

CV and publication list Colinda Scheele (Nov 2024)

1. Curriculum vitae

1.1 Personal details

Family name, First name:	Colinda Scheele
Date of Birth:	28.12.1989
Nationality:	Dutch
URL to website laboratory:	https://scheelelab.sites.vib.be/en

1.2 Education

2014–2020	PhD student Cancer, Stem Cells and Developmental Biology, The Netherlands Cancer Institute/Hubrecht Institute, The Netherlands
2012–2014	Master of Science, Biomedical Sciences, Utrecht University, The Netherlands

1.3 Appointments and positions

2020-today	Principal Investigator, Center for Cancer Biology, VIB Leuven, Belgium
2021-today	Assistant Professor, Department of Oncology, KU Leuven, Belgium

1.4 Track record summary

Impact & Creativity	Recognition	Leadership
 14 H-index  1052 Citations  32 Publications  10 Last or corresponding  5 First authorships  3 Nature publications  1 Cell publication	 9 Awards  14 Grants  1 ERC  24 Invited conference talks  2 Keynote or plenary talks  10 Institutional seminars  4 Conference organizations	 1 Editorial board  1 Consortia or WP leader  1 Guest editor  8 Promotor PhD project  4 Co-promotor PhD project  4 FWO PhD fellowships  2 Sr. postdoc fellowships

1.5 Honors, awards and prizes

2024	ERC Starting Grant	2020	Antoni van Leeuwenhoek Prize
2024	BAEF alumni award	2020	Cum Laude (top 3%) PhD award
2024	Beug Prize for Metastasis Research	2017	PhD of the year award
2023	Elected member ENBDC	2017	Bright Mind Award of UU
2022	Finalist TOPX females to follow	2016	DeOme award - ENBDC
2022	FEBS Excellence Award	2014 - 2017	BIF PhD fellowship
2021–2023	EMBO long-term fellowship	2014	U/Select Honors Program Jury Prize

1.6 Current and past funding

Ongoing funding as PI

2025 - 2027	WWCR grant	2023 - 2026	FWO Research Project (G073223N)
2024 - 2029	ERC Starting Grant	2023 - 2026	WEAVE FWO-FWF Research Project (G003923N)
2024 - 2026	NIH R21	2022 - 2024	FEBS Excellence award

Ongoing funding as co-PI

2024 - 2026	Royal Society International Exchange Grant (PI: Fritzsche M)
2023 - 2026	Stichting tegen Kanker (STK) project (PI: Agostinis P)
2022 - 2026	EOS project (work package lead , PI: Noel A)
2022 - 2026	C2 project grant (PI: Soenen S)
2022 - 2026	FWO Large Infrastructure grant (PI : Vanden Berge P)

Past funding as co-PI

2022 - 2024	Royal Society International Exchange Grant (PI: Elias S)
-------------	--

1.7 Research profile

During my PhD, I made important contributions to the field of mammary gland biology, as I discovered the location, behavior, and fate of mammary stem cells during pubertal branching morphogenesis (Scheele*, Hannezo* et al

Nature 2017; Hannezo*, Scheele* et al **Cell** 2017; Corominas-Murtra*, Scheele* et al **PNAS** 2020). During these years, I pioneered quantitative lineage tracing and intravital microscopy of diverse tissues studying tissue heterogeneity, metastasis and therapy response (Scheele et al **Trends in Cancer**, 2016; Scheele et al **Nat Rev Methods Primers** 2022). Building on these discoveries and unique technologies, I started my laboratory in 2020 at VIB Center for Cancer Biology and in 2021 at KU Leuven, Dpt of Oncology, where we focus on the interaction dynamics between cancer cells and their host (tissue). We develop and use state-of-the-art methods, including intravital imaging (Messal et al **JOMBN** 2021), organoid technology (Caruso et al **Front Physiol** 2022), and our unique biobank of orthotopically transplanted patient-derived xenograft models (Hutten et al **Cancer Cell**, 2023), to study the origins and dynamics of primary and metastatic cancer in real-time in a near-to-native setting. We developed an image-guided spatial sequencing method (van der Leun et al **Nature Chemical Biology** 2021) and by using this method we discovered that healthy breast tissue surrounding early tumor lesions carries oncogenic mutations, despite being untransformed (Hutten et al **The Journal of Pathology** 2024). We recently discovered that host breast tissue remodeling plays a key role in protecting us from breast tumor initiation in the presence of oncogenic driver mutations (Ciwinska et al **Nature** 2024). Furthermore, we identified that the physiological menstrual cycle impacts chemotherapy response in breast cancer patients (Bornes et al **Nature in press**), which has led to the initiation of a prospective observational trial to study whether timing of chemotherapy treatment can be optimized according to the menstrual clock to achieve better chemotherapy response in pre-menopausal breast cancer patients.

1.8 Institutional responsibilities

I am one of the **coordinators of the Cancer PhD thematic program** of the Doctoral School for Biomedical Science at the KU Leuven (2023 – today). I co-chair and co-organize the **institutional weekly progress seminars** by scientific employees within the VIB Center for Cancer Biology (2022 – today). Furthermore, I **chair the VIB group leader committee** (2023 – today) and **steering committee** of the intravital microscopy expertise unit at VIB-KU Leuven (2022 – today). I am advisor for 14 PhD thesis committees (2020 – today) and served in 6 PhD thesis defense committees (2020 – today). Over the past years, I engaged in many science **outreach activities**, including **articles** in Sonar – KU Leuven Magazine (2023) and C2W chemistry and life science magazine (2021), **interviews** for Belgian radio and newspapers (VRT, Knack) (2023) and de Volkskrant (2021), **exposition** of our microscopy images at the Shine ON! Expo in the public library of Leuven (2022), a **column** in science magazine “de maakbare mens” about stem cells (2022), **webinars and public lectures** for RE-Place (2024), C2W (2021), KNCV (Dutch Chemistry Society (2021), and Friends of the Hubrecht Foundation (2016).

1.9 Memberships of scientific organizations, societies or networks

2021-today	American Association of Cancer Research (AACR)
2020-today	European Society for Molecular Imaging (ESMI)
2020-today	European Networks for Breast Development and Cancer Research (ENBDC)
2020-today	Federation of European Biochemical Society (FEBS) member
2020-2022	TopX Network
2019-today	European Association of Cancer Research (EACR)

1.10 Policy and industry

I served in the **Technology Advisory Board** for the VIB Technology Training Unit (2022) and represented basic scientists of VIB in a **governmental working group** on “Action plan to reduce animal experimentation” in Flanders (2022). I was an **invited expert** for the Canada Foundation of Innovation (CFI) grants scheme on innovation in microscopy (2022).

1.11 Mentoring

My goal is to build and maintain an **inclusive, stimulating, and diverse** lab environment, where each team member feels valued for their contributions to the team and is motivated to grow as a scientist and a person. Currently, my lab consists of 16 members (7 males/9 females) with 10 different nationalities. I engage with all my team members during **personal meetings** once every two weeks, where we discuss scientific and personal progress. It is important to me to regularly **share my experience** of becoming/being a group leader with junior scientists. Hence, I contributed to **mentoring lectures** at the Boehringer Ingelheim Foundation PhD seminar (2023), KU Leuven Women in Science event (2024), the VIB Center for Cancer Biology retreat (2024), and the scientific annual retreat of Instituto Gulbenkian de Ciência (2023), and the Netherlands Cancer Institute (2022 and 2024). Furthermore, I am a mentor for the EU-LIFE Pathfinder **mentorship program** for postdoctoral women (2023 – today). I was an active member of the NewPICellDev community (2020-2023), a platform for and by new PIs in the life science field, for which I co-organized a NewPICellDev international conference in Aarhus, Denmark (2022). Recently, I engaged in a newly initiated **partner program** with the National School of Biotechnology in Constantine (Algeria) to provide **online webinars** to

(under)graduate students on key technologies in life sciences. Finally, I am teaching in **two bachelor courses on informative and communicative skills** (6 ECTS and 3 ECTS), and I am contributing lectures to **four 5 ECTS master courses**.

2. Publications

2.1. Lirias publication list: <https://lirias.kuleuven.be/cv?Username=u0137831>

2.2. ORCID iD : 0000-0001-8999-5451

2.3 Summary of most important publications

Since my PhD I have contributed to **32 publications**, of which **14 papers** were contributions of my independent team. These include **18 publications as (co-)first or (co-)last author**. Furthermore, 1 manuscript was recently accepted in Nature (Bornes et al **Nature**, *in press*), of which I am co-last author. During the first years of my scientific career I discovered the location, behavior, and fate of mammary stem cells during pubertal branching morphogenesis (Scheele*, Hannezo* et al **Nature** 2017; Hannezo*, Scheele* et al **Cell** 2017; Corominas-Murtra*, Scheele* et al **PNAS** 2020). In my own team (which I started in 2020 directly after defending my PhD), we discovered the protection mechanisms against tumor formation in the breast (Hutten et al **Journal of Pathology** 2024; Ciwinska et al **Nature** 2024). Furthermore, we discovered the menstrual cycle as driver of breast tumor initiation (Ciwinska et al **Nature** 2024) and neo-adjuvant treatment response (Bornes et al **Nature in press**). Finally, we developed the first comprehensive patient-derived xenograft (PDX) biobank for ductal carcinoma in situ (DCIS), a pre-cancerous lesion that may or may not progress into breast cancer. Our unique biobank allowed to identify key drivers of DCIS progression, which could be utilized as prognostic factors in the future (Hutten et al **Cancer Cell** 2023).