# Dr. Saravanan Kandasamy, PhD, AFHEA

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## **EDUCATION**

2014-2020 PhD in Organic Chemistry at the University of Manchester, UK

PhD area: Synthetic carbohydrate chemistry

# **Laboratory Skills**

Excellent skills in

- Synthetic organic chemistry, medicinal chemistry, and carbohydrate chemistry.
- Practical synthetic organic chemistry, multistep organic synthesis, synthetic reagents, synthetic methods, retrosynthesis, FGI.
- Synthetic laboratory techniques, good laboratory practices, and safety procedures.
- Carry out COSHH and risk assessment process. Make sure that health and safety standards are being met and maintained.
- Interpretation of small molecules using standard techniques NMR, Mass spectrometry, FT-IR, X-ray.
- Purification methods such as flash column chromatography, recrystallisation, extraction methods, HPLC, LCMS, GCMS, lyophilisation, trituration, etc.
- Using Topspin, Mestronova, iNMR, and Chemdraw, SciFinder, Reaxys, AutoDock Vina, UCSF Chimera, PyRx, PyMOL etc.
- Good Knowledge of molecular biology, biological assays and chemical biology.

# **Teaching experience**

- Taught both practical and theoretical skills to the Junior PhDs, Undergraduate and Master Students for setting up reactions, column chromatography operations, and TLC, rotary evaporator, polarimetry operation, and NMR, IR, Mass spectrometry interpretation in the lab and worked as Graduate teaching assistant.
- Lab demonstrator for BSc Chemistry 3<sup>rd</sup> year (CHEM30600) students for their mini-project.
  Preparation of TADDOL Ligands: Applications to Asymmetric Catalysis, Preparation of Acryloyl
  2-Oxazolidinone at the Department of Chemistry, University of Manchester.
- Lab demonstrator for MPharm 3<sup>rd</sup> Year (PHAR 30400) student project in comparison to analytical methods. Method 1. Determination of ferrous sulphate tablets-titrimetric method.
   Method 2. Colorimetric determination of ferrous sulphate tablets with ortho phenanthroline and MPharm, 2<sup>nd</sup> year The medicine (PHAR 20100), Synthesis and Analysis of Aspirin, Division of Pharmacy and Optometry, at the University of Manchester.

 Supervision of UG, PG project and Junior Ph.D. students in our lab at the University of Manchester.

1999 – 2004 B.PHARM Tamil Nadu Dr. MGR Medical University,

• HSLC: Physics, Chemistry, Botany, Zoology,

• SSLC: Maths, Science, Social science.

### RELEVANT EXPERIENCE

24/04/2005- 26/03/2009 Rackshiey Herbal Lab, Tamil Nadu. India.

# **Chemist (Manufacturing)**

- Supervision and maintaining the departments of capsules, ointments, creams, powders, and oral liquids (syrups and suspensions).
- Co-ordination with stores and purchase for production and material planning.
- Production planning in accordance with inventory and requirements.
- Follow up with Quality Control & Quality Assurance Department, ensure, and update GMP compliances.

18/10/2004 – 13/04/2005 Spic Pharma R and D (division), Mitocon biotech, API. Tamil Nadu. India.

### **Trainee Chemist**

- Assisting synthesis, purification, drying, and characterisation of known drugs, and analysis using NMR, FT-IR, and Mass spectrometry. Analysis of drugs/raw material by using HPLC, Dead stop endpoint technique (Karl Fischer Moisture Titration), titrations, dissolution test, disintegration test, Bulk and Tapped Density Test, Friability test, Melting point etc. Analysis of finished organic compounds using HPLC, UV, FT- IR, TLC, and using wet chemistry. (Terbutaline sulphate, tramadol HCl, pseudoephedrine HCl, N-acetyl-glucosamine, mefenamic acid, aspirin, nifedipine & herbal products.)
- Supervision and maintaining the departments of Granulation, Tablet compression, Coating, Capsules filling, Ointments, Creams, Liquids (syrups and suspensions).

Dec. 2003 to April 2004, Innovex India Pvt Ltd, Chennai.

## Medical sales representative

- Arrange appointments with doctors, pharmacists and hospital medical teams, including prearranged appointments or regular 'cold' calling, Present product information and deliver product samples.
- Make presentations to doctors, practice staff and nurses in GP surgeries, hospital doctors and pharmacists in the retail sector.

• Plan work schedules, weekly, and monthly timetables with the area sales team; discuss future targets with the area sales manager, and many further duties.

### ADDITIONAL WORK EXPERIENCE

- April 2009 to Nov. 2013 Worked as a Pharmacist at Sakthi hospital, Singaperumal Koil, Tamil Nadu, India.
- Sept. 2016 to June 2018 Harry's Pharmacy, Stretford, in Manchester. UK. (Dispenser, part-time)
  05/06/2014 -30/05/2016 Manley Pharmacy, Whalley Range, in Manchester. (Dispenser, part-time)

### **WORKSHOP AND TRAINING**

- Associate Fellow of the Higher education academy, UK Professional standard network. (HEA, UK), 2020.
- Mass spectrometry Summer School (Engineering and Physical Sciences Research Council, National mass spectrometry facility, Swansea, UK). 2016.
- Instrumentation Techniques in food and safety analysis at the Central Food Technological Research Institute at Mysore, India. 2014.
- Undergone basic microbiology internship at Aviagen biotech Pvt Ltd, 2022.
- Practical experience in cell culture technique

### POSTER PRESENTATION

 Presented poster titled Modification of the glycopeptide antibiotic teicoplanin and synthetic approaches to synthetic glycosylaminoglycan fragments at the University of Manchester, 2017.

# **PUBLICATION**

· Manuscript yet to be submitted.

## ADDITIONAL SKILLS

IT: Excellent working skills in using Microsoft Office and basic knowledge in Python, SAS software.

Languages: Fluent in English (both written and verbal) and Tamil (native)