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# The Mesothelioma Program at University Health Network

## A Report from Dr. Marc de Perrot

Presented to:  
The Canadian Mesothelioma Foundation

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Doctors  
of Thoracic  
Surgery

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# The Mesothelioma Program at UHN

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Home to the premier lung and mesothelioma cancer program in Canada, University Health Network (UHN) is a global leader in the treatment of advanced lung diseases. Our researchers and surgeons have pioneered many world firsts, including the world's first single and double lung transplants and, most recently, the first Canadian use of robotic surgery for early stage lung cancer.

Mesothelioma is an important focus of the Division of Thoracic Surgery at UHN with leading edge research facilities and infrastructures for early detection, rapid assessment, diagnosis and treatment of mesothelioma. The Toronto Mesothelioma Program, headed by Dr. de Perrot, is the only program of its kind in North America. In this role, Dr. de Perrot is leading major educational and research initiatives on malignant pleural mesothelioma. Projects supported by the Canadian Mesothelioma Foundation over the last year are outlined below:

- Dr. de Perrot has established an ongoing collaborative research project with Dr. Isabelle Opitz in Zurich, Switzerland. Dr. Opitz completed a six-month Fellowship in the Division of Thoracic Surgery at UHN and has now returned to the University Hospital Zurich where increasing incidences of mesothelioma are recognized as occupational disease. The study will aim to identify patients who will benefit from a multimodal therapeutic approach with a combination of chemotherapy, surgery and/or radiation therapy. Genetic markers predicting therapy response and progression-free survival are needed for this purpose. Furthermore, these studies will help us understand how mesothelioma develops, which can be used to determine new treatment strategies. As mesothelioma is a fatal but still rare disease, most of the studies do not succeed because of the limited number of patients. Pooling data from Canada and Switzerland will improve results.

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## Continuing to Seek the Answers

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- Dr. de Perrot and his colleagues are organizing a “Mesothelioma Research Day” featuring a presentation from a Visiting Professor. Attendees will include clinicians and researchers from UHN and the University of Toronto.
- Dr. de Perrot and his colleagues in radiation medicine at Princess Margaret Hospital have embarked on a new and world unique trial involving a short course of high dose targeted radiation therapy followed by surgery. They are also investigating ways to improve the outcomes of this combination therapy through the stimulation of the immune system to maintain the tumor dormant in the long term. They are currently working to expand the protocol throughout Canada and some centres in the United States.
- Dr. de Perrot and his colleagues at UHN are examining the role of imaging in mesothelioma treatment. With new technologies such as positron emission tomography (PET), and PET-CT scans, they can analyze the level of activity of the tumor to deliver boost of radiation therapy to area of the tumor that are more active, allowing for greater therapeutic accuracy by “sterilizing” the tumour and prevent any spread of malignancy at the time of surgery.
- Since pleural and peritoneal mesothelioma shares many characteristics, Dr. de Perrot is working in collaboration with Dr. Andrea McCart, a surgeon scientist at Mount Sinai Hospital and UHN who is studying the role of oncolytic viruses to specifically infect and kill cancer cells such as peritoneal mesothelioma.

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## Thank You

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- One of the primary goals of the mesothelioma team is to shorten the timeframe between diagnosis and treatment. Annual screening is an important component of this and Dr. de Perrot has been involved in the development of an Ontario-wide screening program for early detection of mesothelioma. This is the only screening program of its kind in North America. Currently there are 1,200 individuals in the screening program, one of the biggest in the world. Outreach activities to occupational health clinics and unions in locations such as Sarnia have improved self-referral rates.



“The generosity of the Canadian Mesothelioma Foundation has enabled significant advances in our educational and research programs, and continues to benefit patients not only here in Toronto, but across Canada. Thank you for your continued support.”

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