

University of Arizona startup Regulonix, LLC receives \$300,000 from the NIH for development of novel therapeutics for chronic pain

Federal Grant Award to Support its Indirect Regulators of Sodium Channels Platform for the Prevention of Chemotherapy-Induced Peripheral Neuropathy

A life sciences startup that licenses University of Arizona intellectual property has received federal funding to develop novel small molecules regulators to indirectly target the Nav1.7 voltage-gated sodium channel, a key channel linked to pain.



Regulonix, LLC has received a 12-month Phase I STTR grant worth \$300,000 from the [National Institutes of Health](#). The proposed award will fund Regulonix, LLC to develop small molecule regulators of the Nav1.7 sodium channel, which has been linked to many human pain disorders. Chemotherapy-induced peripheral neuropathy (CIPN) is a frequent complication of potentially curative cancer therapy regimens. 30-40% of cancer patients treated with chemotherapeutics develop lifelong CIPN that can affect the patient as well as the family's long-term quality of life and can potentially result in chemotherapy dose reduction or treatment discontinuation.

“The funding will allow us to develop novel preclinical candidates that engage in a unique way to control the activity of this channel and curb excitability,” said **Rajesh Khanna, PhD**, principal investigator of the STTR grant, is an Associate Professor in the Department of Pharmacology, College of Medicine, Tucson and a scientific co-founder of the company along with May Khanna, PhD, an Assistant Professor in the Department of Pharmacology and co-founder. A provisional patent application has been filed by Tech Launch Arizona on behalf of The University of Arizona (U.S. Provisional Patent Application No. 62/238,182) on several of these compounds. **Vijay Gokhale**, PhD, Scientist, BIO5 Institute, will lead medicinal chemistry optimization efforts while, **Todd Vanderah**, PhD, Professor and Chair of the Department of Pharmacology, will evaluate lead candidates in validated rodent pain models.

Dr. Stephen J. Arneric, a leading industry scientist with over 25 years of ion channel drug discovery efforts for the treat of pain disorders is a consultant on the grant. Dr. Arneric said, “this is the most specific and creative approach to reduce Nav1.7 generated pain transmission that I have ever evaluated.” Frank Porreca, PhD, Professor, Department of Pharmacology, a world-renowned pain scientist, is confident that the “molecules developed by Regulonix will significantly impact and advance our treatment of chronic pain by focusing on indirectly targeting Nav1.7.”

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