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Jay Meijia on Bipolar Disorder

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So, how did the program end?

There were a few problems with the program. One was that it was great once you got it into space, but getting it up there in the first place was a problem. ... The easiest way was actually to just, you know, light it off on the ground, which is great except for the blowing up of a giant stack of nuclear bombs.

The best single summation I've ever heard of the program was that it was designed in a time when automobiles had tail fins but not seat belts. ... Statistically, if you lifted it off the ground, during each launch you'd probably cause ten or twenty deaths [due to radiation poisoning]. ... But that's not the reason the whole thing was shut down.

Oh, what was that?

The military was paying for this, and the shaped-charge idea made its way around. You know how I said that if the material is lighter, the cone [of blast] is tighter, right? Well, that's basically just a giant death ray. So instead of a cone pushing on a plate of vaporized tungsten from a couple meters back, it's just a tremendous plume of fiery atomic death that can just light up in low earth orbit and totally, you know, vaporize a Soviet military facility.

So part of the reason that they stopped thinking about Project Orion was that they found out nuclear lasers were more interesting.

Well, yeah!

So where was the real dead-end of the program?

Apparently there was a scale model made of this and they showed it to JFK. And as soon as he sees the thing and hears the explanation, he just flips the f*** out, walks out of the room, and cancels funding for the entire project.

Thanks so much for telling me about this!

No problem, comrade. ●

Interview by Quinton Steele

Jay Mejia on Bipolar Disorder

Jay Mejia is a senior Neuroscience major hailing from Texas. When he is not performing ovariectomies on rats or tackling someone on the rugby field, he can usually be found in the Love Lounge with a gang of fellow brain-enthusiasts. If you have ever had the opportunity to speak with him you will notice that he has an unusual obsession with bipolar disorder. Regardless of the conversation topic he will find a way to slip in a bipolar fun fact. We sat down with Jay to learn a little more about his obsession.

Why do you find bipolar disorder so interesting?

Something that was thought to be 100% psychological is being found to be neurological. It even breaks some of biology's rules — like it's not genetic, it's epigenetic. I think that if we start looking at things in their epigenetic lens, so many diseases that we thought were incurable are going to turn out to be some pretty cool sh*t.

Are there any new findings related to bipolar disorder that you are especially excited about?

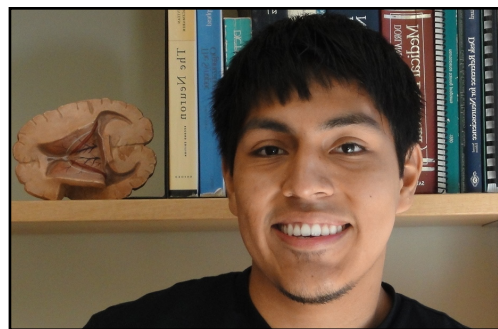
So you know what candidate genes are? They are like susceptibility genes. If the gene is mutated then you will usually get the disease and they have found some for bipolar disorder. They are always finding more of them. . . But what they are finding out is that there are people that have those mutations but are never developing bipolar disorder.

What are you going to do with all this information you have stockpiled?

There isn't a lot known about bipolar. There are zero theories about how it is developed, except for one that was made in the seventies... My final goal would be to come up with or help generate a new theory or a new model of how bipolar disorder came about.

So if that is the long-term goal, what is the first step?

I want to come up with a meta-analysis over the years, because I read all these papers from everywhere, and if you start taking stuff from here, here or here it all starts making sense. But no one has actually done that, no one has said "oh this makes sense because of this this and this." So my main goal is just to write the paper.



You are currently working in Professor Thornton's lab. What have you learned from lab work?

It has made me really anal about the details because [Professor Thornton] is very focused on the minutiae of every experiment. ... There is a mistake everywhere and she will find it.

What was your proudest lab moment?

Once we had just finished doing a sh*tload of things, it took from noon until six and then I went straight to start some other experiment and Professor Thornton asked me, "What are you doing?" and I said, "I need to do this and this," and she said you worked hard enough today you should go home. That was my proudest lab moment

Obviously you are really passionate about science. Where did this come from?

Bill Nye the Science Guy, obviously. My dad wasn't around much when I was little so all I'd do was watch TV and I'd only watch between this hour and this hour and that was when *The Magic School Bus* and *Bill Nye the Science Guy* and all these other cool shows about science were on.

You are graduating this year, have you started thinking about where you are headed?

Well, hopefully I'll work with someone in Boston or the NIMH (National Institute of Mental Health), just contribute and do some research at the cellular level and then maybe med-school... anywhere but Texas or Ohio.

So would you want to be a mental health doctor?

No, I want to be neurologist or a neurosurgeon or something. I have no real preference what kind of patient I work with, but kids would be cool.

Thanks for letting me interview you.

No problem. ●

Interview by Hillary Mullan