

# LM-GlycoRepo: a new repository system for lectin-based multimodality data

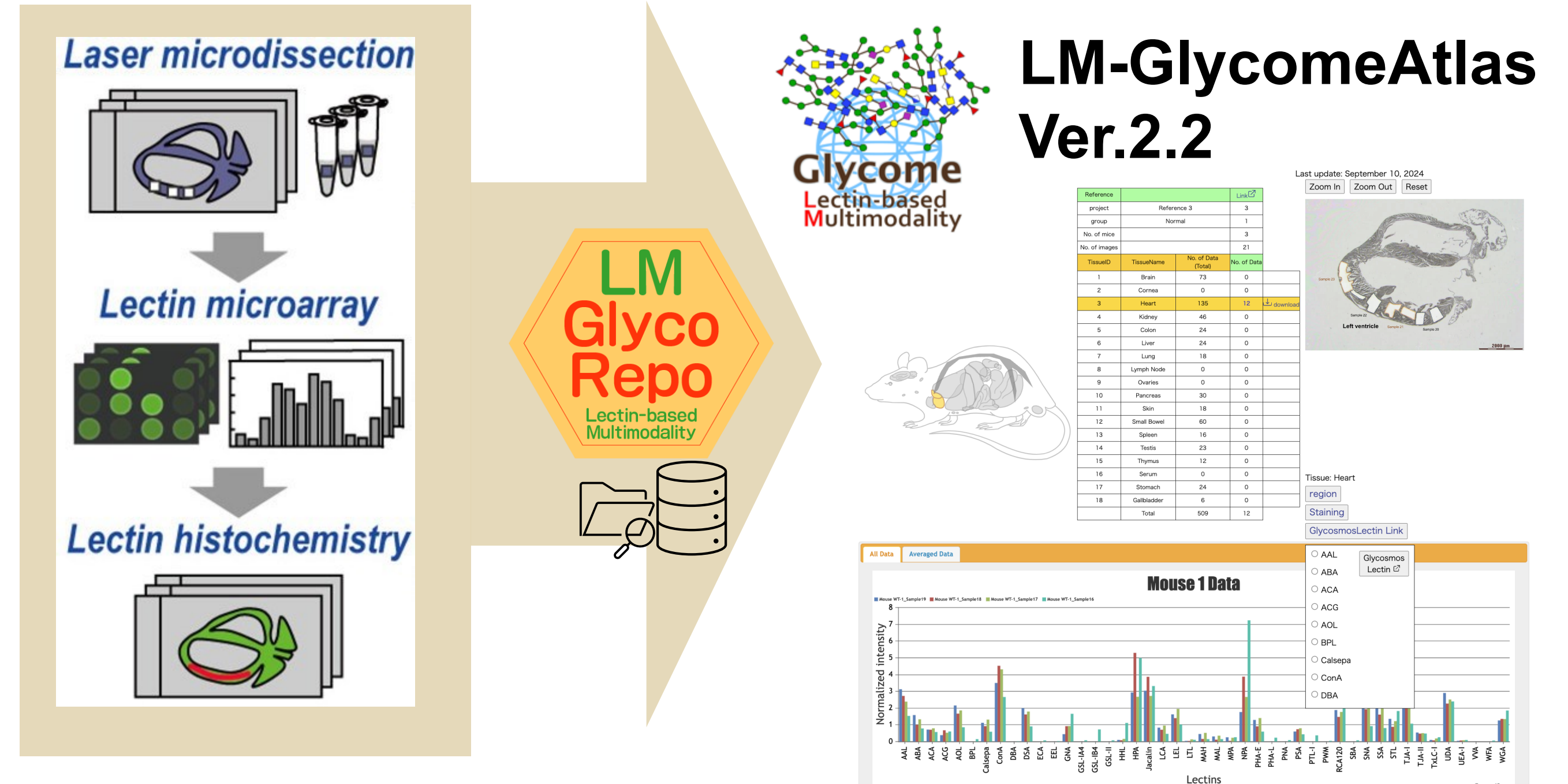


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## Introduction

LM-GlycomeAtlas is a web tool for visualizing mouse tissue glycome mapping data obtained by laser microdissection (LMD)-assisted lectin microarray (LMA). Here, we introduce a new repository system "LM-GlycoRepo Ver. 1.0" for lectin-based multimodality data, specializing in mouse tissue glycome mapping data. Users can deposit original data sets of LMD images, LMA data, and high-resolution histological images under an international guideline MIRAGE. The deposited data can be visible at LM-GlycomeAtlas. To become a standard repository for LMA data of various biospecimens including humans, the deposit and visualization system will evolve into a comprehensive tool for lectin-based multimodality data.



## Top page

## Submission

## Your page

## User will need

## 1. Template creation

User can create the template of the dataset information under MIRAGE guideline, and it can be auto-filled in "Register Project".

## 2. Project registration

LMD images, LMA data, and high-resolution histological images can deposit using "Register Project". After user confirmation the dataset will display in LM-GlycomeAtlas.

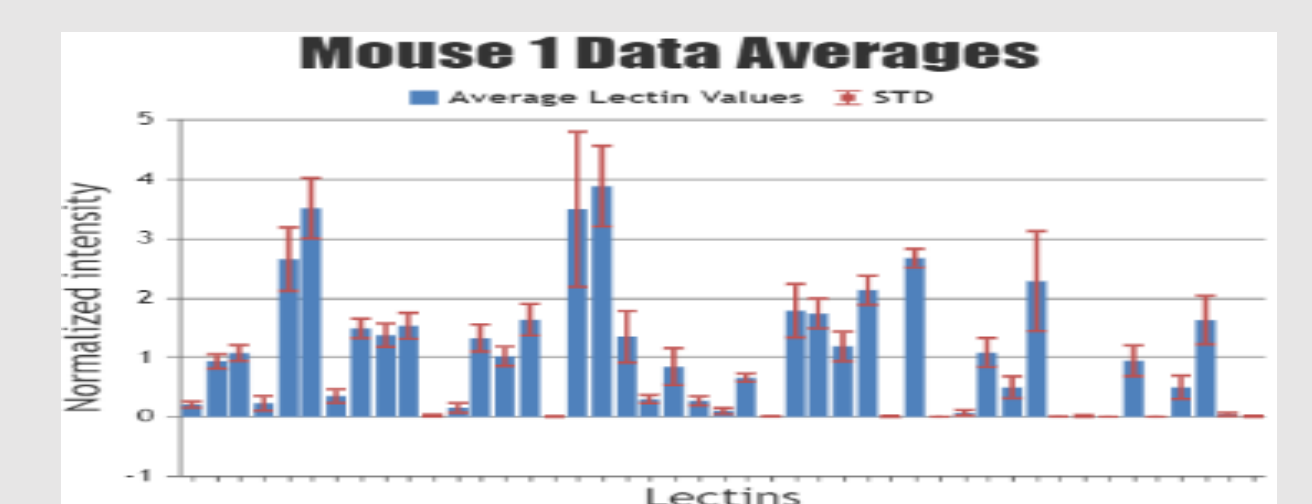
## LM-GlycomeAtlas Ver.2.2

### Top page

### Main Interface

## 3. LMA data

LMA data of a selected region are shown individually for each sample or as averaged values.



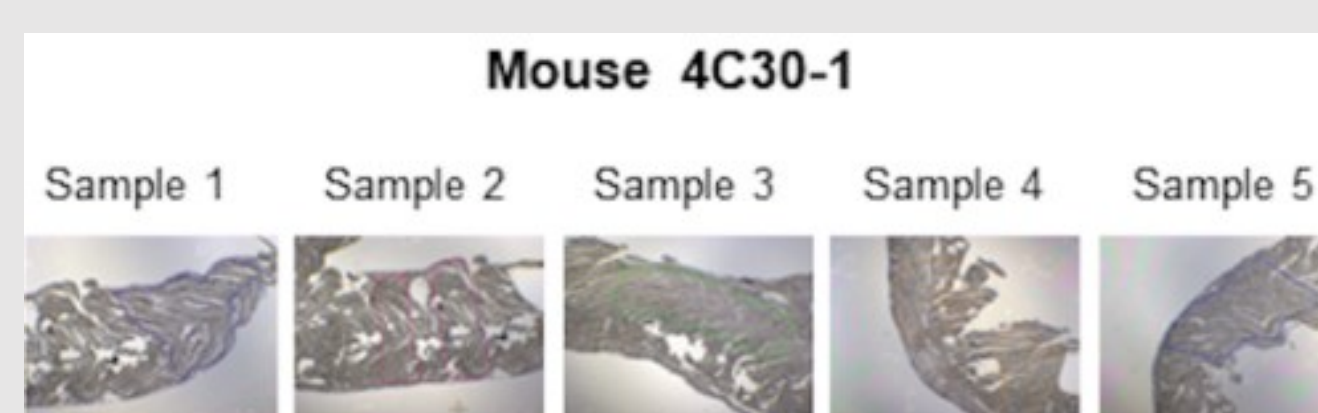
## 1. Data file

LMA data and associated metadata can be downloaded and used for offline analysis.

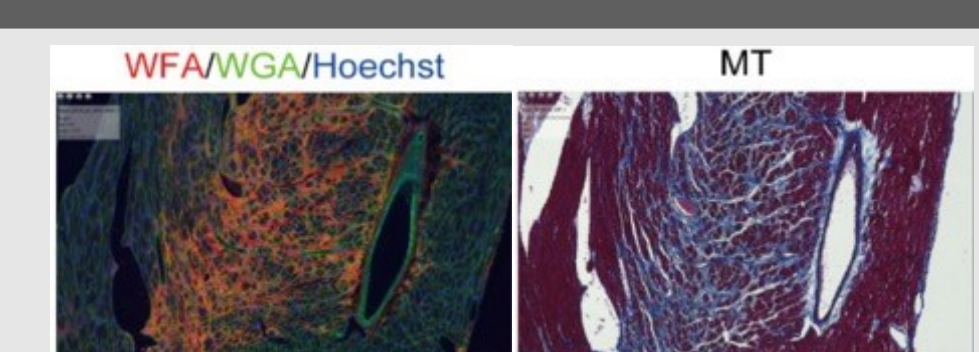
Sample Name	Lectin Name	Value (Mean Normalized)
Mouse1_4C30-1_Sample1	LTL	0.230133806
Mouse1_4C30-1_Sample1	PSA	0.958172375
Mouse1_4C30-1_Sample1	LCA	1.142323558
Mouse1_4C30-1_Sample1	UEA-I	0.321458587
Mouse1_4C30-1_Sample1	AOL	2.676781952

## 2. LMD images

Users can easily check the areas used for collection of tissue fragments for LMA analysis.



## 4. Histological images



Multiple high-resolution images of interest can be simultaneously displayed for visual comparison.

## 5. Link to lectin DB

Users can access information on lectins of interest via the link to GlyCosmos lectins.



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