**Celebrating & Acknowledging Women of Color in STEM Professions Episode 170**

**Terry** (00:00:00):

I see you. And I see potential. And there’s just so much that you can provide, even just by trying, no experience is wasted. Even if you fail. So what? So what? You try something else. And you try something else. And you try something else.

**Terry** (00:00:16):

That gives you a little bit of perspective. We are all here, that are products of a lot of failures. So, don’t be afraid. If anything, I’m actually sometimes excited, “Oh okay, this is really interesting. How do I come back from this?”

**Terry** (00:00:31):

Ultimately, STEM/STEAM, teaches you how to think and to make decisions. How to critically think, if anything, that is a big, huge takeaway.

**[Music Playing]**

**Christina** (00:00:45):

Hi, I'm Christina Barsi.

**Sun** (00:00:46):

And I'm Sun Ezzell, and you're listening to the Magic Mountie Podcast.

**Christina** (00:00:50):

Our mission is to find ways to keep your ear to the ground, so to speak — by bringing to you the activities and events, you may not have time to attend, the resources on campus you might want to know more about, the interesting things your colleagues are creating and the many ways we can continue to better help and guide our students.

**Sun** (00:01:07):

We bring to you the voices of Mt. SAC, from the classroom to completion.

**Speaker 1** (00:01:11):

And I know I'm going to achieve my goals and I know people here are going to help me to do it.

**Speaker 2** (00:01:15):

She is a sociology major and she's transferring to Cal Poly, Pomona. Psychology major, English major …

**Sun** (00:01:22):

From transforming part-time into full-time.

**Speaker 1** (00:01:24):

I really liked the time that we spent with Julie about how to write a CV and a cover letter.

**Christina** (00:01:31):

Or just finding time to soak in the campus.

**Speaker 1** (00:01:34):

To think of the natural environment around us as a library.

**Christina** (00:01:37):

We want to keep you informed and connected to all things Mt. SAC. But most importantly, we want to keep you connected with each other. I'm Christina Barsi, Mt. SAC alumni and producer of this podcast.

**Sun** (00:01:48):

And I'm Sun Ezzell, Learning Assistant Faculty and Professional Learning Academy Coordinator.

**Christina** (00:01:53):

And this is the Magic Mountie Podcast.

**Christina** (00:02:01):

Did you know there are fewer women in STEM at 21% with only 5% being women of color? It is not only important to receive support at different stages of this career path for diverse identities. But put simply, representation of women of color matters. We hope you enjoy this recap of Mt. SAC’s recent 2022 event, Women of Color in STEM, celebrating and acknowledging women of color in STEM professions.

**Anthony** (00:02:34):

First and foremost, thank you for coming. My name is Anthony Xavier Lopez, professor of Biology here in the Biology Department. And I’m also the STEM Faculty Coordinator. So, thank you and welcome.

**Speaker 3** (00:02:46):

Yes, let’s give him a round of applause. Again, I think just looking at the crowd and seeing the amount of students and our educators that are supporting us today, I think is showing a true testament of why we need to have events like this, to show up and show out and to applaud the women of color in STEM. Because we need to be represented more in this field.

**Speaker 4** (00:03:06):

Myself a woman of color in STEM, it makes me really proud that Xavier reached out to us, the Equity Center, to put on this event for you all. And I can’t believe it’s here. We’ve been planning this for months, and I just really applaud you for showing up to come out and educate yourselves and learn from our beautiful women that will present in a moment.

**Speaker 4** (00:03:24):

Before we start our event, I do want to recognize our board of trustees Mr. Gary Chow, thank you for coming and supporting. Always supporting our students. Thank you.

**Speaker 4** (00:03:36):

Okay, and I’m going to pass over to Dr. Maura Palacios Mejia. Yes.

**Maura** (00:03:42):

Thank you. Hi everyone, thank you for being here. We’re so, so excited to have you. Briefly I’m a professor here, in the Biology Department. I won’t be too brief, but you’re welcome to reach out to me about anything, alright?

**Maura** (00:03:53):

The purpose of this event is focused around creating awareness about the need for women of color in STEM. We need that diversity to bring in new perspectives and ideas. And unfortunately, despite women of color obtaining higher education degrees, there’s what they call a leaky pipeline they say, where people can drop off and not finish or get jobs in that particular career.

**Maura** (00:04:13):

So, we also want to create awareness that if you are a woman of color in STEM, you have all of us to support you. So, don’t feel alone, we got your back, okay?

**Maura** (00:04:22):

So, we’re going to keep going. Here’s a little quick overview of our agenda for today. We are now doing our Mt. SAC women of color. We’ll introduce our beautiful panelists. We’ll then have some panel questions, pre-determined questions for them.

**Maura** (00:04:34):

We’ll have a Q&A session, where we’ll open it up to you to see what questions you may have for our panelists. We’ll have a short little survey and then we’ll have round table discussions where our panelists and several other faculty and stuff from Mt. SAC, women of color in STEM will come and sit with you and you’re welcome to ask them questions.

**Maura** (00:04:50):

So, with that, I’m going to go ahead and introduce our first Mt. SAC woman of color in STEM, student, Harriett Aira Fiona, a future engineer.

**Harriett** (00:05:05):

Good afternoon, everyone. My name is Harriett Aira Fiona. I’m an electronics and computer engineering technology student here at Mt. SAC. And I’m also a peer mentor fellow at the gym program at the Equity Center.

**Harriett** (00:05:15):

I’m here to introduce our first panelist of the day. She is a native from Southern California, grew up close to us at Long Beach. And she got her bachelor’s in Biology in UC, Santa Barbara. Her master’s in Biology in Cal State, Long Beach where her research focused on muscle physiology of marine fish.

**Harriett** (00:05:34):

She then continued her research at Scripps Institution of Oceanography at UC San Diego where she received her PhD in Marine Biology, with a focus on comparative physiology and intracellular signaling. Afterwards she served as an NSF and NIH funded Postdoctoral scholar at the University of British Columbia in Vancouver Canada and UC San Diego School of Medicine.

**Harriett** (00:05:57):

Currently she is working as an assistant professor at Cal State LA, at the department of biological sciences. Please help me welcome, Dr Jinae Roa.

**Maura** (00:06:13):

So, Wutsi was going to participate and introduce a speaker, but unfortunately, she had an emergency that came up and wasn’t able to come. But we’d like to acknowledge her for her potential participation in this event. So, yay with me.

**Maura** (00:06:25):

And luckily Emily stepped up. So, Emily Carril, she’s going to introduce our next speaker. So, Emily come on up.

**Emily** (00:06:38):

Okay. Good afternoon, everyone. My name is Emily Carril and I’m currently a first-year student here at Mt. SAC, majoring in kinesiology. Not a hundred percent sure yet on what I want to do, but for sure a physical or occupational therapist because the human body has always been so fascinating to me, and I want to help people.

**Emily** (00:06:55):

And I am introducing Dr. Terry Reyes. Terry is a Mexican American scientist with over 15 years of experience, mentoring students from underrepresented backgrounds with the ultimate goal of increasing diversity in STEM fields.

**Emily** (00:07:08):

As a former undocumented immigrant, Terry has experienced firsthand the difficult journey, that many immigrants face while pursuing a career in science. Terry received PhD training at Stanford University with a focus on cancer and vascular biology.

**Emily** (00:07:21):

She’s currently a Regulatory Affairs Scientist at Impossible Foods where her focus is to make world class technology accessible to a global audience, by navigating the international regulatory landscape.

**Maura** (00:07:39):

Thank you so much Emily. Next, we have Desiree Olivas who’s going to be representing our next panelist.

**Desiree** (00:07:50):

Hi everyone, my name is Desiree Olivas. I’m a first year at Mt. SAC and I’m a biology major. And I’m in a honors program and planning on doing a research conference soon. So, I’ve been trying to get more into that.

**Desiree** (00:08:02):

I am affiliated with UC Centre cruises marine project that specializes invertebrae density. And I have the privilege to be presenting Hye Min Cho. So, Hye Min Cho, born in ancient South Korea is an media artiste who through her work visualize the qualities of computational methods of perceptions and their differences to human perception.

**Desiree** (00:08:26):

She uses machine learning technologies to make renditions of the familiar that reveals unfamiliar qualities that arise as a product of the algorithms processing. Her works are reflections of the machine mediate beings that we’re starting to become.

**Desiree** (00:08:40):

Hye Min holds a master’s in design and media arts from UCLA, as well as a bachelor’s in electrical engineering and computer science from UC, Berkeley. Please give Hye Min Cho a welcome, yeah.

**Maura** (00:08:55):

Thank you, Desiree. And last but not least, we have Yang Pan, who’s going to representing our last speaker.

**Yang** (00:09:05):

Hi guys, so my name’s Yang Pan. I’m a second-year mechanical engineer student. I’m president of SWE, the Society of Women Engineering at Mt. SAC. I’m also team leads of Mt. SAC motorsports this year and one of the captains of the VEX U Robotics teams here at Mt. SAC.

**Yang** (00:09:18):

So today, I have honor of introducing Lauren Denson. Lauren Denson, Chihene Apache. She is Chihene or Warm Springs Apache of the Chihene Nde Nation of New Mexico and recently elected Tribal Council Member. She grew up in Southern California with a family across the Southwest and she has a Bs in computer engineering and computer science from the University of Southern California.

**Yang** (00:09:39):

She is the technical group supervisor and quality assurance engineer at NASA’s Jet Propulsion Laboratory. Lauren has a passion for giving back to the community and supporting AISES or American Indian Science and Engineering Society. She’s the coach here for native ERG NEBULA or Native Engagement in Building a Unified Leadership Alliance and supports DEI efforts at JPL. So, let’s all give a warm welcome to Lauren Denson.

**Maura** (00:10:06):

Thank you, Yang. So, with that we welcome our panelists to Mt. SAC, for most of them this is the first time that they visit our campus, so woo. Thank you for accepting the invitation to join and support our students.

**Maura** (00:10:20):

We’re going to go ahead and start with our first panel question which is tell us a little bit about yourself and how your interest in STEM began. And Lauren since you’re closest, we’ll just go down the line, does that work?

**Lauren** (00:10:33):

So, a little bit about myself, all of that fun stuff. Pronouns she/her/hers. I forgot to include that. I am a lifetime girl scout. What got me into STEM, felt like it was always evolving. I am into art, and had grew up doing physical media, and so, all the things that you do is very exciting is what I wanted to do when I grew up. But I also enjoyed animation and robotics and was good at math. They would just throw math sheets at me, and so, that’s what I did.

**Lauren** (00:11:02):

And I wanted to be an imagineer. I’m like, “Okay, we’ll put art in math, maybe that together and that’s something I can pursue.” And so, I did that, and I went to Riverside Community College, where I explored different areas in STEM. I didn’t really know the paths to get there and through that mechanism I was able to intern through the Disney Professional Internship Program, where I worked in the parks at Disneyland, as a character in entertainment.

**Lauren** (00:11:30):

And had the opportunity to learn marketing business, organizational development and met an imagineer where they told me to go into computer science. And I’m like, “Okay, I’ll do that.” And so, I evolved and fell into STEM in that way, which I will say computer science is definitely the future, it continues to evolve as we all have smartphones and computers and devices that will continue to evolve everything we do in life. So, it’s a little about me.

**Hye Min** (00:11:55):

Hi everyone, my name is Hye Min. And if I stutter through some parts of this, I apologize in advance. English is not my first or second language. So, my time is split between working as a media artiste on my own works and also as a technical lead ed in our studio, Osk studio.

**Hye Min** (00:12:10):

For my own work, I think most recently I worked on a project actually with one of the organizers here, Dr. Maura Palacios, on artwork called Morphogenesis which is a data visualization using machine technologies on the data set of CaleDNA, which was exhibited at California Natural Resources Agency, and also SIGGRAPH this year.

**Hye Min** (00:12:37):

The other half the time, I work as a technical lead at a art studio, which means I program things that generates or can work as part of the pipeline to generate artworks. So, on the more commercial sides we worked on a few music videos that has machine learning, algorithm generated visuals.

**Hye Min** (00:12:58):

And what got me into field of STEM, throughout middle school and high school, I was really interested in games and also movies and special effects. So, that’s how I first got started and learning about some visual effects software, and also how I first got into programming, I think that’s when I realized I want to work at the intersection of art and technology.

**Terry** (00:13:26):

Hi everyone, first of all, thank you for having us here, it’s an honor being here. My name is Terry Reyes and I’m originally from Mexico. As my bio said and Emily kindly described. I’m a former undocumented student. I came to the United States when I was 15-years-old. My mother brought me, and it was a very difficult path to get to my PhD at Stanford. We don’t have enough time to discuss that part.

**Terry** (00:13:52):

But needless to say that, I am a proud product of community college, because I was undocumented at the time, we’re talking about many, many years ago. We didn’t have the Dream Act. We didn’t have any kind of help.

**Terry** (00:14:06):

To the contrary, I don’t know, some of you that are older might remember, Prop 187, at the time where California Governor, Pete Wilson wanted to ban undocumented students and undocumented people from getting health services and education. And I was part of that group at the time.

**Terry** (00:14:21):

So, I spent 10 years of my life at a community college before I was able to transfer to San Francisco State University where I majored in cell molecular biology.

**Terry** (00:14:30):

And then from there, very lucky, but also a lot of hard work got me to Stanford University, when I was part of a class of six in a very prestigious cancer biology program. So, you can imagine how long that took to get me there.

**Terry** (00:14:44):

My love for science began actually out of a tragedy. My father was murdered when I was five-years-old. And during the time that it took him to get to the hospital — so, he was shot, he went through surgery and what my mother tells me is that he really fought. But the surgeon, I guess something happened, some technical difficulty happened, and they were not able to save him.

**Terry** (00:15:05):

So, since then I sort of had this feeling of how can I save someone? What are the skills that I need to do to save people? To be a physician? At the beginning I wanted to be a physician. So, actually a tragedy was that got me my love for science.

**Terry** (00:15:20):

So, I started wanting to be a physician, and as I discovered research and got into research at my community college (so I encourage everyone here if you’re not doing research to talk to your faculty to see if you can get involved in doing research), I fell in love with the process and decided to do that instead and became a scientist. So, that’s that. Thank you.

**Jinae** (00:15:47):

Hi. So, I’m Jinae Roa. I guess my love of STEM was fostered, my mom was a lifelong nurse. So, she was an RN in Los Angeles. And my sister went on to become a physician and she received her medical degree from USC. And so, when I went into college I went in thinking I was also going to be pre-med and become a physician also, because most of my family worked in the medical field.

**Jinae** (00:16:13):

I always loved biology. I always did really well in biology classes in high school and in college. I did all the volunteering and things necessary as an undergrad to continue on to medical school. The medical profession is not for everyone because it takes a lot of care and love of people to be really good at it. And I am more of an introvert than anything else.

**Jinae** (00:16:33):

And what I really loved is the solitude of the ocean and marine life and it wasn't until my last year as an undergrad that I had a professor reach out to me and introduce me to the idea of using a biology degree for something that wasn't related to medicine, either nursing or becoming a doctor.

**Jinae** (00:16:51):

I didn't realize that you could be a marine biologist until I was 21, 22 and then I just continued on with marine biology and studying fish and marine life. I got my master’s at Cal State Long Beach, so I could get some research experience hands on. And I loved research. I loved working in the lab.

**Jinae** (00:17:09):

And then I did my PhD at one of the top oceanography institutions in the U.S., at Scripps Institution of Oceanography and I've just kind of followed that path since then.

**Maura** (00:17:24):

Thank you for sharing we're going to go ahead and go on to our next panel question So, what contribution to STEM are you most proud of and why? This is a little deep question, so we're so intrigued.

**Lauren** (00:17:36):

So, I'm going to have a light go back. And again, appreciations to all of you in your life journey, your family's inspiration, you get to where you all are. I hope everyone pats yourselves on the back and reflect.

**Terry** (00:17:45):

Right back to you.

**Lauren** (00:17:47):

So, I didn't mention and where I came from with STEM, all of my family on both sides of my family are educators from kinder all the way through professors or directors at universities. And so, I was the first in my family to go into STEM. They all would look at me and like “Algebra, good luck.”

**Lauren** (00:18:07):

So, a lot of that have to figure out on my own. And so, giving back to the community or anybody going into STEM, who is probably the one and only either in your family, in your circle, in your cohort. You could be one of five women, especially women of color in any engineering or science discipline really or in your programs in your schools.

**Lauren** (00:18:28):

So, finding a cohort or finding people to help you was something I learned way too late. And so, something I'm really proud of and was able to do last year, was support a six-month program called First Nations Launch that specializes in supporting indigenous groups of students to come together to basically build a rocket and launch it.

**Lauren** (00:18:49):

And they basically go through the program as if you're building a spacecraft and it's exactly what we do at the workplace, so much so that my workplace was like, “Oh is this a conflict of interest? Is this work? Or is it outreach and volunteering?” I’m like, “It's kind of both.” It's a practical way for me to give back to students and give them real life experience in how to succeed and you can do that. It is rocket science, as the saying goes, it's not rocket science.

**Lauren** (00:19:14):

But it's pretty straightforward and I think you could do it. And giving the tools back with mentoring, breaking it down into pieces to get to the finish line, which the program again, I’ll plug, First Nations Launch offers again mentoring exposure to team dynamic, fabrication and working with your hands to build it could be, we call it a payload which could be a GoPro that you strap to a rocket with motor and launch in the spring, which is incredibly satisfying and something that looks so good on your resume.

**Lauren** (00:19:39):

And I'm incredibly proud to be able to give that actual real life experience the students, so that they can basically be plug and play into the workplace and that type of environment. Because I know for me when I was in school, I didn't know with computer engineering, computer science what I would actually be doing, and it wasn't what I expected.

**Lauren** (00:19:57):

And so, being able to give real life experience what it's like to work in the workplace and actually do it as practice in a safe environment, is something that I've been incredibly proud to be a part of it and continue to do and get funding to continue it. So, thank you.

**Hye Min** (00:20:15):

Yeah, I also didn't have any parents or immediate family members who are in the STEM field, so a lot of the what to do and how to get into a career path in STEM was something I had to figure out on my own. And I'm really, really proud that I am still on this path and continue to go in a direction or a career path that I imagine for myself.

**Hye Min** (00:20:40):

And also, so after my undergrad I realized that because a lot of my peers were going into the industry as software engineers and at some point through college like undergrad, I realized that's not the path I don't want to be on. I want to pivot more towards something in between.

**Hye Min** (00:20:56):

So, I didn't want to completely give up. Technology is something that I'm really passionate about, but I really wanted to work in a field that's related to arts and making more creative and expressive projects.

**Hye Min** (00:21:09):

So, I didn't know about media arts or I didn't know anyone who was doing it or really how to go about becoming a video artist. So, what was really fortunate to be able to get us up to that UCLA for my master’s degree in media arts and through the program at UCLA, was able to meet a lot of fellow media artists, was able to find a advisor who was doing what I wanted to do and what I was really passionate about, which is to make art using the computational process.

**Hye Min** (00:21:43):

And I think through internship with him, I was introduced to a slightly narrower niche field which is at the intersection of machine learning and arts. I couldn't even imagine working at this field would be possible.

**Hye Min** (00:21:56):

But through working with him, I became really passionate about this field. I was able to get a practical experience in making the works and that actually led me to the studio job that I hold today. Really grateful and also proud and also fortunate that one thing led to another and I was ultimately able to kind of stumble upon this path, the career path that I'm really passionate about.

**Terry** (00:22:27):

Okay. So, what has been the contribution to STEM that I'm mostly proud of? I can talk a lot about a lot of things mainly in my thesis, but we will all be bored here. I feel like the most important contribution that I can make to this field is showing you that you can do it, is showing you that representation, is showing you that even against all the odds and being undocumented in the early 2000s was really hard, that I think that's my biggest contribution, being invited to this wonderful college and showing you that you too can do it.

**Terry** (00:23:04):

We all have our sacrifices that we make and our problems. We all have a lot of issues, and it doesn't help that society sometimes looks at … some of us are still dreamers, looks at us in a different category.

**Terry** (00:23:18):

And I'm just kind of basically here to tell you that you can hopefully see yourself in me and sharing my story with you and I think that is definitely my biggest contribution to the field. I continue to mentor students. My mission is to get as many of us into the Stanfords, the Harvards, the Berkeley, the Scripps, in all of our colleges. And have a more diverse population of students that go into the workforce and that are representing us.

**Terry** (00:23:49):

So, for me that is my biggest contribution and what I'm mostly proud of.

**Jinae** (00:24:00):

So, as the beneficiary of phenomenal mentorship in the truest sense of the word mentorship, the thing that I'm probably the most proud of is being able to mentor young scientists in the lab, teaching them, working with them and kind of helping them explore kind of really what you all would want to do with some of the skills that you can develop in the lab.

**Jinae** (00:24:22):

Whether it's going to industry or if it's going on to graduate degrees, professional degrees or pursuing a PhD. I love working with undergraduate students, master’s students, at all levels. I just find it fun to watch and learn and teach people who are interested. Because that's the main thing, if you have an interest in something and you find somebody that is able to teach you that thing, your life benefits a lot.

**Jinae** (00:24:47):

And I think I still have one of my first undergraduate students. She made me a hand-drawn card to say thank you. And on the front, it’s like, “From — in science we don't make mistakes, we make happy accidents.”

**Jinae** (00:25:00):

And she had struggled learning and I said “Just keep going. You just learn, you make mistakes, you break things, it happens to everybody. You’ll ruin an experiment, it happens to everybody. But you can just keep going.”

**Jinae** (00:25:10)

That’s kind of what I want to keep doing, and that’s the thing that I’m most proud of, is just helping everyone similar to what she said, like bringing everyone along, like you guys could do it. Like I could do it, I know everybody in this room can do it.

**Maura** (00:25:29):

Thank you for sharing those beautiful nuggets of advice, and giving yourself as examples to our students. We’re going to go ahead and move on to our next question, which is: “Why do you think that participation of women of color in science is important?”

**Lauren** (00:25:46):

So, I think that many of you beautiful people know and from a different background way of thinking where you grew up, culture, all those elemental nuggets infuse the way we think, how we take care of each other, and do things a certain way.

**Lauren** (00:26:01)

I know especially for women of color, we try to make space from that perspective for me, in my Apache way, the matriarchy is our structure, and so women lead the way, women are the culture keepers, women guide and foster and bring the knowledge down and up for generations to come. It is just the way of life.

**Lauren** (00:26:20)

And so, bringing that into science and STEM — I would say STEAM too including arts, if you all haven’t heard STEAM, think STEAM; helps us move together. I think it helps frame problems in a different perspective, and also, remembering that maybe the type of technology or science that you hope to contribute to and how it impacts others.

**Lauren** (00:26:42)

Whether that’s ethically or morally, what are the impacts of the contributions that we can all bring to the world, in biology and science and medicine, Spacecraft, all of it: what impacts do we have not only just for ourselves, but really, for our communities and the people we serve. And that is in the forefront of think of many of our folks of colors’ cultures, and how we think and how we just operate and how we do.

**Lauren** (00:27:05)

Which I think would just enhance all the products that we put out there.

**Hye Min** (00:27:14):

Absolutely, diversity and ideas, perspectives, I think it’s important all fields, especially important in STEAM. I think also personally, representation really matters, having role models that you can see and meet in real life is also really important, which I wish I had more of, more opportunity to do so especially during my undergrad years.

**Hye Min** (00:27:37)

I think my freshman year in an intro to computer science class of like 100 plus, 150 students, the number of women I could count on my fingers, let alone a woman of color students.

**Hye Min** (00:27:50)

So, I graduated in 2016, and during the four years, a lot of change has occurred and by the time, I graduated, about like 30% of the students were females students.

**Hye Min** (00:28:03)

I do feel that things are changing, and I think when I started, there were two women professors and one woman of color professor in the computer science department, and I think I remember seeing more by the time I graduated.

**Hye Min** (00:28:17)

So, I definitely feel there’s more women of color working in STEM, and more representation.

**Terry** (00:28:31):

So, I echo both of guys’ opinions. Again, representation’s very important. You see us here, hopefully, you’ll see yourselves here.

**Terry** (00:28:38)

I shared with you that in my cohort at Stanford, my PhD, we only had six of us, and I was the only Latina, to remind someone that I was born in Mexico and to remind someone that I had the background that I had being undocumented.

**Terry** (00:28:50)

So, I think it’s a very powerful thing, it’s a very powerful statement to see someone like that. And maybe you weren’t thinking about applying to Stanford, although I’m biased, it could be any school, and say, “Do I see myself there?” And now, hopefully, you’ll say “Yeah, because I know this girl, **Terry** that went there, and she come from a very difficult background, and if she can do it, maybe I can as well.”

**Terry** (00:29:13)

And it’s not just at university level, it’s also in the workforce. So, some of us, I don’t know if you guys — I work at Impossible Foods. How many of what Impossible Foods is? Raise your hand — okay, not a lot. We need to do a better job promoting our company. We’re going to go public.

**Terry** (00:29:29)

So, I don’t know if you heard of Impossible Burger at the Burger King. Our competitor is beyond me which is not really a competitor (they’re more like cat food).

**Terry** (00:29:38)

But we actually use biotechnology and use fermentation technology to come up with novel proteins. We came up with something called soy leghemoglobin, which is actually, I don’t know if you guys knew, but soy plants in their nodules have hemoglobin, and they use it to process nitrogen, nitrogen fixation.

**Terry** (00:29:56)

And we took that gene, we discovered, we found out that it’s pretty damn similar to the myoglobin in mammals, and when you put it into a soy patty of all things, it’s the nastiest thing (a soy patty), and you fry it and you can kind of mimic the organoleptic properties of meat — the aroma, the taste. If you haven't tasted it, I can promise to send you a box for everyone.

**Terry** (00:30:19)

But I think it’s $2 at Burger King right now. It’s amazing and we’re not only focusing on meat, we’re focusing on other impossible types of foods. Use your imagination, I can’t share that much because I’m under a severe NDA.

**Terry** (00:30:33)

But my point here is that in my company, you go down the roster and you don't see that many Latinos, not many African Americans, not many Asian Americans. And it's important when they see my name there, the say “Dr. **Terry** …” so please call me Terry.

**Terry** (00:30:49)

They see, oh wow, there's someone … I can work there. I can work there too. I can aspire to be whatever it is that you're aspiring to. And I think that representation is extremely important.

**Terry** (00:31:02)

We all are very unique, we all have unique experiences, and we bring that into our places of work, and also, into our research. Especially for me, is the topic of resilience and being able to keep going. Imagine, 10 years at this school. Imagine, 10 years in a college, in a community college taking classes. I mean, I was the queen of credits.

**Terry** (00:31:26)

By the time I transferred, they really didn’t know what to do with me because I have so many flipping credits. It helped but I took too many classes that made no sense sometimes.

**Terry** (00:31:39)

But anyway, I just want you to know that diversity, that uniqueness that you bring, it's really what makes you you, and be not only employable, but desirable for this biotech companies. And so, again, representation, and I think it’s very important to have this sort of uniqueness and diversity that we bring not only to the academia but also to the workforce.

**Jinae** (00:32:05):

So, I think it's important for a few different reasons, and not only does it increase awareness of whatever field or STEM or position — so, I’m a marine biologist, it increases awareness within a community that that’s an option that you can pursue.

**Jinae** (00:32:21)

Like I said, I literary didn't know that you could be a marine biologist when I was an undergrad which seems pretty — everyone knows that you can be a marine biologist. I don’t know why it just never clicked in my head that I could do something else with a science degree.

**Jinae** (00:32:34)

So, you increase awareness within your community and you help provide a path for them to follow in case they’re interested in something that maybe considered niche to the larger populations.

**Jinae** (00:32:44)

And then it also increases awareness within the field. So, I’m a marine biologist, they're not very many black marine biologists, and even fewer black women marine biologists. So, I’m always the only black woman marine biologist at all the conferences that I’m at, and most of the places that I go which is fine because it's about science.

**Jinae** (00:33:03)

But I can add a perspective that a lot of my colleagues don't necessarily have. If you're not aware of somebody else's path, it’s not like people are trying to be rude or are trying to intentionally overlook something, it just doesn't occur to everyone unless you can bring their attention to it.

**Jinae** (00:33:19)

So, just being present and be in the room and being around these other groups, you can just say “Oh, well, this is how clams might affect my city of Long Beach because we have a long brick water,” or it just adds a voice to the conversation.

**Maura** (00:33:40):

Thank you for those lovely responses. We learned so much. We're going to pass on to our last but not least panel question. It says, “What advice do you have for women of color to succeed in STEM, what advice would you provide?”

**Lauren** (00:33:55):

A couple of things. So, I think — and not just women of color. I think for everyone in this room is to be patient with yourself and to take care of yourself.

**Lauren** (00:34:06)

I know for me, when I was in school, again, being on my own, I failed a class and didn't know who to talk to, how to get help, and the professor was a jerk and didn't let me retake that class, my Calc 3 class and it tanked my GPA.

**Lauren** (00:34:21)

While at the same time, I was working two jobs because I couldn't afford to live at the university, and so with the millions of things on my plate, I didn't have the opportunity to take care of myself plus my bills, being an adult, doing the things on top of trying to be successful in STEM.

**Lauren** (00:34:37)

I graduated with not best GPA, and so I've had shame in that where I think again, giving back to all of you or something to think about, is again, be patient with yourself, take care of yourself, especially post-COVID.

**Lauren** (00:34:53)

I think a lot of us took a look at ourselves and we really had to recognize mental wellness and overall wellness, and how that impacts you and your thinking if you're able to be your whole self in whatever space that is — in school, in teams, working on team projects, in school or in the workplace.

**Lauren** (00:35:10)

And so, being able to take those breaks so that you can be again, your best self and be in the right headspace, so that you can be successful. And sometimes, it's okay to fail, we’ve talked about this. Failure is inevitable. In STEAM, that's part of how you are able to move forward and be successful by learning, and getting up, and redoing it or trying something different. That's just the way the field is.

**Lauren** (00:35:32)

And so, being patient with yourself again in that being able to grow is critical, but something again, to recognize and don't do what I did, in waiting to ask for help. All these folks, all of us are here to help you if you have questions, and you shouldn't have to navigate it alone. And so, the pathfinders for you are there.

**Lauren** (00:35:50)

So, in your school spaces, there could be ACCESS, there could be ACES, SWE — those organizations are here for you now to help you and coach you and mentor you, so you don't have to navigate it alone, to shortcut some of the frustration that you might not realize.

**Lauren** (00:36:04)

Like for me, it didn’t occur to me that I could negotiate my salary and getting hired, and that set me back up so bad. And I realized it too late, but now I know, so something to consider.

**Lauren** (00:36:14)

Ask those questions, join those communities that you can build trust with or you identify with, and help to grow and foster you in a safe place, so that when you’re in the wild, you feel more prepared and you have more of a safety net and more confidence that you don't have to make those mistakes because there are resources for you.

**Lauren** (00:36:32)

So, asking questions, being curious, be patient with yourself, take care of yourself.

**Terry** (00:36:43):

Okay, so, yes to that, yes confidence, yes to mental health, yes to being patient with yourself. I'm going to tell you the key to success, are you ready? You don't have to pay millions of dollars, you're going to hear it first, breaking news. This is my best advice to you. Okay, ready?

**Terry** (00:37:03)

Be prepared — and I'm going to tell you what I mean by that. I meet so many students, I'm still doing a lot of mentoring and I don’t just mean, “What do you mean by being prepared?” I mean, if you're going to go for example, for an interview, this is a very basic example.

**Terry** (00:37:21)

If you’re going to go for an interview, whether it’s for school or for a job, you better know everything you can about that company, about that school, about that researcher, about that subject, about your job, about what they're looking for, about what they're not looking for. I mean, everything in your power to be prepared.

**Terry** (00:37:41)

I forgot the quote but it’s something about preparation meeting opportunity, something like that. The opportunity will present to you and it is your job to be prepared.

**Terry** (00:37:52)

I've said this many times, and people don't believe me: be prepared. If you're going to go meet someone, a professor here and you're interested in their research, know everything about them. Don’t go stalking them on Instagram or Facebook, but try to know everything about them and their research, and their background.

**Terry** (00:38:09)

“Hey, I noticed you went to Scripps, how cool is that? Can I be part of your lab? I am totally into mollusks.” Sorry, just an example.

**Terry** (00:38:19)

It's just that, it's very simple really, but I don't know for some reason, it’s this hard concept. Be prepared not only when you’re in class, but when those opportunities present to you. Try to be as prepared as possible because we already have a lot against us.

**Terry** (00:38:38)

There’re already people who make judgments, they look at me, “Who is this lady wearing lipstick? And she doesn’t look like a scientist.” Yes, I am prepared, and I know what I’m doing. I know what I’m talking about, and I am demonstrating it, I’m showing it to you in the way that I can. So, this is not speaking, it’s this, here, what comes out of you.

**Terry** (00:39:03)

So, just all of this is great, I’m sure you’re going to see something amazing. Be prepared.

**Jinae** (00:39:15):

So, the advice that I would give is first, I would make sure you guard your trust and your trust-ability. And what I mean by that is make sure that people can rely on you to do what you say that you’re going to do.

**Jinae** (00:39:28)

So, if you’re going to be on time, be on time. If you say you’re going to show up twice a week, show up twice a week. Show them that you follow through with your word and you’re going to follow through on your actions too.

**Jinae** (00:39:39)

That shows them that they can trust on you, and they can give you more responsibilities, and then you can start building from there if you build off of trust. And then you want to guard your own trust because not everyone in the world is on your side, so to speak.

**Jinae** (00:39:51)

So, you want to make sure you put your trust in the right people. There’re lots and lots of good people out there, you just have to work on that trust muscle and sometimes you'll trust the wrong people, sometimes you'll trust the right people. But just learn to guard both your ability to be trusted and the trust that you give out to other people.

**Jinae** (00:40:10):

And with that in mind, one of the biggest things that I always tell all of my students is find a good mentor. If you can find a good mentor, they can help you succeed in whatever you want to do, and that mentor can come from lots of different places.

**Jinae** (00:40:22):

They can come from school, they can come from your job, they can come from your own family, there's mentors out there in the world for everything that you may want to do, you just have to find a good one and a good one is going to be somebody who's invested in your success, who listens to you and really wants to get to know kind of what you want to do, and it's not necessarily just using you as an extension of themselves.

**Jinae** (00:40:44):

You want to find somebody that's invested in your success. And once you find that person, allow them to guide you. You want to allow them to give you feedback and give you advice, and then you take that feedback and that advice, and you act on it. You're able to take in that feedback and then advise and grow because again, you first established trust in them, and you've given trust in yourself.

**Jinae** (00:41:06):

If you have that as a foundation for yourself, you can go wherever you really want to go.

**Maura** (00:41:17):

Thank you so much for all of that. We're now going to open it up to our Q&A session. So, if anybody has any questions.

**Student** (00:41:25):

Hello, first of all, thank you. And my question is when you're feeling down and like going through hardships, like what gets you out of bed and what keeps you going? Because I feel like at times, well, I'm pretty sure for everyone like there’s times where we have like issues whether it's like in our control or not, but what keeps you going?

**Lauren** (00:41:44):

So, for me, I didn't really dive into it. I work in quality assurance, and so we support all the missions at our facility: earth science, Mars, outer science asteroids, all the things.

**Lauren** (00:41:56):

So, every day is different and some of the hardest days are not working in the technology, is working with difficult people. And sometimes, it can be very difficult where folks — and we've talked about not everybody is in your field or has your back.

**Lauren** (00:42:12):

And so, for me, it's usually doing sanity check. If I've had a difficult day, talk to a peer, make sure that again, I get perspective and again, just try to remember the big picture why I do what I do. There are good days and bad days, and try not to dwell on the bad days because there could be awesome things that happen afterwards. So, that’s for me.

**Hye Min** (00:42:35):

I think for me, sometimes when you're working on a project which has a tight deadline and not everyone allows for ample time to work on the project, and there could be crunch. And those, I feel like for me, those are the most difficult times.

**Hye Min** (00:42:50):

I have trouble with yes, seeing the big picture, seeing and reminding myself in the end what this project will look like when it's shown to a larger audience of people.

**Hye Min** (00:43:02):

So, constantly reminding myself of that. And tell myself that if you keep working at it, this problem that you're trying to solve will eventually be solved in some way, and the projects will come out and people will see and I feel that's what gets me out of bed in the morning.

**Terry** (00:43:20):

So, I think your question is actually really hard and I'm going to make an attempt to answer it, but it goes beyond us science people. It's a human thing. We all feel this. Like I said, we have different stories but if I can share anything from my personal life.

**Terry** (00:43:37):

I shared with you guys that my father was murdered, so I actually watched this happen when I was five-years-old. And it's a horrible thing. It's something that changes you, and unfortunately, after that, a lot of other things have happened.

**Terry** (00:43:51):

But when I feel like I can't get out of it which is to this day, something that it happens to all of us — I allow myself to feel that pain or whatever it is that you're feeling, because this is a very normal thing. We try to sort of like abnormalize it but it's a very normal thing and we all feel it.

**Terry** (00:44:09):

I allow myself to feel that and to try to observe it from a scientist perspective actually, and to observe the feelings that I'm feeling: why am I feeling this way? Why am I depressed? Like really basic questions. Why am I not getting out of bed? To try to rationalize what's happening to me.

**Terry** (00:44:26):

So, allowing, trying to rationalize, and then gathering from my own strength into saying, “Terry, you've gone through so many horrible things. Whatever it is that it's coming, it's going to be fine” because I just go through the very basic peeling of the onion because I'm breathing. That is as basic as I go, because I'm still here, because I can still make a change, because I still have the power to do it.

**Terry** (00:44:52):

That's the only thing that I can answer that question because it's actually a very complex thing, but we don't have all day to go into philosophical things. But if that helps you at all of saying “Yes, I feel like shit today, I don't want to get up, it sucks, I hate my life,” it's okay, allow yourself, think about where you're going, focus on that and gather your own strength from whatever it is that you can, and don't do what you say you're going to do.

**Terry** (00:45:21):

It's a process. We hear “Oh, it's the journey, not a destination.” It's true, it's true, it's really true. I was my happiest when I was at my most miserable in my 10 years at a Community College, and I never appreciated that because I was in the midst of what I thought was the most miserable part of my life, and it turned out that it was one of the happiest times of my life.

**Jinae** (00:45:47):

So, I think I will just echo what these ladies have said. It changes every day. You could have a different reason every day to get out of bed and to do what you think needs to be done.

**Jinae** (00:45:58):

My mom was often the source. I wanted to make her pride. My kids are often a source. I’m like okay, somebody’s got to feed them. My desire, my love of traveling, I’m like “Okay, well, I’m going to be traveling here in the next six months, so I got to earn that extra travel time.

**Jinae** (00:46:16):

And when that fails, I’m a big proponent of making to-do lists. I love to-do lists, I make them every day, and I usually put the smallest things and the largest things on my to-do list every day, and I try to cross off at least one of those things on my to-do list, and that makes me feel better.

**Jinae** (00:46:33):

I'm a very visual person. So, it’ll be like check all my emails, re-format my outline for this class, send a response — very small things all the way up to submit a grant application which takes months and months of writing.

**Jinae** (00:46:48):

But at the end of the day, at the end of an hour, I’m like, “Well, I answered half of my emails. I’ll cross it off an then I’ll move on to the next thing.” But I’m a visual person, and so that helps me helps me feel better.

**Maura** (00:47:04):

Questions?

**Student** (00:47:06):

As a person who obviously isn’t a woman but still from the minority group, how do I inspire my friends and family who are a woman of minorities, who have either shied away from like getting into the STEM field or those who have tried it but after failing, they just completely lost interest.

**Lauren** (00:47:26):

Coming from a family as the only girl and multiple brothers, siblings who were not supportive, I think that's the immediate thing that you can do, is to support them and continue to say, “You can do it.” And that could be anything because there's lots of gender bias things that are out there.

**Lauren** (00:47:43):

Like I know for me, I interviewed at Disney Interactive, and they bashed on me for not playing enough video games, and doing I think, things that are typically more masculine or in the technical field in that way.

**Lauren** (00:47:57):

And so, I think just really general support or even doing things together like there's lots of code boot camps and lots of resources, especially for women, especially in computer science is very accessible to get just practice so they build up more confidence, and that you support them directly would make a huge difference, and it would have for me.

**Hye Min** (00:48:18):

I also agree that just general support and being there for them, encouraging them in whichever path they choose, especially if they really do want to go into STEM, yes like you mentioned. Like if it's computer science, there are resources that are really accessible, share activities with them.

**Hye Min** (00:48:38):

So, I was born in Korea and then I grew up in China, and I came to California when I was 18 for college. And in middle school, the homeroom teacher, I don't really understand why she said that, but she said that, “Oh, you're doing so well in math now, but the guys are going to be becoming much more better at math in a couple of years,” which never happened.

**Hye Min** (00:49:02):

And now, that I think back, she funnily enough might have been bribed by the parents of those guys in my class, but I might never know if that was true or not, but I have my reasons to suspect. And hopefully, most of you won't be hearing any comments like that even if it's guised as worry and care, being mindful of those comments, I guess.

**Terry** (00:49:34):

I'm going to be a little bit of the unpopular opinion here a little bit. So, definitely support, support, support, support, support — there's no end. I think it means a lot to me. My brother is actually here supporting me, and that means the world to me. So, support, support 100%, and always be there for them.

**Terry** (00:49:53):

But I'm going to tell you something a little bit different: make sure you pay attention and nurture what they're really trying to do and focus on what they're really good at because sometimes, we try to impose some people, “You need to get doctor at all cost,” and they just don't like it.

**Terry** (00:50:10):

It's okay to not like it. It's okay to not like STEM. It’s okay if they want to do something else and say, “I don't like this. I took that class … sometimes, the professors, but I don't like it.” And encourage them, say, “Tell me more.” Listen to what they're telling you because you also don't want to force something upon them just because it's the cool thing or just because it's STEM, and we need more representation.

**Terry** (00:50:34):

There's a lot of women in STEM now. Not enough, but we're starting to get to a point where we feel a little more comfortable being with men in the same … or whatever you identify with. So, listen to what they have to say, I think that's very important, support is very important.

**Terry** (00:50:48):

But making sure that you go through the line of not imposing and not forcing something on someone that they don't like or just because they feel pressured by their family to do it, that's very important, because you also don't want to go into this field if you don't like it.

**Terry** (00:51:02):

This is not for people who don't like it. It's a very hard thing to do, and if you don't like it, trust me, it's going to be even harder. But yes, support, support, support.

**Jinae** (00:51:18):

Yes, so, I think I guess I would echo those sentiments in terms of just listen to your family members and the women around you, and if they have an interest in STEM but they're discouraged, what part of STEM do you find interesting? Get to the details of it, like do you like math do you like problem-solving because problem-solving is different than straight math,

**Jinae** (00:51:38):

Maybe computer science or engineering — there are nuances within STEM, and you can only you can only know what's really going to spark a long-lasting interest, is to get to know the person. You say “Oh, I like biology, but okay, well, biology is you have cell biology, do you like memorizing what a cell is? Do you like physiology? How a cell interacts with the world?”

**Jinae** (00:51:58):

That's how I think of somebody that you know, have gotten discouraged, like okay, just talk them through their own process, but then yeah, it all is rooted in listening and support, and then you're like really overzealous that you really want to help them. Yeah, you can always compile a long list of things like careers that you can do with different degrees.

**Jinae** (00:52:17):

Okay, you’re getting a BS in biology, what exactly do people with biology degrees do? You can list all of the careers. And if they say, “Oh, that's interesting, I never knew you could do that with a biology degree.” And you can work with them kind of.

**Terry** (00:52:31):

And this is how much money you can make.

**Jinae** (00:52:37):

Okay, well, as an educator, money is not always the most important thing, but money is a strong motivator for a lot of people, and it's just the universe that we live in, money is nice to have. But I wouldn't trade what I do for more money because like I said, I like mentorship. So, it's all with people.

**Student** (00:53:04):

Hello, I actually don't go to science classes here, I do music. But I came here because I feel like I have a drive for science but what's keeping me from doing it is a fear that maybe I feel like I'm kind of in over my head thinking I can do it.

**Student** (00:53:25):

And there's something that I really want to create, and I feel like STEM is a step forward in that. But then again, that fear of like “You're in over your head thinking you could actually do that” still gets bigger in my head. And I'm in music right now because I'm just a little fearful of delving into that.

**Student** (00:53:47):

So, how would you deal like if you're in my shoes thinking you can't do it or this idea that you have that you want to do and see it through, taking those first steps or dealing with those hurdles that are going to come, you’re a failure or other people, maybe your family or friends thinking what are you doing — how do you deal with that first steps especially?

**Lauren** (00:54:13):

First of all, thank you for being here. We’re very excited to have you. And I think and again, I’ll include STEAM, as art is a huge element in the way that we, I'll say, implement science technology, engineering, math, all those things.

**Lauren** (00:54:27):

For me, I'm a visual learner and abstract, I don't know, like statistics and certain types of math and physics was so abstract to me that I struggled. And like I mentioned earlier, I failed a class because I just mixed up my dates and mixed up my times, and I got into my head a lot, and felt unloved and that way.

**Lauren** (00:54:46):

And I think for me, finding support in my immediate group of people who were also interested, and for me, it was both art. That was therapy for me. Well, I struggled with coding and math so that I can give myself a break but keep moving forward step by step.

**Lauren** (00:55:06):

Where I found the intersect like we were talking about with our engineering or science, for me, making visualizations gave me joy, that I don't have to sacrifice my passion while also pursuing something challenging, and making me better everyday. It gives me a little motivation to keep trying. And like we've mentioned, it okay to fail.

**Lauren** (00:55:25):

I know I’ve literally done that and still landed what I didn't know was my dream job, and every day doing something different. And sometimes, you literally don't have to do a job that's science and engineering and still contribute to an organization like I do.

**Lauren** (00:55:39):

We have artists and musicians and composers and folks that work at NASA that contribute to making those concepts and visualizations and simulations and video games, all those things possible for people so that there's still a connection in contributing to like I said, the big picture in science and all those applications.

**Lauren** (00:55:58):

So, I think give you something break, I think you've got it. There's again, a network of people here that can help. If you're struggling in a certain area, maybe tutoring, peer support and teamwork, groups.

**Lauren** (00:56:09):

I know for me, I had to find folks better at me in certain projects and what we needed to do so they can help me and then I could try and teach others. That helped to reinforce those concepts for me, and so baby steps.

**Hye Min** (00:56:27):

What I would do is if I'm sure at that time, this is the path that you're most passionate about, I would just start to act and look for opportunities, study more in that field. I think studying is spending time actually doing it will make it become clear to yourself which path that you want to continue on.

**Hye Min** (00:56:48):

And by doing it, I feel opened up a path and led me to people and events and jobs that are more aligned with the direction that I want to go, that I'm really passionate about. And those can be really unexpected things and you wouldn’t know that until you do it and try it.

**Hye Min** (00:57:07):

It can be the smallest thing. You can make something and post it online or share it with somebody, apply for a grant even if you think you won't be able to get it. And also, a lot of the times I feel something is a one-way door when it's actually a two-way door. If you try it and don't like it, you can always come back. And I feel no experience is wasted.

**Hye Min** (00:57:31):

Even if you think the two that you're passionate about are two completely different things, for me, I found that those two things are kind of the same thing and there is an intersection that I can build a career on.

**Terry** (00:57:48):

I love that you said no experience is wasted. I'm not exactly sure what your fear is, I'm not going to put you on the spot, but I can imagine, I don't know if you believe me if I tell you that I am a product of a lot of failures, a lot. I mean, you can't imagine how many times I've failed in this journey.

**Terry** (00:58:08):

This is something I think all of us here on this stage have at some point thought about, and it sounds very reminiscent of something called impostor syndrome, where you think you're not fit to do a particular profession or do a particular job, and I'm here to tell you that I don't know what more testimony we can bring to you, but we are you literally when we were in college.

**Terry** (00:58:33):

And looking back now, I mean again, I can't tell you how many times I've failed, and failed miserably, and felt horrendously, and had people not believe in me, including some of my family members that would say, “Terry, you’ve been in school for too long, you need to get a job and start making money.”

**Terry** (00:58:54):

And then I will turn around and I could only get jobs that paid under the table, and imagine this person cleaning after you, you’re doing janitorial works and be like, “No, I’m going to Stanford, man.” And they’ll be like, “What?” Can you imagine not really having anything like that?

**Terry** (00:59:14):

I see you and I see potential, and there's just so much that you can provide even just by trying, no experience is wasted. Even if you fail, so what? So what? You try something else, and you try something else, and you try something else.

**Terry** (00:59:31):

Now, you're not going to be here for 10 years, I hope, but that gives you a little bit of perspective. We are all here that are products of a lot of failures, so don't be afraid. If anything, I'm actually sometimes excited: “Oh, okay, this is really interesting. How do I come back from this?”

**Terry** (00:59:50):

Ultimately, STEM/STEAM teaches you how to think and how to make decisions, how to critically think. If anything, that is a big, huge take away. So, I don't know if it matters, I believe in you, thank you for asking that question, thank you for being vulnerable in asking this, and I see myself in you.

**Jinae** (01:00:17):

So, I think I'll just echo what these ladies have said, and I know that you can do it because we all can do it. You can do it and anyone else in this room can also do it, because it just takes deciding that it’s actually something that you want to do, and then just starting down the path.

**Jinae** (01:00:33):

And that path is going to be filled with lots of different failures, but it's also going to be filled with lots of successes. You take the failure, and you learn from it, and you take the success and you just like bathe in it all the time. Celebrate even the smallest success.

**Jinae** (01:00:48):

And if you are hesitant to move in from music to a STEM major, I say don't. If you think the classes are challenging, they maybe challenging, they may come natural. You won’t necessarily know until you start taking them. It always dependent on who’s teaching it, what’s being taught, how you can relate to your own life.

**Jinae** (01:01:09):

You might be surprised by some of the classes, and some of the professors that are teaching you. You might find a kindred spirit that you would have missed if you stayed on side lines and didn't pursue something that you knew that you wanted to, and everybody learns differently.

**Jinae** (01:01:25):

So, if you're in any of your classes, one method of studying and being successful in your grades is not necessarily going to work for everyone. So, take this time as a time of self-discovery and learn what works best for you. If it’s making flash cards, make all the flash cards.

**Jinae** (01:01:43):

And if it's not making flash cards, don't bother with flash cards. I could never make flash cards work for me. I have a bad memory, it takes a lot of writing, I was just fed up with flash cards. But there's lots of different mechanisms that you can use to kind of absorb the material and get through your classes.

**Jinae** (01:02:00):

I don't necessarily even think it's important to always get all As, but it's important to, like I said, get to know your professors and try and find your own passion, and just don’t be afraid to fail on the journey of life. That's how I feel, I'm just going to stick with it.

**Student** (01:02:24):

Hi, so I was majoring in mechanical engineering before, and now, I'm majoring kinesiology to be physical therapy because I realize that's my calling.

**Student** (01:02:32):

But there's one thing I've heard in both degrees, and I realize this could be common in any degree, is I've heard the phrase “make connections” because you never know and I've had examples before but I never understood what it means to make connections. Like how do you make connections with people that will hopefully, potentially, open doors for you later on?

**Student** (01:02:49):

So, if you have any examples or what that means to you, what's important, how to make connections, that'd be great to know.

**Lauren** (01:02:55):

For me, it's important to build connections up and down and across, and so that could be people that inspire you, in totally different fields to give you a different perspective on how to apply and write your background which great switch, I'd say. I talk to so many mechanical engineers. Everyone who's a mechanical engineer wants to come to our facility, I'm like, “Sorry, I can't talk to you, I don’t mechanism, sorry.”

**Lauren** (01:03:18):

And people who you aspire to be, whether they're a confident leader or any sort of skill that you wish you could better in yourself, it doesn't necessarily have to be in your field like you say. It could be elsewhere to broaden your horizons and maybe that could be a person that's somebody you can go to, or aspire to support a **Student** or someone coming along in your path.

**Lauren** (01:03:39):

So, building those connections, you'll never know who you might need to make a call someday, maybe someone you're mentoring wants a job at a facility that you’ve made a friend with, and so it just can go both ways, helping both yourself and others, that you can be mentoring down the line and of course, just giving back.

**Hye Min** (01:04:00):

I think one thing that really helped me was just putting myself out there, go to events, talk to people. And I think it helps to be genuine in interactions. I think that's what I found really helps.

**Hye Min** (01:04:11):

I sometimes, I’m very nervous when I'm talking to someone who's working on something exciting that I want to talk to them about, but I guess in the nervousness, I sometimes lose being genuine and talking about my works in a way that can personally connect with them at an event for example, so that's my advice.

**Terry** (01:04:36):

For starters, take our numbers now and our e-mail addresses and our LinkedIn profile links. So, in your environment right now, you're in this Community College, I hope you know all of your professors, you have good relationships with them hopefully, most of them; with your advisors with your fellow students, and with events like this.

**Terry** (01:04:59):

Hopefully, our information is going to be up there, and you'll be like, “Hey, I saw you at such and such event, I asked this question.” And being genuine is also very important. You also have no idea how many times people come up to me and say like, “Hey, so how can I get a job at Impossible Foods?” And I’ll be like, “Well, nice to meet you.”

**Terry** (01:05:20):

So, being genuine, like are you really interested in the technology? Are you ready to get rid of most of the animal farming by 2035? Yeah, I said 2035. Are you generally interested in what I am doing or what my company is doing, or what my research is saying, or whatever it is that you're aspiring to be, whether you want to be a magician or whether you want to be a cancer researcher.

**Terry** (01:05:44):

I'm also very shy. I always have to think about we're all human beings, we all go to number two. And so, I keep that in the back of my mind when I go approach someone.

**Terry** (01:05:58)

This story should serve you. when I was at Stanford, I was in line to get coffee behind a Nobel Prize winner. Andy Fire who's my hero, he discovered microRNAs, RNAi, and I was just, “God, do I want to talk to him, how do I get into this lab? What am I going to say?” Oh God, and of course, it was funny because I spilled something on him and that opened the conversation. I said, “Oh, my God, Dr. Fire, I'm so sorry. So … are there any openings in your lab?”

**Terry** (01:06:35):

And he said “Why?” And then I said, “Oh my God, because I love that paper that you published in 2009,” I was prepared. I was prepared.

**Terry** (01:06:50):

So, If I go up to someone that I admire like any of these ladies here, incredibly talented, “Hey, I know about what you're doing at the jet propulsion, I know your art is freaking awesome, and this is why. I know what you’re doing at your research at Scripps.” Flattery gets you a lot of places and being prepared. I said this many times.

**Terry** (01:07:09):

So, start in your own community. Start by asking, “I'm connected to Professor Xavier, we went to school together at San Francisco State, and I'm here because of him.” So, this is a connection that we fostered for many, many years, and I encourage you guys to do the same but with genuine. Not just, “How can I get a job?”

**Jinae** (01:07:36):

So, I'll say I'm probably one of the more shy, introverted people. I'm definitely on that end of the range of personalities. So, as an undergrad, I didn't talk to anybody that I didn't already know which is difficult because there's a ton of people around. So, I was never able to go and talk to my professors.

**Jinae** (01:07:56):

And literally, the only reason I had a connection for him was because I was sick in class and I was really committed to being in class, but I had like a horrible cough. This was like 25 years ago, so way pre-COVID.

**Jinae** (01:08:11):

Yeah, and so, the professor actually came up to me and said, “Hey, you why don't you come talk to me during office hours?” I was like “Oh, yeah, sure, okay.” And he’s like, “No, no, no, I'm serious, like come see me.” I was like, “Okay, you asked twice so that means you really meant it.”

**Jinae** (01:08:26):

So, I was like, “Okay, I have nobody invitation.” That's the only reason that I felt comfortable going and talking to a professor. So, if you don't feel like you're at the level of just like approaching somebody, don't worry, I was also there, and I went into his office hours, he gave me a job for the summer. It was like a whole thing. He set me on my path towards marine biology.

**Jinae** (01:08:46):

But what I would suggest to you if you are shy or introverted, the easiest way to start making connections is office hours. Go to your professor, say, “Oh, that test that we just took, can you explain question …” well, even if you totally understand question one, you just need something to talk about because you don't know what to talk about otherwise, that's easy.

**Jinae** (01:09:05):

Your professor’s like, “Oh, question one, alright yeah, let me break it down for you.” You don’t even have to ask any follow up questions. You should get in there, tell him your name, make sure you tell them your name, and I've heard this before in the past; you always want to make sure one of the more important things about an interaction is that the other person knows you are.

**Jinae** (01:09:22):

So, you want to say your name, maybe your full name is always helpful because it's hard for people to remember who you are. Tell them your name and tell them, “It’s totally fine if you don’t remember my name next time I see you, but my name is Jinae Roa. Could you explain question one?”

**Jinae** (01:09:35):

They go through their spiel, and you’re like, “Oh, okay, I totally get that now. I just wanted to introduce myself and I had this question, so thank you. And my name is Jinaeand maybe I'll see you next office hours.”

**Jinae** (01:09:46):

That's a very easy way to kind of get to know professors and make connections, they start knowing your name, start knowing your face.

**Jinae** (01:09:54):

And then the next step that worked for me, personally is find a mentor. Like I said earlier, I had a phenomenal mentor, and what the really good mentors do, is they help you make those connections. They introduce you to people, they include you in their own network.

**Jinae** (01:10:10):

They’ll say, “This is my colleague here, this is my colleague here.” And so, you'll grow your network that way, and that's the way that I did it and it's worked really well.

**Jinae** (01:10:18):

And the last thing I will say is don't burn any bridges ever. And the way I say that is don’t actively do it. Don't be upset and then say something because you're angry or send an e-mail because you're angry.

**Jinae** (01:10:35):

I always try to come at my life with a perspective of understanding. You want to try and understand what the other person is … maybe they made you angry, maybe they did something that made you angry, take a deep breath, take five deep breaths, take 100, try and let go of as much anger as you can, comment with understanding.

**Jinae** (01:10:55):

I always like to say best case/worst case — what's the best-case scenario for this person doing this? What's the worst-case scenario for this person doing this? It’s somewhere in between, hopefully, and then try and let it go because you don't know what other people are going through, and you don't want to burn any potential bridges in your network by reacting in anger.

**Jinae** (01:11:14):

That's how I at least think you can maintain a healthy network of people that you actually want to work with. So, introduce yourself at office hours and find a mentor, and be included in a larger network.

**[Music Playing]**

**Christina** (01:11:31):

Thank you for listening to the Magic Mountie Podcast, and don't forget to share your favorite episodes.