Cell & Gene Therapy International Europe

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Start Up Stories

Eric Halioua : PDC*line Pharma

Eric is CEO of the biotechnology company PDC*line Pharma and board member of Essenscia (Bio.be). Eric is co-founder of four biotechnology companies called Myosix (bought by Genzyme mid-2002), Murigenetics, HairClone and Digital Orthopaedics. He is co-Inventor of the first GMP approved mobile manufacturing unit for cell therapy.

Eric worked for 12 years in the Healthcare and Life Sciences Practice of Arthur D. Little. Eric holds two master's degrees in pharmacology and Molecular Biology and a MBA from ESSEC business school (Paris, France), with an advanced degree from the Health Care ESSEC chair.

Tell me how you first got into this industry. What were the main influences in your life that led you to this?

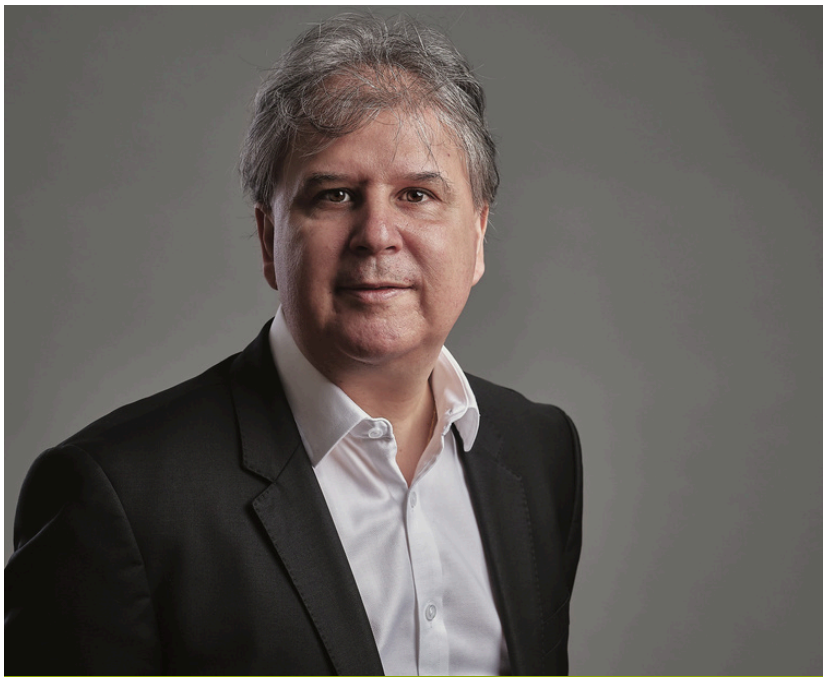
I've always had a deep interest in the intersection of biology and technology. My path into the biotech industry started with my fascination for the potential of science to tackle complex diseases. I studied biochemical engineering (in Nice, France), and I was deeply influenced by the rapid advances in biotechnology and the emergence of immunotherapies, particularly in cancer treatment. The idea of harnessing the body's own immune system to fight diseases was incredibly appealing to me.

I have founded my first biotech company (a cell therapy company named Myosix) in 2000 and was lucky to sell it two years later to Genzyme/Sanofi after completing a phase I clinical trial in Europe. Then I have been CEO of several other Biotech companies in the field of liver disease, rare diseases and oncology.

While I didn't come from a medical family, I was inspired by the scientific discoveries happening around me, especially in the fields of oncology and immunology. That's what drove me to pursue a career where I could contribute to developing innovative therapies.

Take me through the story of how PDC*line Pharma was founded.

PDC*line Pharma was established in 2014, rooted in groundbreaking research on a novel class of therapeutic cancer vaccines. The technology was discovered by Dr. Joel Plumas in a research laboratory associated with the French Blood Bank (Établissement Français du Sang, or EFS) in Grenoble, France, where the company was initially based.



Likes: : Innovation and making a real difference in the healthcare space. I'm driven by the potential of science to improve lives, especially in fields like oncology where the need is so great. On the personal side, I enjoy exploring new ideas and diving deep into different cultures and experiences.

Dislikes: Inefficiency and bureaucracy. They tend to slow down progress, especially in an industry where time is so critical for patients. I always strive to streamline processes and keep teams focused on the end goal.

The foundation of the company came from the discovery of PDC*line, a highly potent and scalable type of dendritic cell line with strong immunostimulatory properties. Our vision was to develop a platform that could be applied to treat various cancers, beginning with lung cancer and melanoma. It was a long journey, requiring the assembly of a skilled team of immuno-oncology experts and the securing of crucial investments. We recognized the significant unmet medical need in cancer care and believed this technology had the potential to disrupt the treatment landscape.

When I joined as CEO in 2016, we made the strategic decision to develop PDC*line Pharma in Wallonia, the French-speaking region of Belgium. My familiarity with the region, from having led a previous company there for six years, made the choice clear. Wallonia has a robust biotech ecosystem, which has only strengthened over the years, particularly with major pharmaceutical companies establishing their headquarters in the area and attracting a wealth of talent. Many of our management team members, for example, came from GSK Vaccines.

Belgium's strong financing environment is another reason why it's an attractive location for biotech companies. Wallonia, in particular, offers substantial government funding, and there's a strong presence of venture capital firms.

Additionally, Belgium has a reputation for its efficiency in setting up clinical trials, which has been a key advantage for us.

We are currently completing a Phase I/II clinical trial for non-small cell lung cancer. This trial involves 17 active clinical centers across France, Belgium, the Netherlands, Germany, and Poland. We're evaluating the vaccine at two different doses, with over 70 evaluable patients enrolled. Two first cohorts of the study is investigating the vaccine as monotherapy in an adjuvant setting, while two other is exploring its use in combination with anti-PD-1 treatment in first-line metastatic patients.

The initial results are promising, both in terms of immunological response and the early clinical signals we've observed. Preliminary findings have been shared in several international conferences including the annual event of American Association of Cancer Research in April this year.

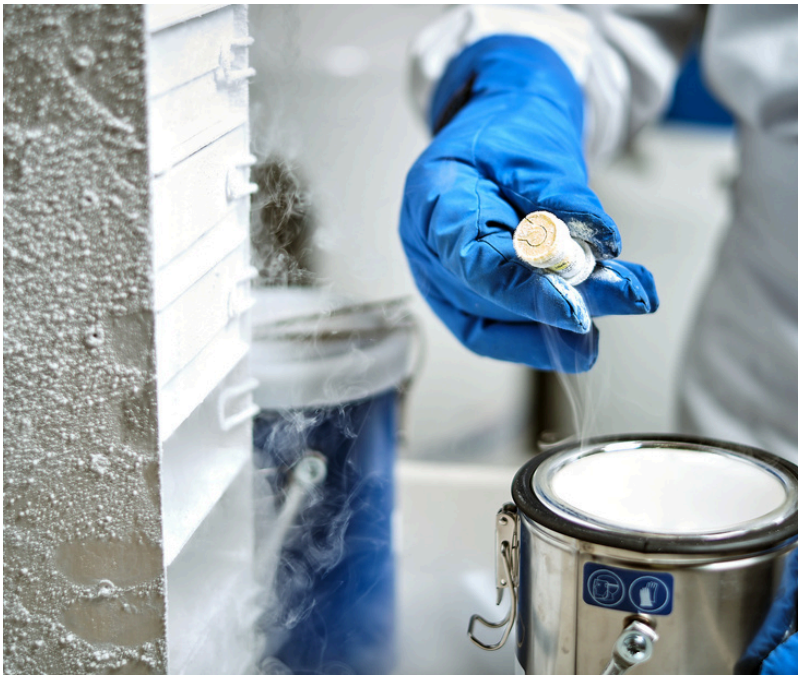
In addition to pipeline progress, PDC*line Pharma has grown to a team of 35 full-time employees. Most of our staff is based in Liège, though we maintain a research lab in Grenoble. We are also established a manufacturing facility in Liège. We aim to achieve Good Manufacturing Practice (GMP) certification early next year. This facility will produce the vaccine candidate for our next clinical trial, with capacity to meet demand through Phase III and the first year of commercialization. Depending on the results and commercialization timeline, we may expand the facility or build additional ones in the US and Asia.

We've also built a strong connection with South Korea. In 2019, we signed a licensing deal with the Asian conglomerate LG Chem and raised EUR 20 million in our B1 financing round, which included three South Korean investors, led by Korea Investment Partners (KIP), the largest investment fund in South Korea. In our subsequent B2 round of 17,5M€ in November 2021, which funded our ongoing clinical trial, we secured additional investments from three new Korean investors. The partnership with LG Chem has greatly enhanced our credibility in South Korea, attracting other investors. Today, we have a mix of Belgian and South Korean shareholders. The company has raised more than 61M€ in equity and non-dilutive funding since its foundation.

What's the biggest thing you've learnt about this industry since founding this business?

One of the biggest lessons I've learned is the importance of resilience and adaptability. The biotech field, especially in oncology, is full of highs and lows—scientific breakthroughs are thrilling, but setbacks are inevitable. It's essential to maintain a long-term vision while being nimble enough to adjust when things don't go as planned. Patience is critical in this industry, as development cycles are long, and the road from discovery to approval can be difficult.

I've also learned the value of partnerships. Whether it's with investors, research institutions, or other biotech companies, collaboration is key to advancing science.



Tell us about some of the work that you are doing

At PDC*line Pharma, we are currently focusing on developing our therapeutic cancer vaccines, particularly for lung cancer. We're leveraging our unique PDC*line platform to induce powerful immune responses, and we're excited about the results we're seeing in early clinical trials.

Our pipeline is expanding, and we're looking at other types of cancer as well such as Colorectal cancer with our personalized neoantigens based approach. The aim is to provide new therapeutic options for patients with advanced-stage cancers where existing treatments may not be sufficient.

What are some of the early challenges you've faced?

Like most startups, securing funding over the last 8 years was a major challenge. Convincing investors and pharma companies of the potential of our platform technology required extensive data and persistence. Growing the organization with the right processes and needed competences and talents require as well experience.

Navigating the regulatory landscape was another hurdle. The standards for clinical trials and regulatory approval are high, especially for novel treatments like ours. We had to ensure that we met all safety and efficacy requirements, which involved a steep learning curve.

What can we expect to see from PDC*line Pharma in the future? What are you working on in the next 12-18 months?

In the next 12-18 months, you can expect us to continue advancing our clinical trials, with a focus on moving towards larger randomized Phase 2 trials for lung cancer. We are expected to present the primary clinical and immune results of the phase I/II in an international medical conference at the end of the year. We're also exploring planning the launch of a new clinical trial in Q1 2026 with PDC*Neo, our personalized neoantigens based vaccine for colorectal cancer patients.
We are looking to raise a new round of financing of 55M€ next year (Round-C) to finance both clinical trials.

Additionally, we're looking to expand our pipeline into other cancer indications and potentially enter into new strategic partnerships. Our ultimate goal is to bring these novel therapies to market, offering patients more effective treatment options.

PDC*line Pharma will be joining us at Cell and Gene Therapy International Europe on 2-4 December at the Convention Centre Dublin, Dublin, Ireland.

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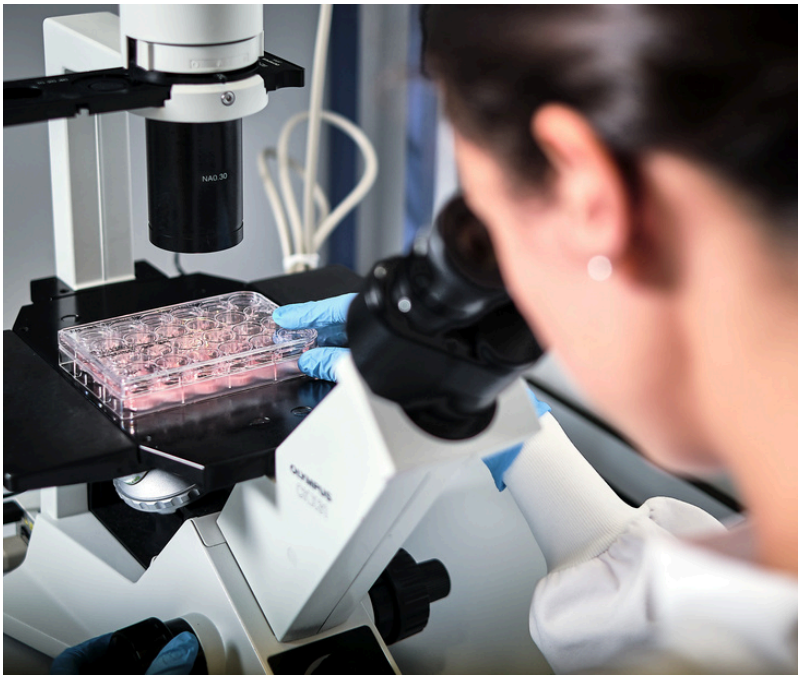

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