

# **Chemical Synthesis of Stereoperfect Bacterial Polyesters and Infinitely Recyclable Polymers**

*Eugene Chen*

*Colorado State University, Fort Collins, Colorado, USA*

This seminar will first describe our recent and on-going efforts towards the development of efficient chemical synthesis of stereoperfect, highly crystalline and high-molecular-weight bacterial polyesters derived from renewable resources. Next, the lecture will focus on the design and synthesis of next-generation sustainable polymers that not only exhibit robust physical and mechanical properties but can also be thermally and/or chemically depolymerized back to their monomers in quantitative yield and purity, ready for repolymerization, thereby establishing their circular life cycles.