## MBG FOCUS TALK

Hosted by Thomas Boesen and Poul Nissen, Aarhus University

Monday 17<sup>th</sup> February 2025 from 11:30-12:00 In faculty club meeting room (1870-816)





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## Hyperexcitability in ALS- A double edged sword

Amyotrophic Lateral Sclerosis (ALS) is a neurodegenerative disease characterized by the loss of both cortical and spinal motoneurones culminating ultimately in death due to paralysis. A hyperexcitability of motor networks is consistently seen in ALS patients, although the cellular and molecular mechanisms underlying this are unclear. Additionally, the precise causal role that the hyperexcitability plays in the degenerative process is debated. Furthermore, the fact that only 10% of ALS cases are familial means that, for the vast majority of patients, what drives the disease in the first place is unknown. In this talk, I will present research from our laboratory, addressing factors that drive hyperexcitability in both familial and sporadic models of ALS, the role that they play in disease progression and finally, illustrate how environmental factors interplay with genetic risk factors to trigger neuronal hyperexcitability in this disease.

