

## **NAP: RECENT RESEARCH AND DEVELOPMENT OF A NEUROPROTECTIVE DRUG CANDIDATE:**

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Studies supported in part by the Institute for the Study of Aging (ISOA) have helped develop the novel neuroprotective peptide, NAP (NAPVSIPQ), to a drug candidate in clinical development. NAP is a small active fragment of the essential protein activity-dependent neuroprotective protein (ADNP). In cell culture, NAP has demonstrated protection against toxicity associated with the beta-amyloid peptide, N-methyl-D-aspartate, electrical blockade, the envelope protein of the AIDS virus, dopamine, H<sub>2</sub>O<sub>2</sub>, nutrient starvation and zinc overload. NAP has also provided neuroprotection in animal models of apolipoprotein E deficiency, cholinergic toxicity, closed head injury, stroke, middle aged anxiety and cognitive dysfunction. NAP binds to tubulin and facilitates microtubule assembly leading to enhanced neuronal and glial survival that is associated with fundamental cytoskeletal elements. NAP reaches the brain after either intravenous or intranasal administration. Toxicological tests supported in part by NIH (NIA contract and NICHD for drug product) showed no adverse side effects. NAP is currently in phase II clinical development that is carried out by Allon Therapeutics Inc., a biotech company based in Vancouver, BC, Canada ([www.allontherapeutics.com](http://www.allontherapeutics.com)).