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## In Memoriam

# Inge Grundke-Iqbal: A Legacy of Tau in the Etiology of Alzheimer Disease (1937–2012)

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In May 1986, a seminal paper published in the *Journal of Biological Chemistry* described that the microtubule associated protein tau was a component of Alzheimer' disease (AD) paired helical filaments (PHF). This pioneer work was the foundation of the study of the role of tau in neurodegenerative diseases, those that we know today as tauopathies, with AD being the most prevalent. In the same year, a complementary work published in the *Proceedings of the National Academy of Sciences* indicated that tau in PHF was modified (phosphorylated) from its normal form.

The first author of both papers was Inge Grundke-Iqbal who, together with her husband Khalid Iqbal, formed one of the top groups in the field of tau and neurodegenerative disorders. They rigorously performed the pivotal studies defining tau phosphorylation and dephosphorylation, and its impact in the biological

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systems. In recent years, the major research interest of Inge was on neurogenesis and its potential for the treatments of neurodegenerative diseases. More recently, Inge was very excited because she discovered an 11-mer ciliary neurotrophic factor (CNTF) peptide that enhanced neurogenesis and neuronal plasticity and improved cognition of normal adult mice and of transgenic mouse models of AD and Down syndrome. She even reduced this 11-mer peptide to a tetrapeptide, proposing a therapeutic drug for neurodegeneration. What we remember even more is how Inge opened her enthusiasm to all entering the AD and tau fields and how she was ready to contribute to any scientific discussion with her natural interest and enthusiasm. She was a constant beacon of encouragement and a great joy to have as a collaborator, mentor, and friend.

Inge was working with the same efficiency, excitement, and productivity from 1986 until Friday, September 14 (2012) in the laboratory, but the next evening after dinner, she suffered a stroke and expired on the evening of September 22.

The AD field lost a pioneer and dear colleague. Inge Grundke-Iqbal will remain in the memory of those who had the privilege of working with her and knowing her.