

Omar Eduardo Fernandez

9 8th St. Apt 1
Cambridge, MA 02141

oef@mit.edu
(787) 546-7290

- OBJECTIVE** To secure a summer internship position in the Chemical/Biological Engineering field.
- EDUCATION** **Massachusetts Institute of Technology** Cambridge, MA
Candidate for B.S. in *Chemical Biological Engineering*, Minor in *Japanese* June 2010
Relevant Coursework: Biochemistry, Organic Chemistry, Chemical Kinetics and Reactor Design, Transport Processes, Fluid Mechanics, Chemical Biological Engineering Project Laboratory, Experimental Biology & Communication
- EXPERIENCE** **MIT Langer Laboratory** Jun 2008-Present
Research Assistant
Principal Investigator: Professor Robert Langer
- Develop new biodegradable materials strong enough for cardiovascular stent applications and drug delivery.
 - Engineered scaffolds out of protein-loaded microspheres which can be used for controlled drug release and stem cell differentiation.
 - Manipulated scaffolds' composition to obtain desired drug release kinetics.
- MIT Department of Chemistry** Sept - Dec 2007
Teacher Assistant
- Taught a recitation section for the *Principles of Chemical Sciences* class at MIT.
 - Attended lectures and reviewed subject concepts with 14 students, graded their problem sets and helped grade the exams for the over 200 students in the class.
 - All of the students in my recitation section passed the class successfully.
 - Learned how to communicate chemistry principles effectively to students.
- MIT Office of Minority Education** Jun - Aug 2007/08
Chemistry Workshop Facilitator & Residential Advisor
- Worked closely with students with a weak high school preparation and helped them prepare for MIT.
 - Reviewed chemistry principles and problem solving techniques with 12 students.
 - Chosen as Assistant Head TA the second time working for the program.
 - Responsible for coordinating events for 100 students in a short period of time.
 - Met frequently with program director to discuss program issues and logistics.
- ACADEMIC HONORS** Excellence Award for Academic Excellence and Service to the Community (2006)
International Society for Optical Engineering's Award for Best Project (2006)
National Society of High School Scholars (2006)
United States Achievement Academy's National Science Merit Award (2006)
Who's Who Among America's High School Students (2005)
- SKILLS** **Computer:** Macintosh OS X, Windows 95 & above, Microsoft Office. Exposure to: Linux, MATLAB and Maple
Languages: Fluent in English and Spanish, Intermediate level Japanese
Laboratory Techniques: Polymerase Chain Reaction (PCR), SDS & Agarose Gel Electrophoresis, Ni chromatography purification, drug encapsulation into microspheres through spontaneous emulsion method, nematode manipulation
- ACTIVITIES** MIT Sport Taekwondo Club [Assistant Instructor & Historian], Photography