

penumbra

your way to a brighter future

This morning I got up and ate my breakfast en route to the lab to start another day as a PhD student at University of Glasgow, studying how a special subset of immune cells ($\gamma\delta$ T cells) can predict the development and outcome of colorectal cancer. I worked on a report ahead of a project meeting, fired off a bunch of emails, ate some cake that I baked for my colleagues, read a journal paper and attended an onco-immunology mini conference. It sounds like a normal Monday in the life of a 26-year-old PhD student, but it was far from ordinary. To me there are no ordinary days. This is partly because I feel privileged to be involved in scientific research and for all of the difficulties involved and as tough as academia can be, I love it! Mostly however, it's because I never expected to be here. I never imagined that I would make it to the age of 26, I almost didn't make it to 20, and I definitely didn't think that I would have the experiences that I do.



When I was a teenager, I was dealing with gender dysphoria that constantly increased in intensity as I developed, whilst trying to navigate school with admittedly sub-standard social skills. I wasn't doing great. By the age of 13 I was self-harming and as tends to happen if problems aren't dealt with, it continued to escalate and at the age of 18 I attempted to take my own life. I spent a few months on a psychiatric ward and eventually I acted on encouragement by staff to accept referral to a charity called Penumbra, which includes a service for adults and young people who are dealing with self-harm. A couple of weeks after I was discharged, I made a second and frightfully close to successful attempt on my life. It was an intense time for my family and I and much of those years are hazy, but it did get the wheels turning on the road to recovery. Slowly, very slowly, I began to show improvement with my Penumbra support worker. She gave me a place to work through my self-harm; what I was doing, why I was doing it and whether it was really helping me at all. The answers to these questions may seem obvious (although actually the answers are not as simple as they seem) but when you are in the grip of what I consider having been an addiction, the obvious can be very difficult to see. She didn't rush me, instead she helped me work through these issues and ultimately develop alternative coping methods, tools which I will always have available to me. It is impossible to explain in the scope of this article exactly how dire a situation I had gotten myself into or express quite how ill I had become at this point. I was drowning and I suspect that even some of my family didn't think that I would make it to shore, but Penumbra gave me some driftwood and helped me build myself a boat.

Eventually, I went to a local college to attend a course in animal care and although it was a huge and integral step in my recovery, it wasn't the road for me. I went to a different local college to study for highers in chemistry and human biology at night classes, obtaining straight A's and heading into an HNC and HND in biomedical science with the encouragement of my lecturer. Throughout these years I continued to use the tools that I had developed to keep myself on track. I did very well in my HNC and HND and went into third year on the BSc (Hons) Biomedical Science degree at my local university, University of Abertay. College had given me a taste of the wonder of learning and in the independent learning environment of university I flourished. Now a keen runner and eager to show thanks for the help I had received, I raised some funds for Penumbra at a race and got to see my support worker at the finish line. I arranged and secured funding for a summer internship at CRUK Beatson Institute in Glasgow between my third and fourth years, studying the awesome $\gamma\delta$ T cells and living in a new city for the first time. Returning for my honours year, I was a more confident person than I had ever been in my life and graduated in 2018 with a first class BSc (Hons) in biomedical science with distinction and was awarded the Axis-Shield Diagnostics Prize as the highest achieving student. I headed off to Cambridge for another summer internship and got to live in a beautiful place bursting with exciting science - I even took the opportunity to reconnect with my best childhood friend who was living nearby, and she is once again a pillar in my life. I finished in Cambridge on the Friday and popped back to Glasgow to start my PhD on the Monday, working with my previous supervisor and another new supervisor. I've developed a tendency to try and do everything all in one go, but it's just because I don't want to waste my life away again, but my supervisors keep me grounded. During my PhD I am working with amazing people and even got to spend two weeks in Stockholm as a visiting student at The Karolinska Institute, where I felt truly happy. I'm now in the treatment process for my gender dysphoria and my sense of self improves even as my career develops. Those dark days seem like a long time ago, but I remain ever vigilant.



I've come a long way since my teenage years, but I didn't get here all by myself, I had a lot of help and Penumbra was a major part of that help. All that I've experienced so far and will experience in the future will be because of those who helped me when I felt helpless. The truth is that even when life's problems seem insurmountable and darkness envelopes you, the kindness of others can see you through and there is always some hope to be found. We are all capable of falling into that darkness, and we are all capable of making it back. In my mind it's like the clock stopped all of those years ago and every day is a day that I've been gifted. How can any day just be ordinary anymore? The world isn't perfect. I'm not perfect. I have good days when I feel like I'm making the most of the gift that I've been given, and I have bad days when I feel like I'm wasting time before the clock suddenly remembers that it was supposed to be ticking. Whether it's a good day or a bad day I just do my best to make the most of the chance that I've been given and try to pass the favour on. So, in the morning I will get up, have my breakfast (a proper breakfast this time!) and head into the lab for another extraordinary day as a PhD student at University of Glasgow. I have meetings to

attend, experiments to organise and committees to run. Hopefully, there will even be some cake left!