Name: Andrea Prinzi, PhD

Position: Microbiology Medical Science Liaison

Affiliation: bioMérieux

Location: Denver, CO, USA

Pronouns: She/Her

Please briefly describe your current role in your position

Clinical microbiology expert for medical affairs in in-vitro diagnostics

What is your terminal and/or current position in academia?

PhD student

How did you hear about your current position? Was it a career option that you were aware about during your educational process?

I was unaware of the medical science liaison position until the last semester of my PhD program. I started reading more about the role, and very serendipitously was contacted by my current company first, as they were interested in having me be a key opinion leader for them. After speaking with them about that opportunity we started to discuss open medical science liaison positions within US Medical Affairs, and it ended up being a perfect opportunity for me!

How did you end up working at your current affiliation?

After being introduced to the US Medical Affairs team via the conversation with an MSL about potentially being a key opinion leader for the company, I interviewed and was hired as a microbiology MSL. At the time, US Medical Affairs was a newer addition to the company and they did not have clinical microbiology expertise on the team, so I was an ideal fit given my years as a clinical microbiologist, my formal public health/epidemiology training, and my PhD in clinical & translational science that focused on infectious diseases.

How long have you been working at your current affiliation?

2 years in December 2023

What type of position is your current job?

Hybrid (Remote & In-Person)

Is your role more a managerial or individual contributor role?

Individual Contributor

What are the defined roles of your position?

1) Provide non-promotional scientific, educational and research support for bioMérieux in vitro diagnostic products in a fair and balanced manner to educate clinicians on the clinical pathways for disease and the application of bioMérieux products in the risk assessment/diagnostic process.

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What are the defined roles of your position? (Answer continued from Page 1)

2) Respond to unsolicited requests for off-label information associated with supported products and disease state areas using evidenced-based research presented in a fair and balanced manner and in accordance with applicable regulations, guidelines and bioMérieux policies, procedures and practices.

3) Identify, establish and maintain collaborative, long-term relationships with key opinion leaders, customers, investigators and institutions strategic to appropriate product development and use.

4) Maintain clinical expertise through education including attendance at relevant symposium, scientific workshops, preceptorships and review of key journals.

What are your day to day tasks that you perform in your position?

I am very involved in supporting customers not only with off-label questions about products, but with technical deep-dives related to clinical microbiology. These questions are typically related to the use of biomerieux products, but can also be more largely associated with a disease state or clinical microbiology concepts. I regularly review the scientific literature related to antimicrobial resistance and antimicrobial stewardship, pneumonia, and bacteriology. I am actively involved in scientific protocol review for investigator-initiated research with our products, and I work closely with investigators who are interested in performing clinical research with our products. I develop and provide medical education to employees within biomerieux, and to colleagues in the fields of clinical microbiology and infectious diseases per request (e.g., I am often asked to come speak at conferences about issues related to clinical microbiology practice or hot topics in infectious diseases). I do a lot of science communication related to microbiology/infectious diseases concepts, and attend numerous conferences throughout the year (where I often give talks, connect with colleagues in ID and micro, and work the medical affairs booth and support the marketing team by answering any off-label or complex scientific questions from conference attendees). I build and maintain relationships with clinical microbiologists, providers, and clinical investigators to better understand the scientific landscape and where needs are so that I can better inform research & development, scientific content, and products offered by my company. It is important to note that while medical science liaisons ultimately support the company business, their goal is always to remain scientifically fair and balanced, and help ensure that the information and products released by the company are scientifically sound and fit a need that will support public health and better patient care.

What do you like best about your job?

This is such a dynamic job. I really wanted a job that would allow me to use as many of my unique skills as possible, and this job allows that. In one week I can be a clinical researcher, technically-focused clinical microbiologist, science communicator, educator, or science advocacy participant. There are so many things I was worried I wouldn't be involved in anymore if I moved to industry (e.g., scientific publishing, thinking about the science, involvement in scientific organizations, attending conferences), and that has not been the case for me at all. I love being in a field that moves quickly and requires you to regularly adapt and keep up with the changes in science. I have to know so much about what is happening in my field, and I love that! It holds me accountable to really knowing what is going on in the field of microbiology and infectious diseases, and I get to collaborate with people I really respect in these areas. I get to play a part in diagnostic innovation and addressing current challenges related to public health and patient care, and that is really rewarding for me.

What do you dislike about your job?

For those of us who come from academic [research or Medicine], that switch to industry can feel hard at first. Many of us want to know that the work we are doing is altruistic, and there is this pervasive assumption that working in industry makes you less of a scientist. I have found the opposite to be true. Every once in a while, it can feel frustrating to have discussions around business needs and motives for the company at large (I am a scientist first and foremost) but ultimately it doesn't feel much different to me than when I was writing grants for funding for my research projects. I feel very fortunate to work for a company with a strong public health focus, which develops products that I truly believe can contribute to patient care in a positive way. The work that I do helps ensure that the things my company does are scientifically-minded and directed toward addressing the most pressing challenges in medicine right now. At this point, there is very little, if anything, I dislike about this role. The thing I dislike the most is the way the clinical community treats people that work in industry, and the assumptions that are made about the work medical scientists in industry do. I understand that there is a very negative history with pharmaceutical companies and medicine (for good reason) and I do not choose to align with any company that has questionable ethical practices. I wish people knew more about the role of medical science in industry, and how important collaboration with these people can be for advancing diagnostics and clinical care.

If your job is outside of academia, what is similar and what is different about your current job and your terminal position in academia?

I am much happier in my current role. I feel tremendously supported and am able to think creatively in a safe space that allows me to push boundaries and think outside of the box. I get to be involved in clinical research without feeling the pressure to get grant funding for my salary, and without always having to be the PI. In industry, you don't really have the ability to choose whatever you want to research (like in academia), and any research you are involved in will likely align with what the company needs from a business and scientific perspective. In my experience, the salary and benefits are significantly better in industry than academia. My opportunity for growth feels better in industry. As someone who really enjoys collaborating with people, providing education outside of the classroom setting, and wearing many different hats, I appreciate being able to do all of these things in industry. Typically, it feels like respect was more readily available to me when I was in academia. The ability to be an author on publications or participate in research you are personally invested in are probably more likely in academia. I do feel that I have to work harder to earn and maintain the respect of my scientific peers when in industry. I have had ample opportunity to publish, give talks, and do other academic things while in industry, but I know this is not the experience of others who have gone into industry and is something that should be noted.

How did your microbiology education prepare you for your current position?

I could not do my current job without experience in clinical microbiology. My PhD in clinical and translational science has been tremendously helpful in supporting me in critical appraisal of the scientific literature and study protocol review (which is a significant part of my job), but my training, certification, and work experience in medical laboratory science is imperative to my success in my current role. Because it is not a PhD-level position, the medical laboratory scientist role does not get the respect it deserves. If I did not have that experience, I could not do this job as well as I do now. The PhD training also helps support me in my interactions with other scientists and clinicians, being involved in any sort of clinical research, making presentations and giving talks (often within short timelines), writing scientific content, and being able to think critically.

What skills do you wish you learned during your educational process that would better prepare you for your current role (e.g. machine learning, management skills, etc.)?

Although I had training in study design and research methodology, I always wish I had more. I cannot over-emphasize the importance of understanding study methodology in this job role. This training is not standard in medical or basic sciences training, and we often need to seek additional experience in this area, yet it is critical to how we perform GOOD research and interpret data correctly. I would love additional training in advanced research methodology (particularly epidemiology study methods) and actively seek this training out in my current role.

Do you have any recommendation and/or tips for early career microbial ecologists looking for jobs similar to yours?

If you want to work in the medical industry, it is important to think about the type of role you are interested in. Field roles (like a medical science liaison) require you to "speak multiple languages." What I mean by this is that you have to have strong scientific understanding of your area of expertise, but you also have to be able to translate the basic science to the clinical setting. Training at the bench is often not enough to understand how that connects to the actual practice of medicine. If you are in the field, and especially if you are frequently working with clinicians and medical laboratorians, I strongly recommend that you seek training in both clinical and basic sciences. If this is not of interest to you, there are lots of other opportunities in industry that don't involve being in the field! These roles may include positions within research and development or scientific affairs. Ultimately, I really encourage people to be as dynamic as possible -- learning how to successfully communicate science, blend training types that may not seem to always be linked, and seek to understand the roles of as many scientists as possible within science and medicine.