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## Area of Expertise

My primary research interest is in the field of drug delivery. Drug delivery is a rapidly expanding field important in therapeutics. Targeted and controlled drug delivery systems can have major influences upon therapeutic efficacy resulting in major improvement in treatment outcomes. Development of novel technologies facilitates the delivery of drugs by controlled release mechanisms or alternative routes of administration to achieve a desired therapeutic effect.

My research has focused upon the synthesis of novel drug entities and the research and development of the processes of administering pharmaceutical compounds to achieve desired pharmacodynamics in humans. Specifically, chemical research efforts were directed toward the synthesis of various cholecalciferol (Vitamin D3) metabolites for treatment of bone diseases (e.g., osteoporosis) and the synthesis of various haptens of biological interest attached to metal ions for the development of a novel immunoassay based upon Atomic Absorption. Pharmaceutical research efforts have been the development of the formulation of solid parenteral and various non-parenteral dosage forms for GI and ophthalmic applications.

Most recently, major efforts have been towards the design and development of novel drug delivery systems, carriers, and formulations to deliver drugs to the posterior region of the eye for the treatment of diseases such as macular degeneration and diabetic retinopathy. These efforts have resulted in a number of marketed proprietary and generic formulations.

## Qualifications

PhD in Pharmacy, University Of Wisconsin Madison  
Award Date: 1 Jan 2003

MS in Pharmacy, University Of Wisconsin Madison  
Award Date: 1 Jan 2002

MA in Organic Chemistry, Rice University  
Award Date: 1 Jan 2001

BS in Chemistry, Northern Illinois University  
Award Date: 1 Jan 2000

## Publications

### **In vivo swelling kinetics of a series of hydrogel polymers in the cannulated gastrointestinal tract of the canine**

Slovin, E. M. & Robinson, J. R., 12 Sep 1997, In : International Journal of Pharmaceutics. 155, 1, p. 53-63 11 p.

### **Comparative permeabilities of some solutes across the uterus, vagina and vestibule of the rabbit doe**

Slovin, E. M. & Robinson, J. R., 1 Nov 1996, In : S.T.P. Pharma Sciences. 6, 6, p. 430-434 5 p.

### **Use of malic acid as a chiral synthon: 24,25-Dihydroxycholecalciferol**

Sterling, J., Slovin, E. M. & Barasch, D., 1 Jan 1987, In : Tetrahedron Letters. 28, 15, p. 1685-1687 3 p.

### **Metalloimmunoassay. II. Iron-metallohaptens from estrogen steroids**

Cais, M., Slovin, E. M. & Snarsky, L., 31 Oct 1978, In : Journal of Organometallic Chemistry. 160, 1, p. 223-230 8 p.

### **Metalloimmunoassay**

Cais, M., Dani, S., Eden, Y., Gandolfi, O., Horn, M., Isaacs, E. E., Josephy, Y., Saar, Y., Slovin, E. & Snarsky, L., 1 Dec 1977, In : Nature. 270, 5637, p. 534-535 2 p.