

Curriculum Vitae

In a rapidly growing biomedical world with ever increasing amount and complexity of research / clinical data being generated, the appropriate data handling and analysis strategies are crucial to extract the necessary biological insights from data. More than ever this is a multi-disciplinary effort, requiring a strong interaction between domain experts and bioinformaticians.

My research and focus reflects my passion for the development and implementation of public bioinformatics algorithms and tools, as well as their application in the biomedical domain. Through this, I strive to make biological sense out of (multi)omics data generated from human samples from various biological sources. In the end, by mechanistically understanding human physiology / disease processes, we hope to come up with biomarkers and interventions to better monitor, predict and restore biological processes that explain dysfunction in human disease.

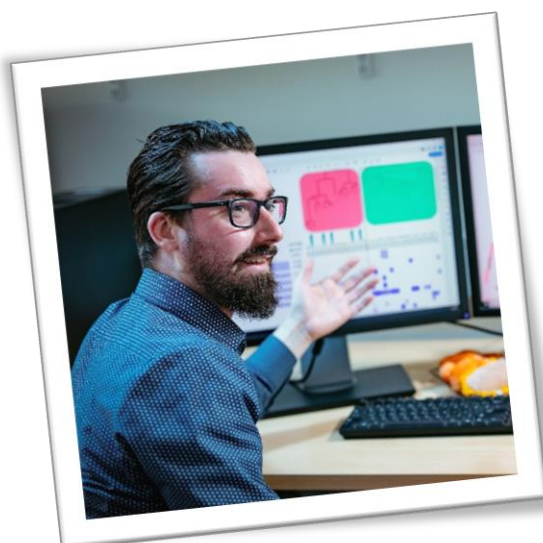
Personal details

Name: Dr. Thomas H.A. Ederveen
 Date and place of birth: 1987, Nijmegen, The Netherlands
 Nationality: Dutch

LinkedIn: <https://www.linkedin.com/in/tederveen/>
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Scientific details

Researcher ID: <https://www.researcherid.com/rid/G-6294-2016>
 ORCID ID: <https://orcid.org/0000-0003-0068-1275>
 Number of publications: * 32
 Number of citations: * 1179
 (* source: [Scopus](https://scopus.com))



Doctorate

University: Radboud University Medical Center Nijmegen
Date: March 28, 2019
Title of thesis: On the role of host microbiota associated with health and disease: a metagenomics survey through marker-gene sequencing and genomics approaches. ([Online](#))
Supervisors: Prof. dr. J. Schalkwijk
dr. S.A.F.T. van Hijum (co)
dr. J. Boekhorst (co)
dr. P.L.J.M. Zeeuwen (co)

Consortia *

2023 - current NGID: *Next Generation Immuno-dermatology* (co-applicant, WPL)
2022 - 2025 PRECARE: *PREdicting Cervical Abnormalities and Regression* (PD)
2020 - 2023 TWOC: *Trusted World of Corona and beyond* (WPL)
2018 - 2022 GUTMOM: *Interrelation between maternal obesity and cognitive dysfunction in offspring* (WPL)

* see attached CV notes for more details

Work experience

2023 - current Postdoctoral senior scientist at Medical BioSciences department, Radboud University Medical Center Nijmegen (Radboudumc).
2019 - 2023 Postdoctoral fellow at Center for Molecular and Biomolecular Informatics (CMBI), Radboud Institute for Molecular Life Sciences (RIMLS), Radboudumc.
2014 - 2019 PhD joint candidate at the Bacterial Genomics group of the CMBI and Department of Dermatology, RIMLS, Radboudumc.
2015 - 2016 Research Specialist (Bioinformatics) at NIZO food research BV at the Health Department, Ede, NL.
2012 - 2014 Junior Researcher at Department of Experimental Rheumatology, RIMLS, Radboudumc.

attached an overview of my work-related activities

Activities	Year(s)
a) Courses & Workshops - Brain, Bacteria and Behaviour: Understanding the Gut-Brain Axis (as organiser, part of Radboud Summer School) 2021+ - FAIR software workshop by the Netherlands eScience Center (NLeSc) 2020 - Advanced NGS: Metagenomics Approaches and Data Analysis 2014 - Working with Radionuclides - Level 5B 2012 - Course on Laboratory Animal Sciences - Article 9 2012	
b) (Inter)national Symposia & Congresses - BioSB Conference parallel session on ' <i>Microbial Communities</i> ' (organiser) 2023+ <i>Dutch Bioinformatics & Systems Biology Conference (with KNVM)</i> - NVED Annual Scientific Meeting (oral presentation) 2019 <i>Dutch Society for Experimental Dermatology</i> - BioSB Conference (oral presentation) 2017 - ESDR Future Leaders Symposium (invited speaker) 2015 <i>European Society for Dermatological Research</i> - Poster presentations on various other yearly conferences 2012+ <i>IID: International Investigative Dermatology</i> <i>NBIC: Netherlands Bioinformatics Centre Conference (now BioSB)</i> <i>BBC: BeNeLux Bioinformatics Conference</i>	
c) Press and Awards - Radboudumc interview with a researcher, a personal glimpse of .. 2020 [link] - Best publication award of 2019 in dermatology (at NVED) 2019 [link] - Nomination for BioSB Young Investigator Award 2019 2019 - Radboudumc press release: ' <i>Bemoeien darmbacteriën zich met ADHD?</i> ' 2017 [link]	
d) Lecturing - Yearly course ' <i>Digesting the Microbiome</i> ' for RU Master's students (NWI-BM081) 2021+ - Yearly lecture ' <i>Mens en Microbioom</i> ' for RU Medical students (MED-KFYS4A) 2018+ - Supervision of many Master's (and Bachelor's) students and/or Master's theses 2015+	
e) Events, Networking & Other - Board member of the section Microbial Bioinformatics, of the Royal Dutch Society of Microbiology (KNVM) 2022+ - Radboud Research Rounds event: Studying host-associated microbes (organiser) 2022 - Radboudumc RTC Bioinformatics ' <i>ask the expert</i> ' networking event (expert) 2019 - Initiator of the Radboud Microbiomics Initiative (RMI) 2019+ - X-Omics Festivals (visitor) 2019+ - Radboud New Frontiers Symposium on the Microbiome (visitor) 2017 - Wrote several anonymous referee reports for scientific journals (recurrent) 2015+ <i>PLOS ONE, Scientific Reports, ISME, Journal of Investigative Dermatology, Microbiome, a.o.</i>	
f) Consortia - Co-applicant (WP lead) for Next Generation Immuno-dermatology (NGID) 2023+ - Work package leader Trusted World of Corona (TWOC) FAIR project 2020 - 2023 - Project leader for Radboudumc in GUTMOM (http://www.gutmom.eu) 2019 - 2022	

attached my additional CV notes on Consortia

project: **NGID**
title: *Next Generation Immuno-Dermatology*
duration: 2023-2029
my role: Co-applicant and work package leader
funder: NWA-ORC (925K€)

summary:

Chronic inflammatory skin diseases have a major impact on our society. Over 2.5 million Dutch citizens suffer from chronic inflammatory diseases of the skin. Many patients suffer from persistent itch, sleeplessness, low self-esteem, and ultimately a critical impact on their participation in society. The long-term impact of dermatological disorders is debilitating and psychological impact is substantial, including increased risk for psychological disorders. In this large national Dutch consortium, I am in charge of setting-up the required infrastructure for data collection, storage, access and advanced analysis for discovery of biomarkers and individual signatures. The tools and services enable creation and storage of standardized, interoperable metadata, clinical data, and omics data, complying with FAIR, legal, confidentiality and ethical requirements.

NGID website : <https://ng-id.nl/en/home/>

project: **PRECARE**
title: *PREdicting Cervical Abnormalities and REgression*
duration: 2022-2025
my role: Postdoctoral researcher
funder: Eurostars (240K€)

summary:

Cervical cancer is caused by high-risk Human Papillomaviruses (hrHPV). The PRECARE consortium partners developed an innovative high-throughput and cost-effective biomarker-based assay system (CERVICARE) for analysis of cervical scrapes and self-swabs. The assay accurately and timely predicts presence and severity-grade of hrHPV-induced cervical pre-cancer abnormalities and their potential for progression and regression. In this Eurostars project, with the Radboudumc as one of its main partners, I was in charge of in-depth transcriptomics analysis of cervical scrapes, to find novel biomarkers for gene targets currently not in the CERVICARE panel. Furthermore, to efficiently facilitate harmonization and integration of data from and between different sites and databases, I've set-up a central FAIR system of local (clinical) databases from all sites involved, for FAIRification and secure sharing of data from the CERVICARE assay system.

PRECARE news item : <https://www.predica-diagnostics.com/news/eurostars-eu-funding>

project: **TWOC**
title: *The Trusted World of Corona and beyond*
duration: 2020-2023
my role: Work package leader
funder: TKI-LSH Health~Holland (245K€)

summary:

The COVID pandemic caused an enormous influx of information which is typically silo-ed in various systems or databases and scattered in different standards and languages. We aimed to contribute to a more sustainable, innovative high-quality and person-oriented healthcare system. To this end, we created a platform in which humans and machines can meet based on FAIR data/protocols and algorithms. Privacy sensitive data 'stays at its source' and is visited rather than actually shared or moved, concurrently allowing the data to be accessible to relevant authorized stakeholders to drive patient impact. As part of TWOC, I was responsible for proving this concept on a technical level through a use case (demonstrator) on a biological question concerning COVID-19 disease mechanisms.

Documentation of TWOC project components contributed by our team :

TWOC demonstrator Wiki at public GitHub : <https://github.com/Xomics/TWOCdemonstrator/wiki>

project: **GUTMOM**
title: *Maternal obesity and cognitive dysfunction in the offspring: cause-effect role of the GUT MicrobiOMe and early dietary prevention*
duration: 2018-2022
my role: Project 'penvoerder' and work package leader
funder: JPI HDHL INTIMIC / ZonMw (267K€)

summary:

GUTMOM was a European research consortium part of the JPI (Joint Programming Initiative) program called 'Healthy Diet for a Healthy Life' (HDHL). This project involved 6 academic centers, started in March 2018 and ran for four years until June 2022. In the ZonMw-funded GUTMOM project part as granted to Radboudumc, I was project and work package leader on proof of causation and evaluation of putative mechanisms, as involved in the interrelation between maternal obesity and cognitive dysfunction in offspring. We investigated whether we could identify gut microbial and metabolic features that are related to maternal obesity in humans and that influence the cognitive development of offspring in the first phase of life of the child.

This research paper features one of the main outcomes of our consortium team :

Guzzardi and Ederveen et al., 2022, Brain Behav Immun : <https://doi.org/10.1016/j.bbi.2021.12.009>