The Norma Stoddart Prize Lecture

with

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“Functional Polypeptides for Biomedical Applications”

Abstract. Synthetic polypeptides have shown great promise as materials for biotechnology and medicine, with applications in tissue engineering, drug delivery, and as therapeutics. Despite significant advances in the preparation of well-defined polypeptide materials, a need remains for a broader scope of polypeptides with functionalities that mimic the complexity and function of post-translationally modified natural proteins. The display of functionalities that have therapeutic effects, target materials to specific tissues, passivate the immune response, or have stimuli responsive behavior, are highly desirable yet generally require complex and inefficient synthetic approaches. Several distinct advances in the preparation of highly functional polypeptide materials have been achieved, including progress in polymerization of functionalized monomers and techniques for the post-polymerization modification of polypeptides. In particular, routes to glycosylated polypeptides and their applications will be discussed.

Tuesday, March 4, 2014

Reception • 3:00 PM, Winstein Café Commons - 3037 Young Lecture • 4:00 PM, Cram Conference Room - 3440 Mol Sci

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