

# The Erna Baird Memorial Grant



was established under the loving auspices of Esther Madeleine Baird to honour the memory of most beloved wife, mother and grandmother – Erna Baird. The Grant supports biomedical research enabling a better understanding, more effective treatments, and an ultimate cure for the rare and debilitating vascular autoimmune disease – **Wegener's Granulomatosis**, now known as Granulomatosis with Polyangiitis or **GPA**, which took Erna's life June 6, 2011.

This week commemorates the fourth anniversary of Erna's passing. It is at this time of year that the Grant publishes its annual update, and we are pleased to announce that the **Erna Baird Memorial Grant** is now recognized internationally, recently represented at the BNL Telethon - a major European non-profit organization supporting scientific research into genetic diseases. However, the main intent of the update is to disclose the advances in research conducted by **Dr. Kathy Siminovitch**, a renowned geneticist and leader in the field of auto-immune disorders. At our invitation, we are grateful to Dr. Siminovitch for sharing how the Grant has continued to facilitate exciting breakthroughs in our knowledge of GPA.

*“As discussed in previous **Erna Baird Memorial Grant** ‘Updates’, GPA is one of about 26 variants in a class of diseases known as Vasculitis for which there is no known cause or cure. Vasculitis develops when the body's immune system attacks its network of veins, arteries or capillaries, and the vessels become inflamed resulting in organ or tissue damage that can eventually lead to death.*

*As with other autoimmune disorders, GPA is likely caused by a combination of genetic and environmental factors. In our laboratory at University Health Network and Mount Sinai Hospital, Toronto, my colleagues and I are dedicated to identifying the genetic underpinnings of GPA and other disorders, and to translating this knowledge into improved patient care and preventative initiatives.*

*Early support from the Grant enabled us to analyze the genetic profiles of over 500 Canadian GPA patients which led to the discovery of two genes involved in GPA predisposing individuals to the onset of the disease. Our findings not only confirmed the role of genetic factors in the development of GPA, but also the importance of these two genes as controllers of immune system function - both extremely important revelations.*

*Continued support from the Grant allowed us to significantly expand the scope of our research due to the acquisition and analysis of a further 2000 GPA patient samples. Critical to this effort was the US based Vasculitis Clinical Research Consortium led by my collaborator, Dr. Peter Merkel of the University of Pennsylvania.*

**This past year, an extensive study of this new acquisition has led to a quantum revelation. In addition to identifying further genes which confer risk for the disease, for one of these genes, we have pinpointed the precise genetic change which makes people susceptible to the disease – a world-first discovery in GPA. This identification now enables us to explore the cellular and molecular pathways that link genetic changes to disease development. We believe that this discovery, recently announced at the annual general meeting of Vasculitis Foundation Canada, chaired by Jon Stewart, may also have implications for other diseases, including cancer.**

*I would like to sincerely thank the benefactors of the **Erna Baird Memorial Grant** for their dedicated and continued support enabling this research. Philanthropic support plays a crucial role in advancing medical discovery, particularly for rare yet important diseases such as GPA, which may not receive public research funding. I wish also to join the Baird Family in commemorating their most loved and forever missed Erna, and in applauding her strength in her lengthy, painful battle against GPA.”*

**Dr. Kathy Siminovitch**

For more information, or to support this research, please contact Josh Lai at UHN at 416-340-5204 or visit [www.ernabairdmemorialgrant.com](http://www.ernabairdmemorialgrant.com).