

Dr. Eleanor Fish

Senior Scientist, Division of Advanced Diagnostics - Infection & Immunity Toronto General Research Institute at University Health Network

Toronto, ON, CA

Helping develop develop therapeutic intervention strategies for a variety of clinical indications.

Description

Dr. Eleanor Fish's research aims to understand the difference in incidence and severity of diseases between men and women, with the goal of developing more effective, tailored therapeutic interventions. Her studies of immune proteins and disease susceptibility may have implications for autoimmune diseases such as multiple sclerosis, rheumatoid arthritis and lupus (which disproportionately affect women), as well as specific viral infections.

Dr. Fish aims to understand the immune mechanisms that drive autoimmunity, specifically in relation to rheumatoid arthritis and multiple sclerosis. This research is focused on the interactions of cytokines, specifically interferons and chemokines, with their receptors in normal and diseased tissues and cells. Her group's studies related to rheumatoid arthritis, using human patient specimens and mouse models of disease, have identified a fibrocyte stem cell population that may be associated with the earliest pathogenic events that trigger autoimmune diseases.

To develop broad-spectrum antivirals, Dr. Fish investigates host-pathogen interactions at the cellular and molecular level. During the 2003 outbreak of SARS in Toronto, Dr. Fish initiated studies to investigate the therapeutic potential of interferon in SARS patients. Encouraging results have directed her group's efforts toward examining interferon activity against a number of emerging infectious diseases, including influenza.

Industry Expertise

Education/Learning, Health Care - Services, Health Care - Facilities, Advanced Medical Equipment, Research

Topics

Immunology, Autoimmunity, Arthritis, Cytokines - Interferons and Chemokines, H5N1, H1N1, Pandemic Infections, Sars, Influenza, Women's Health

Affiliations

Canada Research Chair in Women's Health and Immunobiology, Arthritis and Autoimmunity Research Centre : Director, University of Toronto, Department of Immunology : Professor, McLaughlin Scholar, American Society of Microbiologists : Fellow

Past Talks

Invited Speaker

Federation of African Immunological Societies

Wide-spectrum Anti-Virals: Interferon

First African Symposium on Avian and Pandemic Influenza

Education

University of Toronto

Ph.D. Immunology and Cell Biology

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