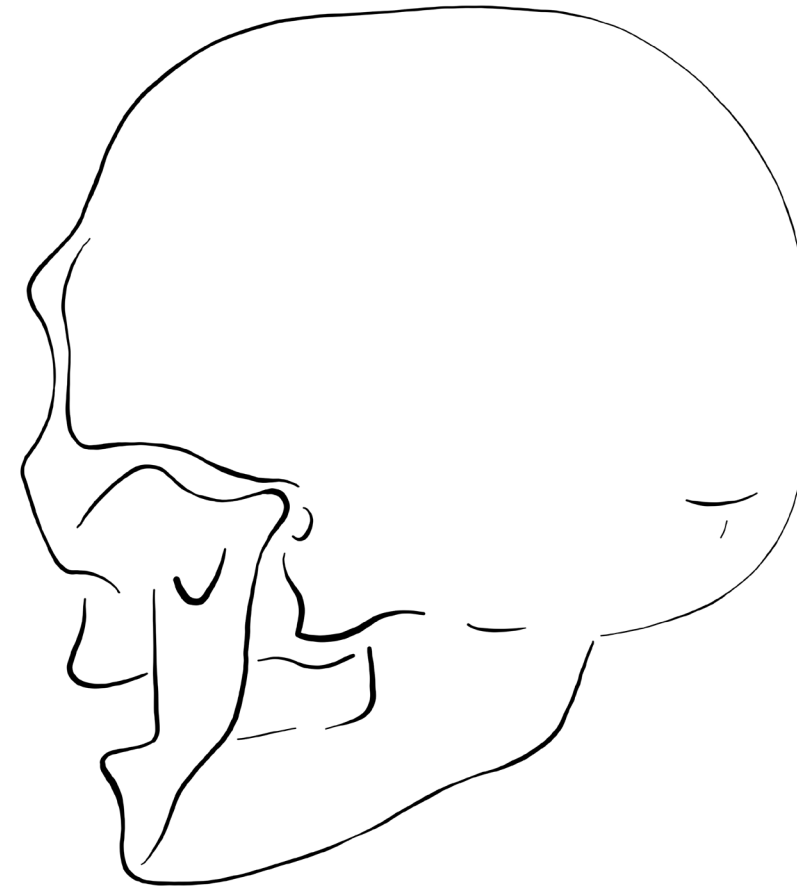
To expand thoughts into weight  
to swell arrows to stages  
to liven lines into lungs  
to bring breath to our pages  
to make energy from stillness with its remnants and force  
to age us all into wonders of life's (n)everlasting course.

*Morgan McMahon is a first year MSPA student. This poem is dedicated to the generosity of Table 12's cadaver donor.*

1

# Simplify, simplify.

DANA A. LEONARD



The human body is inordinately complex and as a medical student it can feel overwhelming learning about subjects that are sometimes not even completely understood by the world's leading experts in those fields. We can get lost in the myriad of details. This piece reduces the human skull to a series of lines, fighting the impulse to examine and capture every intricacy of the bones and instead embracing the simple beauty of the form—reminding us to take a step back and appreciate the big picture. The title of this piece comes from a quote by Henry David Thoreau.

*Dana A. Leonard is a second-year medical student at Stanford.*

2

”

The freedom to drive her big gold Mercury, albeit quite slowly, had kept her content.

## Life Like Weeds<sup>1</sup>

KYLE CROMER

During the summers after Grandad passed I stayed with Gremma at the farm for weeks at a time, running wild all over that property. I picked eggs from the chicken coop first thing in the morning; we needed at least three to make pancakes. I spent the rest of the day lugging my BB gun and my fishing rod to all the best spots. I snagged trout from the fishing hole on the far side of the farm and shot swallows out of the rafters in the barn. When the weather was right, like just after a big rain, I would hike up the mountainside looking for mushrooms. Gremma had scared me enough about eating bad mushrooms that I never ate one without her inspecting it first. Before long I knew where to look to find sprigs of chanterelles and morels—usually around the roots of a large tree or sprouting from under a downed log. But even when I came back empty-handed, I'd walk along the fencerows and pick stalks of asparagus that were taller than me.

In the evenings after dinner we would sit in thatched rocking chairs on the front porch and watch thunderstorms roll over the mountains to the west. I never slept so well in my life as I did on those nights with all the windows open—the storm cooling the muggy day, the rain on the tin roof as my lullaby.

She hadn't been in the nursing home all that long. Before that she'd lived with my parents. It was right around the time I went to college that they convinced Gremma to move in with them. For my parents, it beat having to be on call at the drop of a hat, racing over to the farm whenever she needed them. So when I moved

out, Gremma moved in. She even moved into my old room, still decorated as I'd had it as a teenager—Washington Redskins wallpaper and emo rock posters.

She lived with them for nearly a decade, but the older she got, the more cantankerous she became. She'd want this dish or that dish for dinner, always cooked a certain way. She'd insist on watching the 8 o'clock news every night at full volume. It was always too cold in the house for her, so she'd crank up the thermostat whenever she walked past it and Dad would turn it back down.

She became like that—more and more disagreeable—after they took her keys away. The freedom to drive her big gold Mercury, albeit quite slowly, had kept her content. Even though she'd never exactly been Richard Petty behind the wheel, it was last spring when my parents began to suspect she was becoming unsafe. She'd come home from the grocery store or the bank or wherever with new dents in her car—dents she couldn't explain. But what really did it was when Mom was with her one day and Gremma backed into a car in the Food Lion parking lot. Mom hadn't buckled up yet and the impact nearly threw her out of the seat. Gremma didn't even notice. She'd hit hard enough to cave in the back bumper, but she just acted ho-hum, like it was a slip of the transmission or something.

After they took her keys, she still insisted on going everywhere she always had. This just meant that now Mom drove her. It was Tuesday trips to the grocery

<sup>1</sup>This is a chapter from a larger project, named *Mother Nature's Son*.

store, Wednesday dinners at her best friend Rita's, church on Sundays, the farm once a month. This was before Mom started fixing the place up too, before Gremma let her touch anything in the house. These trips were mainly to check the mail, even though she never got more than junk, and for Mom to mow the lawn as Gremma sat on the porch and watched.

Mom taught part time at the local high school, ninth and tenth grade biology. One day while she was teaching, Gremma fell. Mom placed the most responsible kid in a class of ninth-graders in charge and drove home in a panic. When Mom got there ten minutes later, she found Gremma lying naked, scared, and a little bloodied on the kitchen floor. Gremma had been feeling unsteady lately and Mom had her agree to only take a shower when someone else was around. And wouldn't you know it, the one time she ignored that agreement, that's the time her legs decide to give way. She somehow managed to catch the shower curtain on her way down so hadn't broken a hip or anything, but her thigh had caught the faucet and given her quite the raspberry. She'd been too shaken up to stand and had to crawl to the phone in the kitchen and call for help.

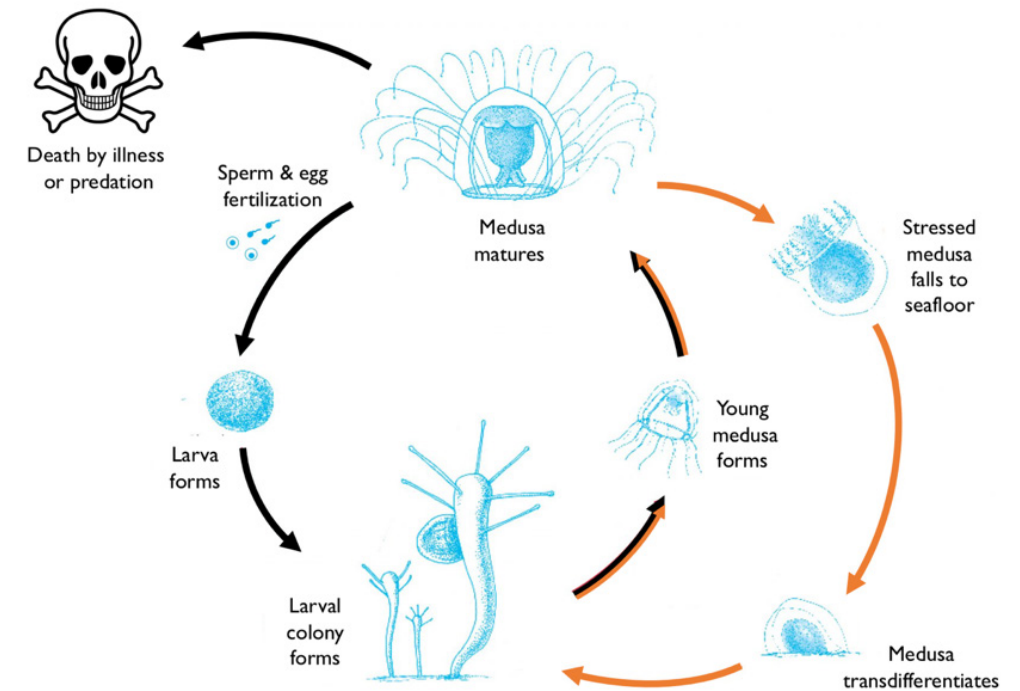
After that Mom started losing sleep from worry. It got so bad that one time on the way back from school Mom fell asleep behind the wheel and was rattled awake when she hit the gravel shoulder. Fortunately there *was* a shoulder, Dad had said. Fortunately she had drifted to the shoulder rather than the other lane. That's around the time they decided maybe Gremma needed more care than they could give. Nobody wanted to get to the point where Mom and Dad had to shower Gremma or wipe her butt, but they were

<sup>2</sup>Ecclesiastes 3:20. These words are popularly attributed to King Solomon to whom God visited in a dream and granted great wisdom.

getting close. It wasn't a fight to get her to go to the nursing home. In some ways it might have been less heartbreaking if it *had* been a fight. You could see her heart drop when they told her. She just cried and cried.

We typically think of death as the end of the line. This is a common motif in the Bible, telling us, "All go unto one place.... The earth from whence they came. All are of the dust, and all turn to dust again. Adam's body was made of the dust of the earth, and so all his posterity, all of them, in which they agree with beasts, who are made of the dust also. And, when they die, return to it."<sup>2</sup> Sounds pretty definitive to me—especially because from our perspective this *is* the end of the line; once we die, our mind and consciousness ceases to exist in its current capacity. The credits roll and the screen goes dark.

For virtually all species, this is entirely unavoidable, but Nature seems to have made one exception. *Turritopsis dohrnii* is a tiny jellyfish found in the Mediterranean Sea as well as in the waters off the coast of Japan, and it is thought to be immortal. To achieve this, *T. dohrnii* has two possible life cycles. One of these is driven by sexual reproduction, which we are all familiar with. The alternative one uses a process called "transdifferentiation," which allows a fully mature jellyfish (a "medusa") to revert to its larval stage. The larva is then able to mature again and engage this alternative life cycle indefinitely. Yet in spite of its theoretical immortality, *T. dohrnii* isn't some pinnacle of evolutionary achievement. Most of them succumb to predation or disease, keeping the population in balance with its environment.



**T. dohrnii life cycle.** The “immortal jellyfish” can engage two different life cycles. As with most eukaryotes, sexual reproduction can produce *T. dohrnii* larvae that eventually mature (black arrows). Alternatively, a mature jellyfish, a “medusa,” is able to revert to the larval stage, then mature again—apparently indefinitely (orange arrows).

Thinking about this from the jellyfish's perspective, I couldn't help but wonder what happens when it reverts to the larval stage. If *T. dohrnii* were capable of having memories and thoughts, would it retain these after it transdifferentiates, essentially pressing the reset button? If we could somehow harness the power of the immortal jellyfish and revert ourselves to infants—albeit infants wiped clean of our memories and thoughts and everything we carry around that makes us *us*—then would this be a form of immortality we would want?

We don't have to wait to answer that question. Believe it or not, we have the power to do what the immortal

jellyfish does *right now*. It wouldn't be the exact same thing, but we could achieve the same ends by taking a sample of our cells on our deathbeds and performing somatic cell nuclear transfer (“cloning”) to create a brand-new embryo from our aged cells. After that, we could implant this embryo into a womb and a perfect clone would be born. And when that clone was on its deathbed, we could clone that clone and so on. Voilà! We're immortal!

But from our perspective, whether we die with no fanfare or are cloned on our deathbeds, our lights are going out either way. Would it even matter whether our lights eventually come back on in an infant who

carries our exact genetic code with no memory of having lived our life? Whether we are the clone of a dying woman or an infant being born for the very first time, isn't it all the same to us? And how different is it really to the normal process of having children and grandchildren who we know will continue to walk around, to live full and imaginative lives, and to propagate our genetic code long after we're gone? Are all of the above just variations on the same theme—immortality in different forms?

~

Just before my first time visiting Gremma in the nursing home, Mom warned me that she was starting to have trouble recognizing people, that she kept mixing up the names of my younger cousins. But she knew who I was as soon as I walked in the door.

“I ever tell you about my granddaddy’s pet crow?” she asked as I pulled up a chair next to her big recliner.

“Nope, not that I can recall,” I said.

“Well, he had a pet crow,” she said. “He found the thing, just a little thing, layin’ on the ground one day. Had fallen from a nest in the tree and was left for dead I guess. Well, Granddaddy nursed it back to life, feedin’ it milk and stew out of a little eye dropper. Once he realized the crow was gonna live, he named it Otis. And ol’ Otis would perch up on Granddaddy’s shoulder as he walked around town. They say crows are smart, and that was a fact with Otis. The bigger he got, the smarter and more ornery he got too. He would find ways to play tricks on Granddaddy and folks around town. He loved shiny things and pretty

soon found you could get people to act real crazy when you took their shiny things, jewelry and such.”

I laughed.

“And one day, the last day they ever did see Otis. He was perched on Granddaddy’s shoulder, but kept pickin’ at him and actin’ real restless. But he stayed perched up there as Granddaddy walked into the little store at the old gas station. And at that store they didn’t have but one set of keys,” she said, with a big grin. “And soon as Granddaddy walked in, Otis saw them keys was layin’ there. And ol’ Otis went over and picked up those keys and flew out that window, and they never did see him again.” She laughed hard.

And I laughed too.

“Anyway, well that’s true. He saw those keys just layin’ there, shinin’ like gold, and he just took ‘em and they didn’t have any way of getting back in the store.”

We talked for a long time, or mainly she did. She told me of the time Henry Ford stopped in at the local gas station, about the bear that used to be chained up beside the old diner, about her granddaddy getting lost up on Cheat Mountain for three days.

It used to be that you could hardly get two words out of her, but as soon as I sat down next to her, the memories truly flowed—either an active or subconscious imparting.

Looking at her there in her big recliner, on a *really* good day, I could see her grey-blue eyes light up with the re-telling of these stories. For the rest of my visit,

after she’d passed to me so many memories of her world, we talked about New York and how I had to come back to West Virginia, how my parents missed me.

Sensing my visit coming to a close, she started to cry—just a few tears and a snuffle that she wiped on her sleeve.

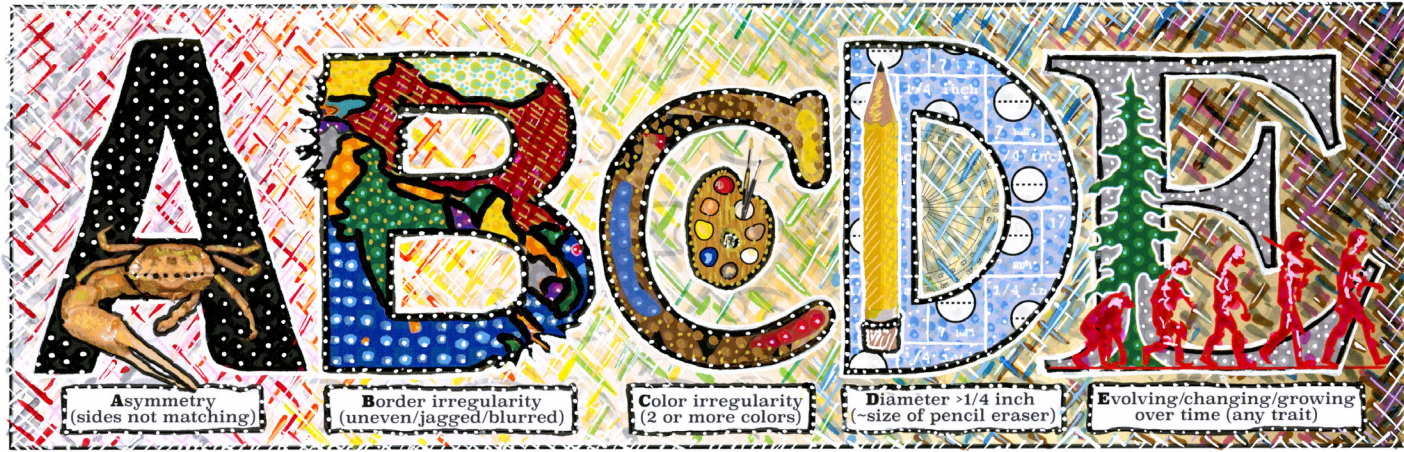
I came in close to hug her goodbye, and she held onto my arm just above the elbow.

“You know,” she said, “life’s so short.”

 Kyle Cromer is a postdoctoral fellow in Pediatrics at Stanford.



## melanoma, warning signs:



## remember the ABCDEs!

**What?** Melanoma is a potentially deadly form of skin cancer that grows from cells that produce the skin's pigment. These cells, called melanocytes, are the same ones that form the "moles" found on the skin. Melanoma can be detected early by examining moles for the "ABCDEs".

**Who?** People of any skin color can get melanoma. It is more prevalent, however, in persons with fair skin, red hair, a history of blistering sunburns, tanning beds useage or other family members with melanoma. Also, the chance of getting melanoma increases with age.

**Where?** Melanoma can occur on any surface of the body, including sun-protected areas, such as the bottoms of the feet. Melanoma can also occur under finger and toe nails, inside the mouth or on the whites of the eyes. Most melanomas arise from a new moles that show "ABCDE" warning signs.

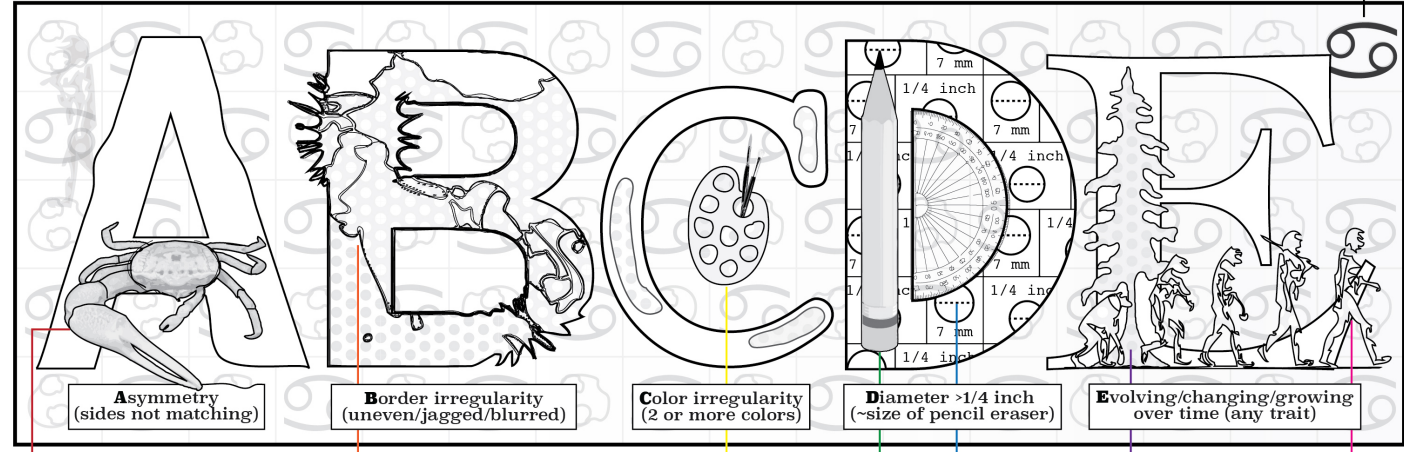
**Why?** Cancers like melanoma occur when cells replicate out of control and spread to other parts of the body. Damage to cellular DNA can increase the chances of getting melanoma. The science behind melanoma is only partly understood and is under active study worldwide.

**How can I prevent melanoma?** Examine your own skin for for moles with the "ABCDE" warning signs and wear sunscreen!  
**How can I learn more?** More information about melanoma and the skin can be found at the American Academy of Dermatology's website ([www.aad.org](http://www.aad.org)).

## melanoma, warning signs:

"melanoma" --- derived from Greek *melan* (black) + *oma* (Greek/Latin origins, now used as suffix to denote growth, tumor or cancer).

"cancer" Zodiac symbol crab shaped star constellation now famous as a "sign" in astrology. "cancer" as a crab-like disease may have come from the ancient Greek Hippocrates, "the father of medicine" (460-370 BCE).



## remember the ABCDEs!

**asymmetric claw of a fiddler crab** male crabs fight eachother with their large claw during mating season and can regenerate their claws if lost.

**irregularly shaped country borders** their jagged contours and shapes are often formed by coastlines, rivers, mountain ranges and, sometimes, peace treaties.

**color paint palette** shape derived from a palette used by French painter Eugène Delacroix (1798 - 1863), a key member of the French Romantic school.

**pencil erasers** originally made from raw "rubber", a word for an object used for "rubbing" in the 1700s.

**growing coastal redwood tree** of the genus *Sequoia*, these trees can grow up to 379 feet tall and are native to coastal California and Oregon.

**evolving over time** imagery inspired by "The March of Progress" illustration by R. Zallinger (1919-1995), originally published in 1965.

[www.love-art-science-medicine.com/abcde](http://www.love-art-science-medicine.com/abcde)



# The Head Block

ELIZABETH BEAM

In anatomy lab today we are faced  
With the aftermath of a revolution.  
The French, in one sense. Heads  
Of cadavers severed and displaced

From bodies onto wooden blocks.  
The usual coup of medical school.  
Now we learn the cranial nerves,  
And meanwhile set aside the box

Of ideas about the mind inside  
The brain encased in skull behind  
Her eyes, thankfully still cloaked  
By a cap of cheesecloth limply tied.

They cut off her head but not mine,  
And mine is experiencing the physics  
Of a feeling about dying. It is gravity  
Circling into the reality of this resign

From humankind to organic matter.  
She is gone despite the formaldehyde  
Fixing her husk like a bug in amber.  
To the students buzzing with chatter

11

She is a history of memories we  
Will never remember. This is messy.  
The mind-body dichotomy is false-  
Ish. Give me a moment to notice

Her lips are chapped. Do you think  
That her husband kept her lipsticks?  
Did she have a husband? A daughter  
She offered her shades of pink?

My questions swell to fill the sac  
We zip her into at the end of class.  
It is customary to let them dissipate  
Instead of ask, but I turn back

Or rather, I am pulled by a new force.  
If it is rebellion to grieve, I will revolt.  
The tragedy would be twice if I ceded  
My core in the course of this course.

The psychiatrist's exam is a conversation,  
A serious consideration of *How do you do?*  
Up to the last two questions: *Have you thought*  
*About suicide? Do you hear voices in your head?*  
*Yes* peals clear as a bell. Here is a situation.  
*No* is information in the breath it is delivered.  
A scoff has never known madness. A sigh  
Has swept against its underbelly, gently.

Dry mouth? Drowsiness? Diarrhea?  
*No, no, no*, she replies, but I see her tilting  
Into gusts of mourning. Her mother died.  
What about dizziness? She nods, *That's it.*  
*My whole world is spinning these days.*  
A pill will not reverse her loss. At least  
It fortifies rafters, caulks cracks  
As a twister churns the heart.



*Elizabeth Beam is a second-year Neurosciences PhD student  
in the MD/PhD program at Stanford.*

# Boundaries

SARA LYNNE WRIGHT

15

I gave eye contact and a friendly “buenos días” to each patient waiting in the hallway of the *centro de salud*, my new rotation site in Ecuador. Wearing a white coat, my medical Spanish teacher taught me, means you have to be the first to say hi; otherwise, social hierarchy makes you culturally unapproachable. Apparently, my white coat eclipsed the fact that I was only a foreign student volunteer.

As I tried to show I care, I listened through my headphones to a song called “No me importa,” loose translation: “I don’t care.” Rock goddess Maria Brink belting that mantra makes me feel tough, ready for anything. I’m not usually a metalcore fan, but the song felt right for that morning, when I had no idea what to expect.

As I entered the exam room, the doctor spooned out her breakfast of *maracuya*, probing it the way she then probed me with her eyes. “Would you like to sit here?” The doctor gestured to a folding chair next to her, then to a cushier-looking chair by the exam table. “Or there?”

“No me importa,” I replied, wanting to be accommodating.

She looked at me like I’d insulted her mother. “What do you think that means?”

“I don’t care?”

“That’s probably what the dictionary says, but here it’s more like ‘I don’t give a fuck.’”

I turned red as the cherries on my dress, which suddenly felt too frou-frou for me to be taken seriously in a doctor’s office. “I didn’t know. Lo siento,” I apologized.

She hadn’t smiled at me once and certainly wasn’t smiling now. Wanting to move on as quickly as possible, I got up from the folding chair and called in the next patient, a fourteen-year-old girl with a downcast gaze, and her mother.

“¿Cómo podemos ayudarles?” the doctor asked, her voice suddenly much warmer.

The mother told the daughter to tell us what happened. The daughter kept her eyes on the floor. We all waited in silence a few moments until she recounted, slowly and quietly, never once making eye contact:

During the storm last week, she’d been inside doing housework instead of outside working on the farm like usual. The man who rented from them had come inside, locked the door and...the girl couldn’t say the rest.

The doctor turned to me. “We’re going to the first response center. Know what that is?”

My voice became hushed, though the patient and her mom likely couldn’t understand me. “A rape crisis center?”

”  
I turned red as  
the cherries on  
my dress, which  
suddenly felt too  
frou-frou for me to  
be taken seriously  
in a doctor's office.

“Closest thing we have.”

“You drive your patients there?”

“I’m not supposed to – boundaries. But they don’t have a car and need to get there right away, so...” The doctor locked eyes with me expectantly.

“No me importa,” I finished her sentence. The doctor smiled. I finally understood how to use those words.

*Sara Lynne Wright is a second-year student in the Stanford MSPA Program.*



**Teacup**  
DANIEL D. LIU

## Sonnet of the Soul, Queen of the Brain

DILLON STULL

I laugh: you scale the moat and rocky wall,  
A burglar in the chamber of your queen;  
I am a living hearth, so will I fall  
To inquiry by all your dead machines?  
Your lances probe the lightning-laden cloud,  
A pulsing, buzzing, storming hurricane  
Of thought, you think, but maybe you are proud,  
Perhaps your scheme to take the queen, profane.

The artist shares my torchlight with the world,  
Emblazons it with awe. But prison guards  
Like you will only fall, for when you hurl  
The chamber doors ajar in greed, you mar

The memory of who you are. O, quake!  
A draught of beauty bids the mind, "Awake!"

*Today, in an age of unprecedented confidence in the physical sciences, many wonder whether the soul can be located physiologically or coerced experimentally. Some believe that to do so would debunk the very fact of the soul. In this poem, the soul, "your queen," speaks to the modern scientific community as it attempts to understand the brain. The phrase "moat and rocky wall" serves as anatomical reference to the skull and cerebrospinal fluid. The scientist, by trespassing this barrier, becomes a "burglar", manipulating the brain toward ends that are no longer true to our human dignity and purpose. Ultimately we must ask: What is the soul? Is it the kind of thing that can be observed, imaged, graphed, or understood by scientific instruments? Or, could it be that the attitude, methods, and orientation of the artist are more fitting?*

*Dillon Stull is a second-year Stanford medical student with interests in theology, ethics, and poetry.*



## Leukocytes

DANIEL D. LIU

*Daniel D. Liu is a first year MD-PhD student at Stanford.*

19

From now on, come  
summer's end, I was told  
My life is what I make of it:  
candy shops in a land with no winter—  
I could see no kind of life I knew here,  
Chose instead to see long saccades of  
black days and charred nights, cutting ties to enter  
this foreign land named Stanford.

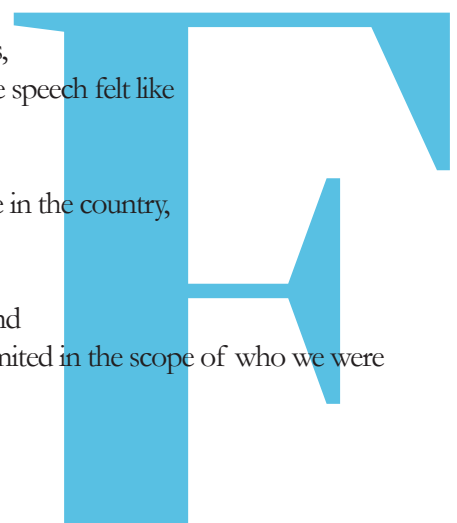
Like a princeling of a besieged kingdom  
I vowed to take up arms, knowing not  
the proper use of them—these scattered talents,  
weighing like useless gold on me, heavy.  
So I stopped writing in med school,  
Stopped singing or painting or swimming  
and drowned,  
hoping beyond the death of hope that  
whatever Calliope I did not know  
at water's edge having returned like Salem witches,  
trials would find  
Her calling.

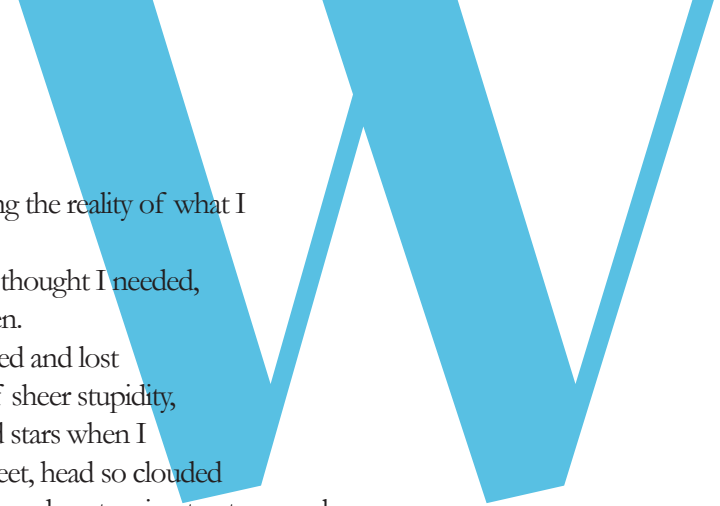
All I wanted was the verdant green  
and white and citrus orange, besides,  
Summer days in a land whose native speech felt like  
speaking the invader's Sasanach  
Béarla properly,  
the salt and safety of living nowhere in the country,  
and having small notions.  
I wanted back in my woman's arms,  
both forgetting where we parked, and  
that this time was precious, finite, limited in the scope of who we were

And would become.  
I wanted,  
junkie-like I thought I needed,  
Bitter poisons full of longing,  
my reeling mind forever recalling,  
not living in real time.

My fear of becoming someone else  
through this new journey  
was monstrous,  
feeding on memory  
and time and propriety,  
knowing no horizons or  
Dawning of the sun,  
forgetting and laying waste  
to a thousand Gomorras,  
Not seeing the one  
innocent thing of each city, which was  
Not me.

Winter, having gone to my parents' kingdom  
At the east reaches of this country,  
I wanted to return like a man recalled from  
Odysseys, ladders thrown open,  
the fire so warm,  
little knowing my shapes and needs had changed.  
A tongue said some words about a journey  
beginning with a step,  
These words unheeded.  
By impulse I took quantum leaps  
just like the Stanford weeks felt like days,  
watching biochemistry on 2x speed,





without understanding the reality of what I  
Wanted,  
What my junkie-self thought I needed,  
Who I was in between.  
In two weeks I courted and lost  
my best friend out of sheer stupidity,  
Promising moon and stars when I  
barely stood on my feet, head so clouded  
Like mercury in retrograde, returning to atemporal  
Summer days now past in memory.  
To say nothing of sleepless nights  
Or the burning of candle-wax holding together  
Icarus wings:  
I garrisoned myself at the impossible castle,  
My mind locked away,  
My eyes choosing to see long saccades of  
Black days, charred nights,  
Cutting ties to enter this foreign land named  
Connecticut.

Upon returning to school, my mind was a dull white room—  
Newly emptied out.  
My eyes were raining.  
For a while the weather was cloud-grey everywhere I went;  
My heart was raining.  
I wept for these mistakes  
I must claim  
as my own doing,  
A part of who I am.  
I wept for the hurt I caused her, the loss I learned from,  
The lifetime of acting without looking, or needing to.  
But all this, too,  
Is now a memory,  
Each moment swimming like protozoa

In the sea of me,  
Calliope.

On quiet nights I've come to realize:  
What I had set out to do was an impossible dream,  
To live in my past as if it were a lightless castle,  
Paying no heed to the real sunlight dawning outside,  
The talents like gold simply handed to me,  
The vast architecture of aqueducts flowing  
In and through me,  
Connecting to the infinite flow of wind, water, stars, earth, tree,  
The people outside who I meet every day,  
whose stories I have yet to discover saying:  
Hello, human woman  
Calliope, I see you.  
In your story  
you've done wrong  
And done hurt  
to others and yourself,  
but now, if you want,  
here's freedom:  
To make of this world  
A brighter day and  
Safer night, to make  
With your hands music and mythology  
And healing,  
Never knowing exactly  
The next thing happening  
But always watching,  
Often smiling,  
And seeing.  
This is the price and gift  
Of living.

If seeing is believing, then I have  
 Ten on ten thousand possibilities  
 Stretching farther than I could  
 Have ever imagined, things I can do  
 To bring ruin or hope to  
 People I need in my life:  
 which is, everyone.  
 I am learning and growing each day,  
 Stellar seas of cells and apoptosomes  
 Collapsing all I've ever known,  
 Bringing me to this new land of  
 Here-And-Now:  
 Every moment renewing, giving,  
 Receiving  
 We are here, now:  
 And I am so grateful  
 For your patience.

*Calliope Wong is a first-year medical student at Stanford.*



## Year One

CALLIOPE WONG



For as long as I can remember, every year my Obaachan (grandmother) visited us from Japan and stayed for a month. My brothers and I were always filled with joy to see Obaachan. The gentlest and kindest woman I have ever met, she brought us toys from Japan and played games with us. She patted us on the back lovingly and found ways to communicate warmth despite the language barrier. She cooked delicious food and taught us to make sushi. She was always easygoing and helped my parents in whatever way she could, reducing the stress of the entire household. Whenever she walked up the stairs, my brothers and I raced over to accompany her, happy to help her in any way we could. I remember telling my parents that I understand what an angel is - it is Obaachan. When it was time for her to go back to Japan, we waved goodbye for minutes after she was out of sight, unwilling to believe that she was gone. My mother cried each time she left, heartbroken to see her mother-in-law and best friend leave. We wanted her to live in the US with us, but unfortunately she could not gain citizenship or health insurance in the US.

During college, I had the opportunity to stay in Japan for three months, and I visited her as much as I could. Her friends showed me incredible hospitality and treated me like family. They explained their indebtedness to my grandmother for how she had helped them earlier in life. I also learned of the hardships my grandmother experienced throughout her life - losing all of her wealth during the war, seeing her father die, and seeing her baby die because they could not afford medicine (my dad's brother). My grandmother's unrelenting

selflessness became even more incredible to me, and this is when I started to learn that I would derive meaning in life by serving individual people.

On my last night in Osaka that summer, I got a call from my family friend that my grandmother was hospitalized from a sudden drop in blood pressure and a fall. I beelined to a hospital in Kobe and found her lying in bed, somewhat confused. I couldn't help but worry that this would be the last time I would see her. I stayed with her for several hours, and as she became less confused, I was struck by how content and happy she was. Upon reflection of our conversations in the past, I realized that she felt fulfilled from her relationships and by the time that she spent serving individual people. In addition to the friends whom she had greatly helped earlier in life, she also enjoyed being a professor of pharmacy primarily for the opportunity to teach and help others in a one-on-one setting. I believe that at the end of my life, what I will care about the most are the individuals relationships I formed. Content and peace will come with knowing that I did what I could for those individuals.

At that time I was considering a career in engineering, but as I started to gravitate more towards medicine in the coming years, I always recalled this incident. We often dream of making a large scale impact on society, and while that is still possible as physicians, we also have the opportunity to form more personal human to human connections. I am grateful that I realized these connections are what inspires me by seeing the peace

they created in my grandmother towards the end of her life. I believe the greatest sense of meaning comes from feeling truly connected to others on this planet. To be given the privilege to care for someone in a vulnerable state - to be able to truly help someone and improve their quality or length of life - is the most powerful form of connection to the human state that I can imagine.

Obaachan, you and my parents have shown me selfless love and kindness, giving me everything a human could need. You have touched my soul and I am forever grateful. I have a duty to take care of my family, friends, patients, and whomever else I have the capacity to help.

### Song:

I wrote this song for my grandmother, someone who helped me realize that the ability to impact individuals through medicine is one of the greatest gifts imaginable. *Song audio and video available on Youtube.*

### Tenshi

*Some things you can't forget like grandma's sweet  
Hand patting you on the back a constant beat  
But not everyone has an angel  
Not everyone has an angel  
So lucky that you're my angel  
Tenshi tenshi tenshi tenshi*

*We don't need words I sense your love  
The look in your eyes your presence and your hugs  
I thought someday I'll be like that angel  
I'll grow up like her I'll be graceful  
So lucky that you're my angel  
Tenshi tenshi tenshi tenshi*

*Mika no tenshi (Mika's angel)*

*But not everyone has an angel  
Not everyone has an angel  
Not everyone has an angel  
Tenshi tenshi tenshi tenshi*

*You've touched my life like an angel  
I can't do enough to be grateful*

*Tenshi tenshi tenshi tenshi*

*Mika Tabata is a 4th year medical student at Stanford.*

”

Heading towards  
“Paradise”, I  
noted the dark  
irony as I punched  
the Silver Dollar  
Fairgrounds into  
my GPS.

## Just South of Paradise

JOSH PICKERING

I scrubbed my windows spotless, checked all tire pressures, topped off the coolant and wiper fluid. Three hours earlier, my studies had been interrupted by a news alert. Harrowing videos depicted narrow-escape, all-consuming fire thundering through brush, trapped residents on heavily congested roads. I had no idea what I was driving into, but I had to be ready for anything.

There was no way I could have known I was driving towards what would become the deadliest, most destructive wildfire in California history. Heading towards “Paradise”, I noted the dark irony as I punched the Silver Dollar Fairgrounds into my GPS.

I completed firefighting training during my four years in the Navy and worked as an EMT following my enlistment. I didn’t know how or where I could be useful – soaking unburned terrain, joining the firefighting teams, or simply running hoses – I just wanted to do my part. The roads eerily empty at 2:00am, temperatures fell below freezing as I made my way from Palo Alto into the desert. Pulling into the fairgrounds revealed the massive scale of this emergency operation. Hundreds of bright red *Cal Fire* trucks, rescues from all over the Pacific coast, and bulldozers the size of a small house all filled the parking lot. Most of the crews were still asleep in temporary bunks or their rigs.

Meeting with the fire chiefs that morning, they explained the legal restrictions of having a volunteer working anywhere near the fire and recommended I

check in with the local Red Cross shelters. As I drove from Chico to Oroville, the red-tinted sun obliterated, thick haze enveloping a scorched land. On the right of Highway 99, dry brush stood in protest against the apocalypse. On the left, not a single blade of grass remained. I slowed to a crawl as visibility reduced to less than a hundred feet. Ash began to fall like snow.

During my time working 911, I became accustomed to arriving at scenes of organized chaos. But Oroville Church of the Nazarene’s parking lot was... different. A bustling amalgam of cultures, ages, and backgrounds converged under a shared sense of panic, exhaustion, and shock. Partially unloaded trucks of emergency supplies stood in stark juxtaposition to the remarkably ordinary scene of parents attempting to corral restless children. While some tried to rebuff the sobering shock of the moment with conversation and laughter, others succumbed to it, blank stares at an ashen sky betraying their torment. The setting was both alien and familiar.

Like a sentinel standing just inside the front door, a haunting poster board read, “Mama! Call Betsy”, “Andrew! Please, please be ok. Call your father!” Pictures, nicknames, messages; hundreds of overlapping pleas from desperate loved ones. Each note a life, a story of friends and families torn apart, searching for one another. The board was anguish. It was hard to look away.

After a brief introduction to the chain of command and a quick verification of credentials, I was immediately

put to work. In the chaos of the moment, the Red Cross had been able to throw together a skeleton crew, but there was no denying – we were overwhelmed. We had to make room for nearly 500 people in a 300-bed shelter. Though the occasional medical emergency would rear its head, the day quickly became more about managing the sheer number of evacuees. As the hours passed, I familiarized myself with the layout of the shelter and its personnel. The emergency radio room was in the back. There, team members were in constant contact with the fire department, monitoring the situation on the ground in the event evacuation became necessary. The medical bay was in the South hallway, filled to capacity. Nebulizer treatments were given to an elderly man struggling to breathe, insulin to a patient approaching DKA, an inhaler to a five-year-old who had dropped his in the escape—cases filled the spectrum from urgent to minor. In nearly every other room, green canvas cots were crammed wall-to-wall.

In the midst of finding room for a family and helping their twelve-year-old daughter explain to her three sisters why all their toys were gone, my radio sounded off. There was a distraught couple at the check-in desk searching for the husband's mother. I made my way to the front and introduced myself. They looked anxiously alert, like caffeinated exhaustion. This was the third shelter they had checked, and they were beginning to lose hope. "Mom's cell phone has been dead for days," he said. The protocol was tricky, we had to be careful to protect the evacuee's identities, but his mother was bedridden, so after matching her description I walked him back. His anxiety was unmistakable; he had his hat in a chokehold. I attempted to sooth, to reassure. He politely nodded, but I could see he wasn't listening. As we rounded the door, he locked eyes with his mother he

feared had burned alive. His knees gave out as he fell at the foot of her bed, weeping, clutching that green cot as if it was the only stability left in the world. His mom gently placed her hand on his head.

I remember wishing this scene were more rare. In retrospect, given the lives lost, I wish this scene had been more common.

As that Saturday wore on, the people of Paradise continued to pour in. Cots were becoming scarce in the gymnasium. An apologetic mother needed to swap out a dry blanket for the lone casualty of a juice spill. We were now battling a potential norovirus outbreak. Two patients needed to be placed into quarantine; the bathrooms all needed to be bleached. In the medical ward, respiratory problems exacerbated by the ever-present smoke were common and traffic was constant. As night fell and the temperature dropped, people began to crowd into the main room, watching the news for updates on the fire.

I noticed a man sitting off to the side, staring, but not really seeing the TV. He was of average height, seemingly in his late 70s, with thinning, gray, disheveled hair. A strong smell of smoke permeated his clothes. The man looked beaten – like tragedy. He barely registered me as I sat beside him. Conversation started slowly; I wanted to let him know I was genuinely there for him, not as a shelter official, but as a fellow human. Eventually he opened up; the previous day he had watched his house and everything inside burn. He was a retiree. It was basically all he had. The tears began to flow freely, without shame. He tells me he was married, that his wife passed away years ago. That every single picture, home video, and letter he had from her was in

that house. Turning to me, he said, "What if I forget her? What if I forget her face? Her laugh?" I was at a loss. All I could do was rest my hand on his shoulder and sit with him in silence for a while. In the heartache of that moment, I had no answer. I still don't. After some time, I asked him to tell me about her: how they met, where they grew up, his favorite memory of them together. We must have talked for nearly an hour. I ignored my radio for as long as I could.

Eventually, I had to leave. Comms had just come over the radio: We may have to evacuate. Just as we began to feel as though we had a comfortable hold on the situation, high-wind forecasts north of the lake threatened disaster.

A few hours of preparations, a proper census, and two contingency plans later, I realized this might end up being another very long day. Not having slept in 48 hours, I let the team know I was going to try and sneak in a few hours of sleep. Before my head hit the pillow, the door opened. One of the shelter volunteers had seen me working with patients throughout the day and had come in to ask if I had any "mental health training". I told her no. I only had an EMT cert, but given what I had seen in the back of my ambulance, I would be happy to evaluate the patient and see if we needed to get her to another facility.

The main room was mostly empty, save a small group of people huddled with a distraught woman in her mid-fifties. Still wearing the gym clothes in which I intended to sleep with a pair of boots, I must have looked strange as I pulled up a chair, sitting directly in front of her. I introduced myself, and I asked her what was wrong. Over the sobs, I was able to get her name and that she

suffered from bipolar disorder. She and her mother had abandoned their car on the road when the fires started closing in around traffic. She hadn't seen her house burn down, but was sure it was gone. She was terrified, paralyzed. The fear that she and her mother were now homeless, that they would be forced to live on the street was devastating. Worse, the high winds forecasted for that evening were now displayed on the news. The previous day's escape had taken its toll - she didn't know if she could make it through another fire; she didn't even know if it would be safe to sleep that night.

Struggling to mask my exhaustion (sitting down was not a good idea) I took the VHF/UHF radio from my hip and passed it to her. "We're monitoring the fires 24/7," I said, turning up the radio's receiver volume. I pointed to the parking lot and its fleet of vehicles. "We have enough people ready to take everyone from here in a hurry." I pulled up a map on my phone and showed her our primary and secondary evac routes. She seemed partially satisfied and handed me back the radio. Still uncertain, I asked her about emergency aid. I had her describe how she thought FEMA would handle this disaster, what she understood about the federal aid process. It wasn't much, but in my current state it was the only way I could think to help her focus beyond that moment. Eventually, she felt safe enough to lie down, giving me a big hug on her way to bed.

This conversation exposed a growing problem at the shelter. She hadn't taken her medications in 24 hours. Like most of the shelter's tenants, the fire had moved in so quickly that she didn't have time to grab her medications on the way out. Paradise was a retirement community. For some, this could be a life-threatening problem.

I checked my watch, 4:45am. I sighed – the next day had begun.

I made my way back to the medical bay. Our team, in conjunction with local pharmacies, worked to help minimize influx into overcrowded hospitals, already bearing the brunt of a displaced retirement community and the evacuation of Adventist Health Feather River hospital. After assembling a list of patients and the prescriptions they needed, we began making runs to pick up emergency refills. The remainder of that Sunday was spent overcoming a frustrating series of bureaucratic hurdles to fight for our patients' access to emergency medication. Once everyone finally had their medications, it was time for me to leave.

On the drive home the sun appeared for the first time in days, blood red. I finally let it all hit me. I had to pull over. By far the most emotional 72 hours of my life, the weight was crushing. Parts of that weekend will forever be just between myself and my patients. The scale of the devastation was difficult to process. Once I gathered myself, I got back in my car, finding the monotony of the drive oddly therapeutic.

*Josh Pickering is a first-year medical student at Stanford.*



## Auguste's AD

NISCHAL ACHARYA

*Nischal Acharya works as a Clinical Research Coordinator at Stanford's Department of Neurosurgery and Neurology.*

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