



«It takes courage to be successful in science»

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Topics: Organisation & Staff

Geochemist Denise Mitrano received this year's SNSF Eccellenza Professorial Fellowship. This fellowship enables her to establish her own research group at the ETH Zurich as an assistant professor. She would like to use this opportunity to get one step closer to her career goal: to become a full professor.

Denise Mitrano researches the tiniest particles that measure only a few millionths to thousandths of a millimetre. She joined Eawag over three years ago, where she set up her own team within the "Particle Laboratory" research group in the Process Engineering Department. During this time, she developed a method to track the pathways of nanoplastics in the environment, which was previously not possible. Prior to her time at Eawag, Mitrano completed a post-doctoral fellowship at Empa and received her PhD in geochemistry from the «Colorado School of Mines» in the USA.

Born in the USA, she received an «SNSF Eccellenza Professorial Fellowship» at the beginning of the year. This fellowship is aimed at outstanding researchers of all disciplines with a doctorate or equivalent qualification, who are pursuing an academic career and have not yet been awarded an assistant professorship. From 1 July 2020, 34-year-old Denise Mitrano will set up her own research group called «Environmental Chemistry of Anthropogenic Materials» as an assistant professor in the Department of Environmental System Sciences at ETH Zurich. The focus will be on the analysis of micro-and nanoplastics and their effects on the environment.

Denise, 229 researchers applied for the grants and you are one of the 34 to be chosen. Any idea why you were selected?

My field of research has received enormous attention in recent years, including from the general public. I remember when I started my post-doctoral research at Empa, hardly anyone was concerned with

micro and nanoplastics in the environment. Now it has become a popular topic of discussion. Furthermore, my scholarship application was good and so too were my list of publications and professional articles. The fact that I have lived in Switzerland for five years and know the research environment here very well were also plus points.

Why do you think grants like Eccellenza are needed?

They offer young scientists like myself a wonderful opportunity to gain experience on the journey to a full professorship: Be it to learn, to collect research funding, to teach, to supervise doctoral theses or to expand one's own network. However, the uncertainty of a fixed-term employment contract still exists. After five years, even an Eccellenza fellowship does not offer the opportunity to be employed on a permanent basis, as is usually the case with a «tenure track» programme.

Does that mean that after the first five years the job search will start again?

Exactly, Eccellenza is a «start-up grant». This means that in five years I will certainly put myself under a lot of pressure to achieve the best possible results. But that's fine with me, I'm good under pressure.

So your ultimate goal is a permanent position as a professor?

Absolutely! I have had this dream ever since I started my doctorate.

What is your advice to young researchers who also want to pursue an academic career?

Be brave and «think out of the box»! As a young scientist, you have to focus on a new field and innovative methods that are not yet established. This may entail risks, but in the best case scenario you become a pioneer in your own field.

<https://www.eawag.ch/en/info/portal/news/news-archive/archive-detail/it-takes-courage-to-be-successful-in-science>