

December 2012

Dear Mr. and Mrs. MacDonald,

My name is Julie Zutter and I am thoroughly grateful for the Daniel W. MacDonald Memorial Fellowship. I am a first year master student in mechanical engineering and a teaching assistant to Professor Juan Santiago.

My curriculum is, I think, uncommon here at Stanford. I am now 32, and was a lecturer in physics in France for eight years before I got here. I was a very happy and fulfilled teacher, enjoying the pleasure of communicating my knowledge and experience to motivated students preparing for competitive exams to enter the French "Ivy League" of colleges. But yet, a long-born idea was growing in my mind, and I decided last year to start a new career in research. I then chose to apply to Stanford, as I think there is no better place in the world to be part of a research team.

I am very pleased, thanks to your support, to be able to bring other students a piece of my experience and skills in teaching, while participating in research in Professor Santiago's lab. I am currently working on microfluidics, involving electrokinetic flows in microdevices. The main application of this field of research is in microbiology, and our aim is to design labs on chips that would provide fast, accurate and easily transportable laboratories for blood and plasma analysis. The outcomes "in the field" would be very welcome, for example, for soldiers, or doctors in developing countries, or in any kind of situation where access to a medical facility is difficult. I hope I will continue in this field for my master's degree work, and qualify to continue here for my PhD.

Even though I am working hard, I also try to take some time to enjoy California. As you can see from the picture, I am a rock climber. I love being in the wilderness, and I spend some of my weekends in Yosemite National Park, enjoying one of the most incredible climbing playgrounds in the world. A lot of students love to go there, and I had the chance to meet great people of the Stanford community this way.

Please accept my most sincere gratitude for the opportunity to learn, to broaden my mind, to experience a different culture and education, and to fulfill my desire of working as a researcher here at Stanford.

Very respectfully,

*Julie Zutter*  
Julie Zutter

