

Écrit par TRAN Guy Mong Ky

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PROSTATIC CANCER AND HUMAN PAPILLOMAVIRUS (HPV): MOLECULAR HOMOLGY OF HPV-18 E2 WITH ONCOGENE CRIPTO-1.

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BACKGROUND HPV are found in Prostatic Cancer (PK) by PCR only when the primer is E (=Early) and not L (=Late) (*Tran GMK, 2004*). This particularity may be explained by L loss during integration (*Johansson H, 2013*)

. Cripto-1 (Teratocarcinoma-Derived Growth Factor-1), a member of Epidermal Growth Factor (EGF) family, is involved in PK progression (*Terry S, 2013, 2015*)

. It is a co-receptor of TGF- β , induces E-Cadherin loss (*Zhong XY, 2008*)

in Epithelial to Mesenchymal Transition (*Thiery JP, 2002*)

and stimulates the PI3K/Akt pathway. E-Cadherin down regulation can also be induced by HPV E6

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(*Matthews K, 2003*)

. As HPV contains many oncogenes implicated specifically in PK [HPV-11 E2 = EGF-HRG-TGFα mitogens chimera

(*Tran MKG, 1997*)

with a

common

M

H

I

E

S

L

hexapeptide, Osteoprotegerin in bone metastases

(*Tran GMK, 2004*)

, Nucleophosmin 1 (NPM1) in androgeno-regulation

(*Tran GMK, 2014*)

], we search for a molecular homology between Cripto-1 and HPV.

METHODS Amino acid sequences comparison of HPV with Cripto-1 EGF motif

CcxxGGxCxxxxxCxCxxxxxxxxxC.

RESULTS

HPV-18 E2

113-**CFkKGGqTV** 45-**YFdGNK D** 127-**DGNKDNC**

Cripto-1

83-**CL**

HPV-18 E2 □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ **9D W T L** □ □ □ □ □ **323-PPNN** □ □ **L** □ **KCWR**

Q

R

C

□ □ □ **122-**

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V
Q
VYF

matches with Cripto-1

120-D(W,T)L□□□□□ 124LPKKcsLcKCWHgQIRC □□□ 1

42

-P

Q
AFL

CONCLUSION The discovery of Cripto-1 being a viral HPV-18 E2 oncogene, whereas EGF is a HPV-11 E2, confirms the HPV role in PK, and E-cadherin loss as a factor of metastasis. A safe and efficient vaccine is warranted, as Gardasil and Gardasil 9 based on L1 may be followed by menopause/sterility and multiple sclerosis, and Cervarix by thrombocytopenia. A BT PHARMA vaccine based on a HPV-16 and -18 oncogene E7, instead of L1 as in Gardasil and Cervarix, is in phase II trial at the Pasteur Institute (Paris). E7 is much smaller than L1 and has less worrying epitopes.

BIBLIOGRAPHY Matthews K. Depletion of Langerhans cells in human papillomavirus type 16-infected skin is associated with E6-mediated down regulation of E-cadherin. *J Virol* 2003, 77: 8378-85. Terry S.

Involvement of CRIPTO-1 in progression of prostate tumors

. *Eurocancer, Paris, June 25-26,*

2013. Terry S. CRIPTO overexpression promotes mesenchymal differentiation in prostate carcinoma cells through parallel regulation of AKT and FGFR activities.

Oncotarget

2015, 6: 11994-2008. Thierry JP. Epithelial-mesenchymal transitions in tumour progression.

Nat Rev Cancer

2002, 2: 442-54.

Tran MKG

. Human Papillomavirus (HPV) E2 protein contains a chimera of epidermal growth factor (EGF) and EGF family mitogens: Heregulin and Tumor Growth Factor.

6th Eur HIV Conf, Hamburg

1997, P474. Tran GMK. Role of human papillomavirus type 18 in a subgroup of prostatic cancer with bone metastasis: Its protein E2 contains the osteoprotegerin active site.

EuroConf Cancer, Pasteur Inst.

Jan 15-16 2004.

Tran GMK

. Prostatic cancer of viral origin: Homology of human oncogenic papillomavirus (HPV) L1 with nucleophosmin (NPM1), a controller of androgen receptor transcription.

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19, 2014, Paris. Zhong XY. Positive association of up-regulated Cripto-1 and down-regulated E-cadherin with tumour progression and poor prognosis in gastric cancer. *Histopathology*. 2008, 52: 560-8.