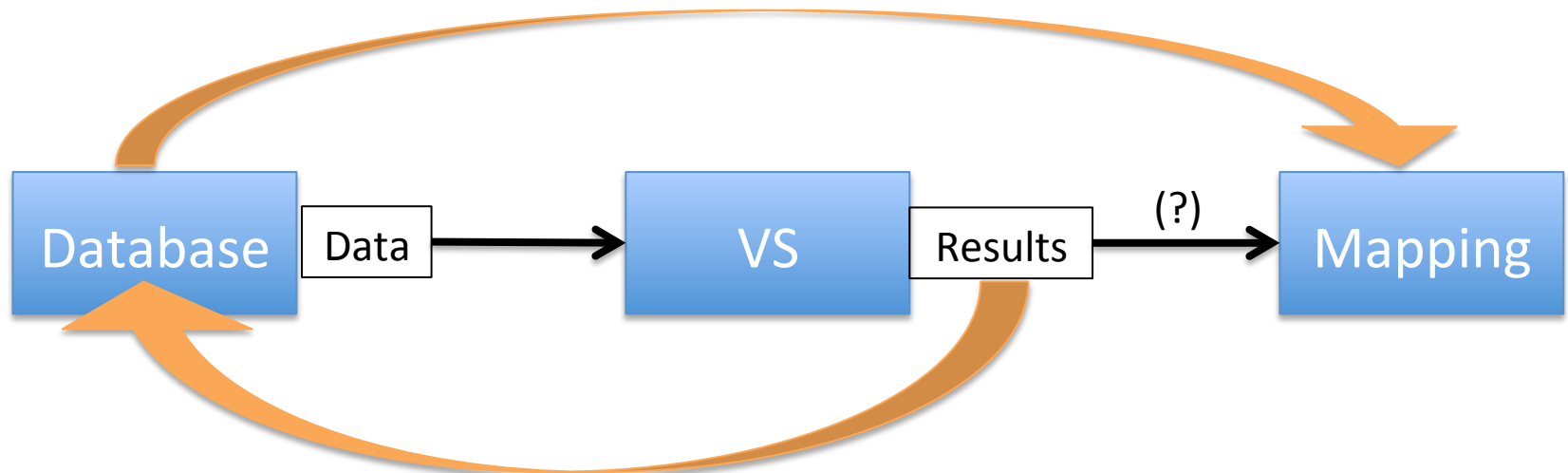# Biosciences WG
Update 2

Jason Haga

AIST

PRAGMA 28, April 10, 2015

PRAGMA 28 Goals

- Establish clearer priorities and goals in two areas
  - Genomics
    - Need to identify area (Tommy Lam, Ly Le)
    - Where to start
      - Deploy standard set of tools to PRAGMA Cloud (?)
      - Create easy to use UI for the tools
    - Involvement of International Rice Research Institute (IRRI), rice genomics project
      - Link to biodiversity efforts
  - Proteomics
    - Virtual screening/drug discovery still area of interest with long history
    - Natural Products Discovery Portal
      - Can we create a more unified effort
      - Can benefit entire region
      - Identify key partners in this effort

PRAGMA Natural Products Discovery Platform

- Components
    1. Natural products database
    2. Virtual screening
    3. Biodiversity mapping
- What are the infrastructure requirements for each component?
    1. Storage, data format
    2. Network, compute nodes
    3. Mapping tools, visualization

Natural Products Discovery Platform

- Regular Skype conference calls

- Action Items
  - Define ideal computing environment, applications, databases, size of VM (Arry, Ly)
  - Continued discussion with resources WG to create web services (Nadya, Ari)
    - Based around NBCR efforts e.g. PyRx
  - Start combining the natural products databases i.e. remove duplicates and combine (Arry, Kanaya, Ly)

- Benefit Vietnam (limited computational resources), Indonesia (move to virtualized system)

Genomics Analysis Pipeline

- Infectious disease as domain
- Regular Skype conference calls
- Draft a "roadmap" (Tommy)

- Action items
  - Select and install genomics tools (Tommy, Jason)
    - Galaxy, iPlant
  - Influenza A virus and MRSA as small test for assembly and annotation (Ly)
    - Define file size, tools used, etc.
  - Hadoop support (Andrea)