



Dr. RAJALAKSHMI M

*Assistant Professor in Biotechnology
Department of Zoology,
Head, PG & Research Department of Biotechnology & Bioinformatics
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1. **Professional summary** : Dr Manikkam Rajalakshmi, a highly capable and motivated Biotechnology Professional with superior analytical, problem-solving skills. Fully committed to promote human resource development in the areas of Biotechnology & Bioinformatics and to perform applied research in an environment that fosters ingenuity and creativity with a perfect understanding of universal laboratory safety procedures and data storage protocols. Specializes in medical and collaborative research.

2. **Academic Qualifications** : M. Sc., M.Phil., Ph. D.

Degree/Certificate	Year	School/College/University
B.Sc	1995	Bharathidasan University, Tiruchirappalli
M.Sc	1997	Bharathidasan University, Tiruchirappalli
M.Phil	2003	Manonmaniam Sundaranar University, Thirunelveli.
Ph.D	2010	Bharathidasan University, Tiruchirappalli.

Additional qualifications:

- Completed Post Graduate Diploma in Bioinformatics (PGDBI) from Bharathidasan University, Tiruchirappalli.
- Completed Diploma in Medical Laboratory Technology from All India Medical Laboratory Technology Association, India

3. **Professional experience**

- Teaching : 25 years
- Research : 15 years
- Administration : 12 years
- Shrimati Indira Gandhi College, Tiruchirappalli
Lecturer in Biochemistry June 1999 – April 2007
- Holy Cross College (Autonomous), Tiruchirappalli
Assistant Professor in Biotechnology June 2007 onwards
- DBT-BIF Centre,
Holy Cross College (Autonomous), Tiruchirappalli
Research Associate (Part-time) November 2008 onwards
- Co-ordinator
PG & Research Department of Biotechnology
& Bioinformatics June-2012 onwards
Holy Cross College (Autonomous), Tiruchirappalli
- Assistant Professor in Biotechnology June-2012 onwards

PG & Research Department of Zoology
Holy Cross College (Autonomous), Tiruchirappalli

• **Co-ordinator**

DBT-BIF Centre

July-2014 onwards

Holy Cross College (Autonomous), Tiruchirappalli

4. **Key achievements**

1. **Patent Grant-02-Indian Patent Nos :305967 & 397710- Patent grant - 2880&2881/CHE/2012** – A process for the preparation of a novel compounds-2&3 from ethyl acetate extract of *Cassia fistula* stem bark with anti-diabetic property

Technologies Developed & Patents Applied : 04

3. **2879/CHE/2012** – A process for preparation of a novel compound-1 from ethyl acetate extract of *Cassia fistula* stem bark with anti-diabetic property.
4. **4832/CHE/2012** – A process for preparation of a novel compound-1 from methanol extract of *Tinospora cordifolia* stem with anti-diabetic property.

5. **Research Metrics**

Web of Science Researcher ID- C	:9855-2017
Scopus Author ID	57210668824
ORCID Id	:0000-0003-0713-6974
Vidwan-ID	455680
Google Scholar id	: ZrpBNT4AAAAJ

6. **Publications**

Original Research Papers	: 73(1013 citations, 16 h-index,19 i10 index)
Cumulative Impact factor	: 107.1
Book(s) Published	: 02 (ISBN: 978-93-81521-44-1 & ISBN No.978-81-953014-2-3)
Book Chapters	: 08
Sequences Submitted In NCBI	: 06

7. **Research and projects**

Research guidance

(a) Ph.D	Completed	: 08	Guiding	05
(b) M.Phil	Completed	: 28		

Research Projects

1. **Principle Investigator, UGC Minor project (2014-2016)** entitled “Exploring the anti-cancer efficacy of a polysaccharide (4832/CHE/2012) isolated and identified from methanol extract of *Tinospora cordifolia* stem – An in vitro, in vivo and in silico approach”
2. **Principal investigator, UGC Major Project, - (2012-2015)** entitled, “Evaluating the impact of five active principles from five different medicinal plants on activated cancer animals and cell-lines”.
3. **Co-ordinator for Bioinformatics Infrastructure Facility, a project for enhancing Bioinformatics Research and Human Resource development** funded by DBT, Government of India-2014- till date.

8. **Skill Developments**

• Total Number of National Conferences attended	25
• Total Number of International Conferences attended	27
• Total Number of Invited lectures	17
• Total Number of Resource person	18
• Total number of papers Presented	54

- Total Number of Workshops Attended **20**
- **FIP attended** **02**
- **Refresher course attended** **02**

9. Additional Achievements

Databases developed and maintained

- ✚ **DaiCee** (Database for Identification of Cancer Effects) database – A database to predict the targets and side-effect profiles of cancer drugs.
- ✚ **DIAB 1 & 2** - A Pharmacophore Analysis was done for 175 active principles from medicinal plants for Antidiabetic, Antioxidant, Antimicrobial and Anticancerous effects and was docked with their specific receptors using DISCOVERY STUDIO 2.1 version.

10. Research awards

- **Dr P Daisy Memorial Gold Medal Oration Award-2017-** of SRBCE in recognition of the contributions in the field of Molecular Endocrinology
- **Membership in Reproduction & Endocrinology Award-2015** of SRBCE in recognition of the contributions to the field of Reproduction & Endocrinology.
- **Prof. N.J. Chinoy Award** - 2009 for oral presentation in an **International Conference at University of Hyderabad.**

11. Membership

- Life and Executive Member in Society for Reproductive Biology and Comparative Endocrinology
- Life member in Bioinformatics and Drug Discovery Society.
- Life member in Indian Association of Biomedical Scientists.
- Life Member in Society for Biotechnologists – India
- Life Member in Asian Federation of Biotechnology

12. Leadership Profile

- Head, PG & Research Department of Biotechnology & Bioinformatics :2012-till date
- Co-ordinator DBT BIF Facility :2014-till date
- **Co-ordinator –HCIIC-IPR** :2018-2022
- **Core Member-ARIIA** : 2018-till date
- **Core Member-HCIIC** : 2018-till date
- **Co-ordinator-KAPLIA Program** : 2022 onwards
- **IIC Ambassador** : 2022 onwards
- Co-ordinator –STAR-College Program : 2020-2023
- Core Member- DST-FIST program : 2020 till date
- Research Core Committee :2014-till date
- Internal Exam Core Committee :2011-15
- Academic Council Member of Biotechnology & Bioinformatics :2012-till date
- Core committee of the Management Information System :2014-2017
- Holy Cross College Staff Club Vice-president :2015-2016
- Organizer- International Conference :05
- Organizer-National Conference 04
- Organizer-National Workshops 27
- RESCAPES Core Committee :2019-2022

13. Core Competencies-

- ❖ Strong analytical mind.
- ❖ Diverse science backgrounds with suitable trainings, credentials.
- ❖ Flexible problem solver through critical thinking skill.

- ❖ Practical application of academic knowledge in research findings, writing and presenting clearly.
- ❖ Good data management skill.
- ❖ Able to communicate effectively and work collaboratively in a team.
- ❖ Able to adapt to the professional environment.