



### **Key Skills**

- Synthesis and development of new organic molecules.
- Sound knowledge of isolation, separation and purification techniques.
- Interpretation, identification and characterization of molecules using  $H^1$ -NMR,  $C^{13}$ -NMR, ICP-OES, LC-MS, ESI-MS, HPLC and FTIR.
- Independently propose, direct and perform chemical reactions/ experiments with a predefined project goal such as developing new methodologies, protocols and procedure
- Involved in lab/group operation including coaching, mentoring, training, supervising.
- Positive and confident individual with strong work ethics.
- Scientific and numerical skills
- Operating Systems: - MS-DOS, Windows–XP/2007/2008 and Packages: Ms-Office2007
- Scifinder, Reaxys, Chemdraw and Chem Sketch.

### **Reagents & reactions Handled**

- |                     |                           |                            |
|---------------------|---------------------------|----------------------------|
| ▪ LAH               | ▪ $SOCl_2$                | ▪ DIBAL – H                |
| ▪ $NaBH_4$          | ▪ $POCl_3$                | ▪ BOC – anhydride          |
| ▪ $LiBH_4$          | ▪ MTS – Cl                | ▪ Me-Mg-Br                 |
| ▪ Zn-CN             | ▪ SEM – Cl                | ▪ Et-Mg-Br                 |
| ▪ KCN               | ▪ MOM – Cl                | ▪ Vinyl-Mg-Br              |
| ▪ Na-CN             | ▪ TBDPS – Cl              |                            |
| ▪ n-Butyl lithium   | ▪ TBDMS – Cl              |                            |
| ▪ Suzuki Coupling   | ▪ Misunobu reaction       | ▪ Friedal-craft alkylation |
| ▪ Appel Reaction    | ▪ Friedal-craft acylation |                            |
| ▪ Grignard reaction |                           |                            |

## **Work Experience**

### ***Research Scientist (R & D)***

***Nov-2020 to Till the date***

***Sambi Pharma Pvt Ltd-***

***Hyderabad***

- Plan for the project execution in a smooth manner
- Finding the best route for the target molecule synthesis
- Trial batches for cracking feasibility and critical steps in the reaction
- Multi steps; mg scale to gram scale reactions
- Responsible for the large scale reactions by guiding the team members
- Apply experience and knowledge to identify and implement improved ways of working
- Manage, lead, motivate, train and develop a team
- Responsible for managing projects with the scientific integrity of client projects in a timely, effective and high quality manner
- Responsible for providing liaison communication with key members of client organizations
- Computer literacy in the form of MS-Office, on-line computer searching
  - Reporting to Director – R&D

### ***Research Associate (R & D)***

***September–2013 to October–2016***

***Chiral Biosciences Pvt Ltd- Hyderabad***

- Collection and evaluation of literature, costing and scalability of processes.
- Design for ROS for target molecules; multi step organic synthesis
- To ensure good laboratory practices in the lab.
- Maintenance of documents like patents, literature, analytical reports
- Research, Synthesis, Validation, Documentation, Calibration, solution preparation, analytical instrumentation like GC, HPLC , UV-VIS-spectrophotometer, Elemental analysis & titrations
- Preparing research proposals and funding applications
- Demonstrating procedures and supervising junior staff including scholars and lab technicians
- Developing original solutions to problems
- Process development for new drugs & intermediates.
- Responsible for literature survey and its analysis to plan a non-infringing, scalable and economic route; patent analysis preferred.

- Synthesis of new or existing molecules by employing different methods.  
Key involvement in the process development scale-up by optimization of reaction conditions / manufacturing process and validation.
- Comply with all regulations and policies; Perform all work in safe manner; Maintain proper records (notebooks, analytical data and scale-up records) as per relevant SOP's including environmental and safety.
- Route scouting, chemistry evaluation, process development, optimization of drugs.
- Monitoring the daily research activities and give effective solutions.
- Liaising with representatives from other departments like manufacturing and Quality dept. to update on progress and also communicate future requirements for product transfer
- Actively involved and provided necessary back bone support to the team for customer Perrigo audits and ISO 9001:2008, ISO 22000:2005 and US-FDA audits.
  - Reporting to Dy. Manager – R&D

### **Education Details**

- PhD Synthetic Chemistry (2021) - IFHE & IICT- Hyderabad.
- M.Sc Organic Chemistry (2013) - Mahathma Gandhi University, Nalgonda (84%)
- B.Sc.(Bio-technology) – (2011) Osmania University Hyderabad (72%)
- Intermediate (2008) Board of Intermediate Education (76.4%)
- SSC (2006) Board of Secondary Education (69%)

### **Personnel information**

Name: Swapna Samala

Father's name: Shankaraiah

Husband's name: B. Naresh Kumar

Date of Birth: 19<sup>th</sup> Sep – 1992

Nationality: Indian – Hindu

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