InSyBio Suite - First Steps

July 2024

Insybio Suite v3.3

InSyBio Intelligent Systems Biology

User Manual

www.insybio.com

Welcome to Insybio Suite

InSyBio Suite is an integrated platform providing tools for biological data management, secured storage and analysis based on the Cloud model of Software as a Service (SaaS).

Its present version consists of seven basic modules:

- **Interact**: a module offering prepossessing and analysis options for proteomics and interactomics biological data.
- **ncRNAseq**: a module for the analysis of RNA-Seq data and non-coding RNA molecules.
- **BioNets**: a module which enables the application of data mining techniques on gene expression datasets and biological networks.
- **Biomarkers**: a tool for the identification of biomarkers from single and multi-omics datasets combining statistics and machine learning.
- **DNA-Seq**: a tool which enables the fast and accurate pre-processing and analysis of DNA-sequencing data by non-bioinformatics experts with optimized pipelines.
- **Pipelines**: a tool that takes as input a dataset file and after performing statistical and network analytics, it uses the dataset to train a machine learning model identifying at the same time the optimal biomarkers for the trained model.
- **Data Store**: a set of tools for storing and managing biological datasets.

InSyBio Suite is offered by InSyBio LTD and incorporates in its analysis a variety of novel published computational intelligent techniques plus a new method for the functional characterization of proteins.

We will be thankful if you try out InSyBio Suite and provide us your feedback in <u>support@insybio.com</u>.

In the following, the signing up and the logging in procedures are described, as well as the basic functionalities of InSyBio Suite.

Logging in

In the login page you have to enter your email and your password and press the "Login" button.

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	InSyBio Suite delivers over Internet high-performance, user-friendly and installation free tools to biology researchers with minimum knowledge of software usage. Learn more about InSyBio >	Want to take the InSyBio Suite for a test-drive? Sign up for a free 30 day evaluation Fully functional Use your own datasets Requires Verification (1-2 business days)			

In case you have forgotten your password, you can click the respective link. In the page you will be redirected to, you have to enter your email and your password will be sent to you.

Password Reminder
Your e-mail * Submit ← Go to Togin form

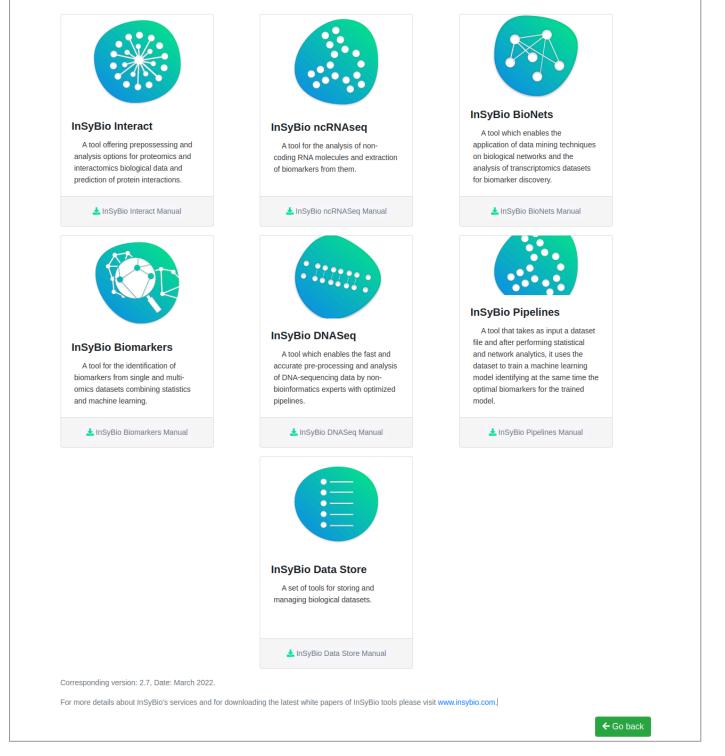
By clicking the "Learn more about InSyBio" there is an overview about the tools that InSyBio Suite delivers and the corresponding manuals.

Welcome to InSyBio Suite

InSyBio Suite delivers over Internet high-performance, user-friendly and installation free tools to biology researchers with minimum knowledge of software usage. It is based on a series of patented or in the process of getting a patent pipelines, algorithms and tools that have been recognized and awarded by the academic community. Using InSyBio Suite, biology researchers can save time and a significant amount of money while reassuring high performance and robustness in their data analysis.

The current version of InSyBio Suite includes the following tools:

🛓 InSyBio Suite - First Steps Manual



InSyBio Suite Graphical Environment

Upper toolbar

In the upper toolbar of InSyBio Suite, pressing on your username you can update your profile, change your password, go to the settings page or logout from the account.

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InSyBio DNA-Seq	ID 82 RNA-Seq Differential Expression Pipeline	ID 35 Completed	ID 19 Completed DNA-Seq Pipeline
InSyBio Pipelines	ID 85 Running	ID 68 Error	ID 18 Completed
InSyBio DataStore	RNA-Seq Differential Expression Pipeline	ID 34 Error	ID 17 Completed
	ID 84 Error RNA-Seq Differential Expression Pipeline	ID 67 Error Network Creation	ID 16 Completed DNA-Seq Pipeline
	ID 83 RNA-Seq Differential Expression Pipeline	ID 33 Completed Enrichment Analysis	ID 15 Completed DNA-Seq Pipeline
	ID 12 miRNA Target Site Features Calculation	Enrichment Analysis	DNA-Seq Pipeline
	RNA-Seq Pipeline		LINSyBio Suite Manuals
			First Steps Interact OncRNASeq
		ID 59 Error Dataset Preprocessing	😵 BioNets 🔇 Biomarkers 🕒 DNASeq
	ID 48 Completed	ID 55 Pending Training Multi-biomarker Predictive Analytics Model	Pipelines Data Store

When updating your profile you can change your full name, address, organization and country. You cannot change your email though you can manage your email notifications.

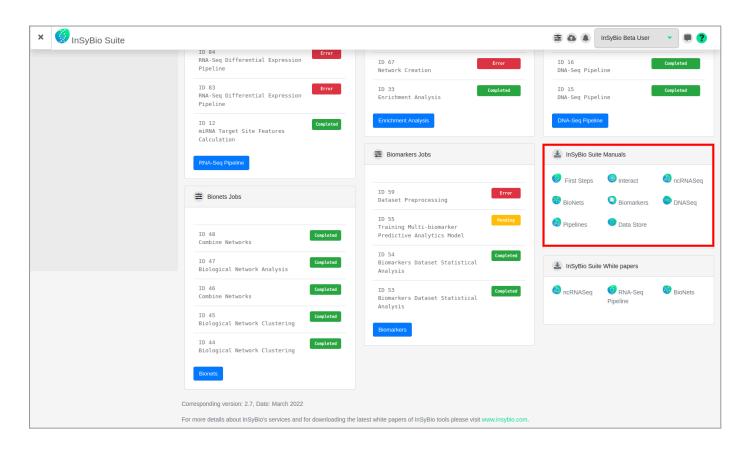
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When changing your password, you have to provide your old password and type twice your new password.

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Left menu

In the left menu of InSyBio Suite you can select the tool you would like to use. Tools user manuals can be found on the landing page.



For some tools, you can find their subtools pressing the respective arrow.

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InSyBio Interact Positive/Negative PPIs Find 22 computed features for every interaction.	Intracellular Interactions Analysis	Welcome to InSyBio Suite	
Protein Search Explore the properties of your protein of interest.	arcRNASeq Jobs	Interact Jobs	E DNASeq Pipeline Jobs
PPI Complexes List of PPI complexes computationally predicted using Evolutionary Enhanced Markov Clustering (EEMC)	ID 82 RNA-Seq Differential Expression Pipeline	ID 35 Completed	ID 19 Completed DNA-Seq Pipeline
algorithm. PPI Functions Search Proteins and complexes with a specific function (GO	ID 85 RNA-Seq Differential Expression Pipeline	ID 68 Error Network Creation ID 34 Error Enrichment Analysis	ID 18 Completed DNA-Seq Pipeline ID 17 Completed DNA-Seq Pipeline
Term). PPI Datasets Create and save your own dataset from the stored PPIs.	ID 84 Error RNA-Seq Differential Expression Pipeline	ID 67 Error Network Creation	ID 16 Completed DNA-Seq Pipeline
Network Creation Creation of biological networks from your set of biomarkers	ID 83 RNA-Seq Differential Expression Pipeline	ID 33 Completed	ID 15 Completed
based on the protein-protein interactions of InSyBio Interact. Enrichment Analysis Functionality	ID 12 Completed miRNA Target Site Features Calculation	Enrichment Analysis	DNA-Seq Pipeline
Explore the functional terms which are significantly enriched in the given protein list. Functional Annotation Patented Method	RNA-Seq Pipeline		First Steps OInteract On CRNASeq
Explore the functional annotation information of your protein of interest.	🛱 Bionets Jobs	ID 59 Errer Dataset Preprocessing 	BioNets DNASeq DNASeq Pipelines Data Store
InSyBio ncRNASeq	ID 48 Completed	Predictive Analytics Model	

When inside a tool, help is provided through the upper right help button.

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	InSyBio Interact			Help
	InSyBio ncRNASeq	Uniprot ID of protein @ Select unitprot	Show Results	
6	InSyBio Bionets			
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	InSyBio DNA-Seq			
	InSyBio Pipelines			
	InSyBio DataStore			

×	InSyBio Suite - Functional	Annotation	8
	InSyBio Interact		Quick Introduction
	InSyBio ncRNASeq	Uniprot ID of protein	Type two characters/ digits and a list of relative protein's
	InSyBio Bionets		Uniprot ID will appear.
	InSyBio Biomarkers		
	InSyBio DNA-Seq		
	InSyBio Pipelines		
	InSyBio DataStore		

On the upper right of the toolbar, there is also a feedback button. Clicking on the feedback button, a message asks you to provide your feedback at support@insybio.com.

× InSyBio Suite	Send us feedback!	×	🚔 💩 🌲 🛛 InSyBio Beta User 🔹 🗩 🤋
InSyBio Interact		platform please provide us your feedback 0 Suite	
InSyBio ncRNASeq	using the form below or contact us Type your message here.	at support@insybio.com.	
InSyBio Bionets	a ncRNASeq Jobs		DNASeq Pipeline Jobs
InSyBio Biomarkers			
InSyBio DNA-Seq	ID 82 RNA-Seq Differential	Close Send Completed	ID 19 Completed DNA-Seq Pipeline
inSyBio Pipelines	ID 85 RNA-Seq Differential Expression	ID 68 Error	ID 18 Completed
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	RNA-Seq Pipeline	≢ Biomarkers Jobs	LinSyBio Suite Manuals
	Bionets Jobs	ID 59 Dataset Preprocessing	First Steps Interact Interact BioNets Biomarkers DNASeq
	ID 48 Completed	ID 55 Training Multi-biomarker Predictive Analytics Model	Pipelines Data Store

How to get InSyBio Suite

To request a free one month license of InSyBio Suite please email us at <u>info@insybio.com</u>.

To purchase InSyBio Suite commercial version 3.3 please contact us at <u>sales@insybio.com</u>.

About Us

InSyBio Ltd is a bioinformatics pioneer company (www.insybio.com) in personalized healthcare, that focuses on developing computational frameworks and tools for the analysis of complex life-science and biological data in order to develop predictive integrated biomarkers (biomarkers of various categories) with increased prognostic and diagnostic aspects for the personalized Healthcare Industry.

InSyBio Suite consists of tools for providing integrated biological information from various sources, while at the same time it is empowered with robust, user-friendly and installation-free bioinformatics tools based on intelligent algorithms and methods.

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