

# Data Science Module

Combining the speed of IHD with the power of machine learning

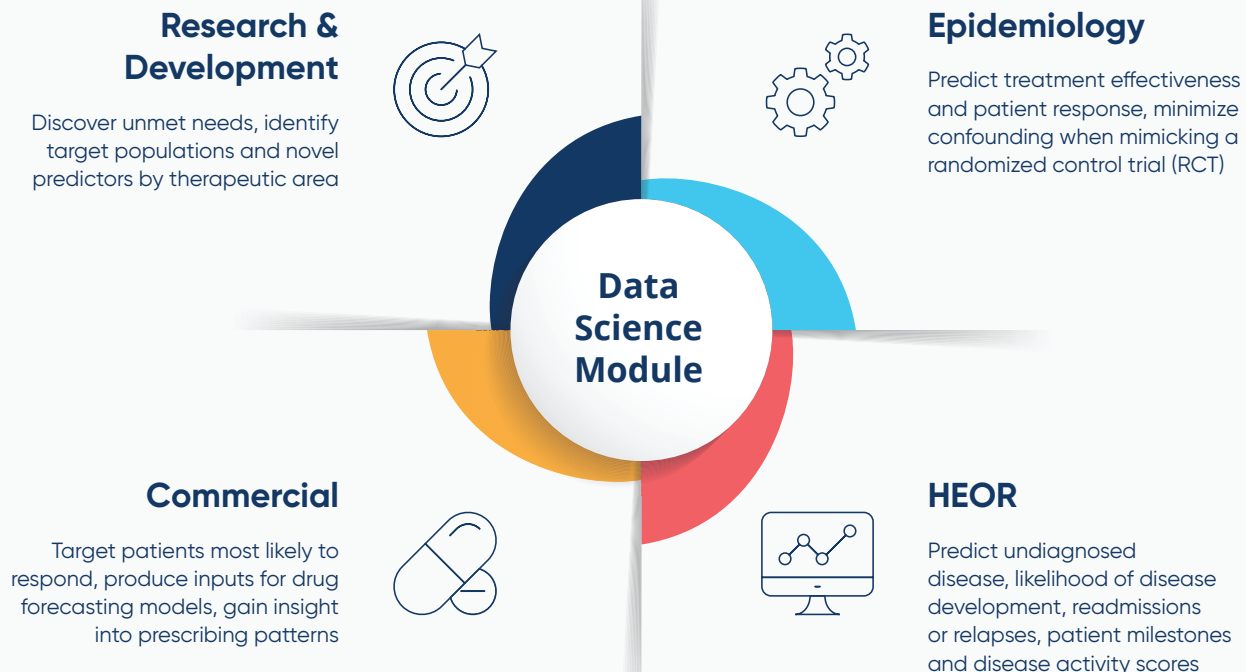
The explosive growth of real-world data (RWD) – in volume, variety and velocity – has made it a must-have source of insights for life sciences organizations. Machine learning provides a new opportunity to incorporate and learn from this rapid influx of data. And yet challenges remain. There are a limited number of experienced data scientists. Creating datasets is programmatically intensive. Setting up an efficient processing environment is complex. And outputs can be difficult to translate and operationalize.

Panalogo's Data Science Module addresses those challenges and brings the power of machine learning to the life sciences industry. With the Data Science Module, researchers can leverage

the full potential of data and work easily with a large number of covariates, identify predictors and perform advanced analysis using a variety of machine learning techniques – all without the need for custom programming.

The module is built on the Panalogo Instant Health Data (IHD) platform and provides a single environment to easily train, validate and test models against multiple datasets, as well as allow users to seamlessly expand IHD projects to generate new findings. The result? Data Science allows researchers and analysts to uncover novel insights with advanced machine learning techniques to drive product success.

## Uncovering Novel Insights Across the Product Lifecycle



# IHD & Data Science: An End-to-End Approach

Panalgo's end-to-end IHD and Data Science solution allows researchers to combine the agility of our core analytics platform with the intelligence of machine learning. This expansion of predictive capabilities in IHD enables advanced analytics and is designed to execute modern statistical and machine learning techniques with healthcare data.

The combination provides a closed-loop, customized modeling solution that produces novel insights. The module enables the creation of a meaningful set of algorithms covering each class of

model, which can be fed back into core IHD for further analysis as needed. The entire machine learning study can be conducted seamlessly within the IHD platform.

RWD is playing an increasing role in health care decisions and clinical trial execution. With IHD and the Data Science Module, researchers and analysts can now leverage this crucial data source to answer today's pressing questions, generate novel insights and develop more accurate predictions.

## CORE IHD

## IHD DATA SCIENCE MODULE

### DATA INGESTION

All your data in one place

### DATA FRAME CREATION

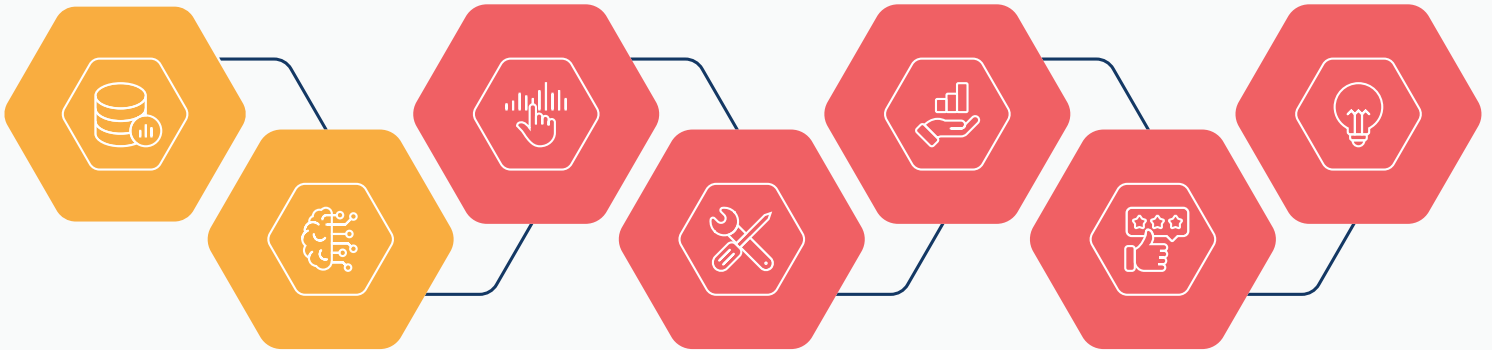
Data preparation for model training

### EXPLAIN RESULTS

Understand the key covariates that influence predictions

### NOVEL INSIGHTS

Produce novel insights



### FEATURE BUILDING

Create patient cohorts and covariates - no custom programming needed

### MODEL BUILDING

Build models in minutes without custom programming

### TESTING & VALIDATION

Test models and choose best for study needs and validate chosen model

## About Panalgo

Panalgo provides software that streamlines healthcare data analytics by removing complex programming from the equation. Our Instant Health Data (IHD) software empowers teams to generate and share trustworthy results faster, enabling more impactful decisions. To learn more visit us at [www.panalgo.com](http://www.panalgo.com).