**Mini-symposium**

**"Structural, biophysical, and computational techniques in molecular bioenergetics"**

Oct 18, 2018, Stockholm University

Arrhenius Laboratories

**Thursday 18.10**

**K438**

9:00 **Arrival and welcome**

9:05 Ville Kaila
*Introduction to computational biochemistry*

9:10

Andrea Di Luca/Alexander Jussupow (20 min):

*Dynamics and function of bacterial and mitochondrial complex I*

9:25

Sophie Mader (15 min): *Engineering enzymes*

9:45 Max Mülbauer/Michael Röpke (20 min):

*From in silico to in vitro and back again: integrated protein design*

10:10 **Coffee break**

10:40 Pia Ädelroth

*Introduction*

11:00 Maximilian Kahle

*Structure and mechanism of the NorQ/NorD complex: a metal insertion AAA+ chaperone complex*

11:20 Pontus Petterson

*Structure and dynamics of the versatile protein transporter TatA*

11:40 Biao Fu

*Towards understanding of the chloroplast galactoplipid biosynthesis – purification and characterization of at DGD2*

12:10 **Lunch (in front of Magnelisalen)**

**Magnelisalen**

13:10 Yurie Chatzikyriakidou

*An engineered thermal shift screen reveals specific lipid preferences of eukaryotic and prokaryotic membrane proteins*

13:30 Abdul Aziz Qureshi

*Establiishing the molecular determinants of sugar specificity in the malarial hexose transporter pfHT1*

13:50 Markus Björk

*Control of transmembrane charge transfer in cytochrome c oxidase by the membrane potential*

14:10 Johanna Vilhjalmsdottir

*Proton transfer reactions in cytochrome c oxidases*

14:30 Federica Poiana

*Investigation of ba3 oxygen reduction kinetics*

14:50 **Coffee Break**

15:20 Dan Sjöstrand

*Superoxide oxidase: Productive quenching of membrane-proximal superoxide by ubiquinone reduction*

15:40 Vivek Srinivas

*Metal-free ribonucleotide reductase and XFEL studies of high-valent metal site intermediates*

16:00 Kristine Grave

*Structural basis for M. tuberculosis phosphatidylinositol phosphate synthesis*

16:20 Benjamin Wiseman

*Structure of a functional obligate respiratory supercomplex from M. smegmatis*

16:40 **Discussion**

**17:00 Dinner**