

DATE

Ontario Institute for Cancer Research

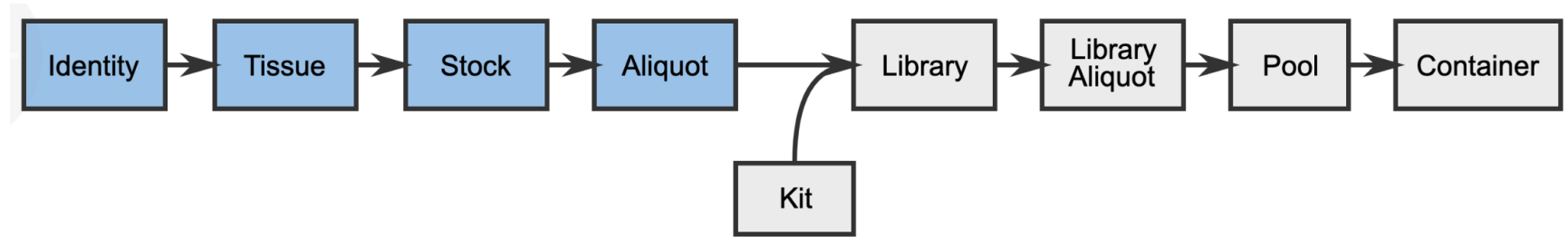
MISO Tutorial: Libraries

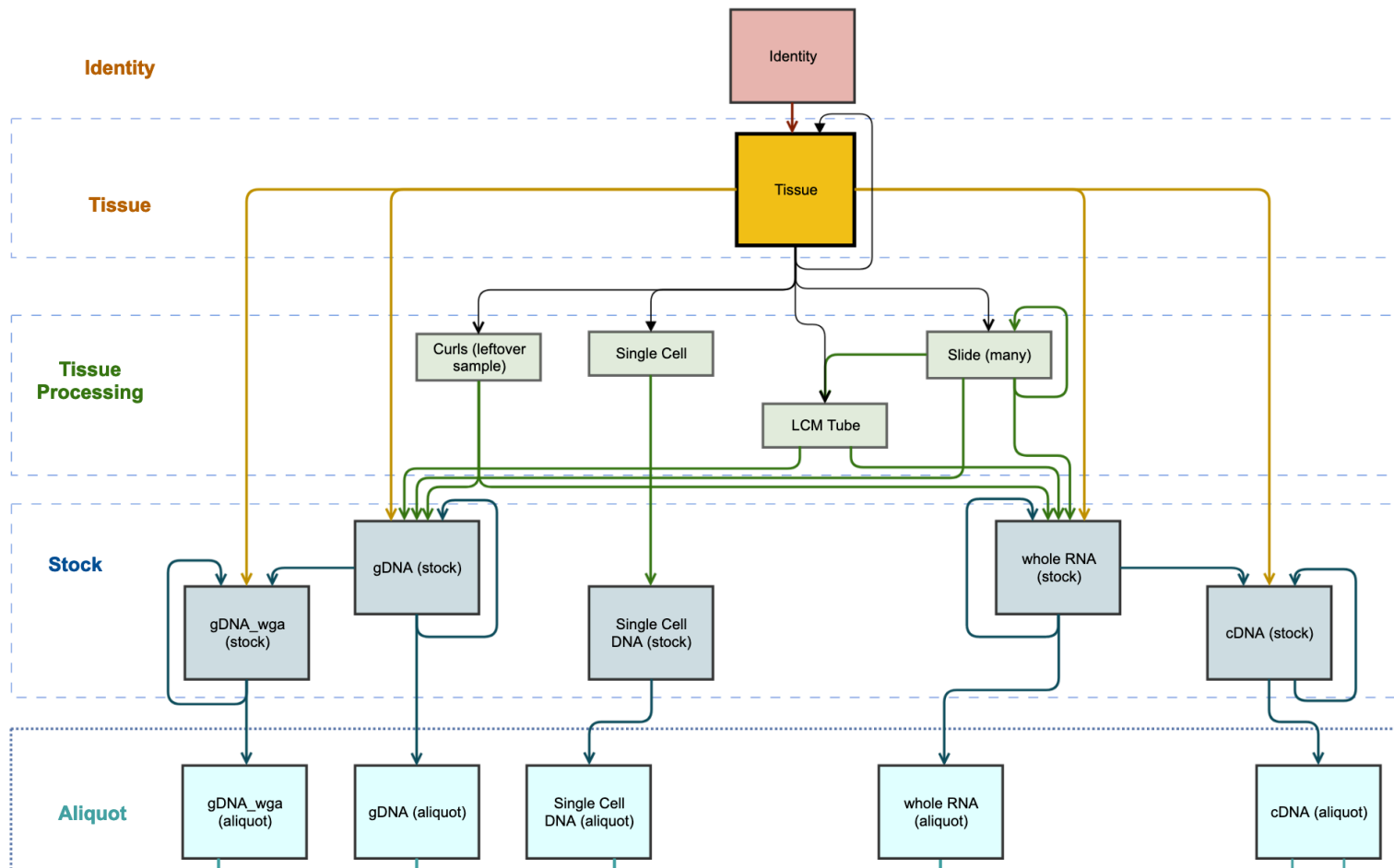


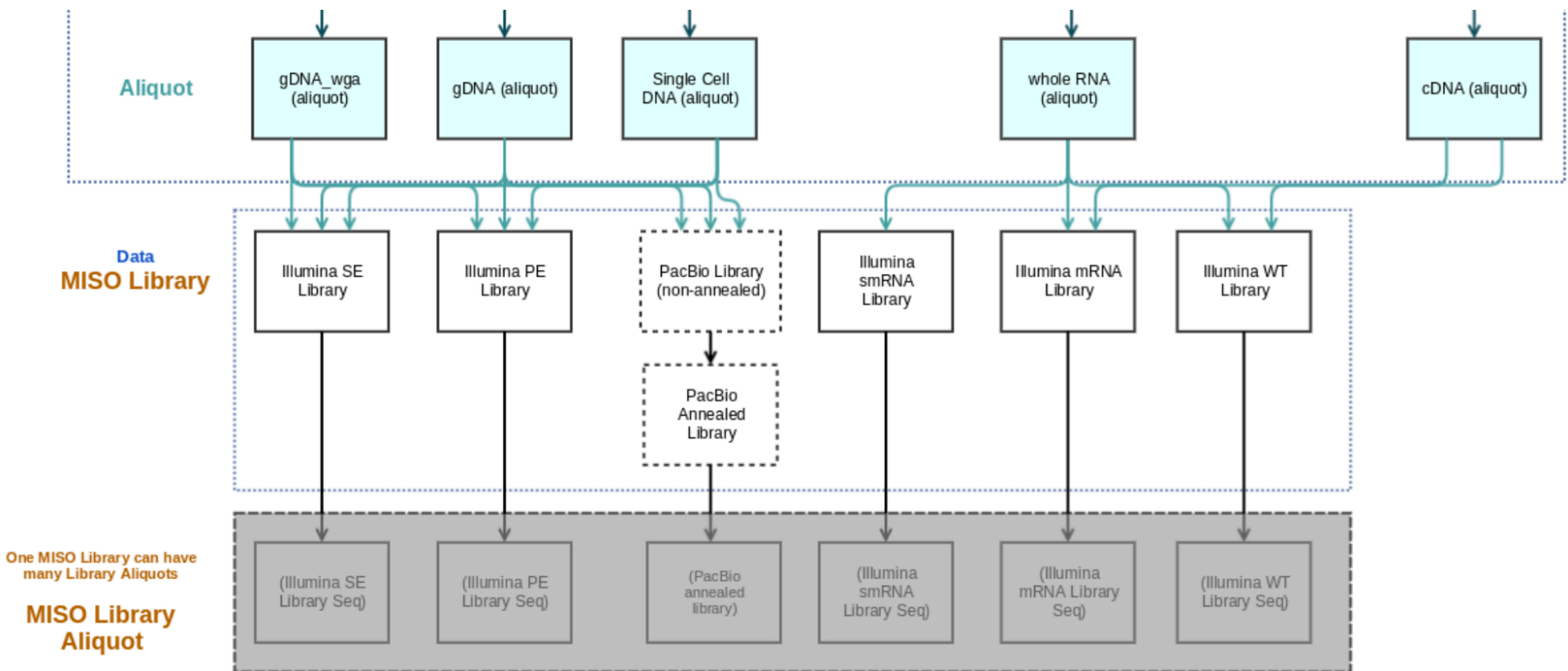
Outline

- Libraries
 - Processing samples into libraries
 - Receiving libraries
- Library aliquots
 - Processing libraries into library aliquots
- Pool Orders
- Index Distance Tool
- Index Search Tool

General MISO Flow







Libraries

- Libraries are made from aliquot samples for a particular platform (e.g. Illumina)
- There is a library design that decides
 - The selection type
 - The strategy type
- Indices may be added to a library
- QC information may be added to a library
- Libraries can be created from existing aliquots or received directly
 - When receiving libraries, some sample information is also required

Library Aliquots

- A library aliquot is a portion of a library separated for pooling or further processing
- Can be made from libraries, or from other library aliquots
- Some attributes may be changed from the library
 - Concentration
 - Design code (WG, EX, etc.)
 - Insert size
 - Group ID/description

Pool Orders

- A pool order tells the sequencing team that a set of libraries is ready to be pooled and sequenced
- Specifies which library aliquots to include and at what proportions
 - Library aliquots derived from the ones specified are also accepted
- May specify sequencing requirements
- Fulfilling a pool order requires
 - Linking a pool that contains all of the specified aliquots (or derivatives)
 - Linking a sequencing order that matches the sequencing requirements of the pool order (if specified)

Exercise

Complete Tutorial 4: Libraries

<https://miso-lims.github.io/walkthroughs/>

Index Distance Tool

- Indices are used to identify individual libraries in a multiplexed lane
- Duplicate and very similar indices cause problems in analysis
- MISO warns when a pool contains problematic indices
- The Index Distance tool allows you to check indices before pooling or creating pool orders

Index Search Tool

- Allows you to identify index families by sequences
- Collaborators may only provide the index sequences
- Collaborators may use different names for the same indices
- Search before adding new index families to prevent duplication

Exercise

Complete Other Tutorial 4: Checking Index Distance

<https://miso-lims.github.io/walkthroughs/>



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