Eunji Lee — Biography

Eunji Lee received her B.Sc. (2002), M.Sc. (2005), and Ph.D. (2009) in Chemistry from Yonsei University, Republic of Korea, where her doctoral research addressed stimuli-responsive supramolecular nanostructures based on amphiphilic rigid-flexible block molecules. She carried out postdoctoral research at the Center for Supramolecular Nano-Assembly, Seoul National University (2009-2010), and in the Department of Polymer Science and Engineering at the University of Massachusetts, Amherst (2010-2011), with Prof. Ryan C. Hayward. In 2011 she began her independent career at the Graduate School of Analytical Science and Technology, Chungnam National University, rising from Assistant Professor to Associate Professor. In 2018 she moved her research group to the Gwangju Institute of Science and Technology (GIST), where she is currently a GIST Distinguished Professor in the Department of Materials Science and Engineering, with an adjunct appointment in the Department of Chemistry. Since 2025 she has also served as Director of the GIST InnoCORE AI-Nano Convergence Institute for Early Detection of Neurodegenerative Diseases and as Vice President of External Affairs at GIST.

Lee's research centers on the hierarchical self-assembly of rigid-flexible block molecules, spanning small molecules, conjugated block copolymers, and peptides, and on elucidating the structure-property relationships of the resulting organic-inorganic hybrid nanostructures. Her group develops crystallization-driven and emulsification-induced assembly routes to semicrystalline hybrid nanomaterials for electro-optical applications, together with stimuli-responsive assemblies (responsive to light, piezoelectricity, pH, and temperature) for theranostic probes and cryopreservation agents. A distinctive strength of her program is the use of advanced transmission electron microscopy, including cryogenic TEM (cryo-TEM), electron tomography (cryo-ET), and in-situ liquid-phase TEM, increasingly integrated with artificial intelligence, to resolve the spatiotemporal organization and dynamics of soft matter across multiple length scales. She has authored some 200 peer-reviewed SCI publications (H-index 48).

Lee is a member of the Young Korean Academy of Science and Technology (Y-KAST, 2022) and serves on the National Nanotechnology Roadmap Committee of Republic of Korea. Her honors include the Asian Young Scientist Award of the Chemical Society of Japan (2020), selection among Korea's 50 Outstanding Performances in Basic Research (2017), the Pioneer Researcher award in Polymer Chemistry from the Royal Society of Chemistry (2023), the Prime Minister's Commendation from the Ministry of Science and ICT (2024), the Macromolecular Division Award for the Advancement of Science of the Korean Chemical Society (2024), the Mid-career Academic Award of the Polymer Society of Korea (2024), and the Miwon Distinguished Award of the Korean Society of Industrial and Engineering Chemistry (2025).

SHORT VERSION

Eunji Lee is a GIST Distinguished Professor in the Department of Materials Science and Engineering at the Gwangju Institute of Science and Technology (GIST), Republic of Korea. She received her B.Sc., M.Sc., and Ph.D. in Chemistry from Yonsei University and trained as a postdoctoral researcher at Seoul National University and at the University of Massachusetts, Amherst (with Prof. Ryan C. Hayward). After beginning her independent career at Chungnam National University in 2011, she joined GIST in 2018, and since 2025 has directed the GIST InnoCORE AI-Nano Convergence Institute for Early Detection of Neurodegenerative Diseases and Vice President for External Affairs at GIST. Her research explores the supramolecular self-

assembly of conjugated block copolymers and advanced transmission electron microscopy (cryo-TEM, in-situ liquid-phase TEM, and electron tomography) for soft matter. She is a member of the Young Korean Academy of Science and Technology (Y-KAST) and serves on the National Nanotechnology Roadmap Committee of the Republic of Korea. Her honors include the Asian Young Scientist Award commemorating the 100th anniversary of the Chemical Society of Japan (2020) and recognition as a Pioneer Researcher in Polymer Chemistry by the Royal Society of Chemistry (2023).