
PREFACE

The aim of this PhD thesis is to investigate the effect of bariatric surgery on food preferences, and the underlying mechanisms for a potential effect. The research reported in this thesis was part of an extensive longitudinal prospective study, The GO Bypass Study, carried out at the Department of Nutrition, Exercise and Sports, Faculty of Science, University of Copenhagen and Hvidovre University Hospital from March 2014 to April 2017. The statistical analysis of functional MRI data was carried out by Oliver Hulme and Tobias Morville at Danish Research Centre for Magnetic Resonance, Hvidovre University Hospital.

The GO Bypass study was carried out as a part of the research programme ‘Governing Obesity’ funded by the University of Copenhagen Excellence Programme for Interdisciplinary Research (www.go.ku.dk). Furthermore, the study was funded by the Lundbeck Foundation and the Aase and Ejnar Danielsens Foundation. My PhD was funded by the Lundbeck Foundation (2 years) and the Danish Diabetes Academy supported by the Novo Nordisk Foundation (1 year).

The following four papers are included in the present PhD thesis.

Paper I: Mette S. Nielsen, Bodil J. Christensen, Christian Ritz, Simone Rasmussen, Thea T. Hansen, Wender L.P. Bredie, Carel W. le Roux, Anders Sjödin, Julie B. Schmidt. **Roux-En-Y Gastric Bypass and Sleeve Gastrectomy Does Not Affect Food Preferences When Assessed by an Ad libitum Buffet Meal.** *Obes Surg* 2017; 27:2599-2605.

Paper II: Mette S. Nielsen, Simone Rasmussen, Bodil J. Christensen, Christian Ritz, Carel W. le Roux, Julie B. Schmidt, Anders Sjödin. **Bariatric surgery does not affect food preferences; however, individual changes in food preferences may predict weight loss.** *Accepted for publication in Obesity.*

Paper III: Mette S. Nielsen, Ida Ninett S.K. Andersen, Belinda Lange, Christian Ritz, Carel W. le Roux, Julie B. Schmidt, Anders Sjödin, Wender L.P. Bredie. **Sweet taste thresholds and taste preferences following Roux-en-Y gastric bypass and Sleeve Gastrectomy surgery, and their potential links to changes in food preferences and variations in weight loss.** *In review Am J Clin Nutr.*

Paper IV: Mette Søndergaard Nielsen,* Oliver James Hulme,* Julie Berg Schmidt, Tobias Morville, Jens Juul Holst, Carel le Roux, Hartwig R. Siebner, Anders Sjödin. **Bypassing appetite: Investigating the effect of bariatric surgery on appetitive brain systems.** *Contributed equally

In addition to the papers listed above, I contributed to the following published papers during my PhD. Sections from paper 1 are included in the chapter *Methodology*. The remaining papers are not included in this thesis.

1. Julie B. Schmidt,* Bodil J. Christensen,* Mette S. Nielsen, Louise Tækker, Lotte Holm, Susanne Lunn, Wender L.P. Bredie, Christian Ritz, Jens J. Holst, Torben Hansen, Anja Hilbert, Carel W le Roux, Oliver J. Hulme, Hartwig Siebner, Tobias Morville, Lars Naver, Andrea K. Floyd, Anders Sjödin. **Patient profiling for success after weight loss surgery (GO Bypass study): An interdisciplinary study protocol.** *Contemporary Clinical Trials Communications* 2018, 10:121-130.
*Contributed equally
2. Thea T. Hansen,* Tine A. Jacobsen,* Mette S. Nielsen, Anders Sjödin, Carel W. le Roux, Julie B. Schmidt. **Hedonic changes in Food Choices Following Roux-en-Y Gastric Bypass.** *Obes Surg* 2016, 26(8):1946-55. *Contributed equally
3. Mette S. Nielsen,* Lone V. Nielsen,* Julie B. Schmidt, Sue D. Pedersen, Anders Sjödin. **Efficacy of a liquid low-energy formula diet in achieving preoperative target weight loss before bariatric surgery.** *J Nutr Sci* 2016, 30(5):e22. *Contributed equally
4. Mette S. Nielsen, Jonas S. Quist, Jean-Philippe Chaput, Stine-Mathilde Dalskov, Camilla T. Damsgaard, Christian Ritz, Arne Astrup, Kim F. Michaelsen, Anders Sjödin, Mads F. Hjorth. **Physical Activity, Sedentary Time, and Sleep and the Association with Inflammatory Markers and Adiponectin in 8- to 11-Year-Old Danish Children.** *J Phys Act Health* 2016, 13(6):733-9.
5. Julie B. Schmidt, Sue D. Pedersen, Nikolaj T. Gregersen, Lone V. Nielsen, Mette S. Nielsen, Christian Ritz, Sten Madsbad, Dorte Worm, Dorte L. Hansen, Trine R. Clausen, Jens F. Rehfeld, Arne Astrup, Jens J. Holst, Anders Sjödin. **Effects of RYGB on energy expenditure, appetite, and glycaemic control: a randomized controlled clinical trial.** *Int J Obes* 2016, 40(2):281-90.