

Press Release

Alexandra Bannach-Brown, MSc, from the Translational Neuropsychiatry Unit, Department of Clinical Medicine, will defend her PhD thesis titled “Understanding in vivo modelling of depression” at 9:30am on 1st July 2019. The defence will take place in Meeting room 14K.0.19, TNU, Skovagervej 2, entrance 72, 8240 Risskov.

The defence is in English, it will be held via video-conference, and will last approximately 2 hours.

To understand the underlying biology behind the development of depression, the psychiatric condition, and to test potential treatments, many animal experiments have been conducted. Systematic review methodology was used to identify, summarise, and synthesise the literature on animal experiments in depression to get an overview and to gain an understanding about what contributes to differences in treatment effectiveness.

Using tools to automatically assess literature, an online app was developed to provide an overview of literature on animal models of depression and anti-depressant drugs. This thesis reports quantitative summaries of two topics within animal models of depression; the effects of gut microbiota-targeting interventions, and the effects of ketamine as an antidepressant. The findings from the systematic review on gut-microbiota targeting interventions were used to conduct a primary animal experiment carried out to test the effects of prebiotics on depressive-like behaviour in a genetic rodent model of depression.

These findings provide a better understanding about how tools can be developed to help automatically synthesise and summarise evidence from many experiments. Research from this thesis can be used to design future animal experiments, and together with other research, make decisions about drugs to investigate for depression.

Email: a.bannach.brown@clin.au.dk