

Dr. VIDYAGAYATRI M.



EDUCATIONAL QUALIFICATION

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| 2008 – 2012 | Ph.D. (Chemistry) from V.T.U-Belgaum (Guide: Dr. B.K Sarojini, Mangalore University) |
| 2003 – 2005 | M.Sc. (Organic Chemistry, 83%) from Mangalore University |
| 2000 – 2003 | B.Sc. (PCM, 90%) from Mangalore University |

RESEARCH AND ACADEMIC EXPERIENCE

- **June 2005 – Feb 2011** Senior research associate in *Syngene International Ltd, Bangalore.*
- **July 2011- September 2011 and July 2014- May 2016** Full time PG Organic Chemistry faculty at *V.V.Pura College of Science, Bangalore.*
- **June 2016-September 2019** Guest faculty at various M.Sc. degree colleges - *NMKRV, Vijaya College, B.M.S. Women's College, Govt. Arts & Science College, Bangalore.*
- **From 5th September 2019 to till date** Assistant professor at *NMKRV College for Women, Jayanagar III Block, Bangalore.*

INDUSTRY R&D EXPERIENCE (at SYNGENE)

- Synthesizing the target molecules (including chiral molecules) and delivering on time. Updating the project status to the clients
- Training junior researchers in carrying out reactions safely and explaining the chemistry related to the reactions.
- Safe handling of Hazardous materials (Cyanide, isocyanide, Osmium tetroxide, Selenium dioxide, Triphosgene)
- Safe handling of flammable materials (n-BuLi, NaH, Na)
- Hydrogenation reactions using Pd/c, Ra-Ni, Pd(OH)₂, PtO₂ and Lindlar catalyst.
- Reduction reactions using LAH, LBH, NaBH₄, NaCNBH₃, Borane, DIBAL-H
- Oxidation reactions using KMnO₄, Jones reagent, Dess-Martin reagent, Swern oxidation.
- Halogenations (Bromination, Chlorination).
- Different types of protection and deprotection of amines, alcohols and acids
- Exposure to name reactions: Wittig, Simmons Smith, Heck, Micheal, Knoevenagel, Diels-Alder, Suzuki, Sonogashira, Stille, Grignard and others.
- Purification techniques like Column chromatography, Biotage, distillation, Isolera. Interpretation of ¹H NMR, ¹³C NMR, MASS, HPLC data

TEACHING EXPERIENCE (Subjects taught for PG Chemistry Students)

- I have obtained over 7 years of teaching experience in Post Graduate department of Chemistry by handling specialized papers including Organic chemistry, Bio-organic chemistry (fatty acids and molecular receptors) Green chemistry, Organic reaction mechanism (aliphatic nucleophilic substitution reaction and free radical mechanism, Natural product chemistry, Spectroscopy (IR, UV), Organometallics, Organic synthesis, Medicinal chemistry, Organic laboratory Papers prescribed by Bangalore University.
- Number of students guided for M.Sc., projects-6

AWARDS

- Mangalore University Gold medal (**1st Rank**) in Post graduation Studies (M.Sc) in chemistry -2005
- **9th Rank** in B.Sc- 2003, S.D.M college, Mangalore University

SUMMARY OF Ph.D. RESEARCH WORK

- Focused on the synthesis of new pyrazole and pyrazolone derivatives and evaluation of their biological activities.
- Synthesis, characterization, *in vitro* antioxidant efficacy and *in silico* antialzheimer activities of novel 1, 3- alkyl/aryl substituted pyrazolones.
- Synthesis, characterization, evaluation of antioxidant and antimicrobial properties of new N/O-substituted pyrazolone derivatives of Baylis-Hillman acetates.
- Synthesis, characterization, evaluation of antiproliferative and antimicrobial properties of new pyrazole derivatives.
- Synthesis, characterization, evaluation of antimicrobial and antiproliferative properties of novel halogenated 1, 5-diaryl pyrazole derivatives.

PUBLICATIONS

International papers

- B.K. Sarojini, **M. Vidyagayatri**, C.G. Darshanraj, B.R. Bharath, H. Manjunatha, DPPH scavenging assay of novel 1,3-disubstituted-1H-pyrazol-5-ols and their *in silico* studies on some proteins involved in Alzheimer's disease signaling cascade (2010). *Letter s in Drug Discovery & Design* 7(2010), 214-224(11).
- **M. Vidyagayatri**, C.G Darshan Raj, B.K Sarojini, S. Srinivasa, R. Ragavendra, Synthesis, characterization, evaluation of antioxidant and antimicrobial properties of new pyrazole derivatives. *Journal of Pharmacy Research* 2011,4(7), 2012-2015

CONFERENCES and PROCEEDINGS

- B.K. Sarojini, C.G. Darshan raj, **M. Vidyagayatri**, S.R. Ramesh, M.K Ramakrishna, Synthesis, characterization DPPH scavenging assay, *In vivo* neuroprotective studies of new 1,3-disubstituted-1H-pyrazol-5-ols on *Drosophila* model system and *In silico* on proteins involved in Alzheimer's disease signaling cascade and *in vivo* neuroprotective studies on *Drosophila* model system. 78th annual meeting Society of Biological Chemists(India) held on 30th&1st Nov, 2009 At NCCS & University of Pune, India. **Poster No. 170.**
- B.K. Sarojini, **M. Vidyagayatri**, C.G. Darshan Raj, 'Studies on DPPH scavenging capacity assay of new 1,3-disubstituted -1H-pyrazol-5-ols' State level conference on Emerging trends in Medicinal chemistry held on March 6-7th, 2009 at P.G. Department of Chemistry, SDMC Ujire. **OP-03.**
- C.G. Darshan raj, B.K. Sarojini, **M. Vidyagayatri**, S.R. Ramesh, M.K Ramakrishna, H. Manjunath, *In vivo* anti-angiogenic effect and *in vitro* anti proliferative property of novel bis [2E,5E-bis(4-hydroxy-3-methoxybenzylidene)-cyclopentanone] on mouse Ehrlich Ascites Tumor[EAT], Hep- G2 and Hela cell lines. 3rd International Conference on Genetic and

Molecular Diagnosis in Modern Medicine and Biology-2010, Feb. 27-1st march, 2010 at Yenepoya University, India. **Abstract No.102**

- **M. Vidyagayatri**, C.G. Darshan Raj, B.J. Mohan, B.K. Sarojini, Synthesis, characterization, evaluation of antioxidant and antimicrobial properties of new N/O-substituted pyrazolone derivatives of baylis-hillman acetates. International conference on synthetic and structural Chemistry, held at Mangalore university, Dec. 8-10 2011, pp 170
- **M. Vidyagayatri**, C.G. Darshan Raj, B.K. Sarojini, Synthesis characterization, evaluation of antiproliferative and antimicrobial properties of New Pyrazole derivatives. National conference Chemistry: challenges and opportunities, (NCCCO-2012) held at St Joseph's College Bangalore, Feb. 16-18, 2012, OCM-1
- "Training programme for CSIR/UGC JRF exam in chemical sciences" Dr.Vidyagayatri.M attended five-days short term course organized by the Department of Chemistry, National Institute Of Technology-Tiruchirappalli during 14-18 September 2020.
- One Day National Webinar on "Frontiers in Chemistry" Dr.Vidyagayatri.M attended a webinar organized by Department of chemistry, National INSTITUTE Of Technology Karnataka, Surathkal Mangalore – 575025 on Monday,28th September ,2020

PERSONAL DETAILS

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Date of Birth : 08-07-1982
Marital status : Married
Permanent Address : #1579/17, 22nd Main, 5th A Cross
BSK I stage, II block
Bangalore-560050

DECLARATION

I hereby declare that all the above information is true to the best of my knowledge and belief.

Date : 23/02/2021

Yours Sincerely

Place : Bangalore

VIDYAGAYATRI. M