

## Ponnamaneni Ranjith Kumar

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### OBJECTIVE

To become a responsible scientist in drug discovery and research by adapting and applying innovative ideas and skills with commitment and co-ordination while leading and empowering teams with technical and scientific knowledge to contribute efficiently for the improvement of human life with value addition to the organization

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### TECHNICAL SKILLS

- Having about 15 years of bio-analytical experience in drug discovery, supporting to drug metabolism and pharmacokinetics including BA-BE samples processing and analysis
- Developed liquid chromatography and mass spectrometry based analytical methods for more than 200 compounds in different biological matrices
- Published peer reviewed articles in scientific journals, including a review on quantification of acetylcholine in brain microdialysates in 'biomedical chromatography' journal
- ABSCIEX Certified analyst and operator of mass spectrometer. Trained by ABSCIEX in Darmstadt, Germany
- Accomplished metabolite profiling assays for lead compounds to file IND by using API 4000 Qtrap LC- MS/MS system
- Established LC-MS/MS analytical methods for different tracers to find out receptor occupancy of NCEs in brain regions
- Successfully completed microdialysis service/collaborative projects of various clients worldwide (including Astrazeneca, BMS, EliLilly, Lundbeck & Theravance) by analyzing acetylcholine and monoamines (dopamine, norepinephrine and serotonin) level in rat/guinea pig brain microdialysates (cerebrospinal fluid)
- Established high throughput LC-MS/MS analytical methods for various CYP and transporter mediated drug-drug interaction studies
- Excellent analytical data interpretation skills and report writing skill with creative thinking ability. Proficient in communication skills both written and

verbal

- Team management; Effective planning and co-ordinating with scientific teams to implement daily activities

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## SCIENTIFIC CONFERENCES

- Participated in 256<sup>th</sup> ACS (American Chemical Society) meeting held during Aug 19<sup>th</sup>-23<sup>rd</sup> 2018 at Boston, MA, USA
- Presented scientific posters at 20<sup>th</sup> North American ISSX (International Society for the Study of Xenobiotics) meeting held during Oct 18<sup>th</sup>-22<sup>nd</sup> 2015 at Orlando, Florida, USA
- Presented scientific posters at 19<sup>th</sup> North American ISSX (International Society for the Study of Xenobiotics) / 29<sup>th</sup> JSSX (Japan Society for the Study of Xenobiotics) meeting held during Oct 19<sup>th</sup>-23<sup>rd</sup> 2014 at San Francisco, California, USA

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## PROFESSIONAL EXPERIENCE

### Principal Scientist

**Oct 2015 – Nov 2019**

Suven Life Sciences Ltd., Hyderabad, Telangana state, India

#### Responsibilities

Project management and data review; Analytical method development for biomarkers in microdialysates; Metabolite profiling in preclinical species, responding to client queries regarding analytical method development and data generation, Reports preparation for IND filing in eCTD; Assisting in preparation of protocols & reports for analytical activities, and reviewing analytical data. Impurity profiling in active pharmaceutical ingredients (APIs) and pharmaceutical formulations; Interpreting liquid chromatography mass spectrometry data supporting to in-vitro and in-vivo preclinical ADME and PK-PD studies; Conducting pre-clinical in-vitro ADME studies to test, evaluate and screen drugs, pharmaceuticals and new chemical entities; Planning, co-ordinating and conducting day to day analytical activities. Conducting studies to evaluate drug properties and effects on biological test systems of human and other animal tissues and cell lines; Participating in investigation of OOS, OOT, LIR and incidents and providing scientific CAPA responses; Co-ordinating with global CROs for analytical development work of outsourced projects. Working closely with cross functional teams, understanding the project needs and actively participating in technical discussions and tele-cons; Taking responsibility of bioanalysis & team management; Ensuring team as well as data integrity; Training, mentoring and guiding the team as and when required; Preparing and reviewing of protocols and study reports; ensuring high level of quality

### Senior Scientist

**Oct 2012 – Sep 2015**

Suven Life Sciences Ltd., Hyderabad, Telangana state, India

#### Responsibilities

Project management: Review of analytical data. Designing different in vitro screening assays for NCEs and developing analytical methods. Evaluate NCEs

as potential substrates for uptake transporters. Evaluate inhibitory effect of NCEs on transporters uptake mechanism. Analytical support to screen NCEs for CYP inhibition and induction potential; Analytical method development for biomarkers in microdialysates; Identifying metabolites in preclinical species tox study samples of plasma, bile etc, and quantifying circulatory concentrations of drug and metabolites; and report generation as per USFDA and ICH guidelines. Compilation of the data for pharmacokinetic analysis, method / instrument SOPs and reports preparation from the analytical raw data. Scheduling calibration and maintenance of analytical equipments as and when required. Responding to client queries regarding analytical method development and data generation for preclinical samples

### **Scientist**

**Jul 2009 – Sep 2012**

Suven Life Sciences Ltd., Hyderabad, Telangana state, India

#### **Responsibilities**

Investigates and corrects analytical, instrumental and procedural problems, if necessary in consultation with management. Writing and revising SOPs as per need and maintain awareness of and adherence to all current SOPs. Applying assays for routine batch analysis of drugs and metabolites in biological fluids involving simple to complex analytical techniques. In-vitro and in-vivo reactive metabolite profiling, Phase-I and Phase- II metabolite profiling using QqQ API 4000 Qtrap with IDA wizard using Analyst and Light Sight software; Identifying soft and hard reactive species with trapping agents like GSH (Glutathione) & GSH-EE (Glutathione ethyl ester); Assisting in specification setting, OOS, OOT investigations, change controls and other GLP and quality practices.

### **Associate Scientist**

**Apr 2008 – Jun 2009**

Suven Life Sciences Ltd., Hyderabad, Telangana state, India

#### **Responsibilities**

Design and manage bio-analytical support for ADME and pre-clinical PK studies. Generate, maintain and implement study protocols and SOPs. Supervise, train and ensure professional development of junior researchers. Prepare manuscripts for publication in professional journals as well as materials for meetings and conferences. Anticipate and troubleshoot the potential scientific and logistic problems. Preparing and reviewing reports; understanding regulatory queries and providing scientific justifications as and when required. Ensuring calibrations of the equipments are performed as per the schedule; Executing projects as per the approved test protocols; Data compilation and reports generation. Timely procuring and maintaining the inventory of regular analytical consumables and requirements

### **Senior Research Associate**

**Jan 2007 – Mar 2008**

Suven Life Sciences Ltd., Hyderabad, Telangana state, India

#### **Responsibilities**

Bioanalytical method development, validation and study samples analysis of drugs and their metabolites in plasma and brain and also in hepatocytes, liver microsomes, blood and urine. Screening of NCEs with major CYP inhibition assays (CYP2D6, CYP3A4, CYP2C9, CYP2C19, CYP1A2, CYP2B6, CYP2E1 etc) using specific substrates; Establish methods to quantify tracer levels in brain tissues for various receptors like SERT, 5HT2A, 5HT1A, H3, GABAA etc., to study receptor occupancy of new NCEs. Quantify neurotransmitter (Acetylcholine) levels in brain microdialysis assay. Method development for NCEs to carry out reaction phenotyping assays. Metabolic stability study designing in plasma, blood, hepatocytes and liver microsomes of rat, dog,

monkey and human species; Simultaneous method development for 5 compounds in 'Brain in beaker' assay to screen out the compounds having non-specific binding; CYP induction assays, plasma protein binding study samples analysis. Data interpretation using 'GraphPad', 'Winonlin' and MS Office. Method development for compounds to screen under Caco-2 cell permeability assay, solubility assay design using UV-spectrophotometer and HPLC: Method/Instrument SOPs and report preparation. Operation, calibration and maintenance of HPLC, pH meter, balances and other analytical instruments

#### **Research Associate**

**Oct 2005 – Dec 2006**

Veeda Clinical Research India Pvt .Ltd., Ahmedabad, Gujarat, India

#### **Responsibilities**

Responsible to carry out different experiments related to bio-analytical method development, method validation and project sample analysis of drugs and their metabolites. Literature searching for assigned projects; Ensuring project requirements by co-ordinating with group leader; Involving in project execution and co-ordinating with cross-functional to arrange project requirements. Documenting research findings/observations in laboratory record note books and ensuring data integrity. Developing extraction techniques like solid phase extraction, liquid-liquid extraction, precipitation etc., in plasma for BA-BE studies. Operation, calibration and maintenance of pH meter, balances, HPLC and other analytical instruments. Data compilation for pharmacokinetic analysis: Project management, reply to relevant QA queries. Method/Instrument SOPs and reports preparation: Conducting training as per requirement. Experienced auditing by **ANVISA-Brazil** and **FDA-US**

#### **Lecturer**

**Oct 2004 – Sep 2005**

Vikas college of Pharmacy., Jangaon, Warangal, Telangana state, India

#### **Responsibilities**

Teaching and conducting practical classes for undergraduate students to train in industrial pharmacy, pharmacognosy, biotechnology, analytical and pharmaceuticals subjects

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### **OTHER AREAS OF INTEREST**

Analytical R&D; Quality Assurance and Quality Control (QA & QC)

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### **SCIENTIFIC PUBLICATIONS**

- Methoxsalen as an in vitro phenotyping tool in comparison with 1-aminobenzotriazole. Palacharla RC, Molgara P, Panthangi HR, Boggavarapu RK, Manoharan AK, **Ponnamaneni RK**, Ajjala DR, Nirogi R. *Xenobiotica*. 2019 Feb 49(2):169-176
- Quantitative in vitro phenotyping and prediction of drug interaction potential of CYP2B6 substrates as victims. Palacharla RC, Nirogi R, Uthukam V, Manoharan A, **Ponnamaneni RK**, Kalaikadhiban I. *Xenobiotica*. 2018 Jul; 48(7):663-675
- Mechanistic evaluation of tapentadol in reducing the pain perception using in-

vivo brain and spinal cord microdialysis in rats. Benade V, Nirogi R, Bhyrapuneni G, Daripelli S, Ayyanki G, Irappanavar S, **Ponnamaneni R**, Manoharan A.

*Eur J Pharmacol.* 2017 Aug 15;809:224-230

- Inhibition of cytochrome P450 enzymes by saturated and unsaturated fatty acids in human liver microsomes, characterization of enzyme kinetics in the presence of bovine serum albumin (0.1 and 1.0% w/v) and in vitro - in vivo extrapolation of hepatic clearance. Palacharla RC, Uthukam V, Manoharan A, **Ponnamaneni RK**, Padala NP, Boggavarapu RK, Bhyrapuneni G, Ajjala DR, Nirogi R.  
*Eur J Pharm Sci.* 2017 Apr 1;101:80-89
- Evaluation of metabolism dependent inhibition of CYP2B6 mediated bupropion hydroxylation in human liver microsomes by monoamine oxidase inhibitors and prediction of potential as perpetrators of drug interaction. Nirogi R, Palacharla RC, Mohammed AR, Manoharan A, **Ponnamaneni RK**, Bhyrapuneni G.  
*Chemico-biological interactions* 2015 Mar 25;230:9-20.
- Chemical inhibitors of CYP450 enzymes in liver microsomes: combining selectivity and unbound fractions to guide selection of appropriate concentration in phenotyping assays. Nirogi R, Palacharla RC, Uthukam V, Manoharan A, Srikakolapu SR, Kalaikadhiban I, Boggavarapu RK, **Ponnamaneni RK**, Ajjala DR, Bhyrapuneni G.  
*Xenobiotica* 2015 Feb;45(2):95-106 DOI:10.3109/00498254.2014.945196.
- Identification of a suitable and selective inhibitor towards aldehyde oxidase catalyzed reactions. Nirogi R, Kandikere V, Palacharla RC, Bhyrapuneni G, Kanamarlapudi VB, **Ponnamaneni RK**, Manoharan AK.  
*Xenobiotica* 2014 Mar;44(3):197-204
- In vivo receptor occupancy assay of histamine H3 receptor antagonist in rats using non-radiolabeled tracer. Nirogi R, Kandikere V, Bhyrapuneni G, Muddana N, Saralaya R, **Ponnamaneni RK**, Manoharan AK.  
*Journal of Pharmacological and Toxicological Methods* 2012 May-Jun; 65(3):115-21.
- Concurrent administration of atypical antipsychotics and donepezil: drug interaction study in rats. Nirogi R, Bhyrapuneni G, Kandikere V, Benade V, Muddana N, Saralaya R, Irappanavar S, **Ponnamaneni RK**, Mukkanti K.  
*European Journal of Drug Metabolism Pharmacokinetics.* 2012 Feb 3. [Epub ahead of print]
- Effect of dimethyl sulfoxide on in vitro cytochrome P4501A2 mediated phenacetin O-deethylation in human liver microsomes. Nirogi R, Kandikere V, Bhyrapuneni G, **Ponnamaneni RK**, Palacharla RC, Manoharan A.  
*Drug Metabolism and Disposition* 2011 Nov; 39(11):2162-4.
- Quantification of acetylcholine, an essential neurotransmitter, in brain microdialysis samples by liquid chromatography mass spectrometry. Nirogi R, Mudigonda K, Kandikere V, **Ponnamaneni R**.  
*Biomed Chromatogr.*2010 Jan;24(1):39-48 Review

Education	School / College	Board / University	Duration	Grades achieved
M.Pharmacy (Pharmaceutical Biotechnology)	Sri Ramakrishna Institute of Paramedical Sciences. Coimbatore, Tamilnadu	The Tamilnadu Dr. M.G.R Medical University, Chennai, Tamilnadu, India	2002-2004	First
B.Pharmacy	Sri Venkateshwara College of Pharmacy. Hyderabad, Telangana	Osmania University. Hyderabad, Telangana, India	1998-2002	First
Intermediate (Class XI-XII)  (Maths, Physics & Chemistry)	SR Junior College. Hanamkonda, Warangal, Telangana	Board of Intermediate Education. Andhrapradesh, India	1995-1997	First
High School Secondary Education (Class VIII-X)	Mahabubia High School. Warangal, Telangana	Board of Secondary Education. Andhrapradesh, India	1992-1995	First

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## TECHNICAL TRAININGS

- Received training about ‘Hepatocytes thawing, counting and plating techniques’ at ‘Invitro ADMET Laboratories Inc.’ Boston hepatocyte technology Center, 389 Main street, Suite 301-304 Malden, MA, USA during Aug 22<sup>nd</sup>-23<sup>rd</sup> 2018
  - Received ‘Basic LC/MS training’ by ‘Applied Biosystems’ at Darmstadt, Germany during Nov 10<sup>th</sup> - 13<sup>th</sup> 2009
  - Practical training in the “Evaluation of Genotoxic Potential of Chemicals Based on ‘his’ Reversion in Genetically Modified *Salmonella typhimurium* tester strains”
  - Received training on ‘Modern Instrumental Methods For Pharmaceutical Analysis’ which includes GC, GC-MS, HPLC, FTIR & UV-VIS Spectrophotometry’ at ‘Centre For Environment’ Institute of Science and Technology, Jawaharlal Nehru Technological University (JNTU) Kukatpally, Hyderabad, Telangana, India during Jan 20<sup>th</sup> – Feb 4<sup>th</sup> 2005
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## PERSONAL PROFILE

Name : Ponnamaneni Ranjith kumar  
Father's name : Chandraiah  
Date of birth : 03-06-1979  
Marital status : Married  
Gender : Male  
Nationality : Indian  
Religion : Hindu  
Languages known : English, Telugu and Hindi  
Permanent address : Flat 1610 Scarlet (H) block  
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Green hill Road,  
Near Hi-Tech city railway station,  
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## REFERENCE

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