

**Title: Amyloid peptide enhances nail rusting: novel insight into mechanisms of aging and Alzheimer’s disease**

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**Abstract:**

Oxidative stress is believed to play a major role in the dysfunction and degeneration of neurons that occurs in Alzheimer’s disease (AD). Amyloid β-peptide forms insoluble aggregates in the brains of AD patients and it has been shown that the neurotoxic actions of amyloid β-peptide involve membrane lipid peroxidation. However, it is not known how amyloid β-peptide induces oxidative stress. Here we describe a simple experiment that we performed 6 years ago that demonstrates that amyloid β-peptide is itself a source of oxyradicals. The weights of iron nails were recorded and the nails were then incubated in one of three different solutions: water (control), 1 mM amyloid β-peptide (1–40) in water, and 1 mM bovine serum albumin in water. After 1 month of incubation the nails were then removed, allowed to dry, and then their weights determined. The weights of all the nails decreased, but the amount of weight decrease in the nails that had been incubated in the presence of amyloid β-peptide was approximately twice that of the nails incubated in the control solutions. These data provide direct evidence that amyloid β-peptide generates, or facilitates the production of, oxyradicals thereby enhancing metal oxidation..

**Biography**
xxxx has a Personal Chair in Cancer at National Institute on Aging, USA. Has 25 years’ experience as an Oncologist at National Institute on Aging, USA. He investigating the function of RecQ at the molecular level using Saccharomyces cerevisiae as a model system. It is quite evident that mechanisms that preserve genome stability in yeast are indeed the same as those which go awry in many mammalian cancers. He is focusing on the relationship between Sgs1 and the MRX complex and determining if RecQ helicases preserve fragile site stability in slow replicating regions of the genome..(Up to 100 words)

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