

# Smithsonian FIMS and Geneious LIMS Training

Session 2 - July 13, 2016

Niamh Redmond ([RedmondN@si.edu](mailto:RedmondN@si.edu))

Mike Trizna ([TriznaM@si.edu](mailto:TriznaM@si.edu))

# Session 2 Outline

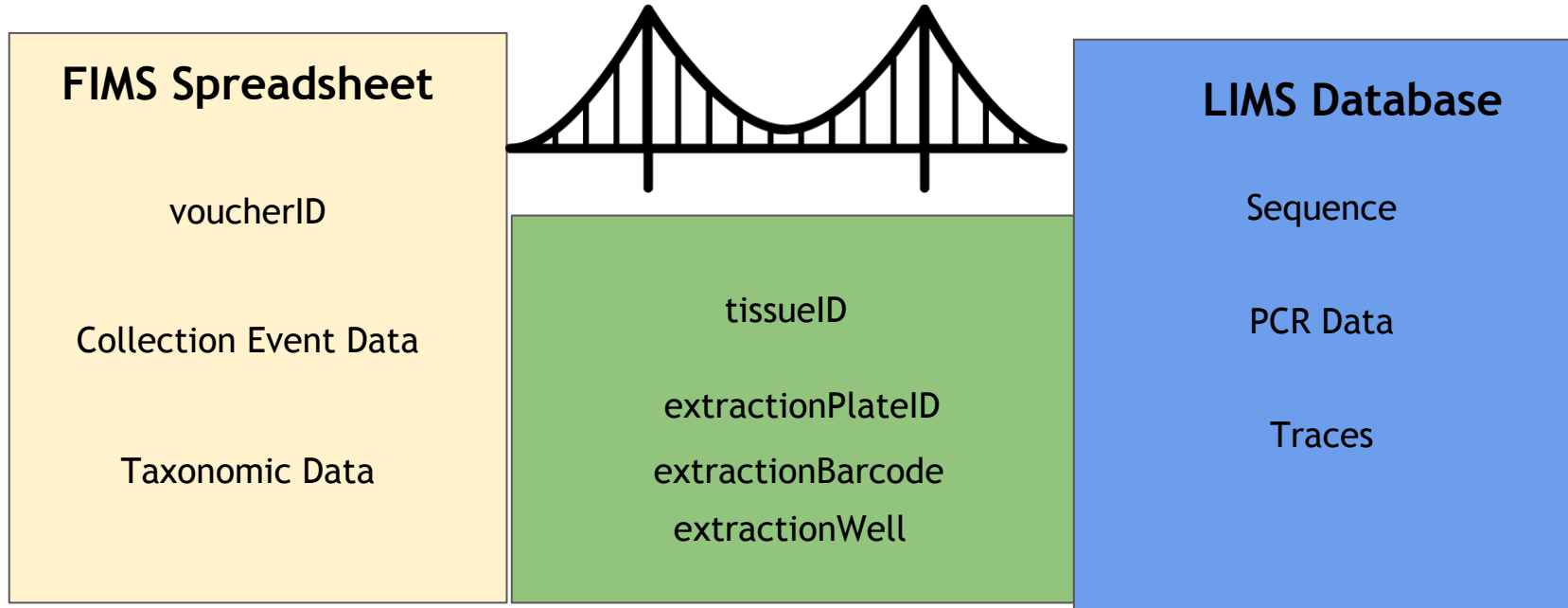
- Biocode LIMS Login
- FIMS and LIMS connections
- Naming conventions
- Generating extraction plates
- Searching, ID pieces,
- Generating PCR plates → primers, protocols
- Uploading and scoring gel images

<http://sibarcodenetwork.readthedocs.io/en/latest/>

# Exercise 1: Creating your custom FIMS spreadsheet

- Go to <https://github.com/SmithsonianWorkshops/GeneiousLIMS>, and navigate to "Week 2" -> "Exercises".
- Download your pre-filled FIMS spreadsheet and plate scan (by selecting each file and clicking "Raw").
- Follow instructions to bring in extraction barcodes from plate scan.
- Save spreadsheet as old version of Excel (.xls)

# Bridge between Specimen and Sequence Data



# Login window

Connection Name: SI Training

Connection Method: Direct FIMS/LIMS

Field Database Connection: Excel

Choose the location of your excel file.  
The first row should be column headers, and it should have at least a tissue and specimen column.

Excel file location: (ithsonian)\fed\_barcoding\training\_sheets\NIR\_Training\_P01.xls Browse

Tissue ID field: tissueID

Specimen ID field: voucherID ☐ Specimen photos on Flickr ?

☒ The FIMS database contains plate information

Plate name field: extractionPlateID

Well field: extractionWell

Specify your taxonomy fields, in order of highest to lowest Autodetect

kingdom	+	-
phylum	+	-
class	+	-
order	+	-
family	+	-
genus	+	-
scientificName	+	-

## Exercise 2: Connecting to Biocode Plugin

Login to Biocode LIMS using the following LIMS DB Info:

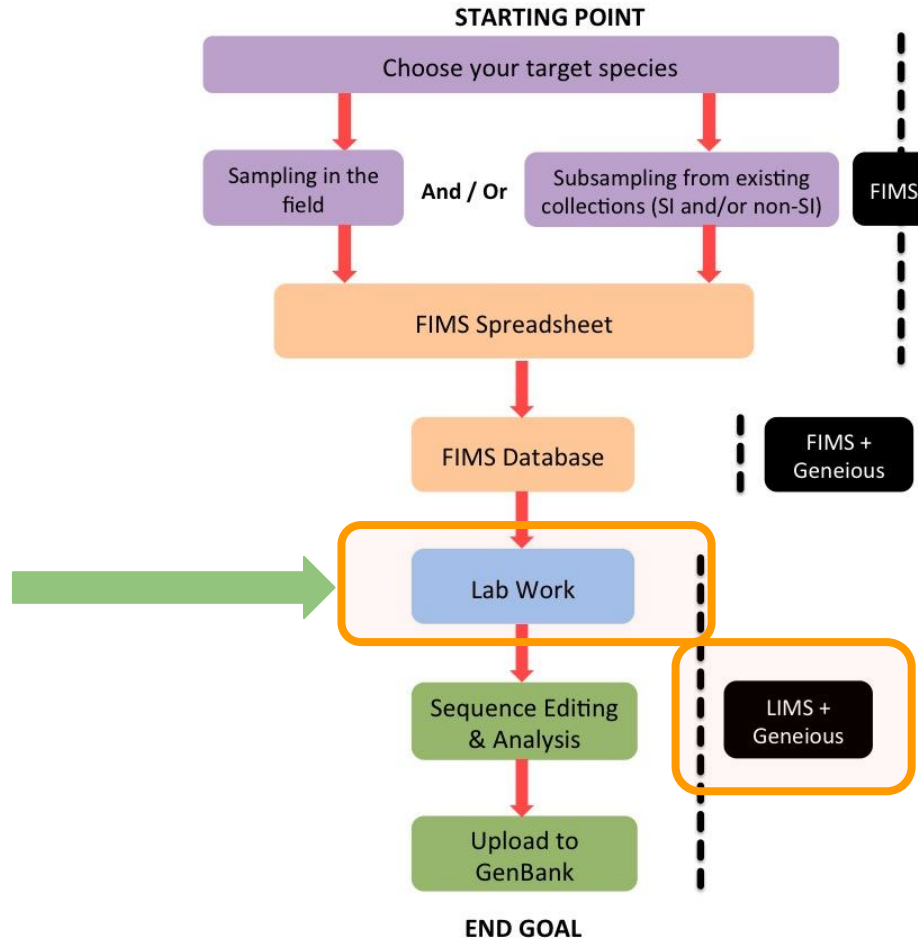
Server Address: db.bwplims.info

Database Name: si\_barcode\_training

Username: si\_training

Password: Sm!thsonian

## Overview of SI Barcoding Pipeline



Follow along at the SI Barcode Network documentation page on : Generating Extraction plates

[http://sibarcodenetwork.readthedocs.io/en/latest/extraction\\_plates.html](http://sibarcodenetwork.readthedocs.io/en/latest/extraction_plates.html)



## Exercise 3:

Create an extraction plate.

- Use Bulk Edit to add and create the relevant IDs
- Use Edit All Wells to add specifics about the extraction process
- Save your plate
- Search for your plate

Follow along at the SI Barcode Network documentation page on : Generating PCR plates

[http://sibarcodenetwork.readthedocs.io/en/latest/pcr\\_plates.html](http://sibarcodenetwork.readthedocs.io/en/latest/pcr_plates.html)

## Exercise 4:

Import the folder(s) of primers provided on github

Create two primers (one forward, one reverse)

Create a PCR plate (Remember: from your existing Extraction Plate)

Choose your PCR conditions

Once saved, search for your plate