

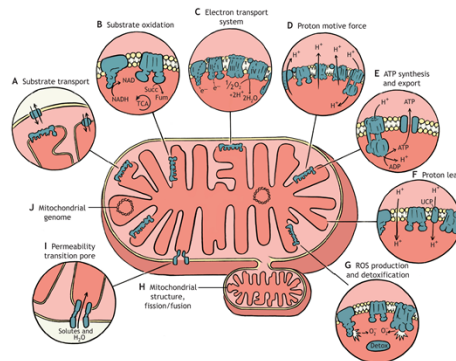


# Responses to temperature change in fish: insights from intraspecific variation

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Our climate is changing rapidly and organisms are facing increases in mean temperature and greater thermal variation that increases the frequency of extreme heat events. Examining intraspecific variation in key physiological traits related to resilience to high temperature provides a window into the processes that shape the ability to cope with increasing temperatures. Intraspecific variation can arise through processes acting at a variety of timescales, including reversible phenotypic plasticity, epigenetic processes, transgenerational plasticity, and evolutionary adaptation. In this talk, I will review some of our ongoing studies on the mechanistic basis of intraspecific variation in the ability to cope with high temperatures at these different timescales, highlighting the similarities and differences in the underlying mechanisms, and emphasizing the role of variation in aspects of oxygen transport and use from the gill to the mitochondrion.



**Thursday October 14<sup>th</sup> at 16.00**

*Aud F (building 1534-125)*