

PUBLICATION

An "Out of This World" Mentorship Program for Future Astronauts

Issue 1, 2024

Mentoring can come in many shapes and sizes, and in this issue, we had the honor of interviewing a woman who has created a mentoring and training program for young girls that is truly "out of this world."

We sat down with real-life astronaut Dr. Mindy Howard, founder and CEO of the Cosmic Girls Foundation, and Founder and CEO of Inner Space Training, to talk about how she has used her own story and dreams of space to empower and mentor young girls to become future astronauts.



Dr. Mindy Howard

A Long-Awaited Dream

Have you ever held onto a dream for 50 years?

Dr. Howard's dreams of becoming an astronaut began when she was just six years old, thanks to a love for the popular 70's TV show, "Six Million Dollar Man."

As a teenager, she began to research how she could make this dream come to life, "I was told that my options were to either join the Air Force and become an Air Force pilot or go the science route and become a scientist or engineer," she says. What would occur over the next 30+ years is a series of steps – some forwards and some backwards – that would lead her to her dream finally becoming a reality today.

As was suggested, she applied to the Air Force with the intention of becoming a pilot, only to get rejected by the program for being an inch too short. Next up, the science route where Dr. Howard went on to receive a bachelor's and master's degree in engineering in the U.S., all to be told that if she wanted to be a competitive astronaut candidate, she needed to get her Ph.D.

In an attempt not to further delay her dream, she chose to pack up and move to the Netherlands for her Ph.D., where she would be able to complete her Ph.D. studies much quicker than in the U.S. Moving to the Netherlands also allowed her an opportunity to write her thesis in English.

After completing her Ph.D., she finally began to see some traction after she applied and was approved to NASA's "Highly Qualified Astronaut Candidate List," now bringing the competition pool down to just 200 people. However, to her devastation, she was not selected.

So, back to the drawing board, "I thought, what else could I do to increase my odds here?" This is where she learned that if she became Dutch, she could apply to be an astronaut with the European Space Agency (ESA). However, by the time the ESA started accepting applications for their astronaut program, she was rejected due to her age – she was considered "too old" at only 38.

While still holding on to her dream, Dr. Howard decided it might be time to explore a corporate role for the time being. This is when she began working as an engineer for Royal Dutch (currently known as Shell Oil in the U.S.) moving on to even serve three years as a D&I consultant for the company, charged with leading D&I initiatives and training managers on unconscious bias and other D&I related issues. Compared to the rest of the world, Royal Dutch was far more progressive in this area at the time, so while Dr. Howard found the role to be very challenging mentally, she loved the work she was doing. After her D&I role, she moved into a European region sustainability coordinator role, and then into what would be her last job at Royal Dutch, as the global manager of sustainability in one of the major businesses.

Her last role at the company focused on sustainability. It was in this last role that she was presented with an opportunity to voluntarily leave the company (*with generous compensation*) as part of a reorganization deal. As part of the deal, Royal Dutch offered to help her find her next role. And when the company's career counselor asked her what she wanted to do next, without hesitation, "I looked him square in the eye and said, what I want to do now is become an astronaut."

It took some convincing on her part, but ultimately, she managed to convince the career counselor to send her (on the company's dime) to the U.S., to an official commercial astronaut training center in Philadelphia.

It was this training experience that would become the genesis of an idea of how she could help people conquer their fear. As she witnessed person after person take their turn on the Centrifuge (which tests gravitational pressure on the human body), she observed the different physical and mental reactions of each person, "Some were frightened, anxious, nervous, and some were even visibly sick."

And that's when a thought came to her, "Is there no training to help people stay calm and focused?"

Fast-forward to today, and Dr. Howard's company, Inner Space Training, conducts mental preparedness programs that help future astronauts manage their mental state so they can stay calm and focused on their mission.

As her company and notoriety in the field grew, she was offered an opportunity to be the official trainer and coach in a group of astronauts competing on an actual suborbital space flight. The winners would get a seat on an upcoming space flight, making the reality of going into space one step closer for her.

On Creating the Cosmic Girls Foundation

As word slowly began to get out that Dr. Howard could potentially be the Netherlands' first woman in space, because of this opportunity, she was approached by the Royal Dutch Mint who were interested in commissioning a coin in her honor.

However, seeing the bigger picture and an opportunity to bring awareness to the fact that most countries have yet to send a woman to space (only 12 countries to date have), she instead asked them to name the coin "Women to Space." *The coin was recently released in October 2023.*

As she began to partner with the Royal Mint on the creation of the coin, she began to think, "How can we get more women into space?" She ultimately formed a charity that would help do just that.

And that is how the Cosmic Girls Foundation was born – with a mission of getting more women ultimately into the astronaut talent pipeline. Since its launch in October 2023, the Foundation has quickly gotten to work in reaching out to young girls across the world who have a dream just like Dr. Howard's.

The Foundation helps connect applicants to international non-profit organizations that focus on upskilling girls in "STEM," which stands for "skilled science, technology, engineering, and mathematics" and other local organizations that teach them valuable life skills applicable not only to being a future astronaut, but any career path.

"The Foundation also focuses on upskilling girls in key life skills such as grit, resiliency, courage, teamwork, and leadership [in addition to] space education. These skills will help get and keep more girls in the game for the long haul," according to Dr. Howard.

The Foundation is also offering a real chance to go to space by hosting a competition, selecting six girls from six different continents who will become the finalists. These girls will get a chance to represent their continent and receive world-class astronaut training, and one overall winner will even get a chance to win an actual space flight!

On the Importance of Mentoring Young Girls in Aerospace:

As Dr. Howard knows, being a woman in a male-dominated field is not always easy, "Besides mastering difficult material, you typically could encounter condescending behavior, harassment, and people constantly questioning your ability because you are a woman. How you respond to those challenges can make or break your career, or even break you."

Helping young girls build these life skills early on is very important because it teaches them at an early age how to respond to these situations and helps them understand and respond to some of the microinequities between women and men due to traditional gender roles.

Teaching these girls to use their voice and take back or own their power is something Dr. Howard is personally passionate about. The Foundation connects these girls to many local organizations aimed at building up their confidence. For example, one of the Foundation's partner programs includes teaching girls how to skateboard – allowing them to work through something they have never done before, learning a new physical skill to boost their confidence and build their mental power.

"It's also important to learn about your natural skills and lean into those," says Dr. Howard, "I have been told that I am very direct, and I've had to learn to be more sensitive when giving feedback. Being a mentor has also been good for my own learning."

"That is what I love about being a mentor; I'm able to give these girls a safe space to test out difficult conversations with me first, and then I can give them feedback and encouragement."

Dr. Howard knows a thing or two about uncomfortable and difficult conversations, when she was working for Royal Dutch in her DEI role, she was required to receive her own personal coaching where she learned to use her voice strategically but in a way that still made her feel like it was HER voice.

"I had so many negative people along the way who laughed at me about wanting to become an astronaut, and talked down to me, so trying to stay the path was difficult. It wasn't until I started to get some promotion in the Dutch press about going into space that people finally started to say they believed in me."

That is why it's important to her to encourage and praise these girls along the way because she knows firsthand how difficult it can be, to be mentally prepared for the long game – even if it's 50 years.

On Teaching Young Girls to Train Their Fear Away:

One of her focus areas of Inner Space Training is teaching astronauts to train their fear away.

"It's traditionally accepted for women to show fear while men are not. Because of this, men may often get more opportunities in life to overcome fear," Dr. Howard says.

She teaches girls to lean into the fear, "It's good to acknowledge the fear but do it anyway. By stretching yourself to do scary things, you'll be so proud of yourself afterward, and feel like you could take on even larger challenges. It's like building a muscle that will just keep getting stronger."

From her training experience, she's learned that girls (and women) need a level of trust established before being convinced to take on a personally challenging situation. "Trust is so important, I am not going to ask you to do something that I don't think you can do," a motto she attributes to all good mentors.

On the Future of the Cosmic Girls Foundation:

As the foundation "looks to the sky," Dr. Howard hopes to continue its mission to encourage other countries to send more women to space and increase the representation from marginalized groups. She believes the Foundation can one day be at the helm of space agencies and commercial space companies in helping build an astronaut talent pipeline. She hopes these girls will be the women in aerospace one day, continuing to pave the way for the next generation.

She also wants the Foundation to help lead by example by going into space responsibly – with a background in sustainability, she wants to encourage those going into space to not view the opportunity as "a joy ride," but to consider how their trip can benefit the earth and how they can make their trip meaningful to the rest of us on earth, including not just offsetting your emissions of the spaceflight, but creating positive environmental impact by supporting environmental projects that make things environmentally and socially better than before you went to space.

"It's a privilege to go to space, if you get the chance, use it as an opportunity to make the world better."

To Learn More About the Cosmic Girls Foundation:

- ["Cosmic Girls Foundation Launches Global Competition to Empower Girls for Space"](#)
- [Cosmic Girls Foundation Video](#)

If you are interested in contributing to the Cosmic Girls Foundation, you can learn more by visiting their [crowdfunding website here](#) or via the Foundation's [donation page here](#).

Social media handles:

- Website: www.cosmicgirls.org

- Instagram: [cosmicgirls_foundation](#)
- Facebook: [Cosmic Girls Foundation](#)
- LinkedIn: [Cosmic Girls Foundation](#)
- TikTok: [Cosmic Girls_Foundation](#)
- YouTube: [@CosmicGirlsFoundation](#)