# EMÍLIA KOVÁCS



National Academy of Scientist Education, 2<sup>nd</sup> year University of Debrecen Faculty of Medicine, 2<sup>nd</sup> year

## YEAR OF BIRTH:

2005

### FORMER SZENT-GYÖRGYI PUPIL:

no

## SZENT-GYÖRGYI MENTOR:

Endre Károly Kristóf

### **JUNIOR MENTOR:**

Arianti Rini

## **SPECIALIZATION:**

**Biochemistry** 

### **SECONDARY SCHOOL:**

Kisvárda Bessenyei György High School and College

#### **NAME OF TEACHER:**

Dr. Gábor Koncz

## **LANGUAGES:**

English/advanced

# IMPORTANCE, AIMS AND POSSIBLE OUTCOME OF RESEARCH

Heat producing adipocytes can be 1,5% of the normal weight of an adult, which is 5% of the metabolism and can cause 4kg fat burn in a year. Therefore it has anti-obesity effect. Brown adipocytes have multilocular lipid dropplets, high mitochondrial density and it converts the energy from the catabolism of nutrients into heat. The thermogenesis can be possible due to a mitochondrial transfering protein, which is the UCP1. This protein isolates the ATP synthesis from activation of electron transport chain. The aim of our research work is identify novel molecular regulators which control the activation of heat production and to reveal their mode of action to aid weight reduction or insulin sensitization.

#### AMBITIONS AND CAREER GOALS

My long term goal is to become a renowned medical doctor. I consider it important to participate in research work and obtain PhD degree to achieve my aims. In the future i would like to work both as a medical doctor and researcher.

#### **HONORS AND PRIZES**

**PUBLICATIONS**