

# **Jong-Woo Sohn, M.D., Ph.D.**

## **Curriculum Vitae**

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### **Personal**

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Date of Birth: 11 Nov 1978 in Seoul, Korea

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Marital status: Married with two sons

### **Education**

Sep 2003 – Feb 2008: Ph. D. from Department of Physiology, Seoul National University College of Medicine, Seoul, Korea

Mar 1997 – Feb 2003: M.D. from Seoul National University College of Medicine, Seoul, Korea

### **Professional Experience**

Jul 2009 – present: Postdoctoral Researcher, Division of Hypothalamic Research, Department of Internal Medicine, The University of Texas Southwestern Medical Center at Dallas, Dallas, TX, USA

Sep 2008 – Jun 2009: Postdoctoral Fellow, BK21 Research Division of Human Life Science, Seoul National University, Seoul, Korea

Mar 2008 – Sep 2008: Senior Researcher, Neuroscience Research Institute, Seoul National University Medical Research Center, Seoul, Korea

Mar 2003 – Feb 2008: Teaching Assistant in Department of Physiology, Seoul National University College of Medicine, Seoul, Korea

### **Honors and Awards**

Mar 2013: Finalist in Excellence Award in Postdoctoral Research at UT Southwestern: 2012-2013

Jan 2012 – Dec 2013: Postdoctoral Fellowship (12POST8860007) funded by the American Heart Association

Apr 2009: Academic Award in Basic Medical Science (Physiology), Korea Medical Association

Feb 2008: Excellent Graduate Student Award, BK21 Research Division of Human Life Science, Seoul National University

Nov 2007: Excellence in Research Award: Student Category, AKN (Association of Korean Neuroscientists) Annual Symposium at the 2007 Society for Neuroscience meeting

## **License**

Mar 2003: Medical Doctor's License, Korean Ministry of Health and Welfare (No. 78956)

## **List of Publications**

18. Berglund ED, Liu C, Sohn JW, Liu T, Kim MH, Lee CE, Vianna CR, Xu Y, Elmquist JK. (2013) 5-HT<sub>2C</sub>R signaling in POMC neurons regulates energy balance, glycemia, and d-fenfluramine-induced hypophagia in mice. **Journal of Clinical Investigation**, *under review*.
17. Sohn JW, Elmquist JK, Williams KW. (2013) Mapping neuronal circuits regulating feeding behavior and metabolism. **Trends in Neurosciences**, *revision submitted*.
16. Sohn JW. (2013) Ion channels in the central regulation of energy and glucose homeostasis. **Frontiers in Neuroscience**, *in press*.
15. \*Sohn JW, Harris LE, Berglund ED, Liu T, Vong L, Lowell BB, Balthasar N, Williams KW, Elmquist JK. (2013) Melanocortin 4 receptors reciprocally regulate sympathetic and parasympathetic preganglionic neurons. **Cell**, 152(3): 612-619.  
\*This article was highlighted in F1000 Prime (<http://f1000.com/prime/717987108#eval793472375>).
14. Cui H, Sohn JW, Gautron L, Funahashi H, Williams KW, Elmquist JK, Lutter M. (2012) Neuroanatomy of melanocortin-4 receptor pathway in the lateral hypothalamic area. **Journal of Comparative Neurology**, 520(18): 4168-4183.
13. Sohn JW, Williams KW. (2012) Functional heterogeneity of arcuate nucleus pro-opiomelanocortin neurons: implications for diverging melanocortin pathways. **Molecular Neurobiology**, 45(2): 225-233.
12. Sohn JW, Yu WJ, Lee D, Shin HS, Lee SH, Ho WK. (2011) Cyclic ADP ribose-dependent Ca<sup>2+</sup> release by group I metabotropic glutamate receptors in acutely dissociated rat hippocampal neurons. **PLoS ONE**, 6(10): e26625.
11. Williams KW, Sohn JW, Donato J, Lee CE, Zhao JJ, Elmquist JK, Elias CF. (2011) The acute effects of leptin require PI3K signaling in the hypothalamic ventral premammillary nucleus. **Journal of Neuroscience**, 31(37): 13147-13156.

10. \*Sohn JW, Xu Y, Jones JE, Wickman K, Williams KW, Elmquist JK. (2011) Serotonin 2C receptor activates a distinct population of arcuate pro-opiomelanocortin neurons via TRPC channels. **Neuron**, 71(3): 488-497.  
 \*This article was highlighted in F1000 Prime (<http://f1000.com/prime/13242960#eval14620058>).
9. Klöckener T, Hess S, Belgardt BF, Paeger L, Verhagen LAW, Husch A, Sohn JW, Hampel B, Dhillon H, Zigman JM, Lowell BB, Williams KW, Elmquist JK, Horvath TL, Kloppenburg P, Brüning JC. (2011) High-fat feeding promotes obesity via insulin receptor/PI3K-dependent inhibition of SF-1 VMH neurons. **Nature Neuroscience**, 14(7): 911-918.
8. Kim KW, Sohn JW, Kohno D, Xu Y, Williams KW, Elmquist JK. (2011) SF-1 in the ventral medial hypothalamic nucleus: a key regulator of homeostasis. **Molecular and Cellular Endocrinology**, 336(1-2), 219-223.
7. Xu Y, Berglund ED, Sohn JW, Holland WL, Chuang JC, Fukuda M, Rossi J, Jones JE, Zigman JM, Lowell BB, Scherer PE, Elmquist JK. (2010) 5-HT<sub>2C</sub>Rs expressed by pro-opiomelanocortin neurons regulate insulin sensitivity in liver. **Nature Neuroscience**, 13(12): 1457-1459.
6. Xu Y, Hill JW, Fukuda M, Gautron L, Sohn JW, Kim KW, Lee CE, Choi MJ, Lauzon D, Dhillon H, Lowell BB, Zigman JM, Zhao JJ, Elmquist JK. (2010) PI3K signaling in the ventromedial hypothalamic nucleus is required for normal energy homeostasis. **Cell Metabolism**, 12(1): 88-95.
5. Lim A, Park SH, Sohn JW, Jeon JH, Park JH, Song DK, Lee SH, Ho WK. (2009) Glucose deprivation regulates K<sub>ATP</sub> channel trafficking via AMP-activated protein kinase (AMPK) in pancreatic  $\beta$ -cells. **Diabetes**, 58(12): 2813-2819.
4. Chang SA, Lee EJ, Kang HJ, Zhang SY, Kim JH, Li L, Youn SW, Lee CS, Kim KH, Won JY, Sohn JW, Park KW, Cho HJ, Yang SE, Oh WI, Yang YS, Ho WK, Park YB, Kim HS. (2008) Impact of myocardial infarct proteins and oscillating pressure on the differentiation of mesenchymal stem cells: effect of acute myocardial infarction on stem cell differentiation. **Stem Cells**, 26(7): 1901-1912.
3. Sohn JW, Lim A, Lee SH, Ho WK. (2007) Decrease in PIP<sub>2</sub>-channel interactions is the final common mechanism involved in PKC- and arachidonic acid-mediated inhibitions of GABA<sub>B</sub>-activated K<sup>+</sup> current. **Journal of Physiology (London)**, 582(3): 1037-1046.
2. Sohn JW, Lee D, Cho H, Shin HS, Lim W, Lee SH, Ho, WK. (2007) Receptor-specific inhibition of GABA<sub>B</sub>-activated K<sup>+</sup> currents by muscarinic and metabotropic glutamate receptors in immature rat hippocampus. **Journal of Physiology (London)**, 580(2): 411-422.
1. Lee SH, Sohn JW, Ahn SC, Park WS, Ho WK. (2004) Li<sup>+</sup> enhances GABAergic inputs to granule cells in the rat hippocampal dentate gyrus. **Neuropharmacology**, 46(5): 638-646.