



# Polymeric Delivery Agents and Delivery Agent Compounds

Efficient delivery of pharmaceutical agents to its intended location is of paramount importance to ensure effective dosage and drug activity. Yet biological, chemical, and physical barriers exist that make it difficult to actually facilitate uptake of the prescribed dose. In particular, oral delivery of biological or chemical agents poses significant concerns. Current practice is to administer these active agents via a delivery agent, but current delivery agents are known to precipitate out in the low pH of the GI tract. Doctors must administer high concentrations of active agents in order to ensure the proper dose of medication is absorbed. Therefore, developing new and improved delivery agents that are able to be modified according to the requisite solubility have been an ongoing interest in current research.

## The technology

Researchers at Virginia Commonwealth University have developed a novel line of polymeric delivery agents. These delivery agents are composed of a polymer conjugated to a modified amino acid by one of numerous custom linkages. By changing the amino acid, linkage, or polymer, the delivery agents can be custom tailored to deliver to a specific biological system or withstand specific physiological conditions.

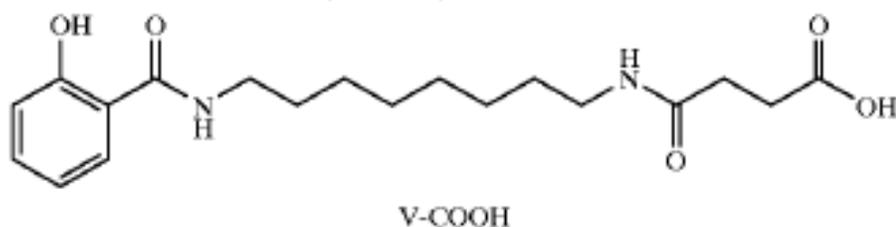


Figure 1. Novel line of polymeric delivery agents.

## Benefits

- » Customizable for specific biological systems
- » Design to withstand wide range of physiological conditions
- » Cost effective
- » Amendable to industrial scale production

## Applications

- » Targeting oral, intranasal, sublingual, GI, pulmonary, or blood-brain barrier
- » Delivery of biological or chemical active agents

### Patent status:

Patent issued: U.S. rights are available.  
6,627,228 and 7,727,558

### License status:

This technology is available for licensing to industry for further development and commercialization.

### Category:

Biomedical

### VCU Tech #:

01-053

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