



Dr. Evelina Papaioannou
Research & Development Department

Dr. Evelina Papaioannou is part of the Research & Development Department at Medicover Genetics, where she is responsible for managing the intellectual property portfolio of the company, drafting and filing patent and trademark applications, replying to objections raised by patent examiners, and identifying opportunities for new patent applications.

► **How did you decide to go into science?**

Ever since I was a young girl, I was fascinated by how the human body works, how it repairs itself, and how it defends itself against pathogens. Next to that, I was puzzled by questions such as why some people are more prone to certain diseases or syndromes than others, and I wanted to understand as much as I could about what goes on inside our bodies. When I was at school doing my A level courses, my Biology teacher noticed my passion for the field and encouraged me to pursue a Biology-related career.

► **How did you decide on the specific field of science?**

After obtaining my PhD in Microbiology and completing my Post-doc, I knew that I wanted to explore new opportunities. I enjoyed the laboratory work considerably, but I always had a strong desire to do more than research. It was at that point that a big realization kicked in. A PhD gives you an enormous set of skills that can be transferred to many science-related fields. After all, if you build your career based on your deepest interests, you can always find ways to stay connected to it, while also developing other skills that might suit you more.

My passion for science together with my excitement of translating what happens in the laboratory into a different language for different audiences, led to a turning point in my career and I found myself working initially as a medical writer and subsequently as an intellectual property officer. The multidisciplinary nature of my current role is exciting to me. As an intellectual property officer, I am responsible for a large number of different projects and as a result, no two days are ever the same. A day at work can consist of identifying novel key technological advances, drafting patent applications, responding to objections raised by the patent examiners, tracking the status of a large number of projects, understanding in great detail what the various teams of the research and development department do, keeping up to date on intellectual property laws, communicating with our lawyers, translating legal terminology to the Research & Development team, and also briefing the team on what is required from each of them, for achieving a successful patent application.



“My advice to anyone starting now is to keep pushing themselves to find motivation and to take or create as many opportunities as possible to explore a variety of skills until they find their real passion”

► **What tools/qualities do you find indispensable for your field?**

The qualities I find indispensable for my field are analytical skills, technical and legal writing skills, lateral thinking, oral and written communication skills, the ability to work alone, and deal with a large amount of information of various kinds, as well as an eye for details and the ability to see the bigger picture. Time management is also particularly important.

► **What surprising lessons have you learned along the way that changed the way you used to think?**

There are many lessons to be learned in the Intellectual Property field. For instance, before embarking on my new role, I never thought that mentioning thoughts for a new invention at a scientific conference could impact the novelty of the invention. In addition, I had previously thought that the rights of an idea belong to the first person who have thought of it, and not to the first person who has filed a patent application for that exact idea. As a result, I now find myself thinking in different ways than before when approaching my work.

► **What is the best advice you ever received that would help a young scientist who is starting now?**

The best advice I have received was to build on my passion and not to limit myself to what I believe I can achieve. We always tend to underestimate ourselves and we are afraid to try things that are unknown to us. Science is fascinating but it takes a lot of determination, patience, and trial and error, which can easily demotivate someone. My advice to anyone



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► **What do you think are the biggest challenges for young scientists in Cyprus? What are the best ways to overcome these?**

Challenges faced by young scientists in Cyprus might include the limited number of people involved in science in comparison to the number of scientists in other countries. As a result, young scientists in Cyprus may not get the opportunity to explore and learn as much as they would do in other countries, or they might feel that they have limited access to communication with fellow scientists from abroad. However, with the current technological advances, it is now possible for young scientists to attend international conferences virtually and enhance their knowledge in the fields that interest them. Next to that, with the increasing number of exchange programs promoting mobility, young scientists can easily visit international laboratories for short periods of time, and learn new techniques, try out new equipment and be exposed to different cultures and ways of thinking.

► **What has changed the most since you became a scientist and how different do you think the scientific world would be in 10 years?**

What I noticed changing the most since I became a scientist is the automation of many techniques that previously had to be performed manually. In addition, looking at the job market, I have noticed an increased diversity of roles where a PhD is a requirement. During the Covid pandemic it was also nice to see how recent technology was successfully applied

► **Which aspect of your field do you find the most interesting and which the most challenging?**

What I love the most in my job is seeing a project through “from start to finish.” For example, we start with an idea for an inventive method. This idea is put into practice by the rest of the scientists in my team and if it is successful, I write the patent application. Once filed, the application enters a long-lasting review period of 3-4 years. During this period, we provide arguments to address any objections raised by the examiners and as soon as the novelty and inventiveness criteria for our method are met, the patent gets granted. The most challenging part of my field is choosing the right technical and legal words to describe any new invention and to prove novelty and inventiveness of said invention over the information already available in the field.

► **How is your work connected to the work of others?**

My role at the company is like that of an interpreter. I need to be able to understand three different languages – Technology, Business, and Law – and I need to be able to translate each of them to the people using the other two languages.

to speed up the development of vaccines against a life-threatening disease. I firmly believe that with the increased funding in science and the increased knowledge and technology available, in the next 10 years more and more health-related issues will be targeted with greater ease. The quality of life of people suffering from a variety of disorders will be greatly improved.

► **Which scientific discovery are you most fascinated by and why?**

It is very hard to name a specific discovery that impressed me the most, as I consider many of them fascinating. However, having extensive education on host-pathogen interactions I would have to admit that I am somewhat biased to be impressed by the discoveries made in this field. If I must pick a certain discovery, it would be the one of Ignaz Philipp Semmelweis, a Hungarian gynecologist who is known as a pioneer of antiseptic procedures. Semmelweis observed a remarkably high maternal mortality from puerperal fever following births assisted by doctors and medical students, whereas births attended to by midwives were generally safe. He then noticed that the doctors had often performed autopsies beforehand and concluded that puerperal fever was contagious and that these autopsies were the source of this contagion. As a result of his observations, he made the discovery that the incidence of puerperal fever could be drastically cut by the use of hand disinfection in obstetrical clinics. At the time of his discovery, nobody was pleased to think that doctors were responsible for the deaths, and Semmelweis was ridiculed and was thought crazy by others for asking the doctors to wash their hands. His theory was only accepted in the field years after his death, when the French microbiologist Louis Pasteur developed the germ theory. It is fascinating to see how one brave individual went against all beliefs to prove his theory, and it shows how amazing science is and how it can impact our daily lives.

Interview conducted February 2022

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