

James Skinner

Renowned theoretical chemist James L. Skinner has been named Director of the Water Research Initiative (WRI) at the Institute for Molecular Engineering. His five-year term will begin Jan. 1, 2017.

Skinner joins IME after serving for 26 years as Director of the Theoretical Chemistry Institute at the University of Wisconsin-Madison, and four years as Chair of the Department of Chemistry. The Joseph O. and Elizabeth S. Hirschfelder Professor of Chemistry, Skinner is the world leader in the theoretical and conceptual understanding of hydrogen bonding in water. Among many other accomplishments, he and his team are noted for their calculations detailing hydrogen bonding, the factor that dominates, and complicates, water properties.

“I’m very excited to join IME,” Skinner said of his appointment. “Its world-class researchers have accomplished a very considerable amount in a short period of time, including laying the groundwork for the Water Research Initiative. Now, WRI is ready to advance as well.”

Skinner will lead the development and expansion of the Water Research Initiative, which was launched in 2013 in collaboration with researchers at Ben-Gurion University of the Negev and Argonne National Laboratory. Originally charged with using nanotechnology to create new materials and processes for making clean, fresh drinking water more plentiful and less expensive by 2020, WRI will now broaden its scope.

“Professor Skinner is uniquely qualified to guide the Water Research Initiative through its next phase of expansion,” said Matthew Tirrell, Dean and Founding Pritzker Director of IME. “His expertise and a parallel track record of academic leadership at Columbia and Wisconsin will enable him to articulate a coherent vision for the initiative, and to successfully recruit new investigators.”

Skinner said that over the past 10 to 20 years, water has become a critical issue for many reasons: availability, potability, climate change, and energy. “Research on water is extremely timely,” he said, “and that’s one reason coming to IME is so exciting. We have an opportunity here to make a difference on a global scale.”

Skinner received his PhD from Harvard in 1979 and joined the faculty of Columbia after a two-year postdoc at Stanford. He became a full professor at Columbia in 1986, where he remained until 1990, when he was named Director of the Theoretical Chemistry Institute at the University of Wisconsin-Madison.

Skinner has published approximately 220 refereed research articles. He is a Fellow of the American Academy of Arts and Sciences, and a member of the National Academy of Sciences. His many awards include the American Chemical Society Physical Chemistry Division Award in Theoretical Chemistry, and the Irving J. Langmuir Award in Chemical Physics from the American Chemical Society.

Skinner is a member of the advisory board of the Midwest Integrated Center for Computational Materials, led by IME’s Liew Family Professor, Giulia Galli. In 2018, he will chair the Welch Foundation’s annual conference, which will be devoted to fundamental and applied research on water.

###