

**Industrial Biotechnology and Bioenergy Theme Group**

**Meeting 2: Stabilising Protein-Protein Interactions**

**7th December 2015**

**University of Edinburgh**

**James Clerk Maxwell Building (JCMB)**

**Room 3217**

**Hosts: Sally Vanden-Hehir, Efrain Zarazua-Arvizu, Dr Alison Hulme and Dr Jon Marles-Wright**

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| Time |  |
| 10:00-10:30 | **Introduction and coffee** |
| 10:30-11:30 | **Talk from Dr Alison Hulme: A Chemist’s View of Protein-Protein Interactions**  A molecular view of protein-protein interactions, and Chemical Biology approaches to targeting them. Chemical approaches to increasing the stability of peptides targeting PPIs; the role of stapled peptides. |
| 11:30-13:00 | **Computer Workshop**  Hands-on session using Pymol and the de-novo structural predictor  PEP-FOLD to design custom peptide inhibitors of a number of PPIs.  (Bring your own PDB code if you want to, otherwise we will use PPIs currently under investigation in the Hulme group.) |
| 13:00-14:00 | **Lunch** |
| 14:00 – 14:45 | **Talk from Dr Jon Marles-Wright: Use of self-splicing inteins in biotechnology**  Introduction to inteins and examples of their use in biotechnology applications from protein purification to protein circularisation. |
| 14:45 – 15:00 | **Coffee** |
| 15:00 – 16:30 | **Computer Workshop**  Hands-on computer graphics session looking at protein circularisation via self-splicing inteins and the design of linkers to connect distant N- and C- termini of proteins. |