

SEMINAR PROF. DR. NATHAN GIANNESCHI

DATE: 11 AM, August 29th 2022

LOCATION: Leslokaal 0.1, S4 (Campus Sterre, Krijgslaan 281, 9000 Gent)

TITLE: Proteomimetic Polymers for Expanding the Druggable Proteome

ABSTRACT: In this presentation, we will describe the development of a new class of peptide polymer conjugate accessed via graft-through polymerization of peptidyl-monomers. The resulting dense array of peptides gives rise to key emergent properties that we exploit for the development of these materials as therapeutics: 1) Multivalency, 2) High molecular weight and tunable length scales, 3) Proteolytic/chemical stability and 4) Efficient intracellular penetration. We will highlight examples of the utility of this approach for engaging critical intracellular protein-protein interactions driving neurodegenerative disease and cancer.

GROUP WEBSITE: <https://sites.northwestern.edu/gianneschigroup/>

CV: Nathan C. Gianneschi received his B.Sc(Hons) at the University of Adelaide, Australia in 1999. In 2005 he completed his Ph.D at Northwestern University. Following a Dow Chemical AAA Postdoctoral Fellowship at The Scripps Research Institute, in 2008 he began his independent career at the University of California, San Diego where, until June 2017, he was Teddy Traylor Scholar and Professor of Chemistry & Biochemistry and Materials Science & Engineering. In July of 2017, Gianneschi moved his research group to Northwestern University where he is currently Jacob & Rosaline Cohn Professor of Chemistry, Materials Science & Engineering, and Biomedical Engineering. The Gianneschi group takes an interdisciplinary approach to nanomaterials research with a focus on multifunctional materials with interests that include biomedical applications, programmed interactions with biomolecules and cells, and basic research into nanoscale materials design, synthesis and characterization. For this work he has been awarded the NIH Director's New Innovator Award, the NIH Director's Transformative Research Award and the White House's highest honor for young scientists and engineers with a Presidential Early Career Award for Scientists and Engineers. Prof. Gianneschi was awarded a Dreyfus Foundation Fellowship, is a Kavli Fellow of the National Academy of Sciences, a Fellow of the Royal Society of Chemistry, and is an Alfred P. Sloan Foundation Fellow.

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No reservation required