Diabetes Drug Research Division

1. Overview

Diabetes Research Team is focused at understanding the causes of type 2 diabetes and investigating therapies to mitigate and ultimately cure the disease. Key to this mission is collaborative research between scientists who work in the laboratory and physicians who work directly with patients. We initiated this "bench-to-bedside" model means that scientific findings in the laboratory can be translated into medical treatments with the potential to benefit those who live with diabetes. Our efforts are to learn how to prevent type 2 diabetes by gaining a clear understanding of the hot targets responsible for onset and occurrence of type 2 diabetes mellitus. We also seek to test safe, innovative new therapies that might slow the onset of type 2 diabetes.

2. Mission and Goals

- Development of Centre of Excellence for diabetes research
- Exploration of natural resources/synthetic products to develop the newer anti-diabetics.
- Develop the safe and efficacious remedy for type 2 diabetes.
- Promote the training of scientists in developing new understandings of the basis of the type 2 diabetes mellitus and its complications.
- Basic science research that can speed the discovery of more effective therapies.
- Training of researchers and healthcare professional inside to have better understanding of diabetes research trends, cure and prevention of the disease.

3. Competencies

- Blood glucose and lipid profiling
- *In vitro* and *in vivo* insulin estimation
- Hb1Ac estimation

4. People (list of people)

Sr. No.	Name	Expertise	Email ID
1	Zabeer Ahmed	*In Vitro* & *In Vivo* studies of type 2 diabetes	zahmed@iiim.res.in

2	Asha Bhagat	Screening of natural molecules for anti-diabetic activity	abhagat@iiim.res.in

5. Area of Research

- Pre-clinical development of herbal based extracts and molecules of synthetic origin for Diabetes Mellitus type 2 with focus on insulin sensitization.
- Focused to deliver safe and efficacious remedy for Non-insulin dependent diabetes mellitus (NIDDM) with property to normalize the total metabolic state particularly the lipids.

6. Facilities

- Spectrophotometer cum Plate reader
- Cell culture facility
- Micro-plate shaker
- Shaker Water bath
- pH meter
- Inverted Microscope

7. Current Research

Anti-diabetic activity

- Hypoglycemic activity
- Antihyperglycemic activity
- Insulin secretion

Pre-clinical development of herbal extracts and formulations

- Acute toxicity
- Sub-acute toxicity
- Sub-chronic toxicity

8. Projects List with Time Period.

MLP-1006: Newer Antidiabetic formulation(s) of natural and synthetic origin.
April, 2009 to March, 2010