


**May Khanna, PhD**

Assistant Professor, Pharmacology  
Center for Innovation in Brain Science

Dr. Khanna has worked in the areas of RNA, RNA-protein, and protein-protein interactions for over 10 years with over 40 high quality publications. Her background includes training in chemistry, structural biology, biophysics and more recently drug discovery in neurodegenerative diseases. She was recently recruited to the Center for Innovation in Brain Science led by Dr. Robbie Brinton at the University of Arizona. The center has a strong emphasis on neurodegenerative diseases with a particular emphasis in rare neurodegenerative diseases such as PCH1B and ALS in my laboratory.

Her laboratory has several exciting ongoing projects that focus on drug discovery using small molecules, peptides and aptamers. They develop inhibitors for difficult to target interfaces such as RNA-protein and protein-protein interfaces. In pursuit of better tools for drug discovery, they recently characterized a molecule-ERD03-that can phenocopy mutations found in EXOSC3 a component of the RNA exosome believed to lead to a rare neurodegenerative disease (PCH1B). This is a novel discovery that has wide ranging implications if it can be applicable to other rare neurodegenerative diseases.

Dr. Khanna's laboratory also focuses on targeting TDP-43, a protein initially defined as a DNA-binding protein but has since been shown to have multiple RNA-specific roles including splicing, transport and translation. They have focused on developing small molecules that can disrupt RNA-protein and protein-protein interfaces. They have established several biophysical methods to study TDP-43 and the interactome such as RNA-protein, DNA-protein and protein-protein interactions for therapeutic development for neurodegenerative diseases with an emphasis on ALS.

Degrees: Ph.D. in Chemistry from Wayne State University, Detroit, USA