





# Mass Spectrometry Facility Services 2012

### Team:

**Dr. Dominik Schwudke** 

Dr. R. Kannan

Mrs. Jayashree R

**Dr. Taslimarif Saiyed** 

Mr. Mohan Sridhar

Principal investigator MS lab

Quantitative Metabolomics Unit

Proteomics Services / General Analysis

Communication / Administration

Communication / Administration

#### <u>Alumni</u>

Mr.Karthik Kamat

(until 08/2012)

**Proteomics Services** 





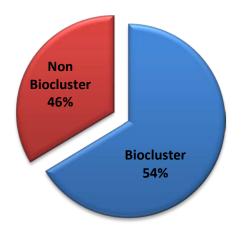
### Summary of MS facility usage for the year 2012

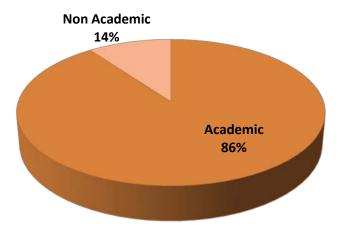
Total number of users	40
Non academic (industry) users	6
Academic users	34
Total projects undertaken	80
Total number of samples analyzed	316
Proteomic samples	291
General samples	25





# Usage statistics (Protein Characterization / Proteomics / General)

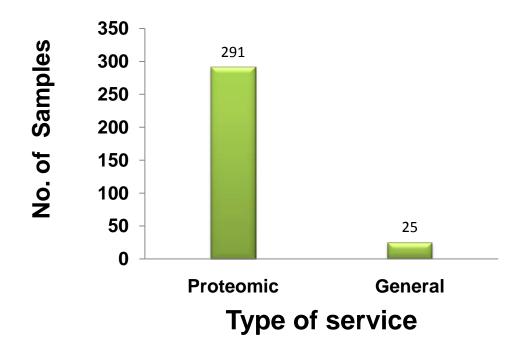








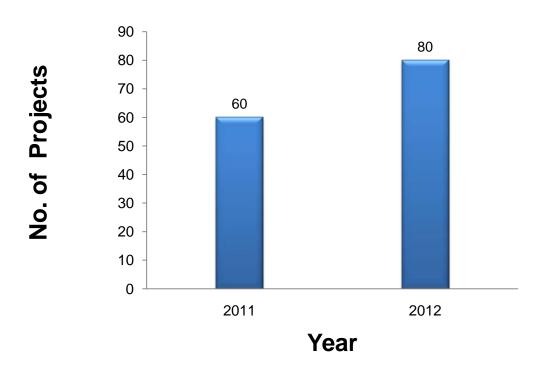
# Type of Service (Protein Characterization / Proteomics / General)







## Projects undertaken - 2011 vs. 2012 (Protein Characterization / Proteomics / General)







### Quantitative Metabolomics Unit : C-CAMP Dr. Kannan

#### **Methods Developed:**

- 1. Quantitation of neurotransmitters from biological fluids.
- 2. Quantification of psychotic drug Olanzapine and its metabolites.
- 3. Quantification of Azadirechtin, Nimbin and Salanin from plant extracts.





### Quantitative Metabolomics Unit : C-CAMP Dr. Kannan

Methodology for Metabolites from Biological fluids

**Spiking ISTDs to Biological fluids** 

Extraction of metabolites by precipitating proteins

Centrifuge and drying the supernatant in speed vacuum

Reconstitute it in the starting mobile phase

Analyse it in LC-MS/SRM

**Extraction of Neem Metabolites from Plant Extracts** 

Extraction of metabolites using methanol from the dried plant material (leaves, Bark etc.,)

Centrifuge and filter the supernatant

**Drying this in speed vacuum** 

**Reconstitute it in methanol** 

Analyse it in LC-MS/SRM





### Quantitative Metabolomics Unit : C-CAMP Dr. Kannan

#### **Users of this facility**

No	Users	Institute	Number of Samples	Work Progress
1	Dasarathi	inStem	Planarian samples	Completed
2	Halan Prakash	BITS Pilani	2	In process
3	Radhika Joshi	NCBS	1	Completed
4	Yarlagadda Venkateswarlu	JNCASR	20	No communication
5	Yashoda Ghanekar	inStem	1	In process
6	Maithili	JIPMER	2	In process
7	Megha PB	NCBS	4	In process
8	Velmurugan G	MKU	13	In process
9	Megha	NCBS	2	In process
10	Nagesh	C-CAMP	6	Completed





### Major users of the facility







































