City of Industry, CA – June, 2016 – AIDP announces that a peer-reviewed research paper recently published in the medical journal, Neuropharmacology, explains the mechanism through which threonates work, and how they increase the amount of magnesium in the brain when subjects were administered magnesium L-threonate, the ingredient marketed into the dietary supplement market under the trade name Magtein®. More importantly, it shows that threonate is the only ligand to efficiently transport magnesium to neuron cells in the brain. Until now, while prior clinical research has substantiated this process, this recent body of work further explores the intricate process through which Magtein is transmitted through the brain, crossing the blood brain barrier.

The paper is titled “Regulation of structural and functional synapse density by L-threonate through modulation of intraneuronal magnesium concentration.” It identified the molecular mechanism of action for Magtein, further confirming the results of previous human clinical studies.

The current study provides a scientific explanation for how Magtein works. The study concludes that intraneuronal magnesium is a critical regulator of synaptic density and plasticity, critical factors that determine cognitive ability. In this paper, L-threonate, the unique component of the Magtein, drives magnesium into the fluids that surround the brain (cerebrospinal fluid), and then into neurons. This leads to multiple changes including enhanced synaptic density and plasticity, as supported by human clinical study. In addition, increased brain magnesium levels have been shown to support restful sleep and balanced mood.

Other magnesium salts lacking L-threonate failed to have the same results.
“This new body of research is ground-breaking in that it explains at the molecular level why Magtein is so effective in cognitive function,” states Jennifer Gu, PhD, Chief Science Officer at AIDP. “Magnesium l-threonate is the only compound effectively transporting magnesium to the brain. Moreover, this paper also suggests that other minerals beneficial to the brain and neuron cells, such as zinc and selenium, can also be efficiently transported using this patented carrier to support brain function. This opens doors for formulations and other brain beneficial minerals.”

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AIDP is a leader in functional ingredients, with a focus on extensively researched products that meet consumer demand for wellness and healthy aging. Our commitment is to source high-quality ingredients and provide proprietary solutions that address formulation challenges. AIDP’s success is grounded in its depth of experience and commitment to strong science for functional food and beverage product development.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.