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Llamas Vidales, Jose Ricardo

Education

Massachusetts Institute of Technology, Biological Engineering Division

Bioengineering Ph.D. candidate (2003-current)

University of Michigan, Ann Arbor, Department of Mechanical Engineering

B.S.E., Mechanical Engineering, *Summa Cum Laude* (2001-2003)

Arizona State University, Department of Mechanical and Aerospace
Engineering

B.S.E., Mechanical Engineering, Degree Not Obtained (1999-2001)

Graduate Research

Ph.D. Thesis Project:

"Hepatobiliary Transport Within Primary Hepatocytes Cultured in an in vitro 3-D Bioreactor System."

Massachusetts Institute of Technology (Jan 2004-current)

Advisor: Professor Linda G. Griffith

Undergraduate Research

- "Development of a Small Peristaltic Pump for Perfusion of Tissues"

Senior Design and Manufacturing Project

Department of Mechanical Engineering, University of
Michigan, Ann Arbor (Jan 2003-Apr 2003)

Advisor: Professor Robert Dennis

Developed a small-scale peristaltic pump capable of irrigating tissues in culture. Pump used parts readily available or easily manufactured in Prof. Dennis's laboratory to reduce expense and allow for mass production.

- "Development of a Haptic Interface for Use in Undergraduate System Dynamics and Controls Courses"

Senior Research Experience

Department of Mechanical Engineering, University of
Michigan, Ann Arbor (Sept. 2002-Apr 2003)

Advisor: Professor R. Brent Gillespie

Developed necessary electronics for an amplifier, an

analog computer, and a power supply. Used a previously designed motor to complete a control feedback loop and create artificial "haptic" environments physically interfaceable by user. This haptic interface will eventually be used in future mechanical engineering courses to demonstrate dynamics and controls.

- "Polymer Scaffold Development for In Situ and In Vitro Osteoblast Culture and Regeneration"

Volunteer Laboratory Work

Department of Biomedical Engineering, University of Michigan, Ann Arbor (Sept. 2002-Dec 2002)

Advisor: Professor Peter X. Ma

Synthesized polymer scaffolds for in situ and in vitro osteoblast culture. Used different solvents, polymers, and solutes to study differences in scaffold architecture.

**Fellowships,
Scholarships, and
Honors**

- Biological Engineering Division Fellowship, Massachusetts Institute of Technology (2003-2004)
- Dean's List, College of Engineering, University of Michigan, Ann Arbor (2001-2003)
- Dean's List, College of Engineering and Applied Sciences, Arizona State University (1999-2001)
- Sun Devil Scholarship, Arizona State University (1999-2001)