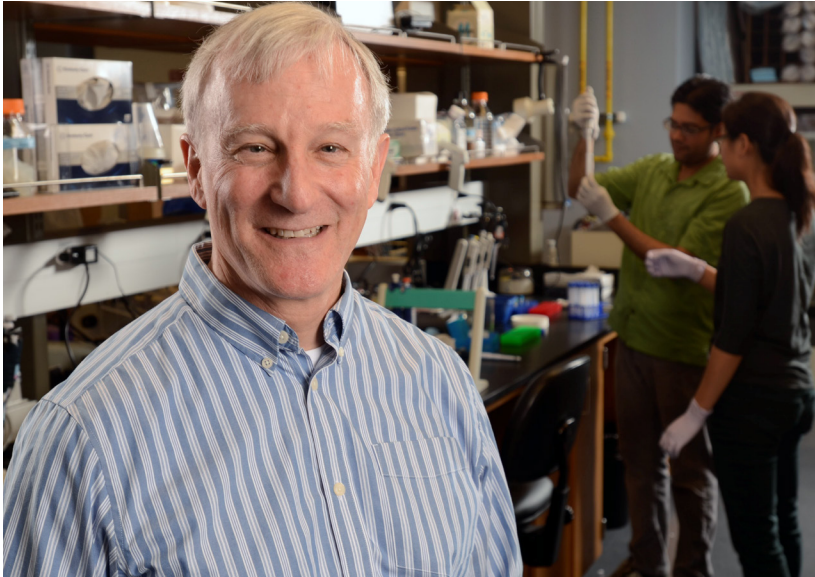


## NEW HOPE FOR TREATING **CHRONIC PAIN**



### IMPACT WISH:

*“How wonderful it would be to have a safe drug for chronic pain that doesn’t lead to addiction, as well as a long-term drug that’s safer than acetaminophen or ibuprofen.”*

### ROBERT O. MESSING, MD

Professor of Neurology  
Dell Medical School  
Director, Waggoner Center for  
Alcohol and Addiction Research  
University of Texas at Austin  
2018 Harrington Scholar-Innovator

**FOCUS:** *Developing a safe, non-addictive drug for people with chronic pain.*

As one who in youth experienced the impact of alcoholism within his family, perhaps it’s no surprise that Dr. Messing’s journey as a neuroscientist led to a desire to understand how cells withstand and adapt, biochemically, to living in an alcohol environment. This work led to the discovery that in mice, the enzyme protein kinase C epsilon (PKCε) promotes alcohol consumption.

This finding piqued the interest of colleague Jon Levine MD, PhD, and together they


discovered that (in animal models) PKCε mediates pain provoked by alcohol, cancer chemotherapeutic agents, diabetes, stress and inflammation. Their work led to the discovery of a potent small molecule inhibitor of PKCε that reduces pain in animals.

Working with Stan McHardy, PhD at University of Texas at San Antonio, and Peter Bernstein, PhD and others within the Harrington Discovery Institute, they are focusing on optimizing the inhibitor

and pinpointing the best pain indication for testing.

“The drugs we have for pain are either addictive (opioids), or have side effects that prevent them from being used for extended periods,” Dr. Messing says. “So, as you’d expect there is a lot of drug company interest in developing compounds such as ours.”

## Harrington Discovery Institute

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