

Introduction to Variant Calling

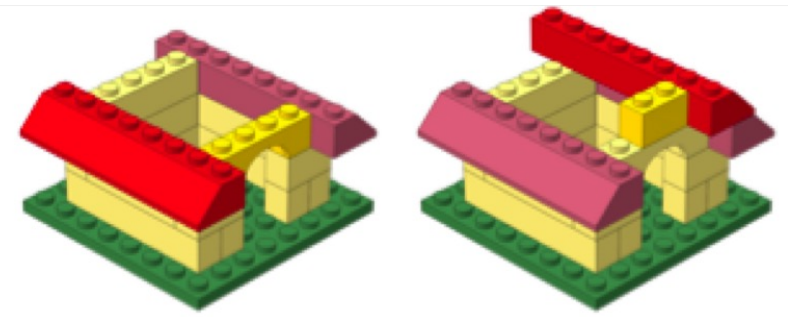
<https://tinyurl.com/Intro-to-variant-analysis>



Harvard Chan Bioinformatics Core



Learning Objectives

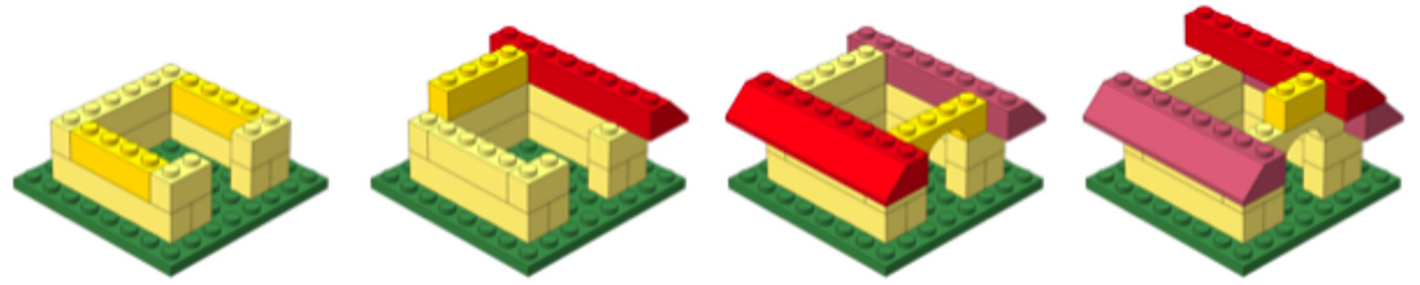


- ❖ Evaluate QC metrics for variant calling
- ❖ Call variants using GATK
- ❖ Filter variants to retain only high-quality variant calls
- ❖ Annotate variants using SnpEff and dbSNP
- ❖ Prioritize variants by their impact
- ❖ Visualize variants in IGV
- ❖ Implement cBioPortal to analyze variants

Exit survey

<https://tinyurl.com/hbc-varcalling-exit-survey>

Keep building!



❖ Upcoming HBC workshops:

❖ Understanding chromatin biology using high throughput sequencing

❖ June 18th, 21st and 25th

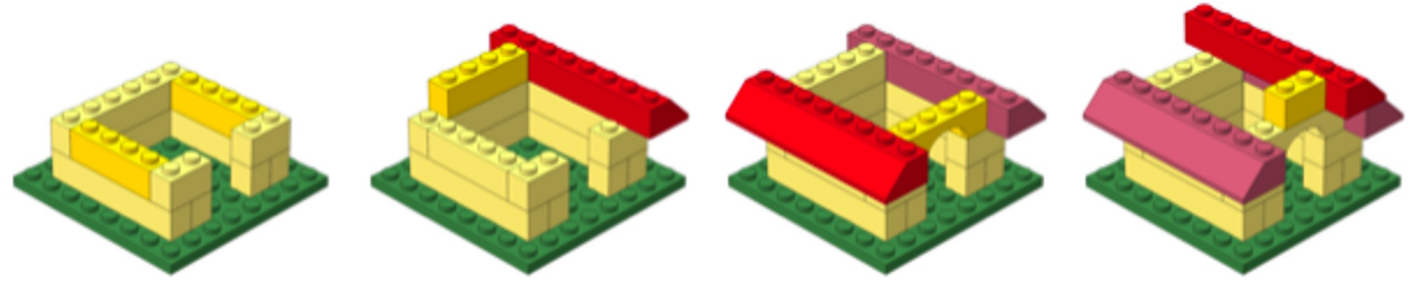
❖ ChIP-seq, CUT&RUN, ATAC-seq

❖ Introduction to R

❖ July 9th, 12th, 16th and 19th

❖ Basic syntax, reading in data, data wrangling and figure creation

Keep building!



Topic	Pre-requisites	Date/Time	Time	Registration
R basics	None	6/26/24*	1 – 4pm	Register!
Publication Perfect I	R basics	7/17/24	1 – 4pm	Coming soon!
Publication Perfect II	R basics	8/21/24	1 – 4pm	Coming soon!
RShiny	R basics	9/18/24	1 – 4pm	Coming soon!

Get an O2 account!

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O2 Cluster Account

Description

What does it do?

Get an account on O2, the HMS High Performance Compute cluster

Available To

Who is eligible?

Any HMS or HMS-affiliated researcher who has an HMS eCommons account.

Cost

What does it cost?

There is no cost to labs whose PI has a primary or secondary faculty appointment in an HMS Quad department.

If the PI of your lab does not have a primary or secondary faculty appointment in an HMS Quad department, cluster usage will be charged for beginning later in 2021. Please see the following page for current details about rates: <https://it.hms.harvard.edu/rc/core/rates>.

Support

Please fill out the [online help request form](#), or email rchelp@hms.harvard.edu.

How to Access

How do I get it?

Two-factor authentication is required to request an account on O2, as well as for O2 logins once your account is created. Harvard University uses a mobile app called Duo that makes the process quick and easy. Even if you already use Duo for HarvardKey, you will still need to setup a Duo profile for HMS.

- [Setup HMS two-factor Authentication \(HMS Duo Mobile\)](#)
- [Reactivate or Reconnect HMS two-factor Authentication \(HMS Duo Mobile\)](#)

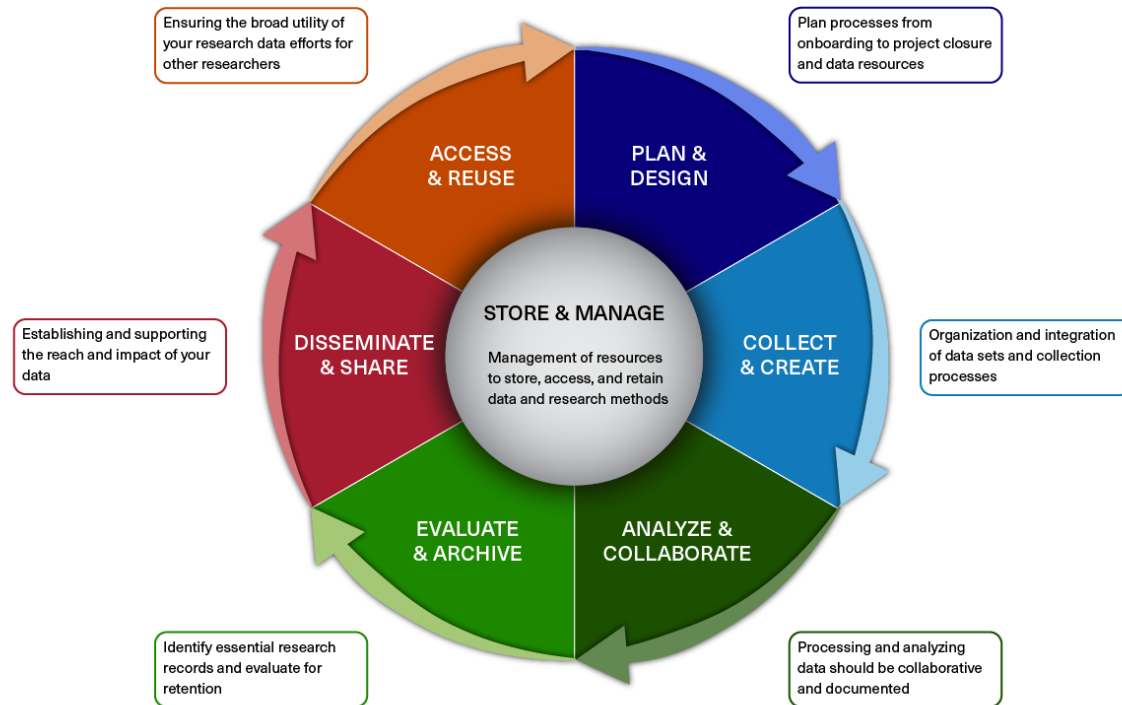
Once you have Duo set up, Click the "Get Service" link to login and complete the request form.

[Get this service](#)[Learn more](#)

Don't see what you're looking for?

Research Data Management (RDM)

BIOMEDICAL RESEARCH DATA LIFECYCLE



Date	Time	Event	Location
Jun 14	12pm	Level Up Your GIS Skills: A Three-Part Series (Part 1)	Countway Library Classroom L2-025
Jun 21	12pm	Level Up Your GIS Skills: A Three-Part Series (Part 2)	Countway Library Classroom L2-025
Jun 26	1pm	R basics	Zoom
Jun 28	12pm	Level Up Your GIS Skills: A Three-Part Series (Part 3)	Countway Library Classroom L2-025
Jul 24	12pm	Best Practices for Data Visualization	Zoom
Jul 31	12pm	Plotting like a Pro: Data Visualization with ggplot2	Zoom

Better RDM practice benefits you

❖ HMS Data Management LMA

❖ Webpage: <https://datamanagement.hms.harvard.edu>

❖ [Sign up](#) for quarterly email updates

❖ Harvard-wide Research data Management

❖ <https://researchdatamanagement.harvard.edu/>

Join us for HBC Community Breakfast!

- ❖ An opportunity to get to know others in the community
- ❖ Free food and beverages
- ❖ Great conversations



**Thursday September 5th, 2024
9:00 to 10:30am**

More Info:

<http://bioinformatics.sph.harvard.edu/breakfast/>

Thanks!

- ❖ Kathleen Chappell and Andy Bergman from HMS-RC
- ❖ Data Carpentry

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Contact Us

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