A*Star Institute of Medical Biology
Singapore

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Summer 2017
Work Experience

My project concerned the differentiation of beta cells. Currently, research has mostly stalled at pancreatic progenitors in the process of embryonic stem cell differentiation into insulin-creating beta cells. To be able to efficiently create beta cells opens up incredible opportunities of treatment for diabetes and other such diseases. My mentor had theorized that infected progenitors with a virus of our own making containing 6 transcription factors would force them to differentiate quickly.

So my summer was spent amplifying, cloning, and then creating these 6 viruses containing these 6 genes. I learned a bunch of lab techniques, experiment protocols, and some basic molecular biology.
The Office

The Lab
The Institute of Medical Biology is one of A*Star’s many departments. My lab was just one of the labs in IMB and was focused on stem cell research.

As a result, many of my coworkers were doing extremely fascinating parallel projects. They were kind enough to teach me a bit about what they were doing and let me work with them on many occasions.
Some of my coworkers running their own experiments in the lab
Singapore as a city...

- Singapore is a multicultural metropolis that displays a good mix of tourist destinations and local hangouts. From the world famous Gardens by the Bay to the multitude of Hawker Centres and even the island resort of Sentosa, Singapore has a lot to offer.

- Food is one of Singapore’s best attributes. Street food in the Hawker Centres is cheap and delicious and all of the centres have dozens of stalls to choose from. The most famous dishes are laksa, chicken rice, chilli crab, and of course anything that involves durian.
The view from one of Singapore’s many sky-rises. In it, the Singapore Flyer and Marina Bay Sands Hotel can be seen.

Singapore’s mascot, the Merlion, at Sentosa
Set right in the middle of Southeast Asia, Singapore offers a great base from which to travel. Flights are relatively cheap and short enough that weekend trips are a must!

I was able to go to Cambodia, Thailand, Malaysia, and the Philippines - all of which were less than 4 hours away!

Johor Bahru is the Malaysian city just across the border and perfect for a daytrip since it is only a short bus ride away.
Future Plans

- This internship would work well with anyone interested in biological research or medicine.
- I personally am on the pre-med track and hope to become a practicing physician in the future but this internship was more research oriented.