

NEWS RELEASE

Women in Science Symposium hears how successful women scientists can help close science's gender gap



Left to right: Prof Inger Fabris-Rotelli, Symposium guest asking a question, Thotloetso Matlala, Dia Singh and Khanyisile Mahlangu

PRETORIA - When successful women scientists stand up as role models, young girls take notice. Seeing other women succeed in science, technology, engineering and mathematics (STEM) can be a major motivator.

This is according to the three youngest speakers – a school head girl, a first-year student and a top student leader – at the University of Pretoria's (UP) 6th Women in Science Symposium held at UP's Future Africa Campus.

Their message was that while some strides have been taken towards addressing gender disparities in scientific fields, these are not enough. However, women themselves can speed up the progress towards parity.

"By having a woman in a STEM profession speak to a young girl, it can inspire her," said Thotloetso Matlala, head girl of the TuksSport High School based at UP's High-Performance Centre. Speaking during the session themed 'The future we want – The future we need!', Matlala urged female academics to reach out to young

girls by visiting schools and using social media to share the value of science. Significantly, her own school's principal was in the audience, giving practical meaning to "building each other up".

Dia Singh, a first-year UP actuarial science student who passed matric in 2023 with 10 distinctions and a 95% average, underlined the need for established STEM academics to interact with young girls. "The presence of visible role models is essential," she said, calling on female scientists, engineers and mathematicians to reach out to young girls through programmes offering mentorship, scholarship and hands-on STEM experiences.

Singh was speaking from personal experience, noting that while UP's mathematics professors are mostly male, her statistics professor is a woman – Professor Inger Fabris-Rotelli, the session moderator.

"She is incredible; very inspiring," Singh said.

"As women, we need to understand that when we actively, collectively work together to help each other rise, so much more can be done," said Khanyisile Mahlangu, chairperson of the UP Temporary Student Committee.

Unfortunately, this does not always happen, she said, commenting that "pull-her-down syndrome", often ironically referred to as 'PHD', is real. "What hurts the most is when women do it to each other," she said.

Pay gaps and gender-sensitive policies

Mahlangu and her fellow youth speakers discussed systemic values and practices that hinder equal participation in STEM for all genders. "Gender pay gaps are often spoken of, but no one ever does anything about it," Mahlangu said, adding that inclusive hiring and gender-sensitive policies also needed attention.

This should include professional skills programmes, progressive parental leave policies and on-site childcare facilities so that mothers, who tend to carry the most family responsibilities for childcare, are not disadvantaged in the workplace.

Two real-life examples supporting this were given during the question-and-answer session. One concerned a member of the audience who is married, pregnant and a PhD candidate. She related that she had been discouraged from attempting a PhD while pregnant, to the shock of a UP professor in the audience.

In the other example, the session moderator, Prof Fabris-Rotelli, said many universities' travel policies do not accommodate breastfeeding mothers whose academic duties include conference attendance. These policies prohibit funding for family, which means no funding is available for a breastfeeding mother to take her baby to a conference.

"It's all our institutions, and I think these are the conversations we have to have," the professor said.

Academics of all ages embracing social media

Another prominent theme during the 'Future we want' session was the importance of using social media in the scientific community, across genders and generations.

"Youth use the social media to capture the attention of their target audience and keep them engaged long enough to influence their opinions," said Matlala. But she added that it is not just the youth who should be using social media.

"Social media use should be accepted and spread across generations. It all comes down to accepting that this is the future in technology... the phone is the future."

Matlala said the youth were willing to work with academics to harness social media to advance STEM fields. "Young people with a high influential status can serve as an opportunity for academics to share their knowledge. This collaboration between the youth and academics can help share the value of science."

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ABOUT THE UNIVERSITY OF PRETORIA

The University of Pretoria (UP) is one of the largest contact and residential universities in South Africa, with its administration offices located on its Hatfield Campus in Pretoria. This 115-year-old institution is also one of the largest producers of research in South Africa.

Spread over seven campuses, it has nine faculties and a business school, the Gordon Institute of Business Science (GIBS). It is the only university in the country with a Faculty of Veterinary Science, which is ranked the best in Africa. UP has 120 academic departments and 92 centres and institutes, accommodating more than 56 000 students and offering about 1 100 study programmes. It has the most academic staff with PhDs (70%), NRF-rated researchers (613).

The 2024 Times Higher Education subject rankings placed UP first in South Africa in the fields of Law, Veterinary Science, Accounting and Finance; Agriculture and Forestry and Electrical and Electronic Engineering. Quacquarelli Symonds (QS) ranked the University among the top five in Africa, as part of their 2024 World University Rankings (WUR). UP was the only South African university featured in the 2023 World University Rankings for Innovation (WURI), falling within in the 101-200 range of innovative universities.

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