

Solid state NMR Studies of Yeast prion protein fragment**Yu-Na Kim, Jung-Hyun Hwang, Jae-Joon Park, and Yongae Kim***Dept. of Chemistry, HanKuk Univ. of Foreign Studies*

Amyloid fibrils have long been known to be the well known α -helix to β -sheet transition characterizing the conversion of cellular to scrapie forms of the prion protein. A very short sequence of prion-like protein GNNQQNY, is responsible for aggregation that induces diseases.

To get a better understanding of aggregation-structure relationship of 7 residues of Yeast prion-like protein, the change of a conformational structure is studied by solid-state nmr spectroscopy as powder of both amorphous and fiber forms expressed in E. Coli.. Synthetic peptides are also studied by solid state NMR.

Double resonance(^1H & ^{13}C for 400MHz Solid-state NMR) probe is under construction for high power capability, free coil size, and expense.