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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