***Drug Discovery for Neglected Tropical Diseases***

MIT ESP – HSSP

Syllabus for 2016 Summer Session

**Introduction Information:**

Instructor: Travis DeLano

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**Date/Time Information:**

Class Dates: July 10th – August 21st

Class Time: 2:00 – 3:00

Class Location: 5-217

**Overview:**

This course is designed to expose students to the field of drug discovery and its applicability to neglected tropical diseases. Neglected diseases affect 1 in 6 people globally, primarily in the poorest parts of the world. Because there is little hope of recouping costs from patients with so little money, only 2% of medical research and development funds are spent on neglected diseases yearly. This course will explore the threats posed by and progress towards treating a variety of neglected tropical diseases, including leishmaniasis, African sleeping sickness, Zika virus, and Ebola. Each week, a new disease and a new drug discovery technique or concept will be covered.

**Learning Outcomes:**

Upon completion of this course students will have developed an understanding of:

* The drug discovery process
* The biology, parasitology, and epidemiology surrounding a variety of important neglected tropical diseases
* The progress that has been made in fighting these diseases
* Exciting advances in drug discovery with applicability to neglected tropical diseases

**Schedule:**

Week 1: Background of neglected diseases and drug discovery in general

Week 2: Malaria (not a *neglected* tropical disease)

Week 3: Human African Trypanosomiasis (African sleeping sickness)

Week 4: Chagas Disease

Week 5: Schistosomiasis

Week 6: Leishmaniasis

Week 7: Zika Virus/Ebola

**Expectations and Policies:**

* *Participate actively in class*
* *Listen openly to your classmates*
* *Respect your peers*
* *Silence or turn off your phone before class*
* *Do not use laptops or tablets during class*
* *Eating and drinking is permitted so long as you are clean and not disruptive*