הפקולטה לרפואה
FACULTY OF MEDICINE
كلية الطب

Institute for Medical Research Israel-Canada
INNOVATIONS TOUCHING LIVES

SPECIAL SEMINAR

OF A CANDIDATE FOR AN ACADEMIC POSITION

Cracking the Ribosome RNA Variation Code in Human Health and Disease

NOVEMBER 27, 2025| AT 12:00 AM
LEVY HALL | BOTNAR BUILDING

DR. DAPHNA ROTHSCHILD
DEPARTMENT OF GENETICS
STANFORD UNIVERSITY

ABSTRACT

Ribosomes are the most abundant cellular machinery in all organisms, constituting about one-third of the human body's dry mass. A critical question arises: Are all ribosomes identical? Ribosomal RNA (rRNA) genes are present in hundreds of copies in the human genome and can carry sequence variations between these copies. My research investigates whether these variations give rise to distinct ribosome subtypes that regulate translation. In my seminar, titled "Cracking the rRNA Variation Code in Human Health and Disease", I will present my findings on previously unrecognized sequence diversity among ribosomes. I have identified novel ribosome subtypes that are differentially expressed across tissues and affect human physiology, as well as numerous sequence mutations that, while typically low in expression, become elevated in various diseases, including specific mutations in different cancer types.

LIGHT REFRESHMENTS WILL BE SERVED BEFORE THE LECTURE

FOR FURTHER INFORMATION PLEASE CONTACT: KATHIAS@SAVION.HUJI.AC.IL