

Chemist

Dr Mark Lynch

What does a Chemist do?

A chemist studies chemical processes occurring within living organisms. This can include anything from how a drug works to why you get fat from eating too many sweets.

What do you work in and what is your specialty?

I am more focused on the chemistry aspects than on the biological. Possibly the biggest unanswered questions in science is how life evolved from non-living chemicals. We really know very little about this process. So for me the study of the chemistry of life is a fascinating puzzle just waiting to be solved.

How did you become interested in this area and when did you first start?

Even when I was very young I had a keen interest in the natural world. I was and still am amazed at the different shapes and forms of life. Also when I was growing up fireworks were readily available and this stimulated my interests in chemistry. It was pretty natural that at some stage I would combine these interests.

What study path have you taken to get here?

In high school I did quite well at science, though I was poorly advised that to be a “real” scientist I should focus on chemistry and physics, rather than my real loves of chemistry and biology. However, at university I was allowed to study the things I really wanted to and this consisted of mainly chemistry with biochemistry and some biology thrown in. I did my Honours in Forensic Science, which was interesting in a fairly macabre way. I then reached something of a crossroads in my life, where I was tempted to abandon science altogether. Fortunately I found a PhD project on developing anticancer drugs which fitted my interests quite well.

What do you like most about your job?

I like puzzles and there is probably no bigger puzzle than life itself. I often feel like I am an explorer standing at the edge of a vast unexplored ocean with many wonders just waiting to be discovered. I always get a thrill when I find something new.

Do you have any particular career highlights?

One of the things you do as a chemist is make new substances. I remember the first time I ever made something that had never been made before and thinking that I am holding something completely unique in the entire universe. Another unique substance I made was very good at killing cancer cells, so for a brief time I thought I had actually cured cancer. More experiments showed that this substance was equally as good at killing healthy cells, so rather than the cure for cancer all I really had made was something extremely poisonous.

What advice would you give to someone interested in working in this area?

Let your curiosity take you where it will take you. You will enjoy the journey!

