

# **Dr. Tak Mak**

**Senior Scientist, Princess Margaret Cancer Centre at University Health Network**

Toronto, ON, CA

Blazing a remarkable trail of discovery in the molecular biology of the immune system and cancer

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## **Biography**

Dr. Tak Mak is the Director of the Campbell Family Institute for Breast Cancer Research at the Princess Margaret Cancer Centre, and a University Professor in the Departments of Medical Biophysics and Immunology at the University of Toronto. Dr. Mak is best known as the lead scientist of the group that first cloned the genes encoding the human T cell antigen receptor, a discovery that provided essential insights into the molecular basis of cellular immunity. Dr. Mak's current research is focussed on immune system cell functions and regulation, and the role of inflammation in the progression of autoimmune diseases and cancer. He is particularly interested in the molecular pathways underlying the survival, proliferation and death of normal and malignant cells. Currently, he is investigating the mechanisms of metabolic transformation used by cancer cells to fuel their uncontrolled growth, with the goal of identifying potential targets for novel cancer therapeutics. ?

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## **Industry Expertise**

Research, Advanced Medical Equipment, Training and Development, Education/Learning

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## **Areas of Expertise**

Cell Biology, Immunology, Tumorigenesis, Apoptosis, Cancer, T Cell Receptors, Breast Cancer Research, Drug Development, Sharp-Shooter Drugs

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## **Affiliations**

The Campbell Family Institute for Breast Cancer Research : Director, University of Toronto : Senior Professor of Immunology, Ontario Cancer Institute : Scientist, Amgen Institute, Toronto : Director, 1986 Fellow of the Royal Society of Canada, 1994 Fellow of The Royal Society of London, 2000 Order of Canada, Governor General of Canada, 2002 Foreign Associate, National Academy of Sciences, 2005 Member, American Academy of Arts & Sciences, 2008 Order of Ontario, 2013 Inductee, Fellow of the AACR Academy, 2009 Inductee to Canadian Medical Hall of Fame

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## **Event Appearances**

### **Keynote Speaker**

Hallmarks of Cancer: Asia

### **Co-Chair**

6th international Mutant p53 Workshop

# **Future Anti-Cancer Therapeutic Targets: Putting the Carts Before the Horses?**

CNIO Distinguished Seminar Series

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## **Education**

**University of Alberta**

Ph.D. Biochemistry

**University of Wisconsin**

M.Sc. Biophysics

**University of Wisconsin**

B.Sc. Biochemistry

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## **Accomplishments**

**Officer of the Order of Canada**

Canada's second highest Order of Merit

**Sloan Prize**

Awarded by General Motors Cancer Foundation

**McLaughlin Medal**

Awarded by the Royal Society of Canada

**E.W.R. Steacie Award**

Awarded by the National Sciences and Engineering Research Council

**E.W.R. Steacie Award, National Sciences and Engineering Research Council, Ottawa**

Presented to a scientist who has made a distinguished contribution to chemistry while working in Canada.

**Emil von Behring Prize**

Phillips-Universität Marburg, Germany

**Gairdner International Award, Gairdner Foundation Canada**

These awards are given to biomedical scientists who have made original contributions to medicine resulting in increased understanding of human biology and disease.

**King Faisal International Prize for Medicine**

Saudi Arabia

**Sloan Prize**

General Motors Cancer Research Foundation

**Novartis Immunology Prizes**

Novartis, Inc., Switzerland

**Killam Prize**

Canada Council

**Paul Ehrlich Prize and Ludwig Darmstaedter Prize**

Germany

**Premier's Summit Awards in Medical Research**

The Award forms part of a cohesive innovation strategy that focuses on excellence in research and commercialization as cornerstones of the economic future of the province of Ontario.

**Dr. Chew Wei Memorial Prize in Cancer Research**

University of British Columbia Faculty of Medicine

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