

Abstract Submitted
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Conformational dynamics of amyloid proteins at the aqueous interface¹ MATTHEW ARMBRUSTER, NATHAN HORST, BRENDY AOKI, SAAD MALIK, PATRICIA SOTO, Creighton University — Amyloid proteins is a class of proteins that exhibit distinct monomeric and oligomeric conformational states hallmark of deleterious neurological diseases for which there are not yet cures. Our goal is to examine the extent of which the aqueous/membrane interface modulates the folding energy landscape of amyloid proteins. To this end, we probe the dynamic conformational ensemble of amyloids (monomer prion protein and Alzheimer's Ab protofilaments) interacting with model bilayers. We will present the results of our coarse grain molecular modeling study in terms of the existence of preferential binding spots of the amyloid to the bilayer and the response of the bilayer to the interaction with the amyloid.

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