Texas Heart Institute at St. Luke's Episcopal Hospital Appoints New Research Director

The Texas Heart Institute (THI) at St. Luke’s Episcopal Hospital has appointed Richard Dixon, Ph.D., as director of the Wafic Said Molecular Cardiology Research Laboratories. Dr. Dixon and his staff come to THI from Encysive Pharmaceuticals, Inc., a Houston drug-discovery and development company that he co-founded with Dr. James Willerson, president and medical director of THI, and others. Prior to founding Encysive, Dr. Dixon was the Director and Head, Department of Molecular Biology, Merck, Sharp and Dohme Research Laboratories.

Dr. Dixon is bringing his research team to THI. Team members include Ronald Biediger, Ph.D., Peter Vanderslice, Ph.D., Darren Woodside, Ph.D., Charles Gundlach and Amy Ray. THI employees Qi Liu and Toya Terry will also join Dr. Dixon’s team.

The main focus of the team’s research is how different cell types, for example inflammatory cells and stem cells, move within various body tissues. They are interested in the receptors which are present on the surface of these cells that determine how cells are directed to various locations in the body, such as the heart, the abdomen or the lungs. They are interested in which signals are produced that cause the cells to move, direct them within tissues, and cause them to stop and localize.

Some of these receptors include intracellular adhesion molecules, such as integrins, which are directly involved in intracellular contact, as well as chemokine receptors which react to hormones that regulate cell movement. Once the relevant receptors are identified, the scientists use various techniques to block their activity. This research team has focused on chemical blockers which can be used as drugs to modulate the receptor activity in pre-clinical models and eventually in patients. The team’s ultimate hope for this type of research is to learn how to control stem cells which are already present within an individual to repair tissue damaged by trauma or disease.