



Research Commercialization at Texas Tech

Protein kinases help regulate close to 30% of all human proteins and there are 500+ known protein kinases within the human kinome. Many diseases exhibit aberrancies in protein kinases, i.e., over-activation of disease promoting kinases and/or over-repression of disease suppressive ones. As such, they are key therapeutic targets for drug development, particularly in oncology.

Currently, kinase studies still rely heavily on in vitro analysis and existing in vivo strategies have significant drawbacks. As such, there is a clear and unmet need for the development of novel methods capable of permitting the detection of kinase activity in live cells.

Research out of the [TTU Environmental Toxicology](#) department has resulted in the development of a drug discovery tool for the targeted screening of protein kinase inhibitors and/or activators. This patent pending technology, developed by Dr. [Degeng Wang](#) and collaborators Dr. [Hongjun Liang](#) at the [Texas Tech University Health Sciences Center](#) and Dr. [Leaf Huang](#) at the [University of North Carolina at Chapel Hill](#), has potential to provide for a fluorescent-based live cell protein kinase assay for both high-throughput screening for protein kinase modulators, as well as the fluorogenic study of protein kinase regulation in live cells. Proof of concept has been achieved using a model system, Akt1 and Akt2, however, the approach is universal and can be applied to new protein kinases that do not as of yet have a well-defined substrate.

For more information, check out the link below:

<https://lnkd.in/gPsbdnXw>

This technology is currently available for licensing. Contact [Jennifer Souter](#) at [Research Commercialization at Texas Tech](#) for more details on how you can access this innovative solution.

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