

EARLY DIAGNOSIS SYSTEM FOR TUMOURS FREQUENT DEVELOPING COUNTRIES

Good Health and Well-being

Potential Goal



Agenda 2030



ENEA develops low-cost diagnostic kits, based on the production of recombinant viral oncoproteins, for identification of high-risk (HR) human papilloma-virus (HPV) associated tumours, which are very frequent in developing countries.

Using recombinant viral oncoproteins allows to develop a diagnostic test kit capable of distinguishing between transitory infections and those oriented towards carcinogenesis.

Benefits and Advantages:

- Reliability, rapidity and easy use
- Lower costs
- Possible use of an early biomarker, E6 protein of HPV16, for HPV-associated oropharyngeal cancer, today ever more frequent

ENEA Service:

- design
- technology transfer
- technical support
- consulting
- training

Completed and Ongoing Activities:

ENEA has developed a novel procedure to obtain a recombinant E6 protein (from HPV-16, -18, -11 and other HPV types) which is mutationless, stable, soluble, biologically active and in native conditions.

The protein purification procedure has been recorded as ENEA patent (Italian patent no. 1379103 (30/08/2010): Franconi R., & Illiano E. 'Proteina E6 di HPV ricombinante, solubile e in forma biologicamente attiva, procedimento per la sua preparazione, uso e vaccini terapeutici che la comprendono'), and its license has been granted to NANOFABER, s.r.l. (ENEA spin-off).

Keywords: Oncoproteins, HPV, early diagnosis, recombinant antibodies, tumours, health, prevention.



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