BIOGRAPHICAL SKETCH

NAME	POSITION TITLE
Kim, So Young 	Assistant Professor Department of Otorhinolaryngology Head & Neck Surgery CHA University, Bundang CHA Medical Center

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YYYY	FIELD OF STUDY
Seoul National University College of Medicine	MD	2009	Medicine
Seoul National University College of Medicine	MS	2014	Otorhinolaryngology
Graduate School of Seoul National University College of Medicine	PhD	2019	Otorhinolaryngology

A. Personal Statement

Assistant professor So Young Kim graduated from Seoul National University in 2009. She received Ph.D. at Seoul National University in 2019. She works as a professor at CHA University, Bundang CHA Medical Center since 2016. Her translational researches focus on the neuro-otologic studies using big data. In addition, She has been explored the molecular mechanisms of neural plasticity of auditory nervous system and non-auditory central nervous system, mainly hippocampus, following hearing loss and tinnitus. She reported the changes of perineuronal nets and related molecular changes including miRNAs in auditory and non-auditory central nervous system.

B. Positions and Honors

Positions and Employment

2010 –2014 Resident, Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Hospital, Seoul, Korea
2014- 2016 Clinical Fellow, Department of Otorhinolaryngology-Head and Neck Surgery, Seoul National University Hospital, Seoul, South Korea
2016-present Assistant Professor, Department of Otorhinolaryngology-Head and Neck Surgery, CHA University, Bundang CHA Medical Center, Seongnam, Korea

Other Experience and Professional Memberships

2009.3. Korea board of Medical Doctor (M.D.)

2014.3. Korea Board of Otorhinolaryngology-Head and Neck Surgery

Research Interests

1. Auditory neural plasticity, perineuronal nets

2. Stem cell therapy

3. Genetic hearing loss

C. Selected peer-reviewed publications

1: **Kim SY**, Lee S, Seo GH, Kim BJ, Oh DY, Han JH, Park MK, Lee SM, Kim B, Yi N, Kim NJ, Koh DH, Hwang S, Keum C, Choi BY. Powerful use of automated prioritization of candidate variants in genetic hearing loss with extreme etiologic heterogeneity. Sci Rep. 2021 Sep 30;11(1):19476. doi: 10.1038/s41598-021-99007-3. PMID: 34593925; PMCID: PMC8484668.

2: Ha S, Kim KW, Lee SM, Lee CH, **Kim SY**. MicroRNA Dysregulation in the Hippocampus of Rats with Noise-Induced Hearing Loss. Oxid Med Cell Longev. 2021 Sep 6;2021:1377195. doi: 10.1155/2021/1377195. PMID: 34527169; PMCID: PMC8437592.

3: Lee CH, Kim KW, Lee DH, Lee SM, **Kim SY**. Overexpression of the receptor for advanced glycation end-products in the auditory cortex of rats with noise-induced hearing loss. BMC Neurosci. 2021 May 21;22(1):38. doi:10.1186/s12868-021-00642-3. PMID: 34020590; PMCID: PMC8139161.

4: Kil HK, Kim KW, Lee DH, Lee SM, Lee CH, **Kim SY**. Changes in the Gene Expression Profiles of the Inferior Colliculus Following Unilateral Cochlear Ablation in Adult Rats. Biochem Genet. 2021 Jun;59(3):731-750. doi:10.1007/s10528-021-10034-1. Epub 2021 Jan 30. PMID: 33515340.

5: **Kim SY**, Kim KW, Lee SM, Lee DH, Park S, Son BS, Park MK. Overexpression of the Aryl Hydrocarbon Receptor (Ahr) Mediates an Oxidative Stress Response following Injection of Fine Particulate Matter in the Temporal Cortex. Oxid Med Cell Longev. 2020 Dec 28;2020:6879738. doi: 10.1155/2020/6879738. PMID:

33488929; PMCID: PMC7803159.

6: Lee CH, Kim KW, Lee SM, **Kim SY**. Effect of acute noise trauma on the gene expression profile of the hippocampus. BMC Neurosci. 2020 Nov 7;21(1):45. doi: 10.1186/s12868-020-00599-9. PMID: 33160313; PMCID: PMC7648995.

7: Park SS, Lee DH, Lee SM, Lee CH, **Kim SY**. Single-sided Deafness Leads to Changes in Vesicular Synaptic Transporters and Matrix Metalloproteinase 9 in the Primary Auditory Cortex. Neuroscience. 2020 Nov 21;449:189-201. doi:10.1016/j.neuroscience.2020.09.032. Epub 2020 Sep 22. PMID: 32976983.

8: Lee CH, Park SS, Lee DH, Lee SM, Kim MY, Choi BY, **Kim SY**. Tauroursodeoxycholic acid attenuates cisplatin-induced hearing loss in rats.Neurosci Lett. 2020 Mar 23;722:134838. doi: 10.1016/j.neulet.2020.134838. Epub 2020 Feb 12. PMID: 32061715.

9: **Kim SY**, Oh SH, Lee JH, Suh MW, Park MK. Effects of Placenta-Derived Mesenchymal Stem Cells on the Particulate Matter-Induced Damages in Human Middle Ear Epithelial Cells. Stem Cells Int. 2019 Nov 14;2019:4357684. doi:10.1155/2019/4357684. PMID: 31814835; PMCID: PMC6878801.

10: **Kim SY**, Lee DH, Park S, Kim BG, Jang AS, Oh SH, Lee JH, Suh MW, Park MK. Neuronal and perineuronal changes of cerebral cortex after exposure to inhaled particulate matter. Sci Rep. 2019 Dec 19;9(1):19421. doi:10.1038/s41598-019-55956-4. PMID: 31857661; PMCID: PMC6923377.

11: **Kim SY**, Heo H, Kim DH, Kim HJ, Oh SH. Neural Plastic Changes in the Subcortical Auditory Neural Pathway after Single-Sided Deafness in Adult Mice: A MEMRI Study. Biomed Res Int. 2018 Nov 26;2018:8624745. doi:10.1155/2018/8624745. PMID: 30599000; PMCID: PMC6287207.

12: **Kim SY**, Jung G, Shim YJ, Koo JW. The Novel Peptide Vaccine GV1001 Protects Hearing in a Kanamycin-induced Ototoxicity Mouse Model. Otol Neurotol. 2018 Sep;39(8):e731-e737. doi: 10.1097/MAO.0000000000001911. PMID: 30015752.

13: **Kim SY**, Kim JK, Park SH, Kim BG, Jang AS, Oh SH, Lee JH, Suh MW, Park MK. Effects of inhaled particulate matter on the central nervous system in mice. Neurotoxicology. 2018 Jul;67:169-177. doi: 10.1016/j.neuro.2018.06.001. Epub 2018 Jun 4. PMID: 29879396.