Whole Genome Sequencing
College Park, MD, USA

The International Food Safety Training Laboratory (IFSTL) is hosting a one week training session entitled “Whole Genome Sequencing.” U.S. Food and Drug Administration (FDA) experts will deliver lectures on Next Generation Sequencing, Introduction to Phylogeny, Genome Trakr and provide a review of data analysis tools.

Course Objectives
The overall objective of the Whole Genome Sequencing training is to understand the scientific basis and critical aspects of applying next generation sequencing techniques and Genome Trakr in order to track contamination events.

Participants will:
• Understand Nextera XT Sample Preparation
• Explore Illumina BaseSpace Cloud Computing
• Generate and analyze sequence data

Instructors
This course will be taught by a team of instructors from the FDA, Center for Food Safety and Applied Nutrition (CFSAN), CLC Bio & NCBI. Hands-on laboratory work will be supported by Illumina field application scientists.

Who Should Attend?
This course is designed for individuals in the Genome Trakr network and those interested in learning Next Generation sequencing using the Illumina MiSeq.

Course Information
• This course will be held at the University of Maryland, College Park, MD.
• The course tuition is $2,500 USD and includes all course materials, safety equipment and lunch.
• Refer to our website ifstl.org/upcomingClasses for registration information and deadlines.
## International Food Safety Training Laboratory (IFSTL)

<table>
<thead>
<tr>
<th>Day</th>
<th>Morning</th>
<th>Afternoon*</th>
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| Day 1 | Intro to Next Generation Sequencing  
Sample Preparation using Nextera XT | Lab: DNA Extraction and Library Preparation |
| Day 2 | Overview of MiSeq Control Software  
Illumina Base Space | Lab: PCR Clean-Up and Library Normalization  
Lab: Library Pooling and Sample Loading |
| Day 3 | Introduction to Phylogeny  
Data Analysis: A Preview | Lab: Data Analysis and Software Exploration  
Lab: Constructing a Phylogenetic Tree |
| Day 4 | FDA Genome Trakr  
CLC Genomics Workbench  
NCBI Genome Workbench | WGS: Alignment and Assembly |
| Day 5 | WGS: Challenges and Trouble Shooting | |

*All afternoon sessions consist of hands-on laboratory experiments. Attendees are expected to participate in all laboratory exercises.

### Comments from past participants at the IFSTL

- “It is the first time I can honestly say I understand everything I was taught during a workshop.”
- “The contacts I made during this training with FDA experts and my counterparts in other companies will help me in my job.”

### Registration

- Register at [ifstl.org/registration](http://ifstl.org/registration).
- A formal letter of invitation and travel information will be sent to all pre-registered participants. This letter of invitation can be used for international travelers to support their visa application.
- Seats are only reserved upon receipt of payment.

For questions regarding this course, email IFSTL at ifstl@umd.edu.