



University Health Network

Toronto General Hospital Toronto Western Hospital Princess Margaret Hospital

Toronto

Thursday, November 10, 2010

To the Selection Committee:

Re: Dr. Michael R. Hayden- Transformational Canadian

It is a very special pleasure to write a letter of support for the nomination of Dr. Hayden for the Transformational Canadian Award. Dr. Hayden combines in a single individual, outstanding science, clinical insight, entrepreneurial drive, and the ability to engage and excite a broader public. Dr. Hayden is the exponent of dissolving the traditional separation between basic and applied research in the most remarkable and dramatic way. In short, he is unique in Canada and deserving of wide recognition and support.

As an expert in the field of lupus and as the Chair of the Canadian Network for Improved Outcomes in Systemic Lupus Erythematosus (CaNIOS), I would like to comment on the potential impact of the success of the Phase III trial in Lupus Nephritis and the significance it will have on the relief of human suffering for lupus patients.

Lupus is a chronic autoimmune disorder that occurs when the body's immune system starts attacking its own connective tissue. It is a complex and baffling condition that can target any tissue or organ of the body, including skin, muscles, joints, blood and blood vessels, lungs, heart, kidneys, and the brain. The damage that results from the disease is relatively unpredictable, cycling between flare-ups and periods of remission. Lupus is one of the top ten incurable diseases and is estimated that it affects tens of thousands Canadians and millions worldwide.

Health professionals continue to search for better ways to care for and treat people with lupus. However, there have been no new approved treatment options for lupus in 52 years. Current practice for the treatment on lupus divides drug therapy into induction treatment for the control of active and potentially life threatening disease, and maintenance treatment for the prevention of relapse. Patients taking prescribed steroid drugs and immunosuppressants, face serious side effects such as osteoporosis, diabetes and cataracts. Despite recent advances in the treatment of lupus, the disease may still relapse after successful treatment and is very difficult to study.

Dr. Hayden is one of Canada's leaders in bridging the gap between the academic world and the biotechnology industry. He has played a transformational role in the extraordinary dynamic race of translational research. Together with colleagues, he founded Apreva Pharmaceuticals because he strongly believed that mycophenolate mofetil (CellCept®) would have a positive impact on lupus patients. This was based on his understanding of the mechanism of action of the drug and the pathways involved in lupus. It was this belief that drove him and his colleagues to secure the rights from Roche to investigate CellCept®'s utility within autoimmune diseases.

In June 2010, Aspreva announced that the maintenance phase of the Aspreva Lupus Management Study (ALMS) had successfully achieved its primary endpoint. This trial revealed the supremacy of CellCept® versus azathioprine (AZA) in maintaining remission of Lupus Nephritis with a very conclusive significance of $p=0.003$. This is well below the $p=0.01$ that the Special Protocol Assessment required.

227 patients with lupus kidney disease who had been successfully induced into remission received either CellCept® or azathioprine to maintain that remission. After being treated for up to three years, the topline primary endpoint results for the trial indicate that CellCept® was highly statistically significantly superior to azathioprine in delaying the time to treatment failure. Treatment failure was defined as relapse of lupus nephritis, serious renal damage, or death. The results of this study are groundbreaking and will make a difference in the lives of patients with lupus. Dr. Hayden's vision has been validated beyond our imagination.

The results of this study spell hope for millions of lupus patients worldwide. Lupus is a burden emotionally, physically and financially on patients, family members and society. Medical expenses can drastically strain a family's financial stability, and lifestyles undertake significant changes in daily schedules of activities, employment choices, parenting and relationships. Society at large is also impacted as this disease causes lost work days, greater burden at hospitals, and disruption of family schedules.

Approximately 1 in 3 people with lupus develop kidney disease, and even after successful treatment, complications can still relapse. CellCept® could potentially stop or slow down the damage of kidneys and delay treatment failure in lupus patients. No one could have predicted the positive outcome of this clinical trial, but without Dr. Hayden and his colleagues strongly believing that the clinical trial of mycophenolate mofetil (CellCept®) could make a difference and pushing forward to make this happen, this trial would not have become a reality. The outcome of this trial promises renewed quality of life for millions worldwide.

Dr. Hayden is truly an exceptional clinician scientist whose career has been a coherent trajectory of creativity, breadth and depth. He has been relentlessly determined in the face of insurmountable odds. Many believed that this clinical trial was a lost cause, but Dr. Hayden persevered to see the trial through. The positive results of this trial will change the face of treatment for lupus patients and will impact the relief of human suffering for lupus patients. I strongly believe that this alone makes Dr. Hayden an inspired choice for this prestigious award. Together with his other accomplishments in the development of Canadian and international biomedical science and his scientific leadership, this makes Dr. Hayden the obvious choice for the Transformational Canadian award.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul Fortin". The signature is fluid and cursive, with a long horizontal stroke at the beginning.

Paul Fortin, MD, MPH, FRCP(C)
Senior Scientist, University Health Network
Professor of Medicine, University of Toronto