



Zeinab HEFNY

Home Country: Egypt

Degree: PhD in Molecular Microbiology

Expertise: Scientific Research and Teaching

Research Focus: Molecular Mechanisms of Yeast Stress Tolerance

Host University: KU Leuven, Belgium

Fellowship Awarded: 2016

Zeinab Hefny was born and grew up in a small village in the south of Egypt. She has had an interest in biological sciences since primary school, and enjoyed reading scientific magazines throughout her childhood. Zeinab was also inspired by a popular scientific television program presented by the Egyptian doctor, philosopher, and author Mostafa Mahmoud that covered developments in the fields of genetics and plant breeding. Zeinab also has a passion for education, and is keen to promote online education.

With encouragement from her family, Zeinab joined the Faculty of Agriculture of South Valley University (SVU), Egypt, where in 2006 she obtained a BSc in Agricultural Sciences and an Academic Excellence Award from the Egyptian Ministry of Higher Education and Scientific Research. Zeinab then moved to Assuit University to study towards an MSc in Microbial Genetics, which she gained in 2012. She started her PhD research in Belgium with support from the Egyptian government and a scholarship from the Department of Molecular Cell Biology and Molecular Microbiology at KU Leuven.

Zeinab is investigating the molecular mechanisms of yeast stress tolerance, which is important both for bioethanol production and for introducing new antifungal medical treatments. The yeast *Saccharomyces cerevisiae* is widely used to produce bioethanol from agricultural waste in Egypt and around the world, and new genetic engineering strategies can make this process more cost-effective with significant economic and environmental benefits. Zeinab is also focusing on new antifungal targets for treating invasive infection by the pathogenic yeast *Candida albicans* in hospital patients with compromised immune systems.

After completion of her PhD studies, Zeinab plans to return to the Faculty of Agriculture at SVU, where she has been an instructor and teaching assistance since 2007. She hopes to become a professor and decision-maker at the University and also intends to continue volunteering at the non-profit organization "Egypt Scholars Inc".