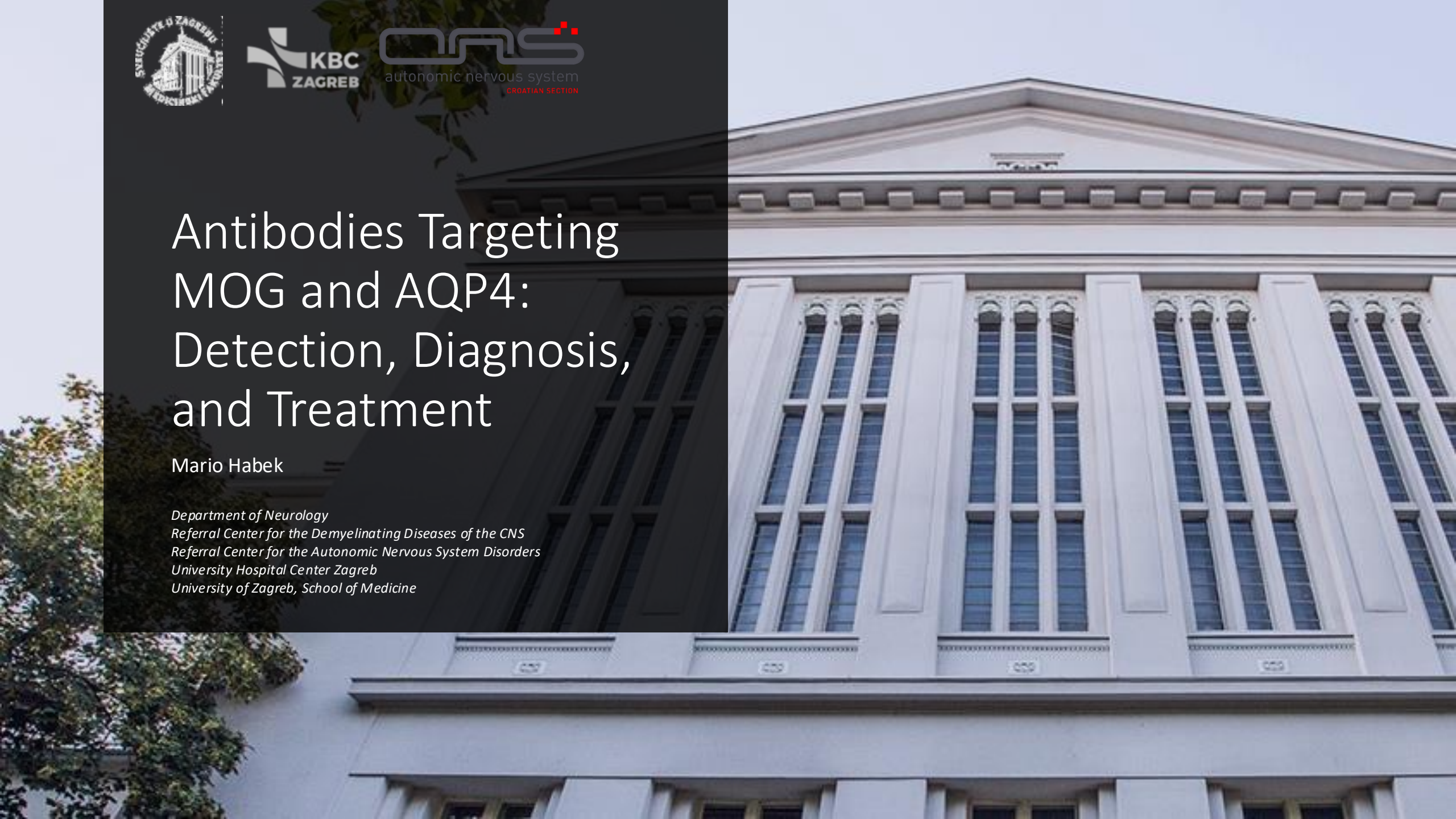

Antibodies Targeting MOG and AQP4: Detection, Diagnosis, and Treatment

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Disclosures

- Speaker/consultant:
  - Amgen, Astra Zeneca, Biogen, Merck, Novartis, Roche, Sanofi Genzyme and Zentiva
- He has participated in developing the Croatian MS treatment guidelines
- Management group of the EAN panel for the autonomic nervous system disorders 2016-2023
- Treasurer of the EFAS
- Board member of the Croatian Neurological Society
- Vice President of the Croatian Society of EEG and Clinical Neurophysiology

Learning objectives

- To describe the clinical relevance of AQP4 and MOG antibodies in differentiating NMOSD, MOGAD, and MS, and their role in guiding diagnosis and treatment.
- To recognize common diagnostic challenges and pitfalls associated with antibody testing, including false-positive results and assay variability.
- To discuss best practices for antibody testing, including the use of validated cell-based assays and the importance of correlating laboratory results with clinical and radiological findings.

Learning objectives

- To evaluate individualized treatment strategies for antibody-mediated demyelinating diseases, based on antibody status, clinical presentation, and therapeutic response.
- To apply insights from case-based examples to improve diagnostic accuracy and clinical decision-making in patients with inflammatory demyelinating CNS disorders.

Key message

- Accurate detection and interpretation of AQP4 and MOG antibodies are essential for distinguishing NMOSD, MOGAD, and MS, as misclassification due to assay limitations or false positives can lead to delayed or inappropriate treatment—highlighting the need for careful clinicoradiological correlation and individualized therapeutic approaches.

Supporting references

- Wingerchuk DM, et al.; International Panel for NMO Diagnosis. International consensus diagnostic criteria for neuromyelitis optica spectrum disorders. Neurology. 2015 Jul 14;85(2):177-89. doi: 10.1212/WNL.0000000000001729.
- Banwell B, et al. Diagnosis of myelin oligodendrocyte glycoprotein antibody-associated disease: International MOGAD Panel proposed criteria. Lancet Neurol. 2023 Mar;22(3):268-282. doi: 10.1016/S1474-4422(22)00431-8.