



# Workshop on "*Brucella* Bioinformatics"

18 - 22<sup>nd</sup> December, 2017

Madurai Kamaraj University



Sponsored by  
Department of Biotechnology, New Delhi

## Course Director:

Dr. J. Rajendhran

Principal Investigator

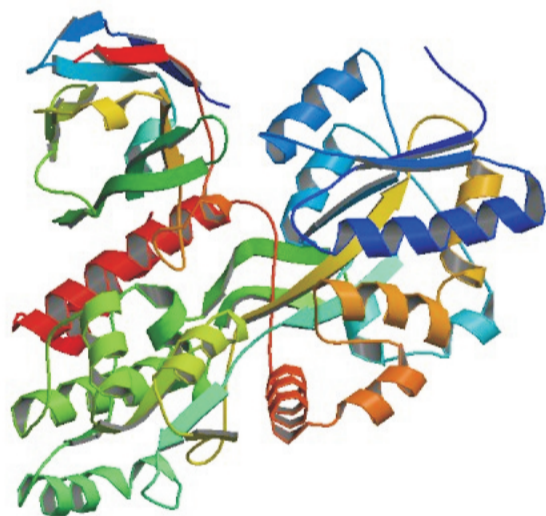
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## Objectives of the Course

*Brucella* spp. are primarily passed among animals and they cause disease in many vertebrates including humans. Department of Biotechnology, Government of India is sponsored a National Network Project on Brucellosis. This work shop is aimed to train the Members of DBT-Network Project on Brucellosis with respect to Bioinformatics of *Brucella* spp. The major objective of this course is to impart the knowledge on *Bioinformatics* data analysis. A brief introduction on basic linux commands, NCBI utilities, Accessing genome data from Ion Torrent server, Genome annotation and assembly, Multiple sequence alignment and phylogeny construction, Structure prediction, Primer designing, Identification of SNPs, MLST / MLSA analysis, Gene ontology analysis, KEGG pathway analysis, Protein-protein interaction prediction, Drug discovery and target prediction, Molecular docking and simulation, Vaccine prediction and epitope mapping, Gene expression analysis using microarray dataset and RNA-seq dataset will be taught in detail.

## Nature of the Course

The course will consist of expert lectures and hands-on practical training in various applications of *Brucella* Bioinformatics. The training will be techniques oriented and 80% of the time will be given for the practical sessions and the participants will be allowed to carry out the laboratory exercises individually.

## Mode of Selection

Schedule of the training program will be intimated to the participating laboratories through post and advertised in [www.dbtbrucellosis.in](http://www.dbtbrucellosis.in). The participants for the training program will be selected on basis of the Nomination from the Principal Investigators of DBT-Network Project on Brucellosis. The Nomination form can be downloaded from [www.dbtbrucellosis.in/news.html](http://www.dbtbrucellosis.in/news.html) and filled form should be sent to the Course Director on or before 30<sup>th</sup> Nov, 2017.

## Course content

The laboratory manual will be made available to the participants at the beginning of the training program. The manual will consists of detailed protocols for laboratory exercises.

## TA/DA

Local Transport, Accommodation and food will be provided for the participants during the workshop. However, no TA/DA will be provided.