

**P064** Localization of interactions between components that make up the yeast *GAL* genetic switch

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The regulation of the *GAL* genes, required for the utilisation of galactose as a carbon source, serves as an important transcriptional model for eukaryotes. This regulation requires control by three proteins; the Gal4p activator, the Gal80p inhibitor and the Gal3p ligand sensor. Various models have been postulated on how these proteins interact in response to galactose availability but no work has looked into the localisation of these interactions. By creating fusions between Gal4p, Gal80p and Gal3p with fluorescent proteins at their native loci, we have been able to observe the behaviour of the three components in the presence, or absence, of galactose. Additionally, Forster/Fluorescence Energy Transfer (FRET) measurements between the proteins are permitting the localisation of interactions within the cell enabling us to build up an accurate picture of *GAL* regulation in yeast.