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The complex interactions between the tumor microenvironment and prostate and oropharyngeal cancer

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Author: Cioni, B.

Title: The complex interactions between the tumor microenvironment and prostate and oropharyngeal cancer

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PORTFOLIO

PhD student:	Miss. Bianca Cioni
Primary thesis advisor:	Prof. dr. J.B.A.G. Haanen
Co-promoters:	Dr. A. M. Bergman and Dr. J. P. de Boer
PhD program:	Marie Curie Fellowship for Initial Training Network (INT) of early researchers on Tumor Infiltrating Myeloid Cell Compartment (TIMCC)
Title of PhD thesis:	The Complex Interactions Between the Tumor Microenvironment and Prostate and Oropharyngeal Cancer

PhD TRAINING

<i>Onderzoekschool Oncologie Amsterdam (OOA) courses</i>	<i>Year</i>
» Histopathology of tumors	2014
» How to write high impact papers and what to do when your paper is rejected	2015
» Immunotherapy of Cancer	2016
» How to be(come) a successful grant applicant	2017

Other courses

» Experimental oncology (The Netherlands Cancer Institute)	2014
» Understanding angiogenesis in cancer (Uppsala University)	2015
» Genomics data analysis (Bonn University)	2015
» Molecular Pathology (EACR)	2017

Attended conferences, workshops and meetings

» International Symposium on Tumor-Host Interaction in Head and Neck Cancer, Essen, Germany (poster)	2015
» Cell Symposium in Cancer, Inflammation and Immunity, Sitges, Spain (poster)	2015
» Keystone symposium in Cancer Pathophysiology, Breckenridge, Colorado (poster)	2016
» NIBIT meeting in Cancer Immunotherapy, Siena Italy (poster)	2016
» Molecular Pathology Approach to Cancer-EACR, Amsterdam	2017
» Weekly lab meetings and scientific seminars, monthly division meetings	

Lunch seminars

» Dr. Massimiliano Mazzone, Jan 2014
» Dr. Lisa Coussens, June 2014
» Dr. Joachim Schultze, Oct 2015
» Dr. Adrian Hayday, March 2016
» Dr. Karen Knudsen, February 2017

Visiting institutes

- » Barts London School of Medicine, UK
- » Bonn University, LIMES Institute, Germany
- » Uppsala University, Sweden,
- » Lund University, Sweden
- » Alligator Bioscience Company, Lund, Sweden

PUBLICATIONS

Cioni B*, Nevedomskaya E*, Melis MHM, van Burgsteden J, Stelloo S, Hodel E, Spinozzi D, de Jong J, van der Poel H, Wessels LFA, Zwart W, Bergman AM. **Loss of androgen receptor signaling in prostate cancer-associated fibroblasts (CAFs) promotes CCL2- and CXCL8-mediated cancer cell migration.** *Molecular Oncology* (2018) 12 1308–1323

Cioni B, Jordanova ES, Hooijberg E, van der Linden R, de Menezes RX, Tan K, et al. **HLA class II expression on tumor cells and low numbers of tumor-associated macrophages predict clinical outcome in oropharyngeal cancer.** *Head Neck* (2019) 41:463–78

Cioni B, Zwart W and Bergman AM. **Exploring the Role of Androgen Receptor Signaling in the Prostate Cancer Microenvironment.** *End.Rel.Cancer* (2018), 25(6):R331-R349

Cioni B*, Zaalberg A*, van Beijnum JD, Melis MHM, van Burgsteden J, Mauro J M, Hooijberg E, Peters D, Hofland I, Yoni L, de Jong J, Sanders J, Judith V, van der Poel HG, de Boer JP, Griffioen AW, Zwart W, Bergman AM. **Androgen Receptor Signalling in Macrophages Promotes TAM Polarization and TREM-1 mediated Prostate Cancer Cell Migration and Invasion.** *Nat Commun.* 2020 Sep 9;11(1):4498. doi: 10.1038/s41467-020-18313-y

Cioni B*, Siefert JC*, Muraro MJ, Alshalalfa M, Vivié J, van der Poel H, , Feng FY⁵, Wessels L, Zwart W and Bergman AM. **Human Prostate Cancer-Associated Macrophage Subtypes with Prognostic Potential Revealed by Single-cell Transcriptomics (In revision)**

Melis MHM, Nevedomskaya E, van Burgsteden J, Cioni B, van Zeeburg HJT, Song JY, Zevenhoven J, Hawinkels LJAC, de Visser KE, Bergman AM. **The adaptive immune system promotes initiation of prostate carcinogenesis in a human c-Myc transgenic mouse model.** *Oncotarget.* (2017) 8(55):93867-93877

*Equal contribution

CURRICULUM VITAE

Bianca Cioni was born in Pisa, Italy, on February 17th 1989. She obtained her Diploma in foreign languages in Lucca in 2008, thereafter she continued her studies in Medical Biotechnology at the University of Florence. During her Bachelor studies she attended the Biotechnology Summer School at the University of Kent, UK, where she learnt basic laboratory techniques. Bianca obtained her Bachelor Degree in 2012 after a training period of 6 months in the microbiology laboratory at the University of Florence under the supervision of Prof. Dr. Alberta Azzi. Subsequently, she started her master studies in Molecular Biotechnology at the University of Birmingham, UK. In 2013 she obtained her Master Degree after a training period of 4 months in the laboratory of proteomics under the supervision of Dr. Elena Odintsova and Dr. Doug Ward. In the same year Bianca was selected for the Initial Training Network (ITN) funded by the Marie Skłodowska-Curie foundation at the Netherlands Cancer Institute in Amsterdam under the supervision of Dr. AM Bergman and Dr. JP de Boer. In 2018 she started her postdoctoral research in the laboratory of Dr. MP Colombo at the National Cancer Institute in Milan, Italy, where she is currently investigating the role of bifunctional arginine demethylase and lysyl-hydroxylase (JMJD6) in breast and prostate cancer, funded by the iCARE-2 fellowship awarded by the Italian Foundation for Cancer Research (AIRC) co-funded by the European Union, under the Marie-Sklodowska-Curie ActIon H2020-MSCA-COFUND-2017.

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