



ANTHONY PARTRIDGE

SENIOR PRINCIPAL SCIENTIST

MERCK, SINGAPORE

Industry profile written by Ally Bos



EDUCATION

Scanning through his list of academic and professional achievements, you wouldn't know that Anthony Partridge didn't really have a plan when he first set off to university, other than he liked science and thought biochemistry would be interesting. He graduated with a BSc in biochemistry in 1997 from the University of Guelph. However, it was an earlier co-op placement at Cangene (a biotech firm) during high school that inspired Anthony to pursue graduate studies. Anthony obtained his PhD in biochemistry from the University of Toronto and the Hospital for Sick Children under the supervision of Charles Deber in 2003, where he worked in biophysics on transmembrane segment peptides and membrane structure folding. Upon graduation, Anthony was looking to move to San Diego and joined Mark Ginsberg at the Scripps Research Institute for a post-doctoral fellowship which he completed at the University of California, San Diego in 2006.

WORK EXPERIENCE

In 2006, an opportunity at Élan Pharmaceuticals (a leading small molecule drug discovery firm) came along and Anthony, torn between academia and industry, jumped on it. He had only post doc'd for two and a half years which is considered short, but he was eager to start making money as well as start a family. For two years Anthony worked as a scientist on various projects including protein purification and crystallization, and $\alpha 11\beta 3$ activation.

Although his work at Élan was fun and innovative, Anthony was looking for something bigger and in 2008, he made the move to Merck-Frosst Canada Inc in Montreal. Merck was a world class drug discovery organization where innovation and productivity ran high. Anthony's research included assay development and screening for heart disease, HIV, and hepatitis C programs. Although he learned a lot about drug discovery in his role as research biologist, Merck was very conservative, and Anthony was not encouraged to be creative.

Following a merger with Schering-Plough, Merck-Frosst was shut down in 2010 and as a result, Anthony was offered a Merck outsourcing team in China. This was a temporary position that allowed Anthony to work remotely out of Toronto prior to moving to China. His role involved troubleshooting between the contract company and Merck whereby he oversaw the entire drug discovery process.

Things changed at the last minute and in 2011, Anthony took a position of senior director of biology at Pharmaron in Beijing (a preferred partner of Merck). This was a high-risk decision that came with better money and much more responsibility. Anthony went from managing a team of one to a team of 25. Anthony was reluctant at first, but this was a great life experience that he could not pass up. It was here

that Anthony learned how to be a leader, and as manager of the Merck portfolio, worked on transfer assays and assay validation. Additionally, Anthony directed approximately six other programs including the building of a semi-automated, compound management laboratory with Merck.

Despite all this success and responsibility, Anthony found he was missing the science and in 2014, he took a position as principal scientist at Merck in Singapore. The job was scientifically driven; there was collaboration with academic groups whereby industrial research was conducted that fed directly into the pipeline. His work focused on macrocyclic polypeptides and therapeutic molecules; intracellular targets and peptide permeability. Anthony has lots of fun and a highlight was the opportunity to work with Sir David Lane of A*Star, who discovered the P53 gene. In January 2019, Anthony was promoted to senior principal scientist of Merck Singapore.

BIGGEST CHALLENGE

Anthony confided that the biggest challenge in his work experience has been how to be the best person and how to most effectively lead people. In an effort to sharpen these soft skills, Anthony listens to TED Talks and podcasts with a democratic and positive style. He recommends that grad students read the Harvard Business Review and pay attention to one attribute of leadership.

SUMMARY AND ADVICE TO STUDENTS

When asked what he would tell current graduate students, Anthony reminded me that most of his career was not planned but life throws opportunities at you and it is up to you to take advantage of them. Anthony had a passion for science and learning and growing were important to him. Therefore, he suggests that students focus on what they are interested in and to take things as they come. Anthony recommends that grad students be strategic and to work on a couple of side projects in addition to their main project. This will allow one to pivot should the opportunity arise. Also, Anthony says that when a student is looking to publish to pick high impact science journals. Often times our manuscripts are not published in the journal of choice so you should always aim higher than you would normally because it will probably result in publication in a higher impact journal than had you not.

Anthony left me with five main pieces of advice:

1. Strongly consider doing a post-doc at the best place possible and doing something totally different than you had done in grad school which will allow you to expand and grow and that will get you publications. Anthony's post-doc provided him with tremendous learning and freedom opportunities and allowed him to expand on his techniques.
2. Don't be afraid to take risks but be smart about which risks you take. Being a risk taker pays off!
3. Play to your strengths rather than your weaknesses; it will make things more enjoyable!
4. Learn to accept failure. Failing is a great teacher but only if you meet it with the right attitude.
5. Lastly, have courage; you need it to take risks.