July 26, 2021

Honorable members of the Energy & Commerce Committee:

As you know, on July 29th, Chairwoman Eshoo is holding a hearing before the Health Subcommittee of Energy & Commerce. My Congressional Representative is Grace Meng, who is not on Energy & Commerce. As such, I am reaching out to share my story to let you know how the slow FDA system is allowing me to die a slow, tortuous death while promising ALS therapies are helping people slow or halt this always & imminently fatal disease.

MAYURI'S STORY

1 out of 48. This is what I scored on the functional rating scale for ALS. My name is Mayuri Saxena. I am 37 years old and am dying from Amyotrophic Lateral Sclerosis, also known as Lou Gehrig's disease. ALS is 100% fatal but before it kills you, it slowly paralyzes every muscle in your body. Most patients die within 3-5 years. I was diagnosed over for 4 years ago and am running out of time.

Today, I am writing to you using my eyes on a special computer similar to the one Stephen Hawking used. I feel blessed to be able to send this letter to you as I am quadriplegic and am on life support. I cannot eat anymore and only get formula through my feeding tube. I cannot cough anymore and rely on a cough assist machine to clear mucus. I cannot swallow my own saliva and rely on a suction machine to clear my airway. I cannot breathe anymore so I rely on a ventilator to breathe for me. I cannot talk anymore so you can only know I am sad if I cry.

But I do still have a voice – even if only spoken thru a computer. And it is with this voice that I am pleading with Congress to help.

I wasn't always like this. In fact, I thought I was in the prime of my life when I started noticing my leg twitching. At the time I lived in Washington DC and was a Presidential Management Fellow. I have been a public servant my whole career and have worked in local and federal government. With a Double Master's Degree in Public Administration & International Affairs, I wanted to be the Secretary of State someday. Unfortunately, within a few months of my symptoms starting, I found myself on a wheelchair and today I am bed bound.

Sadly, my life today could be much different if I had been allowed access to any of three promising investigational drugs: Biogen's Tofersen, APIC's gene silencing therapy; or Brainstorm's NurOwn. No one expected a healthy 32 year old to have a lethal disease. Thus, it took over 2 years to get an ALS diagnosis. This delay excluded me from clinical trials. Complicating the tragedy, my original neurologist refused my request for a genetic test because I had no family history of ALS. When I finally got a test, I was surprised to learn I have a rare mutation in the SOD1 gene. In the US, approximately 2% of the ALS population has a SOD1 mutation (appx 500 Americans). But this gene has over 160 different variants. My variant is rare & has only been identified in populations of Indian descent. My variant is also a "slower progressing" form of the SOD1 mutation.

PROMISING THERAPIES FOR MY SOD1 MUTATION

However, this discovery gave me hope as there were two ALS therapies being developed that target the SOD1 mutation. Upon learning I had this mutation, we changed neurologists to Bob Brown at UMass. He discovered the SOD1 mutation in the 1990s & is working on a therapy to silence the gene. Unfortunately, the FDA had given him the ok to perform a toxicity study on only 2 humans -- even though the therapy had shown a 93% efficacy in silencing the gene in Dr. Brown's primate studies.

I was too late to be one of those two people. I have a 100% chance of dying. Shouldn't I be able to make the decision whether I want to participate in a trial that may give me a chance to live a better quality life for a little bit longer? What would happen if I had turned off the damaging effect on my SOD1 mutation? Would my motor neurons start to reinnervate & heal? Would I still be on life support?

Even Dr. Brown doesn't know this answer. But I do know what my answer would be if the FDA asked if I were willing to accept that risk. Yes. Wholeheartedly YES!

Even though the FDA didn't give me the right to decide if I wanted Bob Brown's gene silencing therapy, there was still hope as Biogen was developing an ASO therapy called Tofersen. I tried to get into the trial but again because of the delay in diagnosis, I did not qualify. And yet still, we didn't give up hope as there was always the option of the FDA's Expanded Access Program. We knew that the FDA approved EAPs 99% of the time.

All we had to do was get Biogen to agree to help me. Biogen has a large patient assistance program and thus, we contacted Biogen to see if I could get access to Tofersen that way. Biogen refused my request 4 different times.

When I first asked Biogen for access, I was "just" in a wheelchair. I had complete upper body function. I could hug my loved ones, type, feed myself, bathe myself. I could still speak, tell witty jokes, smile & laugh. I love to travel and I was still able to go on family vacations & cruises. I could still eat my favorite food. I could still drink & swallow my favorite chai tea. I could have tasted birthday cake on my 37th birthday. I could have continued to work in DC and pursue my career. Biogen deprived me of that life.

Do I know Tofersen would work on me? No. But I do know it appears to be working on some like Chris Snow, an executive with the Calgary Flames. Chris Snow has posted numerous videos documenting his journey. He has a fast progressing form of the SOD1 mutation that typically kills people in 8-12 months. Chris was in the Tofersen trial and will be receiving Tofersen for 5 years via Open Label Extension. He is still walking, talking, hiking, biking & even downhill skiing & ice skating.

That is why Biogen's decision is so inhumane. Unlike small pharmaceutical companies, Biogen can afford to help the 500 patients with the SOD1 mutation, like me. They earned $14.4 Billion in revenue from their drug sales in 2019. Their CEO's compensation is in excess of $18 Million. Money is not the issue.

People like me in a controlled EAP could have helped them identify which of the 160+ variants were responding to Tofersen. It could have helped them assess the impact of Tofersen on people of different ethnicities. It could have furthered FDA purpose of getting drugs to market in a disease that the FDA describes as a "critical unmet need." It could have extended my life.

Biogen has refused me access for years. Just this month, they authorized Expanded Access to Tofersen for a small subset of people who are "fast progressing" – declining at a rate of 2 points a month. I am a slow progressor. Obviously, I cannot decline at a rate of 2 points a month as my score is only 1 on a 48 point scale.

My ALSFRS-R score was above 40 when I first asked for access to Tofersen. Biogen's slogan is: "Science meets Humanity." In my case and that of several hundred other people with the slower progressing forms of the SOD1 mutation, we are asking that it show humanity.

Even with Biogen's refusal to help, I again turned my eyes to the FDA. A therapy called NurOwn had shown efficacy in Phase 1 trials in Israel, and again in Phase 2 trials in the US that were completed before I was diagnosed. Both trial populations had gotten only one dose. Surely the therapy would be approved in a disease that is 100% fatal with no disease modifying treatments. It wasn't. Then with three doses, NurOwn showed efficacy in "some" in the Phase 3 trial.

The more doses people received, the more they appeared to stabilize or improve. Navy pilot, Matt Bellina, got seven doses – more than double of what Phase 3 trial participants received. Matt regained 6 points of function and no longer needs a machine to breathe. People in the trial reported their outcomes to the FDA & to their neurologists. The FDA scoffed. No one had ever regained function. This must be a placebo effect they asserted, not the known flawed ALSFRS-R tool that is both statistically invalid & unreliable.

But now, multiple Phase 3 trial participants are receiving NurOwn via a small Expanded Access program. When on NurOwn, I have watched them slow their disease progression, stabilize or regain function. They are Living Proof. The Placebo argument is now specious. NurOwn works.

The FDA promised in its 2019 Guidance Document that it would "exercise regulatory flexibility" for the "critical unmet need" of ALS. It promised to include "Patient Reported Outcomes" in determining if there was "substantial evidence" of efficacy.

Despite these promises, it has ignored the life-changing stories of people on NurOwn. It has also ignored the statements of world-renowned ALS neurologists who saw a "clear signal" that NurOwn works in some of their patients. One of the NurOwn researchers is my own neurologist Bob Brown and some of those who improved are his patients in Phase 3 & Expanded Access. Dr. Brown's decades of expertise in ALS surpasses everyone else in the world. I trust Dr. Brown.

In the past 6 years since the Phase 2 NurOwn trial, 36,000 people have died. If the FDA requires another Phase 3 study, it will take another 5 years and another 30,000 lives. How many more must die while NurOwn is working? How many more families will be destroyed? How many more babies won't remember their parents? How much more evidence does the FDA need than someone standing up out of a wheelchair?

VIDEOS & DOCUMENTS for the CONGRESSIONAL RECORD

Attached to this email are several images & videos of my life before and after ALS... my life before & after Biogen & the FDA refused to help me.

1. **Mayuri Saxena (December 2020)**
   This is a video compilation that I narrated to give you a glimpse into my life. This was prepared for the 116th Congress when I began advocating for the ACT for ALS. https://youtu.be/EPOp1acDLoE

2. **Doctors' Video (December 2020)**
   This video includes 3 physicians in the ALS Community: two have ALS & one is my childhood friend, Dr. Suchit Patel, MD PhD. He is a radiation oncologist who has his PhD in neuroscience. He discusses the unique difficulties of ALS clinical trials & the HALO effect in neurodegenerative diseases. Finally, he enlightens people about the difference between oncology drug approval and ALS drug approval. https://youtu.be/Cga_1if2Pe

Additionally, below, you will find some links to short video clips illustrating my journey with this terrible disease. ALS is not just a colored-pamphlet you receive upon diagnosis. This is brutal reality of ALS.

BEFORE ALS
(1) Mayuri talking in her own, real voice about traveling
(2) Mayuri trying beer and having fun
(3) Mayuri struggling to get in wheelchair

CHANGES DURING DISEASE PROGRESSION
(1) Mayuri struggling to breathe with BiPAP mask
(2) Mayuri struggling more to breathe as we try to transfer her to bathroom for shower
(3) Mayuri struggling with PT, difficulty in breathing, and physical movements

AFTER ALS HAS ROBBED HER OF 99% OF HER BODY (EXCEPT EYES)
(1) Mayuri having to hold her breath for 60 seconds while she gets her trach change (every 3 months)
(2) Mayuri having no air to breathe while she gets her inner cannula changed (happens daily)
(3) Mayuri being transported to her trach change, the only time she sees the outdoors once every 3 months

CLOSING

As these videos demonstrate, without Congress' help to get access to Tofersen via EAP, and without the approval of NurOwn for a Phase 4 Post-marketing study, I have no chance. My life matters. Some evidence may not be enough for the FDA. Some evidence is enough for me. My life is enough.

For the last several years there has been a tragic disconnect with the FDA and the ALS community. ALS is 100% fatal and it kills quickly. Drugs are unavailable even though they have shown promise at reversing and slowing symptoms. This is heartbreaking and cruel for people living with ALS and their families. Imagine having ALS and knowing there are existing therapies that are safe and could possibly extend your life. Then imagine that you cannot access the treatment and you will die waiting for it. This deadly waiting game has been happening for years.

I truly believe we will find a cure for ALS in our lifetime if we all work together. With the help of an artist, I designed the attached illustration to remind us just that. The American eagle offers the blue cornflower, a symbol of hope to ALS patients, as the trached woman tries to break free from the chains of the disease with the help of bipartisan support. Today, you have the opportunity to help break the chains of thousands of Americans dying from ALS when treatments are just a stone's throw away.

Please help me fight for my life.

Sincerely,
Mayuri Saxena
I AM ALS Legislative Affairs Committee Member

cc: Honorable Grace Meng
Honorable Kirsten Gillibrand
Honorable Chuck Schumer