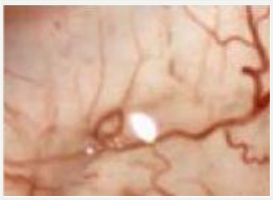
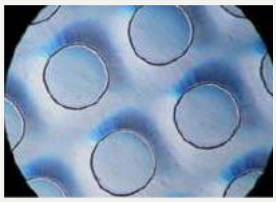
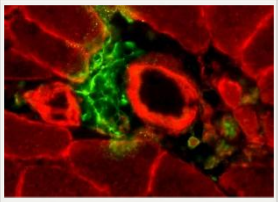
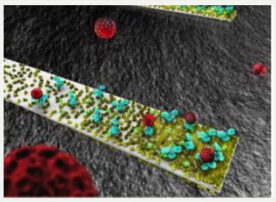
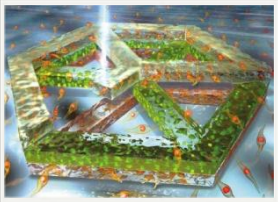
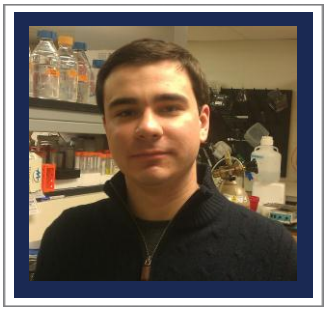
BioNanotechnology Seminar Series

Spring 2012



CYP17: Gatekeeper to Androgen Biosynthesis

Michael Gregory, M-CNTC Trainee

Mike is a PhD student in the Department of Biochemistry at the University of Illinois at Urbana-Champaign

Date: **Wednesday, March 28, 2012**

Time: **12:30 – 1:00 p.m. CST (10:30 – 11:00 a.m. PST)**

Location: **1000 MNTL at Illinois (SSM 150 at UC Merced)**

Abstract:

Human Cytochrome P45017A1 (CYP17) catalyzes the 17 alpha-hydroxylation of pregnenolone and progesterone as well as the subsequent 17,20 carbon-carbon lyase chemistry of its hydroxylated products. CYP17 function plays a central role in human steroid hormone biosynthesis, and its activity is absolutely essential for the formation of androgens. Thus, inhibition of CYP17 has recently been exploited in the treatment of androgen dependent malignancies. Through application of nanotechnology and biophysical tools, we have identified novel characteristics of CYP17 chemistry that may guide development of the next generation of mechanism-based inhibitors.

Seminar Presented by:

Center for Cellular Mechanics
University of Illinois at Urbana-Champaign

IGERT Integrative Graduate Education and Research Traineeship
Cellular and Molecular Mechanics and BioNanotechnology

M-CNTC NCI Alliance for Nanotechnology in Cancer
Midwest Cancer Nanotechnology Training Center

CNST University of Illinois Center for Nanoscale Science and Technology