SCIENTIST SNAPSHOT

Krishna Kumar Ramanathan

At Sterling, our highly experienced team members and their passion for what they do are central to who we are. This month, we spoke with Krishna Kumar, Senior Director of Chemistry Research & Development, to learn more about Sterling's ability to support a wide range of research and development requirements for our customers.

Can you briefly describe your background and current role at Sterling?

After receiving my Ph.D., I spent some time doing post-doctorate research in macromolecular chemistry. 20 years ago, following my post-doctorate research, I began working in the pharmaceutical outsourcing space at an organisation that would ultimately become part of Sterling. I've really enjoyed working in this space as it provides me with the opportunity to help customers find solutions to a wide range of research and development (R&D) challenges.

Now, as Senior Director of Chemistry Research & Development, I lead the R&D team at Sterling's Cary site. While I am responsible for overseeing the team, this role still enables me to do a great deal of hands-on chemistry work. In fact, I spend about half of my time at the bench. I've found my position to be the perfect balance of leadership, active research and collaboration with customers.

What R&D services does Sterling's Cary facility offer its customers?

At Cary, most of our work involves very early phase development, and we typically handle anywhere from just a few milligrams up to kilograms. We work with customers of all sizes on a variety of different projects, bringing the same collaborative approach to each and every engagement.

While we do work on a variety of short-term projects for our clients, our true differentiation comes to life in longer term engagements. That is where our commitment to transparency, collaboration, continuity and true scientific partnership truly shines.

Our short-term engagements often arise when a customer is facing an extremely complex scientific challenge. They come to Sterling because of our ability to solve a diverse range of challenges, many of which have nothing in common with one another. Over our many years in business, we have handled just about everything from fluorescent dyes to liquid crystals and more. No matter the challenge, the customer relies on us to conduct extensive chemistry research work and return to them with a solution that is both effective and pragmatic.

Fast Facts

ROLE

Senior Director, Chemistry Research & Development

YEARS AT STERLING

19

EDUCATION

PhD in Chemistry, Indian Institute of Technology, Madras

SPECIALISATIONS

R&D, heterocyclic chemistry, organometallics, crystallography, impurity identification and isolation, GMP manufacturing

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In our long-term engagements, we work with customers through multiple stages of research and development. Instead of being charged with solving a very complex and specific scientific challenge, these long-term projects require us to anticipate, assess, and overcome every scientific challenge throughout the various stages of development. Long-term projects are typically marked by a very collaborative relationship, with a high level of customer involvement.

Can you give an example of a project challenge the team worked to overcome?

It is not uncommon for our team to find solutions to complex challenges and project requirements that we may not have encountered before. One of our customers came to us with a challenge involving magnetite nanoparticles. While we did not have direct prior experience in this area, we collaborated with the customer to create the nanoparticles. We then developed several different batches and were able to successfully progress the project to the next level.

This is indicative of our approach. When a customer comes to us with a challenge or technology we have not seen before, we work diligently to meet their requirements and deliver superior solutions. As a result, we have become known for our problem solving ability and our superior standard of quality, no matter the technical area.

What differentiates Sterling's R&D approach?

I think that collaboration is what really sets our R&D capabilities apart. It comes into play at three different levels—with our customers, among our R&D team here at Cary and across all of Sterling's international sites.

Customer collaboration is really important to our company culture as a whole, but it is of even greater importance in R&D. It's vital for us to have a really strong understanding of what challenges the customer is looking to overcome, as well as any research work they've done to date, so that we can determine the best approach. A high degree of collaboration also results in a high degree of transparency, which creates strong customer relationships that are built upon alignment and trust.

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Our R&D team at Cary works in a collaborative manner every day. We have chemists from a wide variety of backgrounds, which is really beneficial as it enables us to consider multidisciplinary perspectives and work together to find solutions.

A customer can come to us for initial research and development work, then seamlessly move their product to Dudley for scale-up and full commercial manufacture; all without costly gaps in knowledge.

Finally, our ability to seamlessly transfer projects between Sterling's sites is appealing to our customers. In particular, we collaborate a lot with our Dudley headquarters. A customer can come to us for initial research and development work, then seamlessly move their project to Dudley for scale-up and full commercial manufacture; all without costly gaps in knowledge. This approach gives the customer access to specialised capabilities in both early and late phase, and it maximises continuity throughout their project. This relationship also works the other way. We have gained several projects from existing customers that interface primarily with the Dudley site and are seeking comprehensive, early phase research services.

In addition to these specific capabilities, the importance of R&D has continued to rise, creating an outsized demand for our services. To support growing demand and increasingly complex requirements, our team has grown significantly in recent years. I anticipate that we will continue to grow along this trajectory, adding more skilled research chemists with strong multidisciplinary backgrounds to the team.

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