**Abstract Oral presentation IFO Vancouver 2016**

**3-Year Weight Loss Maintenance after Assigning Overweight/Obese Patients to either a Low Carbohydrate or a Low Fat Diet according to Insulin Sensitivity**

Successful weight loss maintenance is defined as intentional weight loss of >10% and the ability to maintain it for 1yr. Weight loss from usual interventions usually peaks at 6months, followed by gradual weight regain in most people. Our aim is to assess long-term weight loss maintenance in subjects after 3yrs from instruction on a macronutrient restricted diet at our clinic. We identified 608 non-diabetics older than 18yrs, who were allocated to either low fat (LF) or low carbohydrate non-ketogenic (LC) diets. Both diets stressed macronutrient restriction and no calorie counting. Diet allocation to either diet was based on insulin dynamics; patients with reduced insulin sensitivity were assigned to LC diet. Patients instructed on these diets in 2012 were contacted by phone. Due to the lack of definition for successful weight loss maintenance after 3yrs, we defined it as weight loss of >5%. Of 364 patients who responded, we excluded those who took antidepressants, corticosteroids; underwent sleeve, major operation; had cancer; were pregnant; or tried other diets. In the LC diet, patients (n=253: 36% male and 64% female) had a mean age of 38.7±0.8yrs, and 40.3% of them maintained weight loss; achieving a significant decrease in weight (89.2±2.0 vs 78.5±1.8kg, p<0.001) and BMI (32.4±0.6 vs 28.5±0.5kg/m2, p<0.001). In the LF diet, patients (n=45: 13% male and 87% female) had a mean age of 38.1±1.7yrs, and 35.6% of them maintained weight loss; achieving a significant decrease in weight (73.0±3.7vs 65.8±3.5kg, p<0.001) and BMI (26.6±0.6 vs 24.0±0.6kg/m2, p<0.001). Shifting from calorie restricted dietary interventions to macronutrient ones is a novel and more successful way of approaching and maintaining weight loss in the overweight and obese.