



Job van Rest

Team Lead Digital Health Solutions / Senior Digital Health & AI Advisor

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PROFILES

LinkedIn

ORCID

ResearchGate

PubMed

TECHNICAL SKILLS

DIGITAL HEALTH

AI / LLM OpenAI

AI assistants Open Chat Studio

GxAlert Everwell Hub

99DOTS

AI-ASSISTED DEV

Cursor Claude Code

Antigravity Next.js React

TypeScript Java

Spring Boot Python

Android HTML/CSS SQL

Docker AWS

DATA & ANALYTICS

Data Management, Analysis and Visualisation

PostgreSQL R SPSS

Tableau Epi Info REDCap

ODK

PRODUCTIVITY

MS Office 365 MS Copilot

Jira Confluence Asana

SharePoint

LANGUAGES

Dutch	Native
English	C2 Proficiency
German	A1
Swedish	A1

PERSONAL

Date of birth
20 March 1983

Digital health professional with 17+ years of experience in global public health technology. I lead the development and implementation of AI-powered health solutions, digital adherence technologies, and data management systems across 15+ countries. I combine deep domain expertise in tuberculosis and infectious disease control with the ability to build full-stack applications using AI-assisted development tools (Cursor, Claude Code, Antigravity). Co-author of 28 peer-reviewed publications. Independent developer of mobile apps and creative technology projects.

KEY COMPETENCIES

Technical Leadership

- Digital health strategy development
- AI/LLM implementation in healthcare
- Health information systems design
- Data management & epidemiological analysis
- AI-assisted application development (Cursor, Claude Code, Antigravity)

Management & Communication

- Multi-country team management (20+ staff)
- Multi-stakeholder coordination (MoH, donors, NGOs)
- Grant writing & budget development
- Crisis management coordination

WORK EXPERIENCE

Team Lead Digital Health Solutions / Senior Digital Health & AI Advisor Jul 2018 — Present
[KNCV Tuberculosis Foundation](#)

- Lead the Digital Health Solutions team; define strategy, manage portfolio of digital health projects, and coordinate activities across global and country offices
- Technical lead / consultant for AI-powered chatbot projects built with OpenAI, MessageBird, Open Chat Studio, WhatsApp, and Telegram: **Aida** — TB treatment companion in Mozambique, Nigeria & South Africa; **Clinical Supporter** — drug-resistant TB advice for doctors in Kazakhstan; **TB Knowledge Assistant** — multilingual TB knowledge dissemination in the Netherlands; **Digitriage** — AI vision-based CD4 test analysis in Ethiopia (using Audere AI Vision)
- Developed **PPA Desktop**, an open-source desktop application for Patient Pathway Analysis (Java, Spring Boot, PostgreSQL, R, Docker) — [github.com/kncvtbplus/ppa-desktop](#)
- Built and maintained **TBC-Online** ([tbc-online.nl](#)), a web application providing interactive TB data visualizations from the Netherlands Tuberculosis Register (JavaScript, data visualization)
- Co-lead Unitaïd-funded multi-country digital adherence technology programme in Ethiopia, Tanzania, Philippines, Ukraine, and South Africa (2019–2023) — [digitaladherence.org](#)
- Technical lead for BMGF-funded Digital Adherence Technologies grants (phase 1: 2017–2019; phase 2: 2022–2024)
- Technical lead EU-funded IMPACT TB research project on active case finding in Nepal and Vietnam (2018–2020) — [impacttbproject.org](#)
- Member and secretariat of the Global DAT Task Force; Chairman of Works Council (2019–2022); Crisis Management Team coordinator (2020–present)
- Proposal writing, grant development, and budget management for multi-million dollar global health programmes
- Stakeholder management across ministries of health, donors (BMGF, Unitaïd, EU), technical partners, and NGOs

Consultant Surveillance & Data Management

Dec 2013 — Jun 2018

- KNCV Tuberculosis Foundation
- Technical project lead for surveillance and data management projects at global and country level
 - Data management support for TB prevalence surveys (Mozambique, Vietnam)
 - Led Active Drug Safety Monitoring implementation for new TB drugs (Vietnam, Indonesia, Kyrgyzstan, Tajikistan)
 - Technical lead for medication management and quantification across 9 countries
 - Supported development of routine TB surveillance systems (Tajikistan, Vietnam, Afghanistan)

Technical Officer Surveillance & Data Management

Jul 2012 — Nov 2013

RIVM — National Institute for Public Health and the Environment

- Managed the National Tuberculosis Register and routine TB surveillance system in the Netherlands
- Website and CMS administrator for the national tuberculosis information page

Head Data Management Unit

Jan 2011 — Nov 2013

KNCV Tuberculosis Foundation

- Led the data management unit: planning, supervision, and coordination
- Responsible for the National Tuberculosis Register; secretariat of the Registration Committee
- Handled research requests and dataset preparation for external researchers

Technical Officer Surveillance & Data Management

Oct 2008 — Dec 2010

KNCV Tuberculosis Foundation

- Contributed to the renewal of the national TB surveillance system
- Contact person for all municipal TB departments in the Netherlands
- Co-author of national surveillance reports

EDUCATION

MSc Health Sciences — International Public Health

VU University Amsterdam, The Netherlands

2007 — 2008 · Thesis: Childhood obesity in the Caribbean (Bonaire)

BSc Biomedical Science

Leiden University, The Netherlands

2002 — 2005 · Exchange: Karolinska Institutet, Stockholm (2004)

PERSONAL & CREATIVE PROJECTS

Memory Mania — Mobile Game

Card-matching mobile game with 100+ animal cards, story mode, seasonal ranked play, and daily challenges. Available on Google Play; iOS coming soon.

AndroidiOSGame Development

Highway Exit — AI Music Album

11-track album produced using AI music generation technology under the artist name Sammy Hartlow. Available on Spotify and all major streaming platforms.

AIMusic Production

jobvanrest.nl — Portfolio Website

Personal portfolio built with Next.js, React, TypeScript, and Tailwind CSS. Static site with bilingual support (EN/NL), filterable project grid, and responsive design.

Next.jsReactTypeScriptTailwind CSS

CO-AUTHORED PUBLICATIONS (28)

28. Ahmad R, Ramos JP, Duarte R, Lange C, **van Rest J**. Enhancing tuberculosis care in lower and middle-income countries through digital adherence technologies. *Breathe (Sheff)*. 2026;22(1):250173.
27. Tadesse AW, Sahile M, Foster N, McQuaid CF, Weldemichael GT, Abdurhman T, Mohammed Z, Belachew M, Shiferaw A, Assefa D, Gadissa D, Yazew H, Yakob N, Shewamene Z, Goscé L, **van Rest J**, Madden N, Charalambous S, van Kalmthout K, Bedru A, Letta T, Jerene D, Fielding KL. Digital adherence technology interventions to reduce poor end-of-treatment outcomes and recurrence among adults with drug-sensitive tuberculosis in Ethiopia: a three-arm, pragmatic, cluster-randomised, controlled trial. *Lancet Digit Health*. 2025 Sep 29:100895.
26. Alacapa J, Tadesse AW, Deyanova N, Dube T, Mganga A, Powers R, **van Rest J**, Madden N, Efo E, Charalambous S, van Kalmthout K, Jerene D, Fielding K. Engagement with digital adherence technologies as measures of intervention fidelity among adults with drug-susceptible tuberculosis and health care providers: descriptive analysis using data from cluster-randomized trials in five countries. *JMIR Public Health Surveill*. 2025;11:e62881.
25. Jerene D, van Kalmthout K, Levy J, Alacapa J, Deyanova N, Dube T, Mganga A, Tasca B, Bogdanov A, Efo E, Gamazina K, Garfin AMC, Kochanov V, Leung A, Madden N, Maraba N, McQuaid CF, Mleoh L, Onjare B, Powers R, Terleiva Y, **van Rest J**, Gebhard A, Fielding K, Charalambous S. Effect of digital adherence technologies on treatment outcomes in people with drug-susceptible tuberculosis: four pragmatic, cluster-randomised trials. *Lancet*. 2025;405(10485):1155–1166.
24. Gosce L, Tadesse A, Foster N, van Kalmthout K, **van Rest J**, McQuaid CF, et al. Modelling the epidemiological and economic impact of digital adherence technologies with differentiated care for tuberculosis treatment in Ethiopia. *BMJ Global Health*. 2024;9(12):e016997.
23. Pelzer P, Holleman M, Helinski M, Weinberg AL, Buis J, Beattie P, Nyirenda T, **van Rest J**, Voss G. The TB vaccine clinical trial centre directory: an inventory of clinical trial centres in sub-Saharan Africa. *PLoS One*. 2024;19(10):e0292981.
22. Foster N, Tadesse AW, Belachew M, McQuaid CF, Abdurhman T, Assefa D, Bedru A, Houben RMGJ, van Kalmthout K, Letta T, Mohammed Z, **van Rest J**, Umeta DG, Weldemichael GT, Yazew H, Jerene D, Quaife M, Fielding KL. Equity, cost and disability adjusted life years of tuberculosis treatment supported by digital adherence technologies and differentiated care in Ethiopia: a trial-based distributional cost-effectiveness analysis. *medRxiv*. 2024. doi:10.1101/2024.07.28.24310767. **PREPRINT**
21. Dixit K, Rai B, Aryal T, **van Rest J**, Wingfield T, et al. Stigma, depression, and quality of life among people with pulmonary tuberculosis diagnosed through active and passive case finding in Nepal: a prospective cohort study. *BMC Global and Public Health*. 2024;2(1):20.
20. Belachew M, Sahile M, Gadissa D, Shiferaw A, Yazew H, Abdurhman T, Assefa D, Weldemichael GT, **van Rest J**, van Kalmthout K, Tadesse AW, Foster N, Jerene D, Fielding KL. Effect of implementing digital adherence technologies on the use of health care providers' time and the human resource cost of tuberculosis treatment adherence support in Ethiopia. *medRxiv*. 2024. doi:10.1101/2024.03.14.24304331. **PREPRINT**
19. Tadesse AW, Cusinato M, Weldemichael GT, Abdurhman T, Assefa D, Yazew H, Gadissa D, Shiferaw A, Belachew M, Sahile M, **van Rest J**, Bedru A, Foster N, Jerene D, Fielding KL. Risk factors for poor engagement with a smart pillbox adherence intervention among persons on tuberculosis treatment in Ethiopia. *BMC Public Health*. 2023;23(1):2006.
18. Gurung S, Dixit K, Paudel R, Sah M, Padit R, Aryal T, Khatiwada S, Majhi G, Dhital R, Paudel P, Shrestha G, Rai B, Levy J, **van Rest J**, Thapa A, Ramsay A, Squire S, Lönnroth K, Basnyat B, Caws M. Comparing additionality of tuberculosis cases using GeneXpert or smear-based active TB case-finding strategies among social contacts of index cases in Nepal. *Trop Med Infect Dis*. 2023;8(7):369.
17. Zenner D, Brals D, Nederby-Ohd J, Menezes D, Aldridge R, Anderson S, de Vries G, Erkens C, Merchese V, Matteeli A, Muzyamba M, **van Rest J**, Spruit I, Migliori G, Lönnroth K, Cobelens F, Abubakar I. Drivers determining active TB screening yield in different European screening programmes: a comparative analysis. *Eur Respir J*. 2023;2202396.
16. Foster N, Tadesse A, McQuaid CF, Gosce L, Abdurhman T, Assafa D, Bedru A, Houben R, van Kalmthout K, Letta T, Mohammed Z, **van Rest J**, Umeta D, Weldemichael G, Yazew H, Jerene D, Quaife M, Fielding K. Evaluating the equity impact and cost-effectiveness of digital adherence technologies with differentiated care to support tuberculosis treatment adherence in Ethiopia. *BMC Trials*. 2023;24(1):292.
15. Jerene D, Levy J, van Kalmthout K, **van Rest J**, McQuaid CF, Quaife M, Charalambous S, Gamazina K, Garfin C, Terleiva Y, Bogdanov A, Maraba N, Fielding K. Effectiveness of digital adherence technologies in improving tuberculosis treatment outcomes in four countries: a pragmatic cluster randomised trial protocol. *BMJ Open*. 2023 Mar.
14. Menezes D, Zenner D, Aldridge R, Anderson SR, de Vries G, Erkens C, Marchese V, Matteeli A, Muzyamba M, Nederby-Ohd J, **van Rest J**, Spruijt I, Were J, Lönnroth K, Abubakar I, Cobelens F. Country differences and determinants of yield in programmatic migrant TB screening in four European countries. *Int J Tuberc Lung Dis*. 2022;26(10):942–948.
13. Tadesse AW, Mohammed Z, Foster N, Quaife M, McQuaid CF, Levy J, van Kalmthout K, **van Rest J**, Jerene D, Abdurhman T, Yazew H, Umeta DG, Assefa D, Weldemichael GT, Bedru A, Letta T, Fielding KL. Evaluation of implementation and effectiveness of digital adherence technology with differentiated care to support tuberculosis treatment adherence and improve treatment outcomes in Ethiopia. *BMC Infect Dis*. 2021;21(1):1149.
12. Dixit K, Biermann O, Rai B, Aryal TP, Mishra G, Teixeira de Siqueira-Filha N, Paudel PR, Pandit RN, Sah MK, Majhi G, Levy J, **van Rest J**, Gurung SC, Dhital R, Lönnroth K, Squire SB, Caws M, Sidney K, Wingfield T. Barriers and facilitators to accessing tuberculosis care in Nepal. *BMJ Open*. 2021;11(10):e049900.
11. Gurung SC, Rai B, Dixit K, Worrall E, Paudel PR, Dhital R, Sah MK, Pandit RN, Aryal TP, Majhi G, Wingfield T, Squire B, Lönnroth K, Levy JW, Viney K, **van Rest J**, Ramsay A, Santos da Costa RM, Basnyat B, Thapa A, Mishra G, Moreira Pescarini J, Caws M, Teixeira de Siqueira-Filha N. How to reduce household costs for people with tuberculosis: a longitudinal costing survey in Nepal. *Health Policy Plan*. 2021;36(5):594–605.
10. Rai B, Dixit K, Aryal TP, Mishra G, Siqueira-Filha NT, Levy JW, **van Rest J**, et al. Developing feasible, locally appropriate socioeconomic support for TB-affected households in Nepal. *Trop Med Infect Dis*. 2020;5(2):98.

9. Dixit K, Rai B, Prasad Aryal T, Mishra G, Levy JW, **van Rest J**, et al. Research protocol for a mixed-methods study to characterise and address the socioeconomic impact of accessing TB diagnosis and care in Nepal. *Wellcome Open Res.* 2020;5:19.
8. Gurung SC, Dixit K, Rai B, Caws M, Paudel PR, Dhital R, Acharya S, Budhathoki G, Malla D, Levy JW, **van Rest J**, Lönnroth K, Viney K, Ramsay A, Wingfield T, Basnyat B, Thapa A, Squire B, Wang D, Mishra G, Shah K, Shrestha A, de Siqueira-Filha NT. The role of active case finding in reducing patient incurred catastrophic costs for tuberculosis in Nepal. *Infect Dis Poverty.* 2019;8(1):99.
7. van de Berg S, Erkens C, **van Rest J**, van den Hof S, Kamphorst M, Keizer S, de Vries G. Evaluation of tuberculosis screening of immigrants in the Netherlands. *Eur Respir J.* 2017;50(4).
6. de Vries G, **van Rest J**, Meijer W, Schimmel H, Wolters B, van Hest R, Kimerling M. Tuberculosis screening yield of asylum seekers in Europe. *Eur Respir J.* 2016;48(4):1255–1256.
5. de Vries G, **van Rest J**, Meijer W, Wolters B, van Hest R, Kimerling M. Preventing and controlling tuberculosis among refugees in Europe: more needed for high-risk populations. *Eur Respir J.* 2016;48(1):274–276.
4. de Vries G, **van Rest J**, Meijer W, Wolters B, van Hest R. Low yield of screening asylum seekers from countries with a tuberculosis incidence of <50 per 100 000 population. *Eur Respir J.* 2016;47(6):1870–1872.
3. Ruesen C, van Gageldonk-Lafeber AB, de Vries G, Erkens CG, **van Rest J**, Korthals Altes H, de Neeling H, Kamst M, van Soolingen D. Extent and origin of resistance to antituberculosis drugs in the Netherlands, 1993–2011. *Euro Surveill.* 2014;19(11).
2. Mulder C, van Deutekom H, Huisman EM, Meijer-Veldman W, Erkens CG, **van Rest J**, Borgdorff MW, van Leth F. Coverage and yield of tuberculosis contact investigations in the Netherlands. *Int J Tuberc Lung Dis.* 2011;15(12):1630–1637.
1. Schwiebbe L, **van Rest J**, Verhagen E, Visser RW, Holthe JK, Hirasing RA. Childhood obesity in the Caribbean. *West Indian Med J.* 2011;60(4):442–445.