

Data Platforms for Life Science Researchers: **Galaxy**

2017 SACNAS

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Galaxy Team / Galaxy Community



#usegalaxy @galaxyproject

What is Galaxy?

Keith Bradnam's definition:

"A web-based platform that provides a simplified interface to many popular bioinformatics tools."

From

"13 Questions You May Have About Galaxy"

<http://bit.ly/13questions>

Galaxy is available several ways ...

<http://galaxyproject.org>

As a free for everyone service on the web: usegalaxy.org

The screenshot displays the Galaxy web interface. On the left is a navigation menu with categories such as 'Get Data', 'Text Manipulation', 'NGS: QC and manipulation', and 'NGS: RNA Analysis'. The main content area features a header with navigation tabs like 'Analyze Data', 'Workflow', and 'Shared Data'. Below this is a text block describing Galaxy as an open-source platform for biomedical research, with links to 'start here', 'help resources', 'tutorial', and 'Tool Shed'. A central graphic for 'GAME 2017 Melbourne 3-9 February' includes a red globe icon and the text 'Talk abstracts due 30 November'. To the right is a Twitter feed with two tweets: one from Pratik Jagtap and one from the Galaxy Project. The footer contains logos for Penn State, Johns Hopkins, TACC, and Cyverse.


Galaxy Analyze Data Workflow Shared Data Visualization Help User Using 0%

Tools

search tools

[Get Data](#)
[Lift-Over](#)
[Text Manipulation](#)
[Datamash](#)
[Convert Formats](#)
[Filter and Sort](#)
[Join, Subtract and Group](#)
[Fetch Alignments/Sequences](#)
[NGS: QC and manipulation](#)
[NGS: DeepTools](#)
[NGS: Mapping](#)
[NGS: RNA Analysis](#)
[NGS: SAMtools](#)
[NGS: BamTools](#)
[NGS: Picard](#)
[NGS: VCF Manipulation](#)
[NGS: Peak Calling](#)
[NGS: Variant Analysis](#)
[NGS: RNA Structure](#)
[NGS: Du Novo](#)
[NGS: Gemini](#)
[NGS: Assembly](#)
[Operate on Genomic Intervals](#)
[Statistics](#)
[Graph/Display Data](#)
[Phenotype Association](#)


Galaxy is an open source, web-based platform for data intensive biomedical research. If you are new to Galaxy [start here](#) or consult our [help resources](#). You can install your own Galaxy by following the [tutorial](#) and choose from thousands of tools from the [Tool Shed](#).

 **GAME**
2017
Melbourne
3-9 February

Talk abstracts due 30 November

Tweets by [@galaxyproject](#)

Galaxy Project Retweeted

 **Pratik Jagtap** @pratkomics
z.umn.edu/hayahym 'How are you - and How's your Microbiome?' an article in @tAnaSci Issue#1116 #microbiome #metaproteomics #usegalaxyp

Galaxy Project @galaxyproject
28-30 Nov: Analyse avancée de séquences, Bordeaux
cnrsformation.cnrs.fr/stage-16148-An...
#usegalaxy @cgfbordeaux

PENNSSTATE
JOHNS HOPKINS
TACC
CYVERSE

Public Galaxy servers

General Purpose / Genomics servers

18 servers as of this morning

Domain Specific

34 servers

Tool publishing servers

41 servers

Total

93 servers

bit.ly/gxyServers

Galaxy Services



Can't use a *service*? Galaxy is available on other Clouds



<http://aws.amazon.com/education>

<http://globus.org/>

<http://wiki.galaxyproject.org/Cloud>

<https://launch.usegalaxy.org/>

Hands On

<http://bit.ly/gxy-sacnas-hands-on>

<http://bit.ly/gxy-sacnas-1>

<http://bit.ly/gxy-sacnas-slides>

Community and Ecosystem

galaxyproject.org

The Galaxy Team



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<https://galaxyproject.org/galaxy-team>

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Thanks