Ross Beever Memorial Mycological Award (RBMMA) Report for year 2017/2018

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Truffle-like fungi are a large group of polyphyletic fungi that are unable to forcibly discharge their spores. Evidence indicates that truffle-like fungi have evolved from mushroom-like ancestors. However, very little is known about the underlying molecular causes for this morphological transition. To better understand these underlying molecular mechanisms, the genomes of a truffle-like fungus, *Cortinarius beeverorum*, and a closely related mushroom-like fungus, *C. dulciolens*, were previously sequenced using the Illumina platform. The resulting assembled draft genomes showed varying levels of fragmentation and could possibly be improved using long-read sequencing technologies.

I was fortunate to receive the Ross Beever Memorial Mycological Award to help fund the sequencing of *C. beeverorum* using an Oxford nanopore MinION, and to improve its draft genome. We were able to generate 130 Mb of sequence data with a read length N50 of 14 kb. The draft *C. beeverorum* genome is ca. 60 Mb in length and contains 11 000 predicted genes. A manuscript is in preparation describing this interesting species.