

Medicinal Chemistry Peptide chemistry Analytical chemistry

Proactive, performance-driven professional with 15 year's progressive experience in leadership and problem solving for pharmaceutical services ,drug discovery in peptide and organic chemistry and designing the project for target drug discovery of NCE and execute and complete the project , expert in planning, organizing and managing resources to successfully complete project goals and objectives, Plan, execute and finalize projects within triple constraints of delivering on time budget and scope objectives, including acquiring resources and coordinating efforts of team members in order to deliver projects according to plan .Identify, effectively communicate and resolve project issues and risks. responsible for leading a team of 8 scientists, and timely delivery of projects involving complex chemistry, manage NCE development projects, involving route scouting, feasibility and screening, process development or optimization and scale up as per the project scope or requirement

INDUSTRIAL EXPERIENCE

- Currently working as a **Scientist**, Aurigene Pharmaceutical services Ltd, Bangalore from 2020-Still
- Worked as a **Scientist-3**, Aurigene Discovery Technologies Ltd, Bangalore from 2017 to 2020
- Worked as a **Scientist-2**, Aurigene Discovery Technologies Ltd, Bangalore from 2012 to 2017
- Worked as a **Senior Research Associate** in Aurigene Discovery Technologies Ltd, Bangalore from 2011 to 2012
- Worked as a **Research Associate** in Aurigene Discovery Technologies Ltd, Bangalore from 2009 to 2011
- Worked as a **Research chemist**, Chembiotech (TCG life Science Ltd), Kolkata from May 2007 to May 2009
- Worked as a **Process Research chemistry**, Dr Reddy's laboratories Ltd, TDC-2, Hyderabad, Telangana, India from 2006-2007
- Worked as a **Research Chemist** in Surya pharmaceutical Ltd, Chandigarh from 2005 to 2006

ACADEMIC QUALIFICATIONS

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| ➤ Senior Management Program (Leadership & Strategic Management), IIM Calcutta | 2018 |
| ➤ M.Sc., Andhra University | 2005 |
| ➤ B.Sc. from Andhra University | 2003 |
| ➤ Intermediate (XII) | 2000 |
| ➤ SSC (X) | 1998 |

PROFESSIONAL EXPERIENCE -MEDICINAL CHEMISTRY

- Synthesis, handling of compounds in Milligrams to kg level and feel of performing the experiment and purification techniques like crystallization, preparative TLC and column chromatography
- Synthesis of Scaffolds and Reference Molecules for comparative studies as suggested by Clients. Evaluation of criticality of projects and time to time problem solving by using synthetic route modifications and novel methodologies.
- Evaluation of project related Information from the chemical source, indenting, cost planning, maintenance of laboratory facilities to complete the assigned project in prescribed timeframe.
- Maintenance of LNB's, raw data, periodic updates and final reports in appropriate system.
- Extensive search of the literature to confirm the novelty before synthesis and to keep updated with the relevant research area was a continuous process.
- Proficient in interpretation of analytical data NMR, IR, HPLC, GC etc., qualitatively and quantitatively consistent process for synthesis of organic compounds.
- Optimize processes with respect to yield, quality, safety and environmental considerations\Proficient in monitoring and managing process economics, Operating Instruction: Preparation of scale up report (process, yield, costing, quality, specification etc.), Proficient in documentation related to pharmaceutical processes.
- Expertise in safe handling of pyrophoric (n-BuLi, LDA, DiBAL-H etc.), Toxic (NaCN, KCN) and RaneyNi, Pd/c (wet, and dry)
- Autoclave, Hydrogenation reactors – high (1 lit), middle (0.5 lit), Handled moisture and air sensitive reactions including organometallic reactions as well as asymmetric catalysis.
- Cognizant of various tools required for literature and patent search, Software applications: Used "SCIFINDER", "MDL Search", "Spresweb" and "Reaxys" for literature search.

EXPERIENCE- PEPTIDE CHEMISTRY

- Experience in Peptide/ peptidomimetic synthesis: Solid and solution phase, Synthesis of Glycopeptides, Phosphopeptides, Branched peptides, Peptidyl N-alkyl amides, complex peptides, cyclic peptides (lactam, stapled, disulfide), multiple di-sulfide and combination of cyclic templates
- Peptide derivatizations - Lipidation, PEGylation, Biotinylation and modification with fluorescent probes, Bulk SPPS synthesis at KG level for PTH (28-32AA), Organic chemistry-based synthesis, Synthesis of multistep compound from milligram to kilogram level, Chemical modification and total synthesis of natural products and their derivatizations with peptides, Synthetic routes and process development of hetero cyclic compounds from amino acids
- Extensive experience in handling different resins: hydroxyl methyl –based resins, amino methyl- based resins, trityl chloride resins and super acid sensitive resins used in convergent peptide synthesis. Protections of various amino acids by Fmoc, Boc, Alloc, Cbz, Acyl using Fmoc-OSu, Fmoc-Cl, Boc-anhydride, BOC-ON, Alloc-OSu, Z-OSu, Acetic anhydride, Trityl, Pbf, Obzl, OtBu, Phospholipids, Glycons, esters, ethers, Amides, Azides, oximes, hydrazones, Extensive experience in synthesizing long chain peptides >70 amino acids
- Experience in synthesizing cyclic peptides with disulfide, lactam and stapled bridges and in combination.
- Experienced in synthesis of selective double disulphide bridges with 60 amino acid containing peptides on solid phase involving linear and convergent methods.
- Glycosylation of peptides, Derivatization of resveratrol, oxy resveratrol, dihydrocapsiate with peptides or amino acids, Other chemical modifications and derivatizations of natural products using: Reductive amination, Witting reaction, Wolf Kushner reduction, PEGylation, O-Glycosylation, Reductive amination, Swern oxidation, Allylic oxidn, Amidation, etherification, Acid & Alkaline hydrolysis of natural products.
- Salient achievements in peptide synthesis (Solid and solution phase including bulk synthesis), Developing novel synthetic routes and process development of various Peptide molecules, Active Pharmaceutical Ingredients (APIs), New chemical entities. Insulin analogues, Parathyroid hormone (PTH), Liraglutide and its mimetics Leuprolide, Matrixyl, Lisinopril,
- Carnocine Instrument handling: Experienced in CEM Liberty Blue HT12 microwave synthesis for library synthesis of peptides, CHEMSPEED Semi automated peptide synthesizer, Lyophilizes,

EXPERIENCE ANALYTICAL CHEMISTRY

- Purification techniques Experience and structure elucidations: Purification of Peptides by RP-HPLC, Crystallization, Column Chromatography (C18, Silica, Alumina, RP-18, Sephadex), Ion exchange and Amberlite XAD resin
- NMR spectroscopy, High Pressure Liquid Chromatography (HPLC, Agilent and Shimadzu), Gas Chromatography (GC, Agilent and Shimadzu), Liquid chromatography Mass Spectroscopy (Agilent and Shimadzu ESI, APCI)
- High Resolution Mass Spectroscopy (Broker, HRMS Q-Tofu), FT-Infrared spectroscopy (FT-IR, and Perkin Elmer both with ATR accessory), Flash Chromatography (Buchan, Biotope), Polarimetry (Perkin Elmer).

EXPERIENCE NAMED REACTIONS

- Baeyer-Villiger oxidation, Bartoli indole, Appel synthesis, Baylis-Hillman reaction, Beckmann rearrangement
- Biginelli reaction, Birch reduction, Buchwald-Hartwig amination, Cannizzaro reaction, Claisen condensation
- Claisen rearrangement, Clemmensen reduction, Cope rearrangement, Corey-Kim oxidation
- Curtius rearrangement, Dakin-West reaction, Dieckmann condensation, Diels-Alder reaction,
- Eschenmoser-Claisen rearrangement, Eschweiler-Clarke reaction, Finkelstein reaction, Fischer esterification
- Fischer indole synthesis, Friedel-Crafts acylation, Friedel-Crafts alkylation, Fries rearrangement
- Gabriel synthesis, Grignard reaction, Heck reaction, Hell-Volhard-Zelinsky reaction, Henry reaction
- Hofmann elimination, Hofmann rearrangement, Ireland-Claisen rearrangement, Jones oxidation
- Johnson-Claisen rearrangement, Knoevenagel condensation, Knorr pyrazole synthesis, Kolbe-Schmitt reaction
- Kumada cross-coupling, Luche reduction, Mannich reaction, Michael addition, Mitsunobu reaction
- Mukaiyama aldol addition, Negishi cross-coupling, Oppenauer oxidation, Pauson-Khand reaction
- Perkin reaction. Pictet-Spengler reaction, Prins reaction, Reformatsky reaction, Reimer-Tiemann reaction
- Ritter reaction, Robinson annulation, Sandmeyer reaction, Schmidt reaction, Schotten-Baumann reaction
- Sharpless epoxidation, Sonogashira cross-coupling, Staudinger reaction, Stille cross-coupling
- Strecker amino acid synthesis, Suzuki cross-coupling, Swern oxidation, Ullmann reaction,
- Vilsmeier-Haack reaction, Wagner-Meerwein rearrangement, Williamson ether synthesis, Wittig reaction
- Wolff-Kishner reduction, Wolff rearrangement, Wurtz reaction, Yamaguchi esterification

PERSONAL PROFILE

- Father Name : Satti Reddy Velagala
- Sex : Male
- Marital status : Married
- DOB : 1980
- Languages : Telugu, English, Hindi, and German
- Hobbies : Playing cricket, reading articles, and watching movies
- Place: Bangalore, India

Trinadh Reddy Velagala