Krishnaiah Madeboina, Ph.D
Research Scientist

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ACADEMIC QUALIFICATIONS:

08/2005 –10/ 2010 : Ph. D, Organic Chemistry, (**Indian Institute of Chemical Technology**, Hyderabad, India.)

08/2002 – 04/2004 : B.Ed. Chemistry & Physics, (1st division), Sri Venkateswara University, Thirupati, India.

07/2000 -04/ 2002 : M.S, Chemistry (1st division)
Sri Venkateswara University, Thirupati, India.

07/1997 -04/ 2000 : B.S, Chemistry, Mathes, Physics (1st division)
Sri Venkateswara University, Thirupati, India.

PROFESSIONAL EXPERIENCE:

06/2016 –Current : Post-Doctoral Research Associate, University of Nebraska Medical center, Omaha, NE.

01/2011 – 05/2012 and 10/2013-05/2016 : Post-doctoral Researcher, Medicinal Chemistry, College of Pharmacy, Ewha Womans University, South Korea

05/2012- 09/2013 : 4Chem Research Institute, Suwon, Korea., Research Associate Scientist-Synthetic Organic Chemistry

07/2004 –08/ 2005 : Worked as a Faculty
Department Of Chemistry, S.V. Arts College Tirupati, India

SUMMUARY OF ACADEMIC / PROFESSIONAL EXPERIENCE:

- Expertise in design and execute multi-step synthesis of targeted bioactive molecules and peptide amphiphiles by using SPPS method.
- Adept in analyzing spectrographic data like ^{1}H, ^{13}C, 2D NMR, IR and ESI-MS, MALDI etc.
- Familiar with Chromatogram, MPLC, HPLC and related chromatographic techniques
- Able to identify experimental problems and resolve them independently.
- Capable of both collaborative and independent research.
- Working knowledge in most of the chemical databases and basics in computers MS-word, MS-Excel, Endnote MS-powerpoint.
- Chemistry software like chemdraw, chemifinder, Scifinder etc.

RESEARCH INTEREST:

Medicinal drug discovery focused on Cancer, anti-obesity and infectious disease research
Design and synthesis of drug-like molecules
Development of SAR on potent drug pharmacophores
Target oriented synthesis of heterocyclic compounds
Total synthesis of natural products
Synthesis of fluorine containing heterocyclic compounds.
Development of novel synthetic methodology based on transition metal catalyzed reactions and synthesis of biologically active products

Awards/Fellowship:

- 2003—**Graduate Aptitude Test in Engineering**, (GATE) is an All-India Examination conducted by the Seven IITs and IISC, Bangalore, on behalf of the Ministry of Human Resources Development (MHRD), Government of India.
- 2004—**Junior Research Fellowship**, Council of Scientific and Industrial Research (CSIR-India).
- 2007—**Senior Research Fellowship**, Council of Scientific and Industrial Research (CSIR-India).
- Achieved **Best Junior Research Fellow Award** for the best publications in the year 2007 from IICT.

SELECTED PUBLICATIONS:

1. Synthesis, biological evaluation, and metabolic stability of new antibacterial phenazines, M. Krishnaiah, A. Nathalia, U. Venkata reddy, Z.C. Song, S. C. Yashpal, M. M. Abdelmoaty, V. A. do Nascimento, D. J. Murry, C. S. Martin* ***Eur. J. Med. Chem*** 143, 936, (2018).
2. Synthesis and biological evaluation of 5-(fluoro-substituted-6-methylpyridin-2-yl)-4-([1,2,4]triazolo[1,5-*a*]pyridin-6-yl)imidazoles as inhibitors of TGF-β receptor I kinase, **M. Krishnaiah,** C. H. Jin, Y. Y. Sheen, D.-K. Kim*, ***Bioorg. Med. Chem Lett.* 25**, 5228, (2015).
3. Discovery of *N*-((4-([1,2,4]triazolo[1,5-a]pyridin-6-yl)-5-(6-methylpyridin-2-yl)-1*H*-imidazol-2-yl)methyl)-2-fluoroaniline (**EW-7197**): A highly potent, selective, and orally bioavailable TGF-*β* type I receptor kinase as cancer immunotherapeutic/antifibrotic agent, C. H. Jin, **M. Krishnaiah**, D. Sreenu, V. B. Subrahmanyam, K. S. Rao, H. J. Lee, S.-J. Park, H.-J. Park, K. Lee, Y. Y. Sheen, D.-K. Kim*, ***J. Med. Chem.* 57,** 4213 (2014).
4. 4-([1,2,4]Triazolo[1,5-*a*]pyridin-6-yl)-5(3)-(6-methylpyridin-2-yl)imidazole and -pyrazole derivatives as potent and selective transforming growth factor-β type I receptor kinase inhibitors, C. H. Jin, **M. Krishnaiah**, D. Sreenu, V. B. Subrahmanyam, H.-J. Park, S. J. Park, Y. Y. Sheen, D.-K. Kim*, ***Bioorganic. Med. Chem.* 22**, 2724 (2014).
5. Synthesis and Biological Evaluation of 2-Benzylamino-4(5)-(6-methylpyridin-2-yl)-5(4)-([1,2,4]triazolo[1,5-*a*]pyridin-6-yl)thiazoles as Transforming Growth Factor-β Type 1 Receptor Kinase Inhibitors, **M. Krishnaiah**, C. H. Jin, D. Sreenu, V. B. Subrahmanyam, K. S. Rao, H.-J. Park, Y. Y. Sheen, D.-K. Kim*, ***Eur. J. Med. Chem.*** **57** 74 (2012).
6. Synthesis and biological evaluation of 1-substituted-3-(6-methylpyridin-2-yl)-4-1,2,4]triazolo[1,5-*a*]pyridin-6-yl)pyrazoles as transforming growth factor-β type 1receptor kinase inhibitors C. H. Jin, **M. Krishnaiah,** D. Sreenu, V. B. Subrahmanyam, K. S. Rao A. V. N. Mohan, C.-Y. Park, J.-Y. Son, Y. Y. Sheen, D. –K. Kim*, ***Bioorg.Med.Chem. Lett.* 21**, 6049 (2011).
7. Synthesis and biological evaluation of 1- substituted-3(5)-(6-methylpyridin-2-yl)-4-(quinoxalin-6-yl)pyrazoles as transforming growth factor-β type 1 receptor kinase inhibitors, C. H. Jin, D. Sreenu, **M. Krishnaiah,** V. B. Subrahmanyam, K. S. Rao, A. V. N. Mohan, C.-Y. Park, J.-Y. Son, D.-H Son, H.-J. Park, Y. Y. Sheen, D. –K. Kim*, ***Eur. J. Med. Chem.* 46,** 3917 (2011).
8. Synthesis and biological evaluation of 1-substituted-3(5)-(6-methylpyridin-2-yl)-4-(quinolin-6-yl)pyrazoles as transforming growth factor-β type 1 receptor kinase inhibitors, C. H. Jin, **M. Krishnaiah,** D. Sreenu, K. S. Rao, V. B. Subrahmanyam, C.-Y. Park, J.-Y. Son, Y. Y. Sheen, D. –K. Kim*, ***Bioorg. Med. Chem.*19, 2633 (2011).**
9. Iodine catalysed efficient hydrophosphonylation of *N*-tosyl aldimines, B. Das*, P. Balasubranyam, **M. Krishnaiah**, B. Veeranjaneyulu and G. Chinna Reddy, ***J. Org. Chem.***, **74**, 4393 (2009).
10. A remarkably simple *N*-formylation of anilines using polyethylene glycol, B. Das*, **M. Krishnaiah**, P. Balasubramanyam, B. Veeranjaneyulu and D. Nandan Kumar, ***Tetrahedron Lett.***, **49**, 2225 (2008).

11. Vanadium(III) Chloride (VCl_3): Efficient reagent for the introduction of tetrahydrofuran-based acetal protecting groups for alcohols, B. Das*, **M. Krishnaiah**, V. S. Reddy and K. Laxminarayana, ***Helv.Chem. Acta***, **90**, 2163, (2007).
12. A simple and efficient synthesis of *gem*-dihydroperoxides from ketones using aqueous hydrogen peroxide and catalytic ceric ammonium nitrate, B. Das*, **M. Krishnaiah**, B. Veeranjaneyulu and B. Ravikanth, ***Tetrahedron Lett.,* 48**, 6286 (2007).
13. Acetylated pseudoguaianolides from Parthenium hysterophorus and their cytotoxic activity, B. Das*, V. Saidi Reddy, **M. Krishnaiah**, A.V. S. Sharma, K. Ravi Kumar, J. V. Rao and V. Sreedhar, ***Phytochemistry***, **68**, 2029 (2007).
14. A simple and efficient one-pot synthesis of β-acetamido carbonyl compounds using sulfated zirconia as a heterogeneous catalyst, B. Das*, **M. Krishnaiah**, K. Laxmi Narayana and K.R Reddy, ***J. Mol. Catal. A: Chem.***, **270**, 284 (2007).
15. A mild and simple regioselective iodination of activated aromatics with iodine and catalytic ceric ammonium nitrate B. Das*, **M. Krishnaiah**, K. Venkateswarlu and V. Saidi Reddy, ***Tetrahedron Lett.,* 48**, 81 (2007).
16. An efficient catalyst-free regio- and stereoselective ring-opening of epoxides with phenoxides using polyethylene glycol as the reaction medium B. Das*, **M. Krishnaiah**, P. Thirupathi and K. Laxminarayana, ***Tetrahedron Lett.***, **48**, 4263 (2007).
17. Zirconyl nitrate mediated regioselective ring-opening of epoxides and aziridines: an easy synthesis of β-nitrato-alcohols and –sulfonamides B. Das*, **M. Krishnaiah** and K Venkateswarlu, ***Tetrahedron Lett.***, **47**, 6027 (2006).
18. Highly regioselective ring-opening of epoxides and aziridines using (Bromodimethyl)sulfonium Bromide, B. Das*, **M. Krishnaiah** and K. Venkateswarlu, ***Tetrahedron Lett.***, **47**, 4457 (2006).

Book Article

1. Bromodimethylsulfonium Bromide (BDMS) B. Das*, **M. Krishnaiah**, e-EROS Encyclopedia of Reagents for Organic Synthesis (2007).

Review Articles

1. A review article on natural bioactive molecules, Camptothecins: Some recent chemical studies B. Das*, **M. Krishnaiah**, K. Venkateswarlu and R. Das, ***Nat. Prod. Comm.***,**1**, 255 (2006).

Patents

1. 2-Pyridyl substituted imidazoles as therapeutic ALK5 and/or ALK4 inhibitors, D.-K. Kim, Y.Y. Sheen, C. H. Jin, C.-Y. Park, D. Sreenu, K. S. Rao, **M. Krishnaiah**, V. Balasubramanyam, ***US2011319408A1.***
2. Methods of treating fibrosis, cancer, and vascular injuries, D.-K. Kim, Y.Y. Sheen, C. H. Jin, C.-Y. Park, D. Sreenu, K. S. Rao, **M. Krishnaiah**, V. Balasubramanyam, ***US8080568B1.***
3. 2-Pyridyl substituted imidazoles as therapeutic ALK5 and/or ALK4 inhibitors, D.-K. Kim, Y.Y. Sheen, C. H. Jin, C.-Y. Park, D. Sreenu, K. S. Rao, **M. Krishnaiah,** V. Balasubramanyam, ***WO2012002680A2.***