

Abstract

In this project, we attempt to use liquid crystals (LC) as a tool for differentiating two different types of soluble, structured A β oligomers- prefibrillar (A11 active oligomer) and fibrillar oligomers (OC active oligomer) based on their interaction with lipid monolayer at lipid-laden aqueous LC interface. Alzheimer's disease (AD) is mainly caused due to the neurotoxic assemblies of A β peptides. Using LC as a probe gives the benefit of an easy optical readout of the events occurring at the interface over time. This can thus serve as a basis for a possible amyloid-sensing mechanism and help in early detection of AD.