THE UNIVERSITY OF
SYDNEY
—
**Sydney
Informatics Hub**

Ingenuity Pathway Analysis

User Setup Guide

QIAGEN

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QIAGEN's Ingenuity Pathway Analysis (IPA) - Advanced Analytics is a powerful web-based software that helps biologists and bioinformaticians analyse and interpret complex biological data in the context of biological pathways, networks, and functional annotations.

Getting Started

Sydney University has a single Ingenuity Pathway Analysis license and is available free of charge to Sydney University students, staff and affiliates. To access Ingenuity, you will need:

1. An account with Sydney Informatics Hub's (SIH's) PPMS. Follow this link to request an account: https://au.ppms.info/sydney/login/?pf=6

- Fill out the account creation request form and answer all the questions including University ID #/ Security card # (staff of student number, if external your institution name); access expiry date (planned thesis submission date, end of contract or end of project date). Nationality is optional.

2. An e-mail address registered with QIAGEN so that you can check out the IPA license – contact Michele Collins (michele.collins@sydney.edu.au) to register.

3. A computer with a web browser and a current version of Java, or download the IPA App installer from: https://analysis.ingenuity.com/pa/installer/select

Logging on

1. Make sure you have an account with SIH's PPMS and your email is registered with QIAGEN.

2. Book your session on PPMS: https://au.ppms.info/sydney/login/?pf=6

3. Login to IPA at: http://www.ingenuity.com/products/login or open the IPA app

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You have successfully logged in.

You may now close this browser window and use the IPA client which is launching as a standalone application.
The IPA client may be behind this window.

Thank you,
QIAGEN Digital Insights Team

4. Follow the IPA prompts to run IPA as either a web version or an applet version (i.e. via IpaApplication.jnlp).

5. If you log out and have trouble logging back in try closing your browser then logging back in.

6. If you get the error message "The IPA institutional license you are attempting to access is currently being used by the maximum permitted number of simultaneous individual users. Please try logging into IPA later" check that you have booked IPA via PPMS, if so, use the Incident button on the PPMS booking calendar page to log an incident. Please include the time(s) of day when you were unable to log in.

IPA for first-time users

- To use IPA, you need to have a dataset in a supported format (e.g., gene expression data, proteomics data, microRNA data, or metabolomics data). IPA supports a wide range of input formats, including Excel spreadsheets, tab-delimited text files, and raw data files from various microarray and sequencing platforms.
- Once you have uploaded your dataset into IPA, you can use various analysis tools to explore your data and identify enriched pathways and biological functions.
- One of the most powerful features of IPA is its ability to generate interactive pathway maps that visualize the relationships between genes, proteins, and other molecules in a biological pathway. You can use these pathway maps to explore the functional relationships between different molecules and understand how changes in gene expression or other variables affect pathway activity.

Below is a list of webinars which can get a new IPA user started with their analysis. The webinars are short of about ~ 45 mins duration each.

Webinar: Part 1 : Introduction to Ingenuity Pathway Analysis (IPA)

Webinar: Part 2: Data formatting and upload in IPA – Part 2

Webinar: Part 3: Interpreting the results of your core analysis in IPA

Other informative webinars are available here:
https://tv.qiagenbioinformatics.com/tag/ipa%20tutorial

Additional support

If you have any specific questions with regards to IPA functionality, you can use QIAGEN Bioinformatics Technical and Application Support Email to contact QIAGEN directly: ts-bioinformatics@qiagen.com

Alternatively, you can request research project support from the Sydney Informatics Hub by filling out this short form. The Sydney Informatics Hub provides support, training, and expertise in research data management, statistics, data science, software engineering, simulation, visualisation, bioinformatics, and research computing.