



Joel Varonier

Director, Head of Microbial Manufacturing,
Lonza Group AG

Educational Background

Bachelor in Biotechnology (ZHAW), Biology
Laboratory Technician

Studies

Master in Life Sciences,
Pharmaceutical Biotechnology

Master in Life Sciences

Biopharmaceuticals such as therapeutic proteins and antibodies make it possible to treat diseases in new ways. Modern biotechnology techniques are crucial for advancing medical science.



**More about the Master
in Life Sciences**
[zhaw.ch/icbt/master-
biotechnology](https://zhaw.ch/icbt/master-biotechnology)

Master in Life Sciences, Pharmaceutical Biotechnology

«The degree programme is ideal for entry into the pharmaceutical industry. ZHAW graduates are highly regarded within our company.»

You completed both your Bachelor's and Master's in Biotechnology. What fascinates you about this field?

I've always found chemistry and biology fascinating, and when combined with technology, the possibilities today are endless. Especially in medicine: high-end medications being just one example of many.

You studied at ZHAW from 2012 to 2017. What do you remember most fondly?

The infrastructure is excellent, and Wädenswil is a beautiful place to study. In my Bachelor's programme, I focused more on technical aspects and wrote my thesis on sensor systems. In my Master's, I concentrated more on biology, specifically on stem cell differentiation.

What made you choose ZHAW?

My decision was heavily influenced by ZHAW's excellent reputation. I also wanted to experience life away from my hometown in Wallis and immerse myself in 'big city' life in Zurich.

After your studies, you returned to Wallis and started working at Lonza. How did you find the transition from academia to the professional world?

My journey with Lonza began with my apprenticeship, and I continued to work there during my military service and semester breaks. The degree programme is ideal for entry into the pharmaceutical industry, thanks to its emphasis on practical applications. ZHAW graduates are highly regarded within our company.

Could you share some highlights from your professional journey?

My career began in bioprocess engineering,

where, among other projects, I was involved in the large-scale production of monoclonal antibodies. I then transitioned to an MSAT process expert role before ultimately leading operations in mRNA production. Leading diverse projects has provided me with a wealth of experiences, from the intricacies of technical drawings to the strategic aspects of production and much more.

Your involvement in establishing the production of a COVID-19 vaccine must have been a remarkable experience. Can you tell us more about that?

That period was intense, but the project's impact was extraordinary. It was a privilege to contribute to the large-scale production of an mRNA vaccine, a critical milestone that was widely awaited worldwide.

What is the main focus of your work today?

I've been leading a microbial growth project since November 2023, focusing on developing a new vaccine. This involves assembling a cross-disciplinary team, designing a new production facility from the ground up, and managing its construction.

What advice would you give to someone considering a career in biotechnology?

A passion for the pharmaceutical industry and a keen interest in addressing complex medical challenges, such as cancer treatments or the development of advanced therapeutics, are fundamental. And you should be resilient. The pharmaceutical industry is demanding, with significant time and financial pressures. Above all, you must recognise the profound responsibility you hold towards patient welfare.