



S.A.G.E. Short Course 2021

Information

When	May 13, 17, 20, and 24, 9:30 a.m. – 4:30 p.m. US Eastern Daylight Time
Location	Zoom – link will be mailed out to the registrants after the due date
Registration Due Date	Monday May 10
Registration Link	https://bit.ly/3qzMOTv
Preparation	Please download (http://darwin.cwru.edu/sage/pages/download.php) and install the current version (6.4.2) of S.A.G.E. on your system to follow the demo.

Day 1 - Thursday May 13

9:30 am to 11:00 am	Session 1 – Basic Principles of Human Genetics I <ul style="list-style-type: none"> • Mendelian Segregation • Genotype vs. Phenotype • Definitions
11:00 am to 11:10 am	Break
11:10 am to 12:40 pm	Session 2 – Basic Principles of Human Genetics II <ul style="list-style-type: none"> • IBD • Genetic Models • Pedigree Relationship • Ascertainment
12:40 pm to 1:20 pm	Lunch
1:20 pm to 2:50 pm	Session 3 – Genetic Epidemiology <ul style="list-style-type: none"> • Aggregation • Segregation • Linkage • Association
2:50 pm to 3:00 pm	Break
3:00 pm to 4:30 pm	Session 4 – Introduction to S.A.G.E. software package <ul style="list-style-type: none"> • S.A.G.E. Intro • Pedigree File • Parameter File • Programs

Day 2 - Monday May 17

9:30 am to 11:00 am	<p>Session 1 – Exploring Pedigree Data: Part 1</p> <ul style="list-style-type: none"> • Summary Statistics (PEDINFO) • PEDINFO demo • Familial Correlations (FCOR)
11:00 am to 11:10 am	Break
11:10 am to 12:40 pm	<p>Session 2 – Familial Aggregation & Segregation Models</p> <ul style="list-style-type: none"> • FCOR demo • Segregation Models (SEGREG) • Maximum Likelihood • Transforming Data
12:40 pm to 1:20 pm	Lunch
1:20 pm to 2:50 pm	<p>Session 3 – Segregation Analysis</p> <ul style="list-style-type: none"> • Regressive Models • FPMM • Age of Onset • SEGREG demo
2:50 pm to 3:00 pm	Break
3:00 pm to 4:30 pm	<p>Session 4 – Exploring Pedigree Data: Part 2</p> <ul style="list-style-type: none"> • Marker data • Allele Frequency Estimation (FREQ) • Mendelian Inconsistencies (MARKERINFO)

Day 3 - Thursday May 20

9:30 am to 11:00 am	<p>Session 1 – Relationship and Allele Sharing</p> <ul style="list-style-type: none"> • Relationship Testing (RELTEST) • IBD Allele Sharing Estimation (GENIBD) • GENIBD demo • Model-free Linkage Analysis: Sibling Pairs (SIBPAL) • SIBPAL demo
11:00 am to 11:10 am	Break
11:10 am to 12:40 pm	<p>Session 2 – Linkage Analysis</p> <ul style="list-style-type: none"> • Maximum Likelihood Analysis of Affected Relative Pairs • LODPAL demo • Model-Based Linkage Analysis Two-Point (LODLINK) • LODLINNK demo
12:40 pm to 1:20 pm	Lunch
1:20 pm to 2:50 pm	Session 3 – Linkage Analysis & TDT

	<ul style="list-style-type: none"> • Model-Based Linkage Analysis Multipoint (MLOD) • MLOD demo • Transmission/Disequilibrium Test (TDTEX) • TDTEX demo
2:50 pm to 3:00 pm	Break
3:00 pm to 4:30 pm	Session 4 – Association & Haplotype Analysis <ul style="list-style-type: none"> • Allelic Association (ASSOC) • ASSOC demo • Haplotype Estimation and Analysis (DECIPHER) • DECIPHER demo

Day 4 – Monday May 24 (see note below)

9:30 am to 11:00 am	Session 1 <ul style="list-style-type: none"> • Familial Correlations • Maximizing Likelihoods • Regressive Models for Continuous Traits
11:00 am to 11:10 am	Break
11:10 am to 12:40 pm	Session 2 <ul style="list-style-type: none"> • Regressive Models for Binary Traits • Finite Polygenic Mixed Model (FPMM) • Variable Age-of-Onset Models • Relationship Testing
12:40 pm to 1:20 pm	Lunch
1:20 pm to 2:50 pm	Session 3 <ul style="list-style-type: none"> • Allele Sharing • Model-free Sibling Pair Linkage Analysis • Maximum Likelihood Analysis of Affected Relative Pairs
2:50 pm to 3:00 pm	Break
3:00 pm to 4:30 pm	Session 4 <ul style="list-style-type: none"> • Conditional Logistic Model • Model-based Linkage Methods • Association Analysis • Haplotype Estimation and Analysis

Note: For Day 4, the recording will be available online later if not enough people indicate they want it as a LIVE session.