DESCRIPTION FOR THE GENERAL PUBLIC (IN ENGLISH)(*State the objective of the project, describe the research to be carried out, and present reasons for choosing the research topic - max. 1 page)*

Menopause is a period in the woman's life, in which, as a result of a sharp drop in the level of estrogen, menstrual cycles completely stop. At the same time among women in this stage of life body weight gain and changes in body fat distribution toward more central phenotype is commonly observed. The consequence of these changes is a development of the so-called menopausal metabolic syndrome, which, apart from central obesity, is characterized by increased insulin resistance, high fasting glucose levels, high triglyceride levels and low levels of HDL cholesterol. Unfortunately, the reasons for weight gain and metabolic disturbances in the aimed population are not well known. Due to the fact that the consumption of snacks increases worldwide, we consider whether unhealthy snacking patterns (in terms how often, when and what is consumed as snacks) are associated with an increase in body weight and risk for metabolic syndrome in postmenopausal women. Taking into account the complexity of the food selection process it is also interesting to indicate which factors nudge menopausal women to snacking. One of the important determinant is taste. However, individual differences exist in the taste perception.Taking the above into consideration, the main hypothesis of our study is that ***unhealthy snacking patterns in postmenopausal women are associated with the occurrence of obesity and risk for metabolic syndrome via the determinants nudging women towards specifically tasted snacks***. The main goal of the project is 1) to examine the role of unhealthy snack patterns on the occurrence of obesity and metabolic syndrome features among postmenopausal women and 2) to examine relationship between variations in the selected tastes genes, taste perception and consumption of snacks with specific taste.

There are plans to examine a group (n = 372) of postmenopausal women. Snacking patterns will be evaluated mainly by e-snacking application supported by the 24-hour multiple pass recall methods. Anthropometric measurements (body weight, waist circumferences, body composition, in terms of content in the body fat, visceral fat and lean mass) will be also carried out.To determine of metabolic syndrome markersthe blood concentration of lipids, glucose and insulin as well as blood pressure will be evaluated. The perception of sweet, bitter and fatty taste in postmenopausal women will be assessed. Variants of selected taste genes will be also evaluated.Until now, no study has been carried out that would address the relationship between snacking patterns and metabolic health of postmenopausal women via assessment of some biological determinants influencing food choice. Due to fact that the number of middle-aged womenincreases with increasing life expectancy, knowledge of this relationship is important to preserve the health and quality of life of these women.