

## Animal model for Examining the Developmental Origin of Adult Diseases Related to Lipid Nutrition (Ramot)

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This model has been developed in mice and can be applied also to humans.

Humans: Specific fatty acids are fed to the mothers during pregnancy and their impact on the lipid profile, gene expression and metabolism of the offspring can be assessed at birth and different stages of growth under normal or different environmental conditions. The model allows studying the development of different diseases, such as obesity, atherosclerosis, cancer, as well as aging and brain alterations.

The model allows also studying the intervention of therapeutic means to prevent disease. Studies can be conducted at different stages of disease development and the model can be used to monitor body changes due to mother's diet from embryo stages to adult offspring.


Mice: Female mice are fed with diets rich in specific f.a. (saturated or unsaturated) during pregnancy and/or lactation. The offspring is raised on a regular diet or on a fat rich diet, and develops obesity, fatty liver, and insulin resistance, depending on the diet received in utero. The model allows studying the development of different diseases, such as obesity, atherosclerosis, cancer, as well as aging and brain alterations.

The model allows also studying the intervention of therapeutic means to prevent disease. Studies can be conducted at different stages of disease development and the model can be used to monitor body changes due to mother's diet from embryo stages to adult offspring.

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