

Research Plan  
October 30, 2017

### **Purpose**

The purpose of the study is to determine whether the eating window of a time restricted eating protocol affects changes in body composition. It is hypothesized that the afternoon group will have better adherence to their experimental protocol and have greater changes in body composition.

### **Sample**

The sample will include 20 healthy adult participants ranging in age from 18-25 that volunteer to participate in the study. Participants will be required to have a body mass index above 26 ( $BMI = \text{weight(kg)}/\text{height(m)}^2$ ). All individuals must give written informed consent in order to participate in the study. Exclusion criteria include a history of intermittent fasting in the past 6 months, diabetes, or pregnancy and BMI less than 25.9.

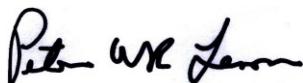
### **Procedure**

Inclusion/exclusion criteria will be explicitly stated throughout the recruitment process. Potential participants will be recruited through advertising using posters placed through the University of Westerns campus as well as via presentations in classrooms (using the information from the advertising flyers). Individuals who email Bryce Knapp will be invited to a meeting to discuss the study. After the evaluation and information meeting the individual will be given up to 3 days to determine if they want to participate and give their informed consent. See attached form in the consent section of the ethics application.

**Measurement:** All individuals will have their body composition measured. Body composition will be measured using air displacement densitometry “Bod Pod”. Measurements will be taken twice prior to the intervention and twice on successive days post intervention. Individuals will also be asked to fill out a biweekly modified dialysis diet and fluid non-adherence questionnaires (DDFQ) with added check boxes to record which days they complied with the required protocol and 2 questions regarding any struggles the participants experienced. This will be used to assess the adherence to the protocols.

**Protocol:** 20 participants matched for BMI will be assigned to one of two groups. The two groups will be assigned an eating period of 6am-2pm or 2pm-10pm and instructed not to ingest calories outside of their respective eating window. The interventions will last 4 weeks with individuals being asked to comply to their eating window a minimum of 5 days per week. This will be measured using the modified DDFQ. All testing will be completed by Bryce Knapp under the supervision of Dr. Lemon. The changes in fat mass will be analyzed using a 2-way ANOVA and the adherence will be measured using an independent t-test. Post Hoc testing will be done if there is any significance in fat mass ( $p=0.05$ ). SPSS programming will be used to analyze the data.

Sincerely,



Peter WR Lemon, PhD, FACSM  
Professor & Weider Research Chair  
Director, Exercise Nutrition Research Laboratory