

Dr. Satya Karuna Pulakhandam,

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Phone: 9963690992

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Objective: Reinforce and extend my experience in the CRO, Discovery in Medicinal Chemistry by taking on new responsibilities and challenges in organization.

Highlights of qualifications and skills:

- Strong background in the theory and practice of classical and modern synthetic organic chemistry with a thorough understanding of modern synthetic methods and reaction mechanisms.
- Superior written, communication skills and presentations.
- Ability to manage multiple projects in parallel.
- Strategic, analytical thinker with strong business acumen.

I. Professional Experience:

- a) **Pharmaffiliates Analytics & Synthetics Hyderabad; Senior Scientist, March 2019 to till date.**
- b) **Innovision Life Sciences Pvt. Ltd Hyderabad; Scientist, Jan 2018 to March 2019**
- c) **GVK Bio Science Pvt. Ltd Hyderabad; Senior Research Associate, Sep 2006 to Dec 2017**
Contract Research Organization and Discovery work in Medicinal Chemistry division

Job responsibilities:

- ❖ Management and leadership of a group of 4 to 5 chemists.
- ❖ My role is responsible for client projects by route designing and synthesis of molecules as per specifications, independently and/ or through supervision of a team of chemists.
- ❖ **Set-up and execute reactions for synthesis of target molecules:**
 - Understand the project requirements and deliverables from supervisor/manager, as specified by the client
 - Understand the reaction protocol, Literature search and execution of projects with in the self-estimated and targeted timelines
 - Comprehend and discuss the MSDS (Material Safety Data Sheet) with supervisor/team members
 - Identify and mitigate any potential safety risk with the help of supervisor
 - Efficiently delegate work and monitor team members for effective planning, execution and delivery
 - Plan and execute reactions independently with proper reagents and equipment (glassware, stirrers, vacuum pumps etc.) maintaining specified conditions (temperature, pressure etc.), with optimum usage and minimum wastage
 - Ensure parallel execution of multiple reactions conducted both by self and the team
 - Monitor progress of the reactions by using standard methods and analytical techniques
 - Identify and execute appropriate workup and purification technique to produce an intermediate/ final compound of desired quality
 - Analyze analytical data, comprehend results and identify the issues
 - Troubleshoot as appropriate for successful execution with intimation to supervisor and guide juniors/team
 - Meet productivity benchmarks on number of reactions/ number of steps/ number of compounds/ quantity/ compound purity/ project timelines of self and team

❖ **Improve delivery efficiency and quality through project management**

- Support project manager in finalizing the estimation of the project by identifying relevant literature and proposing appropriate synthetic routes
- Assess potential risks on the project proposals

❖ **Ensure safety at work through enforcement of good laboratory practices.**

- Follow safety protocols and guidelines in the labs
- Maintenance and usage of equipment/apparatus/instruments as per SOPs
- Guide team members/juniors on safety protocols and ensure compliance

❖ **Maintain records, data integrity and IP confidentiality**

- Document reactions, research findings/ observations accurately in lab note books as per client requirements to ensure data integrity
- Maintain strict IP Confidentiality and adhere to all related policies
- Preparation of Weekly Reports, Final Reports, Weekly update etc.
- Identify and report non-compliance of LNB guidelines updated by junior team members

❖ **Ensure high morale and skill development of self and team**

- Guiding a team of chemists to meet productivity/ quality targets
- Train & develop team members, regularly monitor their performance
- Improve knowledge of organic chemistry (particularly synthesis)/ Analytical techniques etc.

❖ Handling average 20-25 project per year.

❖ 5 chemists directly reporting to me.

❖ Create and sustain a high quality function which aims to continuously improve in competence, scientific excellence and innovation.

❖ Support to the Manager for new technology initiatives designed to increase efficiency and productivity. Develop effective interactions with other groups

❖ Interpretation of organic compounds by Mass (LC-MS & GC-MS), ¹HNMR, ¹³CNMR, IR & HPLC

❖ Carrying out efficient separation and purification of compounds by Preparative Thin-Layer Chromatography, Column Chromatography, High Vacuum Fractional Distillation, grace purification technique and Recrystallization etc.

❖ Updating the projects by preparing weekly reports and Final Reports., participating in Teleconferences with the client over project reviews and updates

❖ Direct Interaction with the clients regarding the project requirements and updates

❖ Planning and resources identification, giving project projections

❖ Coordination between various departments for smooth execution of the project

❖ Selection of non-infringing synthetic route by the thorough review of literature and patents.

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- ❖ Delivering the target products by strict adherence to safety while using different hazardous chemicals.
 - ❖ Writing reports, research articles, reviews, delivering talks in conferences/work-shop.

Achievements:

- ❖ Weekly status updates to clients by power point slides and telecons.
- ❖ Responsible for providing documented controlled synthetic process for discovery molecules as requested by clients.
- ❖ Designing retro synthetic routes for target molecules and executing their synthesis for targets.
- ❖ Analyzing the problems (particularly impurities or by product structures determinations) during synthetic route and solving them independently.
- ❖ Several impurities/by products isolated and characterized with the help of AR&D support
- ❖ Maintaining safety practices, Internal Auditor for error free documentation, Lab maintenance, procurement of Chemicals in addition to the regular work.

II. Areas of Expertise

- Medicinal Chemistry
- Heterocyclic Chemistry
- Linear Synthesis
- Parallel Synthesis
- Library Synthesis
- Stereochemistry
- Organo-metallic Chemistry
- Synthesis of New active drug molecules
- New methodological work

III. Research Experience: Research Fellow, Doctoral Thesis

- a) **P.hD (2012-2018):** Jawaharlal Nehru Technological University Kakinada, Kakinada, East Godavari District, Andhra Pradesh, India-533 003 In the research group of Assistant Professor Dr.Naresh Kumar Katari.

Ph.D; Title: “Synthesis and Characterization of 1,4-dihydroquinazoline and quinazoline derivatives”



Research Advisor: Dr. Naresh Kumar Katari, Assistant Professor in Gitam University and Dr. Manda Ravi Prakash Reddy, Scientist-E in C-MET, Hyderabad, India.

b) Academic credentials:

- ❖ **Ph.D (2012-2018),** Synthetic Organic Chemistry, Assistant Professor Dr.Naresh Kumar Katari, Gitam University, Hyderabad.
- ❖ **M. Sc. (2004-2006):** Organic Chemistry, Andhra University, A.P, First division.

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- ❖ **B. Sc. (2001-2004):** Math's, Physics, Chemistry, Andhra University, A.P, Distinction.
 - ❖ **Board of Intermediate education (1990-2001):** VEC Junior college, West Godavari District, A.P, Distinction.

IV. Awards:

- ❖ Five times received Research & Recognition in **GVK Bio Sciences Pvt. Ltd** during the year 2006-2017
- ❖ Awarded Pfizer appreciation (**GVK Bio Science**) in 2010.
- ❖ Awarded GSK Silver (**GVK Bio Science**) in 2016
- ❖ Awarded GSK Bronze (**GVK Bio Science**) in 2017

V. LIST OF PUBLICATIONS:

1. "Tandem One Pot (TOP) and efficient method for the palladium reagent-catalyzed cross-coupling of quinazoline thiols" **P Satya Karuna**,^a R.V.V. Ramana Murthy,^b M.R.P. Reddy,^c Naresh Kumar Katari^d and Kummari Srinivas^d *Journal of Hetero Cyclic Chemistry* **2014, 49, 992-995.**
2. "Transition metal-promoted synthesis of 2-aryl/heteroaryl-thioquinazoline: C-S Bond formation by "Chan-Lam Cross-Coupling" Reaction" **Pulakhandam Satya Karuna**,^a M.R.P. Reddy,^b and Naresh Kumar Katari^c. *Journal of Chemical Science* **2016, 51, 899-902.**
3. "Microwave-Promoted Syntheses of S-Substituted Quinazoline Derivatives from 1,4-dihydroquinazoline-2-thiol" **Pulakhandam Satya Karuna**,^a M.R.P. Reddy,^b and Naresh Kumar Katari^c *Letters in Drug Design & Discovery* **2017, 15, 583-589.**
4. "Oxone mediated oxidation of 2-(aryl/alkyl thio) quinazolines: a green approach" **Pulakhandam Satya Karuna**,^a Siva Reddy Annem^b, Naresh Kumar Katari^{*b} and M.R.P. Reddy^c *Current Green Chemistry* **2018, 5, 3, 108-113.**
5. "Synthesis of Novel Analogues of 2-Thioquinazoline" **Satya Karuna Pulakhandam**,^a Naresh Kumar Katari^{b,c*} and Sreekantha B. Jonnalagadda^c *Molecular Diversity* **2018, 23, 2, 1-10**
6. "Preparation of linear frac concentration with different hydrocarbons like petrol, diesel, kerosene compatibility & breaker test by using oxidizer, breakers" R.V.V. Ramana Murthy^a, Subrahmannian P^a, Naresh Kumar Katari^{b*}, **P. Satya Karuna**^b and M.R.P.Reddy^c *Journal of Applied chemistry* **2013, 2 (3), 605-613**
7. "L-Arginine catalysed knoevenagel Condensation: An Unambiguous synthesis of cyano-nitrophenylacetamide, benzimidazole acetonitrile & 3-indole substituted alkenes" K. Srinivas^{a*}, Naresh Kumar Katari^a, **P. Satya Karuna**^b and M.S.Surendrababu^c *Current organo catalysis* **2015, 44-50.**

VI. Posters and Presentations

1. **Poster** : Tandem One Pot (TOP) and efficient method for the palladium reagent-catalyzed cross-coupling of quinazoline thiols. **P Satya Karuna**,^a R.V.V. Ramana Murthy,^b M.R.P. Reddy,^c Naresh Kumar Katari^d and Kummari Srinivas^d. International Conference on "New Dimensions in Chemistry and Chemical Technologies Applications in Pharma Industry" (NDCT-2014). 23th-24th JUNE 2014 held at JNTU Hyderabad-500085, Telangana state, India.

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2. **Talk:** Microwave-Promoted Syntheses of *S*-Substituted Quinazoline Derivatives from 1,4-dihydroquinazoline-2-thiol. **Pulakhandam Satya Karuna**,¹ Naresh Kumar Katari,^{*2} Rambabu Gundla,² and Manda Ravi Prakash Reddy³. National Seminar on “**Shaping the future with Green Chemistry**” (SFGC-14). 27-28th JUNE 2014 held at S.P.M.H.Kalasala, Machilipatnam, Krishna District, A.P, India.
3. **Talk:** Copper catalysed synthesis of 2-aryl/heteryl-thioquinazoline: Cascade C-S Bond formation by “Chan-Lam Cross-Coupling” Reaction. **Pulakhandam Satya Karuna**,^a M.R.P. Reddy,^b and Naresh Kumar Katari^{c*} National Seminar on “**The Role of Natural Product Chemistry in Drug Discovery**” (RNPCCD-14). 11-12th September 2014 held at Siddartha Auditorium, Vijayawada, A.P, India.
4. **Poster:** Microwave-Promoted Syntheses of *S*-Substituted Quinazoline Derivatives from 1, 4-dihydroquinazoline-2-thiol. **Pulakhandam Satya Karuna**,¹ Naresh Kumar Katari,^{*2} Rambabu Gundla,² and Manda Ravi Prakash Reddy³. National conference on “**Drug Discovery and Development in Chemistry Applications in Pharma Industry**” (DDDC-2015) on September 14th-15th 2015 held at Sri Venkateswara university, Tirupati-2, A.P state, India.
5. **Talk:** An efficient and convenient protocol for the synthesis of *S*-substituted Sulfonyl quinazoline derivatives using oxidizing reagents. **Pulakhandam Satya Karuna**^a, Naresh Kumar Katari^{*b} and M.R.P. Reddy^d. National Seminar on “**New Aspects of Heterocycle Chemistry in Medchem and Chemical Biology**”. 19-20th February 2015 held at R.B.V.R.R.Womens College, Narayanaguda, Hyderabad-500027, Telangana State, India
6. **Poster:** An efficient and convenient protocol for the synthesis of *S*-substituted sulfonyl quinazoline derivatives using oxidizing reagents **P. Satya Karuna**^a, Naresh Kumar Katari^{*b} and M.R.P. Reddy^c. National Seminar on “**Current Research Trends and Developments in Organic Synthesis**” (CRTADIOS-2015). 5th-6th October-2015 held at Aadikavi Nannaya University, Rajahmundry A.P state, India
7. **Poster:** Design and Novel synthesis of Quinazolinone and its Derivatives. **P Satya Karuna**^a, Naresh Kumar Katari ^{*b}, Choragudi Chandrasekhar ^a and M.R.P. Reddy. International Conference on “**International Congress on Recent Advances in Chemistry and Chemical Engineering**” (NDCT-2016). 11th-13th JULY 2016 held at JNTU Hyderabad-500085, Telangana state, India.
8. **Poster:** Design and novel synthesis of new Thioquinazoline analogous. **P Satya Karuna**^a, Naresh Kumar Katari ^{*b}, Gundla Rambabu^b and M.R.P. Reddy^c. “National Symposium” (CRSI-NSC 21-2017). 13th-15th JULY 2017 held at IICT Hyderabad-500076, Telangana state, India
9. **Poster:** Design and novel synthesis of new Thioquinazoline analogous. **P Satya Karuna**^a, Naresh Kumar Katari ^{*b}, Gundla Rambabu^b and M.R.P. Reddy^c. “National Symposium” (**Materials in Healthcare-2018**). 6th-8th September 2018 held in Gitam University, Hyderabad Telangana state, India
10. **Talk:** Design and Novel synthesis of Quinazolinone and its Derivatives. **P Satya Karuna**^a, Naresh Kumar Katari ^{*b}, Choragudi Chandrasekhar ^a and M.R.P. Reddy. International Conference on “**Trend setting Innovations in Chemical Sciences & Technology Nature Inspired Chemistry & Engineering**” (TSCST-NICE-2016). 4th-6th October 2016 held at JNTU Hyderabad-500085, Telangana state, India.

- **National-Work Shops**

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1. One Day National Workshop on “**Modern Trends in Drug Discovery and Development (MTDDD- 16)**” in Gitam University, Hyderabad. April 2nd 2016.
 2. One Day National Workshop on “**Big Data Applications in Drug Repurposing (BDADR- 17)**” in Gitam University, Hyderabad. October 23rd 2017.

- **Books Published**

1. Research published in “**LAP LAMBERT Academic Publishing**” in Brivibas gatve 197, LV-1039, Riga, Latvia, European Union in April 29th 2019

My hands on-experience and practical knowledge in the pharmaceutical industry will be well suited towards goals of the organization. I would like take this opportunity to discuss & implement how my skills and experience can help towards organization growth.

Thank you for your consideration.

Yours Sincerely,

Dr. Satya Karuna Pulakhandam