

New Methods for C–N and C–C Bond Formation Based on Unique Reactivity in Iron Complexes

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**Chemistry
Seminar on
C–C and C–N
bond forming
catalysts**

**Monday
Sept 12 at 4
pm in 303
Schrenk**

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Abstract: First row transition metals present opportunities for the discovery of novel catalytic transformations enabled by their distinct reactivity. Iron complexes are especially attractive as transition metal catalysts given that iron is generally nontoxic and is the most abundant *d*-block metal in the Earth's crust. Research in the Neely focuses on the development of new C–N and C–C bond-forming methods based on reactivity that is specific to iron. We take advantage of insights from stoichiometric studies to probe reaction mechanisms and optimize catalytic conditions. We are currently using this approach to explore iron-catalyzed methods for alkyne carboamination and linear trimerization.

About the speaker: Dr. Jamie Neely is an Assistant Professor in the Chemistry Department at Saint Louis University. A native of St. Louis, Dr. Neely earned her B.S. in chemistry from the University of Missouri, Columbia. She completed her Ph.D. at Colorado State University in 2014 after working with Professor Tomislav Rovis on the development of rhodium-catalyzed synthetic methods. She went on to join the research group of Professor Paul Chirik at Princeton University as a NIH Ruth L. Kirschstein postdoctoral fellow, focusing on the discovery of earth-abundant catalysts for useful organic transformations. She joined the faculty at SLU in 2017.