

Cover Page



Universiteit Leiden



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Author: Dijkgraaf, F.E.

Title: T cells in focus: Formation and function of tissue-resident memory

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PHD PORTFOLIO

Courses

January 28 – February 8, 2013	Postgraduate course 'Advanced Immunology' (OOA)
October 7 – 11, 2013	Postgraduate course 'In the footsteps of Antoni van Leeuwenhoek' (OOA)
May 7 – 14, 2016	11th ENII EFIS EJI Summer School 'Advanced immunology', Sardinia
March 19 – April 23, 2018	Postgraduate course 'Writing a scientific paper' (NKI-AVL)

Conferences and workshops attended

October 17-19, 2012	OIO retreat 2012 (Poster), Ermelo, The Netherlands
January 19-25, 2013	'Directed Cell Migration' (Poster), Gordon Research Conference, Galveston (TX), USA
June 13, 2013	'Innovative Mouse Models', LUMC, Leiden, the Netherlands
October 23-25, 2013	OIO retreat 2013 (Speaker), Renesse, the Netherlands
December 18-19, 2013	'NVI Annual Meeting' (Poster), Noordwijkerhout, the Netherlands
January 12-16, 2014	'Tissue-Resident Memory T-Cells' (Poster), Keystone Symposia, Snowbird (UT), USA
March 9-14, 2014	'Quantitative Immunology' (Poster), Les Houches, France
April 3-4, 2014	NVI 'Mucosal Immunology: crossing borders' (Poster), Lunteren, the Netherlands
October 23-24, 2014	'Imaging the Immune System' (Poster), Milan, Italy
December 17-19, 2014	'NVI Anniversary Meeting' (Poster), Kaatsheuvel, the Netherlands
April 4-11, 2015	'Metaphors in immunology', Bidart, France
June 17-19, 2015	'Stochastic single cell dynamics in immunology' (Poster), Amsterdam, the Netherlands
October 14-16, 2015	OIO retreat 2015 (Speaker), Renesse, the Netherlands
February 28 - March 2, 2016	'Immunity in Skin Development, Homeostasis and Disease' (Poster), Keystone symposia, Tahoe city (CA), USA
July 19, 2017	'Ethics and Integrity in Science', NKI, Amsterdam, the Netherlands
September 6-9, 2017	'NVI Anniversary Meeting' (Speaker), Noordwijkerhout, the Netherlands
September 19-21, 2018	'Imaging the Immune System' (Speaker), Institute Pasteur, Paris, France
November 8-9, 2018	'Oncode Annual meeting' (Poster), KIT, Amsterdam, the Netherlands

November 28-30, 2018	Expert meeting and masterclass – ‘T cell memory: Thinking outside the blood’ (Poster), KNAW, Amsterdam, the Netherlands
October 24 – 25, 2019	Science as storytelling, EMBL, Heidelberg, Germany
February 7, 2020	PhD-student meeting, The Netherlands Cancer Institute, Amsterdam, the Netherlands

Supervision of students

December '12 – June '13	Co-supervision of 2 nd year Master student Lindy Visser, VU University, the Netherlands
November '14 – June '15	Supervision of 2 nd year Master student David Vredevoogd, University of Amsterdam, the Netherlands
November '16 – May '17	Supervision of 2 nd year Master student Rebeca Cardoso, University of Utrecht, the Netherlands

Awards/Prizes

October 14-16 2015	Third prize ‘Best presentation fundamental research’, OIO retreat, Renesse, the Netherlands
May 7-14 2016	Travel grant, 11 th ENII EFIS EJI Summer School on advanced immunology, Porto Cervo, Sardinia, Italy

Communicatie - thema Immunotherapie

April 2019 – April 2020

Datum	Type	Publiek	Omschrijving/titel
09-03-2020	Persbericht	Intern + extern	Immuuncellen en tumorcellen voeren oorlog op afstand
27-02-2020	Verslag	Intern + LUMC	De LUMC/AVL-meeting: naar een toekomst vol samenwerking
14-01-2020	Lezing	Extern	Moderator publiekslezing 'Immunotherapie tegen kanker'
14-11-2019	Rondleiding	Extern (KWF)	Rondleiding medewerkers KWF
11-09-2019	Persbericht	Extern (AVL foundation)	Opbrengst DNA Gala levert eerste resultaten op in onderzoek naar Immunotherapie
03-09-2019	Video	Extern (KWF)	'Succes' en 'Bedankt' videos (ColSensation)
31-07-2019	Persbericht	Intern + extern	Hoe één DNA mutatie in borstkanker het immuunsysteem kaapt
11-07-2019	Persbericht	Intern + extern	ZonMW subsidie voor adoptieve cel therapie op maat
21-05-2010	Persbericht	Intern + extern	T-cellen vormen patrouilleleger in de menselijke huid
14-05-2019	Persbericht	Intern + extern	Triple-negatieve borstkanker: voorbehandeling met chemo lijkt immunotherapie te verbeteren
08-05-2019	Presentatie	Extern (KWF)	TIL-therapie voor behandeling van melanoom (ColSensation)
29-04-2019	Persbericht	Intern + extern	Dag van de immunologie: het afweersysteem als wapen tegen kanker

LIST OF PUBLICATIONS

- Kok L, [Dijkgraaf FE](#), Urbanus J, Bresser K, Vredevoogd DW, Cardoso RF, Perie L, Beltman JB and Schumacher TN. **A committed tissue-resident memory T cell precursor within the circulating CD8⁺ effector T cell pool.** *Journal of Experimental Medicine*, 2020 Oct 5;217(10):e20191711.
- Bresser K*, [Dijkgraaf FE*](#), Pritchard CEJ, Huijbers IJ, Song JY, Rohr JC, Scheeren FA and Schumacher TN. **A mouse model that is immunologically tolerant to reporter and modifier proteins.** *Communications Biology*, 2020. May 29;3(1):273. *These authors have contributed equally to this work.
- Hoekstra ME*, Bornes L*, [Dijkgraaf FE](#), Philips D, Pardieck IN, Thommen DS, van Rheenen J and Schumacher TN. **Long-distance modulation of bystander tumor cells by CD8⁺ T cell-secreted IFN- γ .** *Nature Cancer*, 2020. Mar;1(3):291-301. *These authors have contributed equally to this work.
- [Dijkgraaf FE](#), Matos TR*, Hoogenboezem M*, Toebes M, Vredevoogd DW, Mertz M, van den Broek B, Song JY, Teunissen MBM, Luiten RM, Beltman JB and Schumacher TN. **Tissue patrol by resident memory CD8⁺ T cells in human skin.** *Nature Immunology*, 2019. Jun;20(6):756-764. *These authors have contributed equally to this work.
- Hoekstra ME, [Dijkgraaf FE](#), Schumacher TN and Rohr JC. **Assessing T lymphocyte function and differentiation by genetically encoded reporter systems.** *Trends in Immunology*, 2015. Jul;36(7):392-400
- Ariotti S, Hogenbirk MA*, [Dijkgraaf FE*](#), Visser LL, Hoekstra ME, Song JY, Jacobs H, Haanen JB and Schumacher TN. **Skin-resident memory CD8⁺ T cells trigger a state of tissue-wide pathogen alert.** *Science*, 2014. Oct 3;346(6205):101-5. *These authors have contributed equally to this work.
- Van Buuren MM, [Dijkgraaf FE](#), Linnemann C, Toebes M, Chang CXL, Kvistborg P, Grotenbreg GM and Schumacher TN. **HLA micropolymorphisms strongly affect pMHC multimer-based monitoring of antigen-specific CD8 T cell responses.** *Journal of Immunology*, 2014. Jan 15;192(2):641-8.
- Fessler E, [Dijkgraaf FE](#), De Sousa E Melo F and Medema JP. **Cancer stem cell dynamics in tumor progression and metastasis: Is the microenvironment to blame?** *Cancer Letters*, 2013. Nov 28;341(1):97-104.

CURRICULUM VITAE

Feline Elise Dijkgraaf was born on the 4th of August 1988 in Naarden, the Netherlands. In 2006, she obtained her university preparatory education degree at Scholengemeenschap Huizermaat in Huizen. In the same year, she started her bachelor studies Bèta-gamma at the University of Amsterdam, specializing in Biomedical Sciences. During that time, Feline and two fellow students received the 'First prize - Institute Interdisciplinary Studies Science Award' for their Bachelor thesis. In 2010, she continued her specialization in Biomedical Sciences at the same university. During this study, she went to the University of Cambridge in England to attend a Summer School on the interplay between the immune system and cancer. In addition, she completed two internships at the Netherlands Cancer Institute – Antoni van Leeuwenhoek hospital (NKI-AVL). First, she studied the pro-tumorigenic role of macrophages in breast cancer in the group of Prof. dr. Karin de Visser, followed by a project on the effects of Human Leukocyte Antigen micropolymorphisms on the detection of epitope-specific CD8⁺ T cell responses in the group of Prof. dr. Ton Schumacher. In 2012, she joined the group of Prof. dr. Ton Schumacher as a PhD-student, of which the results are described in this thesis. During the writing of her thesis, Feline discovered her passion for scientific writing and storytelling. In order to further develop these qualities, next to finalizing her thesis, she gained one year of experience as a science communicator on the theme 'Immunotherapy' at the NKI-AVL scientific communication department under the lead of Prof. dr. John Haanen. In her next career step, Feline continues to combine her interest in scientific discovery and science communication, by working as a scientific editor on Elsevier's oncology journal network.

DANKWOORD

Het zit erop! Deze reis zat vol hoogte- en een paar dieptepunten, en ik had het niet zonder al deze mensen kunnen doen.

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