

NAEL H ALAMI

CURRICULUM VITAE

**Graduate School of Education
Policy, Organization, and Leadership Studies
Stanford University**

November 2014

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Stanford University
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DEGREES

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| M.A. | 2015 | Policy, Organization, and Leadership Studies, GSE, Stanford University (<i>Expected: June 2015</i>) |
| Ph.D. | 2009 | MCDB Program, Molecular Neuroscience. The Ohio State University. |
| M.Sc. | 2003 | General Biology. American University of Beirut. |
| B.Sc. | 2001 | General Biology. American University of Beirut. |

AWARDS/DISTINCTIONS

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| 2009 | CGS Ray Travel Award for Scholarships and Service, The Ohio State University |
| 2007 | The Phi Beta Delta Honor Society, for excellence in academia and leadership |
| 2006 | CGS Ray Travel Award for Scholarships and Service, The Ohio State University |

EXPERIENCE

Senior Consultant, January 2010 – present

School of Health Sciences

Modern University for Business & Science, Beirut, Lebanon

As a consultant to the newly dedicated Faculty of Health Sciences at the Modern University for Business & Science (MUBS) in Beirut, Lebanon, I was responsible for overseeing the documentation and curricula preparation required by the Lebanese Government and the Ministry of Higher Education to establish the faculty. This work ensured that the program met all the governing laws and regulations required for establishing a new school of research. Additionally, I oversaw the purchase and installment of laboratory equipment needed to initiate the program and established the first year curricula for the Departments of Nutrition, Public Health, and Optometry.

The project was a multi-stage overtaking, beginning with the aforementioned departments and will continue with the launch of the Nursing and Medical Lab Departments.

Post Doctoral Research Fellow, January 2010 – 2014

Developmental Neurobiology

St Jude Children's Research Hospital, Memphis, TN

The principal goal of my research was to unravel the molecular mechanisms associated with neurological diseases like Amyotrophic Lateral Sclerosis (ALS) and Frontotemporal Dementia (FTD). Toward this end, I utilized a number of model systems to study the cellular function(s) of RNA binding proteins (e.g. TDP-43 and FUS) in primary cortical neurons, and induced pluripotent stem cells (iPSCs) from ALS patients and healthy individuals, and an *in vivo* model using *Drosophila*.

Visiting Researcher, April 2013 – May 2013

Kevin Egan's Laboratory

Department of Stem Cell and Regenerative Biology

Harvard University

Characterized novel cellular functions for TDP-43 in stem cell-derived human motor neurons (cells differentiated from induced pluripotent stem cells).

Visiting Researcher, August 2012 – September 2012

Tom Maniatis's Laboratory

Department of Biochemistry & Molecular Biophysics

Columbia University

Discovered a novel role for TDP-43 in the trafficking and axonal localization of cognate mRNA in human motor neurons from patients with ALS (Lou Gehrig's disease).

Visiting Scientist, January 2012 – July 2012

Wesley Neurology Clinic

Assisted Dr. Tulio Bertorini in his clinical duties as chief Neurologist at the Methodist Hospital in Memphis, TN. Duties included case evaluations and interviewing patients for clinical trial referrals and explanation of scientific literature.

Graduate Research Associate, September 2003 – December 2009

Molecular, Cellular and Developmental Biology Program

The Ohio State University, Columbus, OH

Studied axonal transport of neurofilaments in cultured mouse sympathetic and sensory neurons, the regulation of axonal transport, and the motor systems involved. Utilized live cell imaging and fluorescence microscopy to study transport kinetics and properties.

Graduate Research Assistant, April 2002 – June 2003

Biology Department

American University of Beirut, Beirut, Lebanon

Investigated the effect of thymic serum factor (FTS) on the inflammatory response of sensory neurons in culture.

Research Assistant, June 2001 – April 2002

Department of Morphology

American University of Beirut, Beirut, Lebanon

Studied the behavioral (*in vivo*) and the inflammatory (*in vitro*) response to intraplantar endotoxin injections of Sprague Dawley rats treated with thymulin.

PUBLICATIONS

1. **Alami, N. H.**, Smith, R. B., Carrasco, M., Williams, L. A., Winborn, C. S., Han, S. S. W., Kiskinis, E., Winborn, B., Freibaum, B. D., Kanagaraj, A., Clare A. J., Badders, N., Bilican, B., Chaum, E., Chadran, S., Shaw, C. E., Eggan, K.C., Maniatis, T., and Taylor, J. P. (2014). Axonal transport of TDP-43 mRNA granules is impaired by ALS-causing mutations. *Neuron*, 81: 536-543. (*Paper highlighted in Neuron and 9 news outlets*)
2. Kim, N. C., Tresse, E., Kolaitis, R., Molliex, A., Thomas, R. E., **Alami, N. H.**, Wang, B., Joshi, A., Smith, R. B., Ritson, G. P., Winborn, B. J., Moore, J., Lee, J-Y, Yao, T-P, Pallanck, L., Kundu, M., Taylor, J. P. (2013). VCP is essential for mitochondrial quality control by the PINK1/Parkin pathway in vitro and in vivo-- a function impaired by pathogenic VCP mutations. *Neuron*, 78: 1-16. (*Paper highlighted in Nature Reviews Neurology*, 9, 239)
3. **Alami, N. H.** (2009). The Role of Myosin Va and the Dynein/Dynactin Complex in Neurofilament Axonal Transport. Ph.D. dissertation. The Ohio State University.
4. Uchida, A., **Alami, N. H.** and Brown, A. (2009). Tight functional coupling of kinesin-1A and dynein motors in the bidirectional transport of neurofilaments. *Molecular Biology of the Cell*, 23: 4997-5006. (*Paper highlighted in "InCytes from MBC"*)
5. **Alami, N. H.**, Jung, P. and Brown, A. (2009). Myosin Va increases the efficiency of neurofilament transport by decreasing the duration of long-term pauses. *Journal of Neuroscience*, 29: 6625-6634.
6. **Alami, N. H.** (2003). The Effect of Thymic Serum Factor on the Inflammatory Response of Dorsal Root Ganglia in Culture. M.Sc. Thesis. American University of Beirut.

ABSTRACTS

1. **Alami, N. H.**, Smith, R., Carrasco, M., Winborn, C., Williams, L., Winborn, B., Bilican, B., Chandran, S., Eggan K., Maniatis, T., and Taylor, J. P. (2013). Microtubule-dependent axonal transport of TDP-43 mRNA granules is impaired by ALS-causing mutations. San Diego, CA. *Society for Neuroscience*: 8th Brain Research Conference: RNA Metabolism in Neurological Disease.
2. **Alami, N. H.**, Smith, R., Carrasco, M., Winborn, B., Maniatis, T., and Taylor, J. P. (2012). A role for TDP-43 in the transport and localization of mRNA along neuronal axons. Cold Spring Harbor, New York. *Neurodegenerative Diseases: Biology and Therapeutics*.
3. **Alami, N. H.** and Taylor, J. P. (2011). TDP-43 subcellular localization and kinetics of transport in cultured cortical neurons. Washington D.C. *Society for Neuroscience*: 6th Brain Research Conference: RNA Binding Proteins in Neurological Disease.
4. **Alami, N. H.** and Taylor, J. P. (2011). TDP-43 subcellular localization and kinetics of transport in cultured cortical neurons. Milan, Italy. 5th Meeting on Molecular Mechanisms for Neurodegeneration. Presentation number P-B.46. Online.
5. **Alami, N. H.** and Brown, A. (2009). Analyzing the role of the dynein/dynactin complex in neurofilament transport. Keystone Symposium on "Neurodegenerative Diseases: New Molecular Mechanisms", Keystone, CO.

6. **Alami, N. H.** and Brown, A. (2007). Neurofilaments Spend More Time Pausing in Axons Lacking Myosin Va. 1st Annual Molecular Life Sciences Interdisciplinary Graduate Programs Symposium. Columbus, OH.
7. **Alami, N. H.** and Brown, A. (2006). Neurofilaments spend more time pausing in axons lacking myosin Va. Presentation number 999. 2006 Program Planner and Abstract Viewer System. San Diego, CA: [American Society for Cell Biology](#). Online.
8. **Alami, N. H.** and Brown, A. (2006). Neurofilaments are transported normally along axons lacking myosin Va. 5th Annual Graduate & Postgraduate Research Day, OSU. Columbus, OH.
9. **Alami, N. H.** and Brown, A. (2005). Neurofilaments are transported normally along axons lacking myosin Va. Presentation number 2499. 2005 Program Planner and Abstract Viewer System. San Francisco, CA: [American Society for Cell Biology, 2005](#). Online.
10. Safieh-Garabedian, B., **Alami, N.**, Jabbur, S. J., El Sabban, M. E., Atweh, S. F., and Saade, N. E. (2003). Thymulin modulates the production of cytokines induced by endotoxin in dorsal root ganglion (DRG) neurons in culture. 4th Congress of EFIC, Pain in Europe IV, Presentation number 2003, 197.
11. Safieh-Garabedian, B., **Alami, N.**, Jabbur, S. J., El Sabban, M. E., and Saade, N. E. (2003). The effect of thymulin and anti-inflammatory drugs (AID) on cytokine production induced by endotoxin (ET) in dorsal root ganglion (DRG) neurons. [Society for Neuroscience](#). Presentation number 2003, 588.11.

INVITED SEMINARS

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| 2012 | Basic Medical Sciences Departments and the Department of Biology Lecture Series, American University of Beirut, Beirut, Lebanon. Presentation Title: RNA binding proteins in neurodegeneration: insight into the pathogenic role of TDP-43. |
| 2012 | University of Tennessee Health Science Center, Department of Neurology Grand Rounds, Memphis, TN. Presentation Title: ALS overview: insights of the possible pathogenic role of TDP-43. |
| 2012 | Wesley Neurology Clinic Scientific Lecture, Methodist University Hospital, Memphis, TN. Presentation Title: RNA binding proteins in neurodegenerative diseases: TDP-43 localization and transport kinetics. |
| 2011 | Basic Medical Sciences Departments and the Department of Biology Lecture Series, American University of Beirut, Beirut, Lebanon. Presentation Title: The role of myosin Va and the dynein/dynactin complex in neurofilament transport. |
| 2009 | Center for Molecular Biology Seminar Series, The Ohio State University, Columbus, OH. Presentation Title: Multiple motors coordinate neurofilament axonal transport. |

CONFERENCES

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| 2013 | National Postdoctoral Association 11 th Annual Meeting. Charleston, SC |
| 2013 | The Robert Packard Center for ALS Research 14 th Annual Symposium. Baltimore, MD |

- 2011 The Robert Packard Center for ALS Research 12th Annual Symposium. Baltimore, MD
- 2010 United Nations Academic Impact First Forum, Formal Launch Event. New York City, NY
- 2010 Association for Institutional Research 50th Annual Forum. Chicago, IL
- 2010 The Robert Packard Center for ALS Research 11th Annual Symposium. Baltimore, MD
- 2007 American Society for Cell Biology 47th Annual Conference. Washington, DC

TEACHING EXPERIENCE

- 2004 *Graduate Teaching Assistant*
The Ohio State University, Columbus, OH
Taught Biology 101 labs to undergraduate students. Prepared review sessions, lab materials and student evaluations.
- 2002-2003 *Graduate Teaching Assistant*
American University of Beirut, Beirut, Lebanon
Taught the labs of two courses: Cell Biology and Ecology. Prepared review sessions, lab materials, student evaluations and led students on several field trips.
- 2002-2003 *Biology Instructor*
Middle East Canadian Academy of Technology, Damour, Lebanon
Taught Biology 101 to non-major undergraduate students. Developed syllabus, lesson plans, exam questions and student performance evaluations.

PROFESSIONAL SOCIETIES

- 2005-present The American Society for Cell Biology
2006-present American Association for the Advancement of Science
2009-present Society for Neuroscience
2010-present National Postdoctoral Association, USA

PROFESSIONAL/ INSTITUTIONAL SERVICE

- 2012-2014 *Vice Chair for National Activities*
St Jude Postdoctoral Association Council, St Jude Children's Research Hospital, Memphis, TN
- 2010-present *Senior Consultant*
Faculty of Health Sciences, Modern University for Business and Science, Beirut, Lebanon
- 2008-2009 *Social Committee Member and co-founder*
AUB Alumni, Ohio Valley Chapter, American University of Beirut

2007-present	<i>Member of the Board of Trustees</i> Modern University for Business & Science (MUBS)
2006-2007	<i>President and co-founder</i> Lebanese Student Organization, The Ohio State University
2004-2005	<i>Treasurer</i> MCDB Graduate Student Organization, The Ohio State University
2002-2003	<i>Student Representative</i> Student Representative Committees, American University of Beirut

Reviewed manuscripts for ***PLoS One***, ***Brain Research***