

## LIST OF PUBLICATIONS – CHARLOTTE LING

Total of 103 original publications, 18 invited review papers and 8 book chapters since 1999

H-index: 42; Number of citations ~8.500

### Original publications

1. Madhusudhan Bysani, Rasmus Agren, Cajsa Davegårdh, Petr Volkov, Tina Rönn, Per Unneberg, Karl Bacos and **Charlotte Ling**  
ATAC-seq reveals alterations in open chromatin in pancreatic islets from subjects with type 2 diabetes  
*Scientific Reports, 2019 In Press* Impact factor: 6
2. Oliver Kluth, Pascal Gottmann, Markus Jähnert, Stephan Scherneck, Jantje Gerdes, Ulrika Krus, **Charlotte Ling**, Mandy Stadion and Annette Schürmann  
Decreased Expression of Cilia-Genes in Pancreatic Islets as a Risk Factor for Type 2 Diabetes in Mice and Men  
*Cell Reports, 2019, 2019 Mar 12;26(11):3027-3036.e3.* Impact factor: 8
3. Paula Walle, Ville Männistö, Vanessa Derenji de Mello, Maija Vaittinen, Alexander Perfilyev, Kati Hanhineva, **Charlotte Ling** and Jussi Pihlajamäki  
Liver DNA methylation of FADS2 associates with FADS2 genotype  
*Clin Epigenetics. 2019, In Press.* Impact factor: 5.0
4. Cajsa Davegårdh, Elin Hall Wedin, Christa Broholm, Tora Ida Henriksen, Maria Pedersen, Bente Klarlund Pedersen, Camilla Scheele and **Charlotte Ling**  
Sex influences DNA methylation and gene expression in human skeletal muscle myoblasts and myotubes.  
*Stem Cell Research and Therapy, 2019, Jan 15;10(1):26.* Impact factor: 5
5. Line Hjort, David Martino, Louise Groth Grunnet, Haroon Naeem, Jovana Maksimovic, Anders Henrik Olsson, Cuilin Zhang, **Charlotte Ling**, Sjurdur Frodi Olsen, Richard Saffery and Allan Arthur Vaag  
Gestational diabetes and maternal obesity are associated with epigenome-wide methylation changes in the children at the age of 9-16 years.  
*JCI Insight, 2018 Sep 6;3(17). pii: 122572. doi: 10.1172/jci.insight.122572.*
6. Emma Nilsson, Anna Benrick, Milana Kokosar, Anna Krook, Eva Lindgren, Thomas Källman, Mihaela M Martis, Kurt Højlund, **Charlotte Ling** and Elisabet Stener-Victorin  
Transcriptional and epigenetic changes influencing skeletal muscle metabolism in women with polycystic ovary syndrome  
*J Clin Endocrinol Metab. 2018 Dec 1;103(12):4465-4477.* Impact factor: 6.5
7. Mahboubeh Daneshpajoo, Lena Eliasson, Karl Bacos and **Charlotte Ling**  
MC1568 improves insulin secretion in islets from type 2 diabetes patients and rescues  $\beta$ -cell dysfunction caused by Hdac7 upregulation  
*Acta Diabetologica, 2018 Dec;55(12):1231-1235.* Impact factor: 3.1
8. Pauline Morigny, Marianne Houssier, Aline Mairal, Fadila Benhamed, Etienne Mouisel, Bernard Masri, Emeline Recazens, Pierre-Damien Denechaud, Sylvie Caspar-Bauguil, Geneviève Tavernier, Boris Monge-Rofarello, Sam Virtue, Claire Ghilain, Veronika Sramkova, Laurent Monbrun, Anne Mazars, Madjid Zanoun, Sandra Guilmeau, Valentin Barquissau, Diane Beuzelin, Sophie Bonnel, Marie Marques, Corinne Lefort, Barbara Fielding, Thierry Sulpice, Arne Astrup, Bernard Payraastre, Justine Bertrand-Michel, Emmanuelle Meugnier, Laetitia Ligat, Frédéric Lopez, Hervé Guillou, **Charlotte Ling**, Cecilia Holm, Remi Rabasa-Lhoret, Wim H. M. Saris, Vladimir Stich, Peter Arner, Mikael Rydén, Cedric Moro, Nathalie Viguerie, Matthew Harms, Stefan Hallén, Antonio Vidal-Puig, Hubert Vidal, Catherine Postic and Dominique Langin  
Interaction between Hormone-Sensitive Lipase and ChREBP in Fat Cells Controls Insulin Sensitivity  
*Nature Metabolism, In Press*
9. García-Calzón S, Perfilyev A, Mello VD, Pihlajamäki J and **Ling C.**  
Sex differences in the methylome and transcriptome of the human liver and circulating HDL-cholesterol levels.  
*J Clin Endocrinol Metab. 2018 May 28. doi: 10.1210/jc.2018-00423* Impact factor: 6.5 Citations: 1
10. Milana Kokosar, Anna Benrick, Alexander Perfilyev, Emma Nilsson, Thomas Källman, Claes Ohlsson, **Charlotte Ling** and Elisabet Stener-Victorin

*List of publications – Charlotte Ling (690420-4986)*

A Single Bout of Electroacupuncture Remodels Epigenetic and Transcriptional Changes in Adipose Tissue in Polycystic Ovary Syndrome.

*Scientific Reports, 2018 Jan 30;8(1):1878*      *Impact factor: 6*      *Citations: 3*

**11.** Elin Hall, Marloes Dekker Nitert, Petr Volkov, Siri Malmgren, Hindrik Mulder, Karl Bacos and **Charlotte Ling**

The effects of high glucose exposure on global gene expression and DNA methylation in human pancreatic islets.

*Mol Cell Endocrinol. 2017 Nov 26. pii: S0303-7207(17)30605-6. Impact factor: 4.0 Citations: 5*

**12.** You D, Nilsson E, Tenen DE, Lyubetskaya A, Lo JC, Jiang R, Deng J, Dawes BA, Vaag A, **Ling C**, Rosen ED and Kang S.

Dnmt3a is an epigenetic mediator of adipose insulin resistance.

*Elife. 2017 Nov 1;6. pii: e30766. Impact factor: 7.7 Citations: 4*

**13.** Sonia García-Calzón; Alexander Perfilyev; Ville Männistö; Vanessa D. de Mello; Emma Nilsson; Jussi Pihlajamäki and **Charlotte Ling**

Diabetes medication associates with DNA methylation of metformin transporter genes in human liver

*Clin Epigenetics. 2017 Sep 21;9:102. Impact factor: 5.0 Citations: 6*

**14.** Backe MB, Andersson JL, Bacos K, Christensen DP, Hansen JB, Dorosz JJ, Gajhede M, Dahlby T, Bysani M, Kristensen LH, **Ling C**, Olsen L, Mandrup-Poulsen T.

Lysine demethylase inhibition protects pancreatic  $\beta$  cells from apoptosis and improves  $\beta$ -cell function.

*Mol Cell Endocrinol. 2017 Jul 4. pii: S0303-7207(17)30355-6. Impact factor: 4.0 Citations: 3*

**15.** Hjort L, Jørgensen SW, Gillberg L, Hall E, Brøns C, Frystyk J, Vaag AA and **Ling C**.

36 h fasting of young men influences adipose tissue DNA methylation of *LEP* and *ADIPOQ* in a birth weight-dependent manner.

*Clin Epigenetics. 2017 Apr 21;9:40. Impact factor: 5.0 Citations: 3*

**16.** Cajsa Davegårdh, Christa Broholm, Alexander Perfilyev, Tora Henriksen, Sonia Garcia-Calzon, Lone Pejjs, Ninna Schiøler Hansen, Petr Volkov, Rasmus Kjøbsted, Jørgen FP Wojtaszewski, Maria Pedersen, Bente Klarlund Pedersen, Dov B. Ballak, Charles A. Dinarello, Bas Heinhuis, Leo Joosten, Emma Nilsson, Allan Vaag, Camilla Sceelee and **Charlotte Ling**

Abnormal epigenetic changes during differentiation of human skeletal muscle stem cells from obese subjects

*BMC Medicine, 2017, Feb 22;15(1):39. Impact factor: 8.1 Citations: 7*

**17.** Vanessa D. de Mello, Ashok Matte, Alexander Perfilyev, Ville Männistö, Emma Nilsson, Tina Rönn, Pirjo Käkälä, **Charlotte Ling\*** and Jussi Pihlajamäki\*      \*Equal contribution

Human liver epigenetic alterations in nonalcoholic steatohepatitis are related to insulin action

*Epigenetics, 2017, Apr 3;12(4):287-295. Impact factor: 4.8 Citations: 11*

**18.** Ninna Schiøler Hansen, Klaudia Stanislawa Strasko, Line Hjort, Louise Kelstrup, Azadeh Houshmand-Øregaard, Maren Schrölkamp, Heidi Schiøler Schultz, Camilla Scheele, Bente Klarlund Pedersen, **Charlotte Ling**, Tine Dalsgaard Clausen, Peter Damm, Allan Vaag and Christa Broholm

Fetal hyperglycemia changes human preadipocyte function in adult life

*J Clin Endocrinol Metab, 2017, Apr 1;102(4):1141-1150. Impact factor: 6.5 Citations: 7*

**19.** Alexander Perfilyev, Ingrid Dahlman, Linn Gillberg, Fredrik Rosqvist, David Igman, Petr Volkov, Emma Nilsson, Ulf Risérus and **Charlotte Ling**

Impact of polyunsaturated and saturated fat overfeeding on the DNA methylation pattern in human adipose tissue: a randomized controlled trial

*The American J of Clinical Nutrition, 2017 Apr;105(4):991-1000. Impact factor: 6.8 Citations: 28*

As of March/April 2018, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year.

**20.** Petr Volkov, Karl Bacos, Jones K Ofori, Jonathan L Esguerra, Lena Eliasson, Tina Rönn and **Charlotte Ling**.

Whole-genome Bisulfite Sequencing of Human Pancreatic Islets Reveals Novel Differentially Methylated Regions in Type 2 Diabetes Pathogenesis.

*Diabetes. 2017 Jan 4. pii: db160996. Impact factor: 8.6 Citations: 25*

**21.** Bysani M, Perfilyev A, de Mello VD, Rönn T, Nilsson E, Pihlajamäki J and **Ling C**.

Epigenetic alterations in blood mirror age-associated DNA methylation and gene expression changes in human liver.

*List of publications – Charlotte Ling (690420-4986)*

- Epigenomics*. 2017 Feb;9(2):105-122. Impact factor: 4.4 Citations: 7
22. Christian Baumeier, Sophie Saussenthaler, Anne Kammel, Markus Jähnert, Luisa Schlüter, Deike Hesse, Mickaël Canouil, Stephane Lobbens, François Pattou, Emma Nilsson, Jussi Pihlajamäki, **Charlotte Ling**, Philippe Froguel, Annette Schürmann and Robert W. Schwenk  
Hepatic *DPP4* DNA methylation associates with fatty liver  
*Diabetes*, 2017 Jan;66(1):25-35. Impact factor: 8.6 Citations: 10
23. Maria Keller, Lydia Hopp, Xuanshi Liu, Tobias Wohland, Kerstin Rohde; Raffaella Canello, Matthias Klös, Fabian Eichelmann, Arne Dietrich, Michael R. Schön, Daniel Gärtner, Tobias Lohmann, Miriam Dreßler, Michael Stumvoll, Peter Kovacs, Anna-Maria DiBlasio, **Charlotte Ling**, Hans Binder, Matthias Blüher and Yvonne Böttcher  
Genome-wide DNA promoter methylation and transcriptome analysis in human adipose tissue unravels novel candidate genes for obesity  
*Molecular Metabolism* 2016 Nov 16;6(1):86-100. Impact factor: 5.4 Citations: 14
24. Mahboubeh Daneshpajoo, Karl Bacos, Madhu Bysani, Annika Bagge, Emilia Ottosson Laakso, Petter Vikman, Lena Eliasson, Hindrik Mulder and **Charlotte Ling**  
HDAC7 is overexpressed in human diabetic islets and impairs insulin secretion in rat islets and clonal beta cells.  
*Diabetologia*. 2016 Oct 29. Impact factor: 6.8 Citations: 12
25. Christa Broholm, Anders Henrik Olsson, Alexander Perfilyev, Linn Gilberg, Ninna Schiøler Hansen, Ashfaq Ali, Brynjulf Mortensen, **Charlotte Ling**, and Allan Vaag  
Human adipogenesis is associated with alterations in the epigenome and transcriptome  
*Epigenomics* 2016 Dec;8(12):1601-1617. Impact factor: 4.4 Citations: 4
26. Christa Broholm, Anders H Olsson, Alexander Perfilyev, Ninna S Hansen, Maren Schrölkamp, Klaudia S Strasko, Camilla Scheele, Brynjulf Mortensen, Sine W Jørgensen, **Charlotte Ling**, and Allan Vaag  
Epigenetic programming of adipose-derived stem cells in low birth weight subjects  
*Diabetologia*, 2016 Sept 14 Impact factor: 6.8 Citations: 9
27. Petr Volkov, Anders H. Olsson, Linn Gillberg, Sine W. Jørgensen, Charlotte Brøns, Karl-Fredrik Eriksson, Leif Groop, Per-Anders Jansson, Emma Nilsson, Tina Rönn, Allan Vaag and **Charlotte Ling**  
A genome-wide mQTL analysis in human adipose tissue identifies genetic variants associated with DNA methylation, gene expression and metabolic traits  
*PLoS One*, 2016 June 20 Impact factor: 3.5 Citations: 28
28. Tasnim Dayeh, Tiinamaija Tuomi, Peter Almgren, Alexander Perfilyev, Per-Anders Jansson, Jussi Pihlajamäki, Vanessa D. de Mello, Allan Vaag, Leif Groop, Emma Nilsson and **Charlotte Ling**  
DNA methylation at *ABCG1* and *PHOSPHOR* in blood DNA is associated with future type 2 diabetes risk  
*Epigenetics* 2016 Jul 2;11(7):482-8. Impact factor: 4.8 Citations: 21
29. Heshan Peiris, Michael D. Duffield, Joao Fadista, Claire F. Jessup, Vinder Kashmir, Amanda J. Genders, Sean L. McGee, Alyce M. Martin, Madiha Saiedi, Nicholas Morton, Michael A Cousin, **Charlotte Ling**, Peter Volkov, Tertius A. Hough, Elizabeth M.C. Fisher, Victor L.J. Tybulewicz, Jorge Busciglio, Pinar E Coskun, Ann Becker, Pavel V. Belichenko, William C. Mobley, Michael T. Ryan, Jeng Yie Chan, D. Ross Laybutt, P. Toby Coates, Sijun Yang, Leif Groop, Melanie A. Pritchard, Damien J. Keating  
A novel trisomy 21 genetic screening approach links RCAN1 expression to  $\beta$ -cell mitochondrial dysfunction in Type 2 diabetes  
*PLoS Genetics*, 2016 19;12(5):e1006033 Impact factor: 7.2 Citations: 12
30. Karl Bacos, Linn Gillberg, Petr Volkov, Anders H. Olsson, Torben Hansen, Oluf Pedersen, Anette Prior Gjesing, Hans Eiberg, Tiinamaija Tuomi, Peter Almgren, Leif Groop, Lena Eliasson, Allan Vaag, Tasnim Dayeh and **Charlotte Ling**  
Blood-based biomarkers reflect age-associated epigenetic changes in human pancreatic islets and associate with insulin secretion and diabetes.  
*Nature Communications*, 2016 Mar 31 Impact factor: 12.1 Citations: 57
31. Milana Kokosar, Anna Benrick, Alexander Perfilyev, Romina Fornes, Emma Nilsson, Manuel Maliqueo, Carl Johan Behre, Antonina Sazonova, Claes Ohlsson, **Charlotte Ling** and Elisabet Stener-Victorin  
Epigenetic and Transcriptional Alterations in Human Adipose Tissue of Polycystic Ovary Syndrome.  
*Scientific Reports*, 2016 May 9;6:25321 Impact factor: 6 Citations: 19
32. Linn Gillberg, Alexander Perfilyev, Charlotte Brøns, Martin Thomasen, Louise G. Grunnet, Petr Volkov, Fredrik Rosqvist, David Iggman, Ingrid Dahlman, Ulf Risérus, Tina Rönn, Emma Nilsson, Allan Vaag and **Charlotte Ling**

*List of publications – Charlotte Ling (690420-4986)*

Adipose tissue transcriptomics and epigenomics in low birth weight men and controls – role of high-fat overfeeding.

*Diabetologia, 2016 Volume: 59 Issue: 4 Pages: 799-812 Impact factor: 6.8 Citations: 16*

**33.** Emma Nilsson, Ashok Matte, Alexander Perfilyev, Vanessa D. de Mello, Pirjo Käkälä, Jussi Pihlajamäki and **Charlotte Ling**

Epigenetic alterations in human liver from subjects with type 2 diabetes in parallel with reduced folate levels.

*J of Clinical Endocrinology and Metabolism 2015 Nov;100(11):E1491-501 Impact factor: 6.5 Citations 43*

**34.** Carl Ekman, Targ Elgzyri, Kristoffer Ström, Peter Almgren, Hemang Parikh, Marloes Dekker Nitert, Tina Rönn, Fiona Manderson Koivula, **Charlotte Ling**, Åsa Tornberg, Per Wollmer, Karl-Fredrik Eriksson, Leif Groop, and Ola Hansson

Less pronounced response to exercise in healthy relatives to type 2 diabetics compared to controls.

*Journal of Applied Physiology 2015 Nov 1;119(9):953-60. Impact factor: 3.8 Citations: 5*

**35.** Elisabet Agardh, Annika Lundstig, Alexander Perfilyev, Petr Volkov, Tove Tove Freiburghaus, Eero Lindholm, Tina Rönn, Carl-David Agardh and **Charlotte Ling**

Genome-wide analysis of DNA methylation in subjects with type 1 diabetes identifies epigenetic modifications associated with proliferative diabetic retinopathy

*BMC Medicine 2015 Aug 6;13:182. Impact factor: 8 Citations 41*

**36.** Tina Rönn, Petr Volkov, Linn Gillberg, Milana Kokosar, Alexander Perfilyev, Anna Louisa Jacobsen, Sine W. Jørgensen, Charlotte Brøns, Per Anders Jansson, Karl-Fredrik Eriksson, Oluf Pedersen, Torben Hansen, Leif Groop, Elisabet Stener-Victorin, Allan Vaag, Emma Nilsson and **Charlotte Ling**

Age, BMI and HbA1c levels are associated with altered DNA methylation and mRNA expression patterns in human adipose tissue and identification of epigenetic biomarkers in blood.

*Human Molecular Genetics 2015 Jul 1;24(13):3792-813. Impact factor: 6.8 Citations: 93*

**37.** Dahlman I, Sinha I, Gao H, Brodin D, Thorell A, Rydén M, Andersson DP, Henriksson J, Perfilyev A, **Ling C**, Dahlman-Wright K, Arner P.

The fat cell epigenetic signature in post-obese women is characterized by global hypomethylation and differential DNA methylation of adipogenesis genes.

*Int J Obes (Lond). 2015 Mar 18. doi: 10.1038/ijo.2015.31. Impact factor: 5.2 Citations: 23*

**38.** Elin Hall, Petr Volkov, Tasnim Dayeh, Jonathan Lou S. Esguerra, Sofia Salö, Lena Eliasson, Tina Rönn, Karl Bacos and **Charlotte Ling**

Sex differences in the genome-wide DNA methylation pattern and impact on gene expression, microRNA levels and insulin secretion in human pancreatic islets

*Genome Biology, 2014 Dec 3;15(12):522. Impact factor: 11.9 Citations: 60*

**39.** Anders H Olsson, Petr Volkov, Karl Bacos, Tasnim Dayeh, Elin Hall, Emma A Nilsson, Claes L腺envall, Tina Rönn and **Charlotte Ling**

Genome-Wide Associations between Genetic and Epigenetic Variation Influence mRNA Expression and Insulin Secretion in Human Pancreatic Islets.

*PLoS Genetics, 2014 Nov 6;10(11):e1004735. Impact factor: 9.4 Citations: 77*

**40.** Elin Hall, Petr Volkov, Tasnim Dayeh, Karl Bacos, Tina Rönn, Marloes Dekker Nitert and **Charlotte Ling**

Effects of palmitate on genome-wide mRNA expression and DNA methylation patterns in human pancreatic islets.

*BMC Medicine, 2014, Jun 23;12:103. Impact factor: 8.1 Citations: 51*

**41.** Emma Nilsson, Per Anders Jansson, Alexander Perfilyev, Petr Volkov, Maria Pedersen, Maria K Svensson, Pernille Poulsen, Joao Fadista, Tina Rönn, Bente Klarlund-Pedersen, Camilla Scheele, Allan Vaag and **Charlotte Ling**

Altered DNA methylation and differential expression of genes influencing metabolism and inflammation in adipose tissue from monozygotic twin pairs discordant for type 2 diabetes.

*Diabetes, 2014, Sep;63(9):2962-76. Impact factor: 8.6 Citations: 146*

As of March/April 2016, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year.

**42.** Tina Rönn, Petr Volkov, Åsa Tornberg, Targ Elgzyri, Ola Hansson, Karl-Fredrik Eriksson, Leif Groop and **Charlotte Ling**

Extensive changes in the transcriptional profile of human adipose tissue including genes involved in oxidative phosphorylation after a six months exercise intervention.

*Acta Physiologica 2014 May;211(1):188-200. Impact factor: 4.4 Citations: 26*

*List of publications – Charlotte Ling (690420-4986)*

**43.** Stine C. Jacobsen, Linn Gillberg, Jette Bork-Jensen, Rasmus Ribel-Madsen, Ester Lara, Vincenzo Calvanese, **Charlotte Ling**, Augustin F. Fernandez, Mario F. Fraga, Pernille Poulsen, Charlotte Brøns and Allan Vaag  
Young men with low birth weight exhibit decreased plasticity of genome-wide muscle DNA methylation by high-fat overfeeding

*Diabetologia*, 2014 Feb 26 Impact factor: 6.8 Citations: 36

**44.** Inga Prokopenko, Wenny Poon, Reedik Mägi, Rashmi Prasad, Albert Salehi, Peter Almgren, Peter Osmark, Nabila Bouatia-Naji, Nils Wierup, Tove Fall, Alena Stančáková, Adam Barker, Vasiliki Lagou, Clive Osmond, Weijia Xie, Jari Lahti, Anne U. Jackson, Yu-Ching Cheng, Jie Liu, Jeffrey R. O'Connell, Paul A. Blomstedt, Joao Fadista, Sami Alkayyali, Tasnim Dayeh, Emma Ahlqvist, Jalal Taneera, Cecile Leceour, Ashish Kumar, Ola Hansson, Karin Hansson, Benjamin F. Voight, Hyun Min Kang, Claire Levy-Marchal, Vincent Vatin, Aarno Palotie, Ann-Christine Syvänen, Andrea Mari, Michael N. Weedon, Ruth J. Loos, Ken K. Ong, Peter Nilsson, Bo Isomaa, Tiinamaija Tuomi, Nicholas J. Wareham, Michael Stumvoll, Elisabeth Widen, Timo A. Lakka, Claudia Langenberg, Anke Tönjes, Rainer Rauramaa, Johanna Kuusisto, Timothy M. Frayling, Philippe Froguel, Mark Walker, Johan G. Eriksson, **Charlotte Ling**, Peter Kovacs, Erik Ingelsson, Mark I. McCarthy, Alan R. Shuldiner, Kristi D. Silver, Markku Laakso, Leif Groop, Valeriya Lyssenko  
A Central Role for *GRB10* in Regulation of Islet Function in Man

*PLoS Genetics*, 2014 Apr 3;10(4):e1004 Impact factor: 9.4 Citations: 63

**45.** Tasnim Dayeh, Petr Volkov, Sofia Salö, Elin Hall, Emma Nilsson, Anders H. Olsson, Clare L. Kirkpatrick, Claes Wollheim, Lena Eliasson, Tina Rönn, Karl Bacos and **Charlotte Ling**  
Genome-wide DNA methylation analysis of human pancreatic islets from type 2 diabetic and non-diabetic donors identifies candidate genes that influence insulin secretion

*PLoS Genetics*, 2014 Mar 6;10(3):e1004160. Impact factor: 9.4 Citations: 181

As of March/April 2017, this **highly cited paper** received enough citations to place it in the top 1% of the academic field of Molecular Biology & Genetics based on a highly cited threshold for the field and publication year.

**46.** Elin Hall, Tasnim Dayeh, Clare Kirkpatrick, Claes Wollheim, Marloes Dekker Nitert and **Charlotte Ling**  
DNA methylation of the glucagon-like peptide 1 receptor (GLP1R) in human pancreatic islets.

*BMC Med Genet*. 2013 Jul 23 Impact factor: 2.6 Citations: 35

**47.** Tina Rönn, Petr Volkov, Cajsa Davegård, Tasnim Dayeh, Elin Hall, Targ Elgzyri, Åsa Tornberg, Marloes Dekker-Nitert, Karl-Fredrik Eriksson, Helena Jones, Leif Groop and **Charlotte Ling**

A six months exercise intervention influences the epigenetic pattern in human adipose tissue

*PLoS Genetics* 2013 Jun;9(6):e1003572. Impact factor: 9.4 Citations: 243

**48.** Siri Almgren, Peter Spéjel, Anders Danielsson, Cecilia Nagorny, Lotta Andersson, Marloes Dekker Nitert, Martin Ridderstråle, Hindrik Mulder and **Charlotte Ling**  
Coordinate changes in histone modifications, mRNA levels and metabolite profiles in clonal INS-1 832/13  $\beta$ -cells accompany functional adaptations to lipotoxicity

*The Journal of Biological Chemistry* 2013 Apr 26;288(17):11973-87. Impact factor: 5.1 Citations: 32

**49.** Linn Gillberg, Stine Jacobsen, Rasmus Ribel-Madsen, Trine W. Boesgaard, **Charlotte Ling**, Oluf Pedersen, Torben Hansen and Allan Vaag

Does DNA Methylation of PPARGC1A Influence Insulin Action in First Degree Relatives of Patients with Type 2 Diabetes?

*PLoS ONE* 2013;8(3):e58384. Impact factor: 4.2 Citations: 13

**50.** Tasnim A. Dayeh, Anders H. Olsson, Peter Volkov, Peter Almgren, Tina Rönn and **Charlotte Ling**  
Identification of CpG-SNPs associated with type 2 diabetes and differential DNA methylation in human pancreatic islets.

*Diabetologia* 2013 May;56(5):1036-46. Impact factor: 6.8 Citations: 105

**51.** Marloes Dekker Nitert, Tasnim Dayeh, Peter Volkov, Targ Elgzyri, Elin Hall, Emma Nilsson, Beatrice T. Yang, Stefan Lang, Hemang Parikh, Ylva Wessman, Holger Weishaupt, Joanne Attema, Mia Ländin, Nils Wierup, Peter Almgren, Per-Anders Jansson, Tina Rönn, Ola Hansson, Karl-Fredrik Eriksson, Leif Groop and **Charlotte Ling**

Impact of an Exercise Intervention on DNA Methylation in Skeletal Muscle from First Degree Relatives of Patients with Type 2 Diabetes

*Diabetes* 2012 Dec;61(12):3322-32 Impact factor: 8.6 Citations: 156

*List of publications – Charlotte Ling (690420-4986)*

As of March/April 2017, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year.

**52.** Stine Jacobsen, Charlotte Brøns, Jette Bork-Jensen, Rasmus Ribel-Madsen, Elin Hall, Ester Lara, Vincenzo Calvanese, Emma Nilsson, **Charlotte Ling**, Agustin F. Fernandez, Mario F. Fraga, Pernille Poulsen, Allan Vaag  
Effects of short-term high-fat overfeeding on genome-wide DNA methylations in skeletal muscle of healthy young men

*Diabetologia* 2012 Dec;55(12):3341-9. Impact factor: 6.8 Citations: 89

**53.** Sofia A. Andersson, Anders H. Olsson, Jonathan L.S. Esguerra, Emilia Heimann, Claes Ladenvall, Anna Edlund, Albert Salehi, Jalal Taneera, Eva Degerman, Leif Groop, **Charlotte Ling** and Lena Eliasson  
Reduced insulin secretion correlates with decreased expression of exocytotic genes in pancreatic islets from patients with type 2 diabetes.

*Molecular and Cellular Endocrinology* 2012 Nov 25;364(1-2):36-45. Impact factor: 4.0 Citations: 51

**54.** Shafqat Ahmad, Alexandros Heraclides, Qi Sun, Targ Elgzyri, Tina Rönn, **Charlotte Ling**, Bo Isomaa, Karl-Fredrik Eriksson, Leif Groop, Paul W. Franks, Ola Hansson

Telomere length in blood and skeletal muscle in relation to measures of glycaemia and insulinaemia.

*Diabetic Medicine* 2012 Oct;29(10):e377-81. Impact factor: 3.2 Citations: 12

**55.** Beatrice T. Yang, Tasnim A. Dayeh, Petr A. Volkov, Clare L. Kirkpatrick, Siri Malmgren, Xingjun Jing, Erik Renström, Claes B. Wollheim, Marloes Dekker Nitert, and **Charlotte Ling**  
Increased DNA methylation and decreased expression of *PDX-1* in pancreatic islets from patients with type 2 diabetes.

*Molecular Endocrinology* 2012 Jul;26(7):1203-12. Impact factor: 4.9 Citations: 137

**56.** Elgzyri T., Parikh H., Zhou Y., Dekker Nitert M., Rönn T., Segerström Å. B., **Ling C.**, Franks P. W., Wollmer P., Eriksson K. F., Groop L, Hansson O

First degree relatives of type 2 diabetic patients have reduced expression of genes involved in fatty acid metabolism in skeletal muscle

*Journal of Clinical Endocrinology and Metabolism* 2012 Jul;97(7). Impact factor: 6.4 Citations: 11

**57.** Jelena A. Stamenkovic, Anders H. Olsson, Cecilia L. Nagorny, Siri Malmgren, Marloes Dekker-Nitert, **Charlotte Ling\*** and Hindrik Mulder\* \*Equal contribution

Regulation of Core CLOCK genes in human islets

*Metabolism* 2012 Jul;61(7):978-85. Impact factor: 2.7 Citations: 42

**58.** Gertrud Kacerovsky-Bielez, Michaela Kacerovsk, Marek Chmelik, Michaela Farukuoye, **Charlotte Ling**, Rochus Pokan, Harald Tschan, Julia Szendroedi, Albrecht I. Schmid, Stephan Gruber, Michael Wolzt, Ewald Moser, Giovanni Pacini, Gerhard Smekal, Leif Groop and Michael Roden

A single nucleotide polymorphism associates with the response of muscle ATP synthesis to long-term exercise training in relatives of type 2 diabetic humans

*Diabetes Care* 2012 Feb;35(2):350-7 Impact factor: 11.8 Citations: 20

**59.** Zhen Yang, Jie Wen, Qin Li, Xiaoming Tao, Zi Yeb, Min He, Weiwei Zhang, Ying Huang, Lili Chen, **Charlotte Ling**, Shen Qu and Renming Hu

PPARG gene Pro12Ala variant contributes to the development of non-alcoholic fatty liver in middle-aged and older Chinese population.

*Molecular and Cellular Endocrinology* 2012 Jan 2;348(1):255-9. Impact factor: 4.1 Citations: 18

**60.** Matteo Riva, Ulrikke Voss, Marloes Dekker-Nitert, Ramasri Sathanoori, Andreas Lindqvist, **Charlotte Ling** and Nils Wierup

Nesfatin-1 stimulates glucagon secretion and NUCB2 expression is reduced in islets of Langerhans from human type 2 diabetic subjects.

*Cell and tissue research* 2011 Dec;346(3):393-405. Impact factor: 3.1 Citations: 41

**61.** Anders H Olsson, Beatrice T Yang, Elin Hall, Jalal Taneera, Albert Salehi, Marloes Dekker Nitert and **Charlotte Ling**

Decreased expression of genes involved in oxidative phosphorylation in human pancreatic islets from patients with type 2 diabetes.

*European Journal of Endocrinology* 2011 Oct;165(4):589-95. Impact factor: 3.7 Citations: 26

**62.** Anders H Olsson, Tina Rönn, Tarq Elgzyri, Ola Hansson, Karl-Fredrik Eriksson, Leif Groop, Allan Vaag, Pernille Poulsen and **Charlotte Ling**

The expression of myosin heavy chain (MHC) genes in human skeletal muscle is related to metabolic characteristics involved in the pathogenesis of type 2 diabetes

*List of publications – Charlotte Ling (690420-4986)*

- Molecular Genetics and Metabolism* 2011 Jul;103(3):275-81. Impact factor: 2.9 Citations: 8
63. Anders H Olsson, Tina Rönn, Claes Ladenvall, Hemang Parikh, Bo Isomaa, Leif Groop and **Charlotte Ling**  
Two common genetic variants near nuclear encoded OXPHOS genes are associated with insulin secretion *in vivo*  
*European Journal of Endocrinology* 2011 May;164(5):765-71. Impact factor: 3.6 Citations: 17
64. Ionel Sandovici, Noel H. Smith, Marloes Dekker Nitert, Matthew Ackers-Johnson, Santiago Uribe-Lewis, Yoko Ito, R. Huw Jones, Víctor E. Marquez, William J. Cairns, Mohammed Tadayyon, Laura P. O'Neill, Adele Murrell, **Charlotte Ling**, Miguel Constância and Susan E. Ozanne  
Maternal diet and aging alter the epigenetic control of a promoter-enhancer interaction at *Hnf4a* gene in rat pancreatic islets  
*PNAS* 2011 Mar 29;108(13):5449-54. Impact factor: 9.7 Citations: 181
65. Thomas Koeck, Anders H Olsson, Marloes Dekker Nitert, Vladimir V. Sharoyko, Claes Ladenvall, Olga Kotova, Erwin Reiling, Tina Rönn, Hemang Parikh, Jalal Taneera, Johan G Eriksson, Metodi D Metodiev, Nils-Göran Larsson, Alexander Balhuizen, Holger Luthman, Alena Stančáková, Johanna Kuusisto, Markku Laakso, Pernille Poulsen, Allan Vaag, Leif Groop, Valeriya Lyssenko, Hindrik Mulder and **Charlotte Ling**  
A common variant in *TFB1M* is associated with reduced insulin secretion and increased future risk of type 2 diabetes.  
*Cell Metabolism* 2011 Jan 5;13(1):80-91. Impact factor: 20.6 Citations: 41
66. Beatrice T. Yang, Tasnim A. Dayeh, Clare L. Kirkpatrick, Jalal Taneera, Rajesh Kumar, Leif Groop, Claes B. Wollheim, Marloes Dekker Nitert and **Charlotte Ling**  
Insulin promoter DNA methylation correlates negatively with insulin gene expression and positively with HbA<sub>1c</sub> levels in human pancreatic islets.  
*Diabetologia* 2011 Feb;54(2):360-7. Impact factor: 6.8 Citations: 114
67. Zhen Yang, Jie Wen, Xiaoming Tao, Bin Lu, Yanping Du, Mei Wang, Xuanchun Wang, Weiwei Zhang, Wei Gong, **Charlotte Ling**, Songhua Wu and Renming Hu  
Genetic variation in the GCKR gene is associated with non-alcoholic fatty liver disease in Chinese people.  
*Mol Biol Rep.* 2011 Feb;38(2):1145-50. Impact factor: 3 Citations: 26
68. Louise A Nilsson, Anders H Olsson, Bo Isomaa, Leif Groop, Håkan Billig and **Charlotte Ling**  
A common variant near the PRL gene is associated with increased adiposity in males.  
*Mol Genet Metab.* 2011 Jan;102(1):78-81. Impact factor: 2.9 Citations: 14
69. Zhen Yang, Zhaoyun Zhang, Jie Wen, Xuanchun Wang, Bin Lu, Zhihong Yang, Weiwei Zhang, Mei Wang, Xiaocheng Feng, **Charlotte Ling**, Songhua Wu and Renming Hu  
Elevated Serum Chemokine CXC Ligand 5 Levels Are Associated with Hypercholesterolemia But Not a Worsening of Insulin Resistance in Chinese People  
*Journal of Clinical Endocrinology and Metabolism* 2010 Aug;95(8):3926-32. Impact factor: 6.4 Citations: 17
70. Charlotte Brøns, Stine Jacobsen, Emma Nilsson, Tina Rönn, Christine B. Jensen, Heidi Storgaard, Pernille Poulsen, Leif Groop, **Charlotte Ling**, Arne Astrup and Allan Vaag  
Deoxyribonucleic Acid Methylation and Gene Expression of PPARGC1A in Human Muscle Is Influenced by High-Fat Overfeeding in a Birth-Weight-Dependent Manner.  
*Journal of Clinical Endocrinology and Metabolism* 2010 Jun;95(6):3048-56. Impact f: 6.4 Citations: 117
71. Erwin Reiling, **Charlotte Ling**, André G. Uitterlinden, Esther van 't Riet, Laura M.C. Welschen, Claes Ladenvall, Peter Almgren, Valeriya Lyssenko, Giel Nijpels, Els C. van Hove, Johannes A. Maassen, Eco J. C. de Geus, Dorret I. Boomsma, Jacqueline M. Dekker, Leif Groop, Gonkeke Willemsen and Leen M. 't Hart  
The association of mitochondrial content with prevalent and incident type 2 diabetes  
*Journal of Clinical Endocrinology and Metabolism* 2010 Apr;95(4):1909-15. Impact f: 6.4 Citations: 13
72. Jie Wen, Tina Rönn, Anders Olsson, Zhen Yang, Bin Lu, Leif Groop, **Charlotte Ling**<sup>†</sup> and Renming Hu<sup>†</sup>  
Investigation of type 2 diabetes risk alleles in a Han Chinese cohort support *CDKN2A/B*, *CDKALI* and *TCF7L2* as susceptibility genes across different populations. <sup>†</sup>Equal contribution  
*PLoS ONE* 2010 Feb 10;5(2):e9153. Impact factor: 4.2 Citations: 93
73. Siri Malmgren, David Nicholls, Karl Bacos, Rolf Wibom, **Charlotte Ling**, Hindrik Mulder and Vladimir V. Sharoyko  
Tight coupling between glucose and mitochondrial metabolism in clonal beta-cells is required for robust insulin secretion  
*The Journal of Biological Chemistry* 2009, 284(47):32395-404. Impact factor: 5.0 Citations: 67

*List of publications – Charlotte Ling (690420-4986)*

- 74.** Louise Groth Grunnet, Emma Nilsson, **Charlotte Ling**, Torben Hansen, Oluf Pedersen, Leif Groop, Allan Vaag and Pernille Poulsen  
Regulation and function of *FTO* mRNA expression in human skeletal muscle and subcutaneous adipose tissue  
*Diabetes* 2009 Oct;58(10):2402-8. Impact factor: 8.6 Citations: 53
- 75.** **Charlotte Ling**, Leif Groop, Silvia Del Guerra and Roberto Lupi  
Calpain-10 expression is elevated in pancreatic islets from patients with type 2 diabetes  
*PLoS ONE*. 2009 Aug 18;4(8):e6558. Impact factor: 4.2 Citations: 17
- 76.** Gertrud Kacerovsky-Bielesz, Marek Chmelik, **Charlotte Ling**, Rochus Pokan, Julia Szendroedi, Michaela Farukuoye, Michaela Kacerovsky, Albrecht I. Schmid, Stephan Gruber, Michael Wolzt, Ewald Moser, Giovanni Pacini, Gerhard Smeka, Leif Groop and Michael Roden  
Short-term exercise training does not stimulate skeletal muscle ATP synthesis in relatives of humans with type 2 diabetes  
*Diabetes* 2009 Jun;58(6):1333-41. Impact factor: 8.6 Citations: 38
- 77.** Louise Nilsson, Carsten Roepstorff, Bente Kiens, Håkan Billig and **Charlotte Ling**  
Prolactin (PRL) suppresses lipogenesis – decreased malonyl-CoA concentration in human adipose tissue  
*Hormone and metabolic research* 2009 June 23. Impact factor: 2.2 Citations: 19
- 78.** Tina Rönn, Jie Wen, Zhen Yang, Bin Lu, Y. Du, Leif Groop, Renming Hu<sup>†</sup> and **Charlotte Ling**<sup>†</sup>  
A common variant in the melatonin receptor 1B gene (*MNTR1B*) is associated with type 2 diabetes and fasting glucose in a Han Chinese population  
<sup>†</sup>Equal contribution  
*Diabetologia* 2009 May 52(5):830-3. Impact factor: 6.8 Citations: 69
- 79.** Tina Rönn, Pernille Poulsen, Peter Almgren, Peter Nilsson, Leif Groop, Allan Vaag and **Charlotte Ling**  
Genetic variation in ATP5O is associated with gene expression in skeletal muscle and glucose uptake in young twins  
*PLoS ONE*. 2009;4(3):e4793. Impact factor: 4.2 Citations: 15
- 80.** Ruijin Shao, Magdalena Nutu, Birgitta Weijdegård, Emil Egecioglu, Julia Fernandez-Rodriguez, Estelle Tallet, Vincent Goffin, **Charlotte Ling**, and Håkan Billig  
Differences in Prolactin Receptor (PRLR) in Mouse and Human Fallopian Tubes: Evidence for Multiple Regulatory Mechanisms Controlling PRLR Isoform Expression in Mice.  
*Biology of Reproduction* 2008 Oct;79(4):748-57. Impact factor: 4 Citations: 30
- 81.** Hemang Parikh, Emma Nilsson, **Charlotte Ling**, Pernille Poulsen, Peter Almgren, Henrietta Nittby, Karl-Fredrik Eriksson, Allan Vaag, Vamsi K. Mootha, and Leif C. Groop  
Molecular correlates for maximal oxygen uptake (VO<sub>2</sub>max), oxygen uptake (VO<sub>2</sub>) and oxidative type 1 fibers  
*American Journal of Physiology-Endocrinology and Metabolism* 2008 Jun;294(6) Impact f: 4.8 Citations: 17
- 82.** Tina Rönn, Pernille Poulsen, Ola Hansson, Johan Holmkvist, Peter Almgren, Peter Nilsson, Bo Isomaa, Leif Groop, Allan Vaag and **Charlotte Ling**  
Age influences DNA methylation and gene expression of *COX7A1* in human skeletal muscle  
*Diabetologia* 2008 Jul;51(7):1159-68. Impact factor: 6.8 Citations: 117
- 83.** **Charlotte Ling**, Silvia Del Guerra, Roberto Lupi, Tina Rönn, Charlotte Granhall, Holger Luthman, Pierro Marchetti, Leif Groop and Stefano Del Prato.  
Epigenetic Regulation of PPARGC1A in Human Type 2 Diabetic Islets and Effect on Insulin Secretion.  
*Diabetologia* 2008 51(4):615-22. Impact factor: 6.8 Citations: 263
- 84.** Emma Nilsson, Pernille Poulsen, Marketa Sjögren, **Charlotte Ling**, Martin Ridderstråle, Leif Groop and Allan Vaag  
Regulation of *PPARδ* mRNA expression in human skeletal muscle.  
*The Journal of Physiology*, 2007 584(Pt3):1011-17. Impact factor: 5 Citations: 8
- 85.** **Charlotte Ling**, Pernille Poulsen, Stina Simonsson, Tina Rönn, Johan Holmkvist, Peter Almgren, Emma Nilsson, Per Hagert, Amanda G. Mabey, Peter Nilsson, Allan Vaag and Leif Groop  
Genetic and epigenetic factors are associated with expression of respiratory chain component NDUFB6 in human skeletal muscle.  
*The Journal of Clinical Investigation*, 2007 117(11): 3427-35. Impact factor: 14.7 Citations: 128



*List of publications – Charlotte Ling (690420-4986)*

**86.** Valeriya Lyssenko, Roberto Lupi, Piero Marchetti, Silvia Del Guerra, Marju Orho-Melander, Peter Almgren, Marketa Sjögren, **Charlotte Ling**, Karl-Fredrik Eriksson, Åsa-Linda Lethagen, Rita Mancarella, Göran Berglund, Tiinamaija Tuomi, Peter Nilsson, Stefano Del Prato and Leif Groop  
Mechanisms by which common variants in the TCF7L2 gene increase risk of type 2 diabetes.  
*The Journal of Clinical Investigation*, 2007; 117(8):2155-2163. Impact factor: 14.7 Citations: 488

As of March/April 2016, this **highly cited paper** received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year.

**87.** **Charlotte Ling**, Lise Wegner, Gitte Andersen, Torben Hansen, Oluf Pedersen, Leif Groop, Allan Vaag and Pernille Poulsen.

Impact of the *PGC-1 $\beta$ Ala203Pro* polymorphism on *in vivo* metabolism, PGC-1 $\beta$  gene expression and fiber type composition in human skeletal muscle.

*Diabetologia*, 2007 50(8):1615-1620. Impact factor: 6.8 Citations: 16

**88.** Heidi Storgaard, Pernille Poulsen, **Charlotte Ling**, Leif Groop and Allan Vaag.

Relationships of plasma adiponectin level and adiponectin receptors 1 and 2 gene expression to insulin sensitivity and glucose and fat metabolism in monozygotic and dizygotic twins.

*Journal of Clinical Endocrinology and Metabolism* 2007 92:2835-2839. Impact factor: 6.4 Citations: 18

**89.** Malin Fex, Marloes Dekker Nitert, Nils Wierup, Frank Sundler, **Charlotte Ling** and Hindrik Mulder

Enhanced mitochondrial metabolism and biogenesis may account for the adaptation to insulin resistance in islets from high fat diet-fed C57BL6J mice.

*Diabetologia*. 2007 50(1):74-83. Impact factor: 6.8 Citations: 43

**90.** Ruijin Shao, Emil Egecioglu, Birgitta Weijdegård, Karin Ljungström, **Charlotte Ling**, Julia Fernandez-Rodriguez and Håka Billig

Developmental and hormonal regulation of progesterone receptor A-form expression in female mouse lung *in vivo*: interaction with glucocorticoid receptors.

*J of Endocrinology* 2006 Sep;190(3):857-70. Impact factor: 3.5 Citations: 7

**91.** Heidi Storgaard, Pernille Poulsen, **Charlotte Ling**, Leif Groop and Allan A. Vaag.

Genetic and nongenetic determinants of skeletal muscle glucose transporter 4 messenger ribonucleic acid levels and insulin action in twins.

*Journal of Clinical Endocrinology and Metabolism*, 2006 Feb;91(2):702-8. Impact f: 6.4 Citations: 15

**92.** Ola Hansson, Morten Donsmark, **Charlotte Ling**, Pernilla Nevsten, Mikael Danfelter, Henrik Galbo and Cecilia Holm.

Transcriptome and proteome analysis of soleus muscle of hormone-sensitive lipase-null mice.

*J Lipid Res*. 2005 Dec;46(12):2614-23. Impact factor: 5.2 Citations: 19

**93.** Emma Carlsson, Pernille Poulsen, Heidi Storgaard, Peter Almgren, **Charlotte Ling**, Christine Bjørn Jensen, Sten Madsbad, Leif Groop, Allan Vaag and Martin Ridderstråle

Genetic and non-genetic regulation of *CAPN10* mRNA expression in skeletal muscle.

*Diabetes*, 2005 Oct;54(10):3015-20. Impact factor: 8.6 Citations: 26

**94.** Mario F. Fraga, Esteban Ballestar, Maria F. Paz, Santiago Ropero, Fernando Setien, Maria L. Ballestar, Damia Heine-Suñer, Juan C. Cigudosa, Miguel Urioste, Javier Benitez, Manuel Boix-Chornet, Abel Sanchez-Aguilera, **Charlotte Ling**, Emma Carlsson, Pernille Poulsen, Allan Vaag, Zarko Stephan, Tim D. Spector, Yue-Zhong Wu, Christoph Plass and Manel Esteller

Epigenetic differences arise during the lifetime of monozygotic twins.

*PNAS*, 2005; 102:10604-10609. Impact factor: 9.7 Citations: 2004

**95.** L. Nilsson, N. Binart, M. Bohlooly-Y, M. Brammert, J. Kindblom, P. A. Kelly, J.J.Kopchick, C. J. Ormandy, **C. Ling**\* and H. Billig\*. \* Both authors have contributed equally.

Prolactin and growth hormone regulate adiponectin secretion and receptor expression in adipose tissue.

*Biochem Biophys Res Commun*. 2005; 331(4):1120-6. Impact factor: 2.5 Citations: 129

**96.** **Charlotte Ling**\*, Pernille Poulsen\*, Emma Carlsson, Martin Ridderstråle, Peter Almgren, Henning Beck-Nielsen, Leif Groop and Allan Vaag. \* Both authors have contributed equally.

Multiple environmental and genetic factors influence skeletal muscle PGC-1 $\alpha$  and PGC-1 $\beta$  gene expression in twins.

*The Journal of Clinical Investigation*, 2004; 114:1518-26. Impact factor: 14.7 Citations: 227

**97.** **Ling C**\*, Svensson L\*, Odén B, Weijdegård B, Edén B, Edén S and Billig H.

\*Both authors have contributed equally.

### *List of publications – Charlotte Ling (690420-4986)*

Identification of functional prolactin (PRL) receptor gene expression: PRL inhibits lipoprotein lipase activity in human adipose tissue.

*Journal of Clinical Endocrinology and Metabolism*, 2003, 88:1804-8. Impact factor: 6.4 Citations: 84

98. Kindblom J, Dillner K, **Ling C**, Törnell J and Wennbo H.

Progressive prostate hyperplasia in prolactin transgenic mice is not dependent on elevated androgen serum levels. *Prostate* 2002, 53:24-33. Impact factor: 3.5 Citations: 25

99. **Ling C** and Billig H.

Prolactin (PRL) receptor-mediated effects in female mouse adipocytes: PRL induces suppressors of cytokine signalling expression and suppresses insulin-induced leptin production in adipocytes in vitro.

*Endocrinology* 2001 Nov;142(11):4880-90 Impact factor: 4.8 Citations: 45

100. **Ling C**, Kindblom J, Wennbo H and Billig H.

Increased resistin expression in the adipose tissue of male prolactin transgenic mice and in male mice with elevated androgen levels.

*FEBS Lett.* 2001 Oct 26;507(2):147-50. Impact factor: 3.5 Citations: 46

101. **Ling C**, Hellgren G, Gebre-Medhin M, Dillner K, Wennbo H, Carlsson B and Billig H.

Prolactin receptor gene expression in mouse adipose tissue: increases during lactation and in PRL-transgenic mice.

*Endocrinology* 2000 Oct;141(10):3564-72. Impact factor: 4.8 Citations: 77

102. Svanberg B, **Ling C**, Svensson PA, Johnson M, Carlsson B and Billig H.

Isolation of differentially expressed aldose reductase in ovaries after estrogen withdrawal from hypophysectomized diethylstilbestrol treated rats: increased expression during apoptosis.

*Mol Cell Endocrinol.* 2000 Jun;164(1-2):183-90 Impact factor: 4.4 Citations: 6

103. Svensson PA, Johnson MS, **Ling C**, Carlsson LM, Billig H and Carlsson B.

Scavenger receptor class B type I in the rat ovary: possible role in high density lipoprotein cholesterol uptake and in the recognition of apoptotic granulosa cells.

*Endocrinology* 1999 Jun;140(6):2494-500. Impact factor: 4.8 Citations: 33

### **Invited review papers and commentaries**

1. **Charlotte Ling** and Tina Rönn

Epigenetics in Human Obesity and Type 2 Diabetes.

*Cell Metabolism* 2019 May 7;29(5):1028-1044. Impact factor: 20.6

2. Cajsa Davegårdh, Sonia García-Calzón, Karl Bacos and **Charlotte Ling**

DNA methylation in the pathogenesis of type 2 diabetes in humans.

*Molecular Metabolism* 2018 In Press Impact factor: 6.8 Citations: 8

3. Emma Nilsson and **Charlotte Ling**

DNA methylation links genetics, fetal environment and an unhealthy lifestyle to the development of type 2 diabetes

*Clinical Epigenetics*, 2017 Oct 3;9:105. Impact factor: 5.0 Citations: 6

4. **Ling C** and Rönn T.

Epigenetic markers to further understand insulin resistance.

*Diabetologia.* 2016 Nov;59(11):2295-7. Impact factor: 6.8 Citations: 5

5. Sutton EF, Gilmore LA, Dunger DB, Heijmans BT, Hivert MF, **Ling C**, Martinez JA, Ozanne SE, Simmons RA, Szyf M, Waterland RA, Redman LM, Ravussin E.

Developmental programming: State-of-the-science and future directions-Summary from a Pennington Biomedical symposium.

*Obesity.* 2016 May;24(5):1018-26. Impact factor: 4.4 Citations: 12

6. Molly S. Bray, Ruth J. Loos, Jeanne M. McCaffery, **Charlotte Ling**, Paul W. Franks, George M. Weinstock, Michael P. Snyder, Jason L. Vassy, Tanya Agurs-Collins, and the Conference Working Group

Using genomic information to guide weight management: From universal to precision treatment.

*Obesity.* 2016 Jan;24(1):14-22. doi: 10.1002/oby.21381. Impact factor: 4.4 Citations: 38

As of March/April 2017, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Biology & Biochemistry based on a highly cited threshold for the field and publication year

## List of publications – Charlotte Ling (690420-4986)

### 7. Tasnim Dayeh and **Charlotte Ling**

Does epigenetic dysregulation of pancreatic islets contribute to impaired insulin secretion and type 2 diabetes?  
*Biochemistry and Cell Biology*. 2015, Aug 4:1-11. Citations: 4

### 8. Rönn T and **Ling C**

DNA methylation as a diagnostic and therapeutic target in the battle against Type 2 diabetes.  
*Epigenomics*. 2015 Jun;7(3):451-60. doi: 10.2217/epi.15.7 Impact factor: 5.2 Citations: 43

9. von Hertzen L, Beutler B, Bienenstock J, Blaser M, Cani PD, Eriksson J, Färkkilä M, Haahtela T, Hanski I, Jenmalm MC, Kere J, Knip M, Kontula K, Koskenvuo M, **Ling C**, Mandrup-Poulsen T, von Mutius E, Mäkelä MJ, Paunio T, Pershagen G, Renz H, Rook G, Saarela M, Vaarala O, Veldhoen M, de Vos WM. Helsinki alert of biodiversity and health.  
*Ann Med*. 2015 Apr 23:1-8. [Epub ahead of print] Impact factor: 4.7 Citations: 31

### 10. Gillberg L and **Ling C**.

The potential use of DNA methylation biomarkers to identify risk and progression of type 2 diabetes.  
*Front Endocrinol (Lausanne)*. 2015 Mar 30;6:43. doi: 10.3389/fendo. Citations: 16

11. Halban PA, Polonsky KS, Bowden DW, Hawkins MA, **Ling C**, Mather KJ, Powers AC, Rhodes CJ, Sussel L, Weir GC.

β-cell failure in type 2 diabetes: postulated mechanisms and prospects for prevention and treatment.  
*Diabetes Care*. 2014 Jun;37(6):1751-8 Impact factor: 11.8 Citations: 148

As of March/April 2017, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year

12. Philippe A. Halban, Kenneth S. Polonsky, Donald W. Bowden, Meredith A. Hawkins, **Charlotte Ling**, Kieren J. Mather; Alvin C. Powers, Christopher J. Rhodes, Lori G. Sussel, and Gordon C. Weir  
β-cell Failure in Type 2 Diabetes: Postulated mechanisms and prospects for prevention and treatment  
*J of Clinical Endocrinology and Metabolism*, 2014, Apr 8:jc20141425 Impact factor: 6.4 Citations: 44

### 13. **Charlotte Ling** and Tina Rönn

Epigenetic adaptation to regular exercise in humans  
*Drug Discovery Today*, 2014, Mar14. Impact factor: 6.4 Citations: 30

### 14. Tina Rönn and **Charlotte Ling**

Effect of exercise on DNA methylation and metabolism in human adipose tissue and skeletal muscle  
*Epigenomics*, Dec 2013, Vol. 5, No. 6, Pages 603-605 Impact factor: 5.2 Citations: 12

### 15. Paul W Franks and **Charlotte Ling**

Epigenetics and obesity: the devil is in the details.  
*BMC Medicine*, 2010 Dec 21;8(1):88. Impact factor: 6.7 Citations: 38

### 16. Hindrik Mulder and **Charlotte Ling**

Mitochondrial dysfunction in pancreatic beta-cells in Type 2 Diabetes  
*Mol Cell Endocrinol* 2009 297:34–40. Impact factor: 4.1 Citations: 60

### 17 **Charlotte Ling** and Leif Groop

Epigenetics: a molecular link between environmental factors and type 2 diabetes  
*Diabetes* 2009, 58(12):2718-25. Impact factor: 8.6 Citations: 315

As of March/April 2017, this [highly cited paper](#) received enough citations to place it in the top 1% of the academic field of Clinical Medicine based on a highly cited threshold for the field and publication year

## **Invited book chapters**

### 1. **Charlotte Ling** and Tina Rönn

Genome-Wide DNA and Histone Modification Studies in Metabolic Disease  
*Book Series: Translational Epigenetics Series* Pages: 255-270 Published: 2016

### 2. **Charlotte Ling**, Lorenzo Pasquali

Epigenetics in type 2 diabetes  
*Chapter in The Genetics of Type 2 Diabetes and Related Traits: Biology, Physiology and Translation (Springer)*

### 3. **Charlotte Ling**

*List of publications – Charlotte Ling (690420-4986)*

Epigenetic modifications and type 2 diabetes in humans  
*Chapter 7, Genetics in Diabetes: Type 2 Diabetes & Related Traits (Karger)*

**4. Charlotte Ling** and Tina Rönn  
Epigenetics of Diabetes in Humans  
*Chapter 17, Epigenetics in human disease (Elsevier)*

**5. Charlotte Ling**  
Epigenetics in the pathophysiology of type 2 diabetes  
*Chapter 1, section 4, Nutritional and therapeutic intervention for diabetes and metabolic syndrome (Elsevier)*

**6. Charlotte Ling**, Marloes Dekker Nitert and Tina Rönn  
Epigenetics and type II diabetes  
*Chapter 9, Epigenetic Aspects of Chronic Diseases, (Springer)*

**7. Leif Groop and Charlotte Ling**  
Basics of molecular genetics: Lessons from type 2 diabetes  
*Chapter 20, Clinical Research in Diabetes and Metabolism: Methods and Techniques (John Wiley & sons)*

**8. L. Groop, V. Lyssenko, C. Ling** and M. Orho-Melander  
Genetic Epidemiology of Type 2 Diabetes  
*Chapter 8, Epidemiology of Diabetes Mellitus, (Second Edition, John Wiley & sons)*