

# CURRICULUM VITAE

*Yong-Seok Oh, Ph.D.*

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## Contact information:

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## Education:

Aug. 2004 Ph.D., Department of Life Science, Pohang University of Science and Technology (POSTECH),  
Pohang, Korea (Thesis advisor: Dr. Pann-Ghill Suh and Dr. Sung Ho Ryu)

Feb. 1999 MS, Department of Life Science, Pohang University of Science and Technology (POSTECH),  
Pohang, Korea (Thesis advisor: Dr. Pann-Ghill Suh and Dr. Sung Ho Ryu)

Feb. 1997 BS, Department of Animal Science and Technology, Seoul National University, Seoul, Korea

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## Employment:

2009.1-Present: Research Associate in the Molecular and Cellular Neuroscience Laboratory  
(Dr. Paul Greengard Lab), The Rockefeller University, New York

2006.7 – 2008.12: Post-doctoral Associate in the Molecular and Cellular Neuroscience Laboratory  
(Dr. Paul Greengard Lab), The Rockefeller University, New York

2006. 1 – 2006.6: Post-Doctoral Fellow in the Neuro-Oncology Laboratory, Columbia University, New York

2004. 8 - 2005.12: Post Doctoral Fellow in the Signaling Network Laboratory, POSTECH, Pohang, Korea

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## Fellowship/Award program:

2013 Principal Investigator, The NARSAD\* Young Investigator Award from Brain & Behavior Research Foundation (**Pending**).

2013 Recipient, The Travel Grant Award from The Korean Society for Molecular and Cellular Biology.

2006 Recipient, Korean Oversea Post-doctoral Fellowship from Korea Research Foundation.

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## Membership:

2006-present: The Society for Neuroscience, member

2000-2006: The American Society for Biochemistry and Molecular Biology, Member

1999-2006: The Korean Society for Molecular and Cellular Biology, Member

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## Publications:

- 1, Svenningsson, P., Kim, Y., Warner-Schmidt, J., **Oh, Y.S.**, Greengard, P. (2013) Role of p11 (S100A10) in depression and in therapeutic responses to antidepressants. *Nature Reviews Neuroscience* (In Revision).
2. **Oh, Y.S.**, Gao, P., Lee, K.W., Ceglia, I., Seo, J.S., Zhang, X., Ahn, J.H., Chait, B.T., Patel, D.J., Kim, Y., Greengard, P. (2013). SMARCA3, a chromatin-remodeling factor, is required for p11-dependent antidepressant action. *Cell* 152, Volume 152, Issue 4, 831-843.

\* Highlighted as *Free Featured Article* in *Cell* Online.

\* Dr. Paul Greengard's interview with Cell Editorial in *Cell* PaperClip.

\* F1000Prime Recommendation by Gomez C: [F1000Prime.com/717991563#eval793473373](http://F1000Prime.com/717991563#eval793473373).

\* Featured as new drug target discovery for Major Depressive Disorder by Nature-SciBX:Science Business eXchange Mar 7, 2013.

3. Yun, S., Byun, H.Y., **Oh, Y.S.**, Yang, Y.R., Ryu, S.H., and Suh, P.G. (2010). Protein kinase C-alpha negatively regulates EGF-induced PLC-epsilon activity through direct phosphorylation. *Advances in enzyme regulation* 50, 178-189.
4. Choi, J.W., Lim, S., **Oh, Y.S.**, Kim, E.K., Kim, S.H., Kim, Y.H., Heo, K., Kim, J., Kim, J.K., Yang, Y.R., et al. (2010). Subtype-specific role of phospholipase C-beta in bradykinin and LPA signaling through differential binding of different PDZ scaffold proteins. *Cellular signalling* 22, 1153-1161.
5. Heo, K., Park, K.A., Kim, Y.H., Kim, S.H., **Oh, Y.S.**, Kim, I.H., Ryu, S.H., and Suh, P.G. (2009). Sphingosine 1-phosphate induces vascular endothelial growth factor expression in endothelial cells. *BMB reports* 42, 685-690.
6. Choi, J.H., Do, Y., Cheong, C., Koh, H., Boscardin, S.B., **Oh, Y.S.**, Bozzacco, L., Trumpfheller, C., Park, C.G., and Steinman, R.M. (2009). Identification of antigen-presenting dendritic cells in mouse aorta and cardiac valves. *The Journal of experimental medicine* 206, 497-505.
7. Park, S.H., Cheong, C., Idoyaga, J., Kim, J.Y., Choi, J.H., Do, Y., Lee, H., Jo, J.H., **Oh, Y.S.**, Im, W., et al. (2008). Generation and application of new rat monoclonal antibodies against synthetic FLAG and OLLAS tags for improved immunodetection. *Journal of immunological methods* 331, 27-38.
8. Kim, S.H., Kim, Y.H., Song, M., An, S.H., Byun, H.Y., Heo, K., Lim, S., **Oh, Y.S.**, Ryu, S.H., and Suh, P.G. (2007). O-GlcNAc modification modulates the expression of osteocalcin via OSE2 and Runx2. *Biochemical and biophysical research communications* 362, 325-329.
9. Bae, S.S., Choi, J.H., Yun S.J., Kim, E.K., **Oh, Y.S.**, Kim, C.D., Suh, P.G. (2007). Direct tyrosine phosphorylation of Akt/PKB by epidermal growth factor receptor. *Journal of life science* 17, 186~191.
10. Kim, Y.H., Song, M., **Oh, Y.S.**, Heo, K., Choi, J.W., Park, J.M., Kim, S.H., Lim, S., Kwon, H.M., Ryu, S.H., et al. (2006). Inhibition of phospholipase C-beta1-mediated signaling by O-GlcNAc modification. *Journal of cellular physiology* 207, 689-696.
11. Heo, K., Ha, S.H., Chae, Y.C., Lee, S., **Oh, Y.S.**, Kim, Y.H., Kim, S.H., Kim, J.H., Mizoguchi, A., Itoh,

T.J., et al. (2006). RGS2 promotes formation of neurites by stimulating microtubule polymerization. *Cellular signalling* 18, 2182-2192.

12. Kim, S.H., Kim, Y.H., Shin, K.J., **Oh, Y.S.**, Lee, C.S., Kang, K.O., Ryu, S.H., and Suh, P.G. (2005a). 2,2',4,6,6'-Pentachlorobiphenyl-induced apoptosis is limited by cyclooxygenase-2 induction. *Toxicological sciences : an official journal of the Society of Toxicology* 83, 397-404.

13. Hwang, J.I., Shin, K.J., **Oh, Y.S.**, Choi, J.W., Lee, Z.W., Kim, D., Ha, K.S., Shin, H.S., Ryu, S.H., and Suh, P.G. (2005b). Phospholipase C-beta3 mediates the thrombin-induced Ca<sup>2+</sup> response in glial cells. *Molecules and cells* 19, 375-381.

14. Hwang, J.I., **Oh, Y.S.**, Shin, K.J., Kim, H., Ryu, S.H., and Suh, P.G. (2005a). Molecular cloning and characterization of a novel phospholipase C, PLC-eta. *Biochem J* 389, 181-186.

15. Park, J.B., Lee, C.S., Lee, H.Y., Kim, I.S., Lee, B.D., Jang, I.H., Jung, Y.W., **Oh, Y.S.**, Han, M.Y., Jensen, O.N., et al. (2004). Regulation of phospholipase D2 by GTP-dependent interaction with dynamin. *Advances in enzyme regulation* 44, 249-264.

16. **Oh, Y.S.**, Jo, N.W., Choi, J.W., Kim, H.S., Seo, S.W., Kang, K.O., Hwang, J.I., Heo, K., Kim, S.H., Kim, Y.H., et al. (2004). NHERF2 specifically interacts with LPA2 receptor and defines the specificity and efficiency of receptor-mediated phospholipase C-beta3 activation. *Mol Cell Biol* 24, 5069-5079.

17. Jung Kang, Y., et al., NHERF2 increases platelet-derived growth factor-induced proliferation through PI-3-kinase/Akt-, ERK-, and Src family kinase-dependent pathway. *Cell Signal*, 2004. 16(7): p. 791-800.

18. Lim, H.S., **Oh, Y.S.**, Suh, P.G., and Chung, S.K. (2003). Syntheses of sphingosine-1-phosphate stereoisomers and analogues and their interaction with EDG receptors. *Bioorganic & medicinal chemistry letters* 13, 237-240.

19. Chang, J.S., Seok, H., Kwon, T.K., Min, D.S., Ahn, B.H., Lee, Y.H., Suh, J.W., Kim, J.W., Iwashita, S., Omori, A., Ichinose, S., Numata, O., Seo, J.K., **Oh, Y.S.**, Suh, P.G. (2002). Interaction of elongation factor-1alpha and pleckstrin homology domain of phospholipase C-gamma 1 with activating its activity. *The Journal of biological chemistry* 277, 19697-19702.

20. Bae, S.S., Choi, J.H., **Oh, Y.S.**, Yun, S.U., Ryu, S.H., and Suh, P.G. (2002). Regulation of phospholipase C-gamma1 by protein kinase A-dependent phosphorylation. *Advances in enzyme regulation* 42, 195-211.

21. Xu, A., Suh, P.G., Marmy-Conus, N., Pearson, R.B., **Oh, Y.S.**, Cocco, L., and Gilmour, R.S. (2001). Phosphorylation of nuclear phospholipase C beta1 by extracellular signal-regulated kinase mediates the mitogenic action of insulin-like growth factor I. *Mol Cell Biol* 21, 2981-2990.

22. Bae, S.S., Choi, J.H., **Oh, Y.S.**, Perry, D.K., Ryu, S.H., and Suh, P.G. (2001). Proteolytic cleavage of epidermal growth factor receptor by caspases. *FEBS letters* 491, 16-20.

23. Bae, S.S., Perry, D.K., **Oh, Y.S.**, Choi, J.H., Galadari, S.H., Ghayur, T., Ryu, S.H., Hannun, Y.A., and Suh, P.G. (2000). Proteolytic cleavage of phospholipase C-gamma1 during apoptosis in Molt-4 cells. *Faseb J* 14, 1083-1092.

24. Kim, Y., Han, J.M., Park, J.B., Lee, S.D., **Oh, Y.S.**, Chung, C., Lee, T.G., Kim, J.H., Park, S.K., Yoo, J.S., et al. (1999). Phosphorylation and activation of phospholipase D1 by protein kinase C in vivo:

determination of multiple phosphorylation sites. *Biochemistry-Us* 38, 10344-10351.

### **Publications in preparation:**

1. **Oh, Y.S.**, Clemenson, D., Lee, K.W., Hsaio, C., Kim, D.S., Gage, F.H., Kim, Y., and Greengard, P. (2013). p11/annexin A2/SMARCA3 pathway regulates hilar mossy cells to mediate chronic antidepressant actions. (In preparation).
  2. **Oh, Y.S.\***, Gao, P.\*, Zabroski, H., Gu, Y., Kim, Y., Patel, D.J., and Greengard, P. (2013). Systemic determination of the short linear recognition motif of p11/AnxA2 heterotetramer, and *In silico* identification of its novel binding targets. (In preparation). \* Contributed equally.
  3. **Oh, Y.S.**, Kim, E.K., Ryu, S.H. and Suh, P.G. (2013). NHERF regulates LPA-induced migration through Ezrin/Radixin/Moesin protein-interaction in gynecological carcinoma cells. (In preparation).
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### **Patent inventor:**

1. Ryu, S.H., Suh, P.G., Park, J.B., Lee, H., Lee, C., Jang I., Kim, I., Kim, J.H., Chae, Y.C., Jung, Y.W., Lee, B.D., **Oh, Y.S.**, Kim, J.H. "Phospholipase D-interacting and regulating proteins", US Patent Number 60/416,552 (Date 08/10/2002).
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### **Teaching experience:**

1998~2000: Undergraduate teaching assistant, POSTECH

2010: Mentor for the CALTECH Summer Internship Program at The Rockefeller University

2013: Mentor for the Summer Science Research Program (SSRP) of The Rockefeller University

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### **Seminar Presentation (International)**

1. **Oh, Y.S.**, "Regulation of LPA receptor signaling through the interaction with PDZ domain-containing proteins." The 2<sup>nd</sup> Japan-Korea Joint Symposium on Cell Signaling, Fukuoka, Japan. 2003.
2. **Oh, Y.S.**, "NHERF2 directly interacts with LPA<sub>2</sub> and defines the efficiency and specificity of receptor-mediated PLC- $\beta$ 3 activation." Annual Conference of Korea Society for Biochemistry and Molecular Biology (KSMBMB), Seoul, Korea. 2004.
3. **Oh, Y.S.**, "p11/AnxA2/SMARCA3 pathway as a mediator for chronic antidepressant actions." Annual Conference of The New York Korean Biologists Association (NYKB), Columbia University, New York, US. 2013.
4. **Oh, Y.S.**, "p11/AnxA2/SMARCA3 pathway as a mediator for chronic antidepressant actions." Annual Conference of the Korea Society for Molecular and Cellular Biology (KSMCB), Seoul, Korea. 2013. (Presentation as a recipient of 2013 KSMCB travel grant award).