

HIGHLIGHTS

Ph.D. in Pharmaceutical manufacturing chemistry from Seoul National University

Postdoctoral research at UNC at Chapel Hill

Published 18 scientific journals and is the inventor of 18 patents

Expert in process chemistry and optimization to improve results

SUMMARY

Myoung Goo is a recognized expert in process chemistry and plays an instrumental role in successful API manufacturing for clients.

AREAS OF EXPERTISE

- API process chemistry
- Process development & optimization
- Tech transfer
- Route scouting

LINKEDIN

[Myoung Goo Kim](#)

Describe your role as a process chemist with Cambrex.

As a process chemist, Cambrex usually assigns first-time clients to me to ensure their project is successful. We never want a campaign to fail, so my role requires a lot of problem-solving. I would say more than 99% of my role is figuring out how to deliver a positive result for successful API manufacturing.



“My priority is always meeting the client’s goals, and I ensure that the processes are robust, safe and scalable, and aligned with the projects’ timelines. I do whatever it takes to meet project goals.”

How important is collaboration in the work you do?

Open and transparent communication with our clients is critical. We had a medium-sized client bring in very difficult steroid chemistry – something I'd never worked with before. The client was very smart and highly educated, and we worked together at every step – discussing, brainstorming, and searching the scientific journals. Together with the client and Cambrex High Point chemists, we solved the problems one by one to achieve a large scale-up for the first time. We developed the entire seven-step steroid chemistry process for a multi-hundred-gram API and optimized it. Working closely with the client made this possible.

Often, the companies we work with are quite small – they don't have a lab, or people power behind them. This puts the onus on our teams to take on project ownership to ensure success and support the client. One client came to us with issues in their tech package procedure, so before we could move forward, we provided solutions and solved the problems step-by-step to finish the process development. Being agile and responsive to the needs of our clients is critical – and a meaningful part of our work. We get great feedback from clients – they truly love working with Cambrex.

How does your work impact the client?

It's incredible to think about the importance of process chemistry in helping our clients succeed. We're involved from the start of a project, constantly problem-solving, providing insightful data, and ensuring we continue API manufacturing. I've published 18 patents, many resulting from solving a difficult challenge that was holding back a molecule. That's something I take great pride in.

How do you ensure a smooth tech transfer?

A seamless tech transfer is critical, and process chemistry plays a big role in production and determining how it works. During and after tech transfer, our chemists and engineers collaborate to understand what can be optimized and apply those learnings to future projects.

What makes Cambrex a great place for chemists to thrive?

There are not many places where I can learn from other scientists every day. Working alongside other leading chemists, I get to discover something new in every project. We also collaborate with other sites and tap into areas of expertise needed for any given project.

What will the High Point expansion mean for Cambrex?

We are expanding our two clinical suites to pilot plants and creating three suites for commercial production, designated for 20-50 kilo batch sizes. This will enable us to work with orphan drug that are creating products for very rare diseases and conditions — less than a quarter million people globally. It's exciting that we will be able to close the gap between clinical and commercial sites to help amplify the orphan drug market.

What's a significant challenge you've faced as a chemist, and did you overcome it?

A client brought a 21-step process development project for API, and I was assigned to it as the only chemist. Normally, we handle a maximum of 10 steps — so at first, I was skeptical — was this even possible? I spent 1.5 years on this project, from step 1 to 21.

One step was a big chemistry issue. The problem is that there was a peptide from the tech package, and the formation of the epimerization process had an 87 to 13 ratio. It was causing difficult crystallizations and required column chromatography, which became the biggest bottleneck in the entire project.

I searched the scientific journals extensively for similar conditions and designed the experiment to screen all the possible peptide formations to minimize epimerization. Luckily, I found one condition that resulted in a fantastic 98:2 ratio. That made crystallization easier, and we completely avoided column chromatography.

With a project of this magnitude, you need to take each of the 21 steps one at a time. The final result was that we provided multi-gram scale of the final compound to the client.

