

## Poster Category 5: Mitochondria

### PR5.1

#### **Dancing With The Right Partner: Interaction Of Porin Pore Associated Factors With Inner Mitochondrial Membrane Carriers Selectively Facilitates Metabolite Transport**

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The diverse functions and metabolic processes in mitochondria require numerous transport processes through and between the two mitochondrial (mt) membranes. It is widely assumed that the metabolite and ion transport through the mt outer membrane (MOM) is mediated by the porin pore, whereas in the mt inner membrane (MIM) specific carriers are responsible for the transport processes. However, the coordination between the two membrane transport processes is largely unknown. Here we provide experimental evidence that in the yeast *Saccharomyces cerevisiae* the two MOM proteins Om14p and Om45p associate with subpopulations of independently assembled porin pores. These complexes interact with carriers of the MIM, as shown by preparative TAP followed by MS identification. We propose that interaction of the two MOM proteins with the porin pore allows binding to specific channels in the MIM, thereby facilitating directed transport of metabolites.