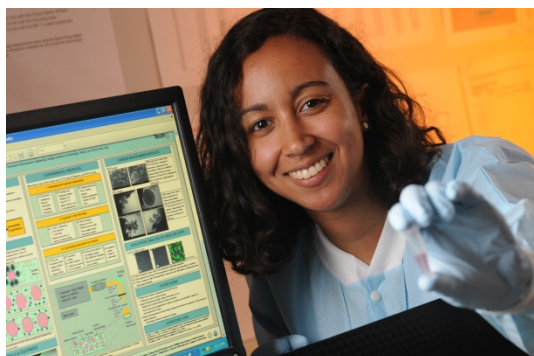




Alfred P. Sloan
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Stefany Y. Holguín

Stefany Holguín is a third-year PhD student in Materials Science and Engineering at Georgia Tech. She is actively involved in outreach for underrepresented groups. In her spare time, she enjoys yoga, improv, traveling, outreach, and trying new foods. She is Dominican and Puerto Rican.

Current Research

Holguín is working with Prof Naresh Thadhani (MSE) and Prof Mark Prausnitz (CHBE) to study intracellular drug delivery via laser-activated nanoparticles. Currently, they are researching the effects of stress wave interactions on cellular membranes during delivery. This work has potential applications for a number of diseases, including cancer.

Education

2012-Present Ph.D., Materials Science & Engineering, Georgia Institute of Technology
Minor: Biomedical Engineering | GPA: 3.68/4.00
2012 B.S. (magna cum laude) Materials Science & Engineering, University of Florida
Concentration: Biomaterials | GPA: 3.82/4.00

Significant Products

- S.Y. Holguín, A. Sengupta, M.R. Prausnitz, N.N. Thadhani. "Stress-induced cell membrane deformation due to the photoacoustic effect during drug delivery." TMS National Conference. Dynamic Materials Symposium. Poster Presentation, February 2014.
- S.Y. Holguín. "Effect of mesenchymal stem cell behavior based on modulating collagen and elastin geometry through electrospinning as a platform for vascular grafts." University of Florida Undergraduate Research Honors Program. Senior thesis, May 2012.

Select Fellowships & Awards

2013 National Science Foundation Graduate Fellowship
2013 Alfred P. Sloan Foundation Minority Ph.D. Scholar
2012 National Institute of Health BioMat Training Grant Recipient
2012 The Roberto Goizueta Foundation Fellowship

Select Leadership & Outreach

2013-2014 GT Latino Organization of Graduate Students (LOGRAS) / Academic Co-Chair
2014-Present GT LOGRAS / Professional Development Co-Chair

2011-2012 Society for Biomaterials (SFB) / President of UF Chapter
Summer 2013 GT Summer Undergraduate Research in Engineering / Graduate Student Mentor
Spring 2013 NSF Innovation in Graduate Education Challenge / Semi-Finalist
2012-Present Georgia High School Outreach for Science and Technology (GHOST) / Volunteer
2013-2014 Georgia Tech Graduate Leadership Program / Graduate Student Mentee
Spring 2012 U. Florida Epsilon Lambda Chi: Engineering Leadership Circle
2004-2011 American Red Cross / Student Volunteer in Ft. Lewis, WA & Eglin AFB, FL

Professional Affiliations

2014-Present American Society for Engineering Education / Member
2013-Present Society for Hispanic Professional Engineers / Member
2013-Present Society for Women Engineers / Member
2012-Present Material Advantage / Member
2011-2012 Society for Biomaterials / Former UF Chapter President