



**BIOMEDICAL
CENTER**

JOURNAL CLUB

Humanising yeast for synthetic biology

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S. cerevisiae and humans diverged over 1 billion years ago. Nonetheless, roughly 50% of yeast genes are directly replaceable with human orthologs. The similarity of these seemingly unrelated organisms most likely extends even further for comparisons in systematic perturbations. In other words, genetic engineering practices established in yeast can be expected to have a high application potential in higher organisms. This Journal Club will focus on genetic engineering practices currently being developed at the Georgiev Lab and their potential impact in the broad field of healthcare and medicine. Central to the discussion is the yeast pheromone pathway that we use as a platform for testing engineering methods designed to modulate GPCR signalling through pathway regulation. Foreseen applications in the near and far futures will be discussed but the hope is to open the discussion to uncover the unforeseen applications that fall within the interests and competences of the Pilsen Bio-collective.

REFERENCES (most likely won't go into great depth with most of these):

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REFERENCES FOR FUN (an essay on why engineers and biologists should collaborate and a brief history of synthetic biology):

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