

# Importance and Efficacy of Nutraceuticals for Weight Management

Mariami Kochiashvili and Dr. Roberto Mariani  
CUNY - Kingsborough Community College, Brooklyn, NY

## Introduction

### Nutraceuticals

Marketing term that refers to a pharmaceutical compound or food product that could provide potential health benefits

### Two nutraceutical are studied:

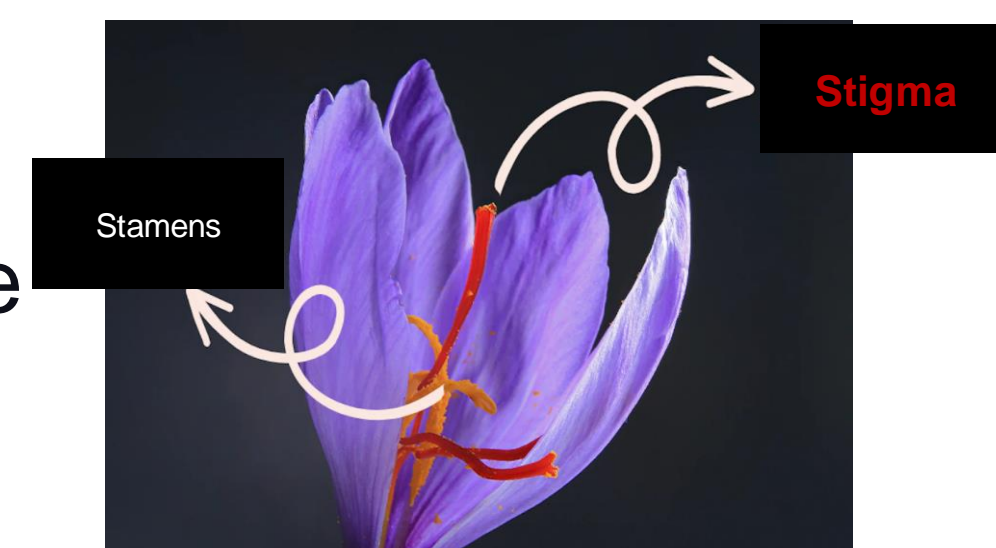
#### Conjugated Linoleic Acid=CLA

- A mixture of linoleic acid isomers present in dairy products and meat <sup>9</sup>
- Available in dietary supplements <sup>10</sup>



#### Saffron

- Obtained from the stigma of the plant *Crocus sativus* <sup>1</sup>
- Works as an appetite suppressant <sup>1</sup>
- Works against obesity and related metabolic disorders <sup>1</sup>
- Major active compounds: crocin, safranal and crocetin <sup>1</sup>



## Possible Anti-Obesity Mechanisms of CLA and saffron

### CLA<sub>8</sub>

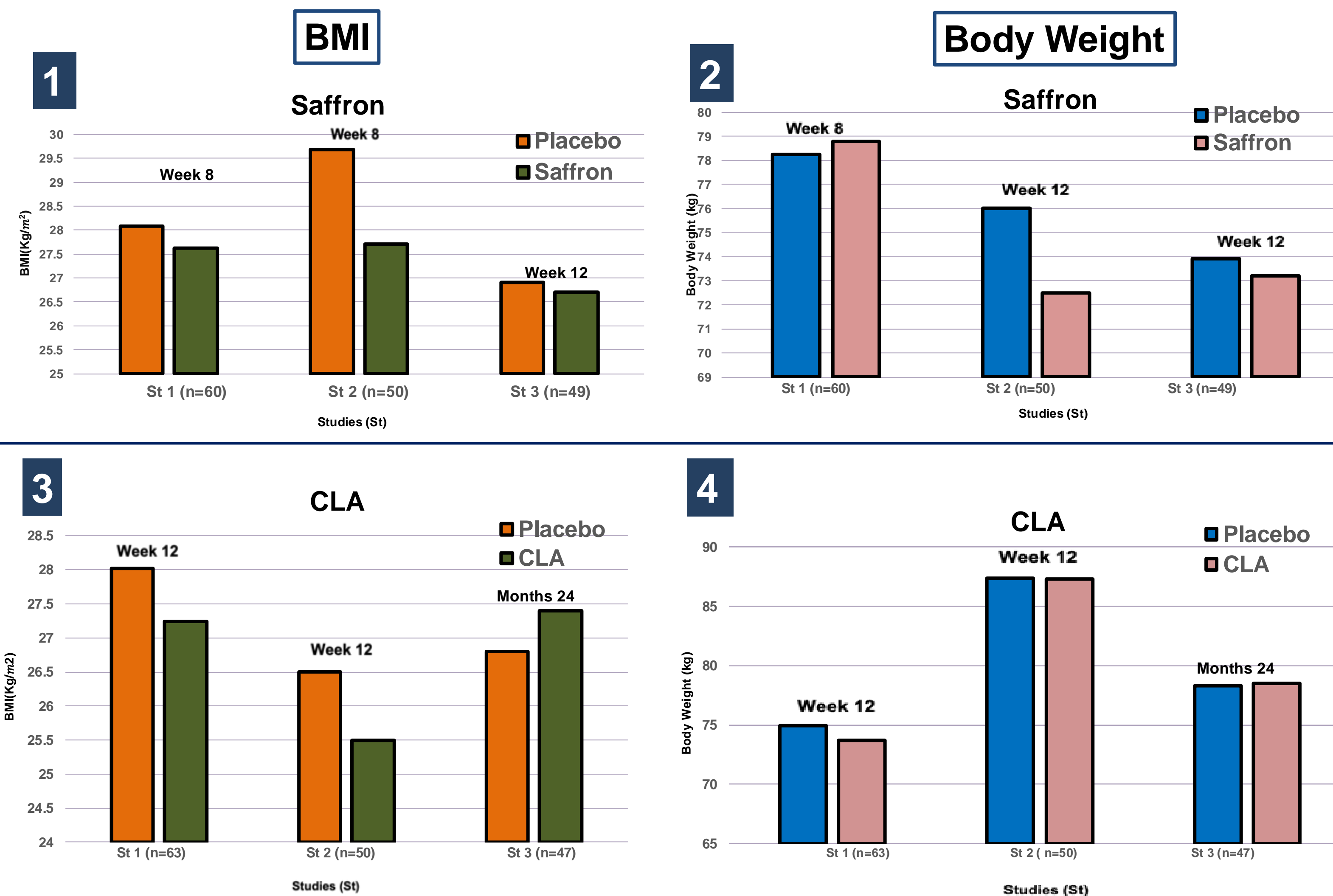
- Two isomers of CLA, the trans - 10, and cis-12, have an anti-obesity effect
- Increasing lipolysis
- Increasing fatty acid oxidation
- Reducing lipogenesis
- Promoting apoptosis in adipose tissue

### Saffron<sub>1</sub>

- Decrease calorie intake by blocking dietary fat digestion by inhibiting pancreatic lipase inhibition
- Antioxidant to suppress adipocyte differentiation
- Increase satiety by raising the level of neurotransmitters or hormonal functions

## Results

### Effects of Saffron and CLA on Weight Management



## Methodology

- National Library of Medicine
- Microsoft Excel
- Resources:
  - Newspapers
  - Scientific journals
  - Companies related websites

## Conclusion

This study shows new strategies for weight management. It raises awareness of how nutraceuticals can improve individuals' health. CLA and saffron seems to have an effect to manage weight and appetite stimulation. Our meta-analysis suggests that both CLA and saffron can lead to changes in body composition, specifically in Body Mass Index (BMI) and weight. Saffron consumption appears to have a small to mild effect on BMI and weight reduction, as it slightly decreases both values across all three studies as compared to the placebo groups (see panels 1 and 2). Studies with CLA consumption, showed a reduction in both weight and BMI, where BMI is lower in the CLA group as compared to placebo (see panels 3 and 4). These analyses of several trials, suggest that an adequate diet with CLA and saffron could help individuals to lose weight and maintain a healthy lifestyle. More studies need to be conducted to understand the mechanism of action of the two nutraceuticals. In future clinical studies, it would be interesting to treat patients with a combinatorial therapy with CLA and saffron together to identify a possible more effective reduction in weight and appetite.

## References

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