



**John Imig, PhD**

## From Lab to Market

### *Arkansas Researcher's Solutions for Cardiovascular and Kidney Diseases*

Dr. John Imig is a researcher and entrepreneur who is passionate about translating scientific research into real-world applications. He is the Professor and Chair of the Department of Pharmaceutical Sciences at the College of Pharmacy and Vice President of Therapeutics at BioVentures. BioVentures, the technology transfer office of the University of Arkansas for Medical Sciences (UAMS), helps inventors and startups commercialize their technology.

Dr. Imig's research focuses on cardiovascular, metabolic, and kidney diseases. He has secured continuous funding from prestigious organizations, including the American Heart Association, pharmaceutical companies, and the National Institutes of Health (NIH). Dr. Imig is the co-inventor and founder of two companies focused on moving drugs forward to treat diabetic nephropathy (kidney damage caused by diabetes) and acute kidney injury.

### **The Challenge**

Cardiovascular and kidney diseases are at the heart of Dr. Imig's work. Cardiovascular disease affects approximately one-third of adults. Kidney disease impacts one in seven to one in ten adults, and the actual prevalence may be even higher due to underdiagnosis. These conditions often intersect with other serious health issues, including cancer.

The complications of cancer therapies, particularly the damage to the kidneys caused by chemotherapy drugs, pose additional challenges. These therapies can limit the dosage of cancer drugs that patients can safely receive, complicating treatment plans and outcomes.

Moving drugs from the research phase through clinical trials and into real-world applications is notoriously difficult. The process is fraught with scientific, regulatory, and financial hurdles that can delay or derail the development of potentially life-saving treatments. Despite these challenges, Dr. Imig is dedicated to advancing new treatments and improving patient outcomes.

### **The Solution**

Dr. Imig's lab is focused on developing new therapies for heart attacks, strokes, diabetes, non-alcoholic fatty liver disease, and kidney diseases. By targeting the fatty acid pathways, these drugs have the potential to protect against kidney and cardiovascular toxicities related to radiation and anti-cancer drugs.



In addition to his groundbreaking research, Dr. Imig mentors others in navigating the complex process of taking a drug to market. At UAMS BioVentures, he plays a pivotal role in fostering commercial investment in the development of inventions and discoveries from research conducted at UAMS, the Arkansas Children's Hospital, and the local VA Hospital. His efforts aim to enhance human healthcare and stimulate economic development in Arkansas.



Dr. Imig collaborates with various partners to develop drugs that can advance into clinical trials. He teaches trainees how to take their innovative ideas and move them toward human use.

## Next Steps

In the future, Dr. Imig will continue to work closely with clinicians to identify current medical challenges and explore how to improve patient outcomes. He encourages healthcare professionals and researchers to bring their clinical problems and innovative ideas to him and UAMS BioVentures, where they can collaborate to find solutions. Through UAMS BioVentures, Dr. Imig supports commercial investment and collaboration, helping therapies reach patients. This effort reduces the burden of diseases like kidney disease and improves overall healthcare.

Dr. Imig's next steps also include continuing to grow his two companies dedicated to advancing treatments for diabetic nephropathy and acute kidney injury. He invites investors, partners, and talented researchers to join in these efforts to bring new therapies to market. Dr. Imig remains focused on mentoring the next generation of researchers and driving innovation in the field of pharmaceutical sciences.

## Contact

 [Jlmig@uams.edu](mailto:Jlmig@uams.edu)

