



Jacob J. Christensen

PHD, POSTDOCTORAL RESEARCHER

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I am a clinical dietitian and postdoctoral researcher at Oslo University Hospital and University of Oslo.

My academic interests span several topics. My main focus is how genetic and lifestyle exposures, such as variation in SNPs and dietary fatty acid consumption, affect plasma lipid levels and other cardiovascular disease (CVD) risk factors. My research involves both healthy children and adults, as well as pregnant women and families with genetically elevated cholesterol (FH). I am involved in both clinical interventions (e.g. NOMA) and epidemiological studies (e.g. MoBa and STORK), where my main responsibility is related to data analysis. For example, I apply principles of biostatistics and bioinformatics to leverage knowledge from various *omics*-type datasets to examine potential biomarkers of dietary intake or CVD risk. I particularly study the early-life exposures to elevated levels of CVD risk factors. Additionally, I am part of The Nordic Nutrition Recommendations 2022 (NNR2022) Committee, working on the update of NNR2012.

Education

UNIVERSITY EDUCATION AND AUTHORIZATION

Oslo University Hospital and University of Oslo

Oslo, Norway

DOCTORAL DEGREE (PHD)

2014 - 2017

- Supervisors: Prof. Kirsten B. Holven (main supervisor), PhD, Prof. Kjetil Retterstøl, MD, PhD, and Prof. Leiv Ose, MD, PhD. Title of doctoral thesis: Early life cholesterol exposure in children with familial hypercholesterolemia and healthy children (approved 30.05.2017, defended 21.08.2017).

Norwegian Directorate of Health, Registration Authority for Health Personnel

Oslo, Norway

AUTHORIZATION

2013 - 2061

- Authorized Clinical Dietitian (License: 6182046).

University of Oslo

Oslo, Norway

MASTER THESIS

2012 - 2013

- Supervisors: Christian A. Drevon (main supervisor) and Anders Kielland. Title of master thesis: Differentiation of skeletal muscle cells in culture – Experimental conditions and expression of myokines.

University of Oslo

Oslo, Norway

MASTER OF CLINICAL NUTRITION

2011 - 2013

University of Oslo and University of Stellenbosch

Oslo, NO; Cape Town, SA

BACHELOR OF SCIENCE

2008 - 2011

SELECTED COURSES

2020	Leadership course 1: Career development	University of Oslo
2019 - Pr	DataCamp E-Courses	DataCamp
2019	Workshop: Applied Machine Learning	RStudio
2018	Workshop: Introduction to Data Science in the Tidyverse	RStudio
2017	MF9155 - Introduction to statistics and bioinformatics for the analysis of large-scale biological data	University of Oslo
2017	Nature Masterclass: Scientific Writing	NORHEART
2017	Introduction to nutritional metabolomics	NUGO, Uni CPH
2016	Post-graduate course: Use of large scale data in dietary intervention studies	NUGO
2016	MF9030E – Introductory course to the medical PhD programme, INTRO II	University of Oslo
2016	Communicating Scientific Research (CSR)	SIMULA
2015	Pregnancy and programming and later risk of obesity and related disease	Uni CPH
2014	MF9010E – Introductory course to the medical PhD programme, INTRO I	University of Oslo
2014	MF9115 - Helseforskningsrett; Etikk og personvern	UoO, OUH, NIPH
2014	MF9130 – Introduction to statistics	University of Oslo

Work Experience

PROFESSIONAL POSITIONS

Jean Mayer United States Department of Agriculture (USDA) Human Nutrition Research Center on Aging (HNRCA), Tufts University

Boston Massachusetts, USA

POSTDOCTORAL RESEARCHER

2018 - 2019

- Postdoctoral fellowship in the group of José Ordovás, working with various research projects in the intersection of nutrition, genomics and cardio-metabolic diseases.

Oslo University Hospital and University of Oslo

Oslo, Norway

POSTDOCTORAL RESEARCHER

2018 - Present

- Statin use in pregnancy, nutrition data science.

Department of Nutrition, Institute of Basic Medical Sciences, University of Oslo

Oslo, Norway

RESEARCHER

2017 - 2018

- Data analysis-centered research projects.

Oslo and Akershus University College and University of Oslo

Oslo, Norway

UNIVERSITY COLLEGE LECTURER/PROJECT COORDINATOR

2013 - 2014

- Coordination and implementation of practical aspects of a clinical nutrition research study.

Student Welfare Organization in Oslo (SiO)

Oslo, Norway

LECTURER/NUTRITIONIST

2012 - 2013

- Weekly dietary counseling sessions for healthy subjects, as well as lectures about general nutrition topics.

OTHER POSITIONS

Lommelegen (lommelegen.no), Aller Media AS

Oslo, Norway

CLINICAL DIETITIAN (KEF)

2013 - Present

- Answering questions related to clinical dietetics, nutrition, physical activity and health.

The Sleep Laboratory, Lovisenberg Diakonale Sykehus (LDS)

Oslo, Norway

ASSISTANT

2011 - 2013

- Examination of individuals with sleep disorders (using polysomnography).

Naval Home Guard (Sjøheimevernet, SHV)

Karljohansvern, Horten, Norway

DIVER

2009 - 2012

- Diver for the SHV task force at the eastern part of Norway.

The Norwegian Navy, Haakonsvern

Bergen, Norway

DIVER

2006 - 2007

- Military service, diver for the Coast Guard KV Ålesund.

Publications

SCIENTIFIC PUBLICATIONS

VH Telle-Hansen, JJ Christensen, GA Formo, KB Holven, SM Ulven

Lipids Health Dis

A COMPREHENSIVE METABOLIC PROFILING OF THE METABOLICALLY HEALTHY OBESITY PHENOTYPE

2020

KS Hustad, A Rundblad, I Ottestad, JJ Christensen, KB Holven, SM Ulven

Br J Nutr

COMPREHENSIVE LIPID AND METABOLITE PROFILING IN HEALTHY ADULTS WITH LOW AND HIGH CONSUMPTION OF FATTY FISH: A

CROSS-SECTIONAL STUDY

2020

KM Mangano, SE Noel, CQ Lai, JJ Christensen, JM Ordovas, ...

Bone

DIET-DERIVED FRUIT AND VEGETABLE METABOLITES SHOW SEX-SPECIFIC INVERSE RELATIONSHIPS TO OSTEOPOROSIS STATUS

2020

JJ Christensen, SM Ulven, M Thoresen, K Westerman, KB Holven, ...

medRxiv

ASSOCIATIONS BETWEEN DIETARY PATTERNS AND GENE EXPRESSION PATTERN IN PERIPHERAL BLOOD MONONUCLEAR CELLS: A

CROSS-SECTIONAL STUDY

2020

JJ Christensen, I Narverud, M Ruuth, M Heier, M Jauhiainen, SM Ulven, ...	<i>medRxiv</i>
CHILDREN WITH FAMILIAL HYPERCHOLESTEROLEMIA DISPLAY CHANGES IN LDL AND HDL FUNCTION: A CROSS-SECTIONAL STUDY	2020
JJ Christensen, EK Arnesen, R Andersen, H Eneroth, M Erkkola, A Høyer, ...	<i>Food Nutr Res</i>
THE NORDIC NUTRITION RECOMMENDATIONS 2022—PRINCIPLES AND METHODOLOGIES	2020
H Thorsteinsdottir, JJ Christensen, KB Holven, M Tveiterås, H Brun, ...	<i>J Renal Nutr</i>
CARDIOVASCULAR RISK FACTORS ARE INVERSELY ASSOCIATED WITH OMEGA-3 POLYUNSATURATED FATTY ACID PLASMA LEVELS IN PEDIATRIC KIDNEY TRANSPLANT RECIPIENTS	2020
EK Arnesen, JJ Christensen, R Andersen, H Eneroth, M Erkkola, A Høyer, ...	<i>Food Nutr Res</i>
THE NORDIC NUTRITION RECOMMENDATIONS 2022—STRUCTURE AND RATIONALE OF QUALIFIED SYSTEMATIC REVIEWS	2020
EK Arnesen, JJ Christensen, R Andersen, H Eneroth, M Erkkola, A Høyer, ...	<i>Food Nutr Res</i>
THE NORDIC NUTRITION RECOMMENDATIONS 2022—HANDBOOK FOR QUALIFIED SYSTEMATIC REVIEWS	2020
C Rodríguez-Borjabad, I Narveud, JJ Christensen, SM Ulven, AI Malo, ...	<i>Nutr Met Cardiovasc Dis</i>
DIETARY INTAKE AND LIPID LEVELS IN NORWEGIAN AND SPANISH CHILDREN WITH FAMILIAL HYPERCHOLESTEROLEMIA	2020
SM Ulven, JJ Christensen, O Nygård, A Svardal, L Leder, I Ottestad, ...	<i>Am J Clin Nutr</i>
USING METABOLIC PROFILING AND GENE EXPRESSION ANALYSES TO EXPLORE MOLECULAR EFFECTS OF REPLACING SATURATED FAT WITH POLYUNSATURATED FAT—A RANDOMIZED CONTROLLED DIETARY ...	2019
KM Mangano, SE Noel, CQ Lai, JJ Christensen, JM Ordovas, ...	<i>medRxiv</i>
DIET-DERIVED FRUIT AND VEGETABLE METABOLITES SUGGEST SEX-SPECIFIC MECHANISMS CONFERRING PROTECTION AGAINST OSTEOPOROSIS IN HUMANS	2019
JJ Christensen, SS Bakke, SM Ulven, K Retterstøl, T Henriksen, ...	<i>Mol Nutr Food Res</i>
SERUM OMEGA-6 FATTY ACIDS AND IMMUNOLOGY-RELATED GENE EXPRESSION IN PERIPHERAL BLOOD MONONUCLEAR CELLS: A CROSS-SECTIONAL ANALYSIS IN HEALTHY CHILDREN	2019
I Narverud, JJ Christensen, SS Bakke, SM Ulven, A Rundblad, P Aukrust, ...	<i>J Intern Med</i>
PROFILING OF IMMUNE-RELATED GENE EXPRESSION IN CHILDREN WITH FAMILIAL HYPERCHOLESTEROLAEMIA	2019
I Narverud, JJ Christensen, SS Bakke, SM Ulven, A Rundblad, P Aukrust, ...	<i>Atherosclerosis</i>
HIGHER EXPRESSION OF GENES RELATED TO T-AND B-CELL PATHWAYS IN PBMCS FROM CHILDREN WITH VERSUS WITHOUT FAMILIAL HYPERCHOLESTEROLEMIA: A CROSS-SECTIONAL STUDY	2019
C Sorgini, J Christensen, L Parnell, K Tucker, JM Ordovas, CQ Lai	<i>Current developments in nutrition</i>
PREDICTING TYPE 2 DIABETES INCIDENCE WITH GENOME-WIDE GENE-GENE AND GENE-DIET INTERACTIONS (OR31-08-19)	2019
VH Telle-Hansen, JJ Christensen, SM Ulven, KB Holven	<i>Genes Nutr</i>
DOES DIETARY FAT AFFECT INFLAMMATORY MARKERS IN OVERWEIGHT AND OBESE INDIVIDUALS?—A REVIEW OF RANDOMIZED CONTROLLED TRIALS FROM 2010 TO 2016	2017
JJ Christensen, SM Ulven, K Retterstøl, I Narverud, MP Bogsrud, ...	<i>Atherosclerosis</i>
COMPREHENSIVE LIPID AND METABOLITE PROFILING OF CHILDREN WITH AND WITHOUT FAMILIAL HYPERCHOLESTEROLEMIA: A CROSS-SECTIONAL STUDY	2017
JJ Christensen, LT Osnes, B Halvorsen, K Retterstøl, MP Bogsrud, ...	<i>Atherosclerosis</i>
ALTERED LEUKOCYTE DISTRIBUTION UNDER HYPERCHOLESTEROLEMIA: A CROSS-SECTIONAL STUDY IN CHILDREN WITH FAMILIAL HYPERCHOLESTEROLEMIA	2017

JJ Christensen, L Osnes, B Halvorsen, K Retterstøl, MP Bogsrud, C Wium, ...

Data in brief

DATA ON CIRCULATING LEUKOCYTE SUBPOPULATIONS AND INFLAMMATORY PROTEINS IN CHILDREN WITH FAMILIAL HYPERCHOLESTEROLEMIA AND HEALTHY CHILDREN

2017

I Narverud, JJ Christensen, IO Ottestad, SM Ulven, KB Holven

Tidsskr Nor Laegeforen

MISLEADING ABOUT DIET IN A NEW NATIONAL GUIDELINE FOR THE PREVENTION OF CARDIOVASCULAR DISEASE

2017

GO Gjevestad, H Hamarsland, T Raastad, I Ottestad, JJ Christensen, ...

Genes Nutr

GENE EXPRESSION IS DIFFERENTIALLY REGULATED IN SKELETAL MUSCLE AND CIRCULATING IMMUNE CELLS IN RESPONSE TO AN ACUTE BOUT OF HIGH-LOAD STRENGTH EXERCISE

2017

SM Ulven, L Leder, E Elind, I Ottestad, JJ Christensen, VH Telle-Hansen, ...

Br J Nutr

EXCHANGING A FEW COMMERCIAL, REGULARLY CONSUMED FOOD ITEMS WITH IMPROVED FAT QUALITY REDUCES TOTAL CHOLESTEROL AND LDL-CHOLESTEROL: A DOUBLE-BLIND, RANDOMISED CONTROLLED TRIAL

2016

JJ Christensen, K Retterstøl, K Godang, MCP Roland, E Qvigstad, ...

J Clin Lipidol

LDL CHOLESTEROL IN EARLY PREGNANCY AND OFFSPRING CARDIOVASCULAR DISEASE RISK FACTORS

2016

SM Ulven, L Leder, E Elind, I Ottestad, JJ Christensen, VH Telle-Hansen, ...

Atherosclerosis

REPLACING DIETARY SATURATED FAT WITH POLYUNSATURATED FAT REDUCES TOTAL CHOLESTEROL AND LDL CHOLESTEROL IN HEALTHY SUBJECTS WITH MODERATE HYPERCHOLESTEROLAEMIA—A RANDOMIZED ...

2015

S Ulven, L Leder, E Elind, I Ottestad, J Christensen, V Telle-Hansen, ...

Annals of Nutrition and Metabolism

EXCHANGING KEY FOOD ITEMS IN DAILY DIET IMPROVES FAT QUALITY AND REDUCES TOTAL CHOLESTEROL AND LDL CHOLESTEROL—A RANDOMIZED CONTROLLED TRIAL

2015

I Narverud, JR van Lennep, JJ Christensen, J Versmissen, JM Gran, ...

Atherosclerosis

MATERNAL INHERITANCE DOES NOT PREDICT CHOLESTEROL LEVELS IN CHILDREN WITH FAMILIAL HYPERCHOLESTEROLEMIA

2015

I Narverud, JR van Lennep, JJ Christensen, J Versmissen, JM Gran, ...

Circulation

CARDIOVASCULAR RISK MARKERS IN A LARGE COHORT OF CHILDREN WITH GENETICALLY VERIFIED FH SHOW NO INHERITANCE-RELATED BUT LDL RECEPTOR MUTATION-TYPE AND FAMILY HISTORY OF CVD ...

2014

KM Mangano, SE Noel, CQ Lai, JJ Christensen, JM Ordovas, ...

Med Sci

DIET-DERIVED FRUIT AND VEGETABLE METABOLITES SUGGEST SEX-SPECIFIC MECHANISMS CONFERRING

2000

OTHER PUBLICATIONS

Popular Science Articles

11 POPULAR SCIENCE ARTICLES OR VIDEOS RELATED TO CLINICAL DIETETICS AND NUTRITION

2015 - 2017

- UiO, forskning.no, Dagens medisin, FH Norge, Norsk tidsskrift for ernæring, BestPractice - faglig dialog mellom leger, FH-magasinet, Lommelegen.no, YouTube, and Forbrukerinspektørene

Articles, Chronicles or Commentaries

7 PUBLISHED ARTICLES, CHRONICLES OR COMMENTARIES RELATED TO CLINICAL DIETETICS AND NUTRITION

2016 - Present

- Dagbladet, Dept of Nutrition UiO, Nor Tannlegeforen Tid, and Bergens Tidende

Expert Opinions/Statements

27 EXPERT OPINIONS OR STATEMENTS RELATED TO CLINICAL DIETETICS AND NUTRITION

2013 - 2017

- NRK, VG-nett, Dagbladet, Klikk.no, KK, TV2.no, abcnheter, Lommelegen.no, and Adressa

Lommelegen Q&A

114 PUBLISHED ANSWERS RELATED TO CLINICAL DIETETICS AND NUTRITION

2013 - Present

- Lommelegen.no

Grants and Awards

Award

BEST ARTICLE 2019

- Christensen JJ J Clin Lipidol 2016 (shared)
- Christensen JJ J Clin Lipidol 2016 (personal)

Throne-Holst stiftelse

10/2020

Award

BEST ARTICLE 2016

- Christensen JJ J Clin Lipidol 2016 (shared)
- Christensen JJ J Clin Lipidol 2016 (personal)

Throne-Holst stiftelse

05/2017

Travel grant

COURSE TRAVEL GRANT

- Travel grant to participate at the course 'Introduction to nutritional metabolomics' in Copenhagen, Denmark

NuGO

02/2017

Travel grant

CONFERENCE TRAVEL GRANT

- Travel grant to participate at the 17th International Symposium on Atherosclerosis (ISA 2015) in Amsterdam, the Netherlands

ISA

02/2015

Previous Grant Support

THE STORK CHILDREN PROJECT

- To examine the long-term effect of in utero hypercholesterolemic, pro-thrombotic and pro-inflammatory environment on risk markers of disease in children 6-12 years after birth.

Mills DA (1 kr til Hjertesaken)

04/2015

Presentations

INVITED PRESENTATIONS

THRONE HOLST STIFTELSE FESTAFTEN (DEPARTMENT OF NUTRITION (ZOOM))

- Profiling of immune-related gene expression in children with familial hypercholesterolaemia

10/2020

NORDIC METABOLOMICS SOCIETY WORKSHOP AND THRONE HOLST SYMPOSIUM (FACULTY OF MEDICINE)

- Diet-derived fruit and vegetable metabolites suggest sex-specific mechanisms conferring protection against osteoporosis in humans

10/2019

DEPARTMENT SEMINAR (INST. INTERNAL MEDICINE, OUH)

- Statistics and bioinformatics for translational research

01/2018

THRONE HOLST STIFTELSE FESTAFTEN (DEPARTMENT OF NUTRITION)

- LDL cholesterol in early pregnancy and offspring cardiovascular disease risk factors

05/2017

ERNÆRINGSUTDANNINGEN 50 ÅR (DEPARTMENT OF NUTRITION)

- Hva har ernæringsutdanningen betydd for meg? (What did my training in nutrition and dietetics mean to me?)

11/2016

NUGO WEEK (COPENHAGEN, DENMARK)

- High maternal LDL-C in pregnancy and offspring CVD risk factors at 6-13 years

09/2016

THRONE HOLST STIFTELSE FESTAFTEN (DEPARTMENT OF NUTRITION)

- What is the impact of maternal inheritance of FH on lipids and CRP in children with FH?

05/2016

OTHER CONTRIBUTIONS

SEMINARS

- 4 contributions for Department Seminar at Department of Nutrition; Department of Immunology

2016-2020

POSTERS

- 14 contributions for The American Society for Bone and Mineral Research Conference, Scandinavian Society of Atherosclerosis Research (SSAR) Conference, Throne Holst Stiftelse Festaften, European Atherosclerosis Society (EAS), Norwegian Association of Clinical Dietitians (KEFF) Conference, Nordic Nutrition Conference (NNC), International Atherosclerosis Society (IAS) at Orlando, FL, USA; Humlebæk, Denmark; Department of Nutrition; Prague, Czech Republic; Oslo, Norway; Gothenburg, Sweden; Amsterdam, The Netherlands

2014-2019

Activities

EDUCATIONAL ACTIVITIES

MASTER'S CO-SUPERVISOR (UNIVERSITY OF OSLO)

- Co-supervision together with Stine Ulven (main supervisor) and Inger Ottestad.

07/2020 - Present

MASTER THESIS OPPONENT (NORWEGIAN UNIVERSITY OF LIFE SCIENCES (NMBU))

- External sensor for a data science-oriented Master Thesis.

06/2020 - Present

GROUP TEACHING (LSB) (UNIVERSITY OF OSLO)	04/2020 - 06/2020
<ul style="list-style-type: none"> • LSB teaching for nutrition students. Topics: molecular biology, cell biology, and the like. 	
RESEARCH SEMINAR (UNIVERSITY OF OSLO)	03/2020 - Present
<ul style="list-style-type: none"> • Weekly gettogether in the form of a short 'kollokvie'; see github.com/jacobjchristensen/research-seminars. 	
WORKSHOP (UNIVERSITY OF OSLO)	12/2019 - 12/2019
<ul style="list-style-type: none"> • Hands-on session of data science topics: data analysis, data visualizations, forestplots, and R in general. 	
GROUP TEACHING (UNIVERSITY OF OSLO)	09/2016 - 11/2016
<ul style="list-style-type: none"> • Clinical communication skills, teaching for under-graduate students. 	
LECTURE (UNIVERSITY OF OSLO)	2014 - 2016
<ul style="list-style-type: none"> • 3 contributions: Short introduction lecture for new students in nutrition and dietetics. 	

SERVICE ACTIVITIES

CONTACT PERSON HELSEBIBLIOTEKET.NO	01/2020 - Present
<ul style="list-style-type: none"> • Helsebiblioteket.no 	
MEMBER OF THE NORDIC NUTRITION RECOMMENDATIONS 2022 COMMITTEE	03/2019 - Present
<ul style="list-style-type: none"> • Nordic Nutrition Recommendations 2022, Norden, Helsedirektoratet 	
LEADER KEFF NOMINATION COMMITTEE	03/2019 - Present
<ul style="list-style-type: none"> • Norwegian Association of Clinical Dietitians affiliated with The Norwegian Association of Researchers (KEFF) 	
MEMBER OF ORGANIZING COMMITTEE FOR SSAR 2019	04/2018 - 04/2019
<ul style="list-style-type: none"> • Scandinavian Society of Atherosclerosis Research (SSAR) Conference 	
MEMBER OF ORGANIZING COMMITTEE FOR KEFF CONFERENCE 2017	04/2016 - 04/2017
<ul style="list-style-type: none"> • Norwegian Association of Clinical Dietitians affiliated with The Norwegian Association of Researchers (KEFF) 	
VICE PRESIDENT KEFF BOARD OF DIRECTORS	03/2015 - 03/2019
<ul style="list-style-type: none"> • Norwegian Association of Clinical Dietitians affiliated with The Norwegian Association of Researchers (KEFF) 	

EDITORIAL ACTIVITIES

PEER REVIEW ACTIVITIES	2016 - 2020
<ul style="list-style-type: none"> • The American Journal of Clinical Nutrition, Journal of Nutrition, Frontiers in Nutrition, Nutrition, Metabolism and Cardiovascular Diseases, British Journal of Nutrition, European Heart Journal, Food & Nutrition Research, BMC Bioinformatics, Norwegian Journal of Nutrition 	