Tenure track faculty positions, fall 2017
Department of Animal Science

The direct website is: http://www.agri.huji.ac.il/kolkoreh/

Deadline for submission : Thursday, October 6, 2016

Department of Animal Sciences

Any aspect of animal science at the cell, tissue and/or whole animal level. This includes animal production in relation to environment and welfare, animal physiology and

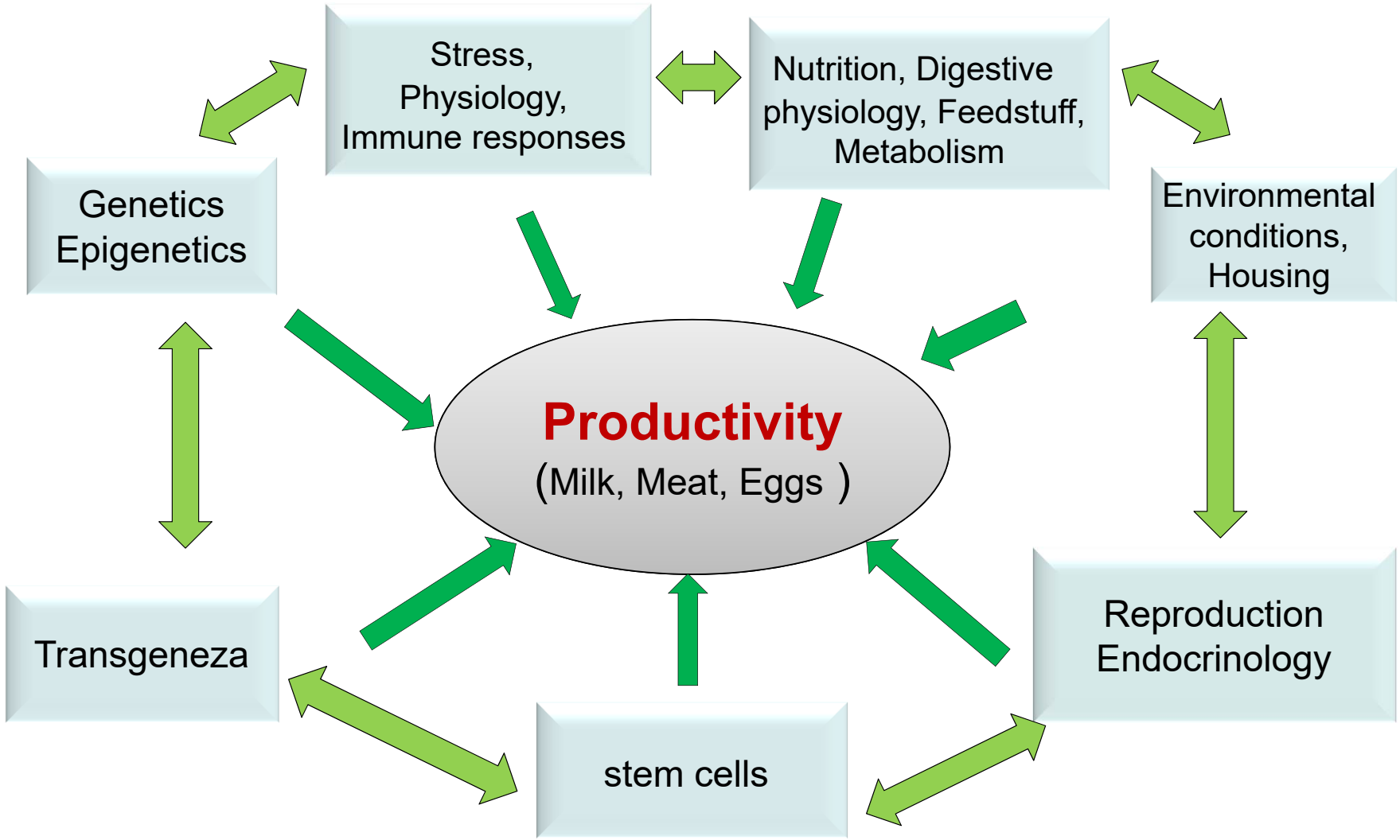
environmental physiology, animal nutrition, epigenetics, microbiome and metabolism in farm animals, endocrinology, neurobiology, animal genetics and genomics.

Vision and Tasks

Vision: to be a center of excellence, innovation and creativity, national and international, in reseach and teaching of animal science, agricultural development, food and sustainable environment.

Tasks:

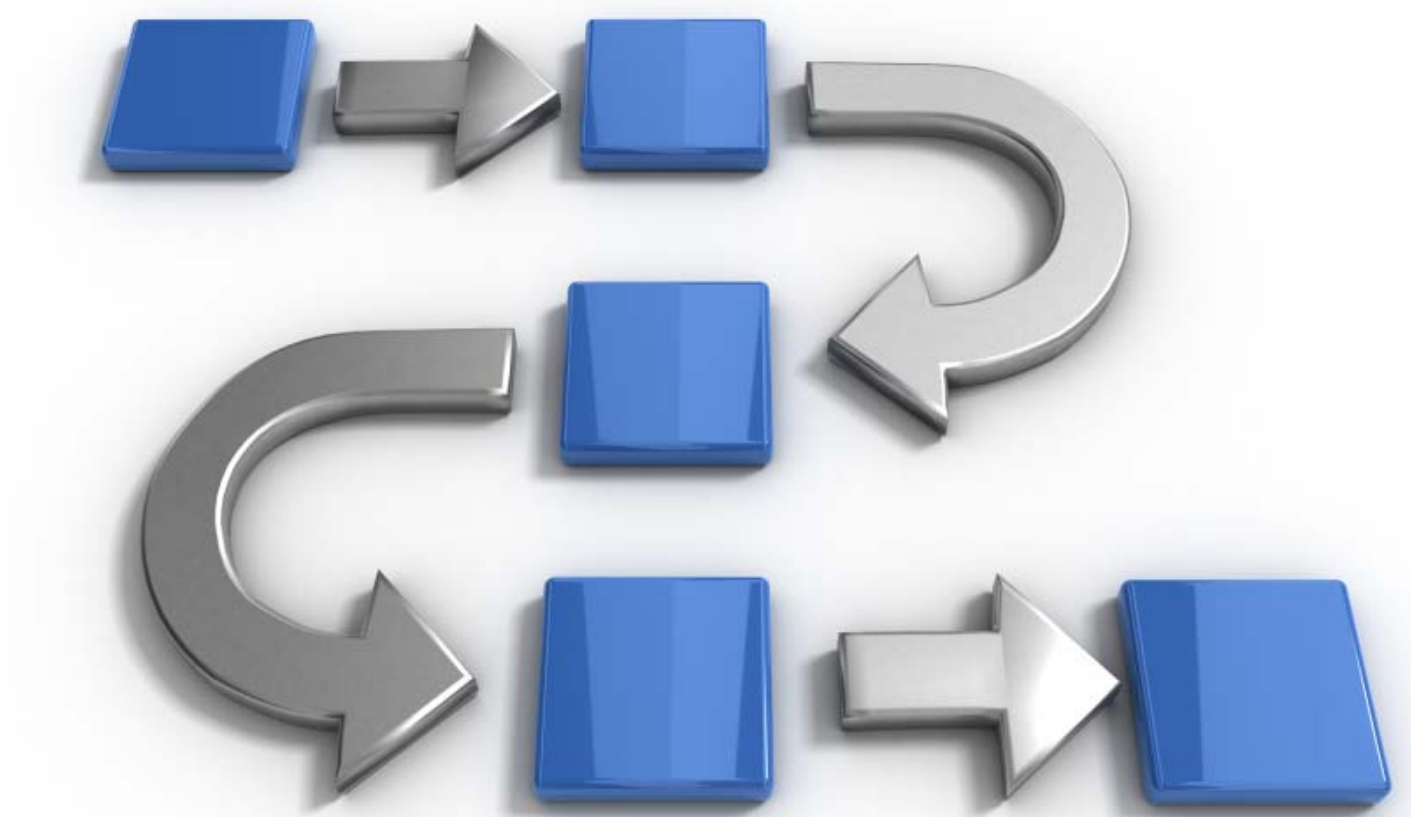
- Conducting novel basic and applied biology research on farm animal.
- Training experts in sustainable animal agriculture.
- International assistance in sustainable animal agriculture.
- Developing professional interactions with academic and business authorities related to farm animal agriculture.



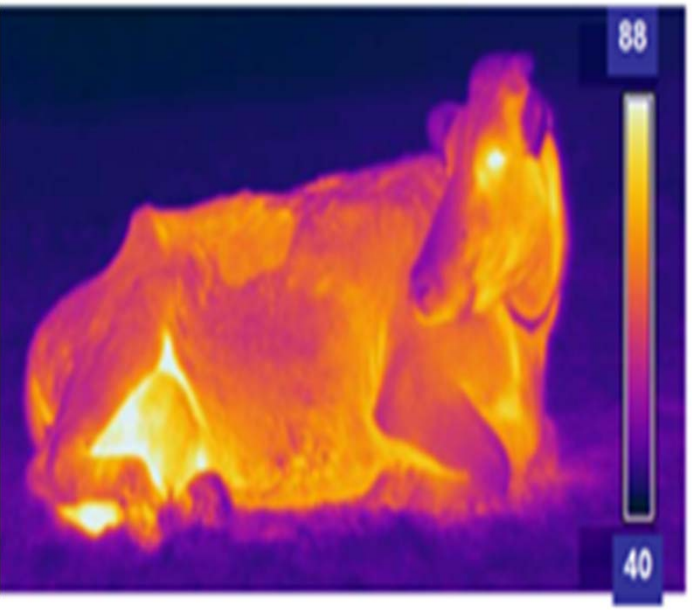
12 researchers (~ 50 MSc and PhD students) are covering these research disciplines

Track of research projects in the Animal Science department

Agriculture problem



Basic research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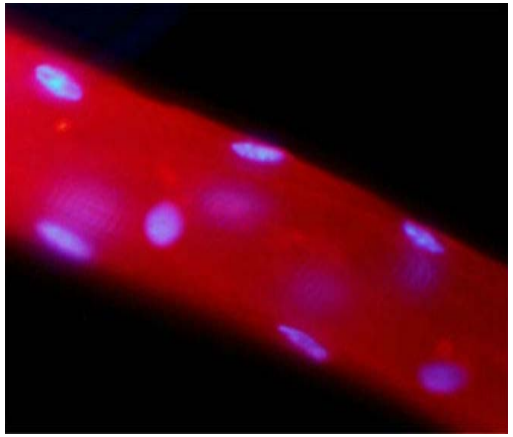
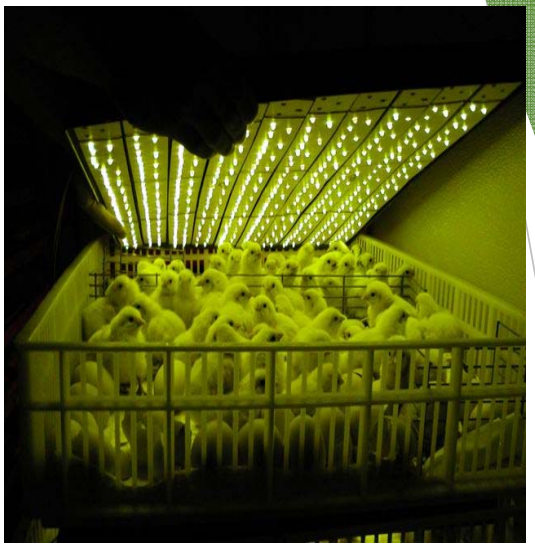
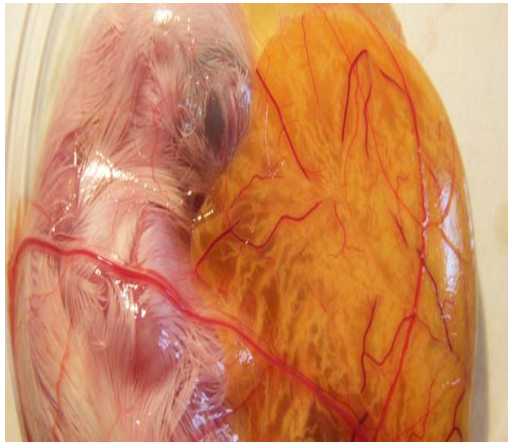
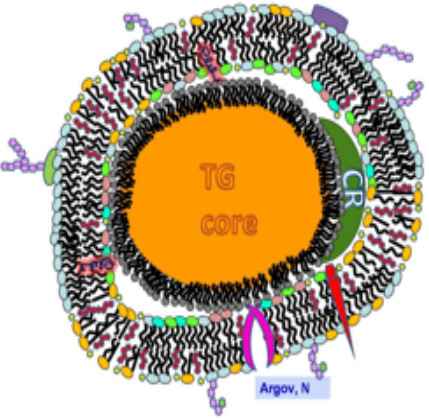
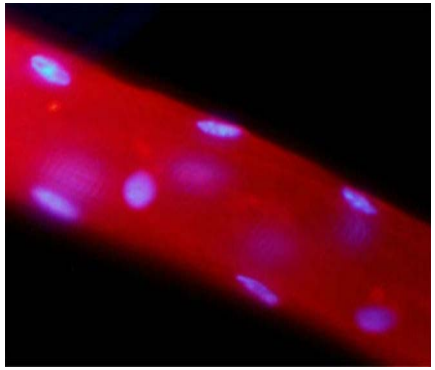






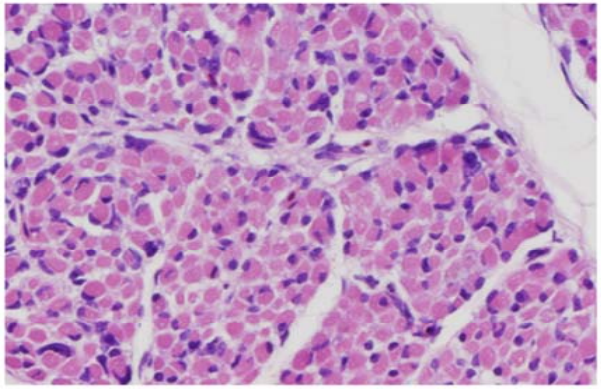

TG
core
CR
Argov, N

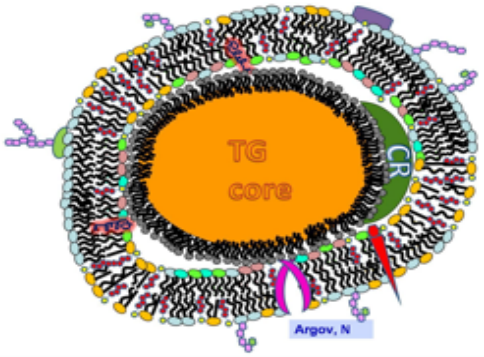
Muscle



- Regulation of proliferation and differentiation of skeletal muscle cells
- Skeletal muscle repair
- Environmental and nutritional effects on muscle growth and meat production in chicken

Prof. Orna Halevy-Pines





- **Milk Quality and Formation**

Developing methodology to separate milk lipid globules based on size, chemical affinity to biomaterials and biological functions.

Elucidating the cellular regulatory mechanisms controlling fat to polar lipids ratio in milk.

Nutritional administration as a mean to modulate milk lipid globules size distribution.

Identifying the optimal source for commercial available bioactive lipid- rich milk

Dr. Nurit Argov

Immunology

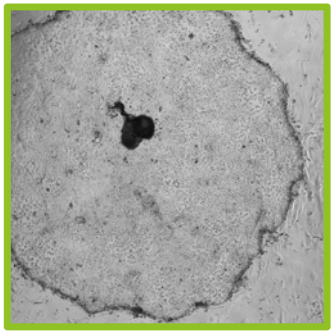
- Structure, development and function of the intestinal immune system, (Gut Associated Lymphoid Tissue), in omnivorous birds.
- Peripheral tolerance, its generation and control

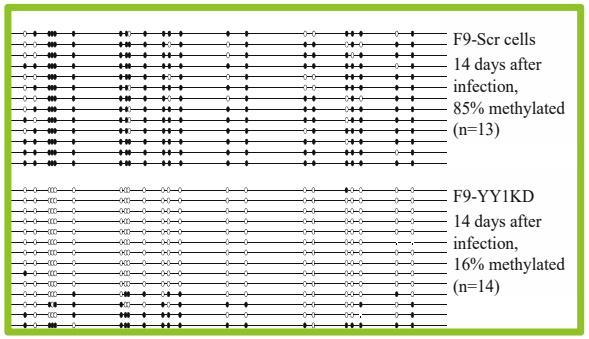
Prof. Aharon Friedman

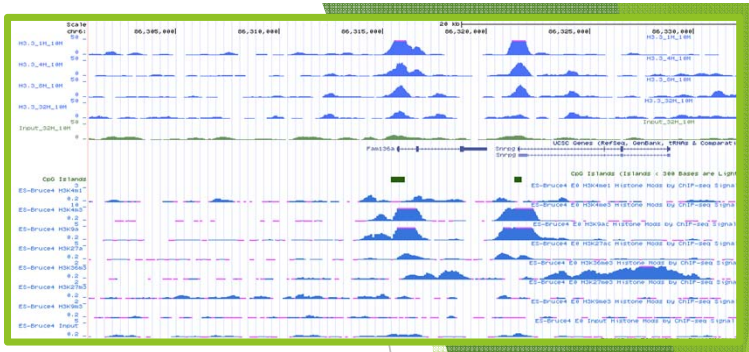
Nutrition and feedstuffs for ruminants

- Industrial by products as feedstuffs for ruminants
- Halophytes as roughage source in ruminants ration
- Amino acids metabolism at the mammary gland, protein synthesis and secretion
- Absorption and partition of nutrients for milk production

Prof. Sameer Mabjeech







The embryonic stem (ES) cells lab- **Dr. Sharon Schlesinger**

- Establishment of ES cells from farm animals, specifically bovine ES cells.
- Generating bovine induced pluripotent stem (biPS) cells from various somatic tissues.
- Studying the effects of oxidative stress on bovine reproduction
- Elucidating the factors that control the silencing of transposable elements and endogenous retroviruses in ES cells.
- Characterizing histone dynamics in the genome of pluripotent and differentiated cells

Molecular mechanisms conferring cow fertility

Specific projects:

- Mechanisms involved in rescue of the corpus luteum during early pregnancy in lactating dairy cows.
- Novel mechanisms regulating hypoxia -dependent luteal cell functions
- The folliculo-luteal transition and early corpus luteum development

Prof. Rina Meidan

Aquaculture (Reproduction ; Genetics)

- Illumination of the mechanisms underlying hypothalamic regulation in fish.
- The relationship between growth and reproduction in fish.
- Production of recombinant gonadotropins using the expression system of Pichia pastoris.
- Sex inversion in fish.

Prof. Berta Sivan

- Development of genomic tools and resources for genetic research in common carp
- Development of carp strains genetically resistant to viral infection of CyHV-3
- Genetics of color patterns in the Japanese ornamental carp (koi)
- Genetic variation and biodiversity of fish species and populations
- Evolutionary aspects of genome duplication and its contribution to functional complexity
- The genetic basis of growth at high temperature in yeast
- Genetic and epigenetic mechanisms in evolution of new regulatory networks in yeast

Dr. Lior David

Aquaculture : Re-circulating Systems

- Aquatic microbiology
- Biological transformation of N, P, C and S in aquatic systems
- Water quality control in fish culture systems

Prof. Jaap Van Rijn

Ginosar (Freshwater)

Rehovot (Marine)

Commercial zero-discharge aquaculture system for annual production of 600 tones seabream in Hudson (NY, USA)

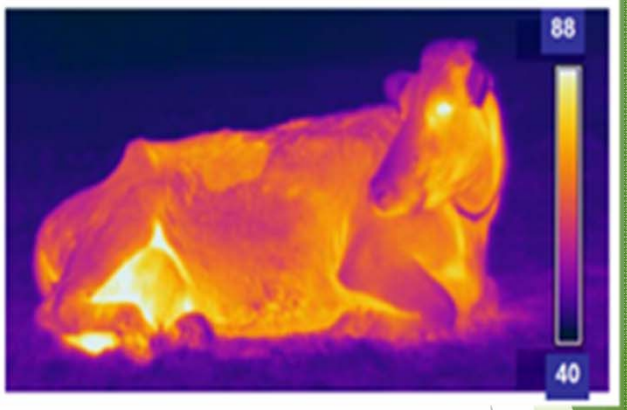
Bovine Reproduction

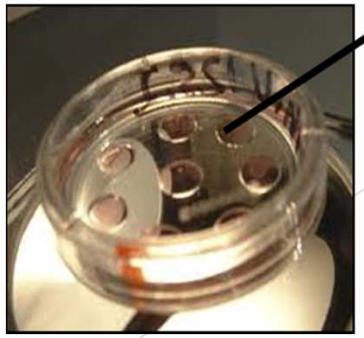
- Studying the mechanism by which various stresses affect reproductive performance in dairy cows

Stressors include: thermal stress, oxidative stress, environmental toxicants, pathogenic stress, and endocrine disruptors.

- Developing new strategies to overcome those effects.
- IVF

Prof. Zvi Roth





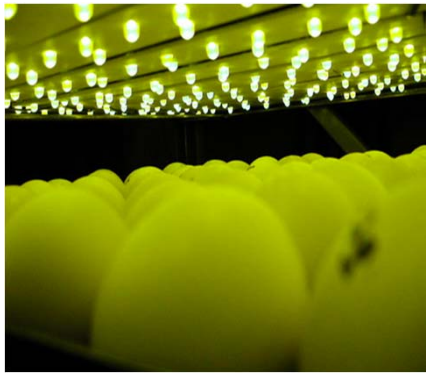
Avian Physiology and Reproduction

- Manipulate growth of meat type birds by monochromatic photostimulation:

Embryonic photostimulation.

Post hatch and growing period photostimulation.

- The relationship between the eye and the brain in controlling reproductive activities of birds.



Prof. Israel Rozenboim (Ruli)