

Learning about neuronal proteins through bioelectrochemistry: from disease detection to drug screening

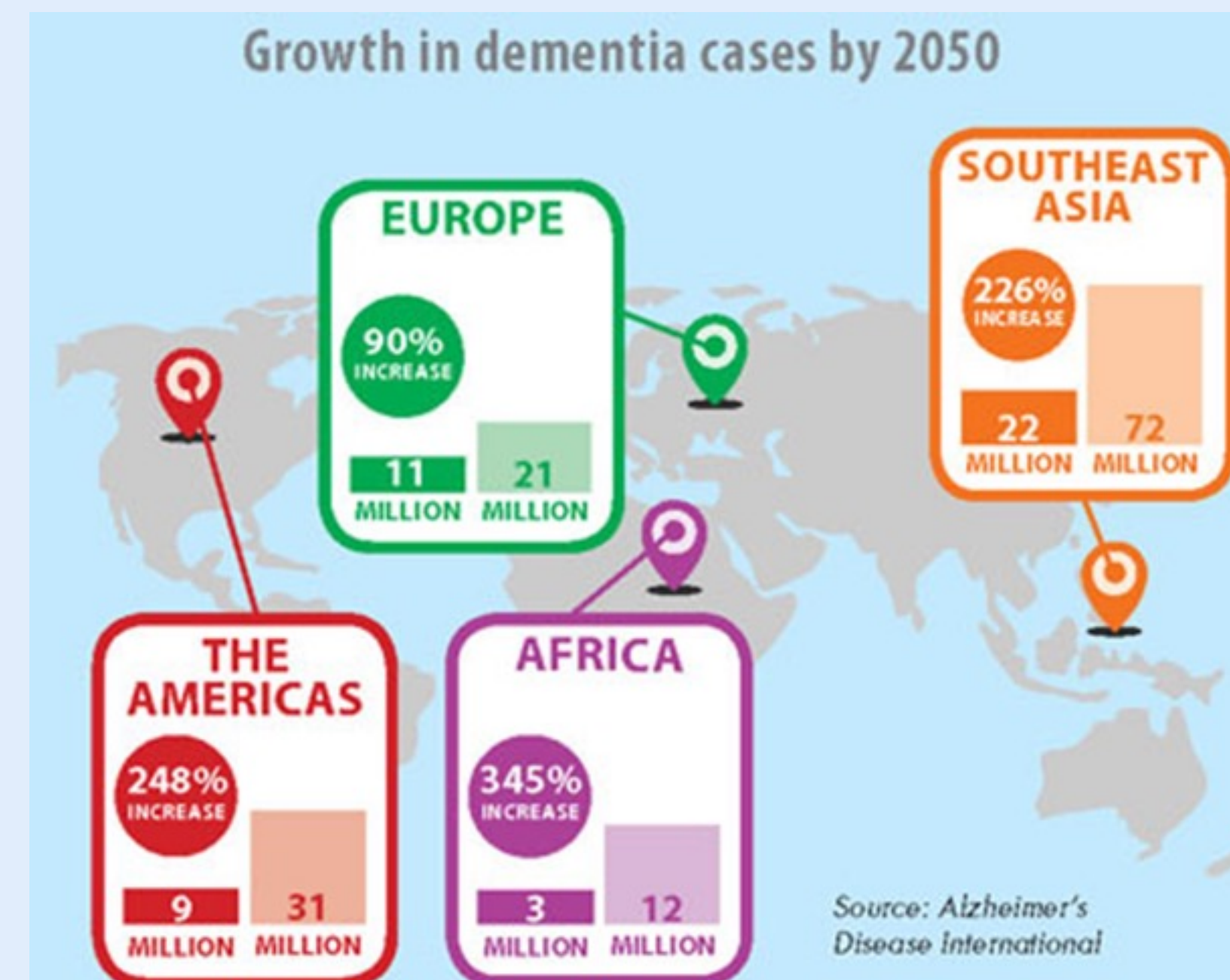
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Acknowledgments
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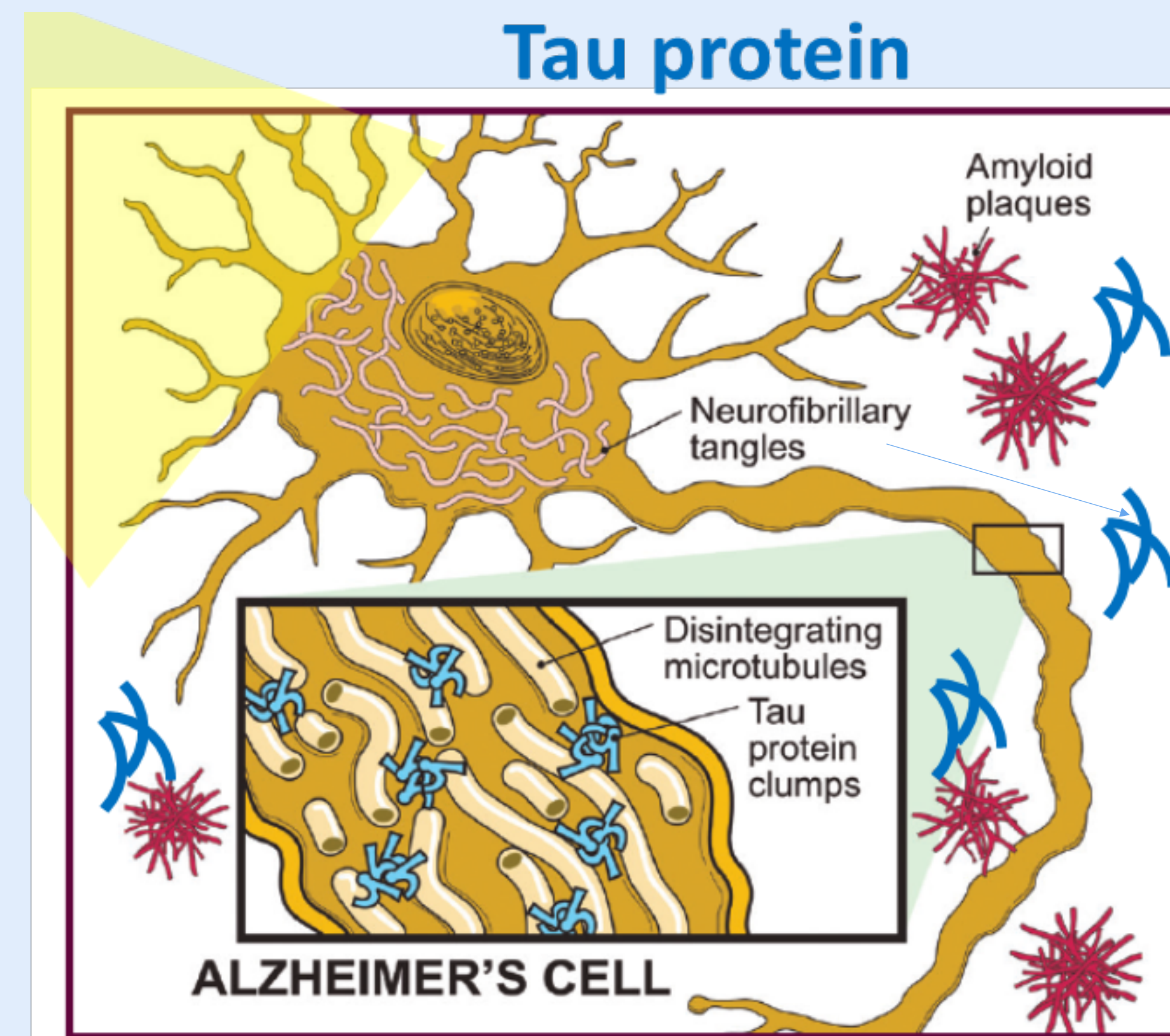
Neurodegeneration



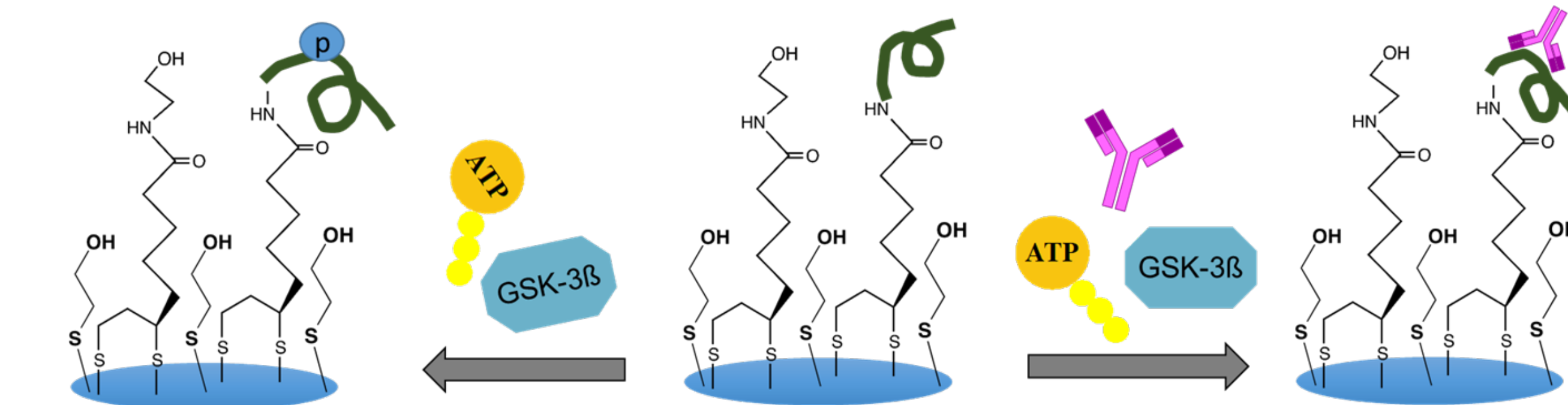
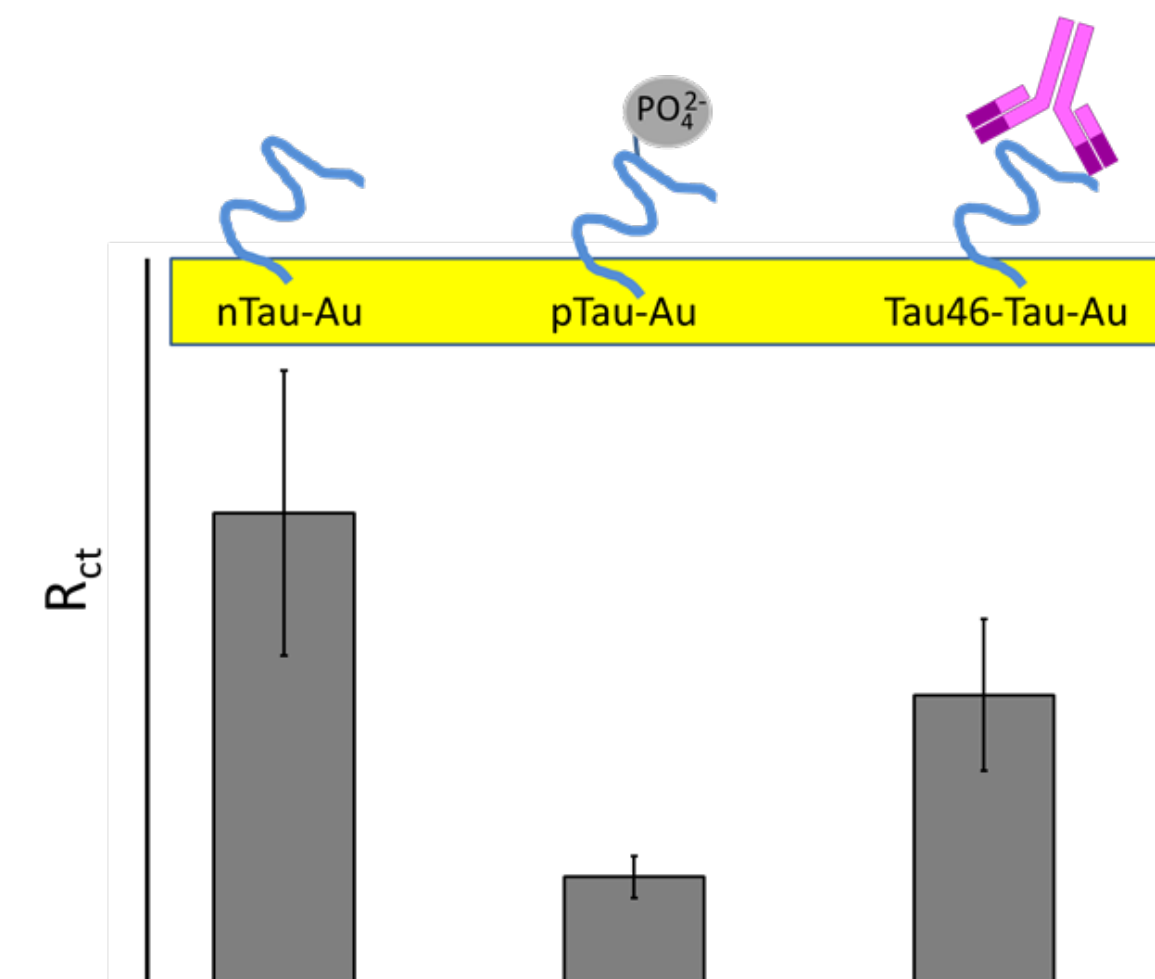
Tau protein biochemistry is complex:

- 1) Tau interactions with microtubules
- 2) Tau modifications by enzymes
- 3) Tau aggregation and spreading
- 4) Tau binding to other ligands
- 5) Tau as a biomarker in biological fluids

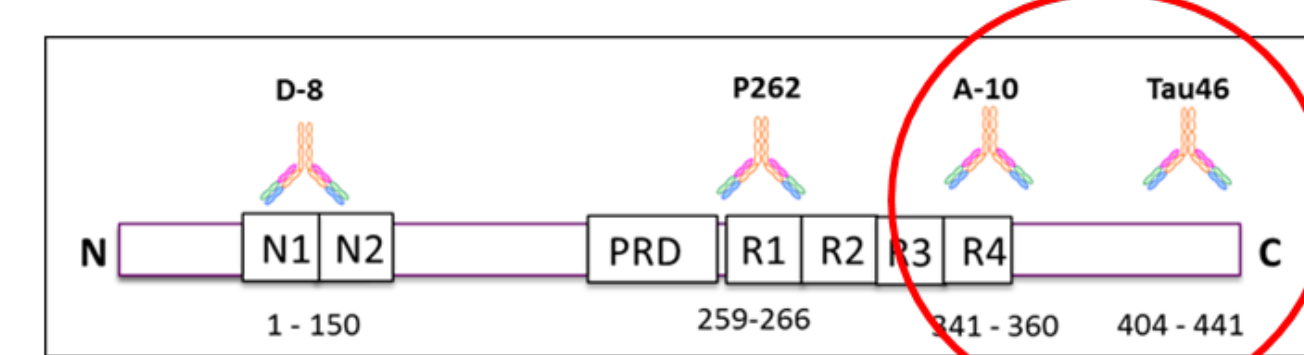
NIH



EIS method for monitoring Tau phosphorylation and its inhibition

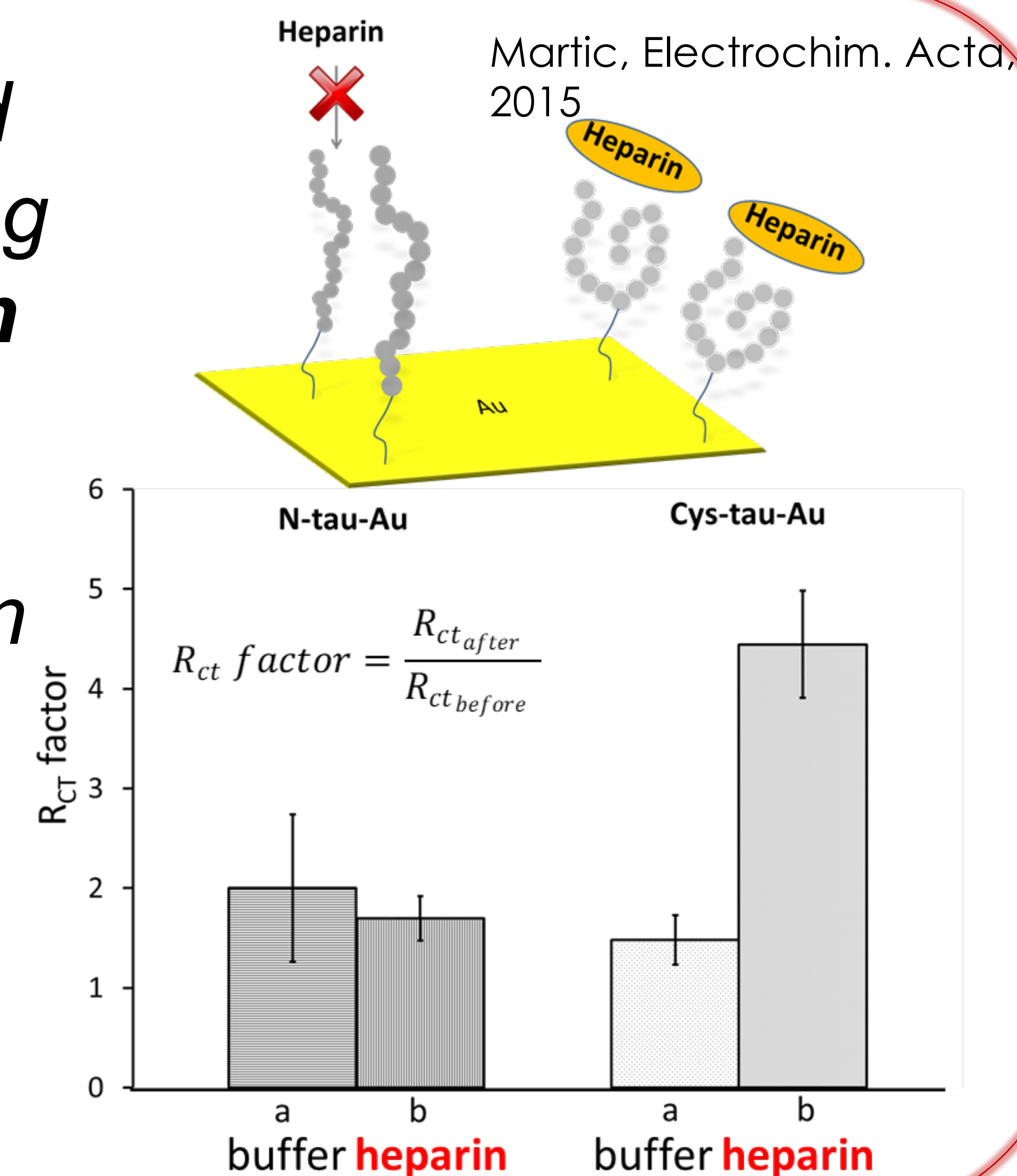


- Binding of antibody to the given epitope may block that site and inhibit protein kinase catalysis

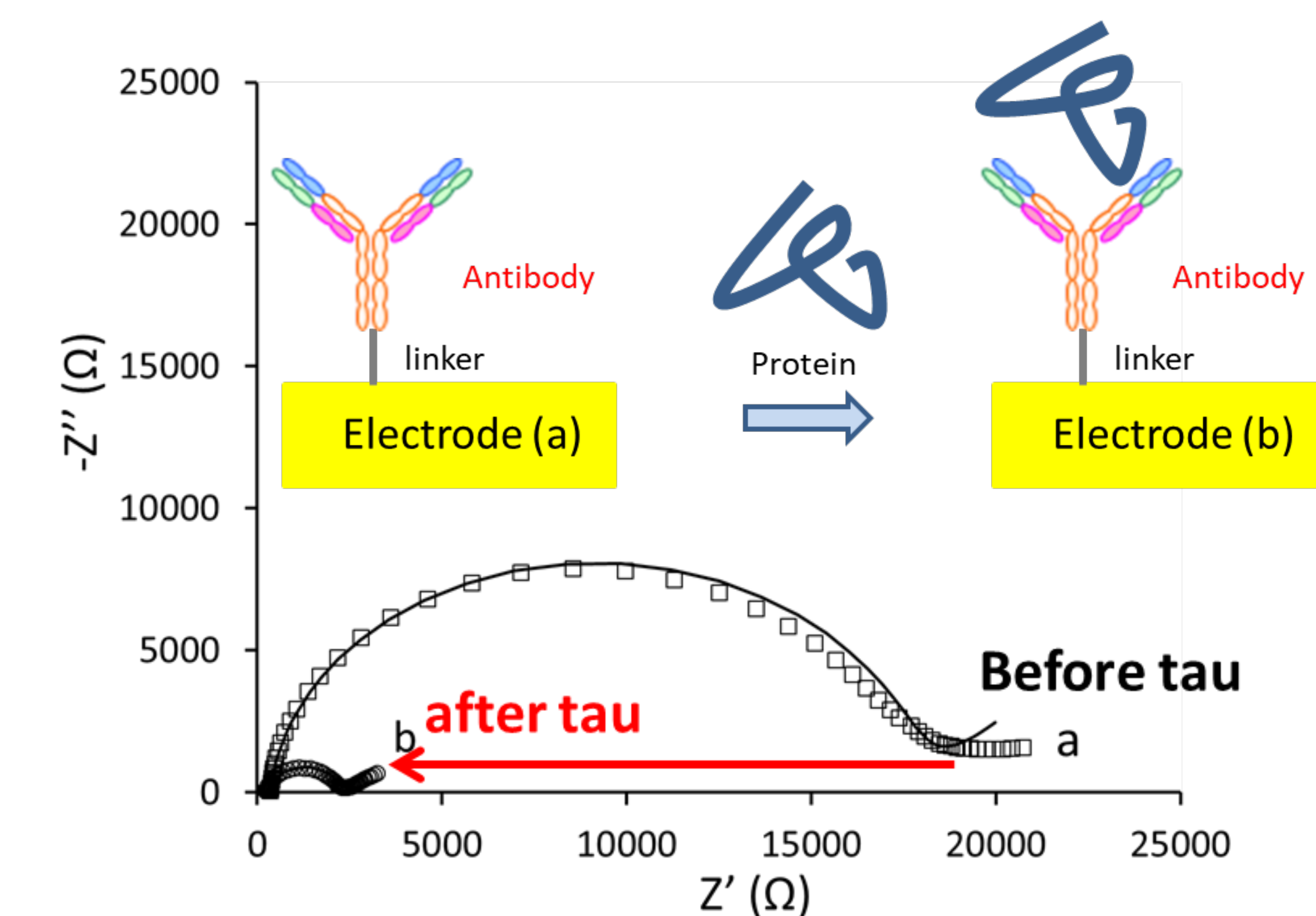


Martić and co-workers. Anal. Biochem. 2016

EIS method for monitoring Tau protein binding to heparin (aggregation inducing agent)



EIS immunosensor for monitoring Tau biomarker



Martić et al. J. Electrochem. Soc. 2018

Binding of transferrin and ferritin proteins to tau film were also evaluated

Martić, Anal. Biochem., 2016

