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EDUCATION

2003. 3 – 2008. 8	Pohang University of Science and Technology (POSTECH), Korea Ph. D. in Developmental Genetics Thesis title: "The role of Mind bomb-1 in the developing brain" Advisor: Young-Yun Kong, Ph. D
1999. 3 – 2003. 2	Pohang University of Science and Technology (POSTECH), Korea B. S. in Biology (*summa cum laude*)

RESEARCH EXPERIENCE

2018.10 – present	Assistant Professor Department of Biological Sciences, Korea Advanced Institute of Science and Technology (KAIST), Korea
2017. 8 – 2018. 9	Research Associate Department of Neuroscience, Perelman School of Medicine, University of Pennsylvania (Mentors: Dr. Hongjun Song and Dr. Guo-li Ming)
2017. 1 – 2017. 7	Research Associate Institute of Cell Engineering, Department of Neurology, Johns Hopkins University (Mentors: Dr. Hongjun Song and Dr. Guo-li Ming)
2010. 1 – 2016. 12	Postdoctoral Fellow, Institute of Cell Engineering, Department of Neurology, Johns Hopkins University (Mentors: Dr. Hongjun Song and Dr. Guo-li Ming)
2008. 9. -2009. 12	Postdoctoral Fellow, Seoul National University, Korea (Mentor: Dr. Young-Yun Kong)

HONORS AND AWARDS

2019	SUHF Young Investigator Fellowship, Suh Kyungbae Foundation, Korea
2017	AKN Postdoctoral Award, Association of Korean Neuroscientists
2015	NARSAD Young Investigator Award, Brain and Behavior Research Foundation
2015	Postdoctoral Fellowship, Maryland Stem Cell Research Foundation
2010	Long-term Postdoctoral Fellowship, Human Frontier Science Program
2010	Postdoctoral Fellowship, Maryland Stem Cell Research Foundation (Declined due to a conflict with HFSP fellowship)
2008	Excellent Thesis Award, Korean Society for Molecular and Cellular Biology
2008	The Best Doctoral Thesis Award, BK21 Division of Molecular and Life Sciences, Pohang University of Science and Technology, Korea

PUBLICATION

1. Lee, J., Park, J., Kim, J.H., Lee, G., Park, T.E., **Yoon, K.J.**, Kim, Y.K., Lim, C. LSM12-EPAC1 defines a neuroprotective pathway that sustains the nucleocytoplasmic RAN gradient. *PLoS Biology* 18 (12), eCollection (2020)
2. Park, C.W., Lee, S.M., **Yoon, K.J.** Epitranscriptomic regulation of transcriptome plasticity in development and diseases of the brain. *BMB Reports* 53 (11), 551-564 (Review) (2020)
3. Lee, J., **Yoon, K.J.**, Park, P., Lee, C., Kim, M.J., Han, D.H., Kim, J.I., Kim, S., Lee, H.R., Lee, Y., Jang, E.H., Ko, H.G., Kong, Y.Y., Kaang, B.K. Neur1 and Neur2 are required for hippocampus-dependent spatial memory and synaptic plasticity. *Hippocampus* 30 (11), 1158-1166 (2020)
4. Habela, C., **Yoon, K.J.,** Kim, N.S., Taga, A., Bell, K., Bergles, D., Maragakis, N., Ming, G.L., Song, H. Persistent Cyfip1 expression is required to maintain the adult subventricular zone neurogenic niche. *Journal of Neuroscience* 40 (10), 2015-2024 (2020)
5. Koo, B., Choi, B., Park, H., **Yoon, K.J.** Past, Present, and Future of Brain Organoid Technology. *Molecules and Cells* 42 (9), 617-627 (Review) (2019)
6. Kim, J., Koo, B.K., **Yoon, K.J** . Modeling host-virus interactions in viral infectious diseases using stem-cell-derived systems and CRISPR/Cas9 technology. *Viruses* 11 (2), E124 (Review) (2019)
7. Zhou, Y., Bond, A.M., Shade, J.E., Zhu, Y., Davis, C.O., Wang, X., Su, Y., **Yoon, K.J.**, Phan, A.T., Chen, W.J., Oh, J.H., Marsh-Armstrong, N., Atabai, K., Ming, G.L., Song, H. Autocrine Mfge8 signaling prevents developmental exhaustion of the adult neural stem cell pool. *Cell Stem Cell* 23 (3), 444-452 (2018)
8. **Yoon, K.J.**, Ming, G.L., Song, H. Epitranscriptomes in the adult mammalian brain: dynamic changes regulate behavior. *Neuron* 99 (2), 243-245 (Preview) (2018)
9. **Yoon, K.J.**, Vissers, C., Ming, G.L., Song, H. Epigenetics and epitranscriptomics in temporal patterning of cortical neural progenitor competence. *Journal of Cell Biology* 217 (6), 1901-1914 (Review) (2018)
10. **Yoon, K.J.**, Ming, G.L., Song, H. Coupling Neurogenesis to Circuit Formation. *Cell* 173 (Preview) (2018)
11. Song, G., Rho, H.S., Pan, J., Ramos, P., **Yoon, K.J.**, Medina, F.A., Lee, E.M., Eichnger, D.J., Ming, G.L., Munoz-Jordan, J.L., Tang, H., Pino, I., Song., H., Qian, J., Zhu, H. Multiplexed biomarker panels discriminate Zika and Dengue virus infection in humans. *Molecular and Cellular Proteomics* mcp. RA117 (2017)
12. **Yoon, K.J.*** , Ringeling, F.R.*, Vissers, C.*, Jacob, F., Pokrass, M., Jimenez-Cyrus, D., Su, Y., Kim, N.S., Zhu, Y., Zheng, L., Kim, S., Wang, X., Hyde, T.M., Weinberger, D.R., Jin, P., Zhuang, X., Regot, S., Regot, S., Canzar, S., He, C., Ming, G.L., Song, H. Temporal Control of Mammalian Cortical Neurogenesis by m^6A mRNA Methylation. *Cell 171,* 1–13 (2017) (*equal contribution)
    Highlighted with a "News and views" article in Nature 551(7681), 448-449 (2017)
    Previewed in Neuron 96(4), 718-720 (2017)
13. **Yoon, K.J.**, Song, G., Qian, X., Pan, J., Rho, H.S., Kim, N.S., Habela, C., Zheng, L., Jacob, F., Zhang, F., Lee, E.M., Huang, W.K., Ringeling, F.R., Vissers, C., Li, C., Yuan, L., Kang, K., Kim, S., Yeo, J., Cheng, Y., Liu, S., Wen, Z., Qin, C.F., Wu, Q., Christian, K.M., Tang, H., Jin, P., Xu, Z., Qian, J., Zhu, H., Song, H., Ming, G.L. Zika-virus-encoded NS2A disrupts mammalian cortical neurogenesis by degrading adherens junction proteins. *Cell Stem Cell 21(3),* 349-358 (2017)
14. Zhang, F., Hammack, C., Ogden S.C., Cheng, Y, Lee, E.M., Wen, Z., Qian, X., Nguyen, H.N., Li, Y., Yao, B., Xu, M., Xu, T., Chen, L., Wang, Z., Feng, H., Huang, W.K., **Yoon, K.J.**, Shan, C., Huang, L., Qin, Z., Christian, K.M., Shi, P.Y., Xu, M., Xia, M., Zheng, W., Wu, H., Song, H., Tang, H., Ming, G.L., Jin, P. Molecular signatures associated with ZIKV exposure in human cortical neural progenitors. *Nuclear Acid Research 44(18),* 8610-8620 (2016)

15. Qian, X, Nguyen, H.N., Song, M.M., Hadiono, C., Ogden, S.C., Hammack, C, Yao, B, Hamersky, G.R., Jacob, F., Zhong, C., **Yoon, K.J.**, Jeang, W.,Lin, L., Li, Y., Thakor, J., Berg, D.A., Zhang, C., Kang, E.C., Chickering, M., Nauen, D., Ho, C.Y.,Wen, Z., Christian, K.M., Shi, P.Y., Maher, B.J.,Wu, H., Jin, P., Tang, H.,Song, H. and Ming, G.L. Brain-region-specific organoids using mini-bioreactors for modeling ZIKV exposure. *Cell 165(5)*, 1238-1254 (2016)

16. Berg, D.A.*, **Yoon, K.J.***, Will B., Xiao, A.Y, Kim, N.S., Christian, K.M., Song, H., Ming, G.L. Tbr2-expressing intermediate progenitor cells in the adult mouse hippocampus are unipotent neuronal precursors with limited amplification capacity under homeostasis. *Frontiers in Biology 10(3)*, 262-271 (2015) (*equal contribution)

17. Wen, Z., Nguyen, H.N., Guo, Z., Lalli, M.A., Wang, X., Su, Y., Kim, N.S., **Yoon, K.J.**, Shin, J., Zhang, C., Makri, G., Nauen, D., Yu, H., Guzman, E., Chiang, C.H., Yoritomo, N., Kaibuchi, K., Zou, J., Christian, K.M., Cheng, L., Ross, C.A., Margolis, R.L., Chen, G., Kosik, K.S., Song, H., Ming, G.L. Synaptic dysregulation in a human iPS cell model of mental disorders. *Nature 515*, 414–418 (2014)

18. **Yoon, K.J.**, Nguyen, H.N., Ursini, G, Zhang, F, Kim, N.S., Wen, Z., Makri, G., Nauen, D., Shin, J.H., Park, Y., Chung, R., Pekle, E., Zhang, C., Towe, M., Lee, Y., Rujescu, D., St. Clair, D., Kleinman, J.E., Hyde, T.M., Christian, K.M., Rapoport, J.L., Weinberger, D.R., Song, H., Ming, G.L. Modeling a genetic risk for schizophrenia in iPSCs and mice reveals neural stem cell deficits associated with adherens junctions and polarity. *Cell Stem Cell 15(1)*, 79-91 (2014)
    Cover and Featured Article, previewed in Cell Stem Cell 15(1), 4-5 (2014)
    Highlighted in Nature Medicine 20(8), 813 (2014)

19. **Yoon, K.J.** *, Lee, H.R.*, Jo, Y.S., An, K., Jung, S.Y., Jeong, M.W., Kwon, S.K., Kim, N.S., Jeong, H.W., An, H.S., Kim, K.T., Lee, K., Kim, E., Kim, J.H., Choi, J.S., Kaang, B.K., Kong, Y.Y. Mind bomb-1 is an essential modulator of long-term memory and synaptic plasticity via the Notch signaling pathway. *Mol Brain 5(1)*, 40 (2012) (*equal contribution)

20. Kim, N.S., Kim, H.T., Choi, S.W., Kim, Y.Y., **Yoon, K.J.**, Koo, B.K., Kong, M.P., Shin, J., Cho, Y., Kong, Y.Y. Survival and differentiation of mammary epithelial cells in mammary gland development require nuclear retention of Id2 due to RANK signaling. *Molecular and Cellular Biology* (2011)

21. Jung, Y.J., Park, Y.S., **Yoon, K.J.**, Kong, Y.Y., Park, J.W., Nam, H.G. Molecule-level imaging of Pax6 mRNA distribution in mouse embryonic neocortex by molecular interaction force microscopy. *Nucleic Acids Research 37(2),* e10 (2009)

22. Song, R., Kim, Y.W., Koo, B.K., Jeong, H.W., Yoon, M.J., **Yoon, K.J.**, Jun, D.J., Im, S.K., Shin, J., Kong, M.P, Kim, K.T, Yoon, K., Kong, Y.Y. Mind bomb 1 in the lymphopoietic niches is essential for T and marginal zone B cell development. *Journal of Experimental Medicine 205*, 2525-2536 (2008)

23. **Yoon, K.J.**, Koo, B.K., Im, S.K., Jeong, H.W., Ghim, J., Kwon, M.C., Moon, J.S., Miyata, T., and Kong, Y.Y. Mind bomb 1-expressing intermediate progenitors generate notch signaling to maintain radial glial cells. *Neuron 58*, 519-531 (2008)

24. Kwon, M.C., Koo, B.K., Moon, J.S., Kim, Y.Y., Park, K.C., Kim, N.S., Kwon, M.Y., Kong, M.P., **Yoon, K.J.**, Im, S.K., Ghim, J., Han, Y.M., Jang, S., Shong, M., and Kong, Y.Y. Crif1 is a novel transcriptional coactivator of STAT3. *EMBO Journal (27)*, 642-653 (2008)

25. Koo, B.K.*, Yoon, M.J.*, **Yoon, K.J.*,** Im, S.K., Kim, Y.Y., Kim, C.H., Suh, P.G., Jan, Y.N., and Kong, Y.Y. An obligatory role of mind bomb-1 in notch signaling of mammalian development. *PLoS ONE 2*, e1221 (*equal contribution) (2007)

26. Song, R., Koo, B.K., **Yoon, K.J.**, Yoon, M.J., Yoo, K.W., Kim, H.T., Oh, H.J., Kim, Y.Y., Han, J.K., Kim, C.H., and Kong, Y.Y. Neuralized-2 regulates a Notch ligand in cooperation with Mind bomb-1. *Journal of Biological Chemistry 281*, 36391-36400 (2006)

27. Yoo, K.W., Kim, E.H., Jung, S.H., Rhee, M., Koo, B.K., **Yoon, K.J.**, Kong, Y.Y., and Kim, C.H. Snx5, as a Mind bomb-binding protein, is expressed in hematopoietic and endothelial precursor cells in zebrafish. *FEBS Letters 580*, 4409-4416 (2006)
28. Koo, B.K., Lim, H.S., Song, R., Yoon, M.J., **Yoon, K.J.**, Moon, J.S., Kim, Y.W., Kwon, M.C., Yoo, K.W., Kong, M.P., Lee J, Chitnis A.B., Kim C.H. and Kong Y.Y. Mind bomb 1 is essential for generating functional Notch ligands to activate Notch. *Development 132*, 3459-3470 (2005)
29. Koo, B.K., **Yoon, K.J.**, Yoo, K.W., Lim, H.S., Song, R., So, J.H., Kim, C.H., and Kong, Y.Y. Mind bomb-2 is an E3 ligase for Notch ligand. *Journal of Biological Chemistry 280*, 22335-22342 (2005)

PRESENTATIONS

2019. 8. 12 Invited speaker, 12th UK-Korea Neuroscience Symposium, "Deciphering the neural epitrascriptome using mouse and human organoid models," London, United Kingdom
2019. 7. 3 Invited speaker, 13th Annual Meeting of the New Champions, World Economic Forum, "Growing an artificial brain in a dish," Dalian, China
2018. 8. 3 Invited speaker, UKC 2018, "Temporal control of mammalian cortical neurogenesis by m^6A methylation," Queens, NY
2018. 5. 12 Invited speaker, NEBS annual meeting, "Temporal control of mammalian cortical neurogenesis by m^6A methylation," Boston, MA
2017. 9. 28 Invited speaker, Cold Spring Harbor Laboratory meeting, "Temporal control of mammalian cortical neurogenesis by m^6A methylation," Cold Spring Harbor, NY
2016. 11. 14 Invited speaker, Society for Neuroscience annual meeting, "Altered doses of psychiatric risk factor CYFIP1 lead to dysregulated protein and behavioral abnormalities in models of psychiatric disorders," San Diego, CA
2014. 11. 15 Invited speaker, Society for Neuroscience annual meeting, "Modeling a genetic risk for schizophrenia in iPSCs and mice reveals neural stem cell deficits associated with adherens junctions and polarity," Washington DC
2013. 5. 13 Invited speaker, JHU CCD/DBRIC seminar, "CYFIP1 is essential for maintaining the adherens junctions and polarity of neural stem cells in the developing cortex," Baltimore, MD
2012. 10. 7. Invited speaker, Society for Neuroscience annual meeting, "CYFIP1 is essential for maintaining the adherens junctions and polarity of neural stem cells in the developing cortex," New Orleans, LA