

**Dr. Lizzy Mathew M.Sc., M.Phil., Ph.D.**

**Associate Professor and Research Supervisor  
(Mahatma Gandhi University and Bharathiar University)  
St. Teresa's College, Ernakulam, Kerala, India  
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**Area of Specialization : Plant Diversity & Phytochemistry**

**Membership in Professional bodies/ Organizations**

**Kerala Botanical Society.  
Indian Association of Plant Taxonomists.  
International Society of Plant Morphology.**

**Publications**

1. **Palynological Studies on *Polygala* Linn. of South India.** Lizzy Mathew and Merlee Teresa M.V. Indian Journal of Botanical Research 3 (2): 319-328, 2007.
2. **Trichomes in certain South Indian Malvales.** Shameera A.K. and Lizzy Mathew Geobios 35: 29-32, 2008.
3. **A Pharmacognostic Study of the Leaf of *Barringtonia acutangula* L.(Gaertn) - an Antidysenteric Drug used by some Tribes of Kerala.** Tessy Joseph, S. Deokule and Lizzy Mathew. Science and Society 6 (1) : 51 – 60, 2008.
4. **Seed Morphology and its Systematic Implications in *Polygala* Linn. (Polygalaceae)** Lizzy Mathew and Merlee Teresa M.V. Phytomorphology 60 (3&4) :71 -76, 2010.
5. **An Evaluation of the Impact of By-product Gypsum from a Phosphoric Acid Factory on *Scoparia dulcis* L.** Neelima Shaji, Lizzy Mathew and Romilly Margeret Mendez. Nature Environment and Pollution Technology 10 (4), 2011.
6. **In silico analysis of phytochelatin: a stress related protein of *Cynodon dactylon*.** Vinod Kumar, Lizzy Mathew and E.G. Wesley. Elixir Bio.Tech. 49 (2012) 10152-10159.
7. **In silico Analysis and Pylogenetic study of Carboxysomal Protein of Microalgae – *Microcystis aeruginosa* involved in Carbon dioxide concentration mechanism (CCM).** Vinod Kumar, Lizzy Mathew and E.G. Wesley. Bio-Science Research Bulletin 28(1) 2012.

8. Asha D. and **Lizzy Mathew** 2013. **“In vitro culture studies and comparative histochemical analysis of *Bacopa monnieri* (L.) Pennell”** Journal of Nature and Life Science Vol. 1(1)2013: 42 - 48.
9. AjithKumar T.G. and **Lizzy Mathew** 2014. **“Comparative account of the preliminary phytochemical aspects of *Helicanthes elastica* (Desr) Danser growing on two different hosts.”** Journal of Pharmacognosy and Phytochemistry 3(1):218 - 221.
10. AjithKumar T.G. and **Lizzy Mathew** 2014. **“Pharmacognostic Studies of *Helicanthes elastic* growing on *Nerium indicum*. Eurpean Journal of Biomedical and Pharmaceutical Sciences. 1(1) : 55-59.**
11. AjithKumar T.G. and **Lizzy Mathew** 2014. **“Preliminary Phytochemical and Pharmacognostic studies of *Helixanthera wallichiana* an endemic plant of Western Ghats.”** International Journal of Ayurvedic and Herbal Medicine 4 (3) : 1494 – 1498.
12. Asha D. and **Lizzy Mathew** 2014. **“Comparative HPTLC fingerprint profile of triterpenes in the methanolic extracts of *Ocimum basilicum* L. and *Mentha arvensis* L. (Lamiaceae)”** Journal of Pharmacognosy and Phytochemistry 3 (4): 171-175.
13. Nesy EA, Jolly CI and **Lizzy Mathew.**, 2014. **“Assessment of *In vitro* Antimicrobial and Antioxidant Potential of *Thevetia neriifolia*, Juss. Flower Morphoforms”**, IOSR Journal of Pharmacy and Biological Sciences, 9 (2): 11-16.
14. Nesy EA and **Lizzy Mathew.**, 2014. **“A comparative evaluation of Antimicrobial and Antioxidant properties of *Thevetia neriifolia*, Juss fruit rind extracts”**. International Journal of Current Pharmaceutical Research, 6 (2): 47-50.
15. Nesy EA and **Lizzy Mathew.**, 2014. **“Detection and Quantification of Cardiotonic drug Peruvoside using HPTLC from *Thevetia neriifolia*, Juss seed extracts”**. International Journal of Pharmaceutical Science Invention, 3 (4): 11-16.
16. Nesy EA and **Lizzy Mathew.**, 2014. **“Studies on Antimicrobial and Antioxidant Efficacy of *Thevetia neriifolia*, Juss Leaf Extracts Against Human Skin Pathogens”**. International Journal of Pharmaceutical Sciences and Drug Reserch., 6 (2): 164-168.

17. Nesy EA and **Lizzy Mathew.**, 2014. “**Quantification of Peruvoside (A cardiotoxic drug for congestive Heart Failure) using HPTLC fingerprinting from withered flowers of *Thevetia nerifolia*, Juss.**” Indo American Journal of Pharmaceutical Research., 4 (6): 2766-2772.
18. Nesy EA and **Lizzy Mathew.**, 2014. “**Comparative analysis of cardiac glycosides and Quantification of Peruvoside in *Thevetia nerifolia*, Juss fruit rind extracts through HPTLC fingerprinting**”. International Journal of Pharmacy and Pharmaceutical Sciences., 6 (8): 412-415.
19. Asha.D, **Lizzy Mathew**, Rishad. K.S. 2015. “**Evaluation of HPTLC Fingerprints of Flavonoids and Antioxidant Activity of Selected Medicinal Plants of Lamiaceae Family**” International Journal of Pharmacognosy and Phytochemical Research 2015; 7(2); 240-245.
20. Nesy EA, Jose Padikkala and **Lizzy Mathew.**, 2015. “***In vitro* plant regeneration of *Thevetia nerifolia* from internode explants via indirect organogenesis**” International Journal of Pharmacy and Pharmaceutical Sciences., 7 (1): 169-172.
21. Nesy EA and **Lizzy Mathew.**, 2015. “**HPTLC profiling of Cardiac Glycosides of *Thevetia peruviana* leaf extracts of three morphovariant plants grown in Kerala, India**”. International Journal of Pharmacy and Pharmaceutical Sciences., 7 (6): 191-195.
22. Hema Vijayan P.U., Geena George and Lizzy Mathew 2015. “**Phytochemical Estimation of Selected Brown Seaweeds from Mulloor Coast, Kerala**”. *Indian Journal of Applied Research*. 5 (9) 50-52.

### **Paper Presentations**

1. Nesy EA, Jose Padikkala and **Lizzy Mathew**, “**Role of Plant Growth Regulators on Indirect Organogenesis from *Thevetia nerifolia* Leaf Explants**”. UGC sponsored National Seminar on “Modern Biotechnology: Prospects and Challenges” Jan 22 - 23, 2013.
2. Nesy EA, Jolly CI and **Lizzy Mathew**, “**Evaluation of Antioxidant and Antimicrobial activity of *Thevetia nerifolia* Flower Extracts**”. UGC sponsored National Seminar on “Techniques in Biosciences” Feb 18-19, 2014.

3. Nesy EA, Jaseela F and Lizzy Mathew, “Comparative evaluation of Physicochemical and Phytochemical Properties of Flowers from three Morphoforms of *Thevetia nerifolia* grown in Trichur Dist, Kerala” UGC sponsored National Seminar on “Plant Systematic and Herbarium Techniques”. September 24-25, 2014.

### **Research Experience**

**M. Phil.: Propagation of *Acacia concinna*, DC. through Tissue Culture.**

**Ph. D.: A Comprehensive Investigation on Polygalaceae.**

### **R &D Projects (completed/ ongoing)**

1. **Principal Investigator of the Minor Project, Investigation on the Diversity of Flowering Plants in Ambalamedu- an Industrial Belt of Kerala.(2009).**
2. **Principal Investigator of the Major Project, Sterols as a tool for Taxonomic Identity – a Study Focussing on Macroalgae of Kerala and Lakshadweep Coasts. (Ongoing) 2013 -2016.**

### **Details of Guideship**

1. **Mahatma Gandhi University, Kottayam.**  
**Year of Approval : 2009.**  
**Reg. No. 54/AcAVI/1/2008/Acad. Dated 23-12-2008.**  
**No. of Students - 2 awarded, 2 submitted and 3 ongoing**
2. **Bharathiar University, Coimbatore.**  
**Year of Approval 2012.**  
**Reg. No. 84/2012**  
**No. of Students – 2 Submitted Theis.**
3. **Manonmaniam Sundaranar University, Tirunelveli.**  
**Year of Approval: 2012.**  
**Reg. No. R2/Botany/205/12.**

### **Research Supervision**

**Ph.D. Awarded**

1. Nesy EA – Biosystematics, Phytochemical and Tissue Culture Studies on *Thevetia Nerifolia*, Juss. Intravarieties.
2. Asha D. – Phytochemical Evaluation For Chemotaxonomy And Pharmacognostic Studies On Selected Taxa Of Sub Family Nepetiodeae (Lamiaceae).

#### **Ph.D. Thesis Submitted**

3. Aji Abraham – Pharmacognostic and Phytochemical Evaluation of a Classical Ayurvedic Formulation Pathyashadangam Kashayam.
4. Ajith Kumar T.G. – Phytochemistry and Host Relationships of *Helicanthes Elastica* (Desr.) Danser (Lizzy Mathew)

#### **Ongoing Ph.D. Programme**

5. Thomas Antony – Ethnobotanical Studies of Plants used in the Treatment of Livestock by selected Tribes in Kerala. (Lizzy Mathew).
6. Haritha R. Nair
7. Nishitha I.K.

#### **Academic Contributions**

1. Additional Examiner to Examinations of UG and PG of Mahatma Gandhi University.
2. Subject Expert of Mahatma Gandhi University for the selection of faculty to various colleges.
3. External Examiner of Bharathiar University and Madurai Kamaraj University for Ph.D.Thesis Evaluation.
4. Examiner for Question Paper setting of Calicut University and Kerala University for PG and Research.
5. Question paper setter for PSC Examination, Kerala State.
6. Member, PG Board of Studies, Mahatma Gandhi University, Kottayam.
7. Member, Board of Studies, SB College, Changanacherry.
8. Member Board of Studies, Christ College, Irijalakuda, Kerala.

#### **Cocurricular Contributions to the College**

1. Staff in charge of Music Club
2. Staff in charge of Arts Club

- 3. Student Dean for the year 2009-2010.**
- 4. Treasurer of Teresian Alumnae Association 2011-2016.**
- 5. Programme Officer of NSS 2012-2014.**
- 6. Staff in charge of Student's Grievance Cell.**
- 7. Staff-in charge of TRACC**
- 8. Staff in-charge DBT-STAR College funding schemes**

### **Contributions to Society**

- 1. Committee member of SSSMILE (Sacred Scriptures of Social Message in Living Experience), Vincentian Generalite, Edappally, since 2009.**
- 2. Nominated member of DePaul Cancer Trust, Vincentian Generalite, Edappally, since 2012.**
- 3. Parish Councillor of St. George Forona Church, Edappally during 2007-09 and 2011-13.**