

Getting started with Geneious

What is Geneious?

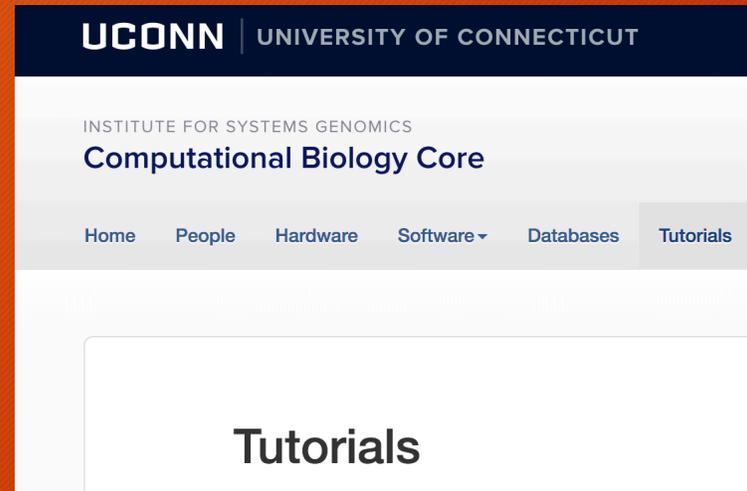
- Geneious is a desktop program hosting a diversity of tools for the analysis of sequence data
- Key features
 - Graphic user interface (GUI)
 - Supports other software
 - No command-line skills necessary
- One-stop shop
 - Data management
 - Sequence analysis
 - Data visualization
- Continuous version updates and support

The screenshot displays the Geneious software interface. At the top, there is a toolbar with icons for Back, Forward, BLAST, Workflows, Cloning, Back Up, Support, and Help. Below the toolbar is a 'Sources' panel on the left, which is a tree view showing various data sources like Sample Documents, Genomes, and NCBI. The main area is divided into two sections. The upper section is a 'Document table' showing a list of documents with columns for Name, Description, Sequence Length, # Sequences, GC, and Topology. The lower section is a 'Document viewer' showing a sequence alignment with a consensus sequence, coverage, and identity. A right-hand panel contains settings for Colors, Graphs, Annotations, Consensus, Highlighting, Complement, Translation, Wrap, Show Names, and Show sequence numbers.

Name	Description	Sequence Length	# Sequences	GC	Topology
COXI CDS	Multiple alignment of 50 Cytochrome C Oxidase Subunit I genes	705	50	--	--
HIV env	20 HIV envelope genes	--	20	--	--
Ig variable region	5 human immunoglobulin heavy chain variable regions	--	5	--	--
LysR family	2 LysR family proteins from Arabidopsis thaliana and papaya	--	2	--	--
Pairwise protein	Pairwise alignment of sequences from various sources	221	2	--	--
People	Multiple alignment of sequences from various sources	426	5	--	--
Three Kingdoms	Multiple alignment of sequences from various sources	1,156	35	--	--
Transcript variants	Multiple alignment of sequences from various sources	3,106	4	--	--

How to Access Geneious

- 1) Request a Geneious CAM account
- 2) Connect to the CAM network via Pulse Secure VPN login
- 2) Access the software:
 - Virtual Machine (VM) access
 - Using VMware software
 - Local install
 - Download package
 - MacOSx and PC compatible



Follow the [tutorial](#) on the CBC website!

Analysis Packages		
Geneious	May 2017	Geneious access and login information (PDF)
Geneious: Loading data from the home directory	May 2018	Mapping the Home Directory to VM Desktop (pdf)
PacBio	July 2018	PacBio SMRT Portal

Additional Resources: Tutorials and Plugins

- Geneious Tutorials
 - 'How to' on common applications
 - Step by step tutorials with example data
- Geneious Plug-ins
 - Add new software tools
 - Write your own (java)
 - Downloadable module file (.gplugin format)
- Geneious workflows
 - Repeatable across members of your lab group
 - Combine tasks in step-oriented fashion
 - Make your own or choose from common set



Geneious Software

- University of Connecticut and UCHC licenses:
 - Floating license
 - Unlimited installs
 - 7 “seats”
 - Geneious Server License
 - Run analyses locally or on the Xanadu cluster
 - Enables database storage on a dedicated server

