



Division of Microbiology and Infectious Diseases: Genomics Initiatives

Bioinformatics Resource Centers

The eight NIAID Bioinformatics Resource Centers collect, store, display, annotate, query and update genomic and related data for NIAID pathogens. Genomic sequence data will be integrated with gene expression and proteomics information, host/pathogen interactions and pathways data. The BRCs provide training on using their site and solicit genome annotation from the scientific community

More details about the Centers may be found at:

<http://www.niaid.nih.gov/research/resources/brc/>

or by contacting Dr Andrei Gabrielian at gabr@niaid.nih.gov .

Clinical Proteomics Centers for Infectious Diseases and Biodefense

The two NIAID Clinical Proteomics Centers apply state-of-the-art proteomics technologies for the discovery, qualification and verification of protein biomarkers in well-defined clinical samples as well as providing proteomic technology and expertise to the scientific community

More details about the Clinical Proteomics Centers may be found at:

<http://www3.niaid.nih.gov/research/resources/cp/>

or by contacting Dr. Maureen Beanan at mbeanan@niaid.nih.gov.

Microbial Sequencing Centers

The Microbial Sequencing Centers provide rapid resources for producing high quality genome sequences of pathogens and invertebrate vectors of infectious diseases. The scientific community may request microbial genome sequencing services.

More details about the Microbial Sequencing Centers may be found at:

<http://www.niaid.nih.gov/research/resources/mscs/> or

by contacting Dr. Maria Y. Giovanni at

mgiovanni@niaid.nih.gov .

Pathogen Functional Genomics Resource Center

The PFGRC provides scientists with genomic resources and reagents, such as microarrays, protein expression clones, and bioinformatics services. The NIAID-funded Center was established to provide the research community with a centralized resource to aid functional genomics research on human pathogens and invertebrate vectors of infectious diseases.

More details about the PFGRC may be found at:

<http://www.niaid.nih.gov/dmid/genomes/pfgrc/>.

or by contacting Dr. Maria Y. Giovanni at

mgiovanni@niaid.nih.gov or Dr. Peter Dudley at

dudleype@niaid.nih.gov.

Biodefense Proteomics Research Centers

The seven PRCs characterize the pathogen and/or host cell proteome, including the identification of proteins associated with innate and adaptive immune responses to infectious agents. More details about the PRCs may be found at:

<http://www.niaid.nih.gov/dmid/genomes/prc/>.

or by contacting Dr. Maureen Beanan at

mbeanan@niaid.nih.gov.

The Biodefense Proteomics Administrative Center

The Biodefense Proteomics Administrative Center consolidates PRC data and makes it available to the scientific community. More details about the Administrative Center may be found at:

<http://www.niaid.nih.gov/dmid/genomes/prc/administrative.htm>.

or by contacting Dr. Maureen Beanan at

mbeanan@niaid.nih.gov

Structural Genomics Centers for Infectious Diseases

The two Structural Genomics Centers experimentally characterize the three-dimensional atomic structure of targeted proteins using state-of-the art, high throughput structural biology technologies. Structure determination may be requested by the scientific community

More details about the Structural Genomics centers may be found at:

<http://www.niaid.nih.gov/research/resources/sg/>.

or by contacting Valentina Di Francesco at

vdifrancesco@niaid.nih.gov or Dr. Malu Polanski at

polanskim@niaid.nih.gov

Systems Biology Centers for Infectious Diseases

The four Systems Biology Centers are using a combination of computational and experimental methodologies to analyze, identify, quantify, model and predict the overall dynamics of microbial organisms' molecular networks including their host interactions.

More details can be found at:

<http://www3.niaid.nih.gov/research/resources/sb/>.

For further information please contact Valentina Di

Francesco at vdifrancesco@niaid.nih.gov