

ESP Advanced Training (EAT) Centre for Dermatopathology

1. EAT Centre: Department of Pathology, Maastricht University Medical Center+ (MUMC+)
P. Debyelaan 25, 6229 HX Maastricht, the Netherlands
2. Chair of the Department: Prof. Dr. Axel zur Hausen, M.D., Ph.D.
3. Head of the training program: Dr. Véronique Winnepenninckx, M.D., Ph.D. (Deputy chair of the Department of Pathology and Dermatopathologist)
in cooperation with: Prof. Dr. Axel zur Hausen, M.D., Ph.D., Dr. Lisa Hillen, M.D. (Dermatopathologist), drs. Myrurgia Abdul Hamid, M.D. (Dermatopathologist), Prof. Dr. Manon van Engeland (Professor of Research Oncology GROW), Prof. Dr. Peter Steijlen, M.D., Ph.D. (Head of the Department of Dermatology and Dermatologist), Dr. Nicole Kelleners-Smeets, M.D., Ph.D. (Dermatologist), and Dr. M. Reinders, M.D., Ph.D. (Dermatologist).
4. Details about specific areas in which training can be offered (particular method, field of subspecialty – e.g. kidney transplantation, etc.)

Our fields of subspecialty:

- Dutch Reference Center for Melanoma
- Basal Cell Carcinoma
- Merkel Cell Carcinoma
- Genodermatoses
- MOHS Surgery
- Cutaneous Lymphoma

Participation in daily practice:

- Department of Pathology:
 - 2 hours of practical macroscopic work per day plus 2 hours of microscopic observation per day.
 - Participation in the histological practice of MOHS surgery.
 - Participation in research project of your choice as presented in our Department.
 - Participation in molecular diagnostics of Dermatopathology.
The training in Molecular Dermatopathology: 2 weeks, equivalent to 40 + 40 hours. In both instances (immunohistochemistry and molecular pathology) the modules will include training in standardization of pre-analytic procedures and quality control.
 - Department of Dermatology:
 - Clinical visitations in the Department of Dermatology.
 - MOHS Surgery
5. Number of positions offered each year, expected duration of the training.
Two fellows can be hosted per year, for a minimum duration of 2 months and maximum duration of 6 months each.
The visit can be extended to 12 months in case the fellow is involved in a translational research project.

Specific periods of the year when the visit may be realized: starting in each 2nd and 4th trimester of the year.

The exact dates will be defined by direct contact

6. Contact address for requesting details by the applicant:
(Accommodation options, travel possibilities, etc.)

Dr. Véronique Winnepenninckx, M.D., Ph.D., Pathologist

Email: v.winnepenninckx@mumc.nl

and

Mrs. L. Liégeois-Bouvier, office manager of the Department of Pathology,

P.O. Box 5800, 6202 AZ Maastricht, the Netherlands

Telephone: +31 43 387 46 11

Email: l.liegeois.bouvier@mumc.nl

List of Publications:

1. Hillen LM, Van den Oord J, Geybels MS, Becker JC, **zur Hausen A**, Winnepenninckx V. Genomic Landscape of Spitzoid Neoplasms Impacting Patient Management. *Front Med (Lausanne)* 2018; 5:344.
2. Becker JC, Stang A, **Hausen AZ**, Fischer N, DeCaprio JA, Tothill RW, Lyngaa R, Hansen UK, Ritter C, Nghiem P, Bichakjian CK, Ugurel S, Schrama D. Epidemiology, biology and therapy of Merkel cell carcinoma: conclusions from the EU project IMMOMECC. *Cancer Immunol Immunother* 2018; 67:341.
3. Chteinberg E, Sauer CM, Rennspiess D, Beumers L, Schiffelers L, Eben J, Haugg A, Winnepenninckx V, Kurz AK, Speel EJ, Zenke M, **zur Hausen A**. Neuroendocrine Key Regulator Gene Expression in Merkel Cell Carcinoma. *Neoplasia* 2018; 20:1227.
4. Hillen LM, Geybels MS, Rennspiess D, Spassova I, Ritter C, Becker JC, Garmyn M, **zur Hausen A**, Van den Oord J, Winnepenninckx V. Molecular profiling of Spitz nevi identified by digital RNA counting. *Melanoma Res* 2018; 28:510.
5. Chteinberg E, Rennspiess D, Sambo R, Tauchmann S, Kelleners-Smeets NWJ, Winnepenninckx V, Speel EJ, Kurz AK, Zenke M, **zur Hausen A**. Phosphatidylinositol 3-kinase p110 δ expression in Merkel cell carcinoma. *Oncotarget* 2018; 9:29565.
6. Hillen LM, Rennspiess D, Speel EJ, Haugg AM, Winnepenninckx V, **zur Hausen A**. Detection of Merkel Cell Polyomavirus in Seborrheic Keratosis. *Front Microbiol* 2018; 8:2648.
7. Sauer CM, Haugg AM, Chteinberg E, Rennspiess D, Winnepenninckx V, Speel EJ, Becker JC, Kurz AK, **zur Hausen A**. Reviewing the current evidence supporting early B-cells as the cellular origin of Merkel cell carcinoma. *Crit Rev Oncol Hematol* 2017; 116:99.
8. Sauer CM, Chteinberg E, Rennspiess D, Kurz AK, **zur Hausen A**. Merkel cell carcinoma: cutaneous manifestation of a highly malignant pre-/pro-B cell neoplasia? : Novel concept about the cellular origin of Merkel cell carcinoma. *Hautarzt* 2017; 68:204.
9. Schadendorf D, Lebbé C, **zur Hausen A**, Avril MF, Hariharan S, Bharmal M, Becker JC. Merkel cell carcinoma: Epidemiology, prognosis, therapy and unmet medical needs. *Eur J Cancer* 2017; 71:53.
10. Beckervordersandforth J, Pujari S, Rennspiess D, Speel EJ, Winnepenninckx V, Diaz C, Weyers W, Haugg AM, Kurz AK, **zur Hausen A**. Frequent detection of human polyomavirus 6 in keratoacanthomas. *Diagn Pathol* 2016; 11:58.
11. Brinkhuizen T, Frencken KJ, Nelemans PJ, Hoff ML, Kelleners-Smeets NW, **zur Hausen A**, van der Horst MP, Rennspiess D, Winnepenninckx VJ, van Steensel MA, Mosterd K. The effect of topical diclofenac 3% and calcitriol 3 μ g/g on superficial basal cell carcinoma (sBCC) and nodular basal cell carcinoma (nBCC): A phase II, randomized controlled trial. *J Am Acad Dermatol* 2016; 75:126.
12. Verlinden I, van den Hurk K, Clarijs R, Willig AP, Stallinga CM, Roemen GM, van den Oord JJ, **zur Hausen A**, Speel EJ, Winnepenninckx VJ. BRAFV600E immunopositive melanomas show low frequency of heterogeneity and association with epithelioid tumor cells: a STROBE-

- compliant article. *Medicine (Baltimore)*. 2014; 93:e285. Erratum in: *Medicine (Baltimore)*. 2015;94.
13. Becker JC, **zur Hausen A**. Cells of origin in skin cancer. *J Invest Dermatol* 2014; 134:2491.
 14. Haugg AM, Rennspiess D, **zur Hausen A**, Speel EJ, Cathomas G, Becker JC, Schrama D. Fluorescence in situ hybridization and qPCR to detect Merkel cell polyomavirus physical status and load in Merkel cell carcinomas. *Int J Cancer*. 2014; 135:2804.
 15. **zur Hausen A**, Rennspiess D, Winnepenninckx V, Speel EJ, Kurz AK. Early B-cell differentiation in Merkel cell carcinomas: clues to cellular ancestry. *Cancer Res* 2013; 73:4982.
 16. van den Hurk K, Niessen HE, Veeck J, van den Oord JJ, van Steensel MA, **zur Hausen A**, van Engeland M, Winnepenninckx VJ. Genetics and epigenetics of cutaneous malignant melanoma: a concert out of tune. *Biochim Biophys Acta* 2012; 1826:89.
 17. Kassem A, Pantulu D, Technau K, Kurz AK, Diaz C, Hörster S, Nashan D, Weyers W, **zur Hausen A**. Merkel cell polyomavirus in naevoid basal cell carcinoma syndrome-associated basal cell carcinomas and sporadic trichoblastomas. *J Dermatol Sci* 2010; 59:140.
 18. **zur Hausen A**. Merkel cell polyomavirus in the pathogenesis of non-melanoma skin cancer. *Pathologe*. 2009; 30 Suppl 2:217.
 19. Kassem A, Technau K, Kurz AK, Pantulu D, Löning M, Kayser G, Stickeler E, Weyers W, Diaz C, Werner M, Nashan D, **zur Hausen A**. Merkel cell polyomavirus sequences are frequently detected in nonmelanoma skin cancer of immunosuppressed patients. *Int J Cancer*. 2009; 125:356.
 20. Kassem A, Schöpflin A, Diaz C, Weyers W, Stickeler E, Werner M, **zur Hausen A**. Frequent detection of Merkel cell polyomavirus in human Merkel cell carcinomas and identification of a unique deletion in the VP1 gene. *Cancer Res* 2008; 68:5009.
1. Immunohistochemical analysis of the mechanistic target of rapamycin and hypoxia signalling pathways in basal cell carcinoma and trichoepithelioma. Brinkhuizen T, Weijzen CA, Eben J, Thissen MR, van Marion AM, Lohman BG, **Winnepenninckx VJ**, Nelemans PJ, van Steensel MA. *PLoS One*. 2014 Sep 2;9(9).
 2. Acquired resistance to the Hedgehog pathway inhibitor vismodegib due to smoothed mutations in treatment of locally advanced basal cell carcinoma. Brinkhuizen T, Reinders MG, van Geel M, Hendriksen AJ, Paulussen AD, **Winnepenninckx VJ**, Keymeulen KB, Soetekouw PM, van Steensel MA, Mosterd K. *J Am Acad Dermatol*. 2014 Sep 4. pii: S0190-9622(14)01792-7.
 3. Photodynamic therapy in Bowen's disease: influence of histological features and clinical characteristics on its success. Westers-Attema A, Lohman BG, van den Heijkant F, Nelemans PJ, **Winnepenninckx VJ**, Kelleners-Smeets NW, Mosterd K. *Dermatology*. 2015;230(1):55-61.
 4. Biallelic inactivation of protoporphyrinogen oxidase and hydroxymethylbilane synthase is associated with liver cancer in acute porphyrias. Schneider-Yin X, van Tuyl van Serooskerken AM, Siegesmund M, Went P, Barman-Aksózen J, Bladergroen RS, Komminoth P, Cloots RH, **Winnepenninckx VJ**, zur Hausen A, Weber M, Driessen A, Poblete-Gutiérrez P, Bauer P, Schroeder C, van Geel M, Minder EI, Frank J.J *Hepatology*. 2015 Mar;62(3):734-8.
 5. BRAFV600E immunopositive melanomas show low frequency of heterogeneity and association with epithelioid tumor cells: a STROBE-compliant article. Verlinden I, van den Hurk K, Clarijs R, Willig AP, Stallinga CM, Roemen GM, van den Oord JJ, zur Hausen A, Speel EJ, **Winnepenninckx VJ**. *Medicine (Baltimore)*. 2014 Dec;93(28): e285.
 6. Subtyping Basal Cell Carcinoma by Clinical Diagnosis Versus Punch Biopsy. Roozeboom MH, Kreukels H, Nelemans PJ, Mosterd K, **Winnepenninckx VJ**, Hamid MA, de Haas ER, Kelleners-Smeets NW. *Acta Derm Venereol*. 2015
 7. Prognostic Significance of Promoter Hypermethylation and Diminished Gene Expression of SYNPO2 in Melanoma. Gao L, van den Hurk K, Nsengimana J, Laye JP, van den Oord JJ, Beck S, Gruis NA, Zoutman WH, van Engeland M, Newton-Bishop JA, **Winnepenninckx VJ**, van Doorn R. *J Invest Dermatol*. 2015 Apr 28.
 8. Tumor thickness and adnexal extension of superficial basal cell carcinoma (sBCC) as determinants of treatment failure for methylaminolevulinate (MAL)-photodynamic therapy (PDT), imiquimod, and 5-fluorouracil (FU). Roozeboom MH, van Kleef L, Arits AH, Mosterd K, **Winnepenninckx VJ**, van Marion AM, Nelemans PJ, Kelleners-Smeets NW. *J Am Acad Dermatol*. 2015 Jul;73(1):93-8
 9. Locally advanced basal cell carcinoma has a distinct methylation and transcriptomic profile. Brinkhuizen T, van Geel M, Denil SL, De Meyer T, Kelleners-Smeets NW, Lohuis PJ,

- Hoebbers FJ, **Winnepenninckx** VJ, van Steensel MA, Mosterd K. *Exp Dermatol*. 2016 Apr;25(4):316-8.
10. SF3B1 and EIF1AX mutations occur in primary leptomeningeal melanocytic neoplasms; yet another similarity to uveal melanomas. Küsters-Vandeveldt HV, Creytens D, Grunsvan AC, Jeunink M, **Winnepenninckx** V, Groenen PJ, Küsters B, Wesseling P, Blokx WA, Prinsen CF. *Acta Neuropathol Commun*. 2016 Jan 15;4(1):5.
 11. The effect of topical diclofenac 3% and calcitriol 3 µg/g on superficial basal cell carcinoma (sBCC) and nodular basal cell carcinoma (nBCC): A phase II, randomized controlled trial. Brinkhuizen T, Frencken KJ, Nelemans PJ, Hoff ML, Kelleners-Smeets NW, Zur Hausen A, van der Horst MP, Rennspiess D, **Winnepenninckx** VJ, van Steensel MA, Mosterd K. *J Am Acad Dermatol*. 2016 Jul;75(1):126-34. doi: 10.1016/j.jaad.2016.01.050. Epub 2016 Apr 7.
 12. Clustered unilateral trichoepitheliomas indicate Type 1 segmental manifestation of multiple familial trichoepithelioma. Parren LJ, Munte K, **Winnepenninckx** V, van Geel M, Steijlen PM, Frank J, van Steensel MA. *Clin Exp Dermatol*. 2016 Aug;41(6):682-4. doi: 10.1111/ced.12856. Epub 2016 Jun 24.
 13. Frequent detection of human polyomavirus 6 in keratoacanthomas. Beckervordersandforth J, Pujari S, Rennspiess D, Speel EJ, **Winnepenninckx** V, Diaz C, Weyers W, Haugg AM, Kurz AK, Zur Hausen A. *Diagn Pathol*. 2016 Jul 7;11(1):58. doi: 10.1186/s13000-016-0509-z.
 14. Quantitative assessment of Zirconium-89 labeled cetuximab using PET/CT imaging in patients with advanced head and neck cancer: a theragnostic approach. Even AJ, Hamming-Vrieze O, van Elmp W, **Winnepenninckx** VJ, Heukelom J, Tesselaar ME, Vogel WV, Hoeben A, Zegers CM, Vugts DJ, van Dongen GA, Bartelink H, Mottaghy FM, Hoebbers F, Lambin P. *Oncotarget*. 2017 Jan 17;8(3):3870-3880. doi: 10.18632/oncotarget.13910.
 15. PET imaging of zirconium-89 labelled cetuximab: A phase I trial in patients with head and neck and lung cancer. van Loon J, Even AJG, Aerts HJWL, Öllers M, Hoebbers F, van Elmp W, Dubois L, Dingemans AC, Lalisang RI, Kempers P, Brans B, **Winnepenninckx** V, Speel EJ, Thunnissen E, Smits KM, Boellaard R, Vugts DJ, De Ruyscher D, Lambin P. *Radiother Oncol*. 2017 Feb;122(2):267-273.
 16. Reviewing the current evidence supporting early B-cells as the cellular origin of Merkel cell carcinoma. Sauer CM, Haugg AM, Chteinberg E, Rennspiess D, **Winnepenninckx** V, Speel EJ, Becker JC, Kurz AK, Zur Hausen A. *Crit Rev Oncol Hematol*. 2017;116:99-105.
 17. PET imaging of zirconium-89 labelled cetuximab: A phase I trial in patients with head and neck and lung cancer. van Loon J, Even AJG, Aerts HJWL, Öllers M, Hoebbers F, van Elmp W, Dubois L, Dingemans AC, Lalisang RI, Kempers P, Brans B, **Winnepenninckx** V, Speel EJ, Thunnissen E, Smits KM, Boellaard R, Vugts DJ, De Ruyscher D, Lambin P. *Radiother Oncol*. 2017 Feb;122(2):267-273.
 18. Bowen's Disease: Long-term Results of Treatment with 5-Fluorouracil Cream, Photodynamic Therapy or Surgical Excision. Jansen MH, Appelen D, Nelemans PJ, **Winnepenninckx** VJ, Kelleners-Smeets NWJ, Mosterd K. *Acta Derm Venereol*. 2018 Jan 12;98(1):114-115.
 19. Detection of Merkel Cell Polyomavirus in Seborrheic Keratosis. Hillen LM, Rennspiess D, Speel EJ, Haugg AM, **Winnepenninckx** V, Zur Hausen A. *Front Microbiol*. 2018 Jan 9;8:2648.
 20. Phosphatidylinositol 3-kinase p110 δ expression in Merkel cell carcinoma. Chteinberg E, Rennspiess D, Sambo R, Tauchmann S, Kelleners-Smeets NWJ, **Winnepenninckx** V, Speel EJ, Kurz AK, Zenke M, Zur Hausen A. *Oncotarget*. 2018 Jul 3;9(51):29565-29573.
 21. Molecular profiling of Spitz nevi identified by digital RNA counting. Hillen LM, Geybels MS, Rennspiess D, Spassova I, Ritter C, Becker JC, Garmyn M, Zur Hausen A, Van den Oord J, **Winnepenninckx** V. *Melanoma Res*. 2018 Dec;28(6):510-520.
 22. Neuroendocrine Key Regulator Gene Expression in Merkel Cell Carcinoma. Chteinberg E, Sauer CM, Rennspiess D, Beumers L, Schiffelers L, Eben J, Haugg A, **Winnepenninckx** V, Kurz AK, Speel EJ, Zenke M, Zur Hausen A. *Neoplasia*. 2018 Dec;20(12):1227-1235.
 23. Genomic Landscape of Spitzoid Neoplasms Impacting Patient Management, Lisa M Hillen, Joost van den Oord, Milan S Geybels, Jürgen C Becker, Axel zur Hausen and **V Winnepenninckx**, *Front Med* 2018 Review