

Shashidhar Kumar Akubathini, Ph.D.
Contact: 09703445989 / e-mail: askiict@gmail.com

Dated: August 04, 2020

Dear Sir/ Madam:

Greetings of the day.

I am writing to express my interest in the Research Scientist position and have enclosed my resume for your consideration. I believe that upon review, you will recognize that my leadership skills and innovative strategies are exactly what needs to lead the company to the next level.

Review of my credentials will confirm that I have nearly **6 years of experience in Research & Development, Chemical Synthesis, Reporting and Team Management**. I previously associated with **DST-Young scientist (SERB), Department of Chemistry, NIT-Warangal**, before that I worked with **Neuland Laboratory Limited, Hyderabad, India as Associate Research Scientist**. Have previously been associated with **Sapala Organics Pvt. Ltd., Hyderabad, India as Research Scientist; & Postdoctoral Research Associate with Virginia Commonwealth University, Virginia, USA besides many more**.

My greatest strengths match those most necessary for consistent growth and success:

- Diligently carried out the research based on the development of novel medicinal agents with drug abuse and addiction application, on the basis of our modeling studies
- Efficiently worked on a series of novel naltrexamine derivatives are designed and synthesizing
- Successfully administered Total synthesis of Anibamine core unit compounds: Total synthesis of Anibamine core unit library of compounds for chemokine receptor, CCR5 antagonist as novel anti-HIV agent and prostate cancer activity
- Ascertained five step chemical synthesis of Tirofiban structural analogs as an anti-platelet molecule (anticoagulant), reductive amination with Dextran sulfate sodium salt as a key step reaction
- Pivotal in enhancing the process operations optimize resource & capacity utilization escalate productivity & operational efficiencies; while curtailing costs & expenses
- Stellar in monitoring the design, synthesis and biological active compounds like Neuroprotective agents: 47 compounds of 3-Substituted indolones have been synthesized and evaluated their biological activity
- Successfully developed more than 100 compounds neuroprotective 3'-substituted indolin-2-one derivatives and 35 of 1, 4-Benzoxazine compounds as novel class of neuroprotective agents and New method on "benzyne generated copper-catalyzed alkyne-aryne coupling" under microwave conditions
- Instrumental in communicating effectively with different levels of management

I have a strong academic background. I have done **Ph.D. (Organic Chemistry) from Indian Institute of Chemical Technology, Hyderabad, Telangana** and **M.Sc. (Organic Chemistry) from National Institute of Technology (Formerly known as Regional Engineering College) Kakatiya University, Warangal, Telangana**. Based on the solid foundation of impeccable education and diverse experience in **Research & Development, Chemical Synthesis, Reporting and Team Management** you can see that I am very ably suited for senior leadership roles. My vision has always been big, encompassing the entire organization, rather than a myopic viewpoint relegated to one department or specialty alone.

I look forward to discussing your objectives and how we can work together to accomplish them.

Thanking you.

Sincerely yours,
Shashidhar Kumar Akubathini

Enclosed: Resume



Shashidhar Kumar Akubathini, Ph.D.

Contact: 09703445989 / e-mail: askiict@gmail.com

Seeking senior level assignments in Research / Team Management with a leading organization of repute in Pharmaceutical / Healthcare industry preferably in Hyderabad / Bangalore / Chennai/ Pune/ Kolkata/ Goa/ Delhi/ Bombay/Ahmadabad

Profile Summary

- Nearly 6 years of experience in Research& Development, Chemical Synthesis, Reporting and Team Management
- An Out-of-the Box thinker with sound product knowledge and thorough understanding of synthetic chemists in collaboration with other interdisciplinary teams like polymers or biological testing teams
- Proven abilities to enhance the process operations optimize resource & capacity utilization escalate productivity & operational efficiencies; while curtailing costs & expenses
- Abilities in harmoniously managing day to day operations as a team member in drug discovery
- Cross-functional expertise in various disciplines including drug design, multi-step synthesis (micro & macro scale), lead identification and optimization of small molecules as potential drug candidates
- An enterprising leader with strong analytical, problem solving and interpersonal skills

(Refer to Annexure for Major Thesis / Projects / Publications / Presentations / Knowledge Purview / Fellowships)

Core Competencies

Research & Development

- Spearheading the R & D Operations & modification of existing ones, based on market feedback & trends; supervising development of intermediates and finished products as per predefined specifications
- Facilitating Method Development and validation i.e., rigorous testing of the methods to ensure that they are precise, accurate, reproducible, "fool-proof" and specific to the product, etc.

Project Management

- Developing plans/ schedules for resources and overseeing all activities to ensure timely completion of projects as per budgeted parameters
- Generating analytical specifications for raw materials, intermediates and finished goods together with the analytical and regulatory group; focusing on cost optimization through legitimate use of ingredients and process
- Analyzing various processes/applications and recommending modifications & equipment calibrations to enhance operational efficiency
- Developing processes for formulations by establishing process parameters to achieve quality and yield of the product as per requirement and predetermined specifications

Documentation

- Maintaining documentation such as laboratory notebooks, electronic data collection/storage software, instrument logbooks, training records, etc.

- Writing/reviewing detailed documents like process package, development report, validation reports & results; preparing of monthly reports, annual product reports & periodic product review, etc.

Research / Organizational Experience

November 2018- Still working at Keminntek Laboratories as a Research scientist-I in process R&D, Mallapur, IDA-Nacharam, Hyderabad, Telangana, INDIA

- Performing Process R&D-projects (CRAMS) and cost reduction projects.
- Currently doing projects synthesis of substituted cathinone class of compounds.
- Doing Route of synthesis (ROS) and execute the reactions with chemists day to day progress of the projects.

December 2017- October 2018 worked at Intogen Bio Sciences as a Senior-scientist in R&D, Mallapur, IDA-Nacharam, Hyderabad, Telangana, INDIA

September 2013- November 2017 worked as a DST (SERB) Fast Track Young Scientist at Department of chemistry, NIT-Warangal, Telangana, INDIA

June 2012-August 2013 with Neuland Laboratory Limited, Hyderabad, India as Associate Research Scientist

April 2011-May 2012 with Sapala Organics Pvt. Ltd., Hyderabad, India as a Research Scientist

September 2009-March 2011 with Virginia Commonwealth University, Virginia, USA as a Postdoctoral Research Associate

Key Result Areas:

- Carried out the research based on the development of novel medicinal agents with drug abuse and addiction application, on the basis of our modeling studies
- Deftly worked on a series of novel naltrexamine derivatives are designed and synthesizing
- Administered Total synthesis of Anibamine core unit compounds: Total synthesis of Anibamine core unit library of compounds for chemokine receptor, CCR5 antagonist as novel anti-HIV agent and prostate cancer activity
- Ascertained five step chemical synthesis of Tirofiban structural analogs as an anti-platelet molecule (anticoagulant), reductive amination with Dextran sulfate sodium salt as a key step reaction.

June 2007-August 2009 with Southern Methodist University, Dallas, Texas, USA as a Postdoctoral Research Associate

Key Result Areas:

- Monitored the design, synthesis and biological active compounds like Neuroprotective agents: 47 compounds of 3-Substituted indolones have been synthesized and evaluated their biological activity
- Skillfully developed:
 - More than 100 compounds neuroprotective 3'-substituted indolin-2-one derivatives and 35 of 1, 4-Benzoxazine compounds as novel class of neuroprotective agents
 - New method on "benzyne generated copper-catalyzed alkyne-aryne coupling" under microwave conditions

May 2006-May 2007 with UT Southwestern Medical Center, Dallas, Texas, USA as a Postdoctoral Research Associate

Key Result Areas:

- Looked after the synthesis of:

- Eicosanoids analogues and pyrophosphates
- DDMS: DDMS (10, 10-Dibromo-N-(methylsulfonyl) dec-9-enamide) synthesized from commercially available Methyl oleate
- Arachidonic acid derivatives: Synthesis of 14, 15-EET and 11, 12-EET

May 2005-April 2006 with Sai AdvantiumPharma Ltd., Hyderabad, India as a Research Scientist

Key Result Areas:

- Gained extensive exposure for drug intermediates basic R &D and Process R & D projects
- Carried out multi step, medicinal chemistry synthesis of Drug intermediates with GMP standards: Synthesis of 1, 3, 5-triazine derivatives and glycosidation reaction on sugar derivatives, Metabasis and Supergen projects
- Instrumentally scaled up-synthesis of halogenations reaction on p-toluene sulfonic acid

Highlights:

- Holds the credit of 1 patent & 15 publications
- Spearheaded the team 2-3 Chemists

Membership / Associations

- Member of American Chemical Society (ACS), Sigma-Xi (The Scientific Research Society), International Union of Pure and Applied Chemistry (IUPAC) and American Association of Pharmaceutical Scientists (AAPS)
- Article reviewer in Journal of:
 - Natural Products, Journal of Organic Chemistry
 - ARKIVOC
 - Organic Process Research & Development (OPRD)
 - Tetrahedron Letters
 - Journal of Heterocyclic Chemistry (JHC)
 - Chemistry of Heterocyclic Compounds
 - Medicinal Chemistry Research
 - Journal of Combinatorial Chemistry (JCC) - Frequent Reviewer

Academic Details

- Ph.D. (Organic Chemistry) from Indian Institute of Chemical Technology, Hyderabad, Andhra Pradesh, INDIA in 2005
- M.Sc. (Organic Chemistry) from National Institute of Technology (Formerly known as Regional Engineering College) Kakatiya University, Warangal, Andhra Pradesh, INDIA in 1998 with first division
- B.Sc. (Chemistry, Physics and Mathematics) from Chaitanya Degree College, Hanamkonda, Kakatiya University, Andhra Pradesh, INDIA in 1995 with first division

Personal Details

Date of Birth: August 25, 1975
 Address: H.No: 4-10-71/2, Plot No.: 115/B (First floor), Street No.: 9, Opposite: St. Anthony's High School, HMT-Nagar, Nacharam, Dist: Medchal, Hyderabad- 500076, Telangana, INDIA
 Languages Known: Telugu, English, Hindi
ANNEXURE

Thesis

- “Development of Some Important Synthetic Methodologies and their Applications in the Synthesis of Biologically Important Compounds”: Advisor: Dr. B. Venkateswara Rao

Major Project

- Rendered services as Team Member in the completion of collaborative project between SMU and UTD based on the “Design and Synthesis of Neuroprotective Indolinone as well as Benzoxazine-Analogues”

Patent

1. 1, 4-Benzoxazine compounds and derivatives thereof as therapeutic drugs for the treatment of Neurodegenerative conditions. **US-Patent No: US008680094B2**, Date of Patent: March 25, 2014, inventors: Santosh R. D'Mello, Dallas, TX (US); Edward R. Biehl, Dallas, TX (US); Haribabu Ankati, Dallas, TX (US); **Shashidhar Kumar Akubathini**, Karimnagar (INDIA).



US-Patent No:
US008680094B2

Research Publications

1. “Synthesis of 4*H*-chromene-3,4-dicarboxylate derivatives *via* an isocyanide-based one-pot three component reaction”. **Akubathini Shashidhar Kumar**, Vakiti Srinivas and Vedula Rajeswar Rao. *Indian Journal of Chemistry*, Section B: Organic and Medicinal Chemistry, 55B (11), **2016**, 1420-1423.
<http://nopr.niscair.res.in/handle/123456789/37039>
2. “Synthesis of benzo[*a*]anthracen-5-one, phenazine-8,9-diol, pyrido[2,3-*b*]quinoxaline-7,8-diol and their derivatives”. **Akubathini Shashidhar Kumar**, Vakiti Srinivas and Vedula Rajeswar Rao. *Indian Journal of Heterocyclic Chemistry*. Vol 25, Number 3&4 (Jan-June **2016**) 269-273.
<https://www.tib.eu/en/search/id/BLSE%3ARN608134448/Synthesis-of-Benzo-A-Anthracen-5-One-Phenazine/>
3. “Design, Synthesis, and Biological Evaluation of 17-Cyclopropylmethyl-3, 14β-dihydroxy-4, 5α-epoxy-6β-[(4'-pyridyl)carboxamido]morphinan Derivatives as Peripheral Selective Mu Opioid Receptor Agents”. Yuan, Yunyun; Elbegdorj, Orgil; Chen, Jianyang; **Akubathini, Shashidhar**; Zhang, Feng; Stevens, David; Beletskaya, Irina; Scoggins, Krista; Zhang, Zhenxian; Gerk, Phillip; Selley, Dana; Akbarali, Hamid; Dewey, William; Zhang, Yan. *Journal of Medicinal Chemistry*. **2012**, 55(22), 10118-10129.
<https://doi.org/10.1021/jm301247n>
4. “Structure selectivity relationship studies of 17-cyclopropylmethyl-3,14b-dihydroxy- 4,5a-epoxy-6b-[(40-pyridyl)carboxamido]morphinan derivatives toward the development of the mu opioid receptor antagonists”. Yunyun Yuan, Orgil Elbegdorj, Jianyang Chen, **Shashidhar K. Akubathini**, Irina O. Beletskaya, Dana E. Selley, Yan Zhang. *Bioorganic & Medicinal Chemistry Letters* **2011**, 21, 5625-5629.
<https://doi.org/10.1016/j.bmcl.2011.06.135>
5. “Identification of novel 1, 4- benzoxazine compounds those are protective in tissue culture and in vivo models of neurodegeneration”. Lulu Wang, Haribabu Ankati, **Shashidhar Kumar Akubathini**, Michael Balderamos, Chelsey A. Storey, Anish V. Patel, Valerie Price, Doris Kretzschmar, Edward R. Biehl, Santosh R. D'Mello. *Journal of Neuroscience Research*. **2010**, 88(9), 1970-1984.
<https://doi.org/10.1002/jnr.22352>
6. Synthesis of 2-benzylidene and 2-Hetarylmethyl derivatives of 2*H*-1, 4-Benzoxazin-3-(4*H*)-ones as Neuroprotecting agents. Haribabu Ankati, **Shashidhar Kumar Akubathini**, Santosh R. D'Mello, Ed. R. Biehl. *Synthetic Communications*. **2010**, 40 (16), 2364-2376.
<https://doi.org/10.1080/00397910903243823>
7. (E)-5-Bromo-3-(2, 6-dichlorobenzylidene) indolin-2-one. Hongming Zhang, **Shashidhar Kumar Akubathini**, Haribabu Ankati and Ed. Biehl. *Acta Cryst.* **2009** E65, o2217.
DOI: [10.1107/S160053680903270X](https://doi.org/10.1107/S160053680903270X)
8. The Copper-catalyzed alkyne-aryne coupling reaction under the microwave conditions: preparation of the Symmetric and the unsymmetric di-substituted alkynes. **Shashidhar Kumar Akubathini**, Ed. Biehl, *Tetrahedron Letters*. **2009**, 50, 1809-1811.

<https://doi.org/10.1016/j.tetlet.2009.02.033>

9. (Z)-3-(E)-3-Phenylallylidene) indolin-2-one. Hongming Zhang, **Shashidhar Kumar Akubathini**, Haribabu Ankati and Ed. Biehl. *Acta Cryst.* **2009**, E65, o363.

<https://doi.org/10.1107/S1600536809002037>

10. (Z)-5-Fluoro-3-[(1H-pyrrol-2-yl)methylene]indolin-2-one. Hongming Zhang, Haribabu Ankati, **Shashidhar Kumar Akubathini** and Ed. Biehl. *Acta Cryst.* **2009**, E65, o8.

<https://doi.org/10.1107/S1600536808040178>

11. Synthesis and structure-activity relationship studies of 3' substituted indolin-2-ones-as-effective-neuroprotective-agents. Balderamos M, Ankati H, **Shashidhar Kumar Akubathini**, Patel AV, Kamila S, Mukherjee C, Wang L, Biehl Ed. R, D'Mello S. R. *Experimental Biology and Medicine.* **2008**, 233, 1395-1402.

<https://doi.org/10.3181/0805-RM-153>

12. (E)-5- Chloro-3-(2, 6-dichlorobenzylidene) indolin-2-one. Hongming Zhang, Haribabu Ankati, **Shashidhar Kumar Akubathini** and Ed. Biehl. *Acta Cryst.* **2008**, E64, o2103.

<https://doi.org/10.1107/S1600536808031930>

13. Synthesis of 3- Benzylidene, 5-Substituted 3-Benzylidene, 3-Hetarylmethylene and 5-Substituted Hetarylmethylene Derivatives of Indolin-2-ones. Haribabu Ankati, **Shashidhar Kumar Akubathini**, Sukanta Kamila, Chandrani Mukherjee, Santosh Raymond D'Mello and Edward R. Biehl. *The Open Organic Chemistry Journal*, **2008**, 2, 138-147.



The Open Organic
Chemistry Journal

14. Stereoselective synthesis of (-) – pestalotin. **A. Shashidhar Kumar**, Pushpal Bhaket and B. Venkateswara Rao. *ARKIVOC* **2005**, (iii), 74-82. (Issue in Honor of Prof. A.V. Rama Rao)

<https://doi.org/10.3998/ark.5550190.0006.310>

15. A versatile and efficient synthesis of (2S)-2-(hydroxymethyl)-N-Boc-2, 3-dihydro-4-pyridone. **A. Shashidhar Kumar**, B. Haritha and B. Venkateswara Rao. *Tetrahedron Letters* **2003**, 44, 4261-4263.

[https://doi.org/10.1016/S0040-4039\(03\)00888-8](https://doi.org/10.1016/S0040-4039(03)00888-8)

Presentations & Conferences

- Deftly delivered the technical paper presentation at Emory University, Department of Pharmacology, Atlanta, Georgia, USA on February 18, 2011 for Research associate position
- Shashidhar Kumar Akubathini and Ed. R. Biehl, Copper-Catalyzed Alkyne-Aryne Coupling Reaction under Microwave Conditions, inclusive of:
 - Abstract, 64th Southwest Regional Meeting of the American Chemical Society, Little Rock AR, United States October 1-4 (2008)
 - SWRM-410, General Poster Session 3, Salon B and C (The Peabody Little Rock)

Academic Projects

- Doctorate Research programme at Indian Institute of Chemical Technology, Hyderabad, India
 - Synthesis of (±)-pestalotin and Stereoselective synthesis of (-)-pestalotin. (Gibberellin synergist, exhibit plant growth inhibitory, antifungal, and antitumor activities)
 - A versatile and efficient synthesis of (2S)-2-(hydroxymethyl)-N-Boc-2, 3-dihydro-4-pyridone, (The amino-enone moiety can be used in various reactions leading to key intermediates and is also particularly useful in the synthesis of biologically active compounds and alkaloids)
 - Studies directed towards the synthesis of (+)-5-epi-tashiromine: (+)-5-epi-tashiromine is an indolizidine alkaloid isolated from subtropical Asian deciduous shrub, “maackiatashiroi”. Indolizidine alkaloids have been isolated from poison dart frogs and may have neurological properties
 - Tempo-oxidation of alcohols to aldehydes on solid phase (under IICT, Hyderabad-SmithKline Beecham, U. K collaboration): The solid-phase organic synthesis (SPOS) has been developed for the synthesis of chemical libraries in solid-phase using an excess of reagents. Oxidation of alcohol to aldehyde using TEMPO conditions on Merrifield, chlorowang and Wang resins

- Graduate research project carried out (three months) in Division of Medicinal chemistry, at Central drug research institute (CDRI), Lucknow, INDIA
 - Synthesis of α - oxo ketene dithioacetals as synthons for the synthesis of substituted pyrimidines

Knowledge Purview

- Gained extensive exposure for:
 - Synthesis of biologically active natural products and expertise in multi-step synthesis
 - Design and synthesis of novel chemical entities for drug discovery, by innovative strategies and good skills in asymmetric synthesis
 - Profound efficiency in handling hygroscopic, air sensitive reagents and reactions
 - Preparation of optically pure key chiral intermediates
 - Interpretation of the structure using ^1H -NMR, ^{13}C -NMR, IR, and mass spectroscopic data
 - Operating and interpretation of 1D NOE, 2D NOE, COESY, HMBC, HMQC, HSBC using NMR techniques
 - Most of the experimental techniques, handling of highly sensitive reagents, thin layer chromatography, column chromatography, ion-exchange chromatography
 - All chromatographic, spectroscopic techniques including HPLC, GC and LCMS
 - Operation & maintenance of NMR, IR, GC and HPLC Instruments
 - ACD, Chem. Draw Ultra, ISIS Draw, MS Word and MS Office
 - Patent and literature search (Science Finder and Beilstein abstract) and partnering with cross-functional teams within Research and Development

Fellowships

- DST (SERB) Fast Track Young Scientist, INDIA
- Postdoctoral Fellowship Awarded by National Institute on Drug Abuse (NIDA) and National Institute of Allergy and Infectious Diseases (NIAID)
- Post-doctoral Fellowship Awarded by Robert Welch Foundation
- Senior Research Fellowship Awarded by Council of Scientific and Industrial Research (CSIR) INDIA

Professional References

1. Dr. Venkateswara Rao Batchu (Ph.D. Mentor)

Deputy Director, Organic Division -III
 Indian Institute of Chemical Technology
 Hyderabad-500 007, Telangana, **INDIA**.
 Phone/ Fax: +91-40-27193003
 Mobile: +91-9848562850
 e-mail: venky@iict.res.in

2. Professor Edward R. Biehl

Department of Chemistry
 Southern Methodist University
 3215 Daniel Ave.
 Dallas, TX 75275, **USA**.
 Phone: (214)768-1280
 Fax: (214)768-4089
 e-mail: ebiehl@smu.edu

3. Dr. Vedula Rajeswar Rao

Professor
 Department of Chemistry
 National Institute of Technology
 Warangal - 506004, Telangana, **INDIA**
 Mobile: 9912186430/ 8332969496
 e-mail: vrajesw@yahoo.com

4. Dr. Umesh R. Desai

Professor and Chairman
 School of Pharmacy – Dept. of Medicinal Chemistry
 Bio Tech One, Suite 205
 800 E. Leigh St., P.O. Box 980540
 Richmond, VA 23298-0540, **USA**
 Phone: (804)828-7328, Fax: (804)827-3664
 e-mail: urdesai@vcu.edu

5. Dr. Yan Zhang

Professor
School of Pharmacy – Dept. of Medicinal Chemistry
Bio Tech One, Suite 205
800 E. Leigh St., P.O. Box 980540
Richmond, VA 23298-0540, **USA**
Phone: (804)828-0021, Fax: (804)828-7625
e-mail: yzhang2@vcu.edu

6. Dr. G.V. P. Chandramouli

Retired Professor
Department of Chemistry
National Institute of Technology-Warangal
Telangana State, INDIA.
Mobile: 9866575836
e-mail: gypc2000@gmail.com