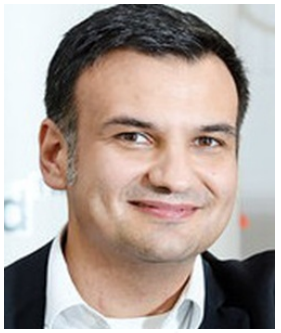
Biochemisches Kolloquium Wintersemester 22/23
& SFB 1551 Seminar Series

Tuning protein hydration and dehydration as well as function in protein hydrogels –

From elastin-like polypeptides to albumin hydrogels



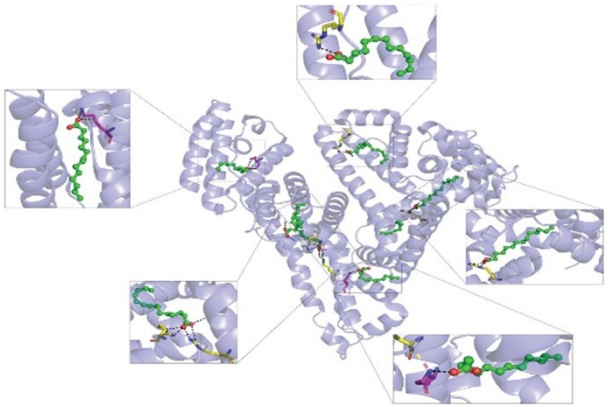
Prof. Dr. Dariush Hinderberger

Martin-Luther-Universität Halle-Wittenberg,
Institut für Chemie - Physical Chemistry

Complex Self-Organizing Systems, Halle (Saale)

Wednesday,
February 8th 2023
at 5:15pm
at BioCenter II,
Seminar room GF
(00.602)

Guests are Welcome!



Protein self-assembly into phase-separated states or hydrated, high concentration hydrogels is intricately linked to hydration and dehydration structure and dynamics. Here, it will be shown how mainly electron paramagnetic resonance (EPR) spectroscopy on paramagnetic tracer molecules can be used to characterize phase-separating elastin-like polypeptides and derived polypeptides that show thermal hysteresis. Furthermore, the vast tuning parameter space of high-concentration protein hydrogels is explored for the platform of albumin-based hydrogels, hydrogel function can be tuned by e.g. post-translational modification or pH.

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