

Tae-Young Yoon

Curriculum Vitae

Professor
School of Biological Sciences, Seoul National University, Korea



Educational Background & Professional Experience

2020.03–	Seoul National University, Professor, School of Biological Sciences
2017.03–2020.02	Seoul National University, Associate Professor, School of Biological Sciences
2016.03–2017.02	Yonsei University, Professor, Yonsei-IBS Institute
2007.10–2016.02	KAIST, Assistant Professor to Associate Professor with tenure, Department of Physics
2006.07–2007.10	Howard Hughes Medical Institute, Research Associate, University of Illinois, Urbana-Champaign
2005.07–2006.07	University of Illinois, Urbana-Champaign, Research Associate, Department of Physics
2004.09–2005.06	Seoul National University, Research Fellow, Inter-University Semiconductor Research Center
2000.03–2004.08	Seoul National University, Ph.D. in Electrical Engineering

Research Interests

Deciphering the Native Folding Pathways of Membrane Proteins / Advancing Precision Medicine through Single-Molecule PPI Profiling

Publications

1. C. Chun, J. M. Byun, M. Cha, H. Lee, B. Choi, H. Kim, S. Hong, Y. Lee, H. Park, Y. Koh & T.-Y. Yoon Profiling protein-protein interactions to predict the efficacy of B-cell-lymphoma-2-homology-3 mimetics for acute myeloid leukaemia. Nature Biomedical Engineering, 8, 1379–1395 (2024)
2. H.-K. Choi, H. Kang, C. Lee, H. G. Kim, B. P. Phillips, S. Park, C. Tumescheit, S. A. Kim, H. Lee, S.-H. Roh, H. Hong, M. Steinegger, W. Im, E. A. Miller, H.-J. Choi, & T.-Y. Yoon, Evolutionary balance between foldability and functionality of a glucose transporter. Nature Chemical Biology, 18, 713–723 (2022).
3. B. Choi, M. Cha, G. S. Eun, D. H. Lee, S. Lee, M. Ehsan, P. S. Chae, W. D. Heo, Y. Park & T.-Y. Yoon, Single-molecule functional anatomy of endogenous HER2-HER3 heterodimer. eLife 9, e53934 (2020).
4. H.-K. Choi, D. Min, H. Kang, M. J. Shon, S.-H. Rah, H. Jeong, H.-J. Choi1, J. U. Bowie & T.-Y. Yoon, Watching helical membrane proteins fold reveals a common N- to C-terminal folding pathway. Science, 366, 1150–1156 (2019).
5. H.-W. Lee, B. Choi, H. N. Kang, H. Kim, A. Min, M. Cha, J. Y. Ryu, S. Park, J. Sohn, K. Shin, M. R. Yun, J. Y. Han, M. J. Shon, C. Jeong, J. Chung, S.-H. Lee, S.-A. Im1, B. C. Cho & T.-Y. Yoon, Profiling of protein-protein interactions via single-molecule techniques predicts the dependence of cancers on growth-factor receptors. Nature Biomedical Engineering 2, 239 (2018).