

Report from meeting, 4th April

The fifth South West Fly Meeting was held at the Biomedical Sciences Building, University of Bristol on Wednesday 4 April.

Katarzyna Sierzputowska from Drs Benjamin Housden and James Wakefield labs at University of Exeter spoke about an integrated analysis of the protein-protein interaction network of the conserved mitotic kinase, Polo. Using a combination of a high throughput luciferase plate assay screen and embryo GFP imaging, she went through her data so far and her proposed PhD screen and validation.

From first year PhD to Professor, Prof Herman Wijnen from University of Southampton gave a talk about the conserved small GTPase Rho1 couples molecular clock circuits to daily sleep/wake behaviour. Again, using a trusty *Drosophila* screen of the DrosDEL collection for circadian rhythm mutants, his group identified Rho-1 mutant. Rho-RNAi expression in clock neurons caused loss of rhythms in continuous darkness and a collapse of the expanded clock neuron terminal day time phenotype.

After tea, Dr Lori Borgal again from Prof James Wakefield lab at University of Exeter, gave a talk entitled “PP2A-B’ regulation of Asp influences stem cell specific spindle pole focusing”. Lori’s talk explored the relationship between phosphatases and kinases in mitosis again taking advantage of GFP live imaging and genetic tractability of the fly.

Dr Marc Amoyel (University of Bristol) presented his recent work studying the interaction between cell cycle regulators and stem cell fate. Surprisingly, he finds that factors that control proliferation in stem cells are also required to maintain the stem cells’ niche.

Lastly, Dr James Hodge from University of Bristol spoke about his labs work on *Drosophila* models of Alzheimer disease (AD). Based on a recent Epigenome Wide Association Study for AD, they took the top hit which was in the ankyrin gene and made a *Drosophila* model. These flies like those that overexpress human amyloid b or microtubule associated protein, tau, cause shortened lifespan, locomotor deficits and short-term memory loss.

After the talks, there was refreshments kindly provided by the Genetics Society and SLS, and *Drosophila* researchers continued to discuss their results, planned experiments and role of the fly in science and beyond.