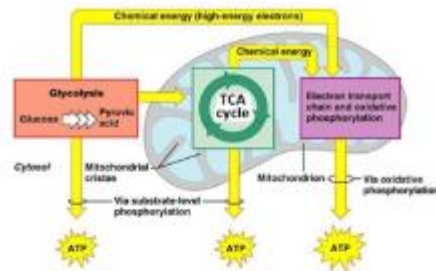
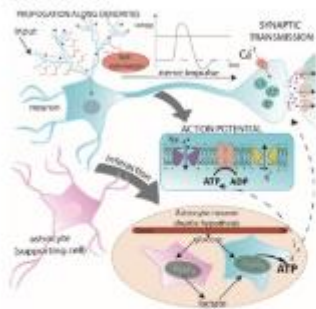


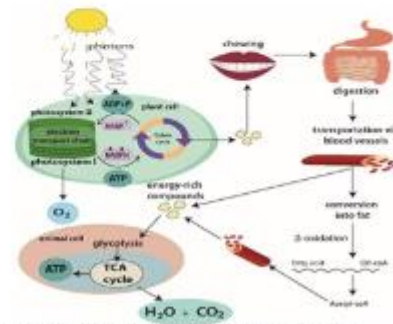
Biothermodynamic Research Group

- Energy efficiency in muscle cells and neurons



- Thermodynamic examination of nutrition and aging

Thermodynamic examination of food production facilities



- Thermodynamic examination of medical research results

Research Group Members

Prof. Dr. Mustafa Özilgen

PhD Students:

A. Selcen Semerciöz (Biotechnology)

Cennet Yıldız (Biotechnology)

Didem Albaz (Biotechnology)

MSc Students:

Sevgi Eylül Ferahcan (Biotechnology)

Melek Ece Öngel (Nutrition and Dietetics)

Thesis Students

Ongoing Doctoral Thesis:

A. Selcen Semerciöz, Thermodynamic assessment of the energy and exergy of the nutrients for the life processes of a mouse

Cennet Yildiz, PhD student in Biotechnology: Homeostasis and entropy generation in the brains of the healthy people and Alzheimer's patients

Fahri Demir, PhD student in Anthropology: Anthropology of beer consumption in Istanbul

Didem Albaz, PhD student in Biotechnology: Thermodynamic analysis and improvement of the industrial cosmetics production processes

Ongoing Master Thesis:

Melek Ece Öngel, MS student in Nutrition: Thermodynamic analysis of cancer patients and the scavenging cancer tissue

Sevgi Eylül Ferahcan, MS student in biotechnology: Myometrium cells with age

Completed Theses:

PhD Theses:

Serap Nasıl, Energy Usage and Thermodynamic Analysis of Carbon Dioxide Emission in Hamburger Menu Production, 2019

Bahar Hazal Yalçınkaya, Thermodynamic Examination of Muscle Cell and Neurons, 2019

Bahar Değerli, Thermodynamic Analysis on Energy-Exergy Requirement and Efficiency of Serogroup C Antigen Production, “Farm To Fork” Bread Production and Sourdough Leavening, 2018

Jale Çatak, Thermodynamic Assessment of the Entropy Generation, 2017

Ebru Pelvan Pelitli, Assessment of the Renewability of Black, Instant and Ice Tea Production and Waste Valorization Processes, 2017

Bengü Öztürk, Formation of Nanoemulsion-Based Delivery Systems for Liposoluble Vitamins: Stability Assessment and Digestion Studies, 2015

Seda Genç, Integrated kinetic, genetic, and thermodynamic investigation of brain energy metabolism in neurons and astrocytes, 2013

Master Theses:

Cennet Yıldız, Thermodynamic Investigation of the Effects of Global Warming on Honey Bee Population, 2018

Alper Ertürk, “Energy Efficiency of a Sustainable Chicken Farm and Pet Food Production Facility, 2016

Kübra Küçük, "Thermodynamic Analysis of the Chamydonomas Reinhartii Cultivations",
2015