

# Ewoud B. Compeer

## Curriculum Vitae

### Education

- |                           |  |
|---------------------------|--|
| May 2017<br>- present     | <b>Michael Dustin lab, University of Oxford, United Kingdom.</b><br>Kennedy Institute of Rheumatology. Post-doc.<br><i>Endosomal trafficking to the immunological synapse to build T cell-derived extracellular vesicles</i>   |
| May 2015<br>- Dec. 2016   | <b>Katharina Gaus/Jeremie Rossy lab, University of New South Wales, Australia.</b><br>Single Molecule Science Institute, EMBL Center of Excellence. Post-doc.<br><i>Connection between the 3D microarchitecture of the endocytic matrix and the 2D nanoscale organization at T cell immunological synapse.</i> |
| Jan. 2010<br>- May 2015   | <b>PhD Immunology. Marianne Boes lab, Utrecht University, the Netherlands.</b><br>UMC Utrecht, Center of Translational Immunology. PhD candidate.<br><i>Endosomal remodelling and reorganization that occur during/prior to activation of antigen-specific lymphocytes.</i>                                    |
| Dec. 2008<br>- June 2009  | <b>Cox Terhorst laboratory, Harvard Medical School, USA.</b><br>Immunology department at Beth Israel Deaconess Medical Center, Boston, USA.<br><i>Remodelling of phagosomal bactericidal function in macrophages upon microbial-sensing by SLAM receptor proteins.</i>   |
| Oct. 2007<br>- Nov. 2008  | <b>Peter Rottier laboratory, University of Utrecht, the Netherlands.</b><br>Virology department, veterinary sciences.<br><i>Endosomal requirements for Spike protein-mediated Coronavirus entry.</i>   |
| Sept. 2007<br>- Jan. 2010 | <b>MSc Infection and Immunity. University of Utrecht, the Netherlands.</b><br>Graduate School of Life Sciences   |
| Sept. 2004<br>- July 2007 | <b>BSc Biomedical Sciences. University of Utrecht, the Netherlands.</b><br>Eijkman school.   |

## Professional activities

Nov. 2020 – present	<b>Chair young-NVVI (Dutch Society of young Immunologists).</b> yNVVI represents all ECRs within the NVVI, and will be their voice at the NVVI and EFIS. Focusing especially on sharing of expertise, mediation of collaborative science, career advancements, funding opportunities, and to stimulate ECRs involvement in public outreach. ( <a href="https://vimeo.com/user39059939">https://vimeo.com/user39059939</a> )
Oct. 2020 - present	<b>Editor ecrLife.</b> ecrLife is a place for early career researchers (ECRs) to share stories, ideas and experiences about their journey in science. <a href="https://ecrlife.org/getting-to-know-our/">https://ecrlife.org/getting-to-know-our/</a>
March. 2020 - present	<b>Co-founder of COVID19 Oxford-Cardiff Preprint Initiative.</b> Providing peer review and summaries of immunology focused COVID19 preprints so that everyone can stay updated with latest developments. <a href="https://www.immunology.ox.ac.uk/covid-19/covid-19-immunology-literature-reviews">https://www.immunology.ox.ac.uk/covid-19/covid-19-immunology-literature-reviews</a>
Dec. 2019 - present	<b>Founding Director and Treasurer of DANinUK Ltd</b> in a collaboration with the Dutch embassy in London, UK. Network for Dutch academics working at UK academic institutions, or Dutch academics moving from UK back to the Netherlands. <a href="http://www.dutchacademicnetwork.uk">www.dutchacademicnetwork.uk</a>
March 2019 - present	<b>Graduate Studies Committee</b> Kennedy Institute of Rheumatology, University of Oxford, United Kingdom.
March 2019 - present	<b>eLife Ambassador</b> Global program to advocate and build towards Open Science. Main focus on supervision/mentoring, funding, and implementation strategies.
Jan 2019 - present	<b>Postdoc Committee</b> Kennedy Institute of Rheumatology, University of Oxford, United Kingdom. <i>Chair and organizer.</i>
Sept 2018 - present	<b>Journal Club Committee</b> Kennedy Institute of Rheumatology, University of Oxford, United Kingdom. <i>Chair, organizer, and speaker.</i>
March 2013 - Dec. 2014	<b>ORPHEUS</b> , Organisation for PhD Education in Biomedicine and Health Sciences in the European System. Associate Member of the European University Association - Council for Doctoral Education. <i>Chair of “Quality of PhD education”-Lausanne and Creator of the Graz-declaration</i>
March 2011 - July 2014	<b>PhD council</b> Graduate School of Life Sciences (GSLs) at the University of Utrecht, the Netherlands.
Feb. 2008 - Dec. 2009	<b>Undergraduate Studies Committee</b> for Immunology and Infection program at the University of Utrecht, the Netherlands.

## Professional experiences

### Talks

- 2021 WIMM Fri-AM talks, University of Oxford, UK. *online*
- 2020 Infection and Immunity Institute of Research, University of Edinburgh, United Kingdom
- 2019 Cutting edge research seminar. St Hughes College, University of Oxford, United Kingdom.  
Early Career Seminar. LMCB institute, University College London, United Kingdom.  
Internal Institute Seminar. Kennedy Institute, University of Oxford, United Kingdom.
- 2018 United Kingdom Extracellular Vesicles (UKEV) society meeting 2018. Sheffield, United Kingdom.  
European Conference of Immunology 2018. Amsterdam RAI, Amsterdam, the Netherlands.
- 2016 Single Molecule Science imaging conference. University of New South Wales, Sydney, Australia.
- 2015 Eijkman seminar. University Medical Center Utrecht, Utrecht, the Netherlands.  
Cardiovascular Research Center. SoMS, UNSW, Sydney.

### Organizer & chair

- 2021 Brexit problems for UK science. DANinUK ltd, Ministry of Science, NL. Co-organizer.
- 2020 UK-NL cross-cultural differences. Dutch Embassy London, UK. *Organizer*.  
“Imaging extracellular vesicles biogenesis, release, and spread” at the International Society of Extracellular Vesicle conference, Paris, France. *Chair*
- 2018 “Visualization of the immune response”. European Conference of Immunology. Amsterdam RAI, Amsterdam, the Netherlands. *Chair*
- 2013 Advanced Immunology “van Kinsbergen” course, aimed at second/third year PhD candidates; 20 participants. IJsselmeer, the Netherlands. *Organizer*
- 2010 Kleine Wetenschappers, Speuren naar Sporen. Universiteitsmuseum Utrecht. *Organizer*

### Outreach

- 2020 ESCRTing elderly to healthy old age. St Catherine’s college. Univ. of Oxford.  
Fatigue research workshop with patient participation, organized by Versus Arthritis and Kennedy Trust.
- 2019 Magnificent Magnification. teaching school kids advanced microscopy techniques that support my research. *organizer, teacher*.
- 2017 Curiosity Carnival. Organized by European Researchers’ Night, Ashmolean museum, and University of Oxford, Oxford, UK.
- 2014 Expeditie UU 2014, Pimp your mind. Organized by the Universiteitsmuseum Utrecht, Studium Generale, and University of Utrecht.
- 2010 Kleine Wetenschappers, Speuren naar Sporen. Universiteitsmuseum Utrecht.

### Editor & Peer-review

- Editor Editor at ecrLife  
Research topic editor at Frontiers in Cell and Developmental Biology; Regulatory Mechanisms of Early Intracellular Signaling in T Lymphocytes
- Grant proposals Wellcome Strategic Fund (WISSF) 2018-2020

Manuscripts EMBO, Nature Communications, Frontiers Cell and Dev Biol, Viruses, Journal of Medical Microbiology and Immunology.  
And together with Prof. M.L. Dustin, manuscripts for Nature Immunology, Science Translational Medicine, and Nature Communications.

### Professional memberships

2020 Young-Dutch Society for Immunology (yNVVI)  
2019 British Society of Cell Biology (BSCB)  
The International Society of Extracellular Vesicles (ISEV)  
DANinUK Ltd.  
eLife Ambassador  
2014 Organisation for PhD Education in Biomedicine and Health Sciences in the European System (ORPHEUS).  
2008 Dutch Society for Immunology (NVVI).

### Courses

2019 Supervision course. Chemistry Research Building, University of Oxford, UK.  
2018 Mouse genetics and phenotyping course. Medical Research Laboratory Harwell Institute, UK.  
2017 L, E1, PIL A, PIL B, and K laboratory animal license course. The Royal Veterinary College, London, UK.  
2014 9<sup>th</sup> ORPHEUS Conference: An International Congress on PhD Education. Lausanne, Switzerland, at the University Hospital (CHUV).  
2013 Advanced Immunology “van Kinsbergen” course, aimed at second/third year PhD candidates; 20 participants. IJsselmeer, the Netherlands.  
2012 APCs revisited: The function of antigen presenting cells in health and disease. Organised by NVVI (Dutch National Immunology Society), Lunteren, the Netherlands.  
That Thing Called Science. (Course History in Science studies) Organised by Utrecht University, the Netherlands.  
Good Clinical Practise course (GCP/BROK). Organised by UMC Utrecht, Utrecht, the Netherlands.  
2011 Immunology Summerschool. Organised by Sociedade Portuguesa de Imunologia, Tavira, Portugal.  
2007 Laboratory animal handling (art. 9 certified). Utrecht, the Netherlands.  
2006 Radiation Safety 5B. Utrecht, the Netherlands.

### Supervision

Oct 2021 - present Daily supervision of master student Paulina Dirvanskyte (hertford College, UK)  
July 2021 - present Joint supervisor of DPhil student Olga Margartiaki (Dustin lab, Univ. Oxford)  
Dec. 2018 - present Co-supervisor of DPhil student Charles Coomer (Padilla lab, Univ. Oxford)  
Sept. 2018 - Mar. 2019 Daily supervision of master student Simone Brokamp (Univ. Leiden)  
Mar. 2018 – Apr. 2018 Supervision student Mila Rollet de Fougerolles (D’Overbroecks College, UK)  
Mar. 2018 - Sept. 2018 Daily supervision of PhD candidate Chiara Cassioli (Univ. Sienna)  
Oct. 2012 - July 2013 Daily supervision of master student Mirjam Hoekstra (Univ. Utrecht)  
Dec. 2011 - Sept. 2012 Daily supervisor of master student Susanne van der Grein (Univ. Utrecht)

### Teaching

Aug. 2011 – Dec. 2012 LTI - Introduction to Immunology (year 5-6 medical grad students)  
Dec. 2019 - present Oxford Immunology Teaching Network (Immunology year 4 undergrad.)

## Funding & Awards

2020	John Fell Fund
2018	co-applicant of R01 NIH grant
2013	WKZ fund R1812.
2012	Immunotools award.
2011	cover of Annual Dutch Immunology Society meeting
2008	Grant of Dutch Digestive Foundation .
2008	Travel grant Trajectum.
2008	Grant of Dutch Kidney Foundation.

## Advisory roles

June 2021 – present	PhD thesis committee of Yavuz Yazicioglu (Clarke lab, Univ. of Oxford)
May 2020 - present	PhD thesis committee of Athenau Cavounidis (Uhlig lab, Univ. of Oxford)
Feb. 2020	Fatigue Workgroup, with trustees of Versus Arthritis, and representatives of industry partners and CFS patients.
Nov. 2019	Linseg Tech, Granby, Quebec, Canada
Mar. 2019 - present	PhD committee of Alice Robinson (Monaco lab, Univ. Oxford)
Sept. 2018 - present	Assessor of PhD transfer viva of Charles Coomer (Padilla lab, Univ. Oxford)
Dec. 2017 - present	PhD committee of Anna Marzeda (Midwood lab, Univ. Oxford)

## Scientific Publications

26 publications of which I wrote 1 as senior author, 1 editorial, and nine as first author. Cited a total of 782 times, H-index 15.

### **2021**

Verweij FJ, Balaj L, Boulanger CH, Carter DRF, Compeer EB, D'Angelo D, El Andaloussi, Goet JG, Gross JC, Hyenne V, Krämer-Albers E, Lai CP, Loyer X, Marki A, Momma S, Nolte-t Hoen ENM, Pegtel M, Peinado H, Raposo G, Rilla K, Tahara H, Thery C, van Roeyn ME, Vandenbroucke RE, Wehman AM, Witwer K, Wu Z, Wubbolts R, van Niel G. The power of imaging to understand extracellular vesicle biology in vivo. **Nat Methods** 18, 1013–1026 (2021). <https://doi.org/10.1038/s41592-021-01206-3>

Cassioli C, Onnis A, Finetti F, Capitani N, Brunetti J, Compeer EB, Niederlova V, Stepanek O, Dustin ML, Baldari CT. The Bardet-Biedl syndrome complex component BBS1 controls T cell polarity during immune synapse assembly. **J Cell Sci.** 2021 Aug 15;134(16):jcs258462

Cassioli C, Balint S, Compeer EB, Felce JH, Gamberucci A, Della Bella C, Felce SL, Brunetti J, Valvo S, Pende D, D'Elios MM, Moretta L, Dustin ML, Baldari CT. Increasing LFA-1 Expression Enhances Immune Synapse Architecture and T Cell Receptor Signaling in Jurkat E6.1 Cells. **Front Cell Dev Biol.** 2021 Jul 23;9:673446.

Aguado E, Compeer EB, Miazek A. Regulatory Mechanisms of Early Intracellular Signaling in T lymphocytes. **Frontiers Cell and Developmental Biology** 2021 Apr 9;9:676949 **EDITORIAL**

### **2020**

Hanna SJ, Codd AS, Gea-Mallorqui E, Scourfield DO, Richter FC, Ladell K, Borsa M, Compeer EB, Moon OR, Galloway SAE, Dimonte S, Capitani L, R Shepherd FR, Wilson JD, Uhl LFK, The Oxford-Cardiff COVID-19 Literature Consortium, Gallimore AM and Milicic A. T cell phenotype in COVID-19 **Oxford Open Immunology** 2020. (Living review till 2022)

Coomer CA, Carlon-Andres I, Iliopoulou M, Dustin ML, Compeer EB\*, Compton AA\*, Padilla-Parra S\*. Single-cell glycolytic activity regulates membrane tension 1 and HIV-1 fusion. **Plos Pathogens** 2020. Feb 21. (\*equal authorship contribution.)

## 2019

Saliba DG\*, Céspedes PF\*, Bálint S\*, Compeer EB, Valvo S, Korobchevskaya K, Mayya V, Peng Y, Dong T, Tognoli ML, O'Neill E, Bonham S, Fischer R, Kessler BM, Dustin ML. Composition and structure of synaptic ectosomes exporting antigen receptor linked to functional CD40 ligand from helper T cells. **eLife** 2019. Aug 30;8. pii: e47528. doi: 10.7554/eLife.47528. (\*equal authorship contribution)

## 2018

Newton RH, Shrestha S, Sullivan JM, Yates KB, Compeer EB, Ron-Harel N, Blazar BR, Bensinger SJ, Haining WN, Dustin ML, Campbell DJ, Chi H, Turka LA. Maintenance of CD4 T cell fitness through regulation of Foxo1 **Nat. Immunol.** 2018. Aug;19(8):838-848.

Compeer EB, Kraus F, Ecker M, Redpath G, Amiezer M, Rother N, Nicovich P, Kapoor-Kaushik N, Deng Q, Samson G, Yang Z, Lou J, Carnell M, Vartoukian H, Gaus K, Rossy J. A mobile endocytic network connects clathrin-independent receptor endocytosis to recycling and promotes T cell activation. **Nat. Comm.** 2018 Apr 23;9(1):1597.

## 2016

Kapoor-Kaushik N, Hinde E, Compeer EB, Yamamoto Y, Kraus F, Yang Z, Lou J, Pigeon SV, Tabarin T, Gaus K, Rossy J. Distinct mechanisms regulate Lck spatial organization in activated T cells. **Front. Immunol.** 2016 Mar 8;7:83.

## 2015

Compeer EB, Janssen W, van Royen-Kerkhof A, van Gijn M, van Montfrans JM, Boes M. Dysfunctional BLK in Common Variable Immunodeficiency perturbs B cell proliferation and ability to elicit antigen-specific CD4<sup>+</sup> T cell help. **Oncotarget** 2015 Mar 14;5.

## 2014

Compeer EB and Boes M. MICAL-L1-related and unrelated mechanisms underlying elongated tubular endosomal network (ETEN) in human dendritic cells. **Commun Integr Biol.** 2014 Dec 23;7(6).

Audia S, Rossato M, Santegoets K, Spijkers S, Wichers C, Bekker C, Bloem A, Boon L, Flinsenberg T, Compeer E, van den Broek T, Facy O, Ortega-Deballon P, Berthier S, Leguy-Seguin V, Martin L, Ciudad M, Samson M, Trad M, Lorcerie B, Janikashvili N, Saas P, Bonnotte B, Radstake TR. Splenic TFH expansion participates in B-cell differentiation and antiplatelet-antibody production during immune thrombocytopenia. **Blood.** 2014 Oct 30;124(18):2858-66.

Compeer EB. Primary Immunodeficiency: Out of the bubble, helping patients in the open. **Immuun.** 2014 Oct 1;3(2):30.

van der Burgh R, Nijhuis L, Pervolaraki K, Compeer EB, Jongeneel LH, van Gijn M, Coffey PJ, Murphy MP, Mastroberardino PG, Frenkel J, Boes M. Defects in mitochondrial clearance predispose human monocytes to interleukin-1 $\beta$  hyper-secretion. **J Biol Chem.** 2014 Feb 21;289(8):5000-12.

Compeer EB, Flinsenberg TW, Boon L, Hoekstra ME, Boes M. Tubulation of endosomal structures in human dendritic cells by Toll-like receptor ligation and lymphocyte contact accompanies antigen cross-presentation. **J Biol Chem.** 2014 Jan 3;289(1):520-8.

## 2012

Flinsenberg TW, Compeer EB, Koning D, Klein M, Amelung FJ, van Baarle D, Boelens JJ, Boes M. Fc $\gamma$  receptor antigen targeting potentiates cross-presentation by human blood and lymphoid tissue BDCA-3<sup>+</sup> dendritic cells. **Blood.** 2012 Dec 20;120(26):5163-72.

Compeer EB, Flinsenberg TW, van der Grein SG, Boes M. Antigen processing and remodeling of the endosomal pathway: requirements for antigen cross-presentation. **Front. Immunol.** 2012;3:37

van de Ven AA, Compeer EB, Bloem AC, van de Corput L, van Gijn M, van Montfrans JM, Boes M. Defective calcium signaling and disrupted CD20-B-cell receptor dissociation in patients with common variable immunodeficiency disorders. **J Allergy Clin Immunol.** 2012 Mar;129(3):755-761.e7

## 2011

Flinsenberg TW, Compeer EB, Boelens JJ, Boes M. Antigen cross-presentation: extending recent laboratory findings to therapeutic intervention. *Clin Exp Immunol*. 2011 Jul;165(1):8-18.

van de Ven AA, Compeer EB, van Montfrans JM, Boes M. B-cell defects in common variable immunodeficiency: BCR signaling, protein clustering and hardwired gene mutations. **Crit Rev Immunol**. 2011;31(2):85-98.

## 2010

Berger SB, Romero X, Ma C, Wang G, Faubion WA, Liao G, Compeer E, Keszei M, Rameh L, Wang N, Boes M, Regueiro JR, Reinecker HC, Terhorst C. SLAM is a microbial sensor that regulates bacterial phagosome functions in macrophages. **Nat Immunol**. 2010 Oct;11(10):920-7.

## Opinion pieces

Compeer EB, Resa-Infante P. An ECR's guide to peer review. **ECRlife** (eLife). 2020 Sept;11 (<https://ecrlife.org/an-ecrs-guide-to-peer-review/>)

Compeer, E.B., Uhl, L.F.K. Antibody response to SARS-CoV-2 — sustained after all? **Nat Rev Immunol** 2020 Aug;11(590). <https://doi.org/10.1038/s41577-020-00423-9>

Gea-Mallorquí, E, Compeer, EB. SARS-CoV-2 vaccine — think globally, act locally. **Nat Rev Immunol** 2020 Aug;11(590). <https://doi.org/10.1038/s41577-020-00422-w>

van Vliet A, Compeer EB, Elkenawi E, Haelterman N, Kudva R, Resa-Infante P, Sarabipour S, de Winde L. A more diverse and efficient peer review process. Opinion article. **ECRlife** (eLife) 2020 Mar;04 (<https://ecrlife.org/include-junior-researchers-in-peer-review/>).

## Media appearances

Innovatie van het peer-review systeem. **New Scientist (NL)**, 2019 72;78-79. *Jop de Vries*

ECRWebinar. **eLife Community**. 2021. *Kora Korzec* (<https://www.youtube.com/watch?v=FtWNiM1CUNM>)

How Brexit Is Transforming the UK's STEM Community. **New Scientist (US)**, 2021. *Katarina Zimmer* (<https://www.the-scientist.com/careers/brexit-s-effects-on-the-uk-stem-community-69316>)

## Awaiting Publication

Codd AS, Compeer EB, Borsa M, Hann SJ, The Oxford-Cardiff COVID-19 Literature Consortium, Milicic A. Quantitative changes in innate and adaptive immune cells in COVID-19. **Oxford Open Immunology** 2021. (Living review till 2022)

## Preprint

Kent B, Mehta D, Tzilivaki A, Debat H, Gazda MA, Antonietti A, Umbers KDL, Zaza C, Lo H, Quazada CP, Chem Y, Amoako E, Erlich JC, Compeer EB, Riley JL, Azam JM, Varma A, Puebla I, Ebrahimi H, Neves K, Heise V, de Winde CM, Glatz T, Connor C, Carneiro CF, McDowell G, Rohmann JL, Kent D, Quashie PK, Stehlik P, Weissberger T, Holman C. Leveraging the Power of Early Career Researchers to Improve Science. Empowering early career researchers to improve science. <https://osf.io/p5evw/>