



# Youngjune Bhak, Ph.D.

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Date of Birth: 29<sup>th</sup> of June 1993

Major: Genomics and Bioinformatics

Interests: Aging and its' symptoms (diseases).

## Education

8/2016 - 2/2021 **Korean Genomics Center**, Ulsan National Institute of Science and Technology, South Korea

Ph.D. in Biomedical engineering (Bioinformatics)

Ph.D. Thesis:

**“Multiomics analyses for phenotype prediction”**

Advisor: Prof. Jong Bhak

2/2012 - 8/2016 Ulsan National Institute of Science and Technology, South Korea

B.A. in Biological science

## Employment

4/2023 – current Research Fellow, MRC human genetics unit, UK

8/2021 - 8/2022 Researcher, 3billion Inc, South Korea

## Work experiences

- Group leader, Structural variation discovery and pathogenicity prediction for diagnosis of rare genetic disease patients, The National project of Bio Big Data, South Korea.
- Researcher, Genome-wide association study and Polygenic risk score system for phenotype prediction, Genome Korea in Ulsan (The Korean Genome Project), South Korea.
- Researcher, Methylome and Transcriptome marker discovery for prediction of

psychiatric disorders, Civil-military technology cooperation, South Korea.

## Publications

- 22) Jun, E. J., Shin, E. S., Yuan, S. L., Bhak, Y., Garg, S., Kang, W. C., ... & Chae, I. H. (2022). Comparison of 2 Different Paclitaxel-Coated Balloons in Coronary In-Stent Restenosis: A Randomized Controlled Trial. *JACC: Asia*, 2(2), 170-179.
- 21) **(Co-First author)** Her, A. Y., **Bhak, Y.**, Jun, E. J., Yuan, S. L., Garg, S., Lee, S., ... & Shin, E. S. (2022). Sex-specific difference of in-hospital mortality from COVID-19 in South Korea. *Plos one*, 17(1), e0262861.
- 20) Kun, L., Shin, E. S., Jun, E. J., Bhak, Y., Garg, S., Kim, T. H., ... & Qiang, T. (2021). Sex-Related Outcomes of Successful Drug-Coated Balloon Treatment in De Novo Coronary Artery Disease. *Yonsei medical journal*, 62(11), 981.
- 19) Jeon, S., Blazyte, A., Yoon, C., Ryu, H., Jeon, Y., Bhak, Y., ... & Bhak, J. (2021). Regional TMPRSS2 V197M allele frequencies are correlated with COVID-19 case fatality rates. *Molecules and cells*, 44(9), 680.
- 18) Shin, E. S., Teoh, E. V., Bhak, Y., Yuan, S. L., Chu, C. M., Garg, S., & Liew, H. B. (2021). Treatment of De Novo Chronic Total Occlusions with Drug-Coated Balloon-Only.
- 17) **(Co-First author)** Her, A. Y., **Bhak, Y.**, Jun, E. J., Yuan, S. L., Garg, S., Lee, S., ... & Shin, E. S. (2021). A clinical risk score to predict in-hospital mortality from COVID-19 in South Korea. *Journal of Korean medical science*, 36(15).
- 16) Jeon, Y., Jeon, S., Blazyte, A., Kim, Y. J., Lee, J. J., Bhak, Y., ... & Bhak, J. (2021). Welfare genome project: A participatory Korean personal genome project with free health check-up and genetic report followed by counseling. *Frontiers in genetics*, 12, 633731.
- 15) **(Co-First author)** **Bhak, Y.**, Jeon, Y., Jeon, S., Yoon, C., Kim, M., Blazyte, A., ... & Shin, E. S. (2021). Polygenic risk score validation using Korean genomes of 265 early-onset acute myocardial infarction patients and 636 healthy controls. *PLoS one*, 16(2), e0246538.
- 14) Her, A. Y., Yuan, S. L., Jun, E. J., Bhak, Y., Kim, M. H., Garg, S., ... & Shin, E. S. (2021). Drug-coated balloon treatment for nonsmall de-novo coronary artery disease: angiographic and clinical outcomes. *Coronary Artery Disease*, 32(6), 534-540.
- 13) Hui, L., Shin, E. S., Jun, E. J., Bhak, Y., Garg, S., Kim, T. H., ... & Qiang, T. (2020). Impact of Dissection after Drug-Coated Balloon Treatment of De Novo Coronary Lesions: Angiographic and Clinical Outcomes. *Yonsei Medical Journal*, 61(12), 1004.
- 12) Weber, J. A., Park, S. G., Luria, V., Jeon, S., Kim, H. M., Jeon, Y., ... & Church, G. M. (2020). The whale shark genome reveals how genomic and physiological properties scale with body size. *Proceedings of the National Academy of Sciences*, 117(34), 20662-20671.
- 11) **(Co-First author)** Jeon, S., **Bhak, Y.**, Choi, Y., Jeon, Y., Kim, S., Jang, J., ... & Bhak, J. (2020). Korean Genome Project: 1094 Korean personal genomes with clinical information. *Science Advances*, 6(22), eaaz7835.
- 10) Seidually, M., Blazyte, A., Jeon, S., Bhak, Y., Jeon, Y., Kim, J., ... & Bhak, J. (2020). Decoding a highly mixed Kazakh genome. *Human genetics*, 139(5), 557-568.
- 9) **(Co-First author)** **Bhak, Y.**, Jeong, H. O., Cho, Y. S., Jeon, S., Cho, J., Gim, J. A., ... & Lee, S. (2019). Depression and suicide risk prediction models using blood-derived multi-omics data. *Translational psychiatry*, 9(1), 1-8.

- 8) Kim, H. M., Weber, J. A., Lee, N., Park, S. G., Cho, Y. S., Bhak, Y., ... & Yum, S. (2019). The genome of the giant Nomura's jellyfish sheds light on the early evolution of active predation. *BMC biology*, 17(1), 1-12.
- 7) Kim, H. M., Weber, J. A., Lee, N., Park, S. G., Cho, Y. S., Bhak, Y., ... & Yum, S. (2019). The genome of the giant Nomura's jellyfish sheds light on the early evolution of active predation. *BMC biology*, 17(1), 1-12.
- 6) Park, J., Shin, W., Mun, S., Oh, M. H., Lim, D., Oh, D. Y., ... & Han, K. (2019). Investigation of Hanwoo-specific structural variations using whole-genome sequencing data. *Genes & genomics*, 41(2), 233-240.
- 5) ElHefnawi, M., Jeon, S., Bhak, Y., ElFiky, A., Horaiz, A., Jun, J., ... & Bhak, J. (2018). Whole genome sequencing and bioinformatics analysis of two Egyptian genomes. *Gene*, 668, 129-134.
- 4) Almal, S., Jeon, S., Agarwal, M., Patel, S., Patel, S., Bhak, Y., ... & Padh, H. (2019). Sequencing and analysis of the whole genome of Indian Gujarati male. *Genomics*, 111(2), 196-204.
- 3) **(First author) Bhak, Y.**, Jeon, Y., Jeon, S., Chung, O., Jho, S., Jun, J., ... & Bhak, J. (2017). Myotis rufoniger genome sequence and analyses: M. rufoniger's genomic feature and the decreasing effective population size of Myotis bats. *PLoS One*, 12(7), e0180418.
- 2) Siska, V., Jones, E. R., Jeon, S., Bhak, Y., Kim, H. M., Cho, Y. S., ... & Manica, A. (2017). Genome-wide data from two early Neolithic East Asian individuals dating to 7700 years ago. *Science advances*, 3(2), e1601877.
- 1) Kim, S., Cho, Y. S., Kim, H. M., Chung, O., Kim, H., Jho, S., ... & Yeo, J. H. (2016). Comparison of carnivore, omnivore, and herbivore mammalian genomes with a new leopard assembly. *Genome biology*, 17(1), 1-12.