Primary research interests:

1. Opioid and opioid receptor structure and function, water soluble variant of human mu receptor
   - Protein engineering
   - Protein expression and purification
   - Protein structure analysis
   - Protein characterization using CD, fluorescence, time resolved fluorescence, thermodynamics etc
   - Protein crystallization
   - Ligand protein docking, molecular dynamics simulation
   - Ligand binding screening

2. The effects of Salvinorin A on human brain
   - The effects of salvinorin A on cerebral vessel
   - Cerebral vascular spasm model
   - Surgical skill
   - Brain hypoxia/ischemia model

3. Preoperative evaluation and outcome
   - Chart review
   - Patient interview