# KY NSF-EPSCoR NEXT GENERATION SEQUENCING AND DATA ANALYSIS WORKSHOP: GENOME SCIENCE FOR EVERYONE



## to be held at the University of Kentucky Advanced Genetic Technologies Center

## July 22nd to 26th, 2013

Introduction

Next Generation Sequencing technologies allow extremely high throughput DNA sequencing at very low cost.  Their widespread use has produced an explosion of DNA/RNA sequence data. Unfortunately, these data are amassing at a rate that is faster than our ability to analyze them.  This is due, in part, to a scarcity of appropriately trained personnel to perform such analyses.  Consequently, much of the data that has been produced to date has not been fully utilized.  This situation presents many possible research and career opportunities to individuals with suitable skills.  The goal of this workshop is to provide training in skills that are central to the acquisition and analysis of NGS data.

Participants will:

* Learn about the challenges and rewards of Next Generation Sequencing (NGS)
* Acquire hands-on experience in the use of Roche 454 and Life Technologies Ion Torrent NGS systems
* Use effective and appropriate bioinformatic tools to analyze real‑world, NGS data
* Gain exposure to NGS/bioinformatic resources available at UK
* Have the opportunity to develop collaborations with UK faculty and students.

Following the workshop, participants will have opportunities to:

* Access and analyze data generated during the workshop
* Utilize bioinformatics tools housed at UK
* Receive bioinformatics support from UK staff
* Collaborate on NGS/bioinformatics projects with UK faculty

Cost:

Sequencing workshop is supported by a [Kentucky NSF EPSCoR](http://www.kynsfepscor.org/) Research Infrastructure Initiative (RII) Track 1 award, and is run under the Initiative in Ecological Genomics. The grant provides funds to cover participation costs for individuals working at educational institutions in Kentucky. Individuals from out-of-state may attend for a fee of $1,000, which covers registration, housing, breakfast and lunch.

Spaces available:

Space is limited to 20 participants, so apply early.

Eligible Participants:

The workshop is open to faculty and students from private liberal arts and regional colleges/universities and is targeted primarily toward biologists and/or computer scientists who are interested in NGS/Genome Science and subsequent bioinformatic analysis.

How to apply:

The application form can be accessed at the following address:

**http://www.endophyte.uky.edu/ngsworkshop2013/Home2013.html**