My Experience as an ISEF Finalist in the time of COVID-19

Competing at ISEF has been my dream since my first year doing science fair as a freshman. It has always been the “ultimate goal,” and seeing other people that I knew and was close to, go to ISEF, and succeed academically was always a driving point for me. I have always known that it was difficult to get a spot for ISEF, and I always assumed people went because their projects were good, which is partially true. However, now that I have had the opportunity to go, now that I have “achieved” my dream of gaining a spot to one of the most prolific scientific competitions in the world, I see it a bit differently, through the eyes of the experiencer rather than the observer so to speak.

I believe that people do things for different reasons. People do research and do science fair for different reasons. I like to think that I did my most recent research project, the project that sent me to ISEF as a finalist, for the ultimate goal of research and not personal gain or accolade. Of course, no one works for free, so we always keep in mind the successes that may come from our hard work, however, I think that once we find a passion in something we then become fully willing to pursue that passion to its most extreme limits. I was deeply passionate about my project, and I had very personal and deep meaning behind the work that I was doing, which made the reward of ISEF much more significant for me. I think that passion is the real driving force for our success. Someone once told me that people think people change the world, but its not true, passion changes the world.

When I went to ISEF in Phoenix as an observer I was elated. I had become one step closer to achieving my goal of competing at ISEF. I took information in like a sponge, learning wherever I could, and appreciating the sheer amount of passionate research that occurs at that level of competition. It was one of the single most rewarding and significant experiences of my life and will always be something that I remember fondly. But it only made me hungrier to succeed. It left me with motivation to go back, and experience ISEF through the lens of a finalist, and to be a part of the mass of intellectual achievement from around the world.

When I heard the news that ISEF was cancelled I was not surprised, but I was heartbroken. At the moment, I thought that all the work I put in, the hours in the field, analyzing data, pursuing my research as much as I could, went to waste. I had finally achieved my dream, only for it to be ripped away from me. It took me a long time to come to terms with what had happened and the situation the world was in. It was not only me that had their dream ripped away from them, it was every single other finalist that qualified, it was all the sponsors that were excited to see their students compete, it was the parents that wanted to see their kids succeed, it was everyone, not just me. I came to realize that people don’t do things that are hard because they want to get an award, they do it because their passionate. No one really cares about the awards; they care about what you did and why you did it. That was my realization as an ISEF finalist in the time of COVID-19. I came to learn that if we focus on how we succeed instead of what we are doing to succeed, we lose the reason we started in the first place, we lose meaning behind our work, and we lose our passion. Without it we can never change the world. **Andres Villa – Monte Vista High School**

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    Last year I participated in the science fair. I really, really liked my science fair project. My science fair project was called “Wood it Burn.” My project dealt with wood Lichtenberg figures. Lichtenberg figures are patterns formed by electricity. They can be made on electrically charged plates of resin with dust, in blocks of electrically charged acrylic, or with a transformer and wood. I used a neon sign transformer and different kinds of wood. The goal of my project was to determine which wood out of Oak, Mahogany, Pinewood, Basswood, Cedar wood, and Plywood would create the best Lichtenberg figure. I defined best as the one with the most branches off the main scar, number of curves on the main scar, and the length of the main scar. I found out that Oak is the best wood to make a Lichtenberg figure on. My project originated as a simple class assignment. I was researching a small project that would work for the assignment and I came across Lichtenberg figures. I originally tried doing it with a microwave transformer but I ended up blowing the fuse. I didn’t really want to give up so I made it my science fair project. I thought it was really fun. I was really surprised when people seemed to be interested in it. I really loved my board and my graphs too. To make my graphs I had to hand count the branches on each piece of wood, then count the lengths of the main scar until it came to a curve, every time it came to a curve that would be one curve. At the end of that I added the lengths I measured for each piece of wood. Then I put all that information into a spreadsheet and made my graphs. I loved my board because I had a really fun time making it. I had cut out all of my information and construction paper borders and was rubber cementing them together. It took a really long time so I was up to about 3:00 am making my board. I was also about to run out of rubber cement so had to ration the amount I used. I was jamming to my music and gluing paper to a foam board. I had so much fun at the science fair.

Before last year I didn’t know what I.S.E.F was but then my class watched the documentary, *Science Fair*. All of us were instantly infatuated with the idea of getting to go. I didn’t know that you could get to go from our regional science fair. When we were at the awards ceremony my friend and I were making jokes and laughing and then the I.S.E.F awards came up and right before the observer one was announced my friend said “Watch it be you” and then they said my name and we looked at each other in disbelief. Maybe the shock wore off faster for her because she pushed me out of my seat to go up to the stage. I couldn’t believe it. I walked up to the stage and apparently my face portrayed my emotions because I was told later that the look on face was “priceless.” After that it was pretty much just following the directions of people who were in charge. My teacher, Mrs. Paulson, told me she was proud of me. My parents told me they were proud of me. Then we did the paperwork on the computer and all that jazz. I was really excited about going, the documentary made it look like so much fun. I was really excited about the things the observers got to do, they sounded super cool. I had also researched a little bit about I.S.E.F on the computer and that only made me more excited. All the things the observers got to do sounded like so much fun.

In conclusion, I was so excited to go and it probably would have been really fun. I understand that a global pandemic changes circumstances, but it still sounds fun and I plan to work hard to get to go this year.

**Jessica Buser – Sargent Middle School**

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In my experience science fair is one of the most, if not the most rewarding thing a person can do throughout their school years. I have been participating in science fair for six years and my passion for science has grown with each project. My seventh grade year I was at Shriners Hospital for Children in Philadelphia undergoing many procedures so I would be able to walk. While in Philadelphia I saw that many of the patients there were unable to feed themselves due to physical challenges. This is when I realized I wanted to engineer a device to bring independence not only to others but to myself.

My freshman year of high school I was able to begin the engineering of my device with help and support from two special teachers. The engineering of the first prototype took months and was still not perfect but needed to be tested because the Regional Science Fair was approaching quickly. It was finally time to present my work to the judges, presenting to the judges took all day and the awards ceremony took place a few hours after. At the ceremony we went through the awards as usual first special awards, then placement and state awards and at the end of the ceremony best project of the year award and the people representing the valley at ISEF was announced. My friend got best project of the year award and then the observers for ISEF were called, at this moment everyone knew that my friend and someone else would be participating in ISEF. First his name was called then to my surprise I heard my name! I was filled with honor and excitement that I would be joining my friend at ISEF.

    Over the next few weeks we registered for ISEF and were preparing for the State Science Fair. While preparing for the State Science fair as it was approaching quite quickly word of a new and scary virus was going around, it was in China and at this point no one expected it to reach the United States. To everyone's surprise there was a case of the virus in Denver, Colorado. The virus was now known as COVID-19. One case quickly turned into twenty and twenty turned into one hundred until eventually the cases got so bad that the State Science fair was held virtually and not long after that ISEF was cancelled and only speeches were held virtually. When word had got out that ISEF was cancelled I felt so disappointed and heartbroken but I hope to return this year because doing scientific research and being able to represent our small but amazing community would be an honor.

**Urianna Acosta – Monte Vista High School**