# Anouck Thienpont

PHD STUDENT WITH A BACKGROUND AS INDUSTRIAL PHARMACIST


Born on 1st of August 1994, Belgian

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## SUMMARY


During my PhD career I want to combine my pharmaceutical knowledge and interest in dermato-cosmetology research to become a scientific expert in the *in vitro* genotoxicology and dermato-cosmetology.


## SKILLS

### Personality

- Social, engaged and dynamic
- Comfortable to work both independently and as a team member
- Eager to learn
- Strong ownership of own project and ability to take the lead
- Correct, precise and reliable

### Software

- Proficient use of Microsoft Word, Powerpoint, Excel, Outlook
- R, GrapPhad Prism and Adobe Illustrator

### Language

**Dutch:** Mother tongue
**English:** Fluent
**French:** Fluent
**German:** Notion

## CURRENT ACTIVITIES

### PHD STUDENT

***Research Foundation Flanders (FWO), Flanders – Fellowship strategic basic research*** — **Oct 2020 - Present**

***In vitro Toxicology and Dermatology, Vrije Universiteit Brussel (VUB) - Academic Assistant Staff*** — **Oct 2019 - 2020**

- PhD project: “**Next Generation Risk Assessment**” (NGRA) to assess the genotoxicity of chemical compounds without the use of experimental animals.
- **Pre-submission of GENOMARK to EURL ECVAM** in collaboration with the VUB and Sciensano
- Write scientific publications and present research results at (inter)national congresses
- Provide teaching assistance in the course "**Toxicology and 3R-alternative methods**"
- Active partner in the international projects "**Twinning towards excellence in alternative methods for toxicity assessment**" (TWINALT) and the "**Partnership for the Assessment of Risks from Chemicals**" (PARC) project
- Support Master students during their thesis
- Member of the **Innovation Centre IC-3Rs** and the **Belgian and European Societies on Environmental Mutagenesis.**

## EDUCATION HISTORY

**Masters of Pharmaceutical care** — **2018 - 2019**
**Katholieke Universiteit Leuven**

**Masters of Science in Drug Development** — **2016 - 2018**
**Katholieke Universiteit Leuven,**
***Magna cum laude***

## ADDITIONAL EDUCATIONS

- Practical and Theoretical Course on Skin models to assess contact allergens as part of the TWINALT project. Milan, Italy (May 10-26, 2022)
- “in Silico Toxicology”: application of QSAR models, read-across and the TTC concept, *Fraunhofer Institute for Toxicology and Experimental Medicine (virtual)* (2020)
- Safety assessment of cosmetics in the EU, VUB, Brussels (2020)
- Basic programming and transcriptomic analysis using R, LSM-VUB, Brussels (2019-2020)
- Intensive course in Dermato-Cosmetic Sciences, VUB, Brussels (2019)

# RESEARCH OUTPUT

**Publications in peer-reviewed journals**

Thienpont A, Cho E., Williams A., Meier M.J., Yauk C.L., Rogiers V, Vanhaecke T and Mertens B. (2023). **Unlocking the power of transcriptomic biomarkers in qualitative and quantitative genotoxicity assessment of chemicals. *(Manuscript in preparation)***

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. (2023). **Novel prediction models for genotoxicity based on biomarker genes in human HepaRGTM cells.** *ALTEX* 40(2)271–286. doi: 10.14573/altex.2206201

Rogiers V, Thienpont A, Delagrange M, Mertens B and Vanhaecke T. (2022) **Validated alternative methods available for human Health and Safety assessment of cosmetic products and their ingredients in the European Union** (Book chapter) fifth Edition: Handbook of Cosmetic Science and Technology, CRC Press. ISBN 9780367469979

Sanders J, Thienpont A, Anthonissen R, Vanhaecke T and Mertens B. (2022) **Impact of experimental design factors on the potency of genotoxicants in *in vitro* tests.** *Mutagenesis*, 37(5-6),248–258. https://doi.org/10.1093/mutage/geac025

**Oral presentations**

Thienpont A, Cho E., Williams A., Meier M.J., Yauk C.L., Verhulst S., Rogiers V., Vanhaecke T. and Mertens B. **The GENOMARK transcriptomic biomarker: a new approach methodology for genotoxicity (Qualitative and quantitative aspects).** Will be presented by Thienpont A. at the Joint 3R Symposium 2023. Brussels (Belgium), Sept 19-21th 2023.

Thienpont A, Cho E., Williams A., Meier M.J., Yauk C.L., V. Rogiers V., Vanhaecke T. and Mertens B. **The GENOMARK transcriptomic biomarker demonstrates a high predictivity for genotoxic hazards and utility in potency ranking in human HepaRGTM cells**. Presented by Thienpont A. at the EEMGS meeting 2023. Malaga, Spain, May 15-18th 2023.

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. **The GENOMARK biomarker in human HepaRGTM cells: a new approach methodology for genotoxicity assessment.** Presented by Thienpont A. at the SaferWorldByDesign webinar. Online, February 21 2023

Thienpont A, Verhulst S, van Grunsven L, Vanhaecke T, Mertens B and Rogiers V. **The GENOMARK biomarker, a promising new approach methodology for genotoxicity testing to de-risk misleading positive chemicals in the cosmetic industry.** Presented by Thienpont A. at the 6th International Conference of Cosmetics. Antalya, Turkey, December 1-3 2023

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. **The evaluation of genotoxicity by using novel prediction models based on biomarker genes in human HepaRGTM cells.** Presented by Thienpont A. at the OpenTox Virtual Conference. Online, September 12-16 2022

Sanders J, Thienpont A, Anthonissen R, Vanhaecke T and Mertens B. **Impact of cell type and exposure time on the quantitative outcome of in vitro genotoxicity tests.** Presented by Sanders J. at the 13th ICEM conference. Ottawa, Canada, August 27- September 1st 2022

Thienpont A, Verhulst S, Sanders J, De Win D, Tarhonska K, Rogiers V, Vanhaecke T, and Mertens B. **GENOMARK gene expression data to compare genotoxic potencies: qualitative and quantitative aspects.** Presented by Thienpont A. at the 13th ICEM conference. Ottawa, Canada, August 27 – September 1st 2022

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. **Development and comparison of novel prediction models for genotoxicity based on biomarker genes in HepaRGTM cells**. Presented by Thienpont A. at the ASCCT-ESTIV webinar. Online, May 16th 2022

Rogiers V. and Thienpont A. **Potential Endocrine Disruptors in Cosmetic Products – what Brings the Future**. Presented by Rogiers V. at The Virtual 6th ERPA Annual Congress on Regulations and Compliance for Cosmetics. Online, 2-3 February 2022

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. **Development of a novel genotoxicity prediction model based on biomarker genes in human HepaRGTM cells.** Presented by Thienpont A. at the ASCCT meeting. Online, October 2021.

Thienpont A, Verhulst S, van Grunsven L, Rogiers V, Vanhaecke T and Mertens B. **A novel prediction model to evaluate genotoxicity based on a gene signature in metabolically competent human HepaRGTM cells**. Presented by Thienpont A. at the Eurotox 2021. Online, September 26 – October 1st 2021

**Poster presentations**

Thienpont A., Cho E., Williams A., Meier M.J., Yauk C.L., Rogiers V., Vanhaecke T. and Mertens B. **Unlocking the power of transcriptomic biomarkers in qualitative and quantitative genotoxicity assessment of chemicals.** Poster presentation by Thienpont A. at the EUROTOX23 meeting 2023, Ljubljana (Slovenia) (10-13 September 2023).

Demuynck E., T. Vanhaecke T., Thienpont A., Rogiers V., Winkelman L.M.T., Beltman J.B., Reus A. , Marcon F., Bossa C., Peijnenburg A., Machera K., Nikolopoulou D., Hatzi V., Paparella M., Kohl Y., Narui S., Molerup S., Dusinska M., Runden-Pran E., El Yamani N., Longhin E.M., Svendsen C., Gutleb A., Pennings J., Luijten M., Adam-Guillermin C., Laurent O., Armant O., Pachoulide C., Bouwmeester H., Raitano G., Benfenati E., Wyrzykowska E., Stepnik M., Puzyn T., Audebert M. and Mertens B. **Development of an AOP-based IATA for genotoxicity.** Poster presentation by Demuynck E. at the EEMGS/SEMA meeting 2023, Malaga (Spain).

Sanders J, Thienpont A, Anthonissen R, Vanhaecke T and Mertens B. **Impact of experimental design factors on in vitro genotoxicity test results.** Poster presentation by J. Sanders at the IC-3Rs meeting 2022, Brussels (Belgium).

Van Bossuyt M, Hendriks G, Derr R, Doktorova TY, Thienpont A, Van Hoeck E, Vanhaecke T, Rogiers V and Mertens B. **Combining a transcriptomics-based gene expression biomarker with the ToxTracker to evaluate the genotoxic potential of high priority printed paper and board food contact material substances.** Poster presentation by B. Mertens at the Beltox meeting 2019, Brussels (Belgium), November 2019

**Supervisor of Master theses**

**Quantitative analysis of genotoxicity data in human Heparg™ cells to support AOP development.** By Seren Sen in order to obtain her Master in Pharmaceutical Sciences at the VUB (2023).

**Potency comparison of aflatoxin B1 and ethyl methanesulfonate in different in vitro genotoxicity tests.** By Julie Sanders in order to obtain her Master in Pharmaceutical Sciences at the VUB (2021).

**Comparative study on the performance of a genotoxin-specific transcriptomics-based gene expression biomarker and traditional genotoxicity tests.** By Femke Daenekindt in order to obtain her Master in Biomedical Sciences at the UA (2020).

**Awards**

**EPAA 3Rs Student grant** to participate in the **EUROTOX 23** meeting, obtained on behalf of the EPAA Steering Committee on June 30th, 2023

**Travel grant to attend the ICEM meeting**, obtained on behalf of the doctoral school of the VUB on June, 6th, 2022

**Travel grant to attend the ICEM meeting**, obtained on behalf of the Belgian EMS (BEMS) association on May 3rd, 2022

**Health and Environmental Sciences Institute (HESI) Genetic Toxicology Technical Committee (GTTC) Professional Development Award,** obtained on behalf of the GTTC Education Outreach Committee on April 15, 2022

**Ray Tice Tox21 Student Award,** obtained at the 10th Annual ASCCT meeting: Practical Applications Of New Tools In Toxicology. Online, October 2021

# EXPERIENCE

**Short research stay abroad** at The Genomics in Regulatory and Applied Toxicology Laboratory, University of Ottawa, Canada. Under supervision of Prof. Dr. C. Yauk. September 5-16, 2022.

- Performed the TempO-Seq technique on 192 HepaRGTM cell lysates
- Participated in the labmeetings
- Collaborated with the bioinformaticians of Health Canada for data analysis of the gene expression data.