

## Enhanced Drug Delivery Across Epithelial Barrier

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**Categories:**

- Medical/Health
- Pharmaceuticals

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One of the most common practices of drug delivery is by the oral route. However, overcoming the gastrointestinal epithelial barriers is the major challenge for efficient delivery of drugs. Besides the intracellular route or passive diffusion, the paracellular route can be exploited by using a bacterial peptide for enhanced delivery of drugs through the epithelial barrier to reach the underlying lamina propria and submucosal compartment.

Researchers at Purdue University have developed an approach for enhanced delivery of drugs through the intestinal epithelial barrier to reach the underlying lamina propria and submucosal compartment. The use of the Listeria adhesion protein (LAP) enhances permeability through the intestinal barrier. This technology would be suitable for enhanced delivery of a variety of drugs across the mucosal epithelial barrier.

**Advantages:**

- Enhanced permeability
- Improved efficiency

**Potential Applications:**

- Drug delivery
- Pharmaceutical companies

**Related Publications:**

1. Listeria Adhesion Protein Induces Intestinal Epithelial Barrier Dysfunction for Bacterial Translocation

DOI:<https://doi.org/10.1016/j.chom.2018.03.004>

2. Crossing the Intestinal Barrier via Listeria Adhesion Protein and Internalin A

DOI:<https://doi.org/10.1016/j.tim.2018.12.007>

**People:**

- Bhunia, Arun K (Project leader)
- Drolia, Rishi

**Intellectual Property:**

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**Contact OTC:**

Purdue Office of Technology Commercialization

The Convergence Center

101 Foundry Drive, Suite 2500

West Lafayette, IN 47906

Phone: (765) 588-3475

Fax: (765) 463-3486

Email: [otcip@prf.org](mailto:otcip@prf.org)