

## Biographical Sketch

### Dr. David Westaway

University of Toronto,  
Centre for Research in Neurodegenerative Diseases

Dr. David Westaway is a molecular biologist with a special interest in the use of genetically-engineered "transgenic" mice to recreate and decipher human neurologic disorders. He obtained a first class degree in Biochemistry from the University of Sussex, England. He then went on to complete his PhD at St Mary's Hospital Medical School, University of London, under the guidance of Prof. Bob Williamson FRS. This work revealed that a form of thalassaemia minor was due to an RNA splicing defect in the b-globin gene.

Dr. Westaway completed postdoctoral training with two Nobel Laureates, Harold Varmus and Stanley Prusiner, both at the University of California San Francisco. With Prof. Varmus, David worked on the weakly oncogenic avian retroviruses and identified insertional mutations in the c-myc and Ha-ras protooncogenes. With Prof. Prusiner David participated in many ground breaking studies of the molecular biology of the prion disease, including the characterization of disease modulating polymorphisms in the prion protein structural gene.

Dr. Westaway is appointed as an Associate Professor at the Centre for Research in Neurodegenerative Diseases (CRND) at the University of Toronto. His recent work on prions includes defining a cooperative copper binding site in the prion protein and the discovery of the Doppel gene, a PrP like protein that resolves a long-standing paradox concerning prion protein gene ablated mice. David's work on the structure and function of the Doppel protein is funded by the CIHR. Other work on prions examines the effects of prion protein deamidation and the development of a novel retinal expression system for prion proteins, and is supported by the Bayer/Canadian Blood Services/Hema Quebec Research Partnership Fund. Dr Westaway is also involved in studies of Alzheimer Disease with Drs. Peter St George-Hyslop and Paul Fraser of the CRND. Objectives here are to create transgenic models, test therapies, and to examine the genetics of gamma-secretase activity.