Joseph A. Vetro, Ph.D.
Associate Professor
Department of Pharmaceutical Sciences
University of Nebraska Medical Center
Omaha, NE

Abstract

“Host-directed therapies based on the novel host-derived immunostimulant EP67: Where we are and where we are going”

EP67 is a novel, host-derived peptide immunostimulant based on human C5a that selectively activates C5aR (CD88) on APCs over neutrophils. Systemic or mucosal administration of EP67 generates long-term humoral and TH1-biased cellular immune responses against covalently conjugated immunogens including peptides, intact proteins, inactivated pathogens, or chemical moieties. Systemic or mucosal administration of EP67 alone also stimulates innate immunity to protect against bacterial and viral pathogens. This talk will provide a brief overview of past, present, and future work with EP67 and existing capabilities within my lab.

Bio-Summary

Dr. Vetro is currently an Associate Professor in the Department of Pharmaceutical Sciences at the University of Nebraska Medical Center (UNMC). The major areas of his research include (i.) developing nanoscale dosage forms that incorporate the novel host-derived immunostimulant EP67 to improve systemic and mucosal vaccines and immunotherapies (ii.) identifying more potent and efficacious analogs of EP67 and (iii.) developing nanoscale dosage forms to increase the potency of RNAi molecules after i.v. administration to improve the treatment of solid tumors and metastases.