Biomolecular and epidemiological aspects of human papillomavirus induced cervical carcinogenesis

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List of Publications

1. Vermeulen CFW, Jordanova ES, Zomerdijk-Nooijen YA, Ter Haar NT, Peters AAW, Fleuren GJ. Frequent HLA Class I Loss is an Early Event in Cervical Carcinogenesis. Human Immunology 2005 Nov; 66(11): 1167-73.
2. Engberts MK, Vermeulen CFW, Verbruggen BSM, van Haaften M, Boon ME, Heintz APM. Candida and squamous (pre)neoplasia of immigrants and Dutch women as established in population-based cervical screening. Int J Gynecol Cancer 2006; 16: 1596–1600.
3. Vermeulen CFW, Grünberg A, Peters AAW, Van der Linden-Narain IBS, Vrede MA, Krul EJT, Dekker FW, Fleuren GJ. Ethnic Patterns of Cytological Abnormalities in Cervical Smears in Suriname, a High-Risk Area for Cervical Cancer. Acta Cytologica 2006 Nov-Dec; 50(6): 621-6.
4. Vermeulen CFW, Boon ME, Grünberg A, Van der Linden-Narain IBS, Vrede MA, Dekker FW, Peters AAW, Fleuren GJ. Decreased Prevalence of Dysplasia in High-Risk Population Immigrants in a Low-Risk Area for Cervical Cancer. Int J Gynecol Cancer 2007 May-Jun; 17(3): 646-50.
5. Vermeulen CFW, Jordanova ES, Ter Haar NT, Kolkman-Uljee S, Miranda NF, Ferrone S, Peters AAW, Fleuren GJ. Expression and genetic analysis of transporter associated with antigen processing in cervical carcinoma. Gynecological Oncology 2007 Jun; 105(3): 393-9.
6. Vermeulen CFW, Jordanova ES, Szuhai K, Kolkman-Uljee S, Vrede MA, Peters AAW, Schuuring EMD, Fleuren GJ. Physical Status of Multiple Human Papillomavirus Genotypes in Flow-Sorted Cervical Cancer Cells. Cancer Genetics and Cytogenetics 2007 Jun; 175(2): 132-7.

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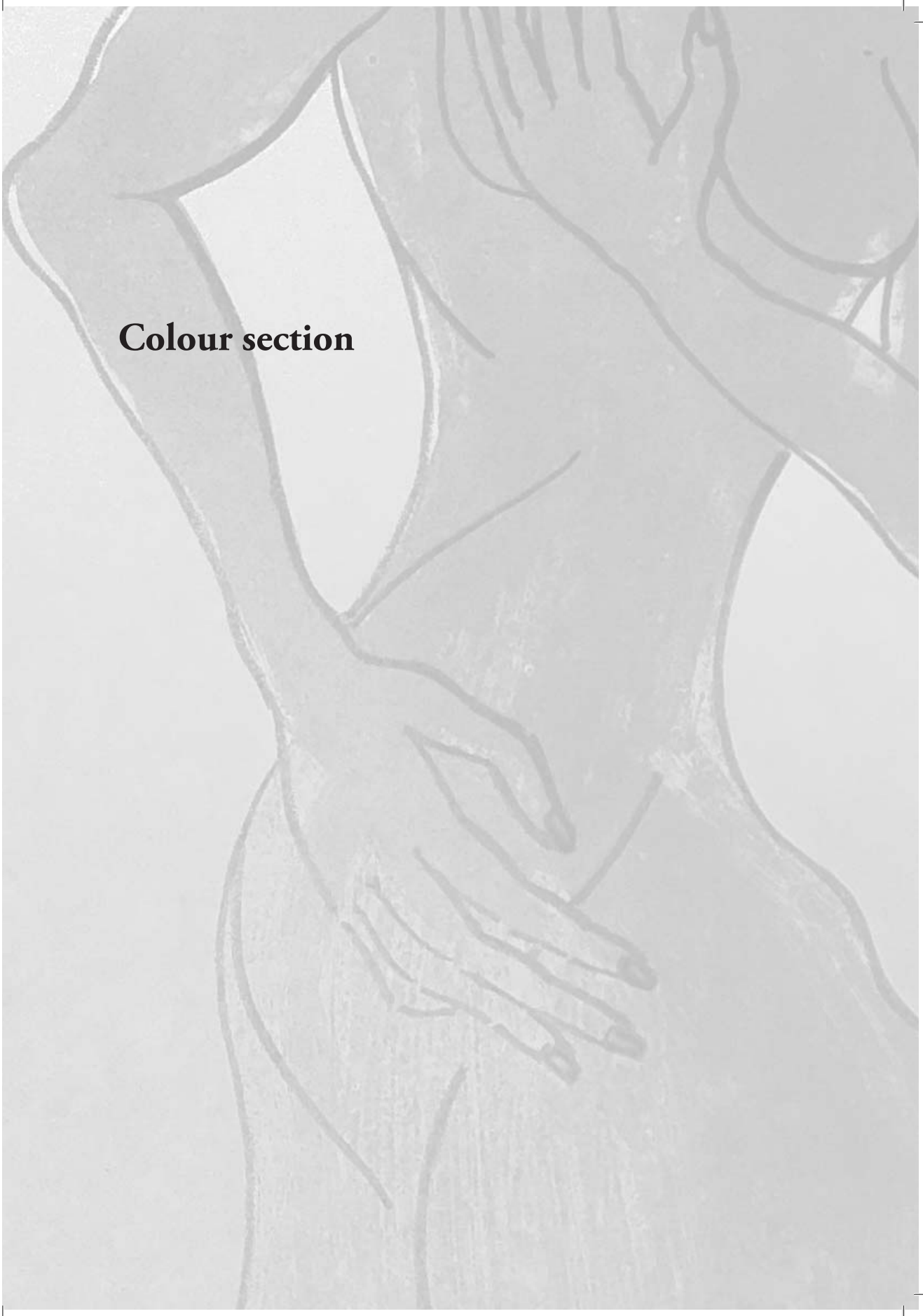
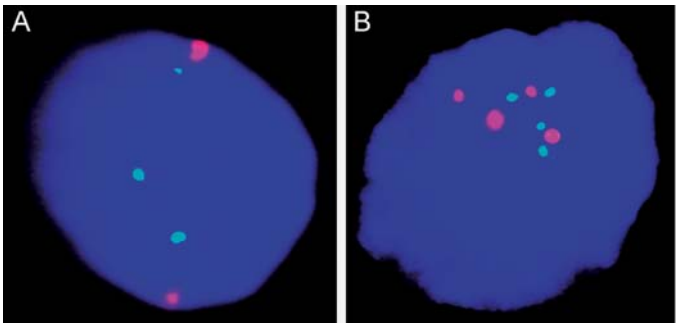
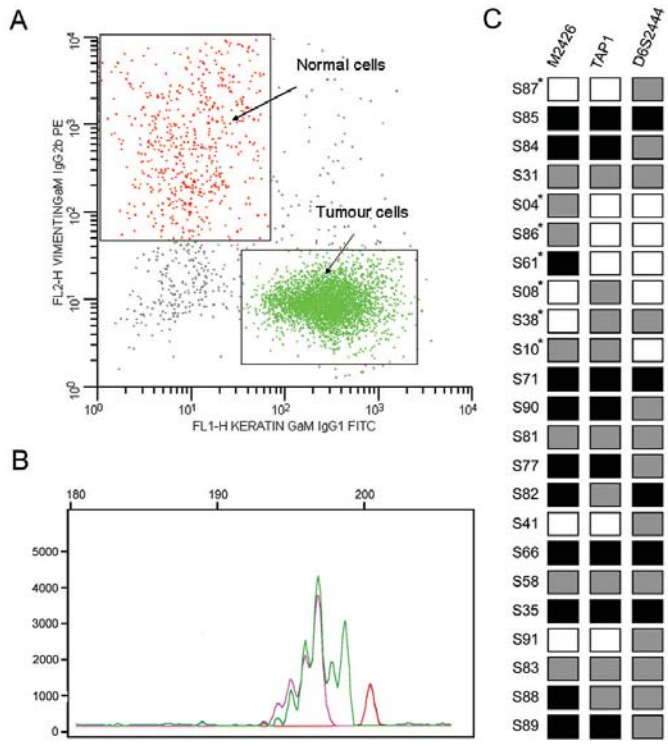


Colour section



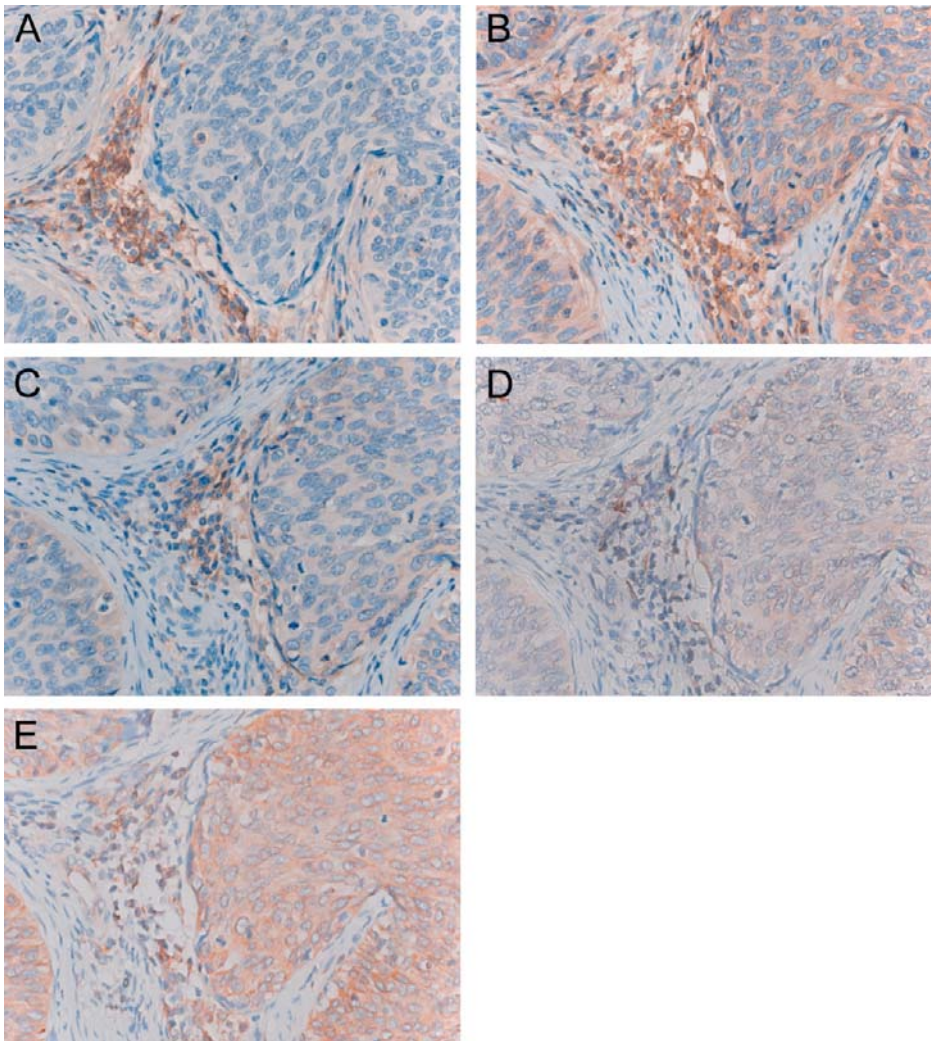
Chapter 4, FIGURE 2

Examples of the FISH results. (**A**) In case S77, FISH showed two centromeric signals and three signals of the whole HLA class I region in 16% of the nuclei, suggesting a possible duplication and translocation. (**B**) Example of aneusomy 6, found in most of the cases.



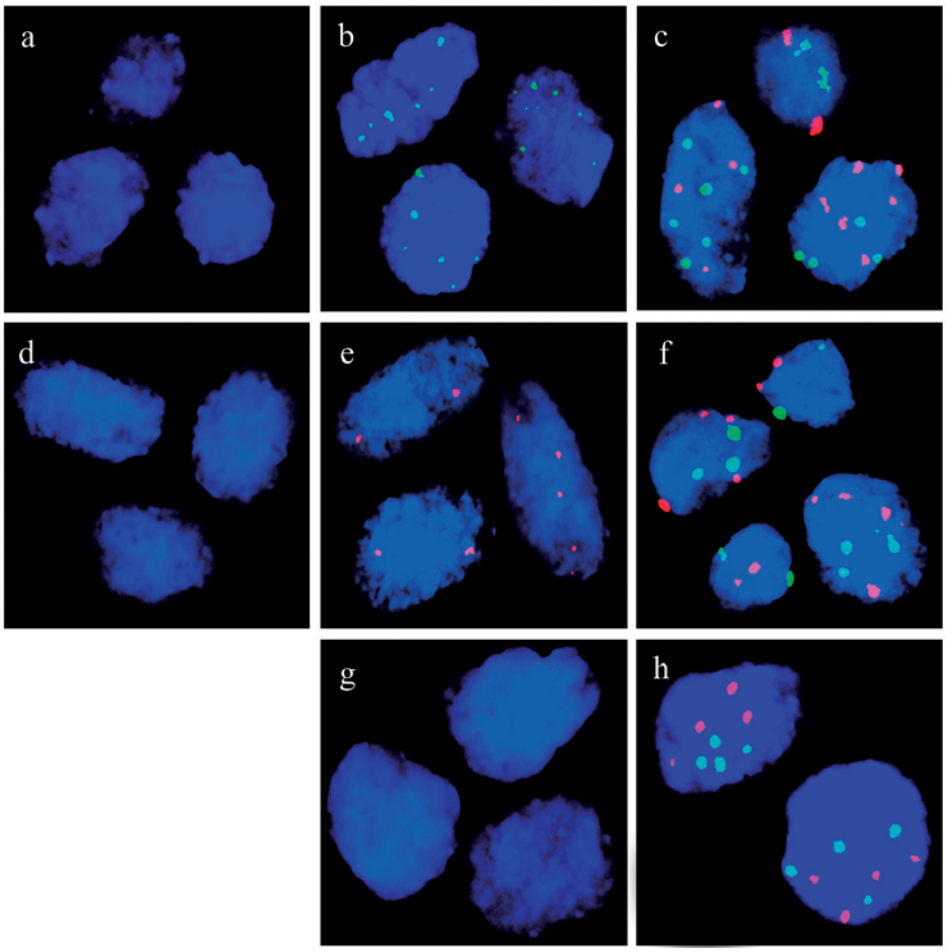
Chapter 5, FIGURE 3

LOH analysis results. (**A**) A representative example of flow-sorting data of a cervical cancer sample (S41). The keratin positive (tumour, FITC-labelled) cells and the vimentin positive (normal, PE-labelled)) cells were flow-sorted and used in further analyses. (**B**) LOH results (S87) at marker TAP1 for tumour (pink, one peak) and normal (green, two peaks) sorted cell fractions (S87). A size marker is depicted in red. (**C**) The complete LOH data of the three microsatellite markers used per tumour sample, represented as ROH (black squares); LOH (white squares) and not informative (grey squares). The same order of samples is used as in **FIGURE 1**.



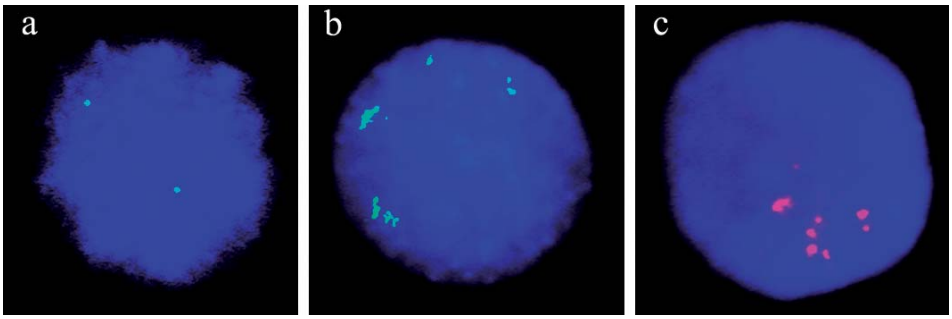
Chapter 5, FIGURE 2

Immunohistochemical staining of a cervical carcinoma lesion (sample S87). Detail (400x magnification) of the same group of tumour cells, stained with TAP1 (negative) (**A**); TAP2 (positive) (**B**); HLA-A (**C**) and HLA-B/C (**D**) (weak cytoplasm, negative membrane); β2M (positive cytoplasm) (**E**).



Chapter 6, FIGURE 1

Interphase FISH on flow-sorted cervical carcinoma cells of the HPV 16/18 positive cases. Case 1 (**A**): the diploid cells are negative for HPV; (**B**) The aneuploid tumour cells show punctate signals for HPV 16 (green); (**C**) Control centromere 1 (red) and centromere 6 (green) signals. Case 2 (**D**): the diploid tumour cell fraction is negative for HPV; (**E**) The aneuploid tumour cells show punctate signals for HPV 18 (red); (**F**) Control centromere 1 (red) and centromere 6 (green) signals. Case 3 (**G**): the aneuploid tumour cell fraction is negative for HPV; (**H**) Control centromere 1 (red) and centromere 6 (green) signals.



Chapter 6, FIGURE 2

Interphase FISH on flow-sorted cervical cancer cell lines. (**A**) SiHa: 2 copies of HPV 16 are visible in green; (**B**) CaSki: multiple copies of HPV 16 are visible in green; (**C**) HeLa: multiple copies of HPV 18 are visible in red.