A History of Discovery

The Institute for Breast Cancer Research joins three other research institutes at University Health Network

(UHN), all with a rich history of discovery and world firsts in medical advancements. At Princess Margaret

Hospital, Canada's largest integrated cancer research, teaching and treatment centre, the IBCR will join with the

Ontario Cancer Institute (OCI), which actually predates the hospital by several years. The Ontario Cancer

Institute was established in 1952 by an Act of the Ontario Legislature, while the hospital portion was officially

opened in 1958 by Her Royal Highness, Princess Margaret. OCI recently celebrated 50 years of leadership and

innovation in research and service. Its pioneering approaches have led to the development of ground-breaking

programs in areas such as drug development, photodynamic therapy, cell processing, cancer informatics, and

image-guided therapy.

Other research institutes at UHN include the Toronto General Hospital Research Institute, home to diverse

research in UHN's programs of Advanced Medicine and Surgery, Heart and Circulation, and Transplantation,

while the Toronto Western Hospital Research Institute covers UHN's programs in Neural and Sensory

Sciences, Musculoskeletal Health and Arthritis, and Community and Population Health.

World Firsts in Cancer research at Princess Margaret Hospital and the Ontario Cancer Institute

1950s: Use of radiation to cure Hodgkin's disease – Dr. Vera Peters

1951: Use of cobalt radiotherapy units for cancer – Dr. Harold Johns

1954: Proof of effectiveness of lumpectomy and radiation for breast cancer – Dr. Vera Peters

1961: Discovery of blood forming stem cells enabling bone marrow transplants – Dr. Ernest McCulloch and Dr

James Till

1975: Development of software used worldwide for 20 years to control radiation therapy – Dr. Jack

Cunningham

1976: Identification of P-glycoprotein as a major cause of cancer drug resistance – Dr. Victor Ling

1984: First cloning of the human T-cell receptor genes, significant in the field of immunology - Dr. Tak Mak

1996: Development of chemotherapy treatment for hormone-resistant prostate cancer – Dr. Ian Tannock and Dr.

Malcom Moore

2001: Discovery that a protein called Interleukin 13 fuels the growth of Hodgkin's lymphoma – Dr. Tak Mak

2002: Demonstrating that dense breast tissue, a major risk factor in breast cancer, is mainly determined by

genetic factors - Dr. Norman Boyd

2002: Identification of gene clusters that are involved in lung cancer – Drs. Denis Wigle, Igor Jurisica, Jim

Woodgett, Shaf Keshavjee, Gail Darling, Frances Shepherd and Ming Tsao

2003: Development of method for detecting gene mutations that enhance care for families with retinoblastoma

– Dr. Brenda Gallie

2003: Proof that letrozole, a new breast cancer drug, reduces the chance of recurrence by more than 40 per cent

– Dr. Paul Goss