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Education

Sep, 2004. ~ Aug, 2007. *Ph. D. in Bioinformatics of Seoul National University.*

Sep, 2002 ~ Aug, 2004. *ME in Bioinformatics of Seoul National University.*

Mar, 1994 ~ Feb, 2001. *BS in Biology of Yonsei University.*

Professional Research Experiences

- 2025.1~ 국가바이오위원회 민간위원
- 2024.9~ 과학기술정통부 바이오-헬스 데이터 협의체 위원
- 2024.9~ 국가공공바이오파운드리구축사업 추진위원회 위원
- 2024.1~ 첨단바이오 규제로드맵 실무위원 위원
- 2024.1~ 바이오유망기술 총괄위원회 위원
- 2023.12~ 과학기술정통부 데이터발전위원회 위원(당연직)
- 2023.12~ 과학기술정통부 기초원천소재위원회 위원(당연직)
- 2023.12~ 과학기술정통부 K-BDS 자문위원회 위원(당연직)
- 2023.12~ 국가통합바이오빅데이터 사업 유전체, 오믹스 자문위원
- 2023.12~ 한국연구재단 국책본부 차세대바이오단 단장
- 2022.10~ 바이오데이터 규제혁신위원회 위원
- 2022.7~2023.12 식품의약품안전처 체외진단의료기기 전문가위원회 위원
- 2023.1~2023.12 연구재단 기초연구본부 생명과학단 기획·자문위원회 위원
- 2022.2~2023.12 연구재단 국책연구본부 차세대바이오단 전문위원
- 2023.1~2023.12 한양대학교 첨단바이오융합연구소 소장

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| 2022.1~2023.12 | 한양생명과학기술원(HY-IBB) 바이오빅데이터센터 센터장 |
| 2022.1~2023.12 | 한양생명과학기술원 부원장 |
| 2021.9~12 | 한양생명과학기술원 설립위원장 |
| 2021.9~ | 한양대학교 생명과학과 정교수 |
| 2020.7~ | 기초연구실 연구책임자 TIME-regulating lncRNAs |
| 2016.9~2021.8 | 한양대학교 생명과학과 부교수 |
| 2019.1~2020.2 | 방문교수, Dept. of Biochemistry, Univ. of Washington |
| 2014.3~2016.8 | 한양대학교 생명과학과 조교수 |
| 2012.9~2014.2 | 한양대학교 의생명전문대학원 조교수 |
| 2008-2012 | Postdoctoral fellow, MIT, HHMI, Whitehead Institute for Biomedical Research |
| 2007-2008 | 박사후연구원, 서울대학교, MicroRNA Research Center |

Honors

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| 2022.12 | 과학기술정보통신부 장관 표창(생명연구자원 유공) |
| 2020. 8 | 한국생명정보학회 테라젠 올해의 생명정보인상 |
| 2020.01 | 분자세포생물학회 동계학술대회 BlueRibbon Lecture |
| 2019.11 | 한양대학교 이달의 연구자 |
| 2018.11 | OnBIT Award, 한국생명정보학회 학술상 |
| 2018.11 | LG연암재단 국제학술교류지원 사업 선정 |
| 2018.06 | RNA meeting 2018 Poster Award (UC Berkely) |
| 2016 | 한양대 자연과학연구소 학술상 |
| 2012 | Whitehead postdoctoral travel award |
| 2008 | KOSEF, Postdoctoral fellowship |
| 2005-2006 | Seoul Science Fellowship, Seoul City. |
| 2005 | Excellent Student Scholarship, Seoul National University |
| 2004 | Lotte Fellowship, Lotte Corporation. |
| 2003 | Excellent Paper Awards, Korean Society for Bioinformatics |
| 2003 | Excellent Paper Awards, Korean Information Science Society |
| 2000 | The President Award, Yonsei University |

Publications

[Peer-reviewed Papers] # Co-corresponding, * Co-First

- Seokju Park**, Sung-Ho Park, Jin-Seon Oh, Yung-Kyun Noh, Junho K Hur, **Jin-Wu Nam**, shRNAI: a deep neural network for the design of highly potent shRNAs, *bioRxiv*. 2024.
- Seo-Won Choi** and **Jin-Wu Nam**. Optimal design of synthetic circular RNAs. *Exp Mol Med*, 2024. 6
<https://doi.org/10.1038/s12276-024-01251-w>
- Kyungtae Lee***, Inez K.A. Pranoto*, Soon-Young Kim, Hee-Joo Choi, **Ngoc Bao To**, **Hansong Chae**, Jeong-Yeon Lee, Jung-Eun Kim, Young Kwon#, and **Jin-Wu Nam#** Comparative Interactome Analysis of α -arrestin Families in Human and Drosophila, *eLife*, Jan 25, 2024. 1.
<https://doi.org/10.7554/eLife.88328.4>
- Sang-Ho Yoon**, Bumsik Cho, Daewon Lee, Hanji Kim, Jiwon Shim#, and **Jin-Wu Nam#** Molecular Traces of Drosophila Hemocyte Evolution, *Plos Genetics*, 19(12):e1011077, 2023.12.
- Sangho Yoon** and **Jin-Wu Nam**, Clustering malignant cell states using universally variable genes, *Briefings in Bioinformatics*, 25(1) bbad460. 2023. 12.
- Dohun Yi**, **Jin-Wu Nam#**, and Hyobin Jeong#. Toward functional interpretation of somatic structural variations: bulk and single-cell approaches. *Briefings in Bioinformatics*, doi: 10.1093/bib/bbad297, 2023.
- Jang-il Sohn***, **Min-Hak Choi***, **Dohun Yi***, **A Vipin Menon**, Yeon Jeong Kim, Junchawk Lee, Jung Woo Park, Sungkyu Kyung, Seung-Ho Shin, Byunggook Na, Je-Gun Joung, Sungroh Yoon, Young Seok Ju, Min Sun Yeom, Youngil Koh, Sung-Soo Yoon, Daehyun Baek, Tae-Min Kim, and **Jin-Wu Nam**, Ultra-fast Prediction of Somatic Structural Variations by Reduced Read Mapping via Pan-Genome k-mer Sets, *Nature Biomed. Eng.* 7:853-866, 2023.
- Seokju Park***, Hee Doo Yang*, **Jwa-Won Seo**, **Jin-Wu Nam#**, and Sukwoo Nam#. hnRNPC induces isoform shifts in miR-21-5p leading to cancer development, *EMM* 54:812–824, 2022.
- Eun-Gyeong Park**, **Sung-Jin Pyo**, **Youxi Cui**, **Sang-Ho Yoon**, and **Jin-Wu Nam**. Tumor Immune Microenvironment lncRNAs, *Briefings in Bioinfo*. 23:1-25, 2022.
- Sukjun Kim, Soyoung Kim, Hee Ryung Chang, Doyeon Kim, Junehee Park, Narae Son, Joori Park, Minhyuk Yoon, Gwangung Chae, Young-Kook Kim, V. Narry Kim, Yoon Ki Kim, **Jin-Wu Nam**, Chanseok Shin#, and Daehyun Baek#. The regulatory impact of RNA-binding proteins on microRNA targeting, *Nature Commun.* 12:5057, 2021.
- Sang-Ho Yoon**, **Seo-Won Choi**, Suk Woo Nam , Kyoung Bun Lee#, and **Jin-Wu Nam#**. Preoperative immune landscape predisposes adverse outcomes in hepatocellular carcinoma patients with liver transplantation, *npj Precision Oncology*, 5:27, 2021.
- Eunkyeong Jang, Somi Cho, **Sungjin Pyo**, **Jin-Wu Nam**, Jeehee Youn. An inflammatory loop between spleen-derived myeloid cells and CD4+ T cells leads to accumulation of long-lived plasma cells that exacerbates lupus autoimmunity, *Frontiers In Immunology*, 12:631472, 2021 Feb-11.
- Bumsik Cho*, **Sang-Ho Yoon***, Daewon Lee, Ferdinand Koranteng, Sudhir Gopal Tattikota, Nuri Cha, Mingyu Shin, Hobin Do, Yanhui Hu, Sue Young Oh, Seok Joon Moon, Norbert Perrimon, **Jin-Wu**

- Nam#**, Jiwon Shim#. Single-cell transcriptome maps of myeloid blood cell lineages in *Drosophila*, *Nature Communications*, 11:4483, 2020.
- Vipin Menon, Jangil Sohn, and Jin-Wu Nam**, CGD: Comprehensive Guide Designer for CRISPR-Cas Systems, *Computational and Structural Biotechnology Journal*, 18:814-820, 2020.
- My Kieu Ha, Sook Jin Kwon, Jang-Sik Choi, Nguyen Thanh Nguyen, Jaewoo Song, Yangsoon Lee, Young-Eun Kim, Incheol Shin, **Jin-Wu Nam**, Tae Hyun Yoon. Mass Cytometry and Single-Cell RNA-seq Profiling of the Heterogeneity in Human Peripheral Blood Mononuclear Cells Interacting with Silver Nanoparticles. *Small*, 2020, <https://doi.org/10.1002/sml.201907674>.
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- Krishnamoorthy Srikanth, Nam-Young Kim, WonCheoul Park, ..., Gul-Won Jang, Heebal Kim, Youn-Chul Ryu, **Jin-Wu Nam**, Jong-Eun Park, Jun-Mo Kim & Dajeong Lim. Comprehensive genome and transcriptome analyses reveal genetic relationship, selection signature, and transcriptome landscape of small-sized Korean native Jeju horse. *Scientific Reports*, 9:16672, 2019.
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- Hyosun Hong***, Han-Ha Chai*, Kyoungwoo Nam, Dajeong Lim, Kyung-Tai Lee, Yoon Jung Do, Chang-Yeon Cho and **Jin-Wu Nam**, HSF2 Co-regulates Protein-coding and Long Non-coding RNA Genes Specific to Black Tissues of the Black Chicken, Yeonsan Ogye, *International Journal of Molecular Sciences*, 19(8), 2359. 2018.
- Jang-il Sohn***, Kyoungwoo Nam*, Hyosun Hong*, Jun-Mo Kim*, Dajeong Lim, Kyung-Tai Lee, Yoon Jung Do, Chang Yeon Cho, Namshin Kim, Han-Ha Chai[#] and **Jin-Wu Nam**[#] Whole genome and transcriptome maps of the entirely black native Korean chicken breed Yeonsan Ogye, *GigaSciences*, giy086, <https://doi.org/10.1093/gigascience/giy086>, 2018,
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- Dooyoung Lee, **Jin-Wu Nam**, and Chanseok Shin, DROSHA targets its own transcript to modulate alternative splicing. *RNA*, 23(7):1035-1047, 2017.
- Bo-Hyun You**, Sang-Ho Yoon, and **Jin-Wu Nam**. High-Confidence Coding and Noncoding Transcriptome Maps. *Genome Res.* 27:1050-1062, 2017.
- Kyung-Tae Lee** and **Jin-Wu Nam**. Post-transcriptional and translational regulation of mRNA-like long non-coding RNAs by microRNAs in early developmental stages of zebrafish embryos. *BMB Rep.* pii: 3769, 2017 Mar 21.
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- Hoin Kang, Chongtae Kim, Heejin Lee, Jun Gi Rho, **Jwa-Won Seo, Jin-Wu Nam**, Woo Keun Song, Suk Woo Nam, Wook Kim and Eun Kyung Lee, Downregulation of microRNA-362-3p and microRNA-329 promotes tumor progression in human breast cancer. *Cell Death & Diff.*, 23(3):484-95. 2016.
- Vikram Agarwal, George W. Bell, **Jin-Wu Nam**, David P. Bartel, Predicting effective microRNA target sites in mammalian mRNAs. *eLife*, 4:e05005. 2015.
- MinHyeok Kim, Bo-Hyun You, and **Jin-Wu Nam**. Global Estimation of the 3' Untranslated Region Landscape Using RNA Sequencing. *Methods*, 83:111-117, 2015.
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- June Hyun Park, Soungyub Ahn, Soyoung Kim, Junho Lee, **Jin-Wu Nam***, Chanseok Shin* Degradome sequencing reveals an endogenous microRNA target in *C. elegans*, *FEBS Letters* 587(2013) 964-969, 2013.
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- [Before 2012]
- C. Shin*, **J.-W. Nam***, K. Farh*, R. Chiang, A. Shkumatava, and D. Bartel. Expanding the MicroRNA Targeting Code: A Novel Type of Site with Centered Pairing., *Mol Cell*, 38(6):789-802, 2010. [Highlight paper](#)
- S. Hyun*, J.H. Lee*, H. J*. **J.-W. Nam**, B.J. Namkoong, G. Lee, J. Chung, V.N. Kim, Conserved MicroRNA miR-8/miR-200 and Its Target USH/FOG2 Control Growth by Regulating PI3K, *Cell*, 139(6):1096-1108, 2009.
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- SA Lee, KM Lee, WY Park, B Kim, **J.-W. Nam**, KY Yoo, DY Noh, SH Ahn, A Hironen, D Kang. Obesity and genetic polymorphism of ERCC2 and ERCC2 as modifiers of risk of breast cancer. *Exp. Mol. Med.* 37(2):86-90, 2005.
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- W.J. Lee, **J.-W. Nam**, S.K. Kim, B.T. Zhang. Identification of C.elegans MicroRNA Targets Using a Kernel Method. *Genomics and Informatics* vol. 3(1):15-23, 2005.
- J.-W. Nam**, W.J. Lee, B.T. ZHANG. Computational Methods for Identification of Human microRNA Precursors. *Lecture Notes in Artificial Intelligence*, vol. 3157, pp. 732-741, 2004.
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[Proceedings]

- J.H. Namkung, **J.-W. Nam**, and TS Park. Identification of eQTL by the interaction analysis using genetic algorithm. *BMC proc.* (Suppl 1): S69, 2007.
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- E.-J. Park, **J.-W. Nam**, I.-H. Lee, and B.-T. Zhang Solving the monkey and banana problem using DNA computing. *Preliminary Proceedings of the Tenth International Meeting on DNA Computing (DNA10)*, p.452, 2004.

[Book chapters]

B.-T Zhang and **J.-W. Nam** Supervised learning approach for microRNA studies, *Machine Learning in Bioinformatics*, Chapter 16, John Wiley & Sons, 2008.