**BMedSci Honours Project 2018**

**Project: Diurnal activity patterns of dipteran flies**

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Research Group Name: Motion Vision

Location of Project: FMC 6E.122

**Brief Outline of Project:**
Most dipteran flies are strongly diurnal, with strong motor activity during daylight, but virtually no movement in the dark. Such diurnal changes in motor activity can be assessed using a locomotor activity monitoring system (LAMS). It is known that motor activity is affected by stress. For example, if the fly is experiencing social stress in the form of crowding, this affects its diurnal motion pattern. Similarly, stress induced by lack of sleep will also affect the diurnal rhythm. It is also known that smells affect stress hormones.

In this project the honours student will first investigate the effect an attractive and an un-attractive odour have on the diurnal pattern of a fly, and how this compares with a baseline response with no odours added. After this the student will induce different stressors on the flies, to 1) determine how this affects the locomotor activity and 2) whether odours can mitigate the effect.

**More information:**
http://hoverflyvision.weebly.com/projects.html


Raynaud A, Meunier N, Acquistapace A, Bombail V. (2015) **Chronic variable stress exposure in male Wistar rats affects the first step of olfactory detection**. Behav Brain Res. 2015: 291:36-45