

CURRICULUM VITAE

Name Prof. dr. Pieterella Eline Slagboom
Date and place of birth 1960-01-14, Dordrecht, The Netherlands
Position title Head of section of Molecular Epidemiology,
dept of Biomedical Data Sciences



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Education/Training

1985 MSc in Biology, Biochemistry, Leiden University, The Netherlands
1993 PhD in Biology at the Medical Faculty of Leiden University, The Netherlands
Thesis : Genomic Instability and Ageing

Positions and Employment

1993-1995: Investigator at the Department of Vascular and Connective Tissues Research, Gaubius Laboratory, TNO-PG, Leiden
1995-2000: As group leader Slagboom initiated a genetic epidemiology unit at the Department of Vascular and Connective Tissues Research, Gaubius Laboratory, TNO-PG, Leiden
2000 Full Professor of Molecular Epidemiology at the Department of Medical Statistics and Bioinformatics, Leiden University Medical Center. Slagboom initiated a novel section of Molecular Epidemiology (www.molepi.nl).
2017-2022 Max-Planck Institute for Biology of Ageing, Cologne: Fellow; Principal Investigator CECAD Cluster of Excellence

Rationale of research in the Molecular Epidemiology group

Since the nineties I have been deeply interested in understanding mechanisms determining the large variation in ageing rate among human individuals. In 2000 I initiated a novel Molecular

Epidemiology group at the LUMC. With my group I explore mechanisms of healthy ageing and diseases among the elderly. We study interventions that promote healthy ageing and novel biomarker profiles to classify elderly patients and to monitor responses to therapeutic or lifestyle interventions. Determinants of ageing are common denominators of a diversity of chronic diseases which slowly develop over time. I am especially interested in cardiovascular disease (CVD), osteoarthritis (OA) and longevity. Over the years I developed with my team a programme of studies in unique human cohorts such as in the family based Leiden Longevity Study (long-lived siblings and offspring) of which I am the PI, the GARP study (siblings with generalised OA) and epigenetic research in the Dutch Hungerwinter Study (early life events affecting late life health), providing the opportunity of two talented PIs to become independent group leaders of research line into OA and epigenetics, respectively. The unifying theme in my group is on metabolic health and multi-omics approaches. We lead metabolomics and genomics research on Big Data in the Dutch Biobanking initiative BBMRI and I link this research to functional genomics studies at the Max Planck Institute for the Biology of Ageing in Cologne. We collaborated over the years with multiple private partners. I initiated the Dutch Society for Research on Ageing, with a board of scientist, to bring together ageing research in NL and private partners for creating innovative solutions in translational ageing research. For information: www.molepi.nl, www.dusra.nl and www.ideal-ageing.eu

Administrative and Management activities

- 1995 Initiated a genetic epidemiology group on age-related diseases at TNO Gaubius Laboratory Leiden.
- 2000 Professor of Molecular Epidemiology at LUMC in 2000. Started a new group in Molecular Epidemiology. The group has attracted many outstanding PhD students and postdocs. The team constructed includes the range of expertises required for multidisciplinary research into ageing covering (cell)biology/molecular genetics, chemistry, bioinformatics, medicine and epidemiology.
- 2009-present Board member and work package leader of BBMRI-NL 1.0 and 2.0 (Biobanking and Biomolecular Resources Research Infrastructure).
Program leader of the BBMRI Metabolomics consortium
Vice-chair of Department of Medical Statistics and Bioinformatics
- 2010-2014 Co-director of Netherlands Consortium for Healthy Ageing (with A.G. Uitterlinden, ErasmusMC). Initiated annual and other meetings. Initiated collaborations with industry.
- 2011-2016 Coordinator of Large scale FP7-Health EU projects IDEAL (Integrated research on Developmental determinants of Aging and Longevity).
- 2011-present: Chair of LUMC Medical Research Profile on Ageing.
PI of the Leiden Longevity Study cohort.
- 2012-present: Board member of LUMC Sequencing Analysis Support Core
- 2014-present: Member of the Permanent Scientific Committee of the LUMC
- 2015-present Chair of Dutch Society for Research on Ageing (being set up in collaboration with LUMC, UMCGroningen, ErasmusMC and WageningenUR) www.dusra.nl

Other Experience and Professional Memberships

- 2003-2005 Member NWO CMSB (Centre Medical Systems Biology)
- 2003-2005 Member of Research Committee 'Decennium van het Bewegingsapparaat' (part of the international campaign "The Bone and Joint Decade")

2007-2010	Member ZON MW VIDI committee (2 x 2 years)
2007-2010	Member of the Scientific Committee, the “Wetenschappelijke Advies Commissie” (WAC) of the Dutch Heart Foundation (Nederlandse Hartstichting, NHS).
2007-2012	Member of TI-GO founders group – The Netherlands Institute for Healthy and Successful Ageing. A foundation to promote research and education aimed at healthy and successful ageing in the Netherlands.
2000-2013	Member of ENGAGE, CHARGE, LIFESPAN, GEHA, MARK-Age, TREAT-OA, LINKAGE.
2013-2018	Member MRC Lifelong Health and Ageing Steering Committee (London, UK).
2014-2019	Member Projectadviescommissie TOP-subsidies en ZonMw Vici.
2017	Member Evaluation Committee ZonMw
2017-2021	Member Scientific Advisory Board of Amsterdam Neuroscience
2018-2019	Member SAPEA Working Group on Transforming the Future of Ageing

Professional activities / Editorial board

Active in aspects of the discussion on research (2016 - National ‘Gezond ouder worden’ agenda, within the framework of the European Joint Programming Initiative More Years, Better Lives (JPI MYBL)

Regular referee of top journals in genetics, ageing, osteoarthritis and epidemiology such as Nature Genetics, Nature Communications, Arthritis and Rheumatism, Annals of Rheumatic Disease, PLOS Medicine, PLOS Biology, European journals of epidemiology and of human genetics.

Regular referee of national funding bodies such as Reumafonds, Nederlandse Hartstichting, NWO, ZonMw.

Regular referee of international projects funded by EU (Switchbox, MYOAGE, NUAGE).

Since 2006 Section Editor in Editorial Board of Aging Cell

Awards and honors

2011 Designers and Artists 4 Genomics Award 2011 (for NCHA)

Teaching

- For Medicine and Biomedical Sciences curriculum: 4-week Frontiers of Science Masterclass on Molecular Data Science
- For Biomedical Sciences curriculum: Clinical Research in Practice (CRIP)
- For Medicine curriculum: bachelor program Evolutionary Medicine, program Life course
- Further in the graduate school, half a minor in Ageing.
- For Medicine curriculum: master and half a minor Vitality & Ageing, creative thinking
- Lectures on molecular Epidemiology in the Post Graduate School
- Guest lectures to student organizations and (PhD) retreats, post graduate program of EUMC, VUMC and in former years at international Universities (Ancona, Rostock)
- Developed for High School, Graduate students and Biology teachers a stepwise approach to creative and logical thinking in science. A digital program is developed. The program consists of a digital manual with illustrative films. It’s placed on different websites to make it accessible to a wide audience which we are now turning into a MOOC granted by BBMRI.NI2.0.

Mentoring aspirant scientists

- We host on average 3 medical and biomedical students per year within our research projects on OA, Ageing, Epigenetics. Several have subsequently become LUMC PhD students.
- I am currently training 8 PhD students and I mentor/coach junior professors and female tenures within the LUMC.
- 23 of my previous PhD students (27) are research scientists. Two of them are associate professor, one is assistant professor and five have a research position abroad (Norway, USA, UK, China, Germany). One of my former PhD students in osteoarthritis research expanded the research line within LUMC, recently obtained the (for NL) highly prestigious personal VICI grant and is now a professor.

Major national and international collaborations

Slagboom has a collaborative network based on the genetic epidemiology (NWO-Groot funded) facility she has run for years, which she transformed into a Sequencing Analysis Support Core at LUMC, further as PI of the Leiden Longevity Study, The GARP and the GOTO intervention study. Main collaborators in these networks are with the Department of Geriatrics and Gerontology (Prof G.J. Blauw, Dr S. Mooijaart), Rheumatology (Prof. M. Kloppenburg), orthopaedic surgery (Prof.R. Nelissen), cardiology (Prof. W. Jukema), radiology (Prof. M. van Buchem and Prof Lelieveldt) and endocrinology (Prof. H. Pijl).

Nationally Slagboom has a longstanding collaboration in the biobanking field with Erasmus University Medical Centre (Prof. C.M. van Duijn and Prof. A.G. Uitterlinden, Epidemiology and Biostatistics); Vrije Universiteit Amsterdam (Prof. D.I. Boomsma; Psychology; director of Netherlands Twin Register and KNAW member) and University Medical Centre Groningen (Prof C. Wijmenga; Human Genetics); for metabolomics biomarker research with the Netherlands Metabolomics Center (Prof T. Hankemeier); for ageing research and intervention studies with Wageningen University & Research (Prof. E. Feskens; Nutrition and Prof. B. Zwaan, Evolutionary Biology of ageing). Other important collaborations are focused on bioinformatics with the Technical University Delft (Prof. M. Reinders; Computational Biology); Leiden University (Prof. J. Kok, Leiden Institute for Advanced Computer Sciences) and on historical data (Prof A.Janssens, Radboud University, Nijmegen).

International collaboration in molecular/genetic epidemiology and in ageing research include those with the University of Bologna (Prof. C. Franceschi), the Max Planck Institute on Ageing, Cologne (Prof. L. Partridge; Prof A. Antebi); the University of Southern Denmark (Prof. K. Christensen and Prof. L. Christiansen), the Max Planck Institute in Rostock (former director Prof. J. Vaupel) ; University of California (Prof J Murabito and others from the CHARGE, MAGNETIC and GIANT consortia) , and with the Chinese Longitudinal Healthy Longevity Survey (CLHLS; Prof Y. Zheng).

Slagboom has been involved in multiple public/private collaborations with many industrial partners. She collaborates with Unilever-UK and NL in projects on determinants of healthy ageing and intervention studies among elderly individuals (Dr. D. Gunn, Dr. P. v/d Logt). Over the years she studied the genetic component of osteoarthritis and of longevity with colleagues from Pfizer-USA (Dr. A. Seymour, Dr. S. Pitt and Prof D. Cox). The studies into the use of metabolomics assays as novel biomarkers of age-related disease and metabolic health are performed in collaboration with BrainShake-FI (Prof. M. Ala-Korpela, Dr P. Würtz). Collaborations in the field of e-health (combined with metabolic markers) in elderly are performed with Philips (Dr. A. Bonomi). Finally collaborations in the field of osteoarthritis were done with Galapagos-NL/B (Dr. A. Hoekema).

Key Publications

H-index: 101; total no. of citations 45750.

529 publications in refereed journals. www.molepi.nl for complete list and pdfs.

1. van den Berg N, Rodríguez-Gironde M, van Dijk IK, Mourits RJ, Mandemakers K, Janssens AAPO, Beekman M, Smith KR, Slagboom PE. Longevity defined as top 10% survivors and beyond is transmitted as a quantitative genetic trait. *Nat Commun.* 2019 Jan 7;10(1):35. doi: 10.1038/s41467-018-07925-0.

2. Berg NVD, Rodriguez-Gironde M, de Craen AJM, Houwing-Duistermaat JJ, Beekman M, Slagboom PE. Longevity around the turn of the 20th century: life-long sustained survival advantage for parents of today's nonagenarians. *J Gerontol A Biol Sci Med Sci.* 2018 Mar 27. doi: 10.1093/gerona/gly049.

3. van Dongen J, Nivard MG, Willemsen G, Hottenga JJ, Helmer Q, Dolan CV, Ehli EA, Davies GE, van Iterson M, Breeze CE, Beck S; BIOS Consortium, Suchiman HE, Jansen R, van Meurs JB, Heijmans BT, Slagboom PE*, Boomsma DI*. Genetic and environmental influences interact with age and sex in shaping the human methylome. *Nat Commun.* 2016 Apr 7;7:11115. * joint last authors

4. van den Akker EB, Pitts SJ, Deelen J, Moed MH, Potluri S, van Rooij J, Suchiman HE, Lakenberg N, de Dijcker WJ, Uitterlinden AG, Kraaij R, Hofman A, de Craen AJ, Houwing-Duistermaat JJ, van Ommen GB, Cox DR, van Meurs JB, Beekman M, Reinders MJ, Slagboom PE. Uncompromised ten-year survival of oldest old carrying somatic mutations in DNMT3A and TET2. *Blood.* 2016 Jan 29.

5. Deelen J, Beekman M, Uh HW, Broer L, Ayers KL, Tan Q, Kamatani Y, Bennet AM, Tamm R, Trompet S, Guðbjartsson DF, Flachsbart F, Rose G, Viktorin A, Fischer K, Nygaard M, Cordell HJ, Crocco P, van den Akker EB, Böhringer S, Helmer Q, Nelson CP, Saunders GI, Alver M, Andersen-Ranberg K, Breen ME, van der Breggen R, Caliebe A, Capri M, Cevenini E, Collerton JC, Dato S, DAVIES K, Ford I, Gampe J, Garagnani P, de Geus EJ, Harrow J, van Heemst D, Heijmans BT, Heinsen FA, Hottenga JJ, Hofman A, Jeune B, Jonsson PV, Lathrop M, Lechner D, Martin-Ruiz C, McNerlan SE, Mihailov E, Montesanto A, Mooijaart SP, Murphy A, Nohr EA, Paternoster L, Postmus I, Rivadeneira F, Ross OA, Salvioli S, Sattar N, Schreiber S, Stefánsson H, Stott DJ, Tiemeier H, Uitterlinden AG, Westendorp RG, Willemsen G, Samani NJ, Galan P, Sørensen TI, Boomsma DI, Jukema JW, Rea IM, Passarino G, de Craen AJ, Christensen K, Nebel A, Stefánsson K, Metspalu A, Magnusson P, Blanché H, Christiansen L, Kirkwood TB, van Duijn CM, Franceschi C, Houwing-Duistermaat JJ, Slagboom PE. Genome-wide association meta-analysis of human longevity identifies a novel locus conferring survival beyond 90 years of age. *Hum Mol Genet.* 2014 Aug 15;23(16):4420-32.

6. Tobi EW, Goeman JJ, Monajemi R, Gu H, Putter H, Zhang Y, Slieker RC, Stok AP, Thijssen PE, Müller F, van Zwet EW, Bock C, Meissner A, Lumey LH, Eline Slagboom P, Heijmans BT. DNA methylation signatures link prenatal famine exposure to growth and metabolism. *Nat Commun.* 2014 Nov 26;5:5592.

7. Passtoors WM, Beekman M, Deelen J, van der Breggen R, Maier AB, Guigas B, Derhovanessian E, van Heemst D, de Craen AJ, Gunn DA, Pawelec G, Slagboom PE. Gene expression analysis of mTOR pathway: association with human longevity. *Aging Cell*. 2013 Feb;12(1):24-31.

8. Codd V, Nelson CP, Albrecht E, Mangino M, Deelen J, Buxton JL, Hottenga JJ, Fischer K, Esko T, Surakka I, Broer L, Nyholt DR, Leach IM, Salo P, Hägg S, Matthews MK, Palmen J, Norata GD, O'Reilly PF, Saleheen D, Amin N, Balmforth AJ, Beekman M, de Boer RA, Böhringer S, Braund PS, Burton PR, Craen AJ, Denniff M, Dong Y, Douroudis K, Dubinina E, Eriksson JG, Garlaschelli K, Guo D, Hartikainen AL, Henders AK, Houwing-Duistermaat JJ, Kananen L, Karssen LC, Kettunen J, Klopp N, Lagou V, van Leeuwen EM, Madden PA, Mägi R, Magnusson PK, Männistö S, McCarthy MI, Medland SE, Mihailov E, Montgomery GW, Oostra BA, Palotie A, Peters A, Pollard H, Pouta A, Prokopenko I, Ripatti S, Salomaa V, Suchiman HE, Valdes AM, Verweij N, Viñuela A, Wang X, Wichmann HE, Widen E, Willemsen G, Wright MJ, Xia K, Xiao X, van Veldhuisen DJ, Catapano AL, Tobin MD, Hall AS, Blakemore AI, van Gilst WH, Zhu H, Consortium C, Erdmann J, Reilly MP, Kathiresan S, Schunkert H, Talmud PJ, Pedersen NL, Perola M, Ouwehand W, Kaprio J, Martin NG, van Duijn CM, Hovatta I, Gieger C, Metspalu A, Boomsma DI, Jarvelin MR, Slagboom PE, Thompson JR, Spector TD, van der Harst P, Samani NJ. Identification of seven loci affecting mean telomere length and their association with disease. *Nat Genet*. 2013 Apr;45(4):422-7, 427e1-2.

9. Barzilai N, Guarente L, Kirkwood TB, Partridge L, Rando TA, Slagboom PE. The place of genetics in ageing research. *Nat Rev Genet*. 2012 Jul 10;13(8):589-94.

10. Bos SD, Beekman M, Maier AB, Karsdal MA, Kwok WY, Bay-Jensen AC, Kloppenburg M, Slagboom PE*, Meulenbelt I.* Metabolic health in families enriched for longevity is associated with low prevalence of hand osteoarthritis and influences OA biomarker profiles. *Ann Rheum Dis*. 2012 Oct 27. * joint last authors.

11. Beekman M, Nederstigt C, Suchiman HE, Kremer D, van der Breggen R, Lakenberg N, Alemayehu WG, de Craen AJ, Westendorp RG, Boomsma DI, de Geus EJ, Houwing-Duistermaat JJ, Heijmans BT, Slagboom PE. Genome-wide association study (GWAS)-identified disease risk alleles do not compromise human longevity. *Proc Natl Acad Sci USA*. 2010;107:18046-9.

12. Meulenbelt I, Min JL, Bos S, Riyazi N, Houwing-Duistermaat JJ, van der Wijk HJ, Kroon HM, Nakajima M, Ikegawa S, Uitterlinden AG, van Meurs JB, van der Deure WM, Visser TJ, Seymour AB, Lakenberg N, van der Breggen R, Kremer D, van Duijn CM, Kloppenburg M, Loughlin J, Slagboom PE. Identification of DIO2 as new susceptibility locus for symptomatic Osteoarthritis. *Hum Mol Genet*. 2008 Jun 15;17(12):1867-75.

13. Heijmans BT, Tobi EW, Stein AD, Putter H, Blauw GJ, Susser ES, Slagboom PE, Lumey LH. Persistent epigenetic differences associated with prenatal exposure to famine in humans. *Proc Natl Acad Sci USA*. 2008, 105(44):17046-9.

14. Heijmans BT, Kremer D, Tobi EW, Boomsma DI, Slagboom PE. Heritable rather than age-related environmental and stochastic factors dominate variation in DNA methylation of the human IGF2/H19 locus. *Hum Mol Genet*. 2007, 16 (5), 547-554.

15. Heijmans BT, Beekman M, Houwing-Duistermaat JJ, Cobain MR, Powell J, Blauw GJ, van der Ouderaa F, Westendorp RGJ, Slagboom PE. Lipoprotein particle profiles mark familial and sporadic human longevity. *PLoS Med.* 2006;3:e495.

16. Slagboom PE, Droog S, Boomsma DI. Genetic determination of telomere size in humans: a twin study of three age groups. *Am J Hum Genet*, 1994

Book contributions and other publications (book reviews, Dutch papers).

Book editor: G. Alzmon (novel book on genetics of ageing, in press 2014).

Grant Funding

Major funding has come from NWO, ZonMW (Dutch funding agencies scientific - medical research), Human Frontiers Science Program, National Institutes of Health (USA) and the European Commission.

PI

Before 2000

- Genetic determinants of generalised osteoarthritis (Reumafonds 936)
- Gene loci determining quantitative risk factor of cardiovascular disease and interacting lifestyle components (Nederlandse Hartstichting 1998B199)
- The role of a frequent variant of the MTHFR gene in disease and mortality (ZON 97-1-366)
- Testing candidate genes for osteoarthritis. Grant from Pfizer Central Research (Groton)

After 2000 (current in bold-italics)

- Localisation of gene loci contributing to osteoarthritis (OA) (NWO programme 904-61-095)
- High Throughput analysis of SNPs for the study of major complex traits and diseases (ZonMW investeringssubsidie middelgroot 911-03-016).
- Lipid and fatty acid metabolism: integrated analysis of genetic variation, biomarkers and environmental factors to identify new classifiers of incident MI risk and to maximize biological understanding (Nederlandse Hartstichting 2006B195)
- COMO Comprehensive Molecular Profiling (HST 2008). Collaboration with Technical University Delft and University Leiden LIACS
- NCHA II Netherlands Consortium for Healthy Aging. Growing Old together. Collaboration with ErasmusMC Rotterdam. (050-060-810)
- IDEAL Integrated research on Developmental determinants of Aging and Longevity (FP7-HEALTH-2010-two stage)
- BBMRI-NL Complementatieproject "Enrichment of Leiden Longevity Study for joined GWAS with BBMRI biobanks on different specific phenotypes (metabonomics, glycomics, telomere size, longevity" (CP17) (184.021.007)
- ***BBMRI.NL – Rainbow project Metabolomics RP4 (NWO 184.021.007)***
- ***Max Planck Fellowship***

Co-applicant with prominent role after 2000

- CMSB – Center for Medical Systems Biology: Epidemiology (NGI 2003)
- Identification of genes contributing to osteoarthritis (OA) (Reumafonds NR 00-1-301)

- The genetic determination of longevity and disease at old age. (Senter - IOP Genomics IGE01014). PI R.G.J. Westendorp
- The role of cytokine genes in the onset of osteoarthritis (Reumafonds NR 04-1-403).
- Biomarkers of the rate of ageing (Senter - IOP Genomics IGE05007B)
- Identification of epigenetic risk factors for coronary heart disease: towards an integrated analysis of genetic and epigenetic variation in cardiovascular research (Nederlandse Hartstichting 2006B083). PI B.T. Heijmans.
- NCHA Netherlands Consortium for Healthy Aging (NGI 2008).
- The genetic determination of longevity and disease at old age. Genetic subdivision of IOP Genomics (IGE01014)
- BBMRI-NL - Biobanking and Biomolecular Research Infrastructure – Nederland. (NWO 184.021.007)
- BBMRI-NL2.0: NL-Biobank Research Facility (NWO Nationale Roadmap Grootschalige Onderzoeksfaciliteiten)
- The role of the gut microbiota and chronic inflammation as drivers of cardiovascular disease (IN-CONTROL) (CVON)
- Genes, Germs and Resources. The role of the family and the disease environment in mortality and longevity in the Netherlands, 18-12-2015 (NWO 360-53-180)
- MIMOmics Methods for Integrated analysis of Multiple Omics datasets (FP7-HEALTH-2012-INNOVATION-1 2012-2017)
- X-Omics NWO roadmap
- Geroprotect (ERC), collaborator: PI Prof. L. Partridge
- Medical Delta (Hankemeier)
- Memorabel (ZonMW)

Further involvement specifically in EU project as member or WP leader

- GEHA Genetic of Healthy Ageing (FP6 – LSHM-CT-2004-503270)
- LifeSpan Integrated research into Development and Ageing (Network of Excellence) (FP6 – EU LSHG-CT-2007-036894) (WP leader)
- Linkage Coordination and Consolidation of European Biogerontology: en route towards formation of a European College of Biogerontology (FP6 – LSHM-CT-2004-513866)
- PROSPER pharmacogenetics “PHASE” (FP7) (co-applicant)
- Mark-Age European Study to Establish Biomarkers of Human Ageing (FP7)
- Treat-OA Translational Research in Europe – Applied Technologies for Osteoarthritis PHASE (FP7)
- Linkage Coordination and Consolidation of European Biogerontology: en route towards formation of a European College of Biogerontology

Patents

- “Methods and means for diagnosing and treatment of osteoarthritis” (EU-application 13164473.4 – 1406) (20130419)
- “Gene mutation causing Osteoarthritis” ((P6003347 EP)
- “Lipidomics of Familial Longevity” (EU-application 13159043.2 – 1405) (20140313). Stopped.

Supervised PhD students and Post-docs

27 completed PhD theses as supervisor, 8 in the process

- W. den Hollander On the relation between genetic variation and osteoarthritis (2018)
 Promotores: Prof.dr. P.E. Slagboom, Prof.dr. I. Meulenbelt
 Co-promotor: Dr. Y.F.M. Ramos
 Current position: Research data analyst at Trimbos Instituut
- J.H. Krijthe Robust Semi-supervised Learning (2018)
 Promotores: Prof.dr. J.N. Kok, Prof.dr. P.E. slagboom, Prof.dr. M. Loog
 Current position:
- R.C. Slieker Charting the dynamic methylome across the human lifespan (2017)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotor: Dr. B.T. Heijmans
 Current position: researcher at LUMC, Molecular Cell Biology
- N. Bömer Thyroid hormone signalling in Osteoarthritis, Early life events in late life disease (2017)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotor: Dr. I. Meulenbelt
 Current position: researcher at UMCGroningen, Netherlands
- P.E. Thijssen Genetics and epigenetics of repeat derepression in human disease (2016)
 Promotores: Prof.dr.ir. S.M. van der Maarel, Prof.dr. P.E. Slagboom
 Current position: Consultant at Schuttelaar & partners
- M. Stijntjes Interactions of cognitive and physical ageing (2016)
 Promotores: Prof.dr. P.E. Slagboom, Prof.dr.dr. A.B. Maier (Melbourne University, Australia)
 Co-promotor: Dr. C.G.M. Meskers (VUMC, Amsterdam)
 Current position: researcher at TU Delft, Medical Instruments & Bio-Inspired Technology
- J.K. Vis Algorithms for the Description of Molecular Sequences (2016)
 Promotores: Prof.dr. J.N. Kok (LIACS), Prof.dr. P.E. Slagboom
 Co-promotor: Dr. J.F.J. Laros
 Current position: System developer at LUMC, Human Genetics/bioinformatics
- Y. Ramos Osteoarthritis, a degenerative disease of the articular joints – Towards implementation of functional genomics in OA (2015)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotor: Dr. I. Meulenbelt
 Current position: researcher at LUMC, Molecular Epidemiology
- J. van Dongen (Epi)genetics and twins (2015)
 (Cum Laude) Promotores: Prof.dr. D.I. Boomsma (VU, Amsterdam, Netherlands), Prof.dr. P.E. Slagboom
 Co-promotores: Dr. B.T. Heijmans, Dr. A.H.M. Willemsen (VU, Amsterdam)
 Current position: researcher at VU, Netherlands
- E.B. van den Akker Computational biology in human aging – An omics data integration approach (2015)
 Promotores: Prof.dr. P.E. Slagboom, Prof.dr.ir. M.J.T. Reinders (Delft University of Technology)
 Co-promotor: Dr. M. Beekman
 Current position: researcher at LUMC, Molecular Epidemiology and TU Delft (Computational Biology)
- R.P. Talens Studies into epigenetic variation and its contribution to cardiovascular disease (2015)

- Promotores: Prof.dr. P.E. Slagboom, Prof.dr. J.W. Jukema
 Co-promotor: Dr. B.T. Heijmans
 Current position: Data Strategist at Havas Media
- J. Deelen (Cum Laude) Genetic and biomarker studies of human longevity (2014)
 Promotores: Prof.dr. P.E. Slagboom, Prof.dr. R.G.J. Westendorp
 Co-promotor: Dr. M. Beekman
 Current position: Max Planck Institute for Biology of Ageing, Germany
- A.A.M. Vaarhorst Genetic and Metabolomics approaches for Coronary Heart Disease risk prediction (2014)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotor: Dr. B.T. Heijmans
- W.M. Passtoors Transcriptomic studies in human ageing and longevity (2013)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotores: Dr. M. Beekman, Dr. J.M. Boer (ErasmusMC)
 Current position: researcher at Shanghai Jiao Tong University, China
- E.W. Tobi Epigenetic differences after prenatal adversity: The Dutch Hunger Winter (2013)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotores: Dr. B.T. Heijmans, Dr. L.H. Lumey (Columbia University, NY, USA)
 Current position: researcher at LUMC, Molecular Epidemiology
- M.P. Rozing Endocrine and metabolic features of familial longevity The Leiden Longevity Study (2011)
 Promotores: Prof.dr. R.G.J. Westendorp, Prof.dr. P.E. Slagboom
 Co-promotor: Dr.ir. D. van Heemst
 Current position: researcher at LUMC, Gerontology and Geriatrics
- L.R. Ruhaak Glycomics based biomarkers of the rate of aging: Development and applications of high throughput N-glycan analysis (2011)
 Promotores: Prof. dr. A.M. Deelder, Prof. dr. P. Slagboom
 Co-promotor: Dr. M. Wuhrer
 Current position: Postdoctoral Research Scholar at University of California Foods for Health Institute, Chemistry department, Davis, USA
- M.C.T. Op 't Landt-Slof Genetic determinants of eating disorders (2011)
 Promotores: Prof.dr. P.E. Slagboom, Prof.dr. D.I. Boomsma (VU, Amsterdam, Netherlands)
 Dr. E.F. van Furth (Center of Eating disorders Ursula, Leiden, Netherlands)
 Current position: researcher Center for Eating disorders Ursula, Leiden, Netherlands
- S.D. Bos Genes and Mediators of Inflammation and Development in Osteoarthritis (2010)
 Promotor: Prof.dr. P.E. Slagboom
 Co-promotor: Dr. I. Meulenbelt
 Current position: Postdoc at University of Oslo, Neuroscience, Norway
- M. Kuningas A Study into Genes Encoding Longevity in Humans (2007)
 Promotores: Prof.dr. R.G.J. Westendorp, Prof.dr. P.E. Slagboom
 Co-promotor: Dr.ir. E.W. van Heemst
 Current position: researcher at ErasmusMC, Epidemiology, Rotterdam, Netherlands
- S.P. Mooijaart Genetic Determinants of Healthy Longevity (2007)
 Promotores: Prof.dr. R.G.J. Westendorp, Prof.dr. P.E. Slagboom
 Co-promotor: Dr.ir. E.W. van Heemst

- Current position: Internist at Institute for Evidence-Based Medicine in Old Age | IEMO, Leiden, Netherlands
- J.L. Min Generalised Osteoarthritis: from Mendelian Disorder to Complex Disease (2007)
Promotores: Prof.dr. P.E. Slagboom, Prof.dr. C.M. van Duijn (ErasmusMC, Rotterdam, Netherlands)
Co-promotor: Dr. I. Meulenbelt
Current position: Research Associate in Genetic and Epigenetic Epidemiology, University of Bristol, UK
- B.Z. Alizadeh Osteoarthritis and hemochromatosis, a genetic epidemiological study (2007)
Promotores: Prof.dr. C. van Duijn (ErasmusMC, Rotterdam, Netherlands), Prof.dr. P.E. Slagboom
Co-promotor: Dr. I. Meulenbelt
Current position: Assistant professor/Genetic Epidemiologist at UMCGroningen, Netherlands
- N.Riyazi Familial osteoarthritis. Risk factors and determinants of outcome (2006)
Promotores: Prof.dr. F.C. Breedveld, Prof.dr. F.R.Rosendaal, Prof.dr. P.E. Slagboom
Co-promotor: Dr. G. Kloppenburg
Current position: Internist-Reumatologist at Haga Hospital, The Hague, Netherlands
- M. Beekman Towards mapping QTLs influencing parameters of lipid metabolism in human twins (2004)
Promotores: Prof.dr. P.E. Slagboom, Prof.dr. D.I. Boomsma (VU, Amsterdam)
Co-promotores: Dr. B.T. Heijmans, Dr. P. de Knijff
Current position: assistant professor at LUMC, Molecular Epidemiology
- B.T. Heijmans Common gene variants and mortality in the population at large (2000)
Promotores: Prof.dr. D.L. Knook (TNO-PG, Leiden), Prof.dr. R.G.J. Westendorp
Co-promotor: Prof.dr. P.E. Slagboom
Current position: Associate professor at LUMC, Molecular Epidemiology
- I. Meulenbelt Genetic Predisposing factors of Osteoarthritis (1997)
Promotores: Prof.dr. F.C. Breedveld, Prof.dr. D.L. Knook (TNO-PG, Leiden)
Co-promotores: Dr. P.E. Slagboom
Current position: Associate professor at LUMC, Molecular Epidemiology

Ongoing PhD projects

Planned in 2019

- N.M.A. van den Berg Genes, Germs and Resources. The role of the family and the disease environment in mortality and longevity in the Netherlands, 1812-2015
- K. Dekkers Lipids influence DNA methylation and transcription of circulating cells
- R. Luijk Development and application of new statistical analysis tools for genome scale DNA methylation data
- J. Meessen Ageing and Mobility
- Y. Raz Skeletal muscle changes in improved metabolic health

Planned in 2022

- S. Paraschiakos The interpretation of physical activity wearable data and its relation with metabolic and brain health in older adults

N.A. Reilly Cardiovascular disease and particular on the interaction between lipids, T cells and atherosclerosis

Planned in 2023

L. Sinke Population Epigenomics

P. Todtenhaupt Two hearts beating on one placenta: a natural experiment to unravel the epigenetic changes linking an adverse environment to cardiovascular health

Organization of scientific meetings

2020-05-27/29 Wellcome Trust Ageing Conference, Cambridge, UK. *Organizer, host and lecturer. > 250 participants.*

2019-06-23/27 Metabolomics 2019, The Hague, NL. *Organizer, host and lecturer. 300 participants*

2018-05-30/06-01 Wellcome Trust Longitudinal Conference, Cambridge, UK. *Organizer, host and lecturer. > 250 participants.*

2018-06-09 LLS deelnemersdag, Leiden, NL. *Organizer, host and lecturer. 500 participants.*

2018-05-14/15 DuSRA Voila workshop, Utrecht, NL. *Organizer, host and lecturer. 40 participants.*

2017-05-19 DuSRA – KNAW meeting, Leiden, NL. *Organizer, host and lecturer. 120 participants.*

2017-03-30 BBMRI-omics: Introduction and Hands-on Application, Utrecht, NL. *Organizer, host and lecturer. 80 participants.*

2016-04-15 Kick off meeting Dutch Society for Research on Ageing, Leiden, NL. *Organizer, host and lecturer. 120 participants.*

2016-01-27 Workshop BBMRI.NI metabolomics *Organizer, host and lecturer. 70 participants.*

2016-01-06/08 Lorentz workshop: Translational Aging Research: Challenges and Opportunities, Leiden, NL. *Organizer, host, lecturer. ± 60 participants.*

2015-06-15/19 A new series of Wellcome Trust meetings on Ageing and Metabolism in Cambridge, UK. Chair Prof. L. Partridge. The first meeting is: Aging and Metabolism Symposium The role of metabolism in ageing and ageing-related diseases. *Organizer and lecturer. >250 participants.*

2015-07-21/24 A new series of Wellcome Trust meetings on Ageing and Longitudinal studies in Cambridge, UK. Chair Prof. D. Kuh. The first meeting is: Longitudinal Studies: Maximising their Value for Ageing Research. *Organizer and lecturer. >250 participants.*

2015-10-12/14 IDEAL Dissemination Congress, Leiden, The Netherlands. *Organizer, host and lecturer. ± 70 participants.*

2015-02-24/27 4th Annual Meeting IDEAL, Bologna, Italy. *Organizer and lecturer. >60 participants.*

2015 January Scientific meeting for the LUMC Medical Research Profile Ageing. Leiden, The Netherlands. *Organizer and lecturer. ± 50 participants.*

2014-10-31 Kick off meeting BBMRI metabolomics. Leiden, The Netherlands. *Organizer, host and lecturer. ± 70 participants.*

2014 June Mini-symposium “Learn how to grow old and stay healthy!”, Leiden, The Netherlands. *Organizer and host. ± 80 participants.*

- 2011 – 2015 Annually meetings of IDEAL (EU project) in several European countries. *Organizer and lecturer. ± 60 participants.*
- 2013 December Final International NCHA congress, The Hague, The Netherlands. *Organizer, host and lecturer. ± 100 participants.*
- 2013 February International NCHA congress, The Hague, The Netherlands. *Organizer, host and lecturer. ± 100 participants.*
- 2010 November Leiden Langleven participants day, Leiden, The Netherlands. *Organizer, host and lecturer. ± 80 participants.*
- 2009 - 2013 Annually meetings of NCHA, several places in The Netherlands. *Organizer, host and lecturer. ± 100 participants.*
- 2009 - 2013 2-3 times per year NCHA working group meetings on osteoarthritis and longevity, several places in The Netherlands. *Organizer, host and lecturer. ± 80 participants.*
- 2008-12-03/11-306th European Congress of Biogerontology, Noordwijkerhout, The Netherlands. *Organizer and lecturer. >500 participants.*
- 2008 February MiniSymposium and Leiden Genetic Colloquium The Biology of Aging: from model system to humans, Leiden, The Netherlands. *Organizer and lecturer. ± 60 participants.*
- 2005 March Annual meeting of GEHA (EU project) in Leiden, The Netherlands. *Organizer, host and lecturer. ± 60 participants.*

Invited lectures

- 2020-05-27/29 Wellcome Trust Ageing Conference, Cambridge, UK
- 2020-02-09/14 Keystone Symposia on Molecular and Cellular Biology, Vancouver, Canada
- 2019-10-10/12 3rd Molecular Biology of Ageing Meeting, Groningen, NL
- 2019-07-05 Press Event on Vitality & Aging with Nivea, Noordwijk, NL
- 2019-06-23/27 Metabolomics Society's annual conference 2019, The Hague, NL
- 2019-03-07 Techtalk, Leiden, NL
- 2018-12-03 Filosofische Kring, Rozendaal, NL
- 2018-01-11 Adapting and reshaping medicine for an ageing population (Partnership meet-up), Utrecht, NL
- 2018-09-23/25 Aging and Metabolism Cell Symposium, Sitges, Spain
- 2018-09-06 Gerontologie und Geriatrie Kongress 2018, Cologne, Germany
- 2018-06-27/30 Keynote Nathan Shock Centers meeting, Philadelphia, USA
- 2018-06-04 Amsterdam Public Health Aging & Later Life symposium, Amsterdam, NL
- 2018-05-30/06-01 Wellcome Trust Longitudinal Conference, Cambridge, UK
- 2018-05-08 CECAD, Bonn, Germany
- 2018-04-17/20 Keystone Symposia on Pushing the Limits to Healthspan and Longevity, Hannover, Germany
- 2018-02-16/17 Biogerontology Conference, Dublin, Ireland
- 2018-02-11 Round table discussion "Science for Society" (UN International Day of Women and Girls in Science), Lorentz Center, Leiden, NL
- 2018-01-31/02-02 Wellcome Trust: Healthy Aging, Cambridge, UK
- 2017-12-08 Health-RI 2017: Empowering Personalized Medicine and Health Research. "Towards a unified research data-infrastructure", Utrecht, NL
- 2017-12-1/2 German Society for Aging Research, Cologne, Germany
- 2017-11-24 LIBC-symposia, Leiden, NL

- 2017-11-23 PG Ageing wetenschapsmiddag, LUMC, Leiden, NL
- 2017-11-16/18 ISTS (International Society for Twin Studies), Madrid, Spain
- 2017-10-24/25 JPI MYBL expert workshop on “Well-being in Later Life; the Oldest-old”, Paris, France
- 2017-10-11 MaCSBio/Moleculaire Epidemiologie, Maastricht University, Maastricht, NL
- 2017-07-28 Calico, San Francisco, USA
- 2017-07-23/27 IAGG "Longitudinal Studies on Aging: from Science to Policy", San Francisco, USA
- 2017-07-09/14 GRC Biology of Aging, Les Diablerets, Switzerland
- 2017-07-07 Afscheidssymposium Prof.dr. B. Bakker, Leiden, NL
- 2017-06-28/30 WHO meeting on Trajectories of Intrinsic Capacity Through the Life Course, Geneva, Switzerland
- 2017-06-20 Corbel – High level meeting on innovation, Brussel, Belgium
- 2017-06-09/11 American Aging Association, New York, USA
- 2017-05-31 1st ABRE congress (Association of Brazilianists in Europe), Leiden, NL
- 2017-05-23/25 Wellcome Trust Ageing Conference, Cambridge, UK
- 2017-05-15/17 Economische missie Life Science & Health, Sao Paolo, Brazilie
- 2017-05-01 Glenn Center for the Biology of Aging, Stanford, USA
- 2017-04-11/12 Nascholingsymposium ned.ver.longziekten (NVALT), Ermelo, NL
- 2017-03-07 ZonMW PPS dag: Innovatie door co-creatie, Utrecht, NL
- 2017-03-2/5 2nd Interventions in Aging Conference, Cancun, Mexico
- 2017-02-20 Seminar Epidemiology Dept, ErasmusMC, Rotterdam, NL
- 2017-02-17 COEUR symposium Omics in Cardiovascular Medicine, Erasmus MC, Rotterdam, NL
- 2017-02-15 MaCSBio, Maastricht, NL
- 2016-12-16 Christmas Lecture, Max Planck Institute for Ageing Research, Cologne, Germany.
- 2016-09-23/24 10th European Congress of Biogerontology and 6th Biogerontological Meeting, Nencki Institute, Warsaw, Poland
- 2016-07-10/12 Cell Symposium, Sitges, Spain
- 2016-06-14 Science Café, Leiden, NL
- 2016-06-1/4 EU conference: Building the Future of Health, UMCG, Groningen, NL.
- 2016-05-11 Wageningen University Symposium 2016, Wageningen, NL.
- 2016-05-1/6 Keystone symposia on Epigenetic and Metabolic Regulation of Aging and Aging-Related Diseases, Santa Fe, USA.
- 2016-04-3/7 13th International Congress of Human Genetics, Kyoto, Japan
- 2016-03-14/18 Brasil, FAPESP lecture as member of a visit of a Leiden university delegation to Brasil.
- 2015-12-14/16 Lorentz workshop: Endophenotypes of Social Anxiety Disorder. Can We Detect Them and Are They Useful in Clinical Practice? Leiden, NL.
- 2015-11-26 Leiden Academy on Vitality and Ageing - Prostagladine reünie, Leiden, NL. “Genetica van langer leven”.
- 2015-10-21/22 Max Planck Institute - Cologne Seminars on Ageing. “Linking Omics and Environment to understand the hallmarks of healthy aging and longevity in humans”.
- 2015-10-12/14 IDEAL Dissemination Congress, Leiden, The Netherlands. “Connecting Early Development and Late Life Health, epigenetic mechanisms and beyond”.

- 2015-10-02 Dutch Society for Biochemistry and Molecular Biology (NVBMB), Leiden, NL. "Metabolomic health in elderly: epidemiology and intervention studies"
- 2015-09-23/27 Albert Einstein Congress, Sao Paulo, Brasil. "Human Ageing Research in LUMC"
- 2015-09-08 Science Café Tilburg. "Onsterfelijkheid".
- 2015-07-21/24 Wellcome Trust Scientific Conferences: Longitudinal Studies: Maximising their Value for Ageing Research, Cambridge, UK. "Omics' and traditional parameters in Dutch studies on healthy ageing, morbidity and mortality".
- 2015-06-15/20 Ageing and Metabolism Symposium, Les Treilles, France. "Metabolomic health in older adults: Interventions and metabolomics in the Leiden Longevity Study".
- 2015-06-6/9 ESHG, Glasgow, UK. "Somatic mutations in monozygotic twins"
- 2015-05-18/20 Wellcome Trust Scientific Conferences: Healthy Ageing: From Molecules to Organisms, Cambridge, UK. "Healthy ageing: molecular epidemiology and intervention studies"
- 2015-04-23/26 8th ECGerontology/IAGG. Dublin, Ireland. "Genetic research and lifestyle interventions in longevity families".
- 2015-04-17 Opening Metabolomics Facility Leiden. "The use of metabolomics in epidemiology, clinical and lifestyle studies".
- 2015-02-02/05 Interventions in Aging Conference: Understanding Mechanisms and the Promise of Extending Human Health span. "Lifestyle interventions in elderly couples: Growing Old Together?" Cancun, Mexico.
- 2014-11-28 1st Lustrum BBMRI-NL. LUMC, The Netherlands
- 2014-11-19 Muscle meeting. LUMC, The Netherlands. "Ageing Muscle".
- 2014-10-24 Inaugural seminar in connection to Lene Christiansen's professorship. Danish Center for Ageing research, Odense, Denmark.
- 2014-09-18 22ste Folia Orthica symposium Metabool syndroom, belicht vanuit het brein. Amersfoort, The Netherlands. "Het effect van genetica en leefstijl op metabolisme en cognitie".
- 2014-09-12 Seminar Medical Intelligence. UMCUtrecht, The Netherlands
- 2014-06-03 Jan Veltkamp Symposium Stichting Panacee. Leiden, The Netherlands.
- 2014-05-12 6th Life Science Symposium Limits of Lifespan – Understanding and countering the causes of ageing. Leiden, The Netherlands. "Human longevity : Genetic and genomic studies"
- 2014-04-28 LPSV "Aesculapius". The Netherlands. "Biomarkers bij Verouderingsonderzoek"

Media activities

Film fragments

- Youtube "Trainingsprogramma voor Profielwerkstuk"
<https://www.youtube.com/watch?v=4Fo9R47CuQo>
- KRO "EUREKA Hoe word ik 100" 17 oktober 2013 http://www.npo.nl/embed/eureka/17-10-2013/KRO_1644526?npo_cc_skip_wall=1&npo_cc=na&npo_rnd=354196922
- NCRV "Altijd wat" – 2 september 2013
<http://altijdwat.incontxt.nl/seizoenen/2014/afleveringen/02-09-2014>
- RTL4 "Lang Zullen We Leven" - 7 januari 2012 <http://www.rtlxl.nl/#!/lang-zullen-we-leven-259234/b39d8e58-8c19-3717-a0e0-c27387c4a19e>

Interviews in newspapers, magazines and on radio

- 2019 de Volkskrant Heeft de leeftijd waarop opa overlijdt invloed op de levensverwachting van de kleinkinderen?

2019 Leidsch Dagblad	Van generatie op generatie leven zij lang
2018 Radio Sleutelstad	De Leiden LangLeven-studie
2018 Quest	Gezond grijs
2018 NRC Handelsblad	Meer dan 100? Dat is te danken aan de moeder
2018 Algemeen Dagblad	Stokoud worden heb je vooral te danken aan je moeder
2018 Leidsch Dagblad	Moeder geeft genen langlevendheid door
2018 RTL Nieuws	Extreem oude moeder? Dan heb je zelf ook een grotere kans om heel oud te worden
2018 NOS	Lang leven vooral door lang levende moeder
2018 NOS Radio 1 Journaal	Lang leven vooral door langlevende moeder
2018 Juist 47 Elseviers Magazine	Zorg voor je lichaam als voor je kind
2018 Beta	Magazine voor het bètaonderwijs ter inspiratie, motivatie en professionalisering
2016 LUMC Magazine	Lang en gezond leven, hoe doe je dat?
2015 Leidraad 5	Gezond oud worden, hoe doe je dat?
2014 Trouw	Met zwakke genen toch oud worden
2014 Leren over Leven: Life Sciences in Leiden. Onderzoek: Hoe? Zo!	
2014 Trouw	Met zwakke genen toch ouder worden
2014 Leidsch Dagblad	Stukje ontrafeld van mysterie langlevendheid
2014 NRC	Met DNA voor lage bloeddruk word je oud
2014 Voedingswaarde	Zelfs langlevenden kunnen nóg gezonder en ouder worden
2013 Gezond	Honger blijft kleven aan het DNA
2013 Biomaatschappij	Gezond ouder worden 2. De plooibare genetica van veroudering
2013 Cicero 8	Senior Special – LUMC profileringsgebied Ageing / veroudering
2013 Cicero 5	Scholieren doen aan wetenschap
2013 Cicero 2	Zo gezond als een vis
2013 NFU-13.3173	Werkbezoek van VWS aan Nederlandse Federatie van Universitaire Medisch Centra: Biobanken. (epigenetica, hongerwinter)
2013 Zin 06 juli/augustus	2011 pp. 66-69. "Mijn moeder werd 53. Morgen word ik zelf 53"
2013 Cicero 3	Handen ineen voor artrose
2012 Profile 24	As long as you've got your health
2012 Pan European Networks: Science and Technology 01.	Adding healthy years to the lifespan of citizens
2012 Cicero 6	Biokunst in Naturalis
2011 Leidraad 2	12 miljoen voor epigenetisch onderzoek
2011 C2W Life Sciences	DNA-kaart 2.0
2011 NWTmagazine	De rits van het DNA
2011 Elsevier 25	Lang zullen we leven
2011 EOS magazine 4	De helaasheid der rimpels
2011 Gezondgids aug/sept	Gezond Leven scheelt 14 jaar"
2011 MetroSpecial nov.	DNA is overall(Lang zullen we Leven)