Ki Tae Kim

1, Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea 08826
kitaekim840920@gmail.com

Education
- 2013.3 – 2020.2   College of Medicine, Seoul National University
  Biomedical Informatics, Ph.D.
- 2006.3 – 2013.2   College of Science, Sungkyunkwan University
  Chemistry, B.S.

Experience

- 2016 – 2019   Instructor for Advanced bioinformatics and Biomedical Informatics in Korea National Open University
- 2020 – 2021   Research assistant professor in Department of Laboratory Medicine, Anam Hospital, Korea University Medical Center
- 2020 – Present   Instructor for genomic analysis in Korea University Medical Center / Seoul National University Hospital
- 2020 – Present   Instructor for Biostatistics and bioinformatics analysis in Certified physician in biomedical informatics (CPBMI)
- 2021 – Present   Research assistant professor in Department of Molecular Genetics & Dental Pharmacology, School of Dentistry, Dental Multiomics Center and Dental Research Institute, Seoul National University

Publications as the main author (*, First author; #, Corresponding author)
[SCIE Original Articles]
- Deciphering metastatic route-specific signals and their microenvironment interactions in peritoneal metastasis of gastric cancer.
  Ki Tae Kim, Ph.D.*,[#], Jae Eun Lee, Ph.D.*, Jae-Ho Cheong, M.D., Ph.D., In Cho, M.D., and Yoon Young Choi, M.D., Ph.D.#,
  Cancer Communications, 2024, Mar 18 doi: https://doi.org/10.1002/cac2.12533
- MESIA: Multi-Epigenome Sample Integration Approach for Precise Peak Calling.
  Woo-Jin Kim*, Seung Gwa Park, Jae-I Moon, **Ki-Tae Kim**[#], Hyun-Mo Ryoo[#],
  Scientific Reports, 2023 Nov 27. doi: 10.1038/s41598-023-47948-2
- Genomic and evolutionary characteristics of metastatic gastric cancer by routes.
  Ki Tae Kim*, Jae Eun Lee*, Su-Jin Shin, Jae-Ho Cheong# and Yoon Young Choi#,
  British Journal of Cancer, 2023 Jul 08. doi: 10.1038/s41416-023-02338-3
- Prognostic Genomic Markers of Pathological Stage in Oral Squamous Cell Carcinoma.
  Su Kyung Kuk, Jae Il Lee, **Ki Tae Kim**[#],
  Head Neck Pathol., 2022 Dec 31. doi: 10.1007/s12105-022-01516-8
- Dental implant proximity to adjacent teeth: A retrospective study.
  Ki Tae Kim, Ph.D.*, Hee-seung Han D.D.S*, Pil-Jong Kim D.D.S*, Sungtae Kim D.D.S, Ph.D., Young Ku D.D.S, Ph.D., Young-Dan Cho D.D.S, Ph.D.#,
  Clinical Implant Dentistry and Related Research., 2022 Dec;24(6):733-739 doi: 10.1111/cid.13132
- Unveiling the genetic variation of severe continuous/mixed-type ossification of the posterior longitudinal ligament by whole-exome sequencing and bioinformatic analysis.
  Ki Tae Kim*, Chang-Hyun Lee*, Chi Heon Kim, Eun Young Lee, Sang Gu Lee, Myung-Eui Seo, Ju Han Kim# and Chun Kee Chung#,
  Spine J., 2021 Nov;21(11):1847-1856. doi: 10.1016/j.spinee.2021.07.005
- Genetic markers for depressive disorders with earlier age at onset.

Ki Tae Kim*, Hee-Ju Kang*, Kyoung-Hoon Yoo, Yoomi Park, Ju-Wan Kim, Sung-Wan Kim, Il-Seon Shin, Ju Han Kim#, Jae-Min Kim#,
Neuro-psychoparmacology & Biological psychiatry, 2021 Jun 8;108:110176. doi: 10.1016/j.pnpbp.2020.110176

- Genetic markers for later remission in response to early improvement of antidepressants.
Ki Tae Kim*, Hee-Ju Kang*, Kyoung-Hoon Yoo, Yoomi Park, Ju-Wan Kim, Sung-Wan Kim, Il-Seon Shin, Ju Han Kim#, Jae-Min Kim#,
Int J Mol Sci., 2020 Jul 10;21(14):4884. doi: 10.3390/ijms21144884

- Is NF2 a key player in the differentially expressed gene of spinal cord ependymoma compared with the intracranial ependymoma?
Ki Tae Kim*, Chang-Hyun Lee*, Chun Kee Chung#, Ju Han Kim#,
World Neurosurgery, 2018 Oct;118:e906-e917. doi: 10.1016/j.wneu.2018.07.096

- Predicting Treatable traits for Long-Acting Bronchodilators in Patients with Stable COPD.
Ki Tae Kim*, Jieun Kang*, Ji-Hyun Lee, Eun Kyung Kim, Tae-Hyung Kim, Kwang Ha Yoo, Jae Seung Lee, Woo Jin Kim, Ju Han Kim#, Yeon-Mok Oh#,
Int J Chron Obstruct Pulmon Dis., 2017 Dec 12;12:3557-3565. doi: 10.2147/COPD.S151909

- Association of FAT1 mutation with overall survival in patients with human papillomavirus-negative head and neck squamous cell carcinoma.
Ki Tae Kim*, Bo-Sung Kim*, Ju Han Kim#,
Head & Neck, 2016 Apr;38 Suppl 1(Suppl 1):E2021-9. doi: 10.1002/hed.24372

Publications as co-author

- Bone Targeted Lipoplex Loaded Three-Dimensional Bioprinting Bilayer Scaffold Enhanced Bone Regeneration.
Woo-Jin Kim, Jeong-Hyun Ryoo, Ji Won Kim, **Ki-Tae Kim**, Hye-Rim Shin, Heein Yoon, Hyun-Mo Ryoo, Young-Dan Cho#,
Regenerative Biomaterials [Acceptance Letter], 2024

- Prognostic DNA Mutation and mRNA Expression Analysis of Perineural Invasion in Oral Squamous Cell Carcinoma.
Su Kyung Kuk, **Ki-Tae Kim**, Kang Mi Pang
Scientific Reports, 2024 Jan 29. doi: https://doi.org/10.1038/s41598-024-52745-6

- Foci-Xpress: Automated and fast nuclear foci counting tool.
Jae-I Moon, Woo-Jin Kim, **Ki-Tae Kim**, Hyun-Jung Kim, Hye-Rim Shin, Heein Yoon, Seung Gwa Park, Min-Sang Park, Young-Dan Cho, Pil-Jong Kim#, Hyun-Mo Ryoo#,
International Journal of Molecular Science, 2023 Sep 23. doi: 10.3390/ijms241914465

- Peptidylarginine deiminase 2 plays a key role in osteogenesis by enhancing RUNX2 stability through citrullination.
Hyun-Jung Kim, Hye-Rim Shin, Heein Yoon, Min-Sang Park, Byung-Gyu Kim, Jae-I Moon, Woo-Jin Kim, Seung Gwa Park, **Ki-Tae Kim**, Ha-Neui Kim, Je-Yong Choi, Hyun-Mo Ryoo#,
Cell Death & Disease, 2023 Aug 30. doi: 10.1038/s41419-023-06101-7

- Nicotinamide enhances osteoblast differentiation through the activation of mitochondrial antioxidant defense system.
Heein Yoon, Seung Gwa Park, Hyun-Jung Kim, Hye-Lim Shin, **Ki-Tae Kim**, Young-Dan Cho, Jae-I Moon, Min-Sang Park, Woo-Jin Kim#, Hyun-Mo Ryoo#,
Experimental & Molecular Medicine, 2023 Jul 18. doi: 10.1038/s12276-023-01041-w

- The cumulative survival rate of sandblasted, large-grit, acid-etched dental implants: a retrospective analysis.
Haeji Yum, Hee-seung Han, **Ki Tae Kim**, Sungtae Kim and Young-Dan Cho#,
J Periodontal Implant Sci., 2023 Jun 15. doi: 10.5051/jpis.2301440072

- Clinico-pathologic and genomic characteristics of mucinous gastric adenocarcinoma.

Yoon Young Choi, M.D., Ph.D.*, Jae Eun Lee, Ph.D., Ji Yeong An, M.D., Ph.D., **Ki Tae Kim, Ph.D.**, Su Jin Shin, M.D., Ph.D., Jae-Ho Cheong, M.D., Ph.D.#,
Gastric Cancer, 2022 Jul;25(4):697-711 doi: 10.1007/s10120-022-01295-9

- Genetic differences between physical injury patients with and without post-traumatic syndrome: Focus on secondary findings and potential variants revealed by whole-exome sequencing.
  Hee-Ju Kang, Ho-Yeon Lee, **Ki-Tae Kim**, Ju-Wan Kim, Ju-Yeon Lee, Sung-Wan Kim, Jung-Chul Kim, Il-Seon Shin, Namshin Kim, Jae-Min Kim#,
  Clin Psychopharmacol Neurosci., 2021 Nov 30;19(4):683-694. doi: 10.9758/cpn.2021.19.4.683

- Sex differences in the genetic architecture of depression.
  Hee-Ju Kang, Yoomi Park, Kyoung-Hoon Yoo, **Ki-Tae Kim**, Eun-Song Kim, Ju-Wan Kim, Sung-Wan Kim, Il-Seon Shin, Jin-Sang Yoon, Ju Han Kim#, Jae-Min Kim#,
  Scientific Reports, 2020 Jun 18;10(1):9927. doi: 10.1038/s41598-020-66672-9

Patents

- Analysis pipeline of shared clonotypes between CD4+ and CD8+ T-cells for precision medicine.
  Patent ID: 10-2021-0074968 Ki-Tae Kim, Yunjung Cho
- Composition for diagnostics and the uses compromising SPP1 for immature neutrophil deposition of aging bone marrow.
  Patent ID: 10-2022-0151288 Ki-Tae Kim, Woo-jin Kim, Hyun-Mo Ryoo
- Method for screening biomarkers for diagnosis of ovarian metastatic gastric cancer and biomarkers selected by the method.
  Patent ID: 10-2022-173056 Ki-Tae Kim, Yoon Young Choi, Jae Eun Lee
- Method for screening biomarkers for diagnosis of peritoneal metastatic gastric cancer and biomarkers selected by the method.
  Patent ID: 10-2022-173051 Ki-Tae Kim, Yoon Young Choi, Jae Eun Lee
- Method for screening biomarkers for predicting prognosis and metastasis of gastric cancer and biomarkers selected by the method.
  Patent ID: 10-2023-0073634 Ki-Tae Kim, Yoon Young Choi
- Composition for predicting resistance to anti-PD-1 immune checkpoint inhibitor.
  Patent ID: 10-2024-0062963 Ki-Tae Kim, Yoon Young Choi, Jina Yun, Min Hee Lee

Honors (Awards)

- 2019 Best Research of BK21+ Biomedical Science Project Seoul National University
- 2021 Best Research of Seoul National University Dental Medicine Centennial Academic Conference

Research Interests

- Bioinformatics (NGS data analysis with WXS, scRNA-seq), Computational Genomics, Cancer Genomics, Neuropsychiatric disease, Immunology, Statistical Genetics, Machine learning, Pathway/Gene set analysis