

### Transcript Details

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### Refocusing Our Efforts on Advancing Technology to Help Stroke Survivors

Dr. Weisman:

Welcome to *NeuroFrontiers* on ReachMD. I'm Dr. David Weisman, and I recently had the chance to catch up with Dr. Mijail Serruya about his research focusing on some of the latest technologies that can help our patients living with physical disabilities after a stroke. Here's Dr. Serruya now.

Dr. Serruya:

Well, I think that one thing that's gonna be in the popular imagination are the brain/computer interface companies, like Neuralink and I think that the most positive thing to come out of those kinds of investments and energy is that, perhaps, companies like Neuralink will do for brain/computer interface medical device development what Celera Genomics did for the human genome projects, which is that you have an industry driven by capitalism and curiosity and visionaries like Musk and his counterparts in different companies that, sort of, spurs on and encourages the work in academia and sponsored by the NIH. That's the hopeful view. I think that the vision of implanting electro-arrays in an able-bodied person who doesn't have any kind of deficit raises a whole bunch of ethical questions and I think that while those ethical discussions can be very entertaining, as people have commented about a lot of Mr. Musk's ideas, it's a little bit about worrying about overpopulation on Mars, meaning that we really should just focus our energy, our time, our money, our thoughts, our discussions about legislations, etc. on the problems right in front of us. And the fact of the matter is there's tens of thousands of people have stroke and arm problems and communication problems and not to mention spinal cord injury and ALS and muscular dystrophy, and on and on. And so, while I think there's a kind of 'wow, that's a cool' way to think about augmenting humans to become superhuman and there's no question that there are ethical concerns, I think it's really important to be grounded in the reality that there are children and adults who are suffering and have limitations that this is a medical device technology that could help them and that we need to focus on that; on do no harm and try to help, have intention of good will and oriented around there and, and that's just the kind of perspective I think it's important to take. And don't say, "well, we shouldn't work on it 'cause of the ways this could be misused", because then if you thought that way, then we wouldn't have cochlear implants, we wouldn't have stents, we wouldn't have pacemakers, we wouldn't have these technologies which, again, science doesn't exist in a vacuum, it's part of a conversation with our communities in the world and I think we should continue that to help ourselves.

Dr. Weisman:

That was Dr. Serruya talking about some key considerations for developing technologies that can help patients with physical disabilities due to a stroke. I'm Dr. David Weisman, and to hear my full conversation with Dr. Serruya and to access other episodes in our series, visit [ReachMD.com-slash-NeuroFrontiers](https://ReachMD.com-slash-NeuroFrontiers), where you can Be Part of the Knowledge. Thanks for listening!