



HITS

High-throughput Discovery
Science & Inquiry-based Case
Studies for Today's Students

HITS 2018 Summer Workshop at North Carolina State University

June 11-13th, 2018

Overview

Overview of the Annual HITS Meeting.		
Scientific Sessions	Case Study Sessions	Case Study Development
Speakers include HT experts from industry, government, and academia.	Speakers include experienced case study users who have created and implemented case studies in college classrooms.	NCSU Office of Faculty Development will present on rubrics and assessment. Groups will present updates at the end of this session.
Attendees include educators and Case Fellows, HT experts, and HT Researchers.	Attendees include case study experts, case study fellows, and selected HT Researchers.	Attendees include case study fellows and HT Researchers.
Attendees will learn about HT approaches. Collaborations are expected to emerge through interactions at this small but focused meeting.	Attendees will learn the value of well-designed educational case studies. Working groups will be formed by pairing HT Researchers with Case Fellows.	Groups will work to design and write novel case studies using HT approaches/datasets that can be readily implemented in college classrooms.

Schedule

Monday, June 11th, 2018.

Day 1: High-throughput (HT) Discovery Science

Times	Sessions
8:45-9:30 am	Breakfast <i>Talley Student Union Room 3285</i>
9:30-10:00 am	Welcome to HITS. Overview of HITS and goals.
10:00-11:00 am	High-Content Microscopy at the Allen Institute for Cell Science: Creating Data Sets to Explore the Human Cell Dr. Winfried Wiegraebe from the Allen Institute for Cell Science
11:00-11:30 am	What are high-throughput approaches? Discussion.
11:30-12:00 am	SMRT Sequencing for Smart Genomics: An Introduction to Single Molecule, Real-Time Sequencing Applications Pacific Biosciences, James Kane
12:00-1:30 pm	<i>Lunch break and presentation</i> High-throughput kits and reagents and the Ion Torrent by ThermoFisher
1:30-3:20 pm	Talks by HITS HT Researchers: grad and postdocs (four 20-minute talks and time for questions)
3:20-3:30 pm	Break
3:30-4:30 pm	High-throughput Single-cell Sequencing 10X Genomics Kasandra Burgos
4:30-5:00 pm	Wrap-up for the day.
5:00-7:00 pm	Dinner

Tuesday, June 12th, 2018.

Day 2: Case Studies

Times	Sessions
8:45-9:30 am	Breakfast <i>Talley Student Union Room 3285</i>
9:30-10:00 am	Welcome and introduction to goals for the day.
10:00-11:30 am	Case Study session 1 with Annie Prud'homme-Genereux
11:30-12:00 pm	Discussion of goals of HITS RCN and timeline
12:00-1:30 pm	<i>Lunch break and presentation</i> Introduction to NGS and Applications Matt Angel from Illumina
1:30-3:00 pm	The Neuroscience Case Network (NeuroCaseNet): Overview and what we can do with cases Leah Roesch and Kristen Frenzel, Emory University
3:00-3:15 pm	Break
3:15-4:45 pm	Case Study session 2 with Annie Prud'homme-Genereux
4:45-5:00 pm	Wrap-up for the day and group assignments
5:00-7:00 pm	Dinner

Wednesday, June 13th, 2018.

Day 3: Case Study Development

Times	Sessions
8:45-9:30 am	Breakfast <i>Talley Student Union Room 3285</i>
9:30-10:00 am	Overview of goals for the day and team assignments.
10:00-11:00 am	Pat Marsteller writing a case kickoff
11:00-12:00 pm	Dedicated time to work in groups to delineate goals of their cases and identify data sets.
12:00-1:30 pm	<i>Lunch break. Assessment of Student Learning NCSU Office of Faculty Development</i>
1:30-3:00 pm	Dedicated time to work on case studies in groups. Time to prepare for mini presentations of case study projects.
3:00-3:15 pm	Break
3:15-4:00 pm	Dedicated time to work in groups to delineate goals of their cases and identify data sets.
4:00-4:30 pm	Presentations of group projects and future directions.
4:30-5:00 pm	Wrap up
5:00-7:00 pm	Dinner

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