CURRICULUM VITAE

A. KARTEEK RAO,
Assistant Professor, Department of Chemistry, Gayatri Vidya Parishad College for Degree and PG Courses (A) Rushikonda, Visakhapatnam.

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CAREER OBJECTIVE:

I am very enthusiastic in research and teaching utilizing my skills; enhance my knowledge with different modes of skills. I can dynamically work for the success of my firm with my inter-personal and technical skills to the fullest. Moreover, I am flexible and efficient which make me suitable for learning the changing technologies faster and give my best.

Ph.D. thesis:

Title	:	Synthesis and Biological Activity of Novel Piperine Analogs, Nano γ-Fe_2O_3 Catalyzed Synthesis of 1, 3, 4 Oxa and Thiadiazoles and their Effect on Growth Parameters of Bombyx Mori
Guide's Name	:	Prof. Parimi Uma Devi
University	:	GITAM (Deemed to be University)
Year of Award	:	2019

TEACHING EXPERIENCE: 6 years

- Working as Assistant professor in GVP Collage for degree and PG courses (A) 2019- Till date.
- Worked as Assistant professor in GITAM (deemed to be university) 2017-2019
- Junior lecturer in APSWR School/College for one year 2012-2013

RESEARCH EXPERIENCE: 5 YEARS

- Research experience as Project fellow in UGC-MRP project GITAM University (2013-2017)

ADMINISTRATIVE POSITIONS

- **Member secretary** for Center for Integrated Tribal Development and Research (G-Tri-BAL) established by Gayatri Vidya Parishad College for Degree and PG Courses (A) and Tribal Cultural Research and Training Mission (TCR&TM)
- **Member** for Center for Research and Innovation (R&D) established by Gayatri Vidya Parishad College for Degree and PG Courses (A)
- **Member** for Institute's Innovation Council (IIC) established in Gayatri Vidya Parishad College for Degree and PG Courses (A)

MEMBERSHIP

- Life member for The Indian Science Congress Association (ISCA) membership no L42386
- Life member for Association of Chemistry Teachers, with membership no: 2503

RESEARCH AREA

- Organic Synthesis
- Medicinal Chemistry
- Drug Discovery using Computational Chemistry
- Molecular Dynamics simulations of proteins
- Natural Products
- Catalytic Chemistry

PATENTS:

- Karteek Rao Amperayani, Sateesh Pinneti, Uma Devi Parimi Anticancer derivatives of amide difluoro benzodioxole and their preparation method thereof, Indian Patent. Appli. No: 202141010931

REVIEWER:

- Reviewer for the Journal, Archives of Microbiology, Springer Nature.
- Reviewer for the Journal, Current Science.
- Reviewer for Journal of Biomolecular Structure and Dynamics, Taylor & Francis Journals.

RESEARCH PAPERS- 25: NATIONAL- 14, INTERNATIONAL-11

1. K. K. Naramsetti, C. Alluri, K. Rao Amperayani, G. V. R. Sharma. Continuous-Flow Synthesis, Characterization, Antimicrobial Activity, and Docking Studies of Urea Derivatives of 4-(4-Aminophenyl)-3-morpholinone, Russian Journal of General Chemistry. 2023, 93, 1261–1273.
2. Karteek Rao Amperayani, Govanda Varidhi, Baswanth Oruganti, Uma Devi Parimi. Molecular dynamics and absolute binding free energy studies of piperine derivatives as potential inhibitors of SARS-CoV-2 main protease. Journal of Biomolecular Structure and Dynamics. DOI:10.1080/07391102.2023.2193987. IF. 5.25
3. Karteek Rao Amperayani, Sateesh Pinneti, Uma Deiv Parimi, Identification, Synthesis, and Characterization of Potential Dichloro Impurity: N, N-Dimethyl-3-Phenyl-2, 3-Dichloropropylamine in the Synthesis of Atomoxetine, Pharm. Chem. Journal., (accepted)
4. Karteek Rao Amperayani, Deepthi Kolli, Uma Devi Parimi, Phytochemical Analysis And In Vitro Genotoxicity, Cytotoxicity, Antioxidant, Antimicrobial, Antiobesity Activity Of Morinda Tinctoria Roxb., Indian Drugs. 2022, 59, 03, 31-40. https://doi.org/10.53879/id.59.03.12238
5. Venugopalarao Vikram, Karteek rao Amperayani, Venkaka Ravi Sankar Ummidi, Umadevi Parimi, Synthesis, anti-microbial activity and docking studies of novel N-pyridine substituted 2-chloro thieno [2,3, d]pyrimidine derivatives. Russian journal of General Chemistry. 2021, 91(12), pp. 2483–2488. https://doi.org/10.1134/S1070363221120185
6. Venugopalarao. Vikram, K. R. Amperayani, and P. Umadevi, 3-(Methoxycarbonyl) thiophene Thiourea Derivatives as Potential Potent Bacterial Acetyl-CoA Carboxylase Inhibitors, *Russian Journal of Organic Chemistry*, 2021, 57, (8), 1336–1345 https://doi.org/10.1134/S1070428021080145
7. Kottakki Naveen Kumar, Karteek Rao Amperayani, Uma Devi Parimi, 'Synthesis of piperine piperazine analogues and their antibacterial activity" *Indian Drugs*, 2021, 58, 6, 30-35. https://doi.org/10.53879/id.58.06.12311
8. Kottakki Naveen Kumar, Karteek Rao Amperayani, Uma Devi Parimi, 'Synthesis and antimicrobial activity of piperazine analogues containing [1, 3, 4] Thiadiazole ring. *Research Journal of Pharmacy and Technology*, 2021, 14(9), 4710-4714. DOI: 10.52711/0974-360X.2021.00819.

9. V. Vikram, S. R. Penumutchu, R. Vankayala, S. Thangudu, K. R. Amperayani, and U. Parimi, "Design, synthesis, molecular docking and cytotoxic activity of novel urea derivatives of 2-amino-3-carbomethoxythiophene," *J. Chem. Sci.*, vol. 132, no. 1, p. 126, Dec. 2020, doi: 10.1007/s12039-020-01834-w.
10. P. Kumar, K.N., Kumari, P.S., Gopi, G., Rao, A.K., Devi, "Synthesis and antibacterial activity of piperazine analogues containing [1, 3, 4]-oxadiazole ring," *Indian Drugs*, vol. 57, pp. 19–26, 2020.
11. K. R. Amperayani and U. D. Parimi, "Synthesis, in vitro and in silico Anti-Proliferative Studies of Novel Piperiene-Oxadiazole and Thiadiazole Analogs," *Russ. J. Gen. Chem.*, vol. 89, no. 11, pp. 2301–2307, Nov. 2019, doi: 10.1134/S1070363219110227.
12. V. Vikram, K. Rao Amperayani, and U. Parimi, "One-pot synthesis of n-benzyl substituted 2-aminothiophene-3-carboxilic acid scaffold and their antibacterial activity," *Int. J. Innov. Technol. Explor. Eng.*, vol. 8, no. 12, pp. 2546–2549, 2019, doi: 10.35940/ijitee.K1567.1081219.
13. K. N. Kumar, K. R. Amperayani, V. R. S. Ummdi, And U. D. Parimi, "Synthesis and Antimicrobial Activity of Piperine Analogues Containing 1,2,4-Triazole Ring," Asian Journal of Chemistry, vol. 31, no. 5, pp. 1077–1080, 2019. https://doi.org/10.14233/ajchem.2019.21876
14. K. R. Amperayani, K. N. Kumar, and U. D. Parimi, "Synthesis and in vitro and in silico antimicrobial studies of novel piperine–pyridine analogs," *Res. Chem. Intermed.*, vol. 44, no. 5, 3549–3564 2018, doi: 10.1007/s11164-018-3324-1.
15. A.K. Rao and U. Devi, "Effect of Silk Strength by Dietary Supplementation of Silk Worm with 1, 3, 4-Thiadiazoles, In Silico and In Vitro Bombyx mori DNA Binding Studies," *Der Pharma Chem.*, vol. 10, no. 2, pp. 87–101, 2018.
16. D. S. Rao, U. D. Parimi, N. B. Rao, and K. A. Rao, "Synthesis and Biological Screening of Lupeol-benzylidine Derivatives," *Nat. Prod. J.*, vol. 8, no. 3, pp. 196–200, 2018, doi: 10.2174/2210315508666180117154929.
17. K. R. Amperayani, Y. S. Krishna, R. R. Babu, and U. D. Parimi, "Recyclable Nano-Fe2O3 as an Efficient Catalyst for One Pot Synthesis of Substituted Oxadiazoles Under Microwave Condition," *Curr. Microw. Chem.*, vol. 5, no. 1, pp. 73–81, Apr. 2018, doi: 10.2174/2213335604666171109143640.
18. K. Deepti, K. R. Amperayani, N. S. Yarla, and U. D. Parimi, "In vitro Cytotoxic and Genotoxic Evaluation of Morinda tinctoria Roxb. Leaf Extracts," *Pharm. Chem. J.*, vol. 51, no. 4, pp. 295–300, Jul. 2017, doi: 10.1007/s11094-017-1602-7.
19. D. V. R. Venugopal K. R. Amperayani, and U. D. Parimi., "Design, synthesis and characterization of peptidyl boronate analogues as effective antimicrobial agents," *Res. Chem. Intermed.*, vol. 43, no. 10, pp. 5755–5778, Oct. 2017, doi: 10.1007/s11164-017-2961-0.
20. S. D. Rao, B. N. Rao, P. U. Devi, and A. K. Rao, "Isolation of lupeol, design and synthesis of lupeol derivatives and their biological activity," *Orient. J. Chem.*, vol. 33, no. 1, 2017, doi: 10.13005/ojc/330119.
21. K. R. Amperayani, A. Mamillapalli, and U. D. Parimi, "Evaluation of growth and economic parameters of Bombyx mori by substituted 1, 3, 4–oxadiazoles," *Int. J. ChemTech Res.*, vol. 9, no. 3, 2016.
22. M. K. Kannajosyula, K. R. Amperayani, and U. D. Parimi, "New visible spectrophometric methods for the assay of cintapride," *Indian J. Chem. Technol.*, vol. 23, no. 5, 425-432, 2016.
23. K. M. Rao, K. R. Amperayani, K. Deepti, and P. U. Devi, "Determination of clopidogrel by

visible spectrophotometry in pure form and pharmaceutical formulations," *J. Indian Chem. Soc.*, vol. 93, no. 2, 1-8, 2016.

24. D. Kolli, K. R. Amperayani, and U. Parimi, "Total phenolic content and antioxidant activity of morinda tinctoria leaves," *Indian J. Pharm. Sci.*, vol. 77, no. 2, 226-30, 2015. doi: 10.4103/0250-474x.156616.
25. U. Parimi and K. R. Amperayani, "Green Synthesis of Plant Mediated Silver Nano Particles and Evaluation of their Antimicrobial Activities," vol. 4, 2014.

Conference proceedings

1. Amperayani, Karteek Rao and Parimi, Uma Devi, Molecular Docking and Synthesis of Novel Thiourea-Thiazole Derivatives as Anti-Proliferative Agents (February 4, 2020). Proceedings of International Conference on Drug Discovery (ICDD) 2020. Available at SSRN: https://ssrn.com/abstract=3531479

PROJECTS WORKED:

- UGC-MRP Project "Synthesis and evaluation of amino substituted Oxa and Thiadiazoles as possible Bombyx mori growth enhancers." in GITAM University (2013-2017)
- "Antibacterial activity of Michelia champaca flower extract" done in GITAM University (2011).
- "Isolation and media-optimization of Bacillus subtilis" under the guidance of Andhra University and CMFRI (2008-2009).
- "Biotechnological, commercial production of vaccine from Haemophilus influenzae bacteria" under Shantha Biotechnics limited (2008).

Certification courses

- Undergone Innovation Ambassador (IA) training Foundation Level conducted my MoE's Innovation Cell & AICTE during the IIC calendar year 2021-22
- Successfully completed the NPTEL course Principles of Organic Synthesis with a consolidated score of 77 % during October 2019
- Successfully completed the NPTEL course One and Two Dimensional NMR Spectroscopy for Chemists with a consolidated score of 64 % during December 2020
- Successfully completed the NPTEL course Medicinal Chemistry with a consolidated score of 77 % during April 2023

FDP:

1. participated in Online National One Week Faculty Development Programme on Research Methodology, FDP-2023" organized by Kamla Nehru Mahavidyalaya, Nagpur from 24th June to 29th June 2023.
2. Participated in 10- day patent analytics course organized by Turnip innovations and facilitated by Dr Rahul Kapoor on 07th June to 16th June 2022.
3. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "Computer aided drug design in drug discovery" from 2021-9-06 to 2021-9-10 at Indian Institute of Information Technology Allahabad.
4. Participated in One-week online FDP on "Chemistry for Societal Advancements" organized by Dept. of Chemistry, K L university and A P Akademi of Sciences, on 26-7-2021 to 31-7-2021.
5. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online Elementary FDP on "QBD tools for drug development" from 2021-7-13 to 2021-7-17 at Acharya Nagarjuna University.

WORKSHOPS-7

1. Participated in one-week virtual international workshop on Basics principles to advanced techniques: cheminformatics and machine learning in drug discovery on 22nd -29th April 2023 organized by NyBerMan Bioinformatics Europe.
2. Organized the National Workshop on "Intellectual property protection and innovation management for competitiveness of academia & industries" organized by Gayatri Vidya Parishad College for Degree and PG Courses (A), IIC and NRDC on October 4 & 5, 2021.
3. Participated in XRD for Research and Orthogonal Data analysis workshop on 6th and 7th July 2021 organized by Marvern Panalytical and IIT Jammu
4. Participated in the one-day workshop on "Artificial Intelligence in Drug Discovery" organized by CSIR-Northeast Institute of Science and Technology, Jorhat on September 09, 2020.
5. Participated in the "Summer Research Training Program" SRTP-2020 organized by CSIR-NEIST Jorhat, India. from June 20th to August 22, 2020.
6. Participated in Drug Discovery Hackathon 2020 for a period of July 2020 to September 2020 organized by AICTE and Government of India,
7. Participated in the "Drug Discovery Workshop series on StarDrop & SeeSar" organized by Zastra Innovation, Bengaluru form 6th July to 10th August 2020 through web meeting.

CONFERENCES AND WEBINARS ATTENDED: 33

CONFERENCES INTERNATIONAL: 6; NATIONAL- 16, WEBINARS – 10

1. Attended "Turnip Innovation Festival 2023" on Sat, 21st Jan, 2023 organized by Turnip Innovation Pvt. Ltd.
2. Participated in One Day International Webinar on "Recent Trends in Chemical Sciences (RTCS-2022)" organized by Dept. of Chemistry, Dr. V.S. Krishna Govt. Degree and PG College(A), Visakhapatnam on 18-11-2022.
3. Participated in IP Awareness/Training program under National Intellectual property awareness mission on December 06, 2022 organized by Intellectual Property Office, India
4. Participated in one day national seminar on Green Chemistry Applications in Process Development" conducted by KL University on 11th November 2022.
5. Attended National Webinar on "Recent Advances in Drug Development for Mankind" (RADDM-2021) organized by the Department of Chemistry, GITAM Institute of Science, GITAM (Deemed to be University), Visakhapatnam on 11th August 2021.
6. Participated in webinar on Scientific writing with focus on writing research proposal for acquiring funding and grants organized by Dept. of Biotechnology and Bioinformatics, FDC and Research committee, Christ College, Rajkot on 29th June 2021.
7. Attended the webinar cum demo on "Lead Optimization of Drug candidates Through Multi Parameter Approach" organized by Dept. of Pharma Chemistry, JSS College of Pharmacy, Mysuru on 19th June 2021.
8. Participated in Dr. APJ Abdul Kalam Endowment lecture on "Modelling as a tool to better understand the degradation of materials organized by KL University in association with AP Akademi of Science on 17th June 2021.
9. Participated in "International E-Conference on Advances in Chemical Research 2021" organized by Dept. of Chemistry, GIS, GITAM (Deemed to be University) on 19th – 20th April 2021.

10. Participated in “Virtual Symposium: Targeted Protein Degradation & PROTAC” Oxford Global Conferences on 16th and 17th February 2021.
11. Participated in the “International Webinar on Water, Energy and the Environment: Challenges & Solutions (WEE-2021)” organized by the Department of Chemistry, GITAM Institute of Science, GITAM (Deemed to be University), Visakhapatnam on January 20 & 21, 2021.
12. Participated in the Webinar on ‘Data Analytics Tools for Chemistry Researchers” organized by Department of Chemistry, Dr. B. R. Ambedkar National Institute of Technology Jalandhar. November 04, 2020
13. Participated in the “webinar on Chemistry and Biology of Natural Products WCBNP 2020” on July 24th -25th 2020. At CSIR-NEIST Jorhat, India.
14. Participated in the webinar on “Advance Lab Drying Techniques” conducted by Buchi on July 23rd, 2020
15. Participated in the webinar on “FTIR Emission Spectroscopy” conducted by Bruker on July 20 2020.
16. B. Yindu sai, G. Swathi, B. Kusuma, S.Gayatri, Ch. Anitha, Karteek Rao Amperayani, Design, molecular docking, DFT studies and synthesis of novel thiourea-thiazole derivatives as antibacterial agents, National Conference on “Chemistry for Sustainable Development” SusCon-2019, Dec-13-14.
17. Naveen Kumar kottakki, Amrutha Sri Konduri, Karteek Rao Amperayani, Uma Devi Parimi, synthesis and antimicrobial activity of piperazine analogs containing [1, 3, 4] thiadiazole ring, National Conference on “Chemistry for Sustainable Development” SusCon-2019 Dec-13-14.
18. P. Chandramouli, S. Satya Narayana, G Sai Kumar, Govindaraju, Karteek Rao Amperayani, Antihelmintic, antioxident activity and total phenolic content of *ruta chalepensis*. L. plant AP Science Congress DEC 9, 2019.
19. B Roshini, B Pushpalatha, M Sujatha, L. Sujatha, Karteek Rao Amperayani synthesis, And Biological Activity of Substituted Phenyl-1,3,4-Oxadiazole-2-Amine Azo Resorcinol / 2 Naphthol Derivatives National Seminar On “Chemical Speciation in Biology and Marine Environment (CSBME- 2019)” Sep 29th & 30th, 2 019, Dept. of Chemistry, Andhra University Visakhapatnam
20. Kottakki Naveen Kumar, Karteek Rao Amperayani, Vishali Kolli, A. Soma Sekar, Uma Devi Parimi Piperine Analogues Containing [1,2,4] Triazole Ring as Antimicrobial Agents. National Conference on Organic Molecules as Synthons & Reagents for Innovations, February 08–10, 2019, IIT Roorkee
21. Kottaki Naveen Kumar, Karteek Rao Amperayani, Uma Devi Parimi Synthesis, characterization and evaluation of antimicrobial activity of carbazoles derivative. Current Trends in Chemical and Pharmaceutical Science Sri Venkateswara University, Tirupathi
22. Karteek Rao Amperayani, Uma Devi Parimi YVS Sai Krishna, R.Ravichandra Babu, “Recyclable nano-Fe_2O_3 particles as an efficient and green catalyst for the synthesis of substituted Oxadiazoles with high yields.” International conference on nanoscience, nanotechnology and advanced materials. GITAM University, Visakhapatnam, Dec 2015.
23. Karteek Rao Amperayani, Murali Krishna Kannajosyula, Uma Devi Parimi New visible spectrophometric methods for the assay of Spiramycine. poster presentation 3rd International Conference and Exhibition on Biologics and Biosimilars, 2014 DOI: 10.4172/1948-593X.S1.014

24. Karteek Rao Amperayani, Uma Devi Parimi "Synthesis of substituted 1,3,4 –Oxadiazoles and evaluation of growth and economic parameters of Bombyx mori". Poster presentation 102nd Indian Science Congress 3-7th Jan 2015. Mumbai University.
25. Karteek Rao, Umadevi Parimi, and Anitha Mamillapall "Green Synthesis and Evaluation of Diamino Substituted 1,3,4 Thiadiazole as possible Bombyx Mori Growth Enhancer" oral presentation Iinternational conference EEEE-2014 June 2014 Andhra University, Visakhapatnam.
26. A. Karteek Rao, Parimi Umadevi Durvasula V.R. Venugopal and "Synthesis, antimicrobial and antitumor evaluation of novel piperine analogs of dipeptidyl boronic acid" poster presentation international conference Drugs for the Future: Infectious Diseases-2014 27-28 March 2014 antimicrobial Drug Discovery: Challenges and Perspectives at NIPER Hyderabad.
27. Awarded certificate for the active participation in 8-day training program on "Applications of NANO Technology" on 6-13th August 2014, GITAM University.
28. Awarded certificate for active participation in two-day workshop on "Research Methodology" on November 2013 under Technical Education Quality Improvement Program TEQIP Phase– II.
29. Awarded certificate for active participation in workshop on "Patent Awareness" on October 2013 organized by GITAM University
30. Awarded certificate for active participation in national seminar on "Intellectual Property and Innovation Management in Knowledge Era 2010" organized by NRDC in collaboration with MoMSME, Govt. of India.
31. Awarded certificate for active participation in International Conference On "Nano Science, Nanotechnology and Advanced Materials-NANOS 2010" sponsored by MoES, DST, CSIR, ICMR, HPCL, DRDO and DAE at GITAM University.
32. Awarded certificate for active participation in "National Conference on Biological Chemistry (NCBC-2010)" sponsored by MoES, DST, CSIR, ICMR, HPCL, DRDO and DAE at GITAM University
33. Awarded certificate for active participation in training program on "Rural Entrepreneurship Development" organized by Center for Integrated Rural Development GITAM Institute of sciences.

Awards:

- Received letter of appreciation in the field of research for the year 2021-2022 by Gayatri Vidya Parishad College for Degree and PG Courses (A)
- Participated in Inter-collegiate youth festival conducted at Rajiv Gandhi degree and PG College, Rajahmundry.
- Awarded 3rd prize in essay writing conducted at Gayatri Vidya Parishad.
- Awarded 3rd prize in debate competition in Telugu conducted at St. Joseph's College for Women, Visakhapatnam.
- Awarded certificate for participation in center for the study of Gandhian Philosophy and Human Development

REFERENCE:

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DECLARATION:

I hereby declare that the above furnished details are true to the best of my knowledge.

(A. KARTEEK RAO)