

# CURRICULUM VITAE

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Associate Professor Biomedical and Chemical Engineering  
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## EDUCATION

B.S. 1992. Chemical Engineering, University of Delaware, Newark, DE 19801  
M.S. 2001. Chemical Engineering, Johns Hopkins University, Baltimore, MD 21205  
Ph.D. 2002. Molecular Biophysics and Biophysical Chemistry, Johns Hopkins School of Medicine, MD 21205

## Professional Positions

2005-Present *Associate Professor Chemical and Biomedical Engineering*, Yale University, New Haven, CT  
2002-2005 *Postdoctoral Fellow*, Biomedical Engineering. Yale University, New Haven, CT.  
*Postdoctoral Fellow*, Immunopathology. Johns Hopkins School of Med., Baltimore, MD  
1992-1996 *Research Engineer*, Fluorochemicals/Fluoropolymers, E.I. DuPont de Nemours and Co., Experimental Station, Wilmington, DE

## AWARDS

2010 Co-recipient American Society of Transplantation Branch-out Award  
2008 NSF early CAREER award.  
2006 Wallace Coulter Foundation Early Career Award  
2005 Federation of Clinical Immunologists Trainee Fellowship  
2002 Martin and Carol Macht Johns Hopkins Young Investigator  
2001 Milton Eisenhower-Johns Hopkins Technology Fellow  
1998-2002 Ruth L. Kirschstein National Research Service Award.  
1998 Johns Hopkins Pathology Young Investigator  
1996 DuPont Oscar- For successful development and start-up of the world's first Freon® alternatives pilot plant.

## PUBLICATIONS (From Most Recent)

1. Park J, Wrzesinski SH, Stern E, Look M, Criscione J, Ragheb R, Jay SM, Demento SL, Agawu A, Limon PL, Ferrandino AF, Gonzalez D, Habermann A, Flavell RA, **Fahmy TM**. **Combination delivery of TGF- $\beta$  inhibitor and IL-2 by nanoscale liposomal polymeric gels enhances tumor immunotherapy.** *Nature Mat.* In Press.
2. Corradetti B, Freile P, Pells S, Bagnaninchi P, Park J, **Fahmy TM**, De Sousa P. **Embryonic stem cell renewal mediated by affinity targeted paracrine stimulation.** *Biomaterials.* In Press

3.	Demento SL, Cui W, Criscione JM, Stern E, Tulipan J, Kaech SM, <b>Fahmy TM</b> . <b>Role of Sustained Antigen Release from nanoparticle vaccines in shaping the T cell memory phenotype.</b> <i>Biomaterials</i> . 2012 Jun;33(19):4957-64.
4.	Labowsky M, <b>Fahmy TM</b> . <b>Diffusive transfer between two intensely interacting cells with limited surface kinetics</b> <i>Chem. Eng. Sci.</i> 2012; 74: 114-123.
5.	Lee SK, Siefert A, Beloor J, <b>Fahmy TM</b> , Kumar P. <b>Cell-specific siRNA delivery by peptides and antibodies.</b> <i>Methods Enzymol.</i> 2012; 502:91-122
6.	Metcalfe S, <b>Fahmy TM</b> . <b>Targeted nanotherapy for induction of therapeutic immune responses.</b> <i>Trends Mol Med.</i> 2012 Feb;18(2):72-80
7.	Park J, Gao W, Whiston R, Strom TB, Metcalfe S, <b>Fahmy TM</b> . <b>Modulation of CD4+ T lymphocyte lineage outcomes with targeted, nanoparticle-mediated cytokine delivery.</b> <i>Mol Pharm.</i> 2011 Feb 7;8(1):143-52.
8.	Ragheb RTR, Bandyopadhyay A, Chaboune H, Bulutoglu B, Criscione JM, <b>Fahmy TM</b> . <b>Nanoconfinement of Super Paramagnetic iron-oxide in biodegradable nanoparticles enhances the T2 contrast.</b> Manuscript in Review. <i>Nanoletters</i> .
9.	Capurso NA, <b>Fahmy TM</b> . <b>Development of a pH-responsive particulate drug delivery vehicle for localized therapy in inflammatory bowel disease.</b> <i>Yale J. Biol Med.</i> 2011. Sep;84(3):285-8.
10.	Bandyopadhyay A, Fine RL, Demento S, Bockenstedt LK, <b>Fahmy TM</b> . <b>The impact of nanoparticle ligand density on dendritic-cell targeted vaccines.</b> <i>Biomaterials</i> . 2011 Apr;32(11):3094-105. Epub 2011 Jan 22
11.	Vacic A, Criscione JM, Stern E, Rajan NK, <b>Fahmy T</b> , Reed MA. <b>Multiplexed SOI BioFETs.</b> <i>Biosens Bioelectron.</i> 2011 Oct 15;28(1):239-42. Epub 2011 Jul 23
12.	Vacic A, Criscione JM, Rajan NK, Stern E, <b>Fahmy TM</b> , Reed MA. <b>Determination of molecular configuration by debye length modulation.</b> <i>J Am Chem Soc.</i> 2011 Sep 7;133(35):13886-9. Epub 2011 Aug 16.
13.	Harrington JK, Chahboune H, Criscione JM, Li AY, Hibino N, Yi T, Villalona GA, Kobsa S, Meijas D, Duncan DR, Devine L, Papademetri X, Shin'oka T, <b>Fahmy TM</b> , Breuer CK. <b>Determining the fate of seeded cells in venous tissue-engineered vascular grafts using serial MRI.</b> <i>FASEB J.</i> 2011 Aug 16
14.	Steenblock ER, Fadel T, Labowsky M, Pober JS, <b>Fahmy TM</b> . <b>An artificial antigen-presenting cell with paracrine delivery of IL-2 impacts the magnitude and direction of the T cell response.</b> <i>J Biol Chem.</i> 2011 Aug 17
15.	Criscione JM, Dobrucki LW, Zhuang ZW, Papademetris X, Simons M, Sinusas AJ, <b>Fahmy TM</b> . <b>Development and application of a multimodal contrast agent for SPECT/CT hybrid imaging.</b> <i>Bioconjug Chem.</i> 2011 Aug 18
16.	Shirali AC, Look M, Du W, Kassis E, Stout-Delgado HW, <b>Fahmy TM</b> , Goldstein DR. <b>Nanoparticle Delivery of Mycophenolic Acid Upregulates PD-L1 on Dendritic Cells to Prolong Murine Allograft Survival.</b> <i>Am J Transplant.</i> 2011 Dec;11(12):2582-92
17.	Park J, Mattessich T, Jay S, Agawu A, Saltzman W.M, <b>Fahmy TM</b> . <b>Enhancement of surface ligand display on PLGA nanoparticle with amphiphilic ligand conjugates.</b> <i>J. Control Release.</i> 2011 Jun 24
18.	Almería B, <b>Fahmy TM</b> , Gomez A. <b>A Multiplexed Electrospray Process for single-step synthesis of stabilized polymer particles for drug delivery.</b> <i>J. Control Release.</i> 2011. May 26 (Epub ahead of print)
19.	Demento SL, Siefert AL, Bandyopadhyay A, Sharp FA, <b>Fahmy TM</b> . <b>Pathogen-Associated molecular patterns on biomaterials: a paradigm for engineering new vaccines.</b> <i>Trends Biotechnol.</i> 2011 Jun;29(6):294-306.
20.	Demento SL, Bonafe N, Cui W, Kaech S, Caplan M, Fikrig E, Ledizet M, <b>Fahmy TM</b> . <b>TLR9-targeted biodegradable nanoparticles as immunization vectors protect against West Nile Encephalitis.</b> <i>J. Immunol.</i> 2010 Sep 1;185(5):2989-97.
21.	Fadel TR, Look M, Staffier P, Haller GL, Pfefferle L, <b>Fahmy TM</b> . <b>Clustering of Stimuli on Carbon nanotubes impacts the kinetics and magnitude of T cell activation.</b> <i>Langmuir.</i> 2010 Apr 20;26(8):5645-54.

22.	Look M, Bandyopadhyay A, Blum JS, <b>Fahmy TM</b> . <b>Application of Nanotechnologies for Improved Immune Response Against Infectious Diseases in the Developing World.</b> <i>Adv Drug Deliv Rev.</i> 2010 Mar 18;62(4-5):378-93
23.	Almería B, Deng W, <b>Fahmy TM</b> , Gomez A. <b>Controlling the Morphology of electrospray-generated PLGA microparticles for drug delivery.</b> <i>J Colloid Interface Sci.</i> 2010 Mar 1;343(1):125-33
24.	Stern E, Vacic A, Rajan NK, Criscione JM, Park J, Ilic BR, Mooney DJ, Reed MA, <b>Fahmy TM</b> . <b>Label-free biomarker detection from whole blood.</b> <i>Nat Nanotechnol.</i> 2010 Feb;5(2):138-42
25.	Stern E, Vacic A, Li C, Ishikawa FN, Zhou C, Reed MA, <b>Fahmy TM</b> . <b>Nanoelectronic ELISA: A Nanoelectronic Enzyme-Linked Immunosorbent Assay for Detection of Proteins in Physiological Solutions.</b> <i>Small.</i> 2010 Jan;6(2):232-8.
26.	Park J, Fong PM, Lu J, Russell KS, Booth CJ, Saltzman WM, <b>Fahmy TM</b> . <b>Long Circulating PEGylated Nanoparticles for Doxorubicin Delivery.</b> <i>Nanomedicine.</i> 2009 Dec;5(4):410-8
27.	Kress H, Park JG, Mejean CO, Forster JD, Park J, Walse SS, Zhang Y, Wu D, Weiner OD, <b>Fahmy TM</b> , Dufresne ER. <b>Cell stimulation with optically manipulated microspheres.</b> <i>Nat Methods.</i> 2009 Dec;6(12):905-9
28.	Criscione JM, Le BL, Stern E, Brennan M, Rahner C, Papademetris X, <b>Fahmy TM</b> . <b>Self-assembly of pH-responsive fluorinated dendrimer-based particulates for drug delivery and noninvasive imaging.</b> <i>Biomaterials.</i> 2009 Aug;30(23-24):3946-5.
29.	Stern E, Jay SM, Demento SL, Murelli RP, Reed MA, Malinski T, Spiegel DA, Mooney DJ, <b>Fahmy TM</b> . <b>Spatiotemporal control over molecular delivery and cellular encapsulation from electropolymerized micro- and nanopatterned surfaces.</b> <i>Adv Funct Mater.</i> 2009 Jul 13;19(18):2888-2895.
30.	Demento S, Eisenbarth SC, Foellmer HG, Platt C, Caplan MH, Saltzman WM, Mellman I, Ledizet M, Fikrig E, Flavell RA, <b>Fahmy TM</b> . <b>Inflammasome-activating biodegradable nanoparticulates as vaccine delivery systems.</b> <i>Vaccine.</i> 2009 May 18;27(23):3013-21
31.	Gao W, Thompson L, Zhou Q, Putheti P, Whiston R, Ma C, Terwilliger E, <b>Fahmy TM</b> , Strom TB, Metcalfe SM. <b>Treg versus TH17 lymphocyte lineages are cross-regulated by LIF versus IL-6.</b> <i>Cell Cycle.</i> 2009 May 1;8(9):1444-5.
32.	Steenblock E, Wrzesiniski, Flavell RA, <b>Fahmy TM</b> . <b>Antigen presentation on artificial acellular substrates: Modular systems for flexible, adaptable immunotherapy.</b> <i>Expert Opin. Biol. Therapy.</i> 2009 Apr;9(4):451-64.
33.	Demento S, Steenblock ER, <b>Fahmy TM</b> . <b>Biomimetic approaches to modulating the T cell immune response with nano- and micro- particles.</b> <i>Conf Proc IEEE Eng Med Biol Soc;</i> 2009:1161-6.
34.	Stern E, Mooney D, <b>Fahmy TM</b> , <b>A Biomimetic Approach for the Creation of Two-Dimensional Microscale Surface Patterns: Creation of Isolated Immunological Synapses.</b> <i>Int J Biomater.</i> 2009;2009:821308. Epub 2009 Jun 17.
35.	Nelson G, Papademetrius X, Shapiro E, Pober J, Saltzman WM, <b>Fahmy TM</b> , Breuer C. <b>Initial evaluation of the use of USPIO cell labeling and noninvasive MR monitoring of human tissue-engineered vascular grafts in vivo.</b> <i>FASEB J.</i> 2008 Nov;22(11):3888-95. Epub 2008 Aug 18.
36.	Stern E, Steenblock E, Reed MA, <b>Fahmy TM</b> , <b>Label-free electronic detection of the antigen-specific immune response.</b> <i>Nanoletters.</i> 2008 Oct;8(10):3310-4
37.	Fadel TR, Steenblock ER, Stern E, Li N, Wang X, Haller G, Pfefferle L, <b>Fahmy TM</b> , <b>Enhanced cellular activation with single-wall carbon nanotubes presenting antibody stimuli.</b> <i>Nanoletters.</i> 2008 Jul;8(7):2070-6
38.	<b>Fahmy TM</b> , Mellman I, Caplan M, Saltzman WM, <b>Design opportunities and challenges for Nanoparticle Vaccines.</b> <i>Nanomedicine.</i> 2008 Jun;3(3):343-55.
39.	Steenblock E, <b>Fahmy TM</b> , <b>A comprehensive platform for T cell stimulation based on biodegradable artificial antigen-presenting cell microparticles.</b> <i>Molecular Therapy.</i> 2008 Apr;16(4):765-72
40.	Samstein R, Perica K, Balderrama F, Look M, <b>Fahmy TM</b> , <b>The use of deoxycholic acids for enhancing oral</b>

	<b>bioavailability of biodegradable particles.</b> <i>Biomaterials</i> . 2007 Vol 29 (6) pp 703-708.
41.	Stern E, Wagner R, Breaker R, Sigworth F, <b>Fahmy TM</b> , Reed MA. <b>Importance of the Debye Screening Length on Nanowire Field Effect Transistor Sensors.</b> <i>Nanoletters</i> 2007 Nov 14;7(11):3405-3409.
42.	<b>Fahmy TM</b> , Fong P, Park J, Constable T, Saltzman WM. <b>Nanosystems for simultaneous imaging and drug delivery to T cells.</b> <i>AAPS J</i> . 2007 Jun 8;9(2):E171-80.
43.	Shapiro E, Davis L, <b>Fahmy TM</b> , Dunbar C, Koretsky A. <b>Antibody mediated cell labeling of peripheral T cells with micron sized iron-oxide particles (MPIOs) allows single cell detection by MRI.</b> <i>Contrast Media &amp; Molecular Imaging</i> 2007 May;2(3):147-53.
44.	<b>Fahmy TM</b> , Schneck JP, Saltzman WM. <b>A nanoscopic multivalent antigen-presenting carrier for sensitive detection and drug delivery to T cells.</b> <i>Nanomedicine: Nanotech., Biology and Med.</i> 2007 Mar;3(1):75-85.
45.	Stern E, Routenberg D, Wyrembak P, Hamilton A, LaVan D, <b>Fahmy TM</b> , Reed MA. <b>Label-Free Immunodetection with CMOS-Compatible Semiconducting Nanowires,</b> <i>Nature</i> , 2007 Feb 1; 445, 519-522.
46.	Mounzer R, Shkarin P, Papademetriou X, Constable T, Ruddle N, <b>Fahmy TM</b> , <b>Dynamic Imaging of Lymphatic Vessels and Lymph Nodes Using a Bimodal Nanoparticulate Contrast Agent.</b> <i>Lymphatic Research and Biology</i> . 2007 5(3) 151-155.
47.	Stern E, Jay S, Bertram J, Boese B, Kretzschmar I, Evans D, Dietz C, Flye A, LaVan D, Malinski T, <b>Fahmy TM</b> , Reed MA. <b>Electropolymerization on Lithographically Patterned Electrodes: A Novel Functionalization Technique for Protein and DNA Conjugation.</b> <i>Anal. Chem</i> Sep 15;78(18):6340-6, 2006.
48.	Keegan M, Royce S, <b>Fahmy TM</b> , Saltzman WM. <b>In vitro evaluation of biodegradable microspheres with surface-bound ligands.</b> <i>J. Control. Release</i> . Feb 21;110(3):574-80, 2006.
49.	<b>Fahmy TM</b> , Samstein RM, Harness CC, Mark Saltzman W. <b>Surface modification of biodegradable polyesters with fatty acid conjugates for improved drug targeting.</b> <i>Biomaterials</i> . , 26, October 2005,5727-5736
50.	<b>Fahmy TM</b> , Fong P, Goyal A, Saltzman WM, "Targeted nanoparticles for drug delivery" <i>Nanotoday</i> . August, 2005.
51.	<b>Fahmy TM</b> , Schneck JP, " <b>Probing T cell membrane organization using MHC Dimers</b> " <i>J. of Immunol. Methods</i> . Oct 1; 268(1): 93-106, 2002.
52.	<b>Fahmy TM</b> , Bieler JG, Edidin M, Schneck JP. " <b>Increased TcR Avidity After T Cell Activation: A Mechanism for Sensing Low Density of Antigen.</b> " <i>Immunity</i> Feb 14; 14: 135-143, 2001.
53.	Slansky JE, Rattis FM, Boyd LF, <b>Fahmy TM</b> , Jaffee EM, Schneck JP, Margulies DH, Pardoll DM. " <b>Enhanced Antigen-Specific Antitumor Immunity with Altered Peptide Ligands that Stabilize the MHC-Peptide TcR Complex.</b> " <i>Immunity</i> 2000 Oct 1; 13(4): 529-538.
54.	Lebowitz MS, O'Herrin SM, Hamad AR, <b>Fahmy TM</b> , Marguet D, Barnes NC, Pardoll DM, Bieler JG, Schneck JP. " <b>Soluble High Affinity Dimers of T Cell Receptors and Class II Major Histocompatibility Complexes: Biochemical Probes for Analysis and Modulation of Immune Responses.</b> " <i>Cell Immunol</i> 1999 Mar 15; 192(2): 175-84.
55.	<b>Fahmy TM</b> , Paulaitis ME, Johnson DM, McNally ME, " <b>Modifier Effects in the Supercritical Fluid Extraction of Solutes from Clay, Soil and Plant materials.</b> " <i>Anal. Chem</i> 1993 May 15; 65: 1462-9.

## Book Chapters

1.	Criscione J, Sinusas A, <b>Fahmy TM</b> : <b>Toward Imaging of Structure and Function.</b> In " <i>Stem cell labeling for delivery and tracking using non-invasive imaging</i> " Taylor and Francis Publisher (CRC Press). Chap. 21 In Press.
2.	Park J, <b>Fahmy TM</b> . <b>Biodegradable Nanoparticles in Medicine and Biology.</b> In " <i>Handbook of Nanophysics: Nanomedicine and Nanorobotics</i> ". Taylor & Francis Publisher (CRC Press), Vol. 7. Chap. 29.

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| 3. | Priti K, <b>Fahmy TM</b> . <u>Nanoparticles for siRNA delivery</u> . In “ <i>Methods in Enzymology</i> ”. Elsevier Inc. In Press  |
| 4. | McNally ME, <b>Fahmy TM</b> . <u>Supercritical Fluid Extraction. New Directions and Understandings</u> . In “ <i>Supercritical Fluid Technology</i> ”, ACS Symposium Series, Vol 488. Chap. 12 (144-164). |

## INVITED PRESENTATIONS AND SEMINARS

### 2011

Invited Seminar: University of Connecticut. Storrs, CT. Nov. 2011  
Invited Seminar: University of Texas Southwestern. Dallas, TX. May, 2011.  
Invited Speaker: GTcBio Vaccine Conference. Washington, DC. Nov. 2011  
Grantee Speaker. Lupus Research Institute. New York, Oct. 2011  
Invited Speaker: Yale Human Translational Immunology. New Haven, CT. Nov. 2011.  
Invited International Symposium: Yale Cambridge-Alliance. New Haven, CT. Sep. 2011.  
NIH Autoimmunity Centers of Excellence. Rockville, MD. Apr. 2011

### 2010

Invited Seminar: Ohio State University. Dec. 2010  
GTcBio Vaccine Conference. Washington, DC. Nov. 2010  
Grantee Speaker. Lupus Research Institute. New York, Oct. 2010  
Invited Lafayette College. Easton, PA. Oct. 2010.  
Invited International Symposium: Yale Cambridge-Alliance. Cambridge, UK. Sep. 2010.  
Invited International Symposium: University of York, UK. Frontiers in Biology and Medicine. Aug. 2010.  
ACS-Polymers for Immunology and Immunotherapy. Boston, MA. Aug. 2010  
NIH Autoimmunity Centers of Excellence. Rockville, MD. Apr. 2010  
Herbert D. Doan Nanotechnology Lecture. University of Michigan. Ann Arbor, MI Mar. 2010

### 2009

IEEE Engineering in Med. and Biol. Minneapolis, MN. Sept. 2009 .  
ACS- Polymers in Medicine and Biology. Santa Rosa, CA. June 2009  
Invited Graduate Student Lecture: University of California. Berkeley. Apr. 2009  
NIH Autoimmunity Centers of Excellence. Rockville, MD. Mar. 2009  
The Jones Seminar. Dartmouth University. Hanover, NH. Jan. 2009

### 2008

American Association of Nanomedicine. Baltimore, MD. Sept. 2008  
New Vaccines. Immunotherapeutics and Vaccine Summit Conf. Boston, MA. Aug. 2008.  
Controlled Release Society. Cellular Delivery Session. Jul. 2008  
Genentech, Inc. San Francisco, CA. May 30 2008.

### 2007

National Science Foundation Grantee Conference.. Arlington, VA, Dec. 3-4, 2007.  
International Society for Biological Therapy of Cancer. Annual Meeting. Boston MA, Oct. 29. 2007.  
CT Nanotechnology Workshop. Hartford, CT, Oct. 10, 2007.  
First annual Molecular and Cellular imaging symposium. Platform. New Haven, CT. Sept. 28, 2007.  
IX International Controlled Release Society Annual Meeting. Buenos Aires, Argentina. Aug 26, 2007.  
Targeted Immunotherapeutics and Vaccine Summit (ImVac). Boston, MA. Aug. 24, 2007  
Yale Institute for Nanoscience and Quantum Engineering (YINQE). New Haven, CT. Aug.16, 2007.  
Boehringer-Ingelheim Pharmaceutical Co. Seminar. Ridgefield, CT. Jul.16, 2007.  
Yale Systems Biology Seminar Series. Yale University, New Haven, CT. April 16, 2007.

## **2006**

*Biomedical Engineering Society*. Platform. Annual Meeting. Chicago, IL. 2006.

*Nanomedicine and Drug Delivery Conference*. Platform. Omaha, NE. 2006.

*Yale-Cambridge Alliance*. Cambridge, England, 2006.

## **2004-2005**

*Medical Device Conference (MEDI)*. Hartford, CT. June 2005.

*Nanomedicine: Nanotechnology, Biology and Medicine*. Baltimore, MD, Sept. 2005.

*Biomedical Engineering Society* Annual Meeting. Philadelphia, PA, Oct. 13-16, 2004

*Materials Research Society*, Platform. Boston, 2003.

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## **EDUCATIONAL ACTIVITIES**

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### **Current Graduate Students:**

Jason Criscione (5/2006-Present)  
Michael Look (5/2006-Present)  
Alyssa Siefert (5/2009-Present)  
Enping Hong (5/2009-Present)  
Michael McHugh (5/2010-Present)

### **Past Graduate Students:**

Stacey Demento (Completed Defense--5/2010).  
**Thesis Title:** Nanoparticles Modified with TLR ligands for Vaccination.  
**Current Employment:** Senior Scientist. Unilever Inc. Trumbull, CT.

Erin Steenblock. (Completed Defense--7/2010)  
**Thesis Title:** A comprehensive platform for T cell stimulation based on biodegradable artificial antigen-presenting cells.  
**Current Employment:** Senior Engineer. Bio-Rad Laboratories, Pleasanton, CA.

Jason Park (Completed Defense: 3/2011)  
**Thesis Title:** Rationally Engineered Nanoparticles for therapeutic modulation of TGF $\beta$  signaling.  
**Current Employment:** Biotech. Venture Analyst. Boston Scientific, New York, NY.

Tarek Fadel (Completed Defense: 5/2011)  
**Thesis Title:** Engineering Carbon Nanotubes for Immunotherapeutic Applications.  
**Current Employment:** Nanotechnology Policy Analyst. World Technologies. Washington, DC.

### **Current Postdoctoral Fellows:**

Halima Chahboune (5/2009- Present)  
Ragy Ragheb (4/2009-present)  
Fiona Sharp (4/2010-Present)  
Shuang Liu (11/2010-Present)

### **Past Postdoctoral Fellows:**

Eric Stern (2007-2009).  
**Current Employment:** Senior Scientist. Nanoterra Inc. Boston, MA

Arunima Bandopadhyay (2/2007-10/2010)  
**Current Employment:** Postdoctoral Fellow. Immunobiology. Yale School Med.

Qin Wang (4/2008-4/2009)  
**Current Employment:** Faculty. University of CT School of Dentistry, Storrs, CT.

### **Current Undergraduate Students**

Andromahi Trevillas (2010-present)  
Harib Ezeledin (2009-Present)  
Anh Hoang (2010-Present)  
Smith Shah (2010-Present)  
Tony Wu (2010-Present)  
Justin Lownethal (2010-Present)

### **Mentored Undergraduates**

Robert Samstein. Current: MD/PHD program MSK  
Karlo Perica. Current MD/PHD program Johns Hopkins  
Javier laPiera. Current. PHD program BME Rochester.  
Michaela Panter. Current. PHD program Yale University.  
Karen Chen. Current. MD Program. Vanderbilt University.  
Gilbert Addo. Current. Business School Harvard.

Fanor balderrama. Current. PHD program Georgia Tech.  
Atu Agawu. Current. Covidian Inc.  
Bonaire Lee. Current. Cambridge Univ. UK.  
Jacob Tulipan. Current MD Program. Columbia Univ.

### **Courses taught and developed:**

Biomedical Engineering 351 (BENG 351a), Chemical Engineering 351 (CENG 351a), Engineering and Applied Sciences (551a): Engineering and Applied Sciences (ENAS) 553.

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## **OTHER PROFESSIONAL**

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2007-2011: Consultant: *Carigent Therapeutics Inc., L2 Diagnostics Inc. Allertein LLC., Immunova LLC, Syntectics Inc.,*  
2010-Present Editorial Board: Interdisciplinary Reviews in Nanomedicine and Nanobiotechnology.  
2010-Present Editorial Board: Self/Non-Self. Immune recognition and Signaling.  
2007-Present NIH Peer Review Committee- NANO-M (01).  
2010 NCI Peer Review Committee-SPORE in Brain, Leukemia, Myeloma, Sarcoma, Esophageal, GI, HN, and Pancreatic Cancers  
2010 American Institute of Biological Science Peer Review Committee. US Army Medical and Material research Command.  
2009 NSF Peer Review Committee-CAREER Biomedical Engineering.  
2009 NSF Peer Review Committee-Biomaterials.  
2009 NIH Peer Review Committee-ARRA Challenge grants (Stage I).  
2009 American Institute of Biological Sciences Peer Review Committee. US Army Medical and Material Research Command.  
2008 NSF Peer Review Committee-CAREER Biomedical Engineering  
2007 NSF Peer Review Committee-Biomedical Engineering.

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## **Associations**

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Member, Biomedical Engineering Society, American Biophysical Society, Controlled Release Society, American Association of Immunology, Society for Clinical and Translational Science.

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## **Committee and Administrative Duties**

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Yale University. Institutional Animal Care and Use Committee. (2010-Present)  
Yale University. Fellowship Review Board (Browne-Cox) postdoctoral fellowships.  
Yale University. Committee on Cooperative Research. (2010-Present).  
Yale University. Yale College Deans Research Fellowship Committee (2007-Present)  
Yale University. Faculty advisor for the School of engineering and applied science leadership program (2009-Present).