



CURRICULUM VITAE

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EDUCATION

- Post-Doctoral Associate (2007–2008), Talca University, Chile
- Ph.D. (2002–2007), CSIR-IICT, Hyderabad, India
- M.Sc (1998–2000), Kakatiya University, India
- B.Sc (1993–1996), Kakatiya University, India

PROFESSIONAL EXPERIENCE

- Associate Professor (July 2016 – till date), NIPER-Hyderabad
- Assistant Professor (August 2009 – July 2016), NIPER-Hyderabad
- Research Associate (March to August 2009), CSIR-IICT, Hyderabad
- Visiting Scientist (January to February 2008), UNICAMP, Brazil
- Lecturer (2000–2002), Shathavahana Degree College, Affiliated to Kakatiya University
- Member (from 2011), External Examiner Panel, Kakatiya University
- Member (from 2014), External Examiner Panel, Telangana University
- Academic Advisory board member (from 2015), RIPER, Anantapur, JNTIA, India
- Member in Board of Studies (BoS), Pharmacy Department, JNTUA, Ananthapur, Andhra Pradesh
- Member in Board of Studies (BoS), RIPER, Anantapur, JNTIA, India
- Member (CFO Committee, from 2014-2018) in Telangana State Pollution Control Board (TSPCB)
- Member (Task Force Committee, from 2018 – 2022) in Telangana State Pollution Control Board (TSPCB)
- Member in Board of Studies (BoS), Pharmacy Department, Krishna University
- Member of Board of Studies (BoS), Department of Pharmaceutical Chemistry, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu
- Member in Senate Committee, Annamacharya College of Pharmacy, Rajampet, Andhra Pradesh
- Life time membership – Chemical Research Society of India (CRSI-India)

FELLOWSHIPS/GRANTS

- ICMR grant 2023 (No.: Small5380)
- Young Scientist Research Grant, SERB, DST, 2015
- Research Project Award: “FONDECYT INCIATION PROJECT” (1 million US\$), rated 3rd Rank, Chile
- SRF (2004–2007) in Chemical Sciences, CSIR, India
- JRF (2002–2004) in Chemical Sciences, CSIR, India

AWARDS/HONORS

- Fellow of Telangana Academy of Sciences (FTASc), Year 2021
- Best Research Scientist Award from NIPER-Hyderabad, Year 2016
- Associate Fellow of A.P. Akademi of Sciences, Year 2014
- OPPI Young Scientist Award - 2010 from Organisation of Pharmaceutical Producers of India

RESEARCH COLLABORATIONS

- Prof. Leonardo S. Santos, Talca University, Chile
- Dr. Sathish Manda, Catholic University of Maule, Talca, Chile
- Dr. Suresh K. Bhargava, RMIT, Australia
- Prof. Dr. Marcos N. Eberlin, University of CAMPINUS, Brazil
- Dr. Narayana Nagesh, CSIR-CCMB, Hyderabad, India
- Dr. B. Sridhar, CSIR-IICT, Hyderabad, India

RESEARCH INTERESTS

- Design and synthesis of New Chemical Entities (NCEs) of anticancer agents in ‘Drug Discovery’
- Biological targets: Multi-kinase inhibitors, DNA minor groove, intercalators, Tubuline inhibition, topo-I & II, CDK inhibitors, etc
- Asymmetric synthesis
- C-H Activation reactions, one-pot, multi-component and cascade reactions
- Development of alternative sustainable greener methods in pharmaceutical chemistry
- Exploration of new synthetic methodologies and studying their mechanisms by “online ESI-MS/MS”

RESEARCH GROUP

Present PhD Scholars:



Ghule Shailendra Shivaji
Batch: 2023



Ghule Shailendra Shivaji
Batch: 2023



Kshirsagar Prasad Suhas
Batch: 2023



Shivam Gupta
Batch: 2023



Ms. Pooja Kumari
Batch: 2022



Ms. Swetha Singitham
Batch: 2022



Mrs. Mary Sravani Galla
Batch: 2021



Mr. Akshay Kumawat
Batch: 2021



Mrs. Dastari Sowmya
Batch: 2020



Mr. Mursalim Ali Khan
Batch: 2020



Mr. Durgesh G. V.
Batch: 2019

Former PhD Group Members:



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Dr. Kishna Ram Senwar

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- 129 Students have completed for their 1-year M.S (Pharm.) dissertation projects
- 7 MS (Pharm.) students are presently working for their dissertation projects

RESEARCH PUBLICATIONS

2024

1. Development of chromone-thiazolidine-2,4-dione Knoevenagel conjugates as apoptosis inducing agents; Galla, M. S.; Kale, N.; Sharma, A.; Hajre, A.; Godugu, C.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.*, **2024**, Submitted
2. Microwave-assisted Ru(II)-catalysed regioselective methyl acylation of 2-aryl benzothiazoles: Synthesis of benzofuran conjugates via C-H activation/annulation; Dastari, S.; Murugappan, S.; John, S. E.; **Shankaraiah, N.** *J. Org. Chem.*, **2024**, Under review
3. Design, synthesis of β -carboline-coumarin based molecular hybrids as apoptosis inducing and topoisomerase II α inhibitors; Khan, M. A.; Sharma, A.; Bora, D.; Sindhuja, R. H.; Phanindranath, R.; Nagesh, N.; **Shankaraiah, N.** *New. J. Chem.*, **2024**, Under review
4. Combretastatin A4-chalcone hybrids as tubulin and angiogenesis inhibitors; Jadala, C.; Reddy, T. S.; Reddy, V. G.; Tokala, R.; Bhargava, S. K.; Dastari, S.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Chem.*, **2024**, Under review
5. Rh(III)-catalysed C-H annulation of cis-stilbene acids with 2-diazo-1,3-diketones: A facile access to 6,7-dihydrobenzofuran-4(5H)-one and α -pyrone scaffolds; Galla, M. S.; Kale, N. B.; Kumawat, A.; Bora, D.; **Shankaraiah, N.** *Org. Biomol. Chem.* **2024**, Under revision
6. Development of benzimidazole-substituted spirocyclopropyl oxindole derivatives as cytotoxic agents: tubulin polymerization inhibition and apoptosis inducing studies; Sakla, A. P.; Bazaz, M. R.; Mahale, A.; Sharma, P.; Valapil, D. G.; Kulkarni, O. P.; Dandekar, M. P.; **Shankaraiah, N.** *ChemMedChem.*, **2024**, Under revision
7. Recent insights of PROTAC developments in inflammation-mediated and autoimmune diseases: A critical review; Mishra, P.; Sharma, N.; Galla, M. S.; **Shankaraiah, N.** *RSC Med. Chem.*, **2024**, Under revision
8. Hydrazide-hydrazone/hydrazone as enabling linkers in anti-cancer drug discovery: A comprehensive review; Murugappan, S.; Jungare, K.; Dastari, S.; Barve, N. M.; **Shankaraiah, N.** *J. Mol. Str.*, **2024**, Under revision
9. Spirooxindole derivatives as kinase based anti-cancer agents; Valapil, D. G.; **Shankaraiah, N.** Spirooxindole: Chemistry, Synthesis, Characterization and Biological Significance, Elsevier, **2024**, Accepted (Book Chapter)

2023

10. Benzimidazole derivatives as tubulin polymerization inhibitors: Design, synthesis and in vitro cytotoxicity studies; Laxmikeshav, K.; Rahman, Z.; Mahale, Valapil, D. G.; A.; Sharma, P.; George, J.; Phanindranath, R.; Dandekar, M. P.; Kulkarni, O.; Nagesh, N.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.*, **2023**, 96, 129494
11. Ru(II)-catalyzed synthesis of indolo[2,3-c]isoquinolines via [3+3] annulation of *N,N'*-cyclic azomethine ylides and 3-diazoindolin-2-imines; Valapil, D. G.; Mishra, P.; Jungare, K.; **Shankaraiah, N.** *New. J. Chem.*, **2023**, 47, 17586-17591
12. A validated high-performance liquid chromatography method for determination of brassinin, an indoleamine 2,3-dioxygenase inhibitor in rat plasma; Dhurjad, P.; Gupta, K.; Sakla, A. P.; Shankaraiah, N.; Sonti, R. *Separation Science Plus* **2023**, 6, 2300073
13. Sustainable photocatalytic C-H annulation of heteroarenes with sulfoxonium ylides: Synthesis and photophysical properties of fused imidazo[1,2-*a*]pyridine based molecules; Sana, S.; Dannarm, S. R.; Tokala, R.; Dastari, S.; Sathish, M.; Kumar, R.; Sonti, R.; **Shankaraiah, N.** *Org. Chem. Front.*, **2023**, 10, 4800-4808
14. Visible-light-mediated photocatalytic sequential *N*-arylation: An eco-friendly synthetic route to unsymmetrical di-arylamines and imatinib drug; Sana, S.; Dastari, S.; Reddy, D. S.; Tokala, R.; Sathish, M.; Sonti, R.; **Shankaraiah, N.** *Org. Chem. Front.*, **2023**, 10, 4573-4580
15. Reminiscing the Microwave-assisted Chemistry of 5- and 6-membered Benzene-fused *N*-Heterocycles; Soni, J. P.; Valapil, D. G.; Joshi, S. V.; **Shankaraiah, N.** *Arkivoc* **2023**, (vi) 202311928

16. Design, synthesis and *in vitro* cytotoxic evaluation of β -carboline tethered quinoline-4-carboxamide conjugates as DNA-interactive Topo II inhibitors; Soni, J. P.; Devi, P.; Chemitikanti, S.; Sharma, A.; Swamy, C. V. D.; Phanindranath, R.; Sathish, M.; Nagesh, N.; Godugu, C.; Shankaraiah, N. *J. Mol. Str.*, **2023**, *1291*, 136001
17. Regioselective synthesis and *in vitro* cytotoxicity evaluation of 3-thiooxindole derivatives: Tubulin polymerization inhibition and apoptosis inducing studies; Sakla, A. P.; Panda, B.; Mahale, A.; Sharma, P.; Laxmikeshav, K.; Khan, M. A.; Kulkarni, O. P.; Godugu, C.; **Shankaraiah, N. Bioorg. Med. Chem.**, **2023**, *90*, 117297
18. Niclosamide Inhibits Epithelial-Mesenchymal Transition with Apoptosis Induction in BRAF/ NRAS Mutated Metastatic Melanoma Cells; Thatikonda, S.; Tokala, R.; Pooladanda, V.; **Shankaraiah, N.**; Godugu, C. *Toxicology in Vitro* **2023**, *89*, 105579
19. Trimethylsilyl azide-promoted acid-amine coupling: A facile one-pot route to amides from carboxylic acids and amines; Tangella, Y.; Soni, J. P.; **Shankaraiah, N.**; Abril, D.; Sathish, M. *Arkivoc* **2023**, (vi), 202211914
20. Design, synthesis and *in vitro* cytotoxicity evaluation of indolo-pyrazoles grafted with thiazolidinone as tubulin polymerization inhibitors; Soni, J. P.; Chilvery, S.; Sharma, A.; Reddy, G. N.; Godugu, C.; **Shankaraiah, N. RSC Med. Chem.**, **2023**, *14*, 549–562
21. Exploration of cytotoxic potential and tubulin polymerization inhibition activity of *cis*-stilbene-1,2,3-triazole congeners; Bora, D.; Samir, K. M.; Sharma, A.; Chilvery, S.; Bansod, S.; John, S. E.; Godugu, C.; **Shankaraiah, N. RSC Med. Chem.**, **2023**, *14*, 482–490
22. Synthesis of *cis*-stilbene based 1,2,4-triazole/1,3,4-oxadiazole conjugates as potential cytotoxic and tubulin polymerization inhibitors; John, S. E.; Sharma, A.; Gulati, S.; Bora, D.; **Shankaraiah, N. New. J. Chem.**, **2023**, *47*, 4687-4697
23. 1,2,3-Triazolo-2-aryl-linked benzimidazole derivatives as tubulin polymerization inhibitors and DNA intercalators: Design, synthesis, biological evaluation and docking studies; Laxmikeshav, K.; Sayali, M.; Devabattula, G.; Sharma, P.; Mahale, A.; George, J.; Phanindranath, R.; Godugu, C.; Kulkarni, O. P.; Nagesh, N.; **Shankaraiah, N. Archiv der Pharmazie** **2023**, *356*, 2200449
24. Synthesis and cytotoxicity evaluation of DNA-interactive β -carboline indolyl-3-glyoxamide derivatives: Topo-II inhibition and *in silico* modelling studies; Soni, J. P.; Reddy, G. N.; Rahman, Z.; Sharma, A.; Spandana, A.; Phanindranath, R.; Dandekar, M. P.; Nagesh, N.; **Shankaraiah, N. Bioorg. Chem.**, **2023**, *131*, 106313
25. Development of hydrazide hydrazone-tethered combretastatin-oxindole derivatives as antimetabolic agents; Bora, D.; Sharma, A.; John, S. E.; **Shankaraiah, N. J. Mol. Str.**, **2023**, *1275*, 134675
26. Benzimidazole based bis-carboxamide derivatives as promising cytotoxic agents: Design, synthesis, *in silico* and tubulin polymerization inhibition; Laxmikeshav, K.; Sharma, P.; Palepu, M.; Sharma, P.; Mahale, A.; George, J.; Phanindranath, R.; Dandekar, M. P.; Kulkarni, O. P.; Nagesh, N.; **Shankaraiah, N. J. Mol. Str.**, **2023**, *1271*, 134078

2022

27. Rh(III)-catalysed site-selective alkylation of β -carbolines/isoquinolines and tandem C–H/C–N functionalization to construct indolizine-indole frameworks; Bora, D.; John, S. E.; Galla, M. S.; Sathish, M.; **Shankaraiah, N. Mol. Cat.**, **2022**, *533*, 112783
28. Synthesis of alpha-pyrones and chromen-2-ones by transition-metal catalyzed annulations of sulfoxonium and iodonium ylides with *cis*-stilbene acids; John, S. E.; Bora, D.; Dastari, S.; Valapil, D. G.; **Shankaraiah, N. New J. Chem.**, **2022**, *46*, 19722–19730
29. Catalyst-Free Site-Selective Diverse Functionalization of Inherent C–H Bonds in 1-Aryl- β -carbolines, Norharmane and Harmine; Soni, J. P.; Kumawat, A.; Sathish, M.; Yadav, S.; Jadhav, N. A.; **Shankaraiah, N. ChemistrySelect** **2022**, *7*, e202202299
30. Ru(II)-Catalyzed regioselective carbene insertion into β -carbolines and isoquinolines; John, S. E.; Bora, D.; **Shankaraiah, N. Org. Biomol. Chem.** **2022**, *20*, 5852-5860
31. Design, synthesis of DNA-interactive 4-thiazolidinone-based indolo-/pyrroloazepinone conjugates as potential cytotoxic and topoisomerase I inhibitors; Kadagathur, M.; Patra, S.; Panda, B.; George, J.; Phanindranath, R.; Shaikh, A. S.; Sigalapalli, D. K.; Godugu, C.; Nagesh, N.; Tangellamudi, N. D.; **Shankaraiah, N. Eur. J. Med. Chem.**, **2022**, *238*, 114465
32. Brown seaweed-derived alginic acid: An efficient and reusable catalyst for Pictet-Spengler reaction to access tetrahydro- β -carboline and tetrahydroisoquinoline frameworks; Soni, J. P.; Sathish, M.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N. Asian J. Org. Chem.**, **2022**, *11*, e202200129
33. The Expedition of Azido-reductive Cyclization Approaches towards Various Heterocycles; Soni, J. P.; Jadhav, N.; **Shankaraiah, N. Curr. Org. Chem.**, **2022**, *26*, 382-398
34. The syntheses and medicinal attributes of phenanthrenes as anticancer agents: a quinquennial update; Jhingran, S.; Laxmikeshav, K.; Sayali, M.; Rao, K. V.; **Shankaraiah, N. Curr. Med. Chem.**, **2022**, *29*, 3530–3556
35. Contribution of Knoevenagel Condensation Products toward the Development of Anticancer Agents: An Updated Review; Tokala, R.; Bora, D.; **Shankaraiah, N. ChemMedChem.**, **2022**, *17*, e202100736
36. Exploration of Mercaptoacetamide-linked Pyrimidine-1,3,4-Oxadiazole Derivatives as DNA Intercalative Topo II inhibitors: Cytotoxicity and Apoptosis Induction; Shaikh, A. S.; Kiranmai, G.; Devi, G. P.; Makhal, P. N.; Sigalapalli, D. K.; Tokala, R.; Kaki, V. R.; **Shankaraiah, N.**; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *Bioorg. Med. Chem. Lett.*, **2022**, *65*, 128697
37. Synthesis of indolo/pyrroloazepinone-oxindoles as potential cytotoxic, DNA-intercalating and Topo I inhibitors; Kadagathur, M.; Shaikh, A. S.; Panda, B.; George, J.; Phanindranath, R.; Sigalapalli, D. K.; Godugu, C.; Nagesh, N.; **Shankaraiah, N.**; Tangellamudi, N. D. *Bioorg. Chem.* **2022**, *122*, 105706

38. One-pot, microwave-assisted copper(I)-catalysed dithiocarbamation: facile introduction of dithiocarbamate on imidazopyridines; Laxmikeshav, K.; Sakla, A. P.; Stephy, E. J.; **Shankaraiah, N.** *Green. Chem.*, **2022**, *24*, 1259–1269
39. Role of Histone demethylases and histone methyltransferases in triple-negative breast cancer: epigenetic mnemonics; Mandumpala, J. J.; Baby, S.; Tom, A. A.; Godugu, C.; **Shankaraiah, N.** *Life Sciences* **2022**, *292*, 120321
40. Ru(II)-Catalyzed Regioselective C–N Bond Formation on Benzothiazoles Employing Acyl Azide as an Amidating Agent; John, S. E.; Bora, D.; Dhimam, V.; Tokala, R.; Gananadhamu, S.; **Shankaraiah, N.** *ACS Omega* **2022**, *7*, 1299–1310
41. Exploration of benzimidazoles as potential microtubule modulators: An insight in the synthetic and therapeutic evolution; Laxmikeshav, K.; Ambati, H.; **Shankaraiah, N.** *J. Mol. Str.*, **2022**, *1253*, 132251
42. Expedition of sulfur-containing heterocyclic derivatives as cytotoxic agents in medicinal chemistry: A decade update; Laxmikeshav, K.; Kumari, P.; **Shankaraiah, N.** *Med. Res. Rev.*, **2022**, *42*, 513–575

2021

43. Dithiocarbamation of spiro-aziridine oxindoles: a facile access to C3-functionalised 3-thiooxindoles as apoptosis inducing agents; Sakla, A. P.; Panda, B.; Laxmikeshav, K.; Soni, J. P.; Bhandari, S.; Godugu, C.; **Shankaraiah, N.** *Org. Biomol. Chem.*, **2021**, *19*, 10622–10634
44. Recent updates on azido-reductive cyclization approaches: syntheses of *aza*-heterocyclic frameworks; Soni, J. P.; Kadagathur, M.; **Shankaraiah, N.** *Asian J. Org. Chem.*, **2021**, *10*, 3186–3200
45. Regioselective *ortho*-sulphonamidation of β -carboline: intrinsic directing property of β -carboline and their photophysical studies; Bora, D.; Dannarm, S. R.; John, S. E.; Sana, S.; Sonti, R.; **Shankaraiah, N.** *Asian J. Org. Chem.*, **2021**, *10*, 3384–3389
46. β -Carboline tethered cinnamoyl 2-aminobenzamides as class I selective HDAC inhibitors: Design, synthesis, antiproliferative activity and modelling studies; Namballa, H. K.; Anchi, P.; Manasa, K. L.; Soni, J. P.; Godugu, C.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Chem.* **2021**, *117*, 105461
47. Targeting Tubulin Polymerization and DNA Binding of 4-Thiazolidinone-umbelliferone Hybrids: Synthesis and Cytotoxicity Evaluation; Sigalapalli, D. K.; Kiranmai, G.; Tokala, R.; Tripura, C.; Ambatwar, R.; Nunewar, S. N.; Kadagathur, M.; **Shankaraiah, N.**; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *New J. Chem.*, **2021**, *45*, 18908–18923
48. Stereoselective Aldol and Conjugate Addition Reactions Mediated by Proline-Based Catalysts and Its Analogues: A Concise Review; G. V. Durgesh.; Kadagathur, M.; **Shankaraiah, N.** *Eur. J. Org. Chem.*, **2021**, *37*, 5288–5311
49. An update on the progress of cycloaddition reactions of 3-methyleneindolinones in the past decade: versatile approaches to spirooxindoles; Saeed, R.; Sakla, A. P.; **Shankaraiah, N.** *Org. Biomol. Chem.*, **2021**, *19*, 7768–7791
50. Unraveling KDM4 histone demethylase inhibitors for cancer therapy; Baby, S.; Durgesh, G. V.; **Shankaraiah, N.** *Drug Discovery Today* **2021**, *26*, 1841–1856
51. Expedition to Phenanthrene Nucleus: A Two-decade Research on Bench; John, S. E.; Tokala, R.; Kaki, V. R.; **Shankaraiah, N.** *Asian J. Org. Chem.*, **2021**, *10*, 2105–2136
52. Exploration of C-H activation strategies in construction of functionalized 2-aryl benzoazoles: a decisive review; Sunny, S.; John, S. E.; **Shankaraiah, N.** *Asian J. Org. Chem.*, **2021**, *10*, 1986–2009
53. Recent Advances in Multi-component Reactions and their Mechanistic Insights: A Triennium Review; John, S.; Gulati, S.; **Shankaraiah, N.** *Org. Chem. Front.*, **2021**, *8*, 4237–4287
54. The Role of Sulphonamides and N-Sulphonyl Ketimines/Aldimines as Directing Groups in the Field of C-H Activation; Bora, D.; Galla, M. S.; **Shankaraiah, N.** *Chem. Asian J.* **2021**, *16*, 1661–1684
55. Synthesis and biological evaluation of novel imidazo[1,2-*a*]pyridine-oxadiazole hybrids as anti-proliferative agents: Study of microtubule polymerization inhibition and DNA binding; Sigalapalli, D. K.; Kiranmai, G.; Devi, G. P.; Tokala, R.; Sana, S.; Tripura, C.; Jadhav, G. S.; Kadagathur, M.; **Shankaraiah, N.**; Nagesh, N.; Babu, B. N.; Tangellamudi, N. D. *Bioorg. Med. Chem.*, **2021**, *43*, 116277
56. β -Carboline Based Molecular Hybrids as Anticancer Agents: A Brief Sketch; Soni, J. P.; Yeole, Y.; **Shankaraiah, N.** *RSC Med. Chem.* **2021**, *12*, 730–750
57. Application of transition metal-catalyzed C-H activation strategies in the synthesis and functionalization of β -carboline; Riyazahmed, K. S.; Bora, D.; **Shankaraiah, N.** *Asian J. Org. Chem.*, **2021**, *10*, 1050–1066
58. TCCA-mediated oxidative rearrangement of tetrahydro- β -carboline: facile access to spirooxindoles and the total synthesis of (\pm)-coerulescine and (\pm)-horsfiline; Sathish, M.; Sakla, A. P.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N.** *RSC Adv.*, **2021**, *11*, 16537
59. Microwave-assisted multicomponent reactions in heterocyclic chemistry and mechanistic aspects; Gulati, S.; John, S. E.; **Shankaraiah, N.** *Beilstein J. Org. Chem.*, **2021**, *17*, 819–865
60. Cyclodesulfurization: An Enabling Protocol for Synthesis of Various Heterocycles; Kadagathur, M.; Shaikh, A. S.; Jadhav, G.; Sigalapalli, D. K.; **Shankaraiah, N.**; Tangellamudi, N.D. *ChemistrySelect* **2021**, *6*, 2621–2640
61. Synthesis and *in vitro* Cytotoxicity Evaluation of Phenanthrene Linked 2, 4-Thiazolidinediones as Potential Anticancer Agents; Yadav, U.; Vanjari, Y.; Laxmikeshav, K.; Tokala, R.; Niggula, P. K.; Kumar, M.; Talla, V.; Kamal, A.; **Shankaraiah, N.** *Anti-cancer Agents in Med. Chem.*, **2021**, *21*, 1127–1140

62. The Riveting Chemistry of Poly-Aza-Heterocycles Employing Microwave Technique: A Decade Review; Soni, J. P.; Joshi, S. V.; Chemitikanti, K. S.; **Shankaraiah, N.** *Eur. J. Org. Chem.*, **2021**, 1476-1490
63. Structural Insights of Oxindole based Kinase Inhibitors as Anticancer Agents: Recent Advances; Dhokne, P.; Sakla, A. P.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2021**, *216*, 113334
64. Microwave-assisted oxidation reactions; Tokala, R.; **Shankaraiah, N.** Green Sustainable Process for Chemical and Environmental Engineering and Science, Elsevier, **2021**, 285-313 (Book Chapter)
65. Cinnamide Derived Pyrimidine-Benzimidazole Hybrids as Tubulin Inhibitors: Synthesis, *In silico* and Cell Growth Inhibition Studies; Sana, S.; Reddy, V. G.; Reddy, T. S.; Tokala, R.; Bhargava, S. K.; **Shankaraiah, N.** *Bioorg. Chem.* **2021**, *110*, 104765
66. Anticancer potential of spirocompounds in medicinal chemistry: A pentennial expedition; Bora, D.; Kushal, A. **Shankaraiah, N.** *Eur. J. Med. Chem.* **2021**, *215*, 113263
67. Synthesis and medicinal chemistry of azepinoindolones: A look back to leap forward; Kadagathur, M.; Patra, S.; Sigalapalli, D. K.; **Shankaraiah, N.**; Tangellamudi, N. D. *Org. Biomol. Chem.*, **2021**, *19*, 738–764
68. Syntheses and applications of spirocyclopropyl oxindoles: A decade review; Sakla, A. P.; Kansal, P.; **Shankaraiah, N.** *Eur. J. Org. Chem.*, **2021**, 757-772
69. Development of β -Carboline-Benzothiazole Congeners via Carboxamide Formation as Cytotoxic Agents: Intercalative Topoisomerase II α Inhibition and Apoptosis Induction; Tokala, R.; Mahajan, S.; Kiranmai, G.; Sigalapalli, D. K.; Sana, S.; Stephy Elza John, Narayana Nagesh **Shankaraiah, N.**; *Bioorg. Chem.* **2021**, *106*, 104481

2020

70. Microwave-assisted syntheses and applications of non-fused single-nitrogen-containing heterocycles; Soni, J. P.; Chemitikanti, K. S.; Joshi, V. S.; **Shankaraiah, N.** *Org. Biomol. Chem.*, **2020**, *18*, 9737–9761
71. Base-mediated 1,3-dipolar cycloaddition of pyridinium bromides with bromoallyl sulfones: a facile access to indolizine scaffolds; Jadala, C.; Reddy, V. G.; Krishna, N. H.; **Shankaraiah, N.**; Kamal, A. *Org. Biomol. Chem.*, **2020**, *18*, 8694-8701
72. Syntheses and reactivity of spiro-epoxy/aziridine oxindole cores: developments in the past decade; Sakla, A. P.; Kansal, P.; **Shankaraiah, N.** *Org. Biomol. Chem.*, **2020**, *18*, 8572–8596
73. Design and synthesis of thiadiazolo-carboxamide bridged β -carboline-indole hybrids: DNA intercalative topo-II α inhibition with promising antiproliferative activity; Tokala, R.; Sana, S.; Lakshmia, U. J.; Sankarana, P.; Sigalapalli, D. K.; Gadewal, N.; Kode, J.; **Shankaraiah, N.** *Bioorg. Chem.* **2020**, *105*, 104357
74. An Insight into Medicinal Attributes of Dithiocarbamates: Bird's Eye View; Shinde, S. D.; Sakla, A. P. **Shankaraiah, N.** *Bioorg. Chem.* **2020**, *105*, 104346
75. Synthesis and biological evaluation of substituted N-(2-(1H-benzo[d]imidazol-2-yl)phenyl)cinnamides as tubulin polymerization inhibitors; Donthiboina, K.; Anchi, P.; Gurram, S.; Mani, G. S.; Uppu, J. L.; Godugu, C.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Chem.* **2020**, *103*, 104191
76. Microwave-Assisted Oxidation Reactions; Green Sustainable Process for Chemical and Environmental Engineering and Science; Tokala, R.; **Shankaraiah, N.** Book Chapter (Elsevier), **2020**, 285-313
77. Synthesis of (Z)-3-(arylamino)-1-(3-phenylimidazo[1,5-a]pyridin-1-yl)prop-2-en-1-ones as potential cytotoxic agents; Mani, G. S.; Anchi, P.; Sunkari, S.; Donthiboina, K.; Godugu, C.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Med. Chem. Lett.*, **2020**, *30*, 127432
78. Microwave-assisted Regioselective Friedel-Crafts Arylation by BF₃.OEt₂: A Facile Synthetic access to 3-Substituted-3-Propargyl Oxindole Scaffolds; Laxmikeshav, K.; Sakla, A. P. Rasane, S.; John, S. E.; **Shankaraiah, N.** *ChemistrySelect* **2020**, *5*, 7004–7012
79. Exploration of Carbamide Derived Pyrimidine-Thioindole Conjugates as Potential VEGFR-2 Inhibitors with Anti-Angiogenesis Effect; Sana, S.; Reddy, V. G.; Bhandari, S.; Reddy, T. S.; Tokala, R.; Sakla, A. P.; Bhargava, S. K.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2020**, *200*, 112457
80. Lewis acid-catalyzed dehydrative [3+2] cycloaddition reaction: A facile synthetic approach to spiro-benzoinoline oxindoles; Bhandari, S.; Kulkarni, N.; Sakla, A. P.; **Shankaraiah, N.** *Tetrahedron Lett.*, **2020**, *61*, 152007
81. Ring-Opening Cyclization of Activated Spiro-aziridine Oxindoles with Heteroarenes: A Facile Synthetic Approach to Spiro-oxindole Fused Pyrroloindolines; Bhandari, S.; Sana, S.; **Shankaraiah, N.** *RSC Advances* **2020**, *10*, 16101–16109
82. Reliability of Click Chemistry on Drug Discovery: A Personal Account; **Shankaraiah, N.**; Sakla, A. P.; Laxmikeshav, K.; Tokala, R. *Chem. Record* **2020**, *20*, 253-272
83. β -Carboline directed regioselective hydroxylation by employing Cu(OAc)₂ and mechanistic investigation by ESI-MS; Bora, D.; Tokala, R.; John, S. E.; Prasanth, B.; **Shankaraiah, N.** *Org. Biomol. Chem.*, **2020**, *18*, 2307–2311
84. Design and Synthesis of 5-Morpholino-Thiophene-Indole/Oxindole Hybrids as Cytotoxic Agents; Yadav, U.; Sakla, A. P.; Tokala, R.; Nyalam, S. T.; Khurana, A.; Digwal, C. S.; Talla, V.; Godugu, C.; **Shankaraiah, N.**; Kamal, A. *ChemistrySelect* **2020**, *5*, 4356–4363
85. Iodine-mediated oxidative annulation by C–C cleavage: A domino synthetic approach to quinazolinones and benzimidazo[1,2-c]quinazolines; Donthiboina, K.; Mani, G. S.; **Shankaraiah, N.**; Kamal, A. *ChemistrySelect* **2020**, *5*, 3923 –3928

86. FeCl₃-Catalyzed Domino Reaction: A Mild Synthetic Approach to Spirooxindolo-2-iminothiazolidine Scaffolds; Bhandari, S.; Sakla, A. P.; **Shankaraiah, N.** *ChemistrySelect* **2020**, *5*, 2886–2891.

2019

87. Synthesis of combretastatin-A4 carboxamides mimicking with sulfonyl piperazines by a molecular hybridization approach: *In vitro* cytotoxicity evaluation and tubulin polymerization inhibition; Jadala, C.; Satish, M.; Anchi, P.; Tokala, R.; Lakshmi, U. J.; Reddy, V. G.; **Shankaraiah, N.**; Godugu, C.; Kamal, A. *ChemMedChem* **2019**, *14*, 2052–2060
88. Iodine-promoted one-pot synthesis of 1,3,4-oxadiazole scaffolds *via* sp³ C-H functionalization of azaarenes; Mani, G. S.; Donthiboina, K.; **Shankaraiah, N.**; Kamal, A. *New J. Chem.* **2019**, *43*, 15999–16006
89. Diverse targeted approaches to battle multidrug resistance in cancer; **Shankaraiah, N.**; Nekkanti, S.; Ommi, O.; Soukya P. S. L. *Curr. Med. Chem.* **2019**, *26*, 7059–7080
90. Design and Synthesis of Substituted Dihydropyrimidinone Derivatives as Cytotoxic and Tubulin Polymerization Inhibitors; Sana, S.; Tokala, R.; Bajaj, D. M.; Bokara, K. K.; Kiranmai, G.; Lakshmi, U. J.; Vadlamani, S.; Nagesh, N.; Talla, V.; **Shankaraiah, N.** *Bioorg. Chem.* **2019**, *93*, 103317
91. Transition metal free one-pot synthesis of substituted pyrroles by employing aza-Wittig reaction; Jadala, C.; Prasad, B.; Prashanti, A. V. G.; **Shankaraiah, N.**; Kamal, A. *RSC Advances* **2019**, *9*, 30659–30665
92. Iodine-mediated C-N and N-N bond formation: A facile one-pot synthetic approach to 1,2,3-triazoles under metal-free and azide-free conditions; Mani, G. S.; Kavitha, D.; Shaik, S. P.; **Shankaraiah, N.**; Kamal, A. *RSC Advances* **2019**, *9*, 27021–27031
93. Synthesis and *in vitro* cytotoxicity evaluation of β -carboline-combretastatin carboxamides as apoptosis inducing agents: DNA intercalation and topoisomerase-II inhibition; Jadala, C.; Satish, M.; Reddy, T. S.; Reddy, V. G.; Tokala, R.; Bhargava, S. K.; **Shankaraiah, N.**; Nagesh, N.; Kamal, A. *Bioorg. Med. Chem.* **2019**, *27*, 3285–3298
94. Ru(II)-catalyzed regioselective hydroxymethylation of β -carbolines and isoquinolines *via* C-H functionalization: Probing the mechanism by online ESI-MS/MS screening; Tokala, R.; Bora, D.; Sana, S.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N.** *J. Org. Chem.* **2019**, *84*, 5504–5513
95. Microwave-Assisted One-Pot [3+2] Cycloaddition of Azomethine Ylides and 3-Alkenyl Oxindoles: A Facile Approach to Pyrrolidine-Fused Bis-Spirooxindoles; Bhandari, S.; Sana, S.; Sridhar, B.; **Shankaraiah, N.** *ChemistrySelect* **2019**, *4*, 1727–1730
96. Synthesis of New 1,2,3-Triazolo-naphthalimide/phthalimide Conjugates *via* ‘Click’ Reaction: DNA Intercalation and Cytotoxic Studies; **Shankaraiah, N.**; Kumar, N. P.; Tokala, R.; Gayatri, B. S.; Talla, V.; Santos, L. S. *J. Braz. Chem. Soc.*, **2019**, *3*, 454–461
97. Design and synthesis of DNA-intercalative naphthalimide-benzothiazole/cinnamide derivatives: Cytotoxicity evaluation and topoisomerase II α inhibition; Rao, N. S.; Nagesh, N.; Nayak, V. L.; Sunkari, S.; Tokala, R.; **Shankaraiah, N.**; Kamal, A. *MedChemComm* **2019**, *10*, 72–79
98. Synthesis of substituted biphenyl methylene indolinones as apoptosis inducers and tubulin polymerization inhibitors; Donthiboina, K.; Pratibha, A.; Ramya, P. V. S.; Karri, S.; Srinivasulu, G.; Godugu, C.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Chem.* **2019**, *86*, 210–223

2018

99. Synthesis of enamino-2-oxindoles *via* conjugate addition between α -azido ketones and 3-alkenyl oxindoles: Cytotoxicity evaluation and apoptosis inducing studies; Kumar, N. P.; Sharma, P.; Vanjari, Y.; Sridhar, B.; Kamal, A.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.*, **2018**, *28*, 3564–3573
100. Synthesis and *in vitro* cytotoxicity evaluation of β -carboline-linked 2,4-thiazolidinedione hybrids: Potential DNA intercalation and apoptosis inducing studies; Tokala, R.; Thatikonda, S.; Sana, S.; Godugu, C.; **Shankaraiah, N.** *New J. Chem.* **2018**, *42*, 16226–16236
101. Molecular iodine-catalyzed oxidative C(Sp²)-C(alkyl) bond cleavage of aryl/heteroaryl alkyl ketones: An efficient strategy to access fused polyheterocycles; Mani, G. S.; Rao, A. V. S.; Tangella, Y.; Sunkari, S.; Sultana, F.; Namballa, H. K.; **Shankaraiah, N.**; Kamal, A. *New J. Chem.* **2018**, *42*, 15820–15829
102. Design, synthesis and cytotoxicity evaluation of β -carboline-linked oxindole hybrids: DNA intercalation and apoptosis inducing studies; Tokala, R.; Thatikonda, S.; Vanteddu, U. S.; Godugu, C.; **Shankaraiah, N.** *ChemMedChem* **2018**, *13*, 1909–1922
103. Synthesis of DNA interactive C3-*trans*-cinnamide linked β -carboline conjugates as potential cytotoxic and DNA topoisomerase I inhibitors; Sathish, M.; Dushantrao, S. C.; Nekkanti, S.; Tokala, R.; Thatikonda, S.; Tangella, Y.; Srinivas, G.; Cherukommu, S.; Krishna, N. H.; **Shankaraiah, N.**; Nagesh, N.; Kamal, A. *Bioorg. Med. Chem.* **2018**, *26*, 4916–4929
104. H₂O-Mediated epoxide ring-opening with concomitant C–S bond formation: A one-pot method to 3-hydroxy-oxindolino-dithiocarbamates as cytotoxic agents; Bhandari, S.; Katore, A. R.; Bajaj, D. M.; Sharma, P.; Talla, V.; **Shankaraiah, N.** *ChemistrySelect* **2018**, *3*, 6766–6774
105. Thiazolidinedione-vinyl benzimidazole derivatives as anticancer agents; **Shankaraiah, N.**; Sharma, P.; Reddy, T. S.; Kumar, N. P.; Senwar, K. R.; Bhargava, S. K. *Indian Patent (2018)*, Appl. No. 201641035739A
106. Synthesis of 1,2,4-triazolo-linked urea/thiourea conjugates as cytotoxic and apoptosis inducing agents; Tokala, R.; Bale, S.; Janrao, I. P.; Vennela, A.; Kumar, N. P.; Senwar, K. R.; Godugu, C.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.*, **2018**, *28*, 1919–1924

107. Microwave-assisted one-pot synthesis of new phenanthrene fused-tetrahydrodibenzo-acridinones as potential cytotoxic and apoptosis inducing agents; Kumar, N. P.; Sharma, P.; Reddy, T. S.; **Shankaraiah, N.**; Bhargava, S. K.; Kamal, A. *Eur. J. Med. Chem.* **2018**, *151*, 173–185
108. Sulfamic acid promoted one-pot synthesis of phenanthrene fused-dihydrodibenzo-quinolinones: Anticancer activity, tubulin polymerization inhibition and apoptosis inducing studies; Kumar, N. P.; Kumari, S. S.; Lakshmi, U. J.; Tokala, R.; **Shankaraiah, N.**; Kamal, A. *Bioorg. Med. Chem.* **2018**, *26*, 1996–2008
109. Iodine promoted dual oxidative C (SP³)-H amination of 2-methyl-3-aryl quinazolin-4(3H)-ones: A facile route to 1,4-diarylimidazo [1,5-a]quinazoline-5(4H)-ones; Donthiboina, K.; Krishna, N. H.; Shaik, S. P.; Nanubolu, J. B.; **Shankaraiah, N.**; Kamal, A. *Org. Biomol. Chem.*, **2018**, *16*, 1720–1727
110. Synthesis of podophyllotoxin linked β -carboline congeners as potential anticancer agents and DNA topoisomerase II inhibitors; Sathish, M.; Kavitha, B.; Nayak, V. L.; Tangella, Y.; Ajitha, A.; Nekkanti, S.; Alarifi, A.; **Shankaraiah, N.**; Nagesh, N.; Kamal, A. *Eur. J. Med. Chem.* **2018**, *144*, 557–571

2017

111. Polymer-supported (-)-8-phenylmenthyl auxiliary as an effective solid-phase chiral inductor in the addition of nucleophiles to *N*-acyliminium ions; Forero-Doria, O.; Santos, L. S.; Nachtigall, F. M.; **Shankaraiah, N.** *Comb. Chem. & High Throughput Screening*, **2017**, *20*, 696–702
112. Targeting DNA minor groove by hybrid molecules as anticancer agents; Nekkanti, S.; Tokala, R.; **Shankaraiah, N.** *Curr. Med. Chem.* **2017**, *24*, 2887–2907 (**Review Article**)
113. Synthesis of substituted phenanthrene-9-benzimidazole conjugates: Cytotoxicity evaluation and apoptosis inducing studies; Kumar, N. P.; Sharma, P.; Kumari, S. S.; Brahma, U.; Nekkanti, S.; **Shankaraiah, N.**; Kamal, A. *Eur. J. Med. Chem.* **2017**, *140*, 128–140
114. Synthesis of 1,2,3-triazolo-fused-tetrahydro- β -carboline derivatives via 1,3-dipolar cycloaddition reaction: Cytotoxicity evaluation and DNA-binding studies; Nekkanti, S.; Pooladanda, V.; Veldandi, M.; Tokala, R.; Godugu, C.; **Shankaraiah, N.** *Chemistry Select* **2017**, *2*, 7210–7221
115. Synthesis of different heterocycles-linked chalcone conjugates as cytotoxic agents and tubulin polymerization inhibitors; **Shankaraiah, N.**; Nekkanti, S.; Brahma, U. R.; Kumar, N. P.; Deshpande, N.; Prasanna, D.; Senwar, K. R.; Lakshmi, U. J. *Bioorg. Med. Chem.* **2017**, *25*, 4805–4816
116. Conventional and microwave-assisted synthesis of new 1*H*-benzimidazole-thiazolidinedione derivatives: A potential anticancer scaffold; Sharma, P.; Reddy, T. S.; Senwar, K. R.; Kumar, N. P.; Bhargava, S. K.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2017**, *138*, 234–245
117. Design and synthesis of 1,2,3-triazolo-phenanthrene hybrids as cytotoxic agents; Kumar, N. P.; Nekkanti, S.; Kumari, S. S.; Sharma, P.; **Shankaraiah, N.**; *Bioorg. Med. Chem. Lett.* **2017**, *27*, 2369–2376
118. Future of Drug Discovery; Ahmed Kamal, Shalini Nekkanti, **Nagula Shankaraiah**, Satish Manda. Drug Resistance in Bacteria, Fungi, Malaria, and Cancer; *Springer International Publishing*, **2017**, 609–629 (Book Chapter)
119. Benzylideneindolinones Useful as Anticancer Agents and Process of Preparing the Same; **Shankaraiah, N.**; Senwar, K. R.; Sharma, P.; Thummuri, D.; Naidu, V.G.M. **Indian Patent (2017)**, Appl. No. 7129/CHE/2015A
120. Synthesis of *N*-((1-phenyl-9*H*-pyrido[3,4-*b*]indol-3-yl)methyl)cinnamamides as potential anticancer agents; Kamal, A.; Sathish, M.; Nagesh, N.; **Shankaraiah, N.**; Dushantrao, S. C.; Krishna, N. H. **Indian Patent (2017)**, Appl. No. PCT/IN2017/050031 (WO2017/125952)
121. Effect of Sulfamic Acid on 1,3-Dipolar Cycloaddition Reaction: Mechanistic Studies and Synthesis of 4-Aryl-*NH*-1,2,3-triazoles from Nitroolefins; Sharma, P.; Kumar, N. P.; Senwar, K. R.; Forero-Doria, O.; Nachtigall, F. M.; Santos, L. S.; **Shankaraiah, N.** *J. Braz. Chem. Soc.*, **2017**, *28*, 589–597
122. Synthesis of 2,3,6,7-tetramethoxyphenanthren-9-amine: An efficient precursor to access new 4-aza-2,3-dihydropyridophenanthrenes as apoptosis inducing agents; Kumar, N. P.; Sharma, P.; Reddy, T. S.; Nekkanti, S.; **Shankaraiah, N.**; Lalita, G.; Sujanakumari, S.; Bhargava, S. K.; Naidu, V. G. M.; Kamal, A. *Eur. J. Med. Chem.* **2017**, *127*, 305–317

2016

123. A Recyclable and Water Soluble Copper(I)-Catalyst: One-pot Synthesis of 1,4-Disubstituted 1,2,3-Triazoles and their Biological Evaluation; Nekkanti, S.; Veeramani, K.; Kumari, S. S.; Shankaraiah, N. *RSC Adv.* **2016**, *6*, 103556–103566
124. Anticancer Agent and Process for the Preparation Thereof; Kamal, A.; Reddy, T. S.; Srinivasulu, V.; Subbarao, A. V.; **Shankaraiah, N.**; Vishnuvardhan, M. V. P. S. *US Patent* **2016**, US 9,522,907 B2
125. Silver(I)-catalysed domino alkyne-annulation/Diels–Alder reaction: a mild synthetic approach to tetrahydrospiro[carbazole-4,3'-indoline] scaffolds; Sharma, P.; Kumar, N. P.; Krishna, N. H.; Prasanna, D.; **Shankaraiah, N.** *Org. Chem. Front.*, **2016**, *3*, 1503–1508
126. Synthesis and biological evaluation of new benzimidazole-thiazolidinedione hybrids as potential cytotoxic and apoptosis inducing agents; Sharma, P.; Reddy, T. S.; Thummuri, D.; Senwar, K. R.; Naidu, V. G. M.; Bhargava, S. K.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2016**, *124*, 608–621

127. Design and synthesis of substituted 4'-*O*-alkylamino-tethered-benzylideneindolin-2-ones as potent anticancer and apoptosis inducing agents; Senwar, K. R.; Reddy, T. S.; Sharma, P.; Thummuri, D.; Bhargava, S. K.; Naidu, V.G.M.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.* **2016**, *26*, 4061–4069
128. New (*E*)-1-alkyl-1*H*-benzo[*d*]imidazol-2-yl)methylene]indolin-2-ones: Synthesis, *in vitro* cytotoxicity evaluation and apoptosis inducing studies; Sharma, P.; Thummuri, D.; Reddy, T. S.; Senwar, K. R.; Naidu, V. G. M.; Srinivasulu, G.; Bhargava, S. K.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2016**, *122*, 584–600
129. Microwave-assisted direct oxidative synthesis of α -ketoamides from aryl methyl ketones and amines by a water soluble Cu(I)-complex; Nekkanti, S.; Veeramani, K.; Kumar, N. P.; **Shankaraiah, N.** *Green Chem.*, **2016**, *18*, 3439–3447
130. Design, synthesis and apoptosis inducing novel (*Z*)-3-(3'-methoxy-4'-(2-amino-2-oxoethoxy)-benzylidene)indolin-2-ones as potential cytotoxic agents; Senwar, K. R.; Sharma, P.; Reddy, T. S.; Thummuri, D.; Naidu, V.G.M.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2016**, *118*, 34–46
131. Synthesis of Novel C3-Linked β -Carboline-Pyridine Derivatives Employing Khronke Reaction: DNA-binding Ability and Molecular Modeling Studies; **Shankaraiah, N.**; Sharma, P.; Pedapati, S.; Nekkanti, S.; Srinivasulu, V.; Kumar, N. P.; Kamal, A. *Lett. in Drug Design & Discovery* **2016**, *13*, 335–342
132. Silver-Catalyzed Domino Aza-Annulation/Diels-Alder Cyclization of 2-ene-yne Anilines: A Facile One-Pot Access to Carbazole, Dihydrocarbazole and Tetrahydrocarbazole Frameworks; Krishna, N. H.; Saraswati, A. P.; Sathish, M.; **Shankaraiah, N.**; Kamal, A. *Chem. Comm.* **2016**, *52*, 4581–4584
133. Iron-Mediated Concise One-Pot Synthesis of 3,5-Diarylpiperidines from β -Nitrostyrenes; Sathish, M.; Chetna, J.; Krishna, N. H.; **Shankaraiah, N.**; Alarifi, A.; Kamal, A. *J. Org. Chem.* **2016**, *81*, 2159–2165
134. TBAI/TBHP-Catalyzed [3+2]cycloaddition/oxidation/aromatization cascade and online ESI-MS mechanistic studies: Synthesis of pyrrolo[2,1-*a*]isoquinolines and indolizino[8,7-*b*]indoles; Nekkanti, S.; Kumar, N. P.; Sharma, P.; Kamal, A.; Nachtigall, F. M.; Forero-Doria, O.; Santos, L. S.; **Shankaraiah, N.** *RSC Adv.* **2016**, *6*, 2671–2677
135. Design and synthesis of C3-tethered 1,2,3-triazolo- β -carboline derivatives: Anticancer activity, DNA-binding ability, viscosity and molecular modeling studies; **Shankaraiah, N.**; Jadala, C.; Nekkanti, S.; Senwar, K. R.; Nagesh, N.; Shrivastava, S.; Naidu, V. G. M.; Sathish, M.; Kamal, A. *Bioorg. Chem.* **2016**, *64*, 42–50

2015

136. An efficient one-pot oxidative decarboxylation tandem aromatization of tetrahydro- β -carbolines by using N-chlorosuccinimide: Total synthesis of norharmane, harmane and eudistomins; Kamal, A.; Sathish, M.; Prasanthi, A. V. G.; Chetna, J.; Tangella, Y.; Srinivasulu, V.; **Shankaraiah, N.**; Alarifi, A. *RSC Adv.* **2015**, *5*, 90121–90126
137. H₂O-Mediated isatin *spiro*-epoxide ring opening with NaCN: Synthesis of novel 3-tetrazolylmethyl-3-hydroxy-oxindole hybrids and their anticancer evaluation; Sharma, P.; Senwar, K. R.; Jeengar, M. K.; Reddy, T. S.; Naidu, V. G. M.; Kamal, A.; **Shankaraiah, N.** *Eur. J. Med. Chem.* **2015**, *104*, 11–24
138. Novel podophyllotoxin-thiourea congeners as DNA topoisomerase-II inhibition and apoptosis inducing agents: Synthesis, anticancer activity and molecular modeling studies; **Shankaraiah, N.**; Kumar, N. P.; Amula, S. B.; Nekkanti, S.; Jeengar, M. K.; Naidu, V. G. M.; Reddy, T. S.; Kamal, A. *Bioorg. Med. Chem. Lett.* **2015**, *25*, 4239–4244
139. Design and synthesis of dithiocarbamate linked β -carboline derivatives: DNA topoisomerase II inhibition with DNA binding and apoptosis inducing ability; Kamal, A.; Sathish, M.; Nayak, V. L.; Srinivasulu, V.; Kavitha, B.; Tangella, Y.; Thummuri, D.; Bagul, C.; **Shankaraiah, N.**; Nagesh, N. *Bioorg. Med. Chem.* **2015**, *23*, 5511–5526
140. Spirooxindole-derived morpholine-fused-1,2,3-triazoles: Design, synthesis, cytotoxicity and apoptosis inducing studies; Senwar, K. R.; Sharma, P.; Reddy, T. S.; Jeengar, M. K.; Nayak, V. L.; Naidu, V. G. M.; Kamal, A. **Shankaraiah, N.** *Eur. J. Med. Chem.* **2015**, *102*, 413–424
141. Synthesis of 2-aryl-1,2,4-oxadiazolo-benzimidazoles: Tubulin polymerization inhibitors and apoptosis inducing agents; Kamal, A.; Reddy, T. S.; Vishnuvardhan, M. V. P. S.; Nimbarte, V. K.; Rao, A. V. S.; Srinivasulu, V.; **Shankaraiah, N.** *Bioorg. Med. Chem.* **2015**, *23*, 4608–4623
142. A one-pot 'click' reaction from spiro-epoxides catalyzed by Cu(I)-pyrrolidinyl-oxazole-carboxamide; Senwar, K. R.; Sharma, P.; Nekkanti, S.; Sathish, M.; Kamal, A.; Sridhar, B.; **Shankaraiah, N.** *New. J. Chem.* **2015**, *39*, 3973–3981
143. DNA-binding affinity and anticancer activity of β -carboline-chalcone conjugates as potential DNA intercalators: Molecular modelling and synthesis; **Shankaraiah, N.**; Siraj, K. P.; Nekkanti, S.; Srinivasulu, V.; Satish, M.; Sharma, P.; Senwar, K. R.; Vishnuvardhan, M. V. P. S.; Ramakrishna, S.; Kamal, A. *Bioorg. Chem.* **2015**, *59*, 130–139
144. Dithiocarbamate/Piperazine Bridged Pyrrolobenzodiazepines as DNA-minor Groove Binders: Synthesis, DNA-Binding Affinity and Cytotoxic Activity; Kamal, A.; Sreekanth, K.; **Shankaraiah, N.**; Sathish, M.; Nekkanti, S.; Srinivasulu, V. *Bioorg. Chem.* **2015**, *59*, 23–30

2014

145. Design, Synthesis and Anticancer Evaluation of Tetrahydro- β -Carboline-hydantoin Hybrids; **Shankaraiah, N.**; Nekkanti, S.; Chudasama, K. J.; Senwar, K. R.; Sharma, P.; Jeengar, M. K.; Naidu, V. G. M.; Srinivasulu, V.; Kamal, A. *Bioorg. Med. Chem. Lett.* **2014**, *24*, 5413–5417

146. Asymmetric Michael addition of ketones to nitroolefines by employing pyrrolidinyl-oxazole-carboxamides as new efficient organocatalysts; Kamal, A.; Satish, M.; Srinivasulu, V.; Nekkanti, S.; Chetna, J.; Shekar, K. C.; Tangella, Y.; **Shankaraiah, N.** *Org. Biomol. Chem.* **2014**, *12*, 8008–8018
147. Synthesis and biological evaluation of podophyllotoxin congeners as tubulin polymerization inhibitors; Kamal, A.; Reddy, T. S.; Polepalli, S.; Shalini, N.; Reddy, V. G.; Rao, A. V. S.; Jain, N.; **Shankaraiah, N.** *Bioorg. Med. Chem.* **2014**, *22*, 5466–5475
148. Design and synthesis of C3-pyrazole/chalcone linked β -carboline hybrids: Antitopoisomerase I, DNA interactive and apoptosis inducing anticancer agents; Kamal, A.; Srinivasulu, V.; Nayak, V. L.; Sathish, M.; **Shankaraiah, N.**; Bagul, C.; Reddy, N. V. S.; Rangaraj, N.; Nagesh, N. *ChemMedChem*. **2014**, *9*, 2084–2098
149. Synthesis and biological evaluation of 4-aza-2,3-dihydropyridophenanthrolines as tubulin polymerization inhibitors; Kamal, A.; Reddy, T. S.; Polepalli, S.; Paidakula, S.; Srinivasulu, V.; Reddy, V. G.; Jain, N.; **Shankaraiah, N.** *Bioorg. Med. Chem. Lett.* **2014**, *24*, 3356–3360
150. Recent Horizons in Drug Discovery and Development; Kamal, A.; **Shankaraiah, N.**; Nekkanti, S. *Curr. Trends Pharm. Sci.* **2014**, *1*, 5-10 (Review)
151. Pd-Catalyzed Aryl C-H Activation and Tandem *ortho*-Hydroxylation/Alkoxylation of 2-aryl benzimidazoles: Cytotoxicity and DNA-Binding Studies; Kamal, A.; Srinivasulu, V.; Sathish, M.; Tangella, Y.; Nayak, V. L.; Rao M. P. N.; **Shankaraiah, N.**; Nagesh, N. *Asian J. Org. Chem.* **2014**, *3*, 68–76

2013

152. Isolation, Synthesis and Biological Evaluation of Phenylpropanoids from the Rhizomes of *Alpania galangal*; Chourasiya, S. S.; Sreedhar, E.; Babu, K. S.; **Shankaraiah, N.**; V. Nayak, L. Ramakrishna, S.; Sravani, S.; Rao, M. V. B. *Nat. Prod. Comm.* **2013**, *8*, 1741–1746
153. Copper Oxide Nanoparticles Supported on Graphene Oxide-Catalyzed S-Arylation: An Efficient and Ligand-Free Synthesis of Aryl Sulfides; Kamal, A.; Srinivasulu, V.; Murty, J. N. S. R. C.; **Shankaraiah, N.**; Nagesh, N.; Reddy, T. S.; Rao, A. V. S. *Adv. Syn. Cat.* **2013**, *355*, 2297–2307
154. 4 β -[4'-(1-(Aryl)ureido)benzamide]podophyllotoxins as DNA topoisomerase I and II α inhibitors and apoptosis inducing agents; Kamal, A.; Suresh, P.; Ramaiah, M. J.; P.; Reddy, T. S.; Kapavarapu, R. K.; Imthiajali, S.; Reddy, T. L. N.; Pushpavalli, S. N. C. V. L.; **Shankaraiah, N.** Bhadra, M.-P. *Bioorg. Med. Chem.* **2013**, *21*, 5198–5208
155. AlCl₃-NaI Assisted cleavage of polymer-bound esters with concomitant amine coupling and azido-reductive cyclization: Synthesis of pyrrolobenzodiazepine derivatives; Kamal, A.; Prabhakar, S.; **Shankaraiah, N.**; Markandeya, N.; Srinivasulu, V.; Sathish, M. *Tetrahedron Lett.* **2013**, *54*, 4435–4441

2012

156. Water Mediated Heck and Ullmann Couplings by Supported Palladium Nanoparticles: Importance of Surface Polarity of the Carbon Spheres; Kamal, A.; Srinivasulu, V.; Seshadri, B. N.; Markandeya, N.; Alarifi, A.; **Shankaraiah, N.** *Green Chem.*, **2012**, *14*, 2513–2522
157. Enantioselective Total Synthesis of (S)-(+)-Lennoxamine Through Asymmetric Hydrogenation Mediated by L-Proline-tetrazole Ruthenium Catalyst; Mirabal-Gallardo, Y.; Piérola, J.; **Shankaraiah, N.**; Santos, L. S. *Tetrahedron Lett.* **2012**, *53*, 3672–3675

2011

158. A One-pot Azido Reductive Tandem Mono-*N*-Alkylation Employing Dialkylboron Triflates: Online ESI-MS Mechanistic Investigation; **Shankaraiah, N.**; Markandeya, N.; Srinivasulu, V.; Sreekanth, K.; Reddy, Ch. S.; Santos, L. S.; Kamal, A. *J. Org. Chem.* **2011**, *76*, 7017–7026
159. Synthesis and anticancer activity of new chalcone-pyrrolobenzodiazepine conjugates linked via 1,2,3-triazole ring side-armed alkane spacers; Kamal, A.; Prabhakar, S.; Ramaiah, M. J.; Reddy, P. V.; Reddy, Ch. R.; Mallareddy, A.; **Shankaraiah, N.**; Reddy, T. L. N.; Pushpavalli, S. N. C. V. L.; Bhadra, M.-P. *Eur. J. Med. Chem.* **2011**, *46*, 3820–3831
160. An efficient one-pot synthesis of benzothiazolo-4 β -anilino-podophyllotoxin congeners: DNA topoisomerase-II inhibition and anticancer activity; Kamal, A.; Kumar, B. A.; Suresh, P.; **Shankaraiah, N.**; Kumar, M. S. *Bioorg. Med. Chem. Lett.* **2011**, *21*, 350–353
161. Total syntheses of rutaecarpine and analogues by tandem azido reductive cyclization assisted by microwave irradiation; Kamal, A.; Reddy, M. K.; Reddy, T. S.; Santos, L. S.; **Shankaraiah, N.** *Synlett* **2011**, 61–64
162. Short Total Synthesis of (–)-Lupinine and (–)-Epiquinamide by Double Mitsunobu reactions; Santos, L. S.; Gallardo, Y.-M.; **Shankaraiah, N.**; Simirgiotis, M. J. *Synthesis* **2011**, 51–56

2010

163. Enantioselective synthesis of asymmetric β -carboline intermediates; Santos, L. S.; **Shankaraiah, N.**; Espinoza Moraga, M; PCT Int. Appl. **2010**, 38pp. CODEN: PIXXD2 WO 2010060228 A1 20100603 (*US_Patent*)
164. Asymmetric syntheses of piperidino-benzodiazepines through ‘cation-pool’ host/guest supramolecular approach and their DNA-binding studies; Markandeya, N.; **Shankaraiah, N.**; Reddy, Ch. S.; Santos, L. S.; Kamal, A. *Tetrahedron: Asymmetry* **2010**, *21*, 2625–2630
165. Synthesis of bis-1,2,3-triazolo-bridged unsymmetrical pyrrolobenzodiazepine trimers via ‘click’ chemistry and their DNA-binding studies; Kamal, A.; **Shankaraiah, N.**; Reddy, Ch. R.; Prabhakar, S.; Markandeya, N.; Srivastava, H. K.; Sastry, G. N. *Tetrahedron*, **2010**, *66*, 5498–5506

166. Synthesis and potential cytotoxic activity of new phenanthrylphenol-pyrrolobenzodiazepines; Kamal, A.; Sreekanth, K.; Kumar, P. P.; **Shankaraiah, N.**; Balakishan, G.; Ramaiah, M. J.; Pushpavalli, S.N.C.V.L.; Ray, P.; Bhadra, M. P. *Eur. J. Med. Chem.* **2010**, *45*, 2173–2181
167. Short synthesis of noscapine, bicuculline, egenine, capnoidine, and corytensine alkaloids through the addition of 1-siloxy-isobenzofurans to imines: Soriano, M. D. P. C.; **Shankaraiah, N.**; Santos, L. S. *Tetrahedron Lett.* **2010**, *51*, 1770–1773

2009

168. Enantioselective total synthesis of pyrroloquinolone as a potent PDE5 inhibitor; **Shankaraiah, N.**; Santos, L. S. *Tetrahedron Lett.* **2009**, *50*, 2700 (*Corrigendum*)
169. Novel Supramolecular Palladium Catalyst for the Asymmetric Reduction of Imines in Aqueous Media: Silva, W. A.; Rodrigues, M. T.; **Shankaraiah, N.**; Ferreira, R. B.; Andrade, C. K. Z.; Pilli, R. A.; Santos, L. S. *Org. Lett.* **2009**, *11*, 3238–3241
170. Chemoselective Aromatic Azido Reduction with Concomitant Aliphatic Azide using Al/Gd Triflates-NaI and ESI-MS Mechanistic Studies: Kamal, A.; Markandeya, N.; **Shankaraiah, N.**; Reddy, Ch. R.; Prabhaker, S.; Reddy, Ch. S. Eberlin, N. M.; Santos, L. S. *Chem. Eur. J.* **2009**, *15*, 7214–7224
171. Studies towards the Construction of Quaternary Indolizidines by [2,3]-Sigmatropic Rearrangement Co-catalyzed by Ionic Liquid: Duran-Lara, E. F.; **Shankaraiah, N.**; Geraldo, D.; Santos, L. S. *J. Braz. Chem. Soc.*, **2009**, *20*, 813–819
172. One-Pot Microwave-Assisted Selective Azido Reduction/Tandem Cyclization in Condensed and Solid-Phase with Nickel Boride: **Shankaraiah, N.**; Markandeya, N.; Moraga, M.-E.; Kamal, A.; Santos, L. S. *Synthesis* **2009**, 2163–2170
173. Enantioselective total synthesis of pyrroloquinolone as a potent PDE5 inhibitor: **Shankaraiah, N.**; Santos, L. S. *Tetrahedron Lett.* **2009**, *50*, 520–523

2008

174. Enantioselective total synthesis of ropivacaine and its analogues: **Shankaraiah, N.**; Pilli, R. A.; Santos, L. S. *Tetrahedron Lett.* **2008**, *49*, 5098–5100
175. Enantioselective total synthesis of (*S*)-(-)-quinolactacin B: **Shankaraiah, N.**; Silva, W. A.; Andrade, C. K. Z.; Santos, L. S. *Tetrahedron Lett.* **2008**, *49*, 4289–4291
176. An efficient selective reduction of aromatic azides to amines employing BF₃.OEt₂/NaI: Synthesis of pyrrolobenzodiazepines: Kamal, A.; **Shankaraiah, N.**; Markandeya, N.; Reddy, Ch. S. *Synlett* **2008**, 1297–1300
177. Synthesis of triazolo C8–C8/C2–C8-linked pyrrolobenzodiazepine dimers by employing “click” chemistry and their DNA-binding affinity: Kamal, A.; Prabhakar, S.; **Shankaraiah, N.**; Reddy, Ch. R.; Reddy, P. V. *Tetrahedron Lett.* **2008**, *49*, 3620–3624
178. Solid-phase synthesis of new pyrrolobenzodiazepine-chalcone conjugates: DNA-binding affinity and anticancer activity: Kamal, A.; **Shankaraiah, N.**; Prabhakar, S.; Reddy, Ch. R.; Markandeya, N.; Reddy, K. L.; Devaiah, V. *Bioorg. Med. Chem. Lett.* **2008**, *18*, 2434–2439
179. A facile intramolecular azido/amido reductive cyclization approach: synthesis of pyrrolobenzodiazepines and their dimmers: Kamal, A.; **Shankaraiah, N.**; Markandeya, N.; Reddy, K. L.; Reddy, Ch. S. *Tetrahedron Lett.* **2008**, *49*, 1465–1468
180. Synthesis of 1,2,3-triazole-linked pyrrolobenzodiazepine conjugates employing ‘click’ chemistry: DNA-binding affinity and anticancer activity: Kamal, A.; **Shankaraiah, N.**; Devaiah, V.; Reddy, K. L.; Juvekar, A.; Sen, S.; Kurian, N.; Zingde, S. *Bioorg. Med. Chem. Lett.* **2008**, *18*, 1468–1473

2007

181. Design, synthesis and biological activity of A-C8/C-C2-Linked 6-chloropurine-pyrrolobenzodiazepine hybrids as anticancer agents: Kamal, A.; **Shankaraiah, N.**; Reddy, K. L.; Devaiah, V.; Juvekar, A.; Sen, S. *Let. in Drug. Design & Discovery* **2007**, *4*, 596–604
182. Efficient solid-phase synthesis of a library of imidazo[1,2-*a*]pyridine-8-carboxamides: Kamal, A.; Devaiah, V.; Reddy, K. L.; Rajendar, Shetti, R. V. C. R. N. C.; **Shankaraiah, N.** *J. Comb. Chem.* **2007**, *9*, 267–274
183. Solid-phase synthesis of a library of pyrrolo[2,1-*c*][1,4]benzodiazepine-5,11-diones with potential antitubercular activity: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.**; Reddy, G. S. K.; Raghavan, S. *J. Comb. Chem.* **2007**, *9*, 29–42

2006

184. Recent advances in the solid-phase combinatorial synthetic strategies for the quinoxaline, quinazoline and benzimidazole based privileged structures: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.**; Reddy, D. R. S. *Mini-Rev. Med. Chem.* **2006**, *6*, 53–68 (*Review*)
185. Recent advances in the solid-phase combinatorial synthetic strategies for the benzodiazepine based privileged structures: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.**; Rao, M. V. *Mini-Rev. Med. Chem.* **2006**, *6*, 69–87 (*Review*)
186. Solid-phase synthesis of fused [2,1-*b*]quinazolinone alkaloids: Kamal, A.; **Shankaraiah, N.**; Devaiah, V.; Reddy, K. L. *Tetrahedron Lett.* **2006**, *47*, 9025–9028
187. A polymer-assisted solution-phase strategy for the synthesis of fused [2,1-*b*]quinazolinones and the preparation of optically active vasicinone: Kamal, A.; Devaiah, V.; **Shankaraiah, N.**; Reddy, K. L. *Synlett* **2006**, 2609–2612

188. An efficient solid-phase synthesis of biologically important DNA-interactive pyrrolo[2,1-c][1,4]benzodiazepine dimers (DSB-120) and their C2-fluorinated analogues: Kamal, A.; **Shankaraiah, N.**; Devaiah, V.; Reddy, K. L. *Tetrahedron Lett.* **2006**, *47*, 6553–6556
189. Selective reduction of aromatic azides in solution/solid-phase and resin cleavage by employing BF₃.OEt₂/EtSH. Preparation of DC-81: Kamal, A.; **Shankaraiah, N.**; Reddy, K. L.; Devaiah, V. *Tetrahedron Lett.* **2006**, *47*, 4253–4257
190. Conversion of amines to imines employing polymer-supported sulfoxide (PSS) and polymer-supported perruthenate (PSP): Synthesis of pyrrolo[2,1-c][1,4]benzodiazepines: Kamal, A.; Devaiah, V.; Reddy, K. L.; **Shankaraiah, N.** *Adv. Syn. Cat.* **2006**, *348*, 249–254

2005

191. Synthesis and biological activity of C-8 fluoroaryl substituted pyrimidine linked-pyrrolobenzodiazepine conjugates: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.**; Kumar, M. S.; Reddy, G. S. K. *Lett. in Drug Design & Discovery* **2005**, *2*, 55–61

2004

192. A new approach for the solid-phase synthesis of pyrrolo[2,1-c][1,4]benzodiazepines involving reductive cleavage: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.**; Reddy, Y. N. *Tetrahedron Lett.* **2004**, *45*, 7667–7669
193. Synthesis of DNA-Interactive pyrrolo[2,1-c][1,4]benzodiazepines by employing polymer-supported reagents: Preparation of DC-81: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.** *Synlett* **2004**, 2533–2536
194. Facile and efficient solid-phase synthesis of DNA-interactive pyrrolo[2,1-c][1,4]benzodiazepines: Kamal, A.; Reddy, K. L.; Devaiah, V.; **Shankaraiah, N.** *Synlett* **2004**, 1841–18430.

INVITED TALKS

- Unveiling the Potential of Molecular Hybridization: DNA-targeted Cytotoxic Agents in Cancer Drug Discovery; at “7th Nirma Institute of Pharmacy International Conference (NIPiCON 2024)” organized by Pharmacy Department, Nirma University, during 7-9th Feb. **2024**
- The Role of Spectroscopy in Structure Elucidation; two days National Seminar & Workshop on “Advances in Chemical Sciences” organized by SB College of Science, Gulbarga, in association with Royal Society of Chemistry, Deccan Section, Hyderabad, during 28th - 29th Nov. **2023**
- DNA-targeted Anticancer Agents in Drug Discovery and Development; three days Zonal centre program on “Computer Aided Drug Design and Discovery” organizing by the Department of Chemistry, St Ann’s College (Autonomous), Mehdiapatnam, Hyderabad, in association with Make Intern, E-Cell - IIT Kharagpur, during 23rd - 25th Nov. **2023**
- DNA-targeting Anticancer Agents in Drug Discovery: Molecular Hybridization Approach; A Faculty Development Program on “Research Challenges in Formulation Development and Contemporary Analytical Techniques in Drug Discovery” organized by Annamacharya College of Pharmacy, Rajmpet, AP, from 03-07th October **2023**
- DNA-targeted Anticancer Agents in Drug Discovery: Molecular Hybridization Approach; Conference/workshop on “New Vistas in Drug Design & Discovery-2023 organized by School of Life Sciences (SLS), University of Hyderabad (UoH) from 4th - 6th October, **2023**
- Molecular hybridization: A concept paving way in development of DNA-interactive anticancer agents in drug discovery; at Department of Chemistry, University of Chile, Santiago, Chile on 29th September **2023**
- DNA-targeting Cytotoxic Agents in Drug Discovery: Molecular Hybridization Approach; One-day National Conference organized by Centro de Investigacion de Estudios Avanzados del Maule (CIEAM) of the Universidad Católica del Maule on 27th September **2023**
- C-H Activation/Annulation: A Key to Sustainable Chemistry; Department of Chemistry, University of Talca, Chile, on 26th September **2023**
- DNA-targeting Cytotoxic Agents in Drug Discovery: Molecular Hybridization Approach; A Faculty Development Program on “Recent Advances, Trends and Challenges in Pharmaceutical Nanotechnology – Research to Revenue” organized by Seven Hills College of Pharmacy (Autonomous), Tirupati in association with ISTE, AP Section from 20th to 24th September **2023**
- Click Chemistry: An Enabling Tool in Cancer Drug Discovery; two days National Seminar on “Current Trends and Future Challenges in Chemical and Allied Sciences for Research (CTFCCASR-2023)” is organized by the Department of Chemistry, Government Degree College (A), SIDDIPET, Telangana Sate, India during 4th - 5th August **2023**
- Invited as Chief Guest on the occasion of National Science Day “Emerging Trends in Medical Devices Regulations-2023”, organized by Department Biomedical Engineering, Osmania University, Hyderabad on 25th February **2023**.
- Sir P. C. Ray Memorial Lecture on “Pharmaceutical Landscape: Present Scenario and Opportunities” on “Inspirational Science Lecture Series (ISLS-2023)” on the occasion of National Science Day 2023 on 15-02-2023 organized by Department of Chemistry, SR&BGNR, Govt. Arts & Science College (Autonomous), Khammam, TS, India on 15th Feb. **2023**.
- Invited as Chief Guest for Graduation Day Celebrations of 2018-2022 batch students, MNR College of Pharmacy, Sangareddy, TS, on 3rd December **2022**
- DNA-targeting Cytotoxic Agents in Drug Discovery: Molecular Hybridization Approach; two days “National Seminar on “Bioorganic & Medicinal Chemistry (BMC-2022)” organized by the Department of Chemistry, Telangana University Nizamabad-503322, TS, India, during 29-30th November **2022**
- NMR spectroscopy & its applications; an online guest talk organized by Department of Chemistry, Dnyanprassarak Mandal's College and Research Center, Assagao, Goa on 14th November **2022**

16. The Role of Chemistry in Cancer Drug Discovery; A guest talk organized on the occasion of "International Science Day" by TSWRL College and PG Centre for Women, LB Nagar, Hyderabad on 10th November **2022**
17. NMR & its applications; one-day seminar on "Advancement of Chemical Sciences" jointly organizing by the Department of Chemistry & Forensic Science, RBVRR Women's College, Hyderabad and Royal Society of Chemistry, London (UK)-local section Deccan on 10th November **2022**
18. Click Chemistry: An Enabling Tool in Synthesis of New Chemical Entities; Two Days National Conference on "Emerging Trends and Innovations in Pharmaceutical Sciences (ETIPS - 2022)" organized by University College of Pharmaceutical Sciences, Palamuru University in association with Indian Pharmaceutical Association, Bandameedipally, Mahabubnagar, during 13th & 14th October, **2022**.
19. NMR Spectroscopy: An Enabling Technique in Structure Elucidation; Two days National Seminar on "Recent Advances in Chemical and Environmental Sciences (RACES -2022)" organized by Department of Chemistry, Kakatiya Government College, Hanumakonda, Warangal, TS on 21st & 22nd September **2022**.
20. DNA-targeting Anticancer Agents in Drug Discovery: Molecular Hybridization Approach; Three Days "International Conference on Chemistry and Allied Sciences (ICCAS-2022)" organized by Department of Chemistry, Pingle Government College for Women, (Autonomous), Hanamkonda during 25th to 27th August **2022**
21. Molecular Hybridization: An Accelerating Approach in the Design of DNA-targeting Anticancer Agents in Drug Discovery; Two Day National Conference on "Current Advances in Pharmaceutical Research and Innovations in Pharmaceutical Industry" organizing by the College of Pharmaceutical Sciences and Research, Krishna University, Machilipatnam, Andhra Pradesh on 7th & 8th July **2022**.
22. Molecular Hybridization Approach: Accelerating the Design of New Anticancer Agents in Drug Discovery; Two Day National Seminar on "Emerging Trends in Chemical & Materials Science Research" Organized by Department of Chemistry, SR&BGNR, Govt. Arts & Science College (Autonomous), Khammam, TS, India on 25th & 26th Feb. **2022**.
23. Molecular Hybridization: A Concept Paving Way in Development of Anticancer Agents; Delivered expert talk in the Department of Pharmacy, Nirma University on 23rd Feb. **2022**.
24. Molecular Hybridization: An Enabling Approach in Cancer Drug Discovery; Two Days Virtual International Conference on Emerging Trends in Medicinal Chemistry (ETMC 2021) organized by S. V. NIT – Surat on 18th – 19th March **2021**
25. The Role of NMR Spectroscopy in Structure Elucidation of small Molecules; AICTE-sponsored Six Days Short Term Training Programme (STTP) on Green Chemistry and advanced analytical techniques of Pharmaceuticals and product development aspects as per the regulatory requirements organized by Department of Pharmaceutical Analysis & Quality Assurance, RIPER Ananthapur on Feb 8th – 13th **2021**
26. NMR and IR Spectroscopy; A one-day National Webinar on "Spectroscopy and their Applications in Structure Elucidation of Small Molecules" organized by Department of Chemistry, Dyanaprassarak Mandalal's College & Research Centre Assagao, Bardez-Gova on 7th November 2020.
27. NMR and IR Spectroscopy Applications; Two Days Online National Workshop on "Spectral Analysis of Organic Molecules" organized by NIPER-Hyderabad on 16th & 17th July **2020**.
28. NMR and its Applications in Structure Elucidation of Small Molecules; A National Level Colloquium on "Advancements in Pharmaceutical Chemistry and Drug Discovery, organized by Annamacharya College of Pharmacy, on 25-09-**2020**.
29. The Role of NMR Spectroscopy in Structure Elucidation; Webinar organized by Mahathi College of Pharmacy on 26-07-**2020**.
30. Molecular Hybridization: An Enabling Approach in the Design of NCEs in Cancer Drug Discovery; Two Day National Conference on "Frontiers in Medicinal Chemistry and Nanotechnology" organized by the Department of Chemistry, Dnyanaprassarak Mandal's College and Research Centre, Assagao, Bardez - Goa in association with the Directorate of Higher Education (DHE), from 14th – 15th Feb. **2020**.
31. Combinatorial Approach: Design and Synthesis of Bioactive NCEs in Drug Discovery; Pharmacy Teachers Training Program on "Conceptualization to success in drug discovery and development: Spectacles to teaching and learning" organized by Bharati Vidyapeeth's, Poona College of Pharmacy, Erandwane, Pune, from 16th November **2019**
32. DNA Targeted Anticancer Agents in Drug Discovery and Development: Molecular Hybridization Approach; Raghavendra Institute of Pharmaceutical Education and Research (RIPER), Ananthpur, AP on 11th November **2019**
33. Spectral Analysis; Workshop on "Modern Analytical Techniques in Organic Chemistry" Organized by Royal Society of Chemistry (London-UK) Local Section Deccan (RSC-LSD) & St. Ann's College for Women, Mehdiapatnam, Hyderabad on 2nd November **2019**
34. Molecular Hybridization: An Enabling Approach in the Design of NCEs in Drug Discovery; Two Day National Seminar on Nature Inspired Initiatives in Chemical Sciences (NIICS-2019) organized by Department of Chemistry South Campus, Telangana University, Bikhnur, 5th November, **2019**
35. Spectral analysis and its applications; Workshop on "Modern Analytical Techniques in Drug Development" Organized by Royal Society of Chemistry (London-UK)-India Deccan Local Section (RSC-IDLS) & Raghavendra Institute of Pharmaceutical Education and Research (RIPER), Ananthpur, AP on 26th July **2019**
36. Development of Alternative Sustainable Synthetic Strategies in Pharmaceutical Sciences - Green Chemistry; DBT Sponsored Teacher/Researcher Short-Term Training Course (STTC) on "Pharma Innovations for Better Perspective in Health Care (PIBPH-19)" Organized by Malla Reddy College of Pharmacy, Hyderabad from June 10th to 22nd, **2019**

37. Greener Synthetic Strategies: Frontiers and Challenges; Two Day National Seminar on “Current Issues and Challenges in Chemical Research (CICCR-2019), organized by Department of Chemistry, University Arts & Science College (*Autonomous*), Kakatiya University, Warangal, Telangana State, on 18th & 19th March **2019**.
38. Spectroscopy and their Applications; A state level one-day workshop on “Quantitative Analysis of Compounds & Analysis of Spectral Data of Organic Compounds” organized by Department of Chemistry, Government Degree and P.G. College, Gujwel, Siddipet (District), Telangana State, on 2nd March **2019**.
39. Combinatorial Chemistry: An Enabling Approach in Drug Discovery; Continuing Education Program on “Refinement of Teaching Methodologies for Effective Outcome” Organized by V.V. Institute of Pharmaceutical Sciences, Sponsored by Pharmacy Council of India (PCI), Gudlavalleru, Krishna District, AP, India from 6th to 8th Feb. **2019**
40. Spectroscopy and Its Applications in Drug Discovery; Faculty Development Program Organized by UGC, Human Resources Development Centre, Maulana Azad National Urdu University, Gachibowli, Hyderabad, Telangana on 18th December **2018**.
41. NMR and its applications; “Two Day National Symposium on “Challenges and Opportunities in Chemistry” Organized by the Bapatla College of Arts & Sciences, Bapatla, AP, in association with Royal Society of Chemistry, London on November 29th - 30th, **2018**
42. 1,2,3-Triazole: A versatile bridging motif in bioactive molecules; Faculty Development Program on Chemistry organized by Department of Integrated Chemistry during 18th to 23rd June **2018**, Palamuru University, Mahabubnagar, TS, India
43. Enabling greener strategies: A tool for the synthesis of bioactive molecules in drug discovery; International Conference on Advanced Functional Materials (ICAFM-2017) during 18th – 20th December, **2017** organized by Departments of Chemistry & Physics at Rajiv Gandhi University of Knowledge Technologies (RGUKT), Basar, TS, India
44. “NMR & It’s Applications”; National Seminar on “ROLE OF CHEMISTRY-APPLICATIONS” on the occasion of National Science Day on 28th February **2017** jointly organized by Royal Society of Chemistry (London) – India Deccan Local Section and Adarsh Degree & PG College, Palamuru University. Mahabubnagar, TS.
45. NMR Spectroscopy: A Versatile Tool for Structure Elucidation; National Seminar on “Emerging Trends and Challenges in Chemical Research” organized by Department of Chemistry, Govt. Degree & PG College, Bhadrachalam, Khammam (District), Telangana State, India (In collaboration with CSIR-IICT & RSC – London India Deccan Local Section) on 18th & 19th December **2015**.
46. NMR Spectroscopy in Pharmaceutical Analysis; Seminar Cum Workshop on “Role of Modern Instrumental Techniques in Drug Discovery and Development” organized by Royal Society of Chemistry (RSC-IDLS) in association with Raghavendra Institute of Pharmaceutical Education & Research (RIPER), Ananthapur, AP, India on 10th -11th October, **2015**.
47. DNA-Targeted Anticancer Agents: Molecular Design and their Synthesis; Drug Discovery India – 2014 on 11th & 12th September **2014** organized by SelectBiosciences Pvt. Ltd, India at Ramada Hotel Powai, Mumbai, India.
48. Mass Spectrometry-A Modern Analytical Tool: Mechanistic Investigations of Organic Reactions by ESI-MS; Refresher Course for 3 weeks on “Innovation Methods in Green and Applied Chemistry” on 9th August **2014** organized by JNTUH-UGC ASC, Hyderabad, India
49. Overview on UV-Visible & IR Spectroscopy and their Applications in Pharmaceutical Sciences; Refresher Course for 3 weeks on “Innovation Methods in Green and Applied Chemistry” on 11th August **2014** organized by JNTUH-UGC ASC, Hyderabad, India
50. NMR Spectral Workshop; Refresher Course for 3 weeks on “Innovation Methods in Green and Applied Chemistry” on 13th August **2014** organized by JNTUH-UGC ASC, Hyderabad, India
51. Design and Synthesis of DNA-Targeted Novel Anticancer Agents; Medicinal Chemistry Conference (MedChem-2013) on 25th & 26th October **2013** organized by Department of Chemistry at Indian Institute of Chemical Technology Madras (IIT-Madras), Chennai, India.
52. Novel Enabling Synthetic Strategies: Sustainable Technologies in Academic Drug Discovery Research; Drug Discovery India – 2013 on 27th & 28th September **2013** organized by SelectBiosciences Pvt. Ltd, India at Sheraton Hotel, Bangalore, India.
53. Combinatorial Chemistry and ‘Click’ Chemistry in the Field of Medicinal Chemistry; National Workshop on “Recent Trends in Drug Design” on May 8th to 10th, **2013** organized by JNTU, Hyderabad, India.
54. Use of Modern Chemical Tools: Emerging in the Investigation of Chemical Research; Orientation Course on Satellite Data Applications in Weather and Climate Change on April 28th **2013** conducted by JNTU, Hyderabad, India.

