

CURRICULUM VITAE

NAME-FIRST NAME: **Delzenne, Nathalie M. N.**
PLACE AND DATE OF BIRTH: Ath, February 12, 1964.
NATIONALITY: Belgian.

PROFESSIONAL ADDRESS: Université catholique de Louvain (UCL)
Louvain Drug Research Institute (LDRI)
Metabolism and Nutrition Research Group (MNUt)
Avenue Mounier, 73, box B1.73.11
B-1200 Brussels
Belgium

PHONE: #-32-2-764 73 67
E-MAIL: nathalie.delzenne@uclouvain.be;
<https://uclouvain.be/en/research-institutes/ldri/metabolism-and-nutrition-mnut.html>

ACADEMIC DEGREE

- PhD in Pharmaceutical Sciences, Université catholique de Louvain (UCL) 1991 (*Summa cum Laude*)
- Master in Pharmaceutical Sciences (Pharmacist) *Université catholique de Louvain (UCL) 1986 (Summa cum laude)*
- Certificate in Human Nutrition Université de Lausanne, Institute of Physiology and Toxicology, Switzerland 1994

FACULTY APPOINTMENT

Université catholique de Louvain UCL-Brussels, Faculty of Pharmacy and Biomedical Sciences, Louvain Drug Research Institute

1986-1993	Teaching assistant - Biochemistry and Toxicology
1993-1995	Senior Research assistant - Lecturer of Clinical Biology
1995-1998	Associate Professor - Lecturer of Nutrition and Biochemistry
1998- 2010	Professor - Lecturer in Nutrition, Biochemistry and Metabolism
From 2010	Full Professor

Present Leading Positions at the university (UCL)

President of the Louvain Drug Research Institute (LDRI)

Leader of the Metabolism and Nutrition Research Group (LDRI/MNUT)

• MEMBER OF SCIENTIFIC SOCIETIES AND EDITORIAL BOARDS

International

- Member of the Scientific committee of ESPEN (European Society for Clinical Nutrition and Metabolism- from 2014)
- Member of the Editorial Board of Current Opinion in Clinical Nutrition and Metabolic Care (from 2006)
- Member of the Nutrition Society - UK (elected as European representative at the Council; 2008-2011) and of the international Union of Nutrition Societies (from 2013)
- Member of the Scientific board of the Société francophone du diabète (2011-2014) and of the Fonds de la Recherche sur le Diabète (FFRD 2014-2017)
- Member of the Scientific board of the International Scientific Association for probiotics and prebiotics (2008-2011)
- Regular invitation as a reviewer for Nature, Gut, Am J Clin Nutr, Journal of Nutrition, Eur J Clin Nutr, Diabetologia, Diabetes, British Journal of Nutrition

National (Belgium)

- Ordinary Member of the Royal Academy of Medicine (from 2013).
- Founding member of the Belgian Nutrition Society (elected as President in 2014)
- Vice President of the section Nutrition and Health of the High Health Council (2016-)
- Member of the scientific council of the FEVIA (Belgian Federation of Food industries) (from 2002)

Invited expert for evaluation of grants and fellowships

- FRIA/FNRS (Belgium)
- « Institut National de la Recherche Agronomique » INRA (France)
- Nutrition Center (Wageningen University, The Netherlands)
- ANR and HCERES (Agence Nationale de Recherche, France).
- Wellcome Trust (UK),
- IWT, FWO (Flanders, Belgium)

RESEARCH THEMES

PhD thesis (1986-1991)

Université catholique de Louvain

Department of Pharmaceutical Sciences - Unit of Biochemistry and Toxicology *“Involvement of the bile acids metabolism in rat liver carcinogenesis”*

Post-doctoral research

1. Département d'Etudes des Lipides et Lipoprotéines - INSERM U 325
Biologie Moléculaire, Institut Pasteur (Lille, France) Prof. J.C. Fruchart
“Nutritional regulation of transcription of apolipoproteins A”.

2. Pathologie du Développement, INSERM U 342,
Hôpital St Vincent de Paul (Paris, France) Dr. P. Ferré

“Modulation of fatty acid synthase expression by diet”.

CURRENT RESEARCH

Université catholique de Louvain

Louvain Drug Research Institute

Thema : “Experimental nutrition : searching for functional effects of nutrients targeting the gut microbiota”

- **Metrics : - September 2017 – Delzenne N.M. Scopus Elsevier 219 recorded paper; 17273 total citations by 8560 documents, H index 66 ; Full list of publications on demand (Nathalie.Delzenne@uclouvain.be)**
- **Highly cited researcher 2016 Thompson Reuter**
<http://hcr.stateofinnovation.com>.

5 KEY DISCOVERIES

Bindels LB, Neyrinck AM, Claus SP, Le Roy CI, Grangette C, Pot B, Martinez I, Walter J, Cani PD, Delzenne NM.

Synbiotic approach restores intestinal homeostasis and prolongs survival in leukaemic mice with cachexia.

ISME J. 2016 Jun;10(6):1456-70.

First paper demonstrating the efficacy of prebiotic and probiotic approaches in restoring key microbiota-related gut functions in a mice models of cancer cachexia.

Leclercq S, Matamoros S, Cani PD, Neyrinck AM, Jamar F, Stärkel P, Windey K, Tremaroli V, Bäckhed F, Verbeke K, de Timary P, Delzenne NM.

Intestinal permeability, gut-bacterial dysbiosis, and behavioral markers of alcohol-dependence severity.

Proc Natl Acad Sci U S A. I.F.:9.80, 2014, 111:E4485-93

First paper showing the link between dysbiosis of the gut microbiota, intestinal barrier dysfunction, and depression in alcohol dependent patients

Dewulf EM, Cani PD, Claus SP, Fuentes S, Puylaert PG, Neyrinck AM, Bindels LB, de Vos WM, Gibson GR, Thissen JP, Delzenne NM.

Insight into the prebiotic concept: lessons from an exploratory, double blind intervention study with inulin-type fructans in obese women.

Gut. I.F.: 10.1, 2013, 62, 1112-21

First paper showing the relationship between changes in gut microbiota upon prebiotic intervention and improvement of host pathophysiology in obese individuals.

Cani PD, Possemiers S, Van de Wiele T, Guiot Y, Everard A, Rottier O, Geurts L, Naslain D, Neyrinck A, Lambert DM, Muccioli GG, Delzenne NM

Changes in gut microbiota control inflammation in obese mice through a mechanism involving GLP-2-driven improvement of gut permeability

Gut, I.F.: 10,1, 2009, 58, 1091-1103

First paper showing the role of the gut microbiota and prebiotics on the control of the gut barrier function via GLP-2 dependent mechanisms in the context of obesity and diabetes

Cani PD, Knauf C, Iglesias MA, Drucker DJ, Delzenne NM* and Burcelin R* (eq contribution)
Improvement of glucose tolerance and hepatic insulin sensitivity by oligofructose requires a functional GLP-1 receptor

Diabetes, I.F.: 8,3, 2006, 55, 1484-1490

First paper demonstrating the key role of L cells and GLP-1 in the improvement of host metabolism and behaviour by prebiotics

KEY RECENT SCIENTIFIC AWARDS

- International prize of Physiology « Prix Quinquéanal de la Fondation de Physiopathologie Professeur Lucien Dautrebande » shared with Patrice Cani (Royal Academy of Medicine) 2016 (50 000 euros)
- “Prix Eugène de Somer” in Physiopathology 2011 (10 000 euros)

PARTICIPATION TO 60 INTERNATIONAL MEETINGS AS INVITED SPEAKER FOR THE LAST 10 YEARS

Including International conference on cachexia, sarcopenia & muscle wasting (2015), American Diabetes Association (ADA) annual Scientific Meetings (2009 and 2016), International Congress of Obesity (2010, 2014), International congress of Nutrition (2013), Keystone Symposia on gut microbiota and/or metabolism (2014, 2015, 2017), EMBL and FASEB conferences (2015), European Society for Parenteral and Enteral Nutrition ESPEN conferences (2009, 2012, 2014, 2015). Organizer of the Keystone Symposium “Manipulation of the gut microbiota in metabolic health”Edmonton March 2018

CURRENT RESEARCH GRANTS

2014-2019 : **Walloon Region DG06**(Programme d’Excellence) « *FOOD4GUT : Innovative nutritional treatment of obesity based on prebiotic-colonic nutrients : biological, behavioral, and societal aspects* » Coordinator of the project; 10 research teams from UCL, Ulg and ULB.

2014-2018: **IWT** (Het agentschap voor Innovatie door Wetenschap en Technologie), SBO project (Strategisch Basisonderzoek project): «*Cereal BRAN-based DIspersionS for Gut health*» As partner

2014-2018: **EU** (FP7-KBBE) « *MyNewGut: Microbiome Influence on Energy balance and Brain Development-Function Put into Action to Tackle Diet-related Diseases and Behavior* » As coordinator of workpackage.

2015-2017 **FSR-FNRS** Crédits aux chercheurs n° CDR J.0122.15 “*Beneficial effects of prebiotics on cardiovascular disorders: a mechanistic approach in (pre)clinical studies*” as Promoter

2016-2018 : **RW** (WAGRALIM) Convention SPW-DG06-7366 « *ADIPOSTOP : « Development of new formulations for the prevention of cardiovascular risk as partner.*
