CONTINENTAL INSPIRATION Space researcher fêted for helping women into science **p.148**

MENTORING Find tips and resources at **go.nature.com/mentor**

SOCIAL Follow us at **twitter.com/naturejobs**

NOK A TUDOMÁNYBAN EGYESÜLET

A robotics workshop for ambassadors of the Association of Hungarian Women in Science.

RECOGNITION

Barrier breakers

Two prizes celebrate efforts to improve gender diversity.

BY AMBER DANCE

Last April, Eszti Varga was one of 2,400 young women to converge on 120 universities and companies across Hungary as part of Girls' Day, a campaign aimed at drawing high-school students into science and technology careers.

At the event, Varga, an 18-year-old at Szerb Antal High School in Budapest, experimented with virtual- and augmented-reality headsets and heard a speech by a Hungarian woman who had earned her first patent as a teenager. Although she was already sure she wanted to pursue a career in engineering, Varga felt empowered seeing other girls realize that they could have jobs in technology fields.

Sponsored by the Association of Hungarian Women in Science (NaTE), the campaign has attracted some 10,000 participants across the seven years that it has run.

For these and other efforts, NaTE has won the inaugural Nature Research Innovating Science Award, presented on 30 October in London. A companion Prize, the Inspiring Science Award, was presented to Mirjana Pović, an astrophysicist at the Ethiopian Space Science and Technology Institute in Addis Ababa (see page 148). NaTE and Pović were selected from almost 300 applications in a contest meant to showcase the work of researchers and organizations that inspire women and girls in STEM. The award programme is a joint initiative between Nature Research and The Estée Lauder Companies, headquartered in New York City.

"I was simply thrilled to see so many smart, successful scientists leading the charge in research, and so many strong advocates supporting girls and women in STEM across the globe," says Nadine Pernodet, a vice-president at The Estée Lauder Companies.

Today, fewer than 30% of the world's researchers are women, according to the United Nations Educational, Scientific and Cultural Organisation. Women face barriers to participating in science across the world. For example, in August, a Japanese university admitted to altering the test scores of medical-school applicants to reduce the number of women accepted on to the course. In September, a physicist at CERN, Europe's particle-physics lab near Geneva, gave a talk asserting that "physics was built by men" and that men, not women, face discrimination (the scientist has since been suspended by the lab). And a study published in *PLoS Biology* suggests that women will not reach parity on author lists until 2100 or later (L. Holman et *al. PLoS Biol.* **16**, e2004956; 2018) .

NaTE's Girls' Day programme, among other initiatives, is helping to knock down those barriers. For example, GE Digital in Budapest hosted a coding workshop in which students got to program robots, says Laura Paál, a senior director at the company. The girls walked away excited about robots, software and the company. "They also see that we love our jobs," says Paál. "This area is not only for men."

BY WOMEN FOR WOMEN

NaTE was founded in 2008 by ten women to support female scientists and graduate students, says Fanni Szigeti, the organization's general manager. Since then, the association has expanded to include members of any gender in both the natural and social sciences, and to encourage younger students. But there's still plenty to do before women reach parity, she says.

Szigeti points to gender stereotypes, lack of female role models, pay-equity gaps and lower promotion rates as reasons that are keeping girls and women from going into or progressing in STEM. Women also often launch their careers and start families simultaneously. In Hungary, Szigeti says, there are few systems in place to promote STEM for women.

Varga, for example, has faced discouragement about her career plans. "I have been told very interesting things, like how as a female, my brain could never be good enough for maths or physics," she says. She's undeterred, however, and NaTE programmes help her to connect with other young women who share her interests.

There's evidence that NaTE is making inroads. When the association began its ▶

Girls' Day programme, just 7% of those enrolling in electrical engineering and informatics at the prestigious Budapest University of Technology and Engineering were women. Today, the number has doubled to 14%. "It can partly be attributed to the fact that the Technology University was among the first to join the Girls' Day series of events," says Szigeti.

NaTE has also expanded its programme beyond that one day. It organizes year-round Saturday meetings in which girls learn skills such as giving scientific presentations. It arranges for girls to shadow female researchers or tech developers at work. And it hosts workshops so that secondary-school teachers can learn about the science and technology job market and pass that information on to their students. NaTE aims to get 10% of Hungary's high-school girls involved in its programmes by 2020.

REACH OUT

NaTE also supports female researchers through its Women in Science Excellence Award. Launched in 2013 in conjunction with the Hungarian Academy of Sciences, the award honours young scientists who excel in their fields.

Now, NaTE is expanding its reach internationally. In 2015, it helped organizations in Slovakia and the Czech Republic to launch their own Girls' Day programmes. It's also representing Hungary in the European Union's Evaluation Framework for Promoting Gender Equality in Research & Innovation project. That consortium will provide indicators to measure gender inequality and compare those with the quality of outputs in research, technology, development and innovation.

"I was simply thrilled to see so many strong advocates supporting girls and women in STEM."

"NaTE's combination of programmes provides a supportive ecosystem for girls in STEM that is making a real difference today, and is poised to increase its impact in the future," says Mariette DiChristina, chief judge for the Innovating Science award and executive vice-president at Nature Research.

DiChristina, who is also editor-in-chief at *Scientific American*, says she hopes that by highlighting groups such as NaTE, the awards will inspire others to commit time to gender-diversity efforts.

Winners of both the Innovating Science and Inspiring Science awards will receive up to US$10,000 for projects related to women in science. The Estée Lauder Companies and Nature Research have committed to running these awards for at least two more years. ■

TURNING POINT

Continental inspiration

Astrophysicist Mirjana Pović has taught science to orphans in Rwanda, helped to organize a supportive community for women with HIV in Tanzania and contributed to space research in Africa. She has excelled in her own research at the Ethiopian Space Science and Technology Institute in Addis Ababa and the Institute of Astrophysics of Andalusia in Granada, Spain. For these endeavours, she won Nature Research's inaugural Inspiring Science Award, one of two prizes developed in partnership with The Estée Lauder Companies (see page 147). She impressed judges with the depth and breadth of her efforts to encourage women and girls in science, says Magdalena Skipper, chief editorial adviser of Nature Research, editor-in-chief of Nature *in London and chief judge of the awards.*

What is your background?
My family in Serbia was poor, and my country was at war as I was growing up. I would never have been able to pursue science without my family's encouragement, a free university education and a scholarship for my PhD. Children from poor and developing countries should know that their lives can change, but it's not enough that they work hard. It's fundamental to have support from society. Access to education is the first step.

What sort of research do you do?
I'm trying to understand how galaxies form, and how they evolve over cosmic time. In particular, there are galaxies with what we call active galactic nuclei in their centres. These are some of the most luminous sources of light in the Universe.

What draws you to Africa?
I am amazed by Africa's beauty and diversity, but I am disturbed by the inequalities between much of it and the developed world. During my PhD, I went for the first time to volunteer in Tanzania and Kenya. I was quite affected by the experience. After working in South Africa and Spain, I was invited to help establish the Space Science and Technology Institute here in Ethiopia.

What are the barriers to science for African women?
They face the same challenges as women in science worldwide, but multiplied. They lack female role models. They often don't get support from their families to pursue science. These issues are compounded by poverty. Fewer girls than boys finish primary or secondary school or have the opportunity to go to university, and many family responsibilities still fall on women.

How do you aim to lower those barriers?
In collaboration with the Society of Ethiopian Women in Science and Technology, I'm starting regular science talks for secondary-school girls to motivate them to do science. Women will speak about their fields, how to become a scientist, challenges they have faced and the life of a scientist. Of course, these talks cannot change poverty. But even if some girls cannot benefit fully from these talks today, they can get information that could help them and their children in the future.

What else are you doing?
Another project is to build a network of African women in astronomy and space science. In many African countries, there has been a lot of effort recently to develop astronomy and space science. It's important that young women have a safe space in which to share experiences, knowledge and career opportunities. I would also like to track how many women who are completing master's degrees go on to a PhD, and how many who finish a PhD remain in science.

Do you have advice for female researchers?
Interact as much as possible with other women in science, especially the senior ones, who can provide support and knowledge. In your path as a scientist, there will be many challenges and problems. Taking these contemplatively, and seeing them as a source of knowledge and experience, will help you to find the best solution. ■

INTERVIEW BY AMBER DANCE

This interview has been edited for clarity and length.