



Universiteit
Leiden
The Netherlands

Metabolic signatures in nutrition and health : short-term diet response, sexual dimorphism and hormone chronobiology

Draper, C.F.

Citation

Draper, C. F. (2018, December 20). *Metabolic signatures in nutrition and health : short-term diet response, sexual dimorphism and hormone chronobiology*. Retrieved from <https://hdl.handle.net/1887/68234>

Version: Not Applicable (or Unknown)

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/68234>

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle <http://hdl.handle.net/1887/68234> holds various files of this Leiden University dissertation

Author: Draper, C.F.

Title: Metabolic signatures in nutrition and health : short-term diet response, sexual dimorphism and hormone chronobiology

Issue Date: 2018-12-20

Metabolic signatures in nutrition and health:

Short-term diet response, sexual dimorphism and hormone chronobiology

Cover design: Magali Egli, Michel Combes

Thesis design technology: Michel Combes

Thesis lay-out: Colleen Fogarty Draper

Printing: Proefschriftenprinten.nl

© Copyright, Colleen Fogarty Draper, 2018

ISBN: ISBN/EAN:978-94-92679-63-5 All rights reserved. No part of this book may be reproduced in any form or by any means without permission of the author.

Metabolic signatures in nutrition and health:

Short-term diet response, sexual dimorphism and hormone chronobiology

Proefschrift

ter verkrijging van

de graad van Doctor aan de Universiteit Leiden,

op gezag van Rector Magnificus prof. mr. C.J.J.M. Stolker,

volgens besluit van het College voor Promoties

te verdedigen op donderdag, 20 December 2018

klokke 12:30 uur

door

Colleen Fogarty Draper

geboren te West Islip, N.Y., U.S.A. in 1969

Promotor: Prof. dr. Thomas Hankemeier

Prof. dr. Jan van der Greef

Co-promotor: Dr. Sofia Moço

Promotiecommissie:

Prof. dr. Hubertus Irth substitute of the Dean: Scientific Director (or substitute) (Chair)

Prof. dr. Joke Bouwstra affiliated with Faculty of Science, UL (Secretary)

Prof. dr. Hannelore Daniel affiliated with TUM/Germany

Prof. dr. Lorraine Brennan affiliated with UCD Dublin/Ireland

Prof. dr. Hanno Pijl affiliated with LUMC/Netherlands

Prof. dr. Ron de Kloet affiliated with LUMC/Netherlands

The research described in this thesis was performed at the division of Systems Biomedicine and Pharmacology of the Leiden Academic Centre for Drug Research (LACDR), Leiden University (Leiden, The Netherlands), the Nestle Institute of Health Sciences, Nestle Research Center and University College Dublin. The research was financially supported by Nestle Institute of Health Sciences and Nestle Research.

Perseverance, persistence, creativity and flexibility in spite of all obstacles, discouragements and impossibilities: It is this in all things that distinguishes the strong and resilient soul from the weak...and creates a life of limitless possibilities.

Modified extensively from Thomas Carlyle

Dedicated to Madeleine, Corinne and Sophia

Contents

Chapter 1: General introduction and aim of the thesis

Chapter 2: A 48-hour vegan diet challenge in healthy women and men induces a BRANCH-chain amino acid related, health associated, metabolic signature

Molecular Nutrition and Food Research (2018)

Chapter 3: Vegan and animal meal composition and timing influence glucose and lipid related postprandial metabolic profiles

Manuscript submitted for publication (2018)

Chapter 4: Sexual Dimorphism, Age, and Fat Mass Are Key Phenotypic Drivers of Proteomic Signatures

Journal of proteome research (2017)

Chapter 5: Menstrual cycle rhythmicity: metabolic patterns in healthy women

Manuscript submitted for publication (2018)

Chapter 6: Conclusions and perspectives

Appendix: Nederlandse samenvatting

Acknowledgements

Curriculum vitae

List of publications