

IPPH Research - Delivery

When a drug is given to a patient, it must be absorbed into the bloodstream and reach the appropriate site within the body in order to be effective. “**Drug delivery**” deals with the absorption, distribution, metabolism and elimination (ADME) of drugs, and with designing formulations that give the desired ADME properties. Research in drug delivery includes the development of controlled release oral dosage forms, the targeted delivery of chemotherapeutics for treating cancer, the design of transdermal patches that deliver drugs across the skin, and fundamental studies of the role of transport proteins in drug uptake and distribution. **The Department of Industrial and Physical Pharmacy is internationally recognized** for its research in oral drug delivery, in novel nanomaterials for delivery to the lung and to solid tumors, and for the development of controlled release oral dosage forms.

- [Gregory T. Knipp](#) (*Associate Professor*) – oral drug delivery, peptide transporters in the GI tract, porcine model for oral formulations, pediatric drug delivery
- [Tonglei Li](#) (*Interim Head, Department of Industrial and Physical Pharmacy, Allen Chao Professor*) – delivery of nanocrystals, particularly in cancer
- [Sandro Matosevic](#) (*Assistant Professor*) – immunotherapy, cell therapy, bio-nanotechnology, cryopreservation, controlled delivery, biopharmaceutical engineering
- [Kinam Park](#) (*Professor, Showalter Distinguished Professor of BME*) – controlled release, nano/micro particles, polymer micelles, fast dissolving tablets, hydrogels
- [Yoon Yeo](#) (*Associate Professor*) - particle engineering, nanoparticles, drug delivery in cancer, drug delivery to lung