***André Uitterlinden, Prof. Dr***

André Uitterlinden is a Full Professor of Complex Genetics at the Erasmus MC, Rotterdam, where he holds positions in 3 departments: Internal Medicine, Epidemiology, and Clinical Chemistry. He graduated from Leiden University in 1985 where he also obtained his PhD in 1993 after working at TNO, a Dutch Research Organization, as well as both US and Dutch Biotech firms. In 1994 he joined Erasmus MC at the Department of Internal Medicine. His research is focusing on identification and characterization of genetic factors for common age-related traits and diseases, including anthropometry, endocrine traits (such as age-at-menopause, age-at-menarche, hormone levels) and disorders (such as diabetes), and, in particular, the locomoter diseases Osteoporosis (OP) and Osteoarthritis (OA).

He is heading the Genetic Laboratory (with 45 members) at the department of Internal Medicine and is also in charge of the high-throughput human genotyping facility HuGe-F and now the Erasmus MC Genomics Core Facility, providing services for DNA isolation and management, SNP genotyping, GWAS genotyping, RNA expression and methylation analysis, microbiome analyses, and Next Generation Sequencing (NGS) to (inter)national customers. The facility is certified and has isolated >300,000 DNA samples, generated >10,000,000 genotypes by Taqman, >750,000 GWAS samples by SNP array, and NGS sequenced >20,000 samples (Exome, RNA, full genome, microbiome) with a turnover of 60 mio euro over the last 10 years. He is coordinating all molecular genetic analyses in 2 major cohort studies at Erasmus MC: the Rotterdam Study (RS; n=25,000 elderly >45yrs with DNA in the database) and the Generation R birth cohort (GenR; n=8,000 children +14,000 parents). These include GWAS genotype data (Illumina 550/610K; GSA), mRNA expressing array data, 450K methylation data, NGS exome and RNA sequencing data, and 16S microbiome data. The facility is preferred partner in the large Dutch BBMRI genomics projects (exome chip, RNA Sequencing, DNA methylation), and is also active for some NIH genotyping/sequencing projects.

In the past 10 years analysis of these datasets has resulted in >200 high profile papers (Nature, NewEnglJMed, Lancet, JAMA, Cell, Nat Genetics) describing the discovery of >1,000 GWAS hits for genetic risk factors for numerous complex disorders, including many age-related disorders. For several of these phenotypes Prof. Uitterlinden has been the first to discover these risk factors and leading the international efforts in, e.g., age-at-menopause, OP and OA gene discoveries, among many others. The Rotterdam Study alone is involved in >10% of all global GWAS publications (which is globally the most widely used GWAS dataset; Mills&Rahal, 2019), and is leading efforts in generating and analyzing NGS sequence data in human cohort studies. Recently, Dr van Meurs in his group led the largest RNA expression study in aging, analyzing 20,000 blood RNA samples and discovering ~1500 age related genes (Peters et al., Nat Comm., 2015) while Prof. Uitterlinden as director of NCHA sponsored and helped a study together with Unilever and LUMC (Prof. Slagboom) of age-related human facial appearance in the Rotterdam Study, discovering the M1CR gene variant associated with youthful looks (Liu et al., Curr Biol, 2016). These and other studies have highlighted for the first time the involvement of particular genes and pathways in many age-related disorders and quantitative phenotypes such as age-at-menopause, cholesterol level, blood pressure, bone mineral density, educational attainment, and height. In addition, these studies identified genomic loci with little or no annotation but containing genetic risk factors for diseases and intermediate phenotypes leading to discovery of novel biological mechanisms of disease.

**International visibility, activities, prizes, scholarships etc**

André Uitterlinden is an internationally recognized leader in the field of human complex genetics, genomics, and genome-wide association studies. He is collaborating with many (large) epidemiological study populations, both at Erasmus MC (e.g., ERGO, GenR) and abroad, usually in consortia on complex traits and diseases, including CHARGE, GIANT, GEFOS, TREAT-OA, Reprogen, and ENGAGE. Prof. Uitterlinden was the initiator/coordinator of the EU-sponsored GENOMOS/GEFOS consortium (involving >150.000 subjects) which is the internationally leading consortium that has identified >80 genetic risk factors for osteoporosis, and he is a member of the Research Steering Committee of the large USA based CHARGE consortium of longitudinal cohort studies which is a leading initiative in the field of GWAS and complex genetics in human cohort studies. André Uitterlinden was director of the NGI-sponsored Netherlands Consortium for Healthy Aging (NGI-NCHA; 2008-2013) with >100 investigators in the Netherlands and with a budget of 28 mio euro. Prof. Uitterlinden is a member of 4 editorial boards of scientific journals, and a frequent reviewer of manuscripts, project proposals, and international scientific infrastructures/institutes in- and outside the Netherlands. He has published >1400 papers in refereed journals, is highly cited (H-index 148; since 2014 a Thomson Reuter highly cited scientist in the top 1% in the field of Genetics& Genomics), receives funding from NWO, NGI, EU, and NIH (totaling >40 mio euro over last 10 years), currently involved in 4 EU grants, and is heading one of Europe’s largest genotyping facility (HuGe-F) with a turnover of >40 mio euro over the last 5 years (www.glimdna.org). He is organizing annual international courses on complex genetics at Erasmus MC for > 12 years, and has tutored 19 PhDs (including 4 cum laudes) several of whom successfully pursued independent scientific careers. His group currently counts ~50 fte’s, among whom 2 VIDI laureates, 20 fte in the Genomics Core Facility, and 12 active PhD students. He is also consulting occasionally for companies (e.g., Calico, Roche, MSD, Illumina, ThermoFisher).