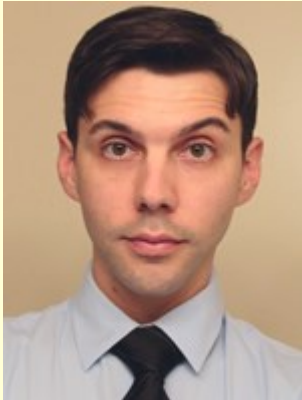


# **BIOENGINEERING**

## **Tenure-track Faculty**

### **Candidate Seminar**

**Date:** Thursday, February 6, 2020  
**Time:** 12:00 pm - 1:00pm  
**Location:** Exploratory Hall, Room L111  
(Videoconferencing to SciTech, KJH 254)



## **Bryan Black, Ph.D.**

**Biography:** Dr. Bryan Black is a Research Scientist in the Department of Bioengineering and affiliate faculty with the Center for Advanced Pain Studies at the University of Texas at Dallas. He also works as a consultant for Qualia Labs, Inc., and serves as the PI or Co-PI for several extramurally funded sub-contracts, awards, and cooperative agreements. In 2014, he was graduated from the University of Texas at Arlington with a Ph.D. in Physics and Applied Physics. His current and future research program aims to develop optical and electrical neural interfaces, along with tissue engineering strategies, to better understand and treat chronic pain conditions.

**Title:** Neural interfaces – engineered for better understanding and treatment of chronic pain conditions

**Abstract:** Chronic pain is a debilitating and pervasive problem. It effects more than 25 million Americans on a daily basis and there are no viable long-term treatment options. Additionally, chronic opioid prescription and abuse has led to a national epidemic. There is an urgent need for safe and effective chronic pain treatment options. In this talk, I will describe how recent advances in the fields of neural interface design and tissue engineering may be leveraged to discover and advance both classical pharmaceuticals and bioelectric medicines (based on electrical stimulation) for the long-term treatment of chronic pain patients.