

Dr. Spandana K J

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Career objective

My passion is to build my career in roles that offer opportunities to develop my teaching and practical skills. I aim to continue exploring teaching, research, and developmental activities, contributing to research and advancing progressive teaching methodologies to enhance learning outcomes.

Academic qualifications

Degree	Subjects	Institute/University	Year	Percentage (Class)
Ph.D.	Life science	Yenepoya (Deemed to be University), Mangalore	2020- 2026	NA
M.Sc.	Botany	Department of Applied Botany, Mangalore University	2017-2019	7.90 (CGPA)
B.Sc.	Botany, Zoology and Chemistry	St. Aloysius (Deemed to University, Mangalore	2014-2017	81.74% (First Class Distinction)

Title of the Thesis: *In vitro* anticancer potential of phytochemicals from selected medicinal plants of Dakshina Kannada District, India

Honours and Awards

1. Qualified GATE 2020 National Level Examination
2. Qualified Karnataka State Eligibility Test (KSET) 2020
3. Awarded best oral presentation at an International conference on Current Trends in Medicinal Chemistry organised by the Department of Physiology, Saveetha Dental College & Hospitals, Chennai and the Association of Chemistry Teachers (ACT).

Publications

Original articles

1. **Spandana KJ**, Bhagya N. Anti-inflammatory, Antioxidant and Antiproliferative Activities of *Thunbergia mysorensis* and Profiling of Bioactive Compounds. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences. 2026 Mar 28:1-0.

2. **Spandana KJ**, Rodrigues WJ, Chandrashekar KR, Bhagya N. Integrated Metabolomics and Network Pharmacology to Decipher the Antioxidant and Anti-inflammatory Potential of *Gymnostachyum febrifugum* (Benth) and an *In Vitro* Validation. *Journal of Scientific & Industrial Research (JSIR)*, 84(8), 879-889.
3. **Spandana KJ**, Rodrigues WJ, Ghate SD, Rao R, Chandrashekar KR, Bhagya N. *In vitro* cytotoxic potential and integrated network pharmacology, molecular docking and molecular dynamic approaches to decipher the mechanism of *Gymnostachyum febrifugum* Benth., in the treatment of breast cancer. *Applied Biochemistry and Biotechnology*. 2025 Jan 11:1-23.
4. **Spandana KJ**, Fathimathul Lubaba KP, Sujina A, Rodrigues WJ, Chandrashekar KR, Bhagya N. Evaluation of antioxidant, anti-inflammatory and cytotoxic potential of phytochemicals from *Gymnostachyum febrifugum*-an *in vitro* study. *Plant Biosystems-An International Journal Dealing with all Aspects of Plant Biology*. 2024 Oct 25:1-3.
5. **Spandana KJ**, Bhagya N, Chandrashekar K R. UHPLC-ESI-ms/ms-based characterisation of phenolics and flavonoids in hydroalcoholic extract of *Clitoria ternatea* seeds and their cytotoxic potential against breast and pancreatic cancer. *Natural Product Research*. 2024 Sep 13:1-8.
6. Fernandes NB, Velagacherla V, **Spandana KJ**, Bhagya N, Mehta CH, Gadag S, Sabhahit JN, Nayak UY. Co-delivery of lapatinib and 5-fluorouracil transfersomes using transpapillary iontophoresis for breast cancer therapy. *International Journal of Pharmaceutics*. 2024 Jan 25;650:123686.

Review article

1. **Spandana KJ**, Bhagya N, Ethnobotany to bioprospecting of medicinal plants from Western Ghats, India–A review." *Indian Journal of Traditional Knowledge (IJTK)* 24, no. 1 (2025): 63-72.

Book chapters

1. **Spandana KJ**, Bhagya N. Serine protease: Structure, classification, mechanism and role in breast cancer. In *Pathophysiological Aspects of Proteases in Cancer* 2025 Jan 1 (pp. 173-185). Academic Press
2. **Spandana KJ**, Bhagya N. Crosstalk signaling of phospholipase A2 (PLA2) in lung cancer. In *Phospholipases in Physiology and Pathology* 2023 Jan 1 (pp. 93-107). Academic Press.
3. **Spandana KJ**, Bhagya N. Phospholipase A2-mediated regulation of inflammation and apoptosis. In *Phospholipases in Physiology and Pathology* 2023 Jan 1 (pp. 221-227). Academic Press.

Conferences / Presentations

1. Poster titled “Antioxidant potential of Phytochemicals from *Gymnostachyum febrifugum* Benth” International Conference on Bridging Enzymes and Industry for a Sustainable Future ENZYBridge 2K24, St. Aloysius (Deemed to be University).
2. Paper titled “Profiling of cytotoxic phytochemicals from *Gymnostachyum febrifugum* Benth.” in National Conference on Integrative approach to cancer, (YEN-CAN 2024), Yenepoya Ayurveda Medical College & Hospital, Yenepoya (Deemed to be University).

3. Paper titled "*In vitro* cytotoxic potential of Phytochemicals from *Gymnostachyum febrifugum* Benth. against lung cancer" in three days' national conference on recent trends in biological sciences (NCRTBS-2023), Organized by the Department of Applied zoology, Mangalore University, Konaje.

4. Paper entitled "The bioactive potential of phenolics from *Thunbergia mysorensis* (Wight) T. Anders. Ex Bedd." in an International conference on Current Trends in Medicinal Chemistry organized by the Department of Physiology, Saveetha Dental College & Hospitals, Chennai and Association of Chemistry Teachers (ACT).

5. Paper titled "*In vitro* cytotoxic potential of *Thunbergia mysorensis* (Wight) T. Anders. Ex Bedd." in an International conference on Nurturing Innovative Technological Trends in Engineering BIOscience (NITTE-BIO)- 2022, Organized by the Department of Biotechnology Engineering, N.M.A.M Institute of Technology-Nitte.

Patent Filed

Spandana K J, Bhagya, N. Method for extraction and purification of squalene from *Clitoria ternatea* L. seeds. Application Number: 202541112996, Dated: 17/11/2025

Teaching Experience

Yenepoya Institute of Arts, Science, Commerce and Management, Yenepoya (Deemed to be University)

Teaching Assistant: 7-05-2022 to 30-09-2022

Research experience and skills

- Maintaining and culturing of cancer cells and carrying out *in vitro* experiments
- Molecular techniques like SDS PAGE, western blotting, and flow cytometry.
- Chromatography-based purification of bioactive phytochemicals and their characterisation using spectroscopic techniques like mass spectrometry, UV-visible, FTIR, and NMR.
- *In silico* molecular docking and simulation studies.

Contact Information of 2 Referees

1. Dr. Bhagya N
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2. Dr. Jyothi Miranda
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