

The Directive for Interoperability from Program

Extracts from the Statement Of Work:

- ❑ Develop and maintain quality control and uniform standards for data entry and the transfer of data from other existing databases and new data sources, including other DMID funded Bioinformatics Resource Centers, ensuring interoperability.
- ❑ Utilize XML or another explicitly defined parsable format for all information in the database records to ensure interoperability.
- ❑ Establish strong collaboration with the scientific community
- ❑ ... foster collaborations and exchange of data models, database schema, software applications and tools, data standards, ontologies and data exchange formats to allow easy exchange of data and interoperability across the Bioinformatics Resource Centers, as well as other existing databases.

BRC Data Types

- Genomic sequence of the reference isolates and strains**
- Structural and functional annotation of genes, their product, and of other genomics elements**
- Sequence polymorphisms**
- Gene expression**
- Proteomics**
- Pathogen / host interactions**
- Metabolic, signaling, biochemical networks**
- Bibliographic information**
- Phenotypes and Genotypes**
- Antibodies; experimental protocols; inhibitors**
- Epidemiological data**

To simplify the interoperability across BRCs and access to the data by the scientific community, standards need to be developed or adopted for:

- Database schema and management system**
- Data exchange protocols**
- Controlled vocabularies and ontologies**
- Tools development and software reuse**
- User Interfaces**

To keep in mind:

BRCs are working on a variety of biological organisms, including parasites, viruses, bacteria, eukaryotes.

Topics of discussion

- What is your perception of the interoperability needs of your BRC ?
- What specific components of the interoperability spectrum make sense for a working group to discuss?
- How can we achieve interoperability without hindering creativity?
- How do we establish coordination and mutual leverage with external (to BRC) groups working on interoperability and related issues (such as ontologies and data integration)?

Interoperability Working Group (IOWG)

- Constituency of group, frequency/venue of meetings.
 - Define group's goals and objectives
 - Determine IOWG contacts for each BRC or process leading to it with timeline for resolution
 - Set date, venue and agenda for the first inter BRC IOWG meeting and number of meetings expected/year