
BIOGRAPHICAL SKETCH

NAME Duc Minh Duong		POSITION TITLE Associate Director, Research Projects	
EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	MM/YY	FIELD OF STUDY
Emory University	BS	05/2003	Computer Science

A. Positions and Honors

Positions:

- 2/03 – 9/10 **Departmental Computer Support Specialist / Bioinformatics Developer**
Emory University Genetics Department – Peng Laboratory
- 9/08 – 9/10 **Applications Developer and Proteomic Service Consultant**
Emory University Proteomics Core Atlanta, GA
- 8/11 – Current **Associate Director, Research Projects**
Emory University Biochemistry Atlanta, GA

Other Experience and Professional Memberships

2005 – Current American Society for Mass Spectrometry

B. Publications

- 1) Peng J, Kim MJ, Cheng D, **Duong DM**, Gygi SP, Sheng M. Semiquantitative proteomic analysis of rat forebrain postsynaptic density fractions by mass spectrometry. J Biol Chem. 2004 May 14;279(20):21003-11. PMID: 15020595
 - 2) Liao L, Cheng D, Wang J, **Duong DM**, Losik TG, Gearing M, Rees HD, Lah JJ, Levey AI, Peng J. Proteomic characterization of postmortem amyloid plaques isolated by laser capture microdissection. J Biol Chem. 2004 Aug 27;279(35):37061-8. PMID: 1522035
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- 3) Cheng D, Hoogenraad CC, Rush J, Ramm E, Schlager MA, **Duong DM**, Xu P, Wijayawardana SR, Hanfelt J, Nakagawa T, Sheng M, Peng J. Relative and absolute quantification of postsynaptic density proteome isolated from rat forebrain and cerebellum. *Mol Cell Proteomics*. 2006 Jun;5(6):1158-70. PMID: 16507876
 - 4) Gozal YM, Cheng D, **Duong DM**, Lah JJ, Levey AI, Peng J. Merger of laser capture microdissection and mass spectrometry: a window into the amyloid plaque proteome. *Methods Enzymol*. 2006;412:77-93. Review. PMID: 17046653
 - 5) Xu, P., Cheng, D., **Duong, D. M.**, Rush, J., Roelofs, J., Finley, D. and Peng, J. (2006), A Proteomic Strategy for Quantifying Polyubiquitin Chain Topologies. *Israel Journal of Chemistry*, 46: 171–182. doi: 10.1560/1JVL-J4EE-FVW4-MXRE
 - 6) Choe EA, Liao L, Zhou JY, Cheng D, **Duong DM**, Jin P, Tsai LH, Peng J. Neuronal morphogenesis is regulated by the interplay between cyclin-dependent kinase 5 and the ubiquitin ligase mind bomb 1. *J Neurosci*. 2007 Aug 29;27(35):9503-12. PMID: 17728463
 - 7) Seyfried NT, Xu P, **Duong DM**, Cheng D, Hanfelt J, Peng J. Systematic approach for validating the ubiquitinated proteome. *Anal Chem*. 2008 Jun 1;80(11):4161-9. PMID: 18433149 PMCID: PMC2673951
 - 8) Xia Q, Liao L, Cheng D, **Duong DM**, Gearing M, Lah JJ, Levey AI, Peng J. Proteomic identification of novel proteins associated with Lewy bodies. *Front Biosci*. 2008 May 1;13:3850-6. PMID: 18508479 PMCID: PMC266396
 - 9) Xia Q, Cheng D, **Duong DM**, Gearing M, Lah JJ, Levey AI, Peng J. Phosphoproteomic analysis of human brain by calcium phosphate precipitation and mass spectrometry. *J Proteome Res*. 2008 Jul;7(7):2845-51. PMID: 18510355 PMCID: PMC2663965
 - 10) Edbauer D, Cheng D, Batterton MN, Wang CF, **Duong DM**, Yaffe MB, Peng J, Sheng M. Identification and characterization of neuronal mitogen-activated protein kinase substrates using a specific phosphomotif antibody. *Mol Cell Proteomics*. 2009 Apr;8(4):681-95. PMID: 19054758 PMCID: PMC2667352
 - 11) Xu P, **Duong DM**, Seyfried NT, Cheng D, Xie Y, Robert J, Rush J, Hochstrasser M, Finley D, Peng J. Quantitative proteomics reveals the function of unconventional ubiquitin chains in proteasomal degradation. *Cell*. 2009 Apr 3;137(1):133-45. PMID: 19345192 PMCID: PMC2668214
 - 12) Xu P, **Duong DM**, Peng J. Systematical optimization of reverse-phase chromatography for shotgun proteomics. *J Proteome Res*. 2009 Aug;8(8):3944-50. PMID: 19566079 PMCID: PMC2749476
 - 13) Gozal YM, **Duong DM**, Gearing M, Cheng D, Hanfelt JJ, Funderburk C, Peng J, Lah JJ, Levey AI. Proteomics analysis reveals novel components in the detergent-insoluble subproteome in Alzheimer's disease. *J Proteome Res*. 2009 Nov;8(11):5069-79. PMID: 19746990 PMCID: PMC278424
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- 14) Seyfried NT, Gozal YM, Dammer EB, Xia Q, **Duong DM**, Cheng D, Lah JJ, Levey AI, Peng J. Multiplex SILAC analysis of a cellular TDP-43 proteinopathy model reveals protein inclusions associated with SUMOylation and diverse polyubiquitin chains. *Mol Cell Proteomics*. 2010 Apr;9(4):705-18. PMID: 20047951 PMCID: PMC2860236
 - 15) Zhou JY, Afjehi-Sadat L, Asress S, **Duong DM**, Cudkowicz M, Glass JD, Peng J. Galectin-3 is a candidate biomarker for amyotrophic lateral sclerosis: discovery by a proteomics approach. *J Proteome Res*. 2010 Oct 1;9(10):5133-41. PMID: 20698585 PMCID: PMC2948604
 - 16) Herskowitz JH, Seyfried NT, **Duong DM**, Xia Q, Rees HD, Gearing M, Peng J, Lah JJ, Levey AI. Phosphoproteomic Analysis Reveals Site-Specific Changes in GFAP and NDRG2 Phosphorylation in Frontotemporal Lobar Degeneration. *J Proteome Res*. 2010 Oct 22. PMID: 20886841 PMCID: PMC2997170
 - 17) Go YM, **Duong DM**, Peng J, Jones DP. Protein Cysteines Map to Functional Networks According to Steady-state Level of Oxidation. *J Proteomics Bioinform*. 2011 Oct 30;4(10):196-209. PMID: 22605892
 - 18) Dammer EB, Na CH, Xu P, Seyfried NT, **Duong DM**, Cheng D, Gearing M, Rees H, Lah JJ, Levey AI, Rush J, Peng J. Polyubiquitin linkage profiles in three models of proteolytic stress suggest the etiology of Alzheimer disease. *J Biol Chem*. 2011 Mar 25;286(12):10457-65. PMID: 21278249 PMCID: PMC3060499
 - 19) Gozal YM, Dammer EB, **Duong DM**, Cheng D, Gearing M, Rees HD, Peng J, Lah JJ, Levey AI. Proteomic analysis of hippocampal dentate granule cells in frontotemporal lobar degeneration: application of laser capture technology. *Front Neurol*. 2011 Apr 25;2:24. PMID: 21577247
 - 20) Yair M Gozal, Nicholas T Seyfried, Marla Gearing, Jonathan D Glass, Craig J Heilman, Joanne Wu, **Duc M Duong**, Dongmei Cheng, Qiangwei Xia, Howard D Rees, Jason J Fritz, Deborah S Cooper, Junmin Peng, Allan I Levey, James J Lah. Aberrant septin 11 is associated with sporadic frontotemporal lobar degeneration. *Molecular Neurodegeneration* 2012 Dec 6 (1), 1-13. PMID: 22126117
 - 21) Seyfried NT, Gozal YM, Donovan LE, Herskowitz JH, Dammer EB, Xia Q, Ku L, Chang J, **Duong DM**, Rees HD, Cooper DS, Glass JD, Gearing M, Tansey MG, Lah JJ, Feng Y, Levey AI, Peng J. Quantitative analysis of the detergent-insoluble brain proteome in frontotemporal lobar degeneration using SILAC internal standards. *J Proteome Res*. 2012 May 4;11(5):2721-38. PMID: 22416763
 - 22) Donovan LE, Higginbotham L, Dammer EB, Gearing M, Rees HD, Xia Q, **Duong DM**, Seyfried NT, Lah JJ, Levey AI. Analysis of a membrane-enriched proteome from postmortem human brain tissue in Alzheimer's disease. *Proteomics Clin Appl*. 2012 Apr;6(3-4):201-11. doi: 10.1002/prca.201100068. PMID: 22532456
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- 23) Jeremy H Herskowitz, Yair M Gozal, **Duc M Duong**, Eric B Dammer, Marla Gearing, Keqiang Ye, James J Lah, Junmin Peng, Allan I Levey, Nicholas T Seyfried. Asparaginyl endopeptidase cleaves TDP-43 in brain. *Proteomics* 2012 June 21 PMID: 22718532
 - 24) Dammer EB, Fallini C, Gozal YM, **Duong DM**, Rossoll W, Xu P, Lah JJ, Levey AI, Peng J, Bassell GJ, Seyfried NT. Coaggregation of RNA-Binding Proteins in a Model of TDP-43 Proteinopathy with Selective RGG Motif Methylation and a Role for RRM1 Ubiquitination. *PLoS One*. 2012;7(6):e38658 PMID: 22761693
 - 25) Wu F, Wu J, Nicholson AD, Echeverry R, Haile WB, Catano M, An J, Lee AK, **Duong D**, Dammer EB, Seyfried NT, Tong FC, Votaw JR, Medcalf RL, Yepes M. Tissue-Type Plasminogen Activator Regulates the Neuronal Uptake of Glucose in the Ischemic Brain. *J Neurosci*. 2012 Jul 18;32(29):9848-9858 PMID: 22815500
 - 26) Xu P, Tan H, **Duong D***, Yang Y, Kupsco J, Moberg K, Li H, Jin P, Peng J. Stable Isotope Labeling with Amino Acids in Drosophila for Quantifying Proteins and Modifications. *J Proteome Res*. 2012 Jul 25. PMID: 22830426 ***Co-first**
 - 27) Fengkai Fan, Si Nie, Eric B Dammer, **Duc M Duong**, Deng Pan, Lingyan Ping, Linhui Zhai, Junzhu Wu, Xuechuan Hong, Lingsong Qin, Ping Xu, Yu-Hui Zhang. Protein Profiling of Active Cysteine Cathepsins in Living Cells Using an Activity-Based Probe Containing a Cell-Penetrating Peptide. *Journal of Proteome Research* 2012 Oct 30 PMID: 23082807
 - 28) Zhou J, Jones DR, Duong DM, Levey AI, Lah JJ, Peng J. Proteomic analysis of postsynaptic density in Alzheimer's disease. *Clin Chim Acta*. 2013 May PMID: 23537733
 - 29) Kallappagoudar S, Dammer EB, Duong DM, Seyfried NT, Lucchesi JC. Expression, purification and proteomic analysis of recombinant histone H4 acetylated at lysine 16. *Proteomics*. 2013 May PMID: 23554095
 - 30) Zhai L, Chang C, Li N, Duong DM, Chen H, Deng Z, Yang J, Hong X, Zhu Y, Xu P. Systematic research on the pretreatment of peptides for quantitative proteomics using a C18 microcolumn. *Proteomics*. 2013 Aug PubMed PMID: 23723153.
 - 31) Donovan LE, Dammer EB, Duong DM, Hanfelt JJ, Levey AI, Seyfried NT, Lah JJ. Exploring the potential of the platelet membrane proteome as a source of peripheral biomarkers for Alzheimer's disease. *Alzheimers Res Ther*. 2013 Jun 13 PubMed PMID: 23764030.
 - 32) Dammer EB, Duong DM, Diner I, Gearing M, Feng Y, Lah JJ, Levey AI, Seyfried NT. Neuron enriched nuclear proteome isolated from human brain. *J Proteome Res*. 2013 Jul 5 PubMed PMID: 23768213; PubMed Central PMCID: PMC3734798
 - 33) Wu F, Nicholson AD, Haile WB, Torre E, An J, Chen C, Lee AK, Duong DM, Dammer EB, Seyfried NT, Tong FC, Votaw JR, Yepes M. Tissue-type plasminogen activator mediates neuronal detection and adaptation to metabolic stress. *J Cereb Blood Flow Metab*. 2013 Jul 24. PMID: 23881246.
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- 34) Zhang H, Park SH, Pantazides BG, Karpiuk O, Warren MD, Hardy CW, Duong DM, Park SJ, Kim HS, Vassilopoulos A, Seyfried NT, Johnsen SA, Gius D, Yu DS. SIRT2 directs the replication stress response through CDK9 deacetylation. *Proc Natl Acad Sci U S A*. 2013 Aug 13 PMID: 23898190; PubMed Central PMCID: PMC3746840.
 - 35) Go YM, Roede JR, Walkers D, Duong DM, Seyfried NT, Orr M, Liang Y, Pennell KD, Jones DP. Selective targeting of the cysteine proteome by thioredoxin and glutathione redox systems. *Mol Cell Proteomics*. 2013 Aug 14. PMID: 23946468.
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