

Nicholas Woudberg



Dr. Nicholas Woudberg earned his PhD working in Prof Sandrine Lecour's lab, investigating high-density lipoproteins (HDL) and their use as biomarkers of cardiovascular disease risk from the University of Cape Town, South Africa. Following his PhD graduation in 2017, he undertook a postdoc at Stellenbosch University, South Africa with Professor Kathy Myburgh's muscle physiology group in 2018, working on animal models of muscle injury and repair.



After his postdoc, Nicholas decided to change scenery and move into industry, he landed a position as a scientist in soluble biomarkers at Synexa Life Sciences ([synexagroup.com](https://www.synexagroup.com)). Applying his academic knowledge and learning how to navigate a different scientific and corporate environment, he quickly rose through the ranks and is now the Head of Scientific Strategies at Synexa.

Nicholas is someone who has contributed to the world of immunology, using Synexa's mission statement: "improving the quality of human health through innovative biomarker and bioanalytical solutions." He gives key talks, leads an international team of experts and provides scientific engagement through the latest immunological news.

What is your educational background? Can you take us on your

journey through academia?

My undergraduate started at the University of KwaZulu-Natal, South Africa in 2010. My degree was a dual major in biochemistry and microbiology. I graduated *suma cum laude* for my BSc and subsequent honours in Biochemistry. After Honours I moved to Cape Town and started a Masters at the University of Cape Town in Prof Sandrine Lecour's lab. My Masters, which I later upgraded to a PhD centred on high-density lipoproteins (HDL) and their use as biomarkers of cardiovascular disease risk. I graduated from UCT in 2017 before starting a Post doc at Stellenbosch University with Kathy Myburgh muscle physiology group in 2018. I worked on animal models of muscle injury and repair.

Care to share your recent or favourite publications with us?

Being out of academia for a few years, I haven't had the opportunity to publish many first author articles. I am however proud to have been part of the team at Synexa that developed our first assay to look at antibodies against SARS-CoV-2 in the height of the pandemic. Industry labs seldom get the chance to publish, and I am very happy that Synexa gave us the opportunity to share our findings and assay with a journal article:

[Validation of high-throughput, semiquantitative solid-phase SARS coronavirus-2 serology assays in serum and dried blood spot matrices](#)

Leo Maritz, Nicholas J Woudberg, Amber C Bennett, Andreia Soares, Florian Lapierre, Justin Devine, Matti Kimberg and Patrick J Bouic

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Seeing that you transitioned from academia to industry, people tend to talk a lot about non-academic jobs after completing a PhD/post-doc. What was that thought process like for you?

I would like to start off by saying that I will always be

passionate about research and how important it is for academic and industry-based research alike. Taking the jump from academia to industry was a big decision but given the climate in academia, was one I had to make from necessity. As much as I love the freedom of academic research and the ability to explore such a wide range of topics, beyond salaried posts at universities, the life of a young academic is not sustainable for everyone. A heavy reliance on funding each year, without benefits, was stressful for me, particularly at a point in my life where I was hoping to start a family. Transitioning to a more stable role in industry was therefore the most financially stable decision I could make. I certainly don't regret it. Synexa has given me the opportunity to continue to actively grow my scientific career and I am incredibly grateful for the almost 4 years I have spent in industry.

What is it like to work in industry compared to your time in academia?

Industry is significantly different in so many aspects. It becomes a job. You need to be aware of delivery to a client and that you are now in a fee-for-service environment. Synexa is also in a heavily regulated industry. If it is not recorded, it didn't happen, was the most prominent first lesson I learnt. Many are afraid that industry is same day in day out and can get boring. Whilst there are some aspects of industry science where that can be the case, it certainly isn't at Synexa. The company was founded by researchers and that culture continues even as the company rapidly grows. Each day is different, with new challenges to overcome. I was "on the bench" for two years at Synexa before I shifted even further away from what I was familiar with, when I stepped into the commercial realm. My daily job now sees me interacting with our clients, working with them to answer their bioanalytical questions. It is an ever-changing and highly dynamic environment, which can't help but keep you engaged and stimulated.

What should people keep in mind and be aware of as they decide whether or not to make the transition out of academia?

I think the most crucial thing for them to ask, “What makes me come to work/the lab each day?” Understanding what drives you will ultimately help you make the decision. Industry or academia both have their pros and cons. I already mentioned that academia doesn’t come with the financial security that industry has. However, others thrive in the less stringent environment of academia where it is relatively easy to explore new and interesting directions. If they want to move to industry, it’s important to remember that you will be working for a company who first and foremost needs to make money to exist. Your goals will therefore shift to growing the business and hopefully bringing in revenue. This may mean that some “cool projects” you may want to do don’t always make business sense and can’t happen at the time you may want it to. You also will now have more formal hours, reporting lines, allocated leave etc. This will, however, also come with benefits, bonuses and in some cases, travel opportunities.

You seem to be working for a dynamic and fast-growing company (synexagroup.com), how important are healthy relationships and collaboration in industry?

I think as scientists, many of us think we have the personalities which mean that we don’t need to get along with people. “Give me a pipette and leave me alone”, won’t get you very far. Our relationships with clients and other companies are the only reason any company can survive. Synexa is no different and being over 20 years old in the biotech and biopharma industry is an amazing achievement. The company built its success in strong partnerships with industry leaders as well as being driven to work closely with our clients. I have had the opportunity to visit clients where we are made to feel part of their team instead of a strict provider they only hear from when there is something specific to deliver or to get paid. Scientific excellence and delivery, combined with a

client-centric focus, I feel are the key attributes of a successful biotech provider in the industry.

Having travelled quite a bit during your career, do you have some preferred places or stories that you would like to share?

Any chance I get to travel to the US is always special. I enjoy the people and food there and have a particularly strong bond with some of our US-based clients, however, I would have to say my most impactful travel was actually during my postdoc. I travelled to Naples, Italy for a conference and my girlfriend at the time came with. We are both rather fanatical about pizza and Naples is the home of pizza and in my opinion, home the best style, Neapolitan. I took the opportunity during this trip, to propose to my new wife, in what else, but a pizzeria. Purely for personal reasons then, I would have to say, that trip to Italy, will always stand out.

Can you give some advice to early-stage immunologists, scientists, and clinician-scientists?

Read often, always ask questions and something that my favourite undergraduate professor always emphasised: Anything you do in the lab or in science in general, make sure you understand the technical aspects of what you are doing. Don't be like a cook following a recipe, strive to understand why and how you are doing anything. It will give you confidence in what you do, keep you curious and always asking questions. As you progress in your career, I would also emphasise that good ideas don't need qualifications or status. Anyone can help drive innovation and research, from all levels in your organisation. Never shut down an idea and also never be afraid to share your own.

Outside of your work and science, what other passions do you have?

I have an almost 2 year old toddler, so she, rightfully, takes up much of my time outside work. Other than being a dad, my

other passion is running. I did my first parkrun in October 2017 and have not looked back since. Having run multiple marathons, I don't ever see myself stopping. Even when I travel, my running kit is the first thing I pack. It's often the best way to explore a new place.

Interview by Stefan Botha