

Careers Beyond Academia: Medical Science Liaison (MSL)

Dr. Martijn Bijker MBA PhD MSc is the founder of the online MSL training company 'from SCIENCE to PHARMA' ([FSTP](#)), which provides a comprehensive training platform on how to become a Medical Science Liaison, without prior industry experience.



Tell us something about your academic background and how you transitioned as an MSL

I'm originally from The Netherlands, where I received a bachelor's degree in chemistry from the VU University, Amsterdam. Following that, I pursued a master's in Biochemistry and majored in Molecular Biology, Immunology and Immuno-oncology. Before I graduated, I did a research internship at the La Jolla institute for Allergy and Immunology in San Diego. This internship combined my dream of living in the US together with increasing my chances of being accepted into a prestigious PhD program in The Netherlands – the Leiden University Medical Centre (immuno-oncology/vaccines). I continued my dream of working overseas again for my postdoctoral research in Sydney, Australia. After 3.5 years postdocing I moved into my first Medical Science Liaison job at Abbott in gastroenterology.

What is an MSL?

As an MSL you are the scientific and clinical disease and drug expert within the medical (affairs) department of a pharmaceutical or biotech company. You are the person within the company that anyone will go to first to get answers on complex medical and clinical questions. This could be about how the drug is designed; which pathway it targets; how the drug works – the mode of action (MOA); questions about the disease and the patient profiles; how to prevent or treat an adverse event or questions about clinical trials from your own (and the competitor) company etc. This requires you to keep-up-to-date on the latest literature so you will need to read quite some (clinical) papers.

When you are an MSL you work at the interface between internal stakeholders in the company and external stakeholders in the field – called Key Opinion Leaders (KOLs). KOLs – broadly defined as leaders in their field – can be heads of departments at teaching hospitals, heads of pharmacies, professors of medicine, the CEO of a patient organisation, physicians involved in pharmaceutical clinical trials and sometimes clinical scientists themselves. In short, MSLs work with the most influential stakeholders in a disease area and must be good communicators and able to adapt to different kind of personalities.

The reason companies hire MSLs is to help to bring innovative new drugs to the market. These so-called pipeline molecules are being tested in healthy individuals and/or in actual patients. This is the first time

(some of these) KOLs can get their hands on those promising new drugs. The hope is that these new drugs will do better than the current standard of care/best supportive care.

As an MSL you will need to understand: the market, when doctors treat, which drug they use first and second; which patients would they not treat (with this class of drug); how your new drug fits in this clinical landscape and if there are any clinical evidence gaps (needed for the approval and reimbursement of the drug) that you can obtain by doing investigator clinical studies with the KOL. Having those peer to peer discussion with these KOLs – often using clinical papers and conference information – will help you to obtain relevant insights that you will bring back to your internal stakeholders that will allow them to drive the best strategy to take away any obstacles to make this treatment a clinical success for the patient, the treating doctor and the company.

What does a typical workday of an MSL look like?

As KOLs are the top leaders in their field, they are often spread across the country, meaning that you will be travelling using car, taxi, train and/or plane. The great thing is that you have that same independence and autonomy you had as a scientist. You plan your own trips, your own appointments, your flights and of course your hotels. You will have in-depth discussions with top leaders on scientific and clinical discussion on the drug and the disease (that I missed during my postdoc) and you feel you are able to almost directly influence patients' lives. At night, you go out for dinner and meet up with your friends or colleagues while the company pays for your dinner (and a drink or two). Make sure you enjoy those nice moments but be aware of the "Pharma-5". Gaining 5 kilos when you start in pharma (due to some overindulgence). And after your dinner with friends you retreat to your nice hotel for a good night sleep, to start next morning with a swim or a gym.

What were the important skills that you picked as a PhD help you to be a great MSL?

Being able to quickly read and comprehend difficult and complex topics is the strength of a PhD and one of the reasons that PhDs are often hired for MSL jobs. Some challenges however, might be being able to convey this information in a clear concise story verbally or in a presentation, which is paramount for the MSL's function. Furthermore, the MSL requires a lot of interpersonal skills and stakeholder management working with many people internally and externally, something that can be challenging for some of us "lab rats". And finally, understanding the clinical patient landscape can be new and challenging for aspiring MSLs, but a must to know. As you can see, just having a PhD title is not enough, it requires a lot more skills to succeed as an MSL and often these skills have not been learned during the years in academia. So, in order to become an MSL, one needs to do a lot of "homework" that we can guide you with.

What are the challenges of an MSL

I can answer this in two ways. The challenges of becoming an MSL and the challenges of being an MSL.

For the first, becoming an MSL, is to show the recruiter/hiring company that you are MSL ready and have more to offer than your knowledge on western blots, PCR, flowcytometry and a bunch of papers no one will be interested in reading. We often hear that aspiring MSLs are being rejected after a first round interview, and the reason they have been told was “You don’t have any MSL experience”. In short, they are saying, your CV looked interesting enough to invite you for an interview, but you were unable to impress us in the interview (because they were fully aware you did not have any MSL experience). Companies are looking for the best of the best and are happy to pay base salaries of US\$130,000 (plus car, bonus, healthcare, dental etc.). So, they can be picky if you’d ask me and you should come prepared to the max!

The challenge of being an MSL is time management. MSLs are working with many internal and external stakeholders; they are travelling to meet KOLs; they must be up-to-date on the latest clinical research and make sure all the reporting and compliance rules of the company are adhered to. So, it is a busy job, but it is very rewarding, talking about the latest clinical development and science, often with world-class leaders in a particular disease area and being able to indirectly help patients’ lives by the work you do and the discussions you have, is just rewarding.

Tell us something about your start-up- ‘from SCIENCE to PHARMA (FSTP)’

I managed to get into an MSL role with Abbott Australia (as the 4th MSL) without any pharma/MSL experience. And many of my colleagues and friends asked me how I managed to do this. I started sharing my approach with them in coffee and lunch catch-ups to help them get into an MSL jobs straight out of academia. When I was in my second MSL job at Amgen and on sick leave after a back surgery, I came up with the idea of starting an MSL career training company and help other researchers, pharmacist and medical doctors to prepare for a similar successful transition to become an MSL.

It started with a one-on-one face-to-face training almost four years ago. This was followed by a group training, followed by global MSL training webinars, before it was turned into an online MSL training program that can be accessed at any time and anywhere.

Our online MSL training combines: years of MSL field-experience; with MSL hiring and MSL managing experience; together with the Medical Affairs experience of being in more senior roles developing drug launch strategies, all into one easy to access online MSL training package.

How does FSTP help prepare for the MSL role, especially for postdocs without prior industry experience

Our comprehensive online MSL training provides all the information and giving you directions to optimally prepare you for the transition into an MSL role. This includes: Insider information on the MSL role and how pharma industry works; information on how to prepare for the many different interview rounds; CV/resume resources and review to make it stand out as an MSL CV/resume; all the way to one-on-one phone coaching/mock interviews to help you get ready for the MSL interviews.



Any words of wisdom for future MSLS

If you are not 150% prepared, know the MSL role and pharma industry inside out, don't apply but rather spend more time on your preparation. We can help you in your MSL journey, just have a look at www.fromSCIENCEtoPHARMA.com

*If you are still exploring if the MSL role is the right career for you, then attend our free MSL webinar on "How to become an MSL without industry experience"
<https://attendee.gotowebinar.com/rt/5329716983825085955>*

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