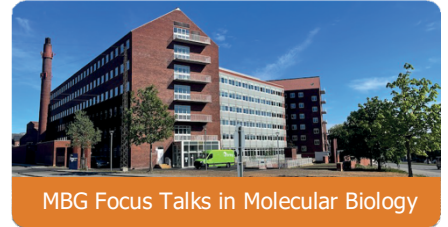


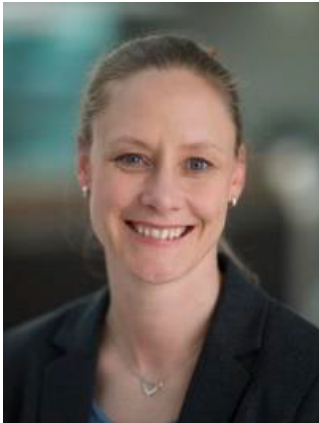
MBG FOCUS TALK

hosted by Joseph Lyons



MBG Focus Talks in Molecular Biology

Friday 1 November 2024 at 11:15-12:00
NUCLEUS (1871-120)



Maïke Bublitz-Meier

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University of Oxford, UK

Present address: Institute of Translational Medicine,
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Structure, Function and Biogenesis of the Fungal Proton Pump Pma1

The plasma membrane proton pump Pma1 is an essential P-type ATPase in fungi, responsible for pH homeostasis and for energising the plasma membrane to secondary transport processes. Due to its importance for fungal survival and absence from animals, Pma1 is also a highly sought-after drug target. Until recently, its characterisation has been limited to functional, mutational and localisation studies, due to a lack of high-resolution structural information. The determination of three cryo-EM structures of Pma1 in its unique hexameric state have provided a new level of understanding the molecular mechanisms underlying the protein's stability, regulated activity and druggability. By reconciling evidence from functional and mutational work, cryo-EM and molecular dynamics simulations, my talk will review what we currently know about the structure, function and biogenesis of fungal Pma1.

All are welcome



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