

THE PATRICIA AND RUSSELL FLEISCHMANN WOMEN'S HEALTH CENTER

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INTRODUCTION

The Patricia and Russell Fleischmann Women's Health Center was established by the Hadassah University Hospital in 1999. The Center aims: "To promote all aspects of women's health - physical, emotional and social - in keeping with women's needs and cultural backgrounds". The center is made up of four main branches:

1. An interdisciplinary clinical center that provides healthcare to women during adolescence, reproductive years and aging.
 2. A branch focusing on the development and implementation of models and programs for the promotion of women's health at the community and locality levels. This is a unique pilot project, the first of its kind in Israel, developed by the staff of the Women's Health Center in collaboration with residents of the city of Bet Shemesh.
 3. A branch focusing on advocacy, lobbying and presenting issues pertaining to women's health, through cooperation with relevant governmental and non-governmental organizations.
 4. A research branch, focusing on gender studies and the study of women's health.
- Research in the Women's Health Center is conducted under the guiding philosophy of an interdisciplinary approach in formulating and solving questions in Women's Health. The generous support of both basic and clinical research by the Women's Health Center has generated Hadassah interdepartmental collaborations as well as joint research projects with laboratories in Hebrew University. Detailed descriptions of the research projects are found within the individual departments of the principal investigators. The diversity of research

funded by the Women's Health Center is illustrated by the interdepartmental collaborations among the research groups listed below and are described more fully in the individual departments. The projects funded in 2001, 2002 and 2003 as well as others closely associated with the Women's Health Center are listed below.

RESEARCH AREAS

Mental Health

PI: Dr. Varda Soskolne, Prof. Arie Ben-Yehuda and Mrs. Sara Halevy-Levin

Title: The impact of caregiving stressors on psychosocial and physical health of wife and daughter caregiving.

Summary: This study aims to provide data on psychological and physical health problems related to stress among women caregivers in Israel.

Departments: Social Medicine, Internal Medicine and Geriatric Unit

PI: Dr. Ronen Segman, Prof. Drorit Hochner-Celnikier and Prof. Ariel Milwidsky

Title: Genetics of postnatal depression: A candidate gene approach.

Summary: Minor depressive symptoms appear in up to 40% of mothers in the immediate period following delivery with up to 10% going on to develop a full blown major depressive disorder with postpartum onset (PD). Recent data show the majority of PD cases go undiagnosed and untreated with significant resultant morbidity for both mother and newborn child. Postnatal Depression constitutes a sharply defined entity among depressive disorders. As part of a large scale prospective follow up study of consecutive mothers presenting for delivery at the Hadassah Mount Scopus Medical Center, we propose to study the association of candidate genes with the development of postpartum depressive states, and full blown PD. The funding for this project has been renewed for a second year.

Departments: Psychiatry, Obstetrics and Gynecology

PI: Mrs. Neta Bargai, Dr. Ronen Segman and Prof. Arie Shalev

Title: Psycho-biological mediators of posttraumatic stress disorders in battered women.

Summary: The proposed study will assess the contribution of two hypothetical risk factors for psychopathology in battered women: learned helplessness and abnormal hypothalamic-pituitary adrenal axis activity.

Department: Psychiatry

PI: Dr. Eitan Gur, Prof. Elliot Berry , Dr. Michael Newman and Dr. Yosefa Avraham

Title: The effect of diet restriction and leptin administration on regulation of food consumption catecholamines endocannabinoids, serotonergic and adrenergic receptors as a model for anorexia nervosa in rats.

Summary: Using a mouse model of diet restriction, the researchers plan to administer leptin and investigate its affects on food consumption, levels of catecholamines, serotonin and their hypothalamic intermediates as well as levels of 2-Arachidonyl-glycerol to gain insights in the mechanism of eating disorders.

Departments: Psychiatry and Human Nutrition and Metabolism

PI: Dr. Anna Woloski-Wruble, Dr. Miriam Leefsma, Prof. Drorit Hochner

Title: Sexual and genital health as indicators of life satisfaction for women 60 years and older.

Summary: Sexual and genital health are contributing factors to the life satisfaction of women. Limited research has been done internationally and no published research is available in Israel in this area. The purpose of this research is to measure sexual and genital health of postmenopausal women over the age of 60 and determine the contribution of these factors to their life satisfaction.

Departments: School of Nursing, Obstetrics and Gynecology

Natural Medicine

PI: Dr. Revital Arbel, Dr. Michael Y. Shapira, Prof. Elliot M. Berry

Title: Treatment of urinary bladder dysfunction using tai chi chuan therapy.

Summary: The proposed research focuses on the treatment and rehabilitation of urine incontinence in women with urinary bladder dysfunction using tai chi therapy.

Departments: Obstetrics and Gynecology, Bone Marrow Transplantation, Human metabolism and Nutrition

PI: Dr. Sarah Sallon, Dr. Menachem Grant and Prof. Drorit Hochner-Celnikier

Title:The efficacy and safety of Chinese herbal medicine (CHM) compared to hormone replacement therapy (HRT) for symptoms of the menopause.

Summary: The primary objectives of this project are to assess the safety and efficacy of Chinese Herbal Medicine (CHM) on quality of life in menopause and to compare the safety and efficacy of CHM with Hormone Replacement Therapy on quality of life in menopause.

Departments: The Natural Medicine Research Unit, Obstetrics and Gynecology

Oncology

PI: Dr. Eli Pikarsky and Prof. Yinon Ben-Neriah

Title: The role of NF κ B in breast cancer.

Summary: This research will study the role of NF κ B activation in breast cancer progression in general and in the emergence of tamoxifen resistance in particular.

Departments: Pathology, The Lautenberg Center for Immunology

PI: Prof. Tzvi Schwartz and Prof. Asher Ornoy

Title: A novel membrane receptor for estrogen.

Summary: Breast cancer cells differ in their response to estrogen. The multiple receptors for estrogen (ER) may account for some of these differences. This study will investigate how ER gamma operates and whether its action is related to ER alpha and ER beta and if ER gamma is relevant to breast cancer response to treatment.

Departments: Periodontics, Anatomy of Cell Biology

PI: Dr. Yael Friedmann and Dr. Orit Pappo

Title: Basic and Clinical Aspects of the Involvement of Heparanase in Breast Carcinoma Progression.

Summary: Tumor cell invasiveness correlates with the activity of a cellular enzyme, heparanase, which degrades a major constituent of the blood vessel wall. The aim of this study is to characterize heparanase expression in various stages of breast cancer progression and to quantitate its amounts in plasma and urine of breast cancer patients at various stages of the disease and in response to treatment.

Departments: Oncology, Pathology

PI: Dr. Thea Pugatsch, Dr. Herzl Schwalb, Prof. Tamar Peretz, and Prof. Chaim Lotan

Title: Cardiac dysfunction and post herceptin-therapy in women with breast cancer.

Summary: Over-expression of the HER-2 (erbB2)-protein occurs in 25-30% of human breast cancer and leads to a particularly aggressive disease. Today recombinant humanized anti-Her-2 monoclonal antibody (Herceptin) is used routinely to treat women who are Her-2 positive, often in combination with chemotherapy. One of the more serious side-effects of this treatment is myocardial dysfunction. This investigation will study the cardiotoxic action of Herceptin in vitro on isolated neonatal and adult rat cardiac myocytes and on

isolated perfused rat hearts as well as in the clinic in Israeli patients. Results may allow an insight into the process that leads to the severe side-effects of this otherwise highly beneficial treatment.

Departments: The Heart Institute, Oncology

PI: Dr. Eli Pikarsky, Dr. Ayala Hubert and Prof. Tamar Peretz

Title: A search for a characteristic immunophenotype for BRCA1 and BRCA2 related breast cancer.

Summary: The proposed study aims at identifying immunohistochemical markers for BRCA1-2 associated breast cancer. The study relies on a large cohort of breast cancers from Ashkenazi women, an ethnic group that carries an increased frequency of 3 specific BRCA1-2 mutations. Identification of a characteristic immunophenotype will allow for more efficient and comprehensive genetic testing and counseling.

Departments: Oncology, Pathology

PI: Dr. Vladimir Plotkin , Dr. Asher Salmon, Dr. Amnon Brzezinski and Prof. Tamar Peretz

Title: Effects of Isoflavones (Phytoestrogens) on dysplastic and malignant epithelial breast cells in vitro.

Summary: Experimental and epidemiological studies support the view that soy foods may prevent diseases and symptoms associated with estrogen deficiency. Recent research suggests that the isoflavonoid genistein, a phytoestrogen found in abundance in soy foods, may be one of the principal molecular components responsible for these health benefits. The aim of this study is to further define (dose dependently) the in vitro effects of Genistein and daidzein, on the growth of normal, dysplastic and malignant epithelial breast cell lines, and their interaction with estradiol, tamoxifen and raloxifen.

Departments: Obstetrics and Gynecology, Oncology

PI: Dr. Michal Sagi, Prof. Tamar Peretz

Title: BRCA mutation carriers: factors influencing them to have preventive surgery and to transfer the information to relatives.

Summary: The aims of the project are: To determine the rate of compliance of carriers with the options given in onco-genetic counseling and to determine why only a small number of relatives apply for testing despite explicit suggestion during counseling.

Departments: Human Genetics, Oncology

Neurology

PI: Dr. Rivka Dresner-Pollak and Prof. Yehiel Friedland

Title: The association between polymorphisms in the estrogen receptor a (ERa) gene and sporadic Alzheimer's disease (AD) and multi infarct dementia in women.

Summary: This research will test the hypothesis that common allelic variants in the ERa gene that alter its expression or function, are associated with an increased risk of late onset AD in women.

Departments: Medicine, School of Public Health

PI: Dr. Hanna Rosenmann, Dr. Nathen Rojensky and Prof. Esther Shohami

Title: Dementia-associated neurofibrillary tangles and estrogens:1. Generating in vivo and in vitro models 2. Investigating the potential effect of estrogen.

Summary: Alzheimer's disease (AD), the most common form of dementia, is a progressive neurodegenerative disorder occurring predominantly in later age. The main neuropathological hallmarks of AD include senile plaques of beta-amyloid, and neurofibrillary tangles (NT) made of tau aggregates. The burden of AD falls more heavily on woman than men, pointing to a possible influence of estrogen withdrawal after menopause on disease-pathogenesis. Laboratory evidence indicates that estrogen is neuroprotective, a cellular effect that may contribute to its benefits in delaying the development and improving some of the symptoms of AD.

The aim of this study is to elucidate the effect of estrogen on tau pathology, in order to investigate the estrogen efficacy in treating and preventing dementia.

The significance of this project lies in the generation of in-vivo and in-vitro models for NT and neurodegeneration, providing tools for a better understanding the mechanisms underlying the higher brain susceptibility of females to AD. Therapeutic approaches exhibiting potential properties of preventing dementia in females will be considered for clinical trials.

Departments: Neurology, Obstetrics and Gynecology, School of Pharmacy

PI: Prof. Israel Steiner and Prof. Amos Panet

Title: Protection against herpes simplex virus reactivation.

Summary: The data gathered in this work will enable us to identify the molecular basis of herpes virus latent infection in the nervous system. These studies should pave the way to the development of rational measures to prevent herpes virus reactivations. The funding for this project has been renewed for a second year.

Departments: Neurology, Virology

Microbiology

PI: Dr. Dana Wolf and Prof. Alik Honigman

Title: Prenatal diagnosis of congenital anomalies caused by congenital cytomegalovirus infection.

Summary: Congenital Cytomegalovirus (CMV) infection, resulting from maternal infection during pregnancy and intrauterine transmission, is a leading cause of birth defects in the Western Hemisphere. Currently, there are no guidelines for screening and monitoring of CMV infection before and during pregnancy. The aim of this work is to identify sensitive and reliable predictive markers that will allow prenatal diagnosis of congenital CMV disease.

Departments: Clinical Microbiology and Infectious Diseases and Virology

PI: Dr. Galia Rahav and Prof. Orna Amster-Choder

Title: The involvement of bgl-like sensory systems in the pathogenesis of urinary tract infections-a new target for treatment and prevention.

Summary: Urinary tract infection (UTI) is the most common bacterial infection of any organ system. Escherichia coli is the most common cause for UTI. In uropathogenic strains, virulence genes, not generally found in fecal strains, are often clustered in defined blocks of DNA termed pathogenicity islands (PAIs). A PAI, which was identified in the chromosome of a highly virulent E. coli strain, carries, in addition to the pap operon and hemolysin genes, a bgl-like regulatory system. A typical bgl-like system is composed of a membrane-bound sugar sensor and a transcriptional antiterminator. The bgl-like systems might enable expression of virulence genes upon infection by preventing termination of transcription within these genes. Alternatively, the bgl-like systems might mediate sensing and chemotaxis toward the sugar moieties that serve as cell surface receptors to which the different types of fimbriae attach. The first goal of our proposal is to compare the prevalence of the bgl-like system and the PAI encoding it among different E. coli strains, isolated from women with recurrent UTIs and from the stool of healthy women. Our second goal is to elucidate the role of the bgl-like systems in virulence. Finally, the association of bgl-like systems with virulent uropathogenic strains makes them a preferred new target for UTI treatment and prevention.

Departments: Clinical Microbiology and Molecular Biology

Reproductive Health

PI: Dr. Yehuda Ginosar, Dr. Uriel Elchalal, Dr. Michal Nadjari, Prof. Amnon Hoffman and Prof. Asher Ornoy

Title: Antepartum chronic epidural therapy (ACET) versus nifedipine versus placebo for pre-eclampsia and intrauterine growth retardation: A randomized controlled trial: a prospective, randomized trial.

Summary: IUGR and preeclampsia and intrauterine growth retardation are both important disorders of pregnancy with high perinatal morbidity. Decreased uteroplacental blood flow is responsible for the majority of cases of IUGR. Uterine artery narrowing and increased vasoactive responsiveness characterizes preeclampsia. Epidural local anesthetic mediated vasodilatation has been shown to improve placental blood flow in preeclampsia. Nifedipine is a potent vasodilator and has been used to improve distal perfusion in a range of cardiac, vascular and other disorders. This investigation will use an anesthetic procedure as an antenatal intervention for placental insufficiency.

Departments: Anesthesia, Obstetrics and Gynecology, Department of Pharmacy, Anatomy

PI: Prof. Aryeh Hurwitz and Prof. Joseph Orly

Title: Expression and significance of sprouty proteins in human granulosa luteinized cells extracted from follicular fluid aspiration in in-vitro fertilization (IVF).

Summary: Growth factor signaling has important modulatory roles in the process of human follicular growth and oocyte maturation. Recently, sprouty was identified as an inhibitor of receptor tyrosine kinase signaling pathway. This study will investigate the role of sprouty in granulosa cell development.

Departments: Obstetrics and Gynecology, Biological Chemistry

PI: Dr. Ronit Haimov-Kochman and Prof. Reuven Reich

Title: The role of heparanase in morphogenesis, angiogenesis and sprouting of mouse and human villous placentae.

Summary: The development of the placenta is characterized by establishment of the chorionic villous tree and extensive angiogenesis. These processes involve degradation of the extracellular matrix. Heparan sulfate proteoglycan and the enzyme heparanase play major roles in self-assembly and insolubility of the ECM. This study aims to evaluate early placental morphology and villous angiogenesis in the normal mouse, in heparanase transgene mice and in

heparanase gene knockout mice and to further investigate heparanase localization, activity and regulation in the normal and abnormal human placenta.

Departments: Obstetrics and Gynecology and Department of Pharmacology

PI: Prof. Simcha Yagel and Dr. Ofer Mandelboim

Title: The role of CD66a (CEACAM 1)-mediated inhibition of activated decidual lymphocytes in normal pregnancy and in maternal CMV and other bacterial and viral infections.

Summary: The interaction between fetal trophoblasts and maternal decidual lymphocytes at the maternal fetal interface will be investigated. Expression of CD66a will be studied as a possible mechanism involved in immune surveillance during pregnancy.

Departments: Obstetrics and Gynecology, The Lautenberg Center for Immunology

PI: Dr. Ronit Haimov-Kochman and Dr. Zahava Rengini

Title: The involvement of heparanase in the invasive process of trophoblast cells in human placentas of normal and toxemic pregnancies.

Summary: Successful trophoblast cell invasion is of great importance to normal pregnancy. This investigation will compare the expression of heparanase in trophoblasts of normal and toxemic pregnancies.

Departments: Obstetrics and Gynecology, Oncology

PI: Dr. Vivian Barak and Dr. Uriel Elchalal

Title: An in vivo Model for the Study of Factors Inducing OHSS and Potential OHSS Therapy.

Summary: Ovarian hyperstimulation syndrome (OHSS), is a serious complication of ovulation induction, manifested by multiple cystic ovaries, ascites, and (in some cases) pericardial effusion. This investigation will use a rabbit model of OHSS and aims to establish new therapeutic approaches to this syndrome.

Departments: Oncology and Obstetrics and Gynecology

PI: Dr. Asher Shushan, Dr. Diana Prus and Dr. Natan Rojansky

Title: Non-surgical treatment of uterine leiomyoma by interferon.

Summary: Uterine leiomyomas (fibroids) are found in about one fourth of premenopausal women. This benign tumor arises from the smooth muscle cells of the myometrium and can cause severe impairment of women's quality of life by causing infertility, miscarriage, menorrhagia, and pain. These tumors also

contribute to the high hysterectomy rate of women in the western world. Several lines of clinical data exist suggesting that leiomyomas are steroid hormones responsive tumors and that antiestrogenic and antiprogestagenic compounds may prove beneficial in their treatment. However, the beneficial effects of treatments such as GnRH-agonists are temporary and carry significant side-effects. Therefore, since no clinical therapeutic strategy currently exists to adequately manage uterine leiomyoma, treatment is now primarily surgical. This research aims to develop new therapeutic agents for the treatment of leiomyoma which would have important health benefits for many women.

Departments: Obstetrics and Gynecology, Pathology

PI: Dr. Abraham Zlotogorski and Prof. Benjamin Glaser

Title: Familial leiomyomatosis cutis: et uteri: a tool for understanding the genetics of the common phenotype of uterine leiomyomata.

Summary: The research aim is to identify the genetic defect causing Reed's syndrome in a large Jewish family originating from Tunisia. This disease is characterized by the appearance of multiple cutaneous leiomyoma and early onset uterine leiomyomas.

Departments: Dermatology and Endocrinology and Metabolism

PI: Dr. Eyal Anteby, Prof. Ariel Milwidsky, Dr. Anat Blumenfeld, Prof. Ilana Ariel and The Late Dr. Shmuel Gilis

Title: Fetal and Maternal Genetic Thrombophilia in Complicated Pregnancies.

Summary: The aim of this research is to determine whether maternal, fetal or combined changes that cause thrombophilia are associated with pregnancies that are complicated by severe preeclampsia, IUGR, abruptio placenta and IUFD. In addition, we investigate placental morphologic changes by a pathological examination in complicated pregnancies in which fetal, maternal, or combined defects that cause thrombophilia were identified.

Departments: Obstetrics and Gynecology, Molecular Biology, Pathology, Hematology

Heart Disease and Hypertension

PI: Prof. Dvora Rubinger-Granescu and Prof. Asher Ilani

Title: The effect of estrogens and dietary sodium intake on renal sodium handling and on blood pressure in female rats.

Summary: The higher prevalence of hypertension in men and in post-menopausal women may be related to gender differences in hemodynamics and/or to an estrogen-mediated effect on salt sensitivity. The aims of the proposed study are to determine whether estrogens affect sodium balance and to determine whether estrogens alter renal sodium adaptation and blood pressure during variations in dietary sodium intake.

Departments: Nephrology and Physiology

PI: Dr. Rivka Dresner Pollak, Dr. Arthur Pollak and Dr. Anat Blumenfeld

Title: The association between polymorphisms of the alpha estrogen receptor gene and coronary artery disease in women.

Summary: This research will examine the association between four polymorphisms of the alpha estrogen receptor gene and coronary artery disease in women.

Departments: Medicine, Cardiology, Clinical Biochemistry

PI: Dr. Refat Jabara and Prof. Chaim Lotan

Title: Assessment of the risk profile in Israeli women with coronary heart disease (CHD) Comparison between Arab and Jewish women.

Summary: The objective of this study is to establish and compare the risk profile of CHD between Arab and Jewish women, who underwent coronary angiography at Hadassah Hospital and who were found to have coronary artery disease.

Department: The Heart Institute

PI: Dr. Dvora Rubinger, Dr. Dan Sapoznikov and Ms. Simana

Title: Improving blood pressure stability and cardiovascular prognosis in women on chronic hemodialysis.

Summary: During routine hemodialysis, adequate body weight is maintained by fluid removal via the process of ultrafiltration. While many patients tolerate ultrafiltration, in certain cases the removal of fluids during dialysis leads to a marked decrease in blood pressure. In preliminary studies, a higher proportion of women relative to men develop severe hypotension (decreases in blood pressure)

during maintenance hemodialysis. This study aims to improve blood pressure stability in these patients.

Departments: Nephrology and Hypertension Services, Cardiology Physiotherapy and Rehabilitation

Menopause

PI: Dr. Ronit Haimov-Kochman, Dr. Revital Arbel, Mrs. Edya Barak-Glantz, Prof. Ariel Milwidsky and Prof. Drorit Celnikier-Hochner

Title: Abrupt versus gradual discontinuation of hormonal replacement therapy- A prospective study.

Summary: The objective of this project is to compare symptoms, signs and compliance of women after abrupt discontinuation of prolonged hormonal replacement therapy (HRT) to those women who gradually discontinue use after prolonged HRT in a prospective randomized study in the menopause clinic.

Department: Obstetrics and Gynecology

Public Health

PI: Dr. Nihaya Daoud, Prof. Judith Shuval and Prof. Neri Laufer

Title: Evaluation of community-based model for promoting women's health a salutogenic and social cohesion approach.

Summary: The main goal of this research project is to evaluate the effectiveness of the outreach program in a pioneer pilot initiative "the community-based health promotion program for women based in Beit-Shemesh.

Departments: Obstetrics and Gynecology, School of Public Health

PI: Prof. Avraham Yisraeli and Dr. David Chinitz

Title: The influence of gender in determining the public preferences regarding the basket of health services.

Summary: The rationing of health care services is becoming more explicit, as the total amount allocated to different health services cannot meet the demand. The public preferences regarding the basket of services are likely to influence committee decisions. The possible link between gender and preferences in the basket of health services will be investigated.

Department: School of Public Health

Osteoporosis

PI: Dr. Ori Safran and Prof. Isaac Leichter

Title: Evaluation of proximal femur bone mineral density using digitalized plain x-ray radiography of the hip.

Summary: This study aims to develop new modifications of plain X-ray radiography of the proximal femur with the goal of establishing a fast and inexpensive technique to diagnose osteoporosis.

Departments: Orthopedics, Radiology

PI: Dr. Benjamin Klein, Dr. Natan Rojentsky and Dr. Aryeh Ben-Yehuda

Title: Definition of a common signal that inhibits osteoblasts and ovarian cell function while stimulating atherogenic function in macrophages.

Summary: Women entering menopause sustain bone loss concurrently with progressive atheromatosis, ie. softening of bone and hardening of arteries. This investigation will study the phosphorylation pattern of stimulated LDL (low density lipoprotein) in cultured osteoblasts and vascular wall cells.

Departments: Experimental Surgery, Obstetrics and Gynecology, Medicine and Geriatrics

PI: Dr. Tally Naveh and Prof. Zvi Bar Shavit

Title: Parathyroid hormone and bone synthesis and action.

Summary: This study aims to investigate the intermittent synthesis and secretion of parathyroid hormone and its action in building or destroying new bone.

Departments: Minerva Center for Calcium and Bone Metabolism, Hubert Humphrey Center for Experimental Cancer Research

PI: Dr. Idit Matot and Prof. Iri Leibergall

Title: Effect of continuous epidural analgesia on preoperative cardiac outcome in adults with fractured neck of femur.

Summary: The research aim is to evaluate in a prospective, randomized trial whether the use of epidural analgesia during the stressful pre-surgical period would decrease the incidence of adverse cardiac events in high-risk patients with hip fracture and whether such treatment can effect long-term outcome.

Departments: Anesthesiology and Critical Care Medicine and Orthopedic Surgery.

Medicine

PI: Prof. Talma Brenner and Prof. Michael Steinitz

Title: Regulation of autoimmunity by human alpha-fetoprotein.

Summary: Alpha-fetoprotein (AFP) is an immunomodulatory glycoprotein that is synthesized during embryonic development by the fetal liver and the yolk sac. Clinical remissions during the second half of pregnancy have been reported in several autoimmune diseases and may be attributed to the immunosuppressive effect of AFP. This research will determine the effect of endogenous human AFP on the course of autoimmune diseases, autoimmune myasthenia gravis and autoimmune encephalomyelitis in transgenic mice expressing AFP.

Departments: Neurology, Pathology

PI: Prof. Yaakov Naparstek and Prof. Dan Eilat

Title: Pathogenesis of immune-mediated tissue injury in systemic lupus.

Summary: anti-DNA autoantibodies play a major role in the pathogenesis of human systemic lupus erythematosus (SLR). Using a mouse model of SLE, this research will study a new panel of anti-DNA monoclonal antibodies and define their cross-reactive peptide epitopes in an effort to develop new diagnostic tools for organ-specific, human pathogenic antibodies.

Department: Medicine

PI: Prof. Tova Chajek and Prof. Lea Reshef

Title: Gender-dependent control of glucose and lipid metabolism through the regulation of PEPCK gene transcription.

Summary: The goal of this project is to elucidate the gender-dependent regulation of glucose and fat homeostasis through the transcriptional control of the gene encoding phosphoenolpyruvate carboxykinase (PEPCK).

Departments: Medicine, Department of Biochemistry