CURRICULUM VITAE

Dr. Narsimha Reddy Penthala
Research Instructor
College of Pharmacy,
University of Arkansas for Medical Sciences,
Little Rock,-72205
Arkansas -USA
Phone: ++1-408-332-4461 (Mobile)

Address for Correspondence:
Dr. Narsimha Reddy Penthala
1300 Westhampton drive
Little Rock-72211
Arkansas
USA
E-mail : penthala@gmail.com

OBJECTIVES:
Seeking a challenging and rewarding career in a multidisciplinary research environment in the area of synthetic organic chemistry to contribute the best in the development of bioactive heterocyclic compounds by adopting modern techniques.

RESEARCH EXPERIENCE:
Research Instructor (September-2014-Present): At University of Arkansas for Medical Sciences (UAMS), College of Pharmacy, Little Rock, Arkansas, USA; currently working on the synthesis of novel anti-bacterial agents, and bio-film inhibitors, Melampomagnolide B derivatives as anti-leukemic agents and Nucleophosmin 1(NPM1) inhibitors.
Research Associate: (Aug-2012 to August-2014): At University of Arkansas for Medical Sciences (UAMS), College of Pharmacy, Little Rock, Arkansas, USA, under the supervision of Professor Peter. A. Crooks; synthesized novel radiosensitizing agents, Parthenolide, Melampomagnolide B and Micheliolide anti-leukemic agents.
Post Doc Fellow: (July-2011 to July-2012): At University of Arkansas for Medical Sciences (UAMS), College of Pharmacy, Little Rock, Arkansas, USA, under the supervision of Professor Peter. A. Crooks; Synthesized novel radio sensitizing agents.
Post Doc Scholar: (Nov 2007 to June-2011): At University of Kentucky, College of Pharmacy, Lexington, Kentucky, USA, under the supervision of Professor Peter. A. Crooks currently working on the synthesis of radio sensitizing agents (Indolyl Hydantoins and Indolyl creatinines, Isatin creatinines, Isatin thiazolidines, Ninhydrin creatinines and Ninhydrin thiazolidines, Pyrrolidine analogs of Lobelane analogs.
Scientist (June 2004-Oct 2007): At Chemical Research Division of Aurobindo Pharma Limited Research Centre, Hyderabad, AP, India, worked on Ceftibuten (anti-bacterial), Tamsulosin (Benian Prostatic Hypertrophy) Terazosin (Anti-hypertensive), Tadalafil (Erectile dysfunction), Raloxifene. HCl (anti-Osteoporosis), Potassium Clavulanate (A β-lactamase inhibitor), Ceftiofur.HCl (anti-bacterial), Desloratadine (an antihistamine) projects and currently working on Modafinil (Psycho stimulant) project for the process development. Successfully developed the process for the preparation of Ceftibuten, Tamsulosin.HCl, Terazosin.HCl, Tadalafil and Raloxifene.HCl, Potassium Clavulanate, Ceftiofur.HCl, Desloratadine. In addition to the above work, I have been working with Dr.(Ms.) B. Rajitha, Asst. Professor at Department of Chemistry, National Institute of Technology, Warangal, AP, India in Synthetic Organic Chemistry i.e., Synthesis of Porphyrins, Benzofurans, Coumarins, Quinolines and Isoquinolines, Benzothiazoles, Chromenes, β-Enamino esters and ketones, α-amino phosphonates, 3,4-dihydropyrimidones, bis(indolyl)methanes, thioacetalysation of carbonyl compounds, tetrahydropyranylation of alcohols, phenols and their deprotection etc., by using novel catalysts and by adopting modern techniques like Microwave Irradiation and Phase Transfer Catalysis.

PROFICIENCY / SKILLS
@<u>Organic Synthesis:</u>

- Design and synthesis of novel molecules of biological interest and structure elucidation of organic molecules by analytical and spectroscopic studies (UV, FTIR, Mass and ^{1}H NMR, GC MS).
- Product recovery, solvent extraction, distillation, and crystallization.
- Developing non-infringing, operationally viable, safe, eco-friendly and cost efficient manufacturing processes for pharmaceutical drugs and intermediates.
- Evaluating impurity profile of drugs/intermediates and developing of control measures.
- Coordinating with Chemical Production, Environment, Health & Safety and Quality functions in technology transfer, trouble shooting, and validation and commercialization activities.

@Instrumentation: Experience in operating the following instruments:

- FT-NMR (500MHz, 400 MHz & 300 MHz),
- GC-MS; FT-IR,
- HPLC (Agilent 1200 series), Preparative HPLC
- UV-VIS Spectrophotometer and Digital Polarimeter

AWARDS :

- Received the award from **Elsevier publishers** for the most cited article (2005-2008), "Sulfamic acid: a novel and efficient catalyst for the synthesis of aryl-14 *H*-dibenzo[*a.j*]xanthenes in conventional heating and microwave irradiation". *Tetrahedron Letters*, 46 (50) **2005**, 8691-8693.

COMPUTER PROFICIENCY:

Good computer proficiency in

- Sci Finder search, MS Office
- Chem. Draw, ISIS Draw (2.6), Chem. Sketch and Chem. Draw ultra, ADMETOX,

EDUCATION:

Course	Main Subjects	Division	University	Year
M. Sc.	Chemistry	First	Kakathiya University, Warangal, India	1995-97
Ph. D.	***Title:*** "Synthesis and biological activity of new heteroaryl chromen-2-ones, chromen-4-ones and porphyrins" *Research Supervisor:* Dr. (Ms.) B. Rajitha, Professor		National Institute of Technology, Warangal, A.P., India	2000-2004

TEACHING EXPERIENCE:

Job Title	Dates Held	Organization	Responsibilities
Current:			
1. Instructor	2012-prsent	At UAMS, Little Rock, AR, USA	To teach cGMP course
2. Lecturer in Chemistry	01/06/1997-01/07/2000	Kakatiya Mahila Junior & Degree College, Warangal, A.P., India	To teach chemistry theory and practical classes for Intermediate (10+2 level), B. Sc (10+2+3 level) students.

REVIEWER: Reviewed the articles for the following international journals.

1. Bio-Organic and Medicinal Chemistry Letters
2. Journal of Heterocyclic Chemistry
2. Synthesis
3. Advanced Synthesis and Catalysis
4. Journal of Advanced Research
5. SciPharm
6. Therapeutics and Clinical Risk Management
7. Journal of Fluorine Chemistry

ASSOCIATION WITH PROFESSIONAL ORGANIZATIONS:

1. American Chemical Society-Member-(Since-2014)
2. American Association of pharmaceutical Scientists (AAPS)-Member (Since 2008).
3. Planning committee chair AAPS-UAMS student chapter (2012-2013).
4. Sigma Xi, The Scientific Research Society- Member (2010)

REFERENCES: On request.

Awarded Grants:

1. UAMS pepper center pilot project: "Screening for Novel Drugs to Prevent and Treat Age-Related Sarcopenia." Grant Number: 211/G1-35788-05-09.

PUBLICATIONS:

Patents : **22**
Publications* : *115
Poster Presentations* : *36

LIST OF PATENTS:

1. A. G. Kamat, **Narsimha Reddy Penthala**, Handa and M. Shivakumaran "An improved process for preparing tamsulosin hydrochloride", *Patent No:* WO 2007/031823 A1.
2. **Narsimha Reddy Penthala**, A.G. Kamat, Handa and M. Shivakumaran "Process for the preparation of Terazosin Hydrochloride", *Patent No:* US 2007/0161791 A1.
3. Anand Gopalkrishna Kamat, **Narsimha Reddy Penthala,** Dhanraj T. S. S. Sundram, Ramesh Dandala, Meenakshisunderam Sivakumaran. "An improved process for the preparation of mixture of crystalline desloratadine form I and form II". Application No: 2378/CHE/2007 A, International Classification: C07D 403/06.
4. **Narsimha Reddy Penthala**, A.G. Kamat, Handa and M. Shivakumaran**,** "process for preparing tamsulosin hydrochloride", *Patent No: US* 8273918.
5. Y. Thirupathi Reddy, **Narsimha Reddy Penthala**, M. Nikhil Reddy, B. Rajitha, Peter. A. Crooks. Process development for the synthesis of bupropion hydrochloride and hydroxy bupropion *via* efficient bromination using *N*-bromosuccinimide. US Provisional Patent Application No. 61/198,802.
6. Y. Thirupathi Reddy, **Narsimha Reddy Penthala**, K. Rajashekar, Michael L. Freeman, Peter. A. Crooks. Use of substituted 5-((*N*-benzyl-1*H*-indol-3-yl)methylene)pyrimidine-2,4,6(1*H*,3*H*,5*H*)-triones and (*Z*)-5-((*N*-benzyl-1H-indol-3-yl)methylene) imidazolidine-2,4-diones and their related compounds as radiation sensitizing agents with synergistic anti-angiogenic properties. US Patent No. US 2010/0081678A1.
7. **Narsimha Reddy Penthala**, Peter A Crooks, "Indole compounds for use in treating inflammation and cancer". PCT Int. Appl. (2014), WO 2014105957 A1 20140703.
8. **Narsimha Reddy Penthala**, Peter A Crooks, Macnicol Angus, Venumadhav Janganati, "Parthenolide compounds and their uses as anticancer and progesterone-dependent oocyte maturation modulators utilizing a bioassay to screen for compounds that modify cell cycle progression" U.S. Provisional Application Serial No.: 61/814,020.
9. **Narsimha Reddy Penthala**, Vijayakumar N. Sonar Peter A. Crooks, "Preparation of combretastatin analogs as anticancer agents". PCT Int. Appl. (2014), WO 2014172363 A2 20141023.
10. Macnicol Angus, Narsimha Reddy Penthala, Peter A Crooks, Venumadhav Janganati, Amphibian oocyte or embryo bioassay. U.S. Provisional Application Serial No.: 61/866,872.
11. **Penthala, Narsimha Reddy**; Crooks, Peter; Eoff, Robert; Coggins, Grace; Maddukuri, Leena; Hartman, Jessica H.; Jang, Dae Song; Basnakian, Alexei; Aarattuthodiyil, Suja; Raney, Kevin . Polymerase, endonuclease, and helicase inhibitors and methods of using thereof. PCT Int. Appl. (2014), WO 2014176351 A1 20141030.
12. **Narsima R. Penthala**, Jang Dae Song, Alexei G. Basnakian, Peter A. Crooks, *N*-Alkyl and *N*-aroyl-1*H*-indol-3-yl)methylene)-barbiturates and *N*-alkyl and *N*-aroyl-1*H*-indol-3-yl)methylene)-2-thiobarbiturates as Endonuclease G (EndoG) inhibitors U.S. Provisional Application Serial No.: 61/901,715.
13. Venumadhav Janganati, Peter A. Crooks, **Narsimha Reddy Penthala**, Craig Jordan, Shobanbabu Bommagani, Jessica Ponder. Preparation of melampomagnolide B dimers useful for treating cancer, PCT Int. Appl. (2016), WO 2016090166 A1 20160609.
14. Venumadhav Janganati, **Narsimha Reddy Penthala,** Peter A. Crooks, Craig Jordan. Preparation of melampomagnolide B derivatives as anticancer agents, U.S. Pat. Appl. Publ. (2015), US 20150133444 A1 20150514.
15. **Narsimha Reddy Penthala**, Peter A. Crooks, A series of quinolinyl cyanocombretastatin analogs as anticancer agents, U.S. Provisional Application Serial No.: 61/901,710.
16. **Narsima R. Penthala**, Jang Dae Song, Alexei G. Basnakian, Peter A. Crooks Identification of substituted arylidenaminoguanidine compounds as DNase I inhibitors U.S. Provisional Application Serial No.: 61/983,703.

17. Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Peter A Crooks, Leena Maddukuri, and Robert L. Eoff, "Preparation of disubstituted triazole derivatives as anticancer agents." PCT Int. Appl. (2015), WO 2015153635 A1 20151008.
18. **Narsimha Reddy Penthala**, Venumadhav Janganati, Peter A Crooks, Craig Jordan, Anti-cancer activity of melampomagnolide B carbamate dimmers. Serial No. 62/086,864.
19. **Narsimha Reddy Penthala**, Shobanbabu Bommagani, Venumadhav Janganati, Peter A Crooks, Craig Jordan, "Preparation of melampomagnolide B derivatives useful for treating cancer in humans". U.S. Pat. Appl. Publ. (2015), US 20150203508 A1 20150723.
20. **Penthala, Narsimha Reddy**; Crooks, Peter; Eoff, Robert; Coggins, Grace; Maddukuri, Leena; Hartman, Jessica H.; Jang, Dae Song; Basnakian, Alexei; Aarattuthodiyil, Suja; Raney, KevinPolymerase, endonuclease, and helicase inhibitors and methods of using thereof. PCT Int. Appl. (2014), WO 2014176351 A1 20141030.
21. **Narsimha Reddy Penthala**, Shobanbabu Bommagani, Nikhil Reddy Madadi, Peter A Crooks, Combretastatin tetrazole analogs as anticancer agents, U.S. Provisional Application No. 62/262,114.
22. Robert J. S. Ries, Peter A Crooks, **Narsimha R. Penthala**, Srinivas Ayyadevara, Steve Barger, Meenakshisundaram Balasubramaniam, :"Novel drugs that reduce protein aggregation and protect against neurodegeneration and other diseases." Patent under filing. UAMS No. 2017-06-WebID #542.

LIST OF RECENT PUBLICATIONS:

1. Jai Shankar K. Yadlapalli, Zaineb F. Albayati, Narasimha R. Penthala, Howard P. Hendrickson, Peter A. Crooks, Development and validation of a stability indicating rp-hplc method for simultaneous detection of morphine and the 6-O-sulphate ester of morphine in various biological fluids, Analytical and Bio-analytical chemistry, *Under review*.
2. MacNicol, M.C., Montales, M.T.E., Cragle, K., **Penthala, N.R**., Janganati, V., Cragle, C.E., Guangrong, Z., Hardy, L.L., Bommagani, S., MacNicol, K.B., Madadi, N. R, Winter, B.S., Franco, A., Luo, Y, Zhou, D., Simmen, R.C.M., Crooks, P.A. and MacNicol, A.M; "A Xenopus Oocyte Phenotypic Bioassay Screen Identifies Novel Small Chemical Regulators of Cell Cycle Progression and Stem Cell Self-Renewal". *Journal of Biological Chemistry, (Under review).*
3. Shobanbabu Bommagani, Venumadhav Janganati Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Peter A. Crooks, "Design and green synthesis of novel bio-active C-C bond and C-N bond forming analogues of sesquiterpene lactones" *Green Chemistry* (Draft).
4. Jai Shankar K. Yadlapalli, Benjamin M. Ford, Amit Ketakr, Anqi Wan, **Narasimha Reddy Penthala**, Robert Eoff, Paul L. Prather, Maxim Dobretsov, Peter A. Crooks, Pharmacological characterization and antinociceptive effects of the 6-*O*-sulfate ester substituted derivative of morphine: Role of delta opioid receptors; *Pharmacological Research* , **2016**, 113, 335-347.
5. Hongliang Zong, Eric Sturgill, **Narsimha R. Penthala**, Matthew S. Sung, Shobanbabu Bommagani, Siddhartha Sen, Sarah Brennan, Hsiao-ting Hsu, Vijayakumar N Sonar, Paraskevi Giannakakou, Gail J. Roboz, Peter A. Crooks and Monica L. Guzman, Perturbation of microtubule stability by a novel combretastatin analog BTAN results in ablation of acute myelogenous leukemia cells, *Leukemia*, 2014 (Draft).
6. Ying-Shan Han, **Narsimha Reddy Penthala**, Maureen Oliveira, Thibault Mesplède, Hongtao Xu, Yudong Quan, Peter A. Crooks, and Mark A. Wainberg, Identification of Resveratrol Analogs as Potent Anti-Dengue Agents Using A Cell-Based Assay; *Journal of Medical Virology, 2016, DOI:10.1002/jmv.24660.*
7. **Narsimha Reddy Penthala**, Shobanbabu Bommagani, Jaishankar Yadlapalli, Peter A. Crooks, A novel and efficient tributyltin azide-mediated synthesis of 1*H*-tetrazolylstilbenes from cyanostilbenes, *Tetrahedron Letters* **2016,** Volume 57, Issue 16, Pages 1807-1810.
8. Madadi, Nikhil R.; Ketkar, Amit; **Penthala, Narsimha R.**; Bostian, April C. L.; Eoff, Robert L.; Crooks, Peter A. Dioxol and dihydrodioxin analogs of 2- and 3-phenylacetonitriles as potent anti-cancer agents with nanomolar activity against a variety of human cancer cells, *Bioorganic & Medicinal Chemistry Letters*, **2016**, 26(9), 2164-2169.
9. **Narsimha Reddy Penthala**, Amit Ketkar, Rajashekar Konjeti, Michael. L. Freeman, Robert. L. Eoff, Ramesh Balusu and Peter A. Crooks "Design, synthesis and evaluation of novel 2-methyl-N-benzyl indole derivatives as anti-tumor agents that target nucleophosmin 1 (NPM1)" Bio-Organic and Medicinal Chemistry, **2015**, 23(22), 15 7226-7233. PMID: 26602084.
10. Venumadhav Janganati, Jessica Ponder, Craig T. Jordan, Michael J. Borrelli, **Narsimha Reddy Penthala**, and Peter A. Crooks, Dimers of melampomagnolide B exhibit potent anticancer activity against hematological and solid tumor cells, *Journal of Medicinal Chemistry*, **2015**, 58(22), 8896-906. PMID: 26540463.

11. Nikhil R. Madadi, **Narsimha R. Penthala**, Kevin Howka, Amit Ketkar, Robert L. Eoff, Michael J. Borrelli, and Peter A. Crooks, Synthesis and biological evaluation of novel 4,5-disubstituted 2*H*-1,2,3-triazoles as cis-constrained analogues of combretastatin A-4, *European Journal of Medicinal Chemistry*, **2015**, 103, 123-132.

12. Narsimha R. Penthala, Leena Madhukuri, Shraddha Thakkar, Nikhil Reddy Madadi. Gauri Lamture, Robert Eoff, and Peter A. Crooks, Synthesis and anti-cancer screening of novel heterocyclic-(2*H*)-1,2,3-triazoles as potential anti-cancer agents; *Med. Chem. Commun.*, **2015**, 6, 1535-1543.

13. Narsimha R. Penthala, Peter A. Crooks, Michael L. Freeman, and Konjeti R. Sekhar, "Development and Validation of Novel Assay to Identify Radiosensitizers that Target Nucleophosmin 1" *Bio-organic and Medicinal Chemistry*" **2015**, 23, 368-3686; PMID: 25922180.

14. Narsimha Reddy Penthala, Shraddha Thakkar and Peter A. Crooks, "Heteroaromatic analogs of the resveratrol analog DMU-212 as potent anticancer agents", *Bio-organic and Medicinal Chemistry letters,* **2015**, 25(14), 2763-2767.

15. . Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Shobanbabu Bommagani, Venumadhav Janganati Peter A. Crooks, "Synthesis and evaluation of a series of resveratrol analogs as potent anticancer agents that target tubulin", *MedChemComm*, **2015**, 6, 788-794. PMID: 26257861.

16. Narsimha Reddy Penthala, Hongliang Zong, Amit Ketkar, Nikhil Reddy Madadi, Venumadhav Janganati, Rober Eoff, Monica L. Guzman and Peter A. Crooks, Synthesis, anticancer activity and molecular docking studies on a series of heterocyclic *trans*-cyanocombretastatin analogs as anti-tubulin agents, *European Journal of Medicinal Chemistry*, **2015**, 92, 212-220.

17. Dae Song Jang, **Narsimha Reddy Penthala**, Eugene O. Apostolo , Xiaoying Wang , Peter A. Crooks and Alexei G. Basnakian, "Novel Cytoprotective Inhibitors for Apoptotic Endonuclease G". *DNA and Cell Biology,* **2015**, 34, 92-100, PMID: 25401220.

18. Jang D. S, **Penthala, N. R**, Apostolov E. O, Wang X, Fahmi T, Crooks, P. A, Basnakian, A. G., Novel high-throughput deoxyribonuclease 1 assay. *J. Biomol. Screen*. **2015**, 20, 202-211. PMID: 25326282.

19. Narsimha Reddy Penthala, Shobanbabu Bommagani, Venumadhav Janganati, Kenzie B. MacNicol, Chad E. Cragle, Nikhil R. Madadi, Linda L. Hardy, Angus M. MacNicol, and Peter A. Crooks, "Heck products of parthenolide and melampomagnolide-B as anticancer modulators that modify cell cycle progression" *European Journal of Medicinal Chemistry,* **2014**, 85, 517-525.

20. Narsimha Reddy Penthala, Nikhil Reddy Madadi, Venumadhav Janganati Peter A. Crooks, "L-Proline catalyzed one step synthesis of 4,5-diaryl-2*H*-1,2,3-triazoles from cyanostilbenes via [3+2] cycloaddition" *Tetrahedron Letters*, **2014**, 55, 5562-5565.

21. Lirit N. Franks, Benjamin M. Ford, Nikhil R. Madadi, **Narsimha Reddy Penthala**, Peter A. Crooks and Paul L. Prather, "Characterization of the intrinsic activity for a novel class of cannabinoid receptor ligands: Indole Quinuclidine analogues (IQDs)" *European Journal of Pharmacology,* **2014**, 737,140-148.

22. Konjeti R. Sekhar, Mouadh Benamar, Amudhan Venkateswaran, Soumya Sasi, **Narsimha Reddy Penthala**, Peter A Crooks, Stephen R Hann, Ling Geng, Tarek Abbas, and Michael L. Freeman, "Targeting Nucleophosmin 1 Represents a Rational Strategy for Radiation Sensitization" *International Journal of Radiation Oncology Biology. Physics*, **2014**, 89(5):1106-1114.

23. Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Lin Song, Howard P. Hendrickson, Peter A. Crooks, Preparation of 4,5 substituted-2*H*-1,2,3-triazoles from (*Z*)-2,3-diaryl substituted acrylonitriles, *Tetrahedron Letters*, **2014**, 55, 4207-4211.

24. Venumadhav Janganati, **Narsimha Reddy Penthala**, Nikhil Reddy Madadi, Zheng Chen, Peter A. Crooks, "Anti-cancer activity of carbamate derivatives of melampomagnolide B" *Bioorganic & medicinal chemistry letters*, **2014**, 24(15), 3499-3502.

25. Narsimha Reddy Penthala, Venumadhav Janganati, Shobanbabu Bommagani, Peter A. Crooks, Synthesis and evaluation of a series of quinolinyl trans-cyanostilbene analogs as anticancer agents, *Med. Chem. Commun*., **2014,** 5, 886-890.

26. V. Janganati, **Narsimha Reddy Penthala**, C.E. Cragle, A.M. MacNicol, P.A. Crooks, Heterocyclic aminoparthenolide derivatives modulate G(2)-M cell cycle progression during Xenopus oocyte maturation, *Bioorganic & Medicinal Chemistry Letters*, **2014**, 24, 1963-1967.

27. Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Venumadhav Janganati and Peter A. Crooks, "Design, synthesis and anti-proliferative activity of 5-((1-benzyl-1*H*-indol-3-yl)methylene)-1,3-dimethylpyrimidine-2,4,6(1*H,*3*H,*5*H*)-trione analogs against human tumor cell line', *Bioorganic Medicinal Chemistry Letters* **2014***,* 24, 601-603.

28. Derong Ding, Agripina G. Deaciuc, **Narsimha Reddy Penthala**, Linda P. Dwoskin, Peter, A. Crooks, Synthesis and evaluation of novel azetidine analogs as potent inhibitors of vesicular[^{3}H]dopamine uptake, *Bioorganic Medicinal Chemistry,* **2013**, 21 (21), 6771-6777.

29. Grace E. Coggins, Leena Maddukuri, **Narsima Reddy Penthala**, Sarah Eddy, Peter A. Crooks and Robert L. Eoff, Identification of DNA polymerase inhibitors targeted against DNA repair and replication stress response enzymes, *Chemical Biology*, **2013**, 8, 1722-1729.

30. Narsimha Reddy Penthala, Vijayakumar N. Sonar, Jamie Horn, Markos Leggas, Jai Shankar K. B. Yadlapalli and Peter A. Crooks, Synthesis and evaluation of a series of benzothiophene acrylonitrile analogs as anticancer agents, *Med. Chem. Commun*., **2013**, 4, 1073-1078.

31. Narsimha Reddy Penthala, Purushothama Rao Ponugoti, Justin R. Nickell, Agripina G. Deaciuc, Linda P. Dwoskin, Peter A. Crooks. Pyrrolidine analogs of lobelane: synthesis and evaluation as inhibitors of the vesicular monoamine transporter-2 (VMAT2), *Bioorganic Medicinal Chemistry Letters* **2013***,* 23 (11), 3342-3345.

32. Narsimha Reddy Penthala, Yerramreddy Thirupathi Reddy, Sean Parkin, and Peter A Crooks, "Solvent Specific C-N Bond Formation: Synthesis of Ninhydrin-Creatinine Condensation Products", *Journal of Heterocyclic Chemistry* **2013**, 50, E156-E159.

33. Nikhil Reddy Madadi, **Narsimha Reddy Penthala**, Lisa K. Brents, Benjamin M. Ford, Paul L. Prather, Peter A Crooks, "Evaluation of (*Z*)-2-((1-benzyl-1*H*-indol-3-yl)methylene)-quinuclidin-3-one analogues as novel, high affinity ligands for CB1 and CB2 cannabinoid receptors", *Bioorganic Medicinal Chemistry Letters*, **2013**, 23(5) 2019-2021.

34. Narsimha Reddy Penthala, Purushothama Rao Ponugoti, Vinod Kasam, Peter A. Crooks, "5-((1-aroyl-1*H*-indol-3-yl)methylene)-2-thioxodihydropyrimidine-4,6(1*H*,5*H*)-diones as potential anticancer agents with anti-inflammatory properties", *Bioorganic Medicinal Chemistry Letters*, **2013**, 23(5), 1442-1446.

35. Guangrong Zheng, David Horton, **Narsimha Reddy Penthala**, Justin Nickell, John Culver, Agripina Deaciuc, Linda P. Dwoskin and Peter A. Crooks, Exploring the effect of *N*-substitution in *nor*-lobelane on the interaction with VMAT2: discovery of a potential clinical candidate for treatment of methamphetamine abuse, *Med. Chem. Commun*., **2013**, 4, 564.

36. Narsimha Reddy Penthala, Thirupathi Reddy Yerramreddy, Peter A Crooks, "Synthesis and *in vitro* screening of *N*-benzyl aplysinopsin analogs as potential anticancer agents," *Bioorganic Medicinal Chemistry Letters*, **2011**, 21(5), 1411-1413.

37. Konjeti R Sekhar**,** Y. Thirupathi Reddy, **P. Narsimha Reddy**, Peter A Crooks, Amudhan Venkateswaran, W. Hayes McDonald, Ling Geng, Soumya Sasi, Robert P. Van Der Waal, Joseph L Roti Roti, Kenneth J Salleng, Girish Rachakonda and Michael L. Freeman. The novel chemical entity YTR107 inhibits recruitment of nucleophosmin to the sites of DNA, damage, suppressing repair of DNA double strand breaks, and enhancing radiosensitization, Clinical Cancer Research, 2011 *Clinical Cancer Res* **2011**;17:6490-6499.

38. Kuarm, B. Suresh; Madhav, J. Venu; Rajitha, B.; Reddy, Y. Thirupathi**; Narsimha Reddy Penthala,** Crooks, Peter A. Cellulose sulfuric acid. Novel and efficient biodegradable and recyclable acid catalyst for the solid-state synthesis of thiadiazolobenzimidazoles, *Synthetic Communications*, **2011**, 41(5), 662-669.

39. Vijaya Laxmi S, Thirupathi Reddy Y, Suresh Kuarm B, **Narsimha Reddy Penthala**, Crooks PA, Rajitha B. Synthesis and evaluation of chromenyl barbiturates and thiobarbiturates as potential antitubercular agents. *Bioorg Med Chem Lett*. **2011**, 21 (14):4329-31.

40. Kuarm, B. Suresh; Madhav, J. Venu; Laxmi, S. Vijaya; Rajitha, B.; Reddy, Y. Thirupathi; **Reddy, P. Narsimha**; Crooks, Peter A. "Expeditious Pechmann Condensation by Using Biodegradable Cellulose Sulfuric Acid as a Solid Acid Catalyst". "*Synthetic Communications*" **2010**, 40(22), 3358-3364.

41. Penthala Narsimha Reddy, Yerramreddy Thirupathi Reddy, Peter A Crooks, Synthesis and *in vitro* cytotoxicity of substituted (*Z*)-2-amino-5-((1-benzyl-1*H*-indol-3-yl)methylene)-1-methyl-1*H*-imidazol-4(5*H*)-ones, *Bioorganic and Medicinal Chemistry Letters*, **2010**, 20(2), 591-593.

42. Narsimha Reddy Penthala, Thirupathi Reddy Yerramreddy, Nikhil Reddy Madadi, Peter A Crooks, Synthesis and *in vitro* evaluation of 3-hydroxy-3-(2-imino-3-methyl-5-oxoimidazolidin-4-yl)indolin-2-one analogs as potential anticancer agents**.** *Bioorganic Medicinal Chemistry Letters*, **2010**, 20(15), 4468-4471.

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LIST OF PAPERS AND ORAL PRESENTATIONS PRESENTED IN NATIONAL & INTERNATIONAL CONFERENCES

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