


Eunji KONG

PhD | Neuroscience | Bioimaging

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EDUCATION & RESEARCH

Current Nov 2022	Postdoctoral Research Scientist <ul style="list-style-type: none">> Columbia University, USA> Mortimer B. Zuckerman Mind Brain Behavior Institute> Advisor : Dr. Attila Losonczy (http://www.losonczylab.org)
Oct 2022 Mar 2022	Postdoctoral Research Scientist <ul style="list-style-type: none">> Institute for Basic Science (IBS), South Korea> Center for Cognition and Sociality> Advisor : Dr. Doyun Lee (https://doyunleelab.wordpress.com)
Feb 2022 Sep 2016	Ph.D. <ul style="list-style-type: none">> Korea Advanced Institute of Science and Technology (KAIST), South Korea> Graduate School of Medical Science and Engineering> Advisor : Dr. Pilhan Kim (https://ivmvl.kaist.ac.kr)> Dissertation : Development of intravital deep tissue imaging system and investigation of hippocampal mechanism for individual recognition
Aug 2016 Feb 2012	B.S. <ul style="list-style-type: none">> Korea Advanced Institute of Science and Technology (KAIST), South Korea> Department of Biological Sciences

SELECTED AWARDS

2016		Encouragement Award, KAIST Undergraduate Research Program Workshop
2016		Young Investigator Best Research Award, Annual Biophotonics Conference
2016		Best Paper Award, International Biomedical Engineering Conference
2019		Travel Grant Award, Maxplank Institute for Neuroscience - Neuroimaging Course
2021		Best Presentation Award, Korea Society of Brain and Neural Science Annual Meeting
2022		Best Presentation Award, Korea Society of Brain and Neural Science Annual Meeting
2022		Future of Science Fund Scholarship, Keystone Symposia - Neurocircuitry of Social Behavior

PROFESSIONAL EXPERIENCE

Feb 2022 Aug 2016	Student Intern, INSTITUTE FOR BASIC SCIENCE, Korea <ul style="list-style-type: none">> Center for Cognition and Sociality> Advisor : Dr. Doyun Lee (https://doyunleelab.wordpress.com)> Project : Investigation of neural mechanism underlying individual recognition in the hippocampus
July 2021 Sep 2021	Research Scientist, LVIS, Korea <ul style="list-style-type: none">> Data Science Team (https://lviscorp.com/)
Feb 2019 Mar 2019	Neuroimaging Techniques Winter 2019, MAXPLANCK FLORIDA INSTITUTE FOR NEUROSCIENCE, USA <ul style="list-style-type: none">> Advisor : Prof. Yi Zuo (https://www.zuolab.org/)> Project : <i>In vivo</i> structural and functional imaging

June 2018	Innovation Workshop, TECHNICAL UNIVERSITY OF DENMARK, Denmark
July 2018	<ul style="list-style-type: none"> > KAIST-DTU-NTU-UQ Joint Program > Advisor : Prof. Kristian Mølhave > Project : Characterization of aerosols for human toxicological assessment
June 2015	Student Intern, SEOUL NATIONAL UNIVERSITY, Korea
Aug 2015	<ul style="list-style-type: none"> > Undergraduate Student Intern Program > Advisor : Prof. Hyun-Woo Shin > Project : Intermittent hypoxia affects cancer metastasis in B16F10 melanoma cells
Jan 2015	Student Intern, POHANG UNIVERSITY OF SCIENCE AND TECHNOLOGY, Korea
Feb 2015	<ul style="list-style-type: none"> > Undergraduate Research Program > Advisor : Prof. G-One Ahn > Project : Investigating the relationship between microglia and glioma

PUBLICATIONS

- [12] **Kong E***, Lee K*, Do J, Kim P, Lee D, “Dynamic and stable representations of social identity and reward value in the dorsal CA1 hippocampus”, *submitted* (* co-first authors)
- [11] Lee E, Lee E, **Kong E**, Jeon H, Park B, Kang N, Yoo J, Lee H, Kim H, Park S, Nam D, Lee J, Park C, Kim P, Lee W, Kim I, “Agonistic Tie2 antibody suppresses normal-to-tumor vascular transition in glioblastoma invading zone”, *submitted*
- [10] Jeon J, Kim S, **Kong E**, Kim S, Yang J, Lee J, Lee J, Kim Y, Kim P, “Establishment of the reproducible branch retinal artery occlusion mouse model and intravital imaging of the retinal microglia in ischemic reperfusion injury”, **Frontiers in Medicine**, 9:897800, 2022.
- [9] Hong S, Lee J, Moon J, **Kong E**, Jeon J, Kim H, Kim P, “Intravital longitudinal cellular visualization of oral mucosa in a murine model based on rotatory side-view confocal endomicroscopy”, **Biomedical Optics Express**, 13(8), 4160-4174, 2022.
- [8] Hong S, Park Y, Lee J, Moon J, **Kong E**, Jeon J, Park J, Kim H, Kim P, “3D visualization of CD11c+ dendritic cells at dentin-pulp interface in whole intact murine tooth”, **International Journal of Molecular Sciences**, 22(23), 12683, 2021.
- [7] Moon J, Lee E, **Kong E**, Kim P, “*In vivo* two-photon imaging of hepatic steatosis and fibrosis in live small animal model”, **Biomedical Optics Express**, 12(12), 7918-7927, 2021.
- [6] Park I, Hong S, Seok J, Lucia SE, Song E, Kim M, **Kong E**, Seo H, Hwang Y, Ahn S, Kim S, Jang D, Lee J, Lee J, Kim P, Jo Y, “Longitudinal intravital imaging of tumor-infiltrating lymphocyte motility in breast cancer models with different PD-L1 expression levels”, **Journal of Breast Cancer**, 24:e40, 2021.
- [5] Jeon J, Hwang Y, Lee J, **Kong E**, Moon J, Hong S, Kim P, “Intravital imaging of circulating red blood cells in the retinal vasculature of growing mice”, **Translational Vision Science & Technology**, 14(4):31, 2021.
- [4] Moon J, **Kong E**, Lee J, Jung J, Kim E, Park S, Kim P, “Intravital longitudinal imaging of hepatic lipid droplet accumulation in a murine model for nonalcoholic fatty liver disease”, **Biomedical Optics Express**, 11(9), 5132-5146, 2020.
- [3] Lee J, **Kong E**, Hong S, Moon J, Kim P, “*In vivo* longitudinal visualization of the brain neuroinflammatory response at the cellular level in LysM-GFP mice induced by 3-nitropropionic acid”, **Biomedical Optics Express**, 11(8), 4835-4847, 2020.
- [2] Ahn J*, **Kong E***, Choe K, Song E, Hwang Y, Seo H, Park I, Kim P, “*In vivo* longitudinal depth-wise visualization of tumorigenesis by needle-shaped side-view confocal endomicroscopy”, **Biomedical Optics Express**, 10(6), 2719-2729, 2019. (* co-first authors)
- [1] Kim Y, Hwang K, Ahn J, Seo Y, Kim J, Lee S, Yoon J, **Kong E**, Jeong Y, Jon S, Kim P, Jeong K, “Lissajous scanning two-photon endomicroscope for *in vivo* tissue imaging”, **Scientific Reports**, 9, 3560, 2019.

PATENTS

- [3] Rep. of Korea Patent 10-2186327, “Apparatus and Methods for In Vivo Wide-area Cellular-level Imaging of Biological Deep Tissue”
Kim P (representative inventor), **Kong E**, Ahn J (Nov. 2020)
- [2] PCT/KR2019/013128, “System for In Vivo Microscopic Imaging of Deep Tissue, and Microscopic Imaging Method”

Kim P (representative inventor), Kong E, Ahn J (Oct. 2019)

[1] KR-10-2016-0070908, “System for Tuberculosis Diagnosis”

Kim Y (representative inventor), Kong E, Hyun J, Lee J, Jeon S, Kim H (June. 2016)

SELECTED PRESENTATIONS

- Sep 2022 **Keystone Symposia - Neurocircuitry of Social Behavior | Daejeon, Korea | Talk**
Kong E, Lee K, Do J, Kim P, Lee D, “Dynamic neural representation of social identity in the hippocampus”
- May 2022 **Korea Society for Brain and Neuroscience 2022 | Songdo, Korea | Poster**
Kong E, Lee K, Do J, Kim P, Lee D, “Dynamic neural representation of social identity in the hippocampus”
- July 2021 **Optics and Photonics Congress 2021 | Jeju, Korea | Talk**
Kong E, Kim P, Lee D, “Hippocampal neurons process “who”-specific information”
- Oct. 2019 **Korean Society of Vascular Biology and Medicine Annual Meeting | Daegu, Korea | Poster**
Kong E, Lee E, Chon H, Kim I, Kim P, “*In vivo* deep tissue endomicroscopic imaging system for visualizing cellular and vascular dynamics of glioblastoma”
- July 2019 **OSK-OSA-OSJ Joint Symposia 2019 | Busan, Korea | Talk**
Kong E, Ahn J, Lee D, Kim P, “*In vivo* cellular-level deep tissue imaging based on side-view confocal endomicroscopy”
- Apr. 2018 **A3 Foresight 10th Meeting | Beijing, China | Talk**
Kong E, Ahn J, Ahn S, Lee D, Kim P, “*In vivo* wide-area visualization of mammalian deep brain tissue by rotatory side-view endomicroscope”
- Sep. 2017 **A3 Foresight 9th Meeting | Yokohama, Japan | Talk**
Kong E, Ahn J, Ahn S, Lee D, Kim P, “Intravital wide-area imaging of mammalian deep brain tissue by side-view confocal endomicroscope”
- Aug. 2017 **Korea Society for Brain and Neuroscience 2017 | Seoul, Korea | Poster**
Kong E, Ahn J, Lee D, Kim P, “Intravital wide-area imaging of mammalian deep brain tissue by side-view confocal endomicroscope”
- Nov. 2016 **International Biomedical Engineering Conference 2016 | Seoul, Korea | Talk**
Kong E, Ahn J, Ahn S, Kim P, “Intravital microscopy based deep brain imaging by side-view endomicroscope”