CV - Leo d'Espaux

Department of Bioengineering
Stanford University
Stanford, CA 94305-4201
t. 650.721.5884
f. 650.721.6602
despaux@stanford.edu

born August 31st, 1983 in Havana, Cuba. US Citizen

EDUCATION

Ph.D. Candidate	Chemical Engineering	California Institute of Technology	5/2007 – present
M.S.	Chemical Engineering	California Institute of Technolgy	5/2007
B.S.	Chemical Engineering	Cornell University	5/2005

PROFESSIONAL EXPERIENCE

Visiting Researcher, Department of Bioengineering, Stanford University — 1/2009 – present
Advisor: Christina Smolke
Research: Engineered synthetic biological circuits with applications in gene therapy and green production of natural and synthetic chemicals.
Supervised graduate and undergraduate students.

Graduate Teaching Assistant, Department of Chemical Engineering, Caltech — 2/2008 – 6/2008
Advisor: Zhen-gang Wang
Teaching: Classical and Statistical Thermodynamics to undergraduates.
Prepared weekly lectures, designed, solved and graded weekly problem sets.

Research Fellow, Department of Chemical Engineering, Caltech — 9/2005 – 1/2009
Advisor: Christina Smolke
Research: Control of gene expression through non-coding RNA, strategies to regulate gene silencing in cancer cells.

Research Assistant, Howard Hughes Medical Institute, The Rockefeller University — 6/2005 – 9/2005
Advisor: Günter Blobel *(1999 Nobel Prize in Physiology/Medicine)*
Research: Purification and characterization of nuclear membrane complex proteins.

Research Assistant, Department of Biological Engineering, Cornell University — 1/2002 – 5/2005
Advisor: Dan Luo
Research: Synthesis and design of DNA-based, self-assembled nanoscale structures. Responsibilities writing and obtaining funding, and in training and supervising other students.

Research Assistant, School of Chemical Engineering, Cornell University — 9/2001 – 5/2002
Advisor: W. Mark Saltzman
Research: Tissue engineering of bone and neural cells. Polymer-based drug delivery to the brain.

Research Assistant, Department of Biology, Florida International University — 6/2000 – 11/2000
Advisor: René Herrera
Research: Human genetic evolution

HONORS & AWARDS

Graduate Research Fellowship, National Science Foundation	2006-present
Betty and Gordon Moore Fellowship, California Institute of Technology	2005-present
Gates Millenium Graduate Scholar, Bill and Melinda Gates Foundation	2005-2007
Menschel Public Service Fellowship, Cornell University	2005
Slayton Evans Research Award, American Chemical Society	2003
Alumni Sponsored Research Award, Cornell University	2003
Presidential Research Scholar, Cornell University	2001-2005
ACS-Xerox Scholar, American Chemical Society	2001-2005
Gates Millenium Scholar, Bill and Melinda Gates Foundation	2001-2006

PUBLICATIONS

1. "An RNA signal amplifier to improve gene regulatory circuit dynamics", **L. d'Espaux**, C.D. Smolke, In preparation
2. "A riboswitch-regulated miRNA platform to control mammalian gene expression", **L. d'Espaux**, C.D. Smolke, In preparation
3. "Controlled assembly of dendrimer like DNA", Y. Li, Y.D. Tseng, S.Y. Kwon, **L. d'Espaux**, J.S. Bunch, P.L McEuen, and D. Luo, *Nature Materials* **3**, 38-42, (January, 2004)
4. "Honeycomb-shaped DNA", **L. d'Espaux**, and D. Luo, *Proceedings of the 18th Annual Cornell Undergraduate Research Board Forum*, 69 (March, 2002)

MEETINGS ATTENDED

1. American Chemical Society 230th National Meeting & Exposition, Washington, DC, 08/05
2. American Chemical Society 228th National Meeting & Exposition, Philadelphia, PA, 08/04
3. National Technical Careers Conference, New Orleans, LA, 01/04
4. Cornell Undergraduate Research Board 18th Annual Forum, Ithaca, NY, 04/03
5. Cornell Presidential Research Scholars Progress Forums, Ithaca, NY, 03/02; 03/03; 03/04
6. Gates Millenium Scholars National Conference, Los Angeles, CA, 10/01

ACADEMIC SERVICE

Cornell Commitment Executive Board, Cornell University	2003-2005
Undergraduate Research Board, Cornell University	2003-2005
Presidential Research Scholars Student Advisory Board, Cornell University	2001-2005

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science	Member	since 2005
American Chemical Society	Student Member	since 2003

References available upon request