# Ricky Thijssen

*Molecular Life Sciences Researcher | R&D | Applied Biotechnology*

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## PROFILE

Analytical, structured, and reliable molecular life sciences researcher with hands-on experience in iPSC and ESC culture, organoid differentiation, CRISPR/Cas9 genetic engineering, lentiviral vector production, flow cytometry, ELISA, and a broad range of molecular techniques — developed throughout my HBO-BSc and one year at the UMCG, and currently deepening this through a part-time HBO-MSc in Applied Molecular Life Sciences (HAN), with modules covering data analysis and experimental design in biomolecular R&D, research and product development, and R&D business strategy. I like working in collaborative, international research environments, enjoy supporting colleagues as well as working independently, and am available immediately for 32 hours per week.

## TECHNICAL SKILLS

**Expert** (Mammalian) cell culture (incl. iPSC & ESC) • Gel electrophoresis • CRISPR/Cas9 genetic engineering • Lentiviral vector production & transduction • Human intestinal (organoid & spheroid) differentiation

**Proficient** RT-qPCR & PCR • Flow cytometry • ELISA • Western blotting • Immunofluorescent imaging • Assay development (ISO 13485) • Microscopy • Data analysis (R, Python) • scRNA-seq data analysis • SOP writing & documentation

**Familiar** Cell sorting • Design of Experiments (DoE) • Quality by Design (QbD) • FAIR data principles • GMP principles • USP/DSP strategy • Image analysis

## MOLECULAR RESEARCH EXPERIENCE

**Graduation Internship – Parkinson's Disease Model** *Mar 2023 – Aug 2023*
**University Medical Center Groningen (UMCG)** | Groningen

- Independently developed a lentiviral CRISPR/Cas9 vector system to generate GBA1-knockout cell lines across multiple human cell types (HEK293, HUES9, iPSC), combined with an inducible protein overexpression system to study disease mechanisms.
- Executed full workflow from vector cloning and lentiviral production to transduction and knockout validation via Western blotting and RT-qPCR. Execution grade: 9/10.

**Research Internship – Human Intestinal Organoids** *Sep 2022 – Feb 2023*
**University Medical Center Groningen (UMCG)** | Groningen

- Validated a novel iPSC/ESC-derived intestinal organoid protocol using spheroid microplates; performed brightfield and immunofluorescence microscopy and optimised stem cell and organoid culture conditions.

**BSc Research Project – XLA Disease Modelling** *Sep 2021 – Feb 2022*
**Avans University of Applied Sciences** | Breda

- Worked on establishing a CRISPR/Cas9-based BTK-knockout model in Daudi cells (human B-cell line) to study X-linked agammaglobulinaemia; used flow cytometry to characterise lymphoid cell populations.
- Part of the Medical Research specialisation within the BSc programme.

**Research Technician** *Nov 2023 – Apr 2024*
**Molecular Biology Systems** | Goes, Zeeland

- Developed and optimised PCR assays for the NGPCR thermal cycler within an ISO 13485-regulated environment, including SOP writing, routine quality control, and testing of novel compounds to improve assay performance.
- Maintained accurate experimental documentation in line with regulatory standards.

**Sample Management (via Recruit a Student)** *Apr 2024 – Jun 2024*
**Eurofins** | Netherlands

- Supported sample intake and management at a clinical laboratory, ensuring correct registration, labelling, and storage of samples for downstream analysis.

**Assistant Laboratory Technician** *Jul 2018 – Jul 2019*
**Rijk Zwaan** | De Lier

- Supported Seed Health Testing and DNA Sample Preparation departments; prepared assays to detect seed-borne pathogens and processed samples for DNA-based analyses.

## OTHER RESEARCH EXPERIENCE

**Thesis Researcher** *Feb 2025 – Jul 2025*
**Vilans** | Utrecht

- Led multi-method study (n=44 interviews) on healthcare knowledge dissemination; thesis graded 8.3/10.
- Delivered national dissemination strategy and implementation roadmap, now under active implementation.

**Researcher – Motivation in ACL Rehabilitation** *Nov 2025 – Feb 2026*
**Jip Regtop Fysiotherapie** | Maassluis

- Practice-oriented mixed-methods research on motivation in long-term ACL rehabilitation; graded 8.2/10.

## EDUCATION

**MSc Applied Molecular Life Sciences (in progress)** *Sep 2025 – Aug 2028*
**HAN University of Applied Sciences**
Focus: data analysis & experimental design in biomolecular R&D, research & product development, R&D business strategy
Part-time programme (contact day: Monday); available 32 hours/week

**MSc Healthy Society** *Sep 2024 – Feb 2026*
**Fontys University of Applied Sciences**
Thesis grade: 8.3/10

**BSc Biology & Medical Laboratory Research** *Sep 2019 – 2023*
**Avans University of Applied Sciences**
Major: Medical Research | Minor: Biomedical Innovation
GPA: 7.5/10 | Graduation internship grade: 9/10

## PUBLICATIONS

Thijssen, R. & Lips, M. (2026). Behoud van motivatie: de sleutel tot een succesvolle VKB-revalidatie. *Sportgericht*, 80(2), pp. 8–13.

## AWARDS & PROFESSIONAL DEVELOPMENT

**1st Prize – Smart Biomaterials Hackathon for Regenerative Medicine** *2025*
Awarded 10,000 grant for prototype development of a regenerative ACL scaffold, currently under experimental validation.

**Finalist – Oxford Venture Builder Programme** *2025*

## LANGUAGES

**Dutch** (Native) • **English** (C1–C2) • **German** (B1) • **Spanish** (B1)

## PERSONAL INTERESTS

Active lifestyle (gym, bouldering, hiking), reading, podcasts, art.