

interview c² pharma

C² Pharma Andrew Badrot

The pharmaceutical API manufacturing company is a jack of all trades when it comes services. CEO Andrew Badrot talks about his journey with the company and dives into the different relationships that got it there

Written by Sophie Bullimore

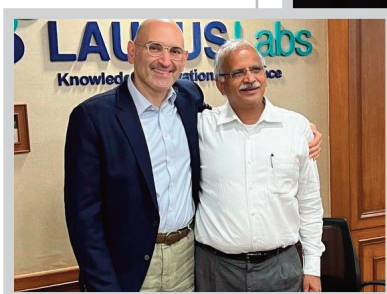
Walking into his first cleanroom in 2004, the now CEO of Luxembourg-based C² Pharma, knew it was going to be a landmark moment. At this time, Andrew Badrot was working to become more familiarised with the levels of clean required for different sectors, and different parts of the process within the medtech and pharma sectors. This visit to a medical devices company assembling dialysis filters was to be the beginning of a beautiful career that has seen the French and US-educated executive start an API manufacturer and grow it into a bustling firm.

Every pharmaceutical executive has their own unique path. For Badrot, this took the form of multiple degrees. He holds an engineering degree in Nuclear Physics from Institut Polytechnique in France and a Master's in Financial Engineering from Stanford University.

"My financial engineering degree from Stanford University focused on applying mathematics to finance," explains Badrot. "At the core of the programme was the approach to operations research and its principles of optimisation. The master's degree allowed me to have a much more grounded understanding of how financial markets operate and remove the shine from the voodoo financial instruments representative of many treasury executives."

But how would this lead into a career heading up a pharmaceutical problem-solver? "I always held an interest in the space," says Badrot. Prior to C² Pharma, the executive had 15 years of experience in the industry, such as in 2007 when he joined Lonza as the Head of Strategy for its small molecules CMO business. "[This is] where I became more familiar with the inner workings of the industry."

Badrot says this 15 years of experience in the industry prior to C² Pharma has undoubtedly contributed to the success of the company. "Whether in terms of designing strategies and



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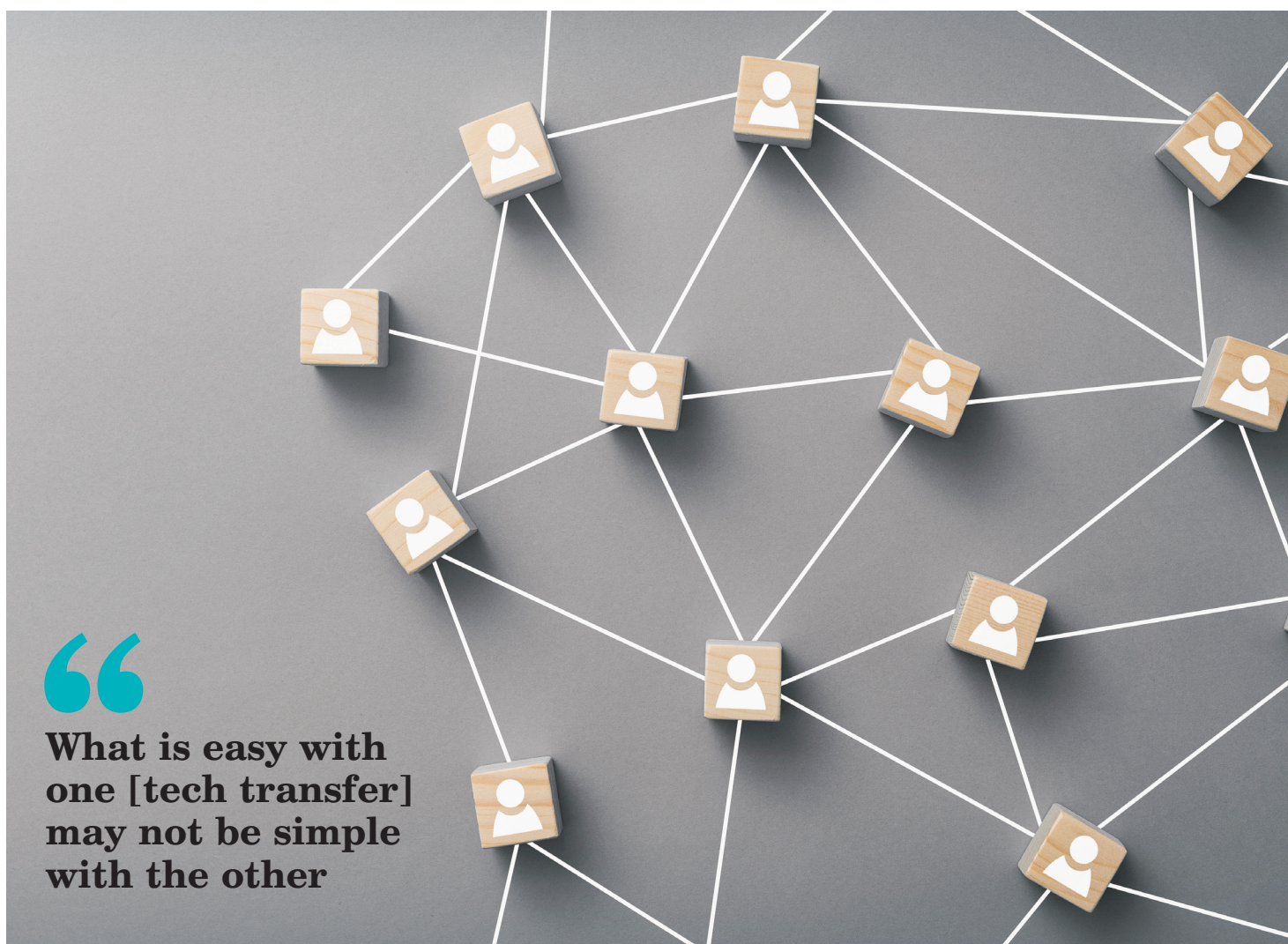
abstract thinking, or in legal negotiations, building meaningful business relationships or focusing on execution—all the experiences I had, have enabled me to be a more diplomatic and balanced leader."

He explains that one of his big focuses is that his companies have staying and growing power, and to do that, he says he needs to always be looking at how short- and long-term decisions and investments will impact our business and the market. "As the CEO, my duties span the most mundane to the most strategic," he says of his daily duties. "I follow critical operational projects, drive the strategy and M&A projects, oversee our treasury investments, and try to do all this while carrying our values and our company culture."

A metamorphosis

The history of C² Pharma is an interesting one. In short, after leaving Lonza in 2010, Badrot created CMS Pharma, which was a M&A and strategy advisory firm. Then in June 2014, CMS signed an agreement with a leading pharmaceutical company to acquire part of their portfolio of Active Pharmaceutical Ingredients (APIs). "[This] was pivotal for me, personally. It was a clear commitment to building this dream," he says.

From here, maintaining a pharmaceutical manufacturing business has been a matter of relationships, quality, and quality relationships.



Relationships

Nowadays C² operates on four main capabilities:

- API manufacturing and distribution
- API lifecycle management consultancy
- Logistics solutions
- R&D-scale contract synthesis services

But some of these capabilities would not be possible without the teamwork of other key players. “Since our inception, we have selected our partners very carefully to ensure we work with like-minded organisations that share the same values of quality and integrity across their operations,” Badrot says.

As a result of this careful selection, affiliations with companies such as ASM Research Chemicals and Logistic4Pharma have been created, and the company has curated an extensive API product portfolio.

When it comes to working with the CMOs (contract manufacturing organisations), Bardot says you have to treat each project completely uniquely. “Each CMO is its own complex maze. Each product as well,” he says. When talking about the required tech transfers, Badrot explained that there is no rule as to what is the hardest part of the process. “What is easy with

one may not be simple with the other. That is the complexity of tech transfers, one must be on its toes across the board, all the time!”

Problem-solving for these clients is a daily occurrence, as Badrot explains. “We are focused on a solutions-based approach to our relationships. Customers come to us with complex problems, often looking for specific product specifications that others cannot meet. And during this time, they also need to maintain confidentiality and intellectual property on these projects. Our team works with theirs to identify exactly what they need and commit to future supply, enabling them to speed up their market entry.”

Badrot and C²’s flexibility for clients is especially evident when the conversation turns to HPAPIs. When talking about if he would consider venturing into them, Badrot says: “We do not think about it this way. We think of our customers and their needs. If they need an API which is HPAPI, then we will explore that.”

So from the suppliers and partners to the clients, it is evident that it is important to Badrot to maintain communication and to learn from every encounter. At the end of the day,

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none of this would be possible without nurturing the relationships that allow them.

Quality

A huge part of developing an API is getting regulatory sign-off on the manufacturing as well as the final product. For C², cleanroom construction and other cleanroom services, such as validation, are generally all outsourced. “When you look at the best way to spend money as you build a company, there is obviously deep value in leveraging your core expertise. But there is also value in looking to rely on other industry experts for non-core support,” says Badrot. “We choose to outsource to deeply vetted partners because we know they have much more exposure to best practices and can help us to improve/optimize our standards. We aim to work smarter and not harder with these outsourced partnerships.”

Badrot talks about a specific example of this when it comes to operators handling products. He explained that they always have APIs assessed by EHS (Environment, Health and Safety) experts to determine the appropriate handling conditions and regulatory requirements to manufacture and sell the APIs.

All this outsourced expertise means that when the inspection time rolls around, the company’s own quality team is well-prepped to handle the occasion. “Ultimately, we operate on the principle of being in a constant state of readiness, so such activities are limited in scope,” he says.

Quality relationships

An interesting and important relationship that C² has made is the one with the India-based API manufacturer Laurus Labs. In general, C² focuses on hard-to-make APIs, and finding digoxin at the purity level needed for pharmaceutical use is tricky. “The relation with Laurus Labs goes beyond the typical CMO

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interactions. There is a true friendship that underlines our interactions,” says Badrot.

Laid upon the groundwork of this relationship, in 2017, C² Pharma invested in a state-of-the-art, dedicated production facility for the manufacturing of digoxin at the Laurus Labs site in Vizag. The arrangement is that Laurus Labs will run the facility and C² Pharma will market the API.

It seems that Badrot runs the gamut of different types of pharmaceutical relationships, adding value wherever he can.

We are working together to create more meaningful connections that are enjoyable for us to be a part of, thereby also benefitting the customer, and ultimately the patients. We are working together to instill quality and pride of work from the top down in everything we do as individual companies, and as business partners.

Beyond 2022

So where is Badrot looking to add his magic touch next?

In its years of operation, the company has honed a specific specialism in ophthalmics. “Today, we are the leading pure-play ophthalmic API manufacturer worldwide,” Badrot says. He explained that they have made this the company’s competitive differentiator in a sector full of CMOs and contracting firms. “We live ophthalmics, we love ophthalmics and we take care of each and every customer of ours, large or small.”

But Badrot specifically says they are not limiting themselves or resting on their laurels. “2022 was an amazing year,” he says. “Adding 6 APIs to the list, Tropicamide, Brimonidine, Latanoprost, Bimatoprost, Indocyanine Green and Pilocarpine Micronized. We are definitely looking to continuously expand our API product portfolio!”

Looking to new regulatory filings, Badrot says the focus will be on timelines as this can be the biggest challenge. “Whether EDQM or FDA, lengthy timelines and un-even review standards are the biggest challenges we face on the regulatory side,” he explains.

But Badrot says on a personal note, one of the most fascinating aspects of bringing a new API to market, is seeing how the marketplace reacts and how geographically broadly it does so. “It is always intriguing to meet new customers and to help them plan and then navigate through the reality of such a process,” he recalls. “Each launch is unique in its challenges and successes, and we take those experiences and learn and evolve from them.”

“API manufacturing and drug product manufacturing are as strategic as having an independent food supply or weapons industry,” Badrot says. “It is time for politicians and regulators to take bold action. COVID was one heck of a wake-up call!” ■

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