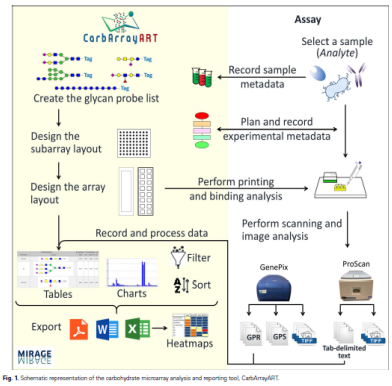

Fig. 1. Schematic representation of the carbohydrate microarray analysis and reporting tool, CarbArrayART.

CarbManaging Carbohydrate Microarrays with CarbArrayART

Description

Glycan microarrays are essential tools in glycobiology and are being widely used for the assignment of glycan ligands in diverse glycan recognition systems. The authors have developed new software, called **Carbohydrate Microarray Analysis and Reporting Tool: CarbArrayART**, to address the need for a distributable application for glycan microarray data management. The main features of CarbArrayART include:
(i) Storage of quantified array data from different array layouts with scan data and array-specific metadata, such as lists of arrayed glycans, array geometry, information on glycan-binding samples, and experimental protocols.
(ii) Presentation of microarray data as charts, tables, and heatmaps derived from the average fluorescence intensity values that are calculated based on the imaging scan data and array geometry, as well as filtering and sorting functions according to monosaccharide content and glycan sequences.
(iii) Data export for reporting in Word, PDF, and Excel formats, together with metadata compliant with the guidelines of MIRAGE (Minimum Information Required for A Glycomics Experiment).

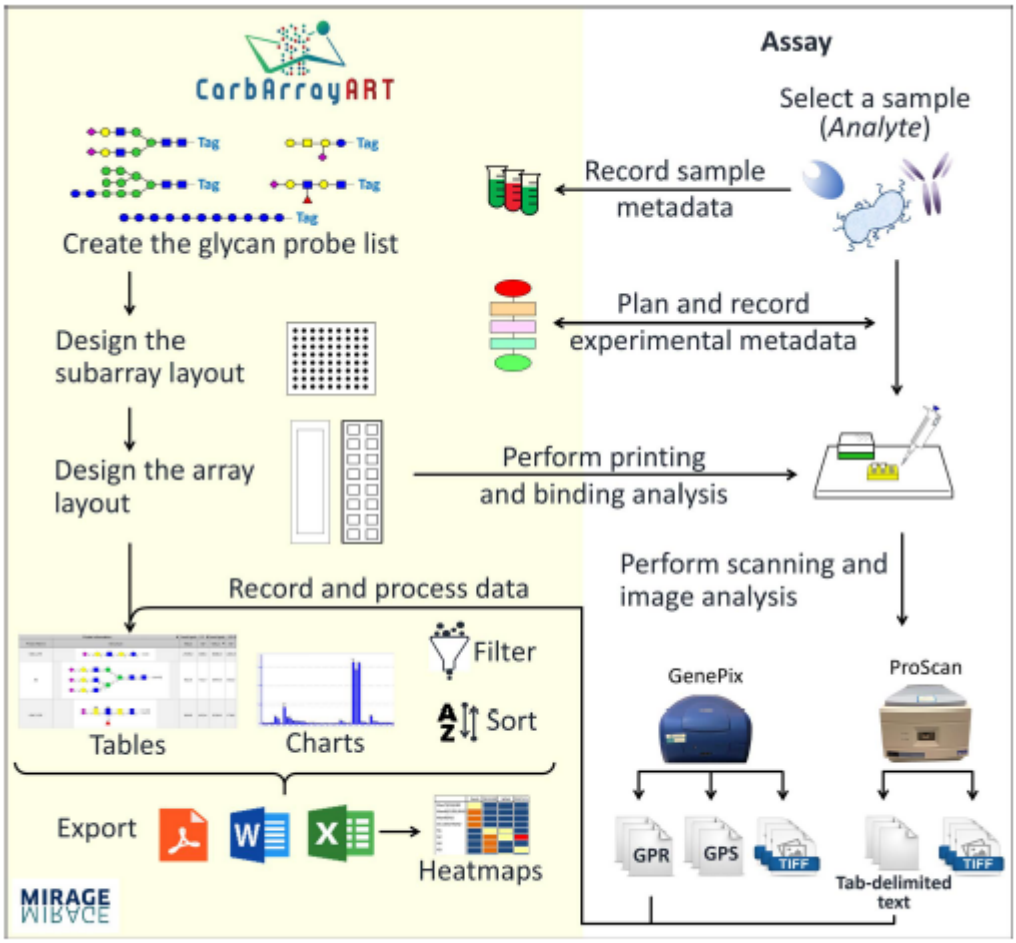

Fig. 1. Schematic representation of the carbohydrate microarray analysis and reporting tool, CarbArrayART.

CarbArrayART is designed for routine use in recording, storage, and management of any slide-based glycan microarray experiment. In conjunction with the MIRAGE guidelines, CarbArrayART addresses issues that are critical for glycobiology, namely, clarity of data for evaluation of reproducibility and validity.

Category

1. News