The Brain Trust

Standing next to my wife, Kim, on the deck of our new Florida beach house, I watched the sun peeping over the horizon. My memory raced through our exhilarating rollercoaster ride from struggling post-docs to insanely rich bastards. I never thought I'd own a place like this.

I pictured a muggy summer night, almost two years ago, in 2020. By ten that night, all who remained on Temple University's city campus were the sorry handful of poor bastards—indentured graduate and post-doc students.

I poured my tenth coffee of the day, or maybe my twentieth. Walking back to my desk, I stopped to say hi to our trolley-mice, the showcase of our neurochemistry lab. Their little steel helmets, screwed into their teeny skulls, secured bundles of fine wires and micro tubing as the fuzzies went about their mousey business, in their large glass cage. An intricate network of overhead tracks kept the tethers from tangling.

My colleagues thought up ways to mess with the little fellers electrically or chemically while sampling and analyzing droplets of brain fluid for changes in their neurochemistry.

I stared down at a lucky critter who'd been dosed with marijuana metabolites—all in the name of science. He stared back as if to say, "Pass the popcorn." Amazingly, the government sponsored these studies, and our department was rolling in funds.

My interest in pot was limited to an edible or two at bedtime with my girlfriend, Kim, to help us contrive other applications for neurochemistry. Eventually, we came up with a doozie.

That night, I was photographing my new experimental rig when my phone vibrated an emergency campus alert. I read the scrolling message: *9:30 p.m.-Armed robbery at McGonagle Hall. Avoid area until further notice.*

Temple's main campus was growing more dangerous by the semester. Community outreach programs were well intended, but these gangs surrounded the school and were better armed than the police.

I sighed and continued snapping photos of my neuro-electrochemical reactor. It looked deceivingly simple; a foot-high glass cylinder with wires and tubing exiting each end. The filtration disks, electrode plates, and chemical sensors were neatly hidden inside the endcaps. Who would've guessed what we learned from the mice could be channeled into a new source of electric power.

Hurried slaps of sneakers on linoleum and yells of, "Police. Stop!" echoed in the hall. The footsteps stopped at my lab.

Three out-of-breath kids, barely in their teens, ran past me and dove behind my desk. I held my breath when the tallest one slid a gun from his belt and glared at me. A few seconds later, two guards poked their heads into the room.

In between gasps, the older guard yelled, "Anyone come through here?"

Trying my hardest to ignore the gun, I forced eye contact and shook my head. "Just me and those mice here tonight." I hoped that my trembling voice was just in my head. A can of mace set in my jacket pocket hanging over my chair just out of reach.

The guard raised an eyebrow at his partner, and they turned to leave. "Keep alert. There's been a robbery at McGonagle Hall. The thieves ran towards this building." I suspected that for their fifteen bucks an hour, these guys did not want to find anyone.

The adolescent thugs stared at me with wide eyes for several long minutes rising from the floor. They seemed as scared as I was. The one holding the gun on me asked for my money.

I gave up all seven bucks and turned my pockets inside out. "Sorry, Dude, I'm just a poor student." *Wrong thing to say- this kid knew poor better than I ever will.*

He slapped the desk. "Phone!" I slid it over to him.

On their way out, another one grabbed my laptop and said, "Tell anyone, and I'll be back."

Then, he smiled and said, "You have a nice day now."

It wasn't a nice day. I paced the lab. My throat was dry, I was dripping with sweat and scared shitless. I was out of there.

Like a front-line soldier, I jogged to my apartment, a can of Mace at the ready. The same Mace that was useless five minutes ago. I imagined a Temple News headline, "Dummy Dies with Mace Can in Hand."

At Tenth and Diamond Streets, I continued past the night B-ballers heating up the community court. I usually joined in, despite being short and jump-challenged. These kids put me to shame, but I did make some friends. Sammy and Georgie gave me a reassuring wave as I passed. I held my hand up and charged past them.

The streets were well lit within a block or two of campus perimeters. But there was still a shadowy stretch between me and the safety of my building. I walked past the campus police phone, shaking my head as I imagined the rescue-wait music that played while callers were on hold. To say that security was understaffed was an understatement.

Kim met me at my front door with a kiss and a plate of cold pizza. "Hey, see tonight's alert? Third one this week."

"Oh, you might say that. Three punks hid from the guards in my lab with a gun on me. They thanked me by taking my phone and laptop. One threatened to come back if I reported it."

Kim handed me a beer. "You had a gun pulled on you? I would have shit myself! Thank God you weren't hurt. This stuff's getting more common. You know, if our project takes off, we should move it to the Drexel Science Incubator. Get an apartment near the rich kids from Penn."

"Thanks for the beer. My hands are still shaking. Got a straw?" After tonight, our success was even more critical.

We discussed our plan to get a supply of fresh cadaver brains. Kim's lab was part of Temple's Hospital system. If anyone knew brain physiology, it was her.

She rubbed my shoulders and sat next to me on our bed. "I did a ton of paperwork to get us chain of custody approval. One wife joked that her hubby's brain was finally being put to good use."

I finished my beer, reached into my bedstand cookie jar, and pulled out two gummy-monkey edibles. Pointing to the ceiling, I said, "At least the proposal draft and photos are safely floating in the cloud. I needed a new laptop anyway. Let's try to get some sleep. It's a long shot, but with this first feasibility test, tomorrow's a big day."

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The following day, we were back in my lab with a cooler full of dry ice and two recently deceased brains. I resisted making smoothie jokes as I fed slippery slices, along with the nutrient solution, to our lab blender and turned it on.

Kim recorded the procedure with her phone as I poured the grey slime into the reactor, turned on the power supply, and chattered on with technical details. I was hyped, even if the video would put many listeners to sleep.

Kim stopped the recording. "I hope this shit works better than you explained it. We'll need something in plain English for our non-nerds."

I laughed. "How 'bout We're keeping cadaver brain cells alive and collecting their electrical output. They can't think but they can still make brain zaps as long as we feed them."

She glanced at the prototype reactor. "I hope we're not getting into more than we can handle." Frowning at the monitor, she said, "So far, nothing."

I reset the power supply. "I'll give 'em another tickle." Still no response. "Fuck it. Let's get breakfast and give it a chance to respond. What do brains know anyway?"

It was Saturday morning, and only half the food trucks showed up outside of our building. I sat at a picnic table and checked my calculations between bites of egg burrito. Kim worked on a word puzzle, a tell of her nervousness. She looked up. "Are you sure the sensors are calibrated?"

I was about to give her a snarky answer when I realized I'd missed calibrating the oxygen sensor. Instead of confessing, I sprinted back to the lab and clicked the *calibrate O2* icon. A solenoid valve snapped open, oxygen bubbled, and the reactor's output slowly rose. By the time Kim got there, it was up to four milliamps. Over the next hour, it leveled off at 6.75, almost theory. I hugged Kim tightly while watching the steady readout behind her. This was a banner moment. Our first benchmark.

We spent the afternoon fleshing out our proposal, leaving space for what we hoped would be earth-shaking results. Every ten minutes, we checked the output, staring at the screen in disbelief.

The output was suspiciously steady but had just enough noise to be feasible. I had been fooled before by experiments with a ruler-flat signal. "If this continues for a week, I'd call it proof of concept."

Kim said, "Even if it craps out, we're onto something." She picked up her phone. "This calls for a splurge. I'll reserve a table at Cuba Libre for tonight."

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The reactor had been running for a week, but the output has been steadily dropping. Kim was working on a mountain of paperwork to justify another twenty-five cadaver brains for our scale-up.

We shut down and did a post-mortem. The reactor's platinum electrodes were coated with a brown, non-conductive film. It tested positive for nutrient metabolites. “Hmm. Looks like the brain cells are taking a crap all over our collector plates.”

Kim scratched her head. “What if we put a purifier in the loop?”

Grinning like a cat who ate a trolley mouse, I sauntered over to administer my best shoulder rub. "Yeah, something like a dialysis cell.” This was a standard purification technique used in biomedical research.

The following day we tried it. It worked.

Kim went back to her paperwork. She bit her lip. "And what should I say about that weird blue haze this thing gives off?"

"Say that we think it's due to electromagnetic radiation. Based on the faint smell of ozone, it's probably an ionization by-product—like the Aurora Borealis. It does look cool with the lights off. Throw in a photo to grab the committee's interest."

Across the lab, Scott, the leader of our neurochemical research group, stared blankly at his helmeted furballs and shook his head.

I couldn't help myself. "And on track three is the favorite, Scottie Boy. Place your bets."

He aimed that disgusted face at me again and yelled, "Don't mess around. These guys might have had one dose of THC too many. They're all in a permanent mellow. Might have to replace the whole bunch. What a pain in the ass."

He's really upset. Scott and his team were great lab mates. None of us minded a little quip now and then, but this wasn't the time.

He looked at Kim and pointed to the mice. "Your boy Alex didn't mess with these guys, did he?"

She tapped her chin for a minute. "No. That would be too much. Even for Alex."

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The next six months flew by while we did more scale-ups and plowed through our Phase I grant money. I shared an office in the Chem Engineering building with Kim, consulting with construction teams on a kilowatt pilot reactor to be built in the room next door. It would power a section of the building to demonstrate our reactor’s reliability.

I wanted to slow things down, but the project had snowballed. Our days were filled with engineers, hungry for parameter details. And the promise of a new, cheap source of green energy drew dozens of news reporters to our lab—globally.

That morning we fought our way through a group of demonstrators waving signs in our faces. Most had a picture of Frankenstein with the caption: “We know what happened there.” Another had a picture of Jesus and said, “Brains are for thought only.”

Never mind those thousands of donors pledging organs to science every day. It wasn't like we were re-inventing The Matrix. These brains were dead. Homogenized for good measure.

Our tests showed that other sources of brains were not feasible—too weak a neuron signal, low synapse density, or both. At least we didn’t have the animal rights groups out there.

Our start-up day had hardly a hitch. A couple of tweaks, and the reactor attained our projected power. We had even given it a name—The Brain Trust. A group of university big shots, including the President, stood around the six-foot-high steel reactor, watching the bubbly grey mixture circulate past a curved viewing slot.

After reciting a Cliff's Notes version of the reactor's theory, I nodded to Kim, and she killed the lights. I swear a vacuum formed as everyone simultaneously inhaled.

An awesome disk of blue light emanated from the quartz window, touching every wall in the room. My heart fluttered as our audience was bathed in the glow, mouths and eyes opened wide. Kim's warm hand squeezed my cold, clammy one.

It was time for Kim's magic. I switched on the lights, and she cleared her throat for attention. "We were as intrigued with this mysterious haze as you are. I analyzed the radiation patterns around our prototype reactor. It was a high-frequency theta waveform—like those observed when a sleeper begins to dream. This one, however, was different. It continuously repeated just one simple pattern. What the pattern means is still a mystery, but we have a hypothesis."

Our audience sat at attention, and Kim held up a poster-sized photo of Scott's trolley-mice. "Lab mice were stimulated to invoke aggressive behavior. Then we moved our reactor near their cage, and they instantly relaxed. We measured an increase in brain fluid endorphins as well. The energy radiating from Brain Trust induced a sense of calm.”

The room buzzed with hushed conversation. "These are preliminary results, but definitely worth noting. We'll watch for more evidence as our pilot phase progresses."

I realized more than ever what a great partner Kim was.

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After a year of near-perfect pilot scale performance, word of our reactor had spread. The next level of scale-up was way beyond our skill set, but that didn't matter. We'd applied for the patent through the university and were listed as co-inventors.

I had noticed that over the past year, violent crimes around our campus decreased by an order of magnitude. It was no surprise that neighborhood aggression dropped. The shocker was that it might be due to our pilot reactor. It was still too early to say but there were those lab mice…

Kim and I split our time between the Medical School and the Engineering Building. We did less hands-on science and more consulting. Pilot reactors were built in Chicago, San Francisco, and Seattle—in neighborhoods where violent behavior flourished. In each case, street crimes slowed to a halt. But there was one big hitch.

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Today, I awoke in our Washington DC hotel to Kim's softs sobs. Still half asleep, I scooted over and hugged her from behind. She pulled away and sighed, "This was not what we signed up for."

Kim was right, but I made my case. "That's evident from our patent. Everything will come out in tomorrow's hearings. It's crystal clear we did not claim a cure for the evils of mankind. Besides, we'd never shut down a large reactor before. Chicago's riots could have been an anomaly."

She sat up and shook her head. "Were they? The signs were there from the beginning."

I gave her a tissue. "Scott said those mice had been over-tested and ruined. That's why we laid low until half of North Philly broke out in peace. Even then, it was just a theory."

"But there should have been more testing before everyone jumped on the bandwagon. We could have done more to avoid the horror show in Chicago."

Kim was getting to me. I walked onto our balcony and inhaled the cool air to wake up. "Who told them to shut the Chicago reactor down? The politics were insane."

She followed me and leaned against the railing. "I should have known better. Rebound effects are well known."

Her sobs grew to a full cry. "We saw it the morning after we shut our lab reactor down."

I could no longer avoid that scene. I closed my eyes. The trolly-cage walls had been smeared with bloody fur. Empty helmets had been scattered next to piles of bones and teeth.