

Lingjun Li – Full list of publications

Peer-Reviewed Publications (Since position at the University of Wisconsin-Madison):

66. J. A. Dowell, W. Vander Heyden, and **L. Li*** (2006). Rat neuropeptidomics by LC/MS/MS and MALDI-FTMS: enhanced dissection and extraction techniques coupled with 2D RP-RP HPLC separation. *Journal of Proteome Research*. **5**, 3368-3375. Featured in the Research Profile Section.
65. S.S. DeKeyser, J.A. Dowell, and **L. Li*** (2007) Mass spectrometric characterization of neuropeptides. Invited book chapter in *Methods in Molecular Biology*. Accepted.
64. S.S. DeKeyser, K. K. Kutz-Naber, J. J. Schmidt, G.A. Barrett-Wilt, and **L. Li*** (2007) Mass spectral imaging of neuropeptides in crustacean nervous tissue by MALDI TOF/TOF. *Journal of Proteome Research*. In press.
63. S. DeKeyser and **L. Li*** (2006). Matrix-assisted laser desorption/ionization Fourier transform mass spectrometry (MALDI FTMS) quantitation via in-cell combination (QUICC). *Analyst*. Invited contribution to the special issue of Emerging Investigators. **131**, 281-290.
 - This paper was featured on the cover of the journal.
62. M. Ma, K. K. Kutz-Naber, and **L. Li*** (2007). Methyl esterification assisted MALDI FTMS characterization of orcokinin neuropeptide family. *Analytical Chemistry*. **79**, 673-681.
61. Q. Fu, L. Tang, E. Marder, and **L. Li*** (2007). Mass spectrometric characterization and physiological actions of VPNDWAHFRGSWamide, a novel B-type allatostatin in *Cancer* crabs. *Journal of Neurochemistry* In press.
60. A. E. Christie*, K. K. Kutz-Naber, E. A. Stemmler, A. Klein, D. I. Messinger, C. C. Goiney, Y.-W. A. Hsu, C. R. Easton, **L. Li**, and P.S. Dickinson (2007). Midgut epithelial endocrine cells are a rich source of the neuropeptides APSGFLGMRamide (*Cancer borealis* tachykinin-related peptide Ia) and GYRKPPFNGSIFamide (Gly¹-SIFamide) in the crabs *Cancer borealis*, *Cancer magister* and *Cancer productus*. *J. Exp. Biol.* **210**, 699-714.
59. C. Zhang, Q. Fu, C. Albermann, **L. Li**, and J. S. Thorson* (2007). The *in vitro* characterization of the erythronolide mycarosyltransferase EryBV and its utility in macrolide diversification. *ChemBioChem*. **8**, 385-390.
58. Q. Fu and **L. Li*** (2006). Investigation of several unique MS/MS fragmentation patterns of NFDEIDR, an orcokinin analog, and its N-terminal dimethylated form. *Rapid Commun. Mass Spectrom.* **20**, 553-562.
57. Q. Fu and **L. Li*** (2006). The neutral loss of water from the b ions with histidine at the C-terminus. *J. Mass Spectrom.* **41**, 1600-1607.
56. S.R. Saideman, M. Ma, K. K. Kutz-Naber, A. Cook, P. Torfs, L. Schoofs, **L. Li**, and M. P. Nusbaum* (2007). Modulation of rhythmic motor activity by pyrokinin peptides. *Journal of Neurophysiology* **97**, 579-595.

55. N. Cruz-Bermudez, Q. Fu, K. Kutz, A. Christie, **L. Li***, and E. Marder (2006), Mass spectrometric characterization and physiological actions of GAHKNYLRFamide, a novel FMRFamide-like peptide from crabs of the genus *Cancer*. *J. Neurochem.* **97**, 784-799.
54. S. DeKeyser **and L. Li*** (2007). Mass spectrometric charting of neuropeptides in arthropod neurons. *Analytical and Bioanalytical Chemistry* Invited trend article. **387**, 29-35.
53. D.J. Schulz*, R.A. Baines, C.M. Hempel, **L. Li**, B. Liss, H. Misonou (2006). The role of gene expression and cellular excitability in the regulation of functional neuronal identity. *Journal of Neuroscience* **26**, 10362-10367. Invited Mini-Symposium Review.
52. Q. Fu and **L. Li*** (2006). Fragmentation of peptides with N-terminal dimethylation and imine/methylol adduction at tryptophan side chain. *J. Am. Soc. Mass Spectrom.* **17**, 859-866.
51. C. Zhang, B.R. Griffith, Q. Fu, X. Fu, C. Albermann, I.K. Lee, **L. Li**, and J.S. Thorson* (2006). Exploiting the indiscriminate and reversible nature of the Calicheamicin Rhamnosyltransferase CalG1 for enediyne glycorandomization. *Science* **313**, 1291-1294.
50. L. Zhao, X. Shi, **L. Li**, and D. J. Miller* (2006) Dynamin 2 associates with complexins and is found in the acrosomal region of mammalian sperm. *Molecular Reproduction and Development*. In press.
49. Q. Fu and **L. Li*** (2005). *De novo* sequencing of neuropeptides using reductive isotopic methylation and investigation of ESI QTOF MS/MS fragmentation pattern of neuropeptides with N-terminal dimethylation. *Anal. Chem.* **77**, 7783-7795.
48. Q. Fu, M. Goy, and **L. Li*** (2005). Identification of neuropeptides from the sinus gland of the Jonah crab, *Cancer borealis* and the Maine lobster, *Homarus americanus* using nanoscale liquid chromatography tandem mass spectrometry. *Biochem. Biophys. Res. Commun.* **337**, 765-778.
47. C. Billimoria, **L. Li***, and E. Marder (2005). Probing neuropeptide release from the crustacean stomatogastric nervous system using MALDI mass spectrometry. *J Neurochem.* **95**, 191-199.
46. Q. Fu, A. E. Christie, and **L. Li*** (2005). Mass spectrometric characterization of the crustacean hyperglycemic hormone precursor related peptides (CPRPs) from the sinus gland of the crab, *Cancer productus*. *Peptides* **26**, 2137-2150.
45. Q. Fu, K. K. Kutz, J. J. Schmidt, Y-W.A. Hsu, S. D. Cain, J. M. Edwards, L. V. Ambroggio, T. G. Halatchev, A. E. Christie, and **L. Li*** (2005). Hormone complement of the *Cancer productus* sinus gland and pericardial organ: an anatomical and mass spectrometric investigation. *J. Comp. Neurol.* **493**, 606-625.
44. D. I. Messinger, K. K. Kutz, J. T. Birmingham, Y-W.A. Hsu, C. T. Ngo, **L. Li**, and A. E. Christie* (2005). Identification and characterization of a tachykinin-containing neuroendocrine organ in the commissural ganglion of the crab *Cancer productus*. *J. Exp. Biol.* **208**, 3303-3319.
43. J. Y. Yew*, K. Kutz, S. Dikler, L. Messinger, **L. Li**, and A. O. Stretton (2005). A mass spectrometric map of neuropeptide expression in *Ascaris suum*. *J. Comp. Neurol.* **488**, 396-413.
42. K. K. Kutz, J. J. Schmidt, and **L. Li*** (2004). *In situ* tissue analysis of neuropeptides by MALDI FTMS in-cell accumulation. *Anal. Chem.* **76**, 5630-5640.

41. **L. Li***, W.P. Kelley, C. Billimoria, A. Christie, S. R. Pulver, J. V. Sweedler, and E. Marder (2003). Mass spectrometric investigation of the neuropeptide complement and release in the pericardial organs of the crab, *Cancer borealis*. *J. Neurochem.* **87**, 642-656.
40. **L. Li*** (2005), Invited book review for *Drug Discovery for Nervous System Diseases*, *Am. J. Pharmaceutical Education.* **69**, 4, 561-562.

* indicates corresponding author.

Publications (Prior to position at the University of Wisconsin-Madison):

39. Proekt, F.S. Vilim, V. Alexeeva, V. Brezina, A. Friedman, J. Jing, **L. Li**, Y. Zhurov, J.V. Sweedler, and K. R. Weiss (2005). Identification of new neuropeptide precursor reveals a novel source of extrinsic modulation in the feeding system of *Aplysia*. *J. Neurosci.* **25**, 9637-9648.
38. B. Hummon, N. P. Hummon, R. W. Corbin, **L. Li**, F. S. Vilim, K. R. Weiss, and J. V. Sweedler (2003). From prohormone to final peptides: predicting processing using consensus sequence trends of common basic sites. *J. Proteome Res.* **2**, 650-656.
37. C. Masselon, L. Pasa-Tolic, S.-W. Lee, **L. Li**, G. A. Anderson, R. Harkewicz, and R. D. Smith (2003). Identification of tryptic peptides from large databases using multiplexed MS/MS: simulations and experimental results. *Proteomics* **3**, 1279-1286.
36. Y. Furukawa, K. Nakamaru, K. Sasaki, Y. Fujisawa, H. Minakata, S. Ohta, F. Morishita, O. Matsushima, **L. Li**, V. Alexeeva, T. A. Ellis, N. C. Dembrow, J. Jing, J. V. Sweedler, K. R. Weiss, and F. S. Vilim (2003). PRQFVamide, a novel pentapeptide identified from the CNS and gut of *Aplysia*. *J. Neurophysiol.* **89**, 3114-3127.
35. J. V. Sweedler, **L. Li**, S. S. Rubakhin, V. Alexeeva, N. C. Dembrow, O. Dowling, J. Jing, K. R. Weiss, and F. S. Vilim (2002). Identification and characterization of the feeding circuit activating peptides (FCAPs), a novel neuropeptide family of *Aplysia*. *J. Neurosci.* **22**, 7797-7808.
34. **L. Li**, S. R. Pulver, W. P. Kelley, V. Thirumalai, J. V. Sweedler, and E. Marder (2002). Orcokinin peptides in developing and adult crustacean stomatogastric nervous systems and pericardial organs. *J. Comp. Neurol.* **444**, 227-244.
33. **L. Li** and J.V. Sweedler (2002) Measuring neuropeptides with single-cell mass spectrometry. In **Mass Spectrometry and Hyphenated Techniques in Neuropeptide Research**. 495-517.
32. F. S. Vilim, V.Y. Alexeeva, L.L. Moroz, **L. Li**, T.P. Moroz, J.V. Sweedler, and K.R. Weiss (2001) Cloning, expression and processing of the CP2 neuropeptide precursor of *Aplysia*. *Peptides* **22**, 2027-2038.
31. Y. Furukawa, K. Nakamaru, H. Wakayama, Y. Fujisawa, H. Minakata, S. Ohta, F. Morishita, O. Matsushima, **L. Li**, E. V. Romanova, J. V. Sweedler, J.H. Park, A. Romero, E.C. Cropper, N.C. Dembrow, K.R. Weiss, and F.S. Vilim (2001) The enterins: a novel family of neuropeptides isolated from the enteric and central nervous system of *Aplysia*. *J. Neurosci.* **21**, 8247-8261.
30. Y. Shen, N. Tolic, R. Zhao, L. Pasa-Tolic, **L. Li**, S. J. Berger, R. Harkewicz, G. A. Anderson, M. E. Belov, and R. D. Smith (2001). High-throughput proteomics using high efficiency multiple-

- capillary liquid chromatography with on-line high performance ESI FTICR mass spectrometry. *Anal. Chem.* **73**, 3011-3021.
29. L. Li, C. D. Masselon, G. A. Anderson, L. Pasa-Tolic, S-W. Lee, Y. Shen, R. Zhao, M. S. Lipton, and R. D. Smith (2001). High-throughput peptide identification from protein digests using data-dependent multiplexed tandem FTICR mass spectrometry coupled with capillary liquid chromatography. *Anal. Chem.* **73**, 3312-3322.
28. L. Li, P. D. Floyd, S. S. Rubakhin, E. V. Romanova, J. Jing, V. Y. Alexeeva, N. C. Dembrow, K. R. Weiss, F. S. Vilim, and J. V. Sweedler (2001) Cerebrin prohormone processing, distribution and action in *Aplysia californica*. *J. Neurochem.* **77**, 1569-1580.
27. J.V. Sweedler, **L. Li**, P.D. Floyd, and W. Gilly (2000) Mass spectrometric survey of peptides in cephalopods with an emphasis on the FMRFamide-related peptides. *J. Exp. Biol.* **203**, 3565-3573.
26. L. Li, E.V. Romanova, S.S. Rubakhin, V. Alexeeva, K.R. Weiss, F.S. Vilim, and J.V. Sweedler (2000) Peptide profiling of cells with multiple gene products: combining immunochemistry and MALDI-mass spectrometry with on-plate microextraction. *Anal. Chem.* **72**, 3867-3874.
25. L. Li, R.W. Garden, and J.V. Sweedler (2000) Single-cell MALDI: a new tool for direct peptide profiling. *Trends Biotechnol.* **18**, 151-160.
 - This paper was featured on the cover of the journal.
24. **L. Li**, R.W. Garden, E.V. Romanova, and J.V. Sweedler (1999) *In Situ* sequencing of peptides from biological tissues and single cells using MALDI-PSD/CID analysis. *Anal. Chem.* **71**, 5451-5458.
 - This paper was featured as an accelerated article in the journal.
23. **L. Li**, R.W. Garden, P.D. Floyd, T.P. Moroz, J.M. Gleeson, J.V. Sweedler, L. Pasa-Tolic, and R.D. Smith (1999) Egg-laying hormone peptides in the aplysiidae family. *J. Exp. Biol.* **202**, 2961-2973.
22. Y. Fujisawa, Y. Furukawa, S. Ohta, T. A. Ellis, N. C. Dembrow, **L. Li**, P. D. Floyd, J. V. Sweedler, H. Minakata, K. Nakamaru, F. Morishita, O. Matsushima, K. R. Weiss, and F. S. Vilim (1999) The *Aplysia* MIP-related peptides (AMRPs): identification, cloning, processing, distribution, and action. *J. Neurosci.* **19**, 9618-9634.
21. P.D. Floyd, **L. Li**, S.S. Rubakhin, J.V. Sweedler, C.C. Horn, I. Kupfermann, V. Y. Alexeeva, T.A. Ellis, N.C. Dembrow, K.R. Weiss, and F.S. Vilim (1999) *Aplysia californica* insulin prohormone processing, distribution, and relation to metabolism. *J. Neurosci.* **19**, 7732-7741.
20. P.D. Floyd, **L. Li**, T.P. Moroz, and J.V. Sweedler (1999) Characterization of peptides from *Aplysia* using microbore liquid chromatography with MALDI-TOF mass spectrometry guided purification. *J. Chromatogr. A* **830**, 105-113.
19. S.S. Rubakhin, **L. Li**, T.P. Moroz, and J. V. Sweedler (1999) Characterization of the *Aplysia californica* cerebral ganglion F-cluster. *J. Neurophysiol.* **81**, 1251-1260.
18. R.W. Garden, T.P. Moroz, J.M. Gleeson, P.D. Floyd, **L. Li**, S.S. Rubakhin, and J.V. Sweedler (1999) Formation of pyroglutamyl peptides from N-Glu and N-Gln precursors in *Aplysia* neurons. *J. Neurochem.* **72**, 676-681.

17. **L. Li**, T.P. Moroz, R.W. Garden, P.D. Floyd, K.R. Weiss, and J.V. Sweedler (1998) Mass spectrometric survey of interganglionically transported peptides in *Aplysia*. *Peptides* **19**, 1425-1433.
16. R.W. Garden, S.A. Shippy, **L. Li**, T.P. Moroz, and J.V. Sweedler (1998) Proteolytic processing of the *Aplysia* egg-laying hormone prohormone. *Proceedings of the National Academy of Science, USA* **95**, 3972-3977.
 - This paper was featured in an accompanying commentary (pp 3338-3340).
15. K. Jiang, **L. Li**, Y. Chen, and J. Jin (1997) Determination of PCDD/Fs and dioxin-like PCBs in Chinese commercial PCBs and emissions from a testing PCB incinerator. *Chemosphere* **34**, 941-950.
14. A. Schecter, and **L. Li** (1997) Dioxins, dibenzofurans, dioxin-like PCBs, and DDE in US fast food. *Chemosphere* **34**, 1449-1457.
13. A. Schecter, **L. Li**, K. Jiang, P. Furst, C. Furst, and O. Papke (1996) Pesticide application and increased dioxin body burden in male and female agricultural workers in China. *J. Occup. Environ. Med.* **38**, 906-911.
12. A. Schecter, O. Papke, A. Lis, M. Ball, J.J. Ryan, J.R. Olson, **L. Li**, H. Kessler (1996) Decrease in milk and blood dioxin levels over two years in a mother nursing twins: estimates of decreased maternal and increased infant dioxin body burden from nursing. *Chemosphere* **32**, 543-549.
11. A. Schecter, **L. Li**, and J. R. Olson (1995) Dioxins in U.S. fast food. *Organohalogen Compound* **26** 135-139.
10. K. Jiang, **L. Li**, Y. Chen, S. Li, and Y. Gong (1995) Residual dioxins in Chinese schistosomiasis region and its eco-environmental risk. *Chin. Sci. Bull.*(English version) **40**, 1740-1747.
9. K. Jiang, **L. Li**, Y. Chen, J. Jin, and D. Zhang (1999) Emissions of dioxins and PCBs from PCB-containing waste incinerator. *Prog. Environ. Sci.* (Chinese) **7**, 45-49.
8. K. Jiang, **L. Li**, and Y. Chen (1996) Dioxins in stack ash from PCB waste incinerator. *Chin. J. Environ. Sci.* **17**, 68-71.
7. **L. Li** and K. Jiang (1995) Determination of dioxin-like PCBs congeners of Chinese PCBs chemicals. *Chin. J. Environ. Sci.* **16**, 55-58.
6. **L. Li** and K. Jiang (1995) Determination of toxic equivalents of PCDD/Fs in two Chinese commercial PCBs by ¹³C isotope dilution method. *Acta Environ. Sci.* **15**, 433-439.
5. **L. Li**, Y. Chen, Y. Zhou, J. Wu, and K. Jiang (1995) Use of acid-base silica/alumina column and gas chromatography-mass spectrometry (GC/MS) methods for determination of residual PCBs in the solid wastes of an incinerator. *Chin. J. Environ. Chem.* **14**, 322-328.
4. K. Jiang, Y. Chen, and **L. Li** (1995) PCDD/Fs in sodium pentachlorophenate (Na-PCP) and human blood, milk, and sediment samples from Chinese schistosomiasis areas. *J. Environ. Sci.* **7**, 52-59.

3. J. Jin, **L. Li**, K. Jiang (1995) Toxicity of dioxin-like compounds. *Shanghai Environ. Sci.* **14**, 29-32.
2. **L. Li**, Y. Chen, C. Chiu, G. Poole, W. Miles, and K. Jiang (1994) PCDD/Fs in sediment samples from Chinese schistosomiasis areas and potential human health effects. *Organohalogen Compound* **20** (Dioxin '94), 155-158.
1. **L. Li**, J. Wu, Y. Chen, and K. Jiang (1993) Determination of polychlorinated biphenyls in transformer oils. *Chin. J. Environ. Sci.* **14**, 69-72.