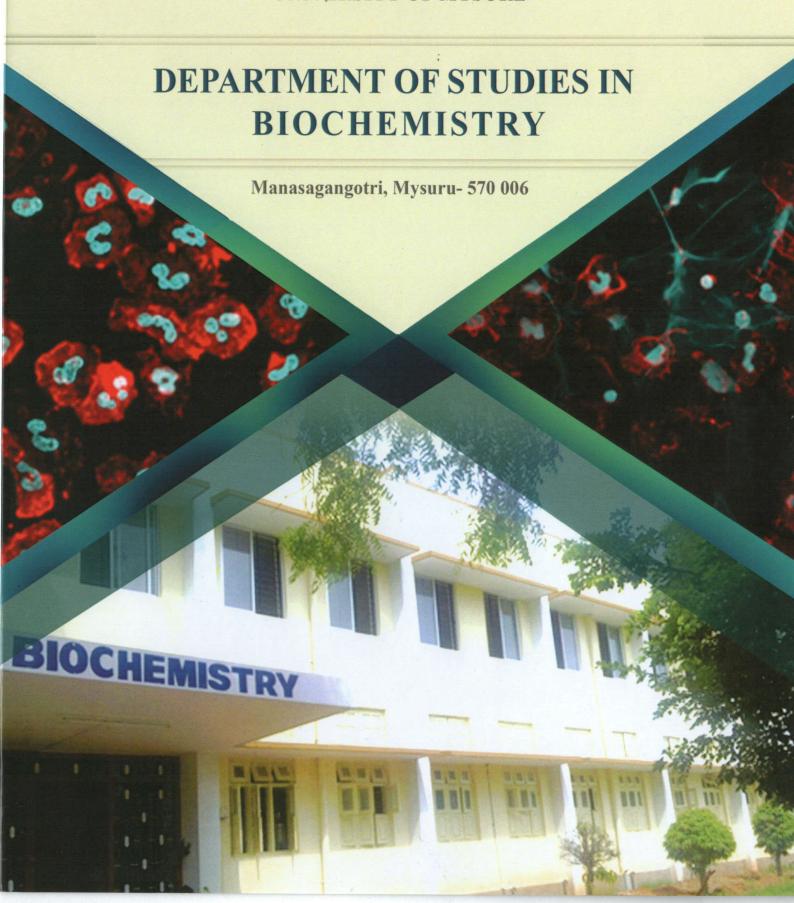


ಮೈಸೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ UNIVERSITY OF MYSORE



# The Department in a nutshell

Biochemistry was started as one of the branches of Chemistry in 1952 by Prof. M. Shadakshara Swamy. It became an independent Department in 1974 under the leadership of Prof. T. R. Ramaiah. Training students for M. Sc. and Ph. D. Degrees has been the major thirst of the Department. The Department has followed the semester system since its inception with the program designed to train students both in teaching and research. The Department so far has produced more than 1000 M.Sc. students and over 100 Ph.D. students. The excellent training given to students has helped them to be placed in National and International research labs, Pharmaceutical companies, Medical and Dental fields, and Teaching faculties within and outside India. Many students have been successful in getting through competitive examinations such as UGC, CSIR, ICMR, and GATE. Currently, the Department has 20 research scholars pursuing Ph.D. Degrees. The research work in the Department has resulted in over 400 publications in peer-reviewed National and international journals of high repute. Currently, the Department is following Choice Based Credit System (CBCS) for M. Sc. degree.

# Academic programs

The Department is offering M. Sc. Biochemistry and Ph. D. Biochemistry Degree programs. The curriculum designed for M.Sc. Degree, and the quality of teaching in the Department have made the course popular and most sought in the campus among the Life Science Departments. The popularity is reflected through the filling up of all seats under the Partially Self Financing Scheme (PSFS) with the Department generating maximum funds to the University. Further, the International students are frequently opting for the course in the Department under Govt. of India Cultural exchange program.

The Department is known for its conducive research environment. Most of the research scholars are awarded National scholarships and have significantly contributed to the high-end research as reflected through high-quality research publications. The Department is witnessing 100% placements as our Ph.D. Degree scholars have scattered all over the globe and occupied coveted academic positions.

# Research Activities

Research in lipid biochemistry and insect endocrinology was initiated by Prof. T. R. Ramaiah, and the research on lipids was continued by Prof. Cletus J M` D`souza, and presently being pursued by Prof. K. Gopal Marathe. The insect endocrinology was continued by Prof. T. Veerabasappa Gowda, Dr. B. N. Yamaja Setty, and Dr. M.S. Shylaja. The research in carbohydrate chemistry and lectins biology was initiated by Prof. H. S. Sheshadri. Research in Food Biochemistry and Nutrition was carried out by Prof. G. Chandrashekarappa, Prof. M. Karuna Kumar, and Dr. S. Purushothama. Prof. Bharathi P. Salimath worked on cancer and signal transduction for a brief period.

Prof. T. Veerabasappa Gowda has instituted a strong research program in snake venom pharmacology, guiding generations of students under the umbrella, including Prof. B. S. Vishwanath, Prof. K. Kemparaju, and Dr. K. S. Girish. The Department is known worldwide for its outstanding contributions to snake venom research.

## **FACULTY PROFILE**

### Research Interest



Prof. K. Kemparaju

Snake venom pharmacodynamics and platelet biology. Effect of animal venoms on innate immune cells, including sustained tissue decay. Venom-induced oxidative stress and hypoxia. Venom neutralization strategies. Venom variability, and characterization of toxins of therapeutic importance.

Mechanisms of platelet death and survival strategies during clinical and pathological conditions, heme mediated signalling events, and the cross-talks among the death and survival pathways.



Prof. K. Gopal Marathe

Lipid mediators of inflammation and inflammatory pathways, platelet biology, bacterial lipoproteins, endotoxemia, role of acute phase proteins and AGP-1, plant enzymology, and reproductive biology using garden lizard as a model.



Prof. B. S. Vishwanath, UGC-BSR Faculty Fellow

Clinical enzymology: Understanding the molecular mechanism of inflammation, venom pharmacology, hypertension, hemostasis, and wound healing. Enzymes from snake venom, mammalian and plant species are being studied with emphasis on characterization, pharmacology, and their interaction with synthetic compounds, isolated biomolecules, and their derivatives.

Organic Synthesis: Derivatization of lead molecules to neutralize inflammatory and hypertension reactions.

## Research facility

HPLC (semi-preparative), platelet aggregometer, spectrophotometer, spectrofluorimeter, Fluorescent microscope, Chem doc, Western blot unit, RT-PCR, PCR, Cell culture unit, Cooling centrifuge, and Blood pressure measuring system for animals (Tail cuff method).

#### Research Grants

Funding agencies: UGC, DST, DBT, DST-SERB, DBT-BIRAC, UGC-FIST, ICMR, VGST, DRDO-ER & IPR, and Dr. Med. H. C. Erwin Braun Foundation, Switzerland.

# Origin and Establishment: 1952

#### Founder Professors:

Prof. S. Shadakshara Swamy

Prof. T. R. Ramaiah

Prof. H. S. Sheshadri

## Number of Ph. D. Degrees produced: 129

#### Gold Medals:

- 1. Professor of Biochemistry Medal (First Rank)
- 2. Prof. S. Shadakshara Swamy's Medal (First Rank)
- 3. Silver Jubilee Medal (First in Odd Semesters)
- 4. Prof. B. S. Vishwanath's Medal (First Rank)

## Uniqueness of the Department:

Student's friendly

#### Innovation

Developed a mouse tail model to study sustained tissue necrosis













# Contact: The Chairperson

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