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## FUTURE RESEARCH

FUTURE RESEARCH on the aetiology of melanoma and non-melanoma skin cancer should be planned on a multicentric and multidisciplinary basis in order to investigate, in a homogeneous way, the relationship between sun exposure and skin cancers in different ethnic groups.

There is evidence from epidemiological studies that those at greatest risk of skin cancer (including melanoma) are individuals of light complexion (who burn easily, tan with difficulty) with a large number of banal or clinically atypical melanocytic naevi.

It is important to plan studies in different populations aimed at:

- (1) identifying objective criteria to define the UVR susceptibility trait with regard to (a) the amount and type of melanins (eumelanin, pheomelanin, oxymelanin), (b) the redox state of the glutathione system, (c) *in vivo* measurement of DNA repair capacity in different epidermal cells, (d) immunosuppression;
- (2) assessing how these criteria correlate with each other;
- (3) studying how these criteria correlate to skin cancer;

- (4) assessing the role of photoprotection of melanins and sunscreens in respect of cancer skin.

Although molecular biology has not provided specific examples of genes significantly involved in the development and progression of human melanoma, two recent reports have identified p53 by immunocytochemistry as a significant marker in human melanoma [1, 2]. Investigations at the molecular level to define specific mutations of this gene may be informative. DNA samples for all subjects entering into these studies should be collected for both tumour and normal tissue.

Hopefully, these will be useful in future screening programmes and in developing objective methods of measuring sun exposure and its consequences.

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1. Stretch JR, Gatter KC, Ralfkiaer E, Lane DP, Harris AL. Expression of mutant p53 in melanoma. *Cancer Res* 1991, 51, 5976-5979.
  2. Pierotti MA, Dragani TA. Genetics and cancer. *Curr Opin Oncol* 1992, 4, 127-133.

## MESSAGE TO THE PUBLIC

CAMPAIGNS THAT could generate anxiety should be discouraged. It was unanimously agreed that general messages to the public, stating that excessive sun exposure (and exposure to UVA lamps) are dangerous are not likely to be effective and could be counterproductive. Instead, information should be targeted.

It was decided that the following messages seem reasonable:

- (1) the need to protect children's skin from sunburn,
- (2) excessive sun exposure and exposure to UVA lamps could be dangerous for individuals with pale skin who tan poorly, burn easily and have a large number of naevi on their skin,
- (3) there is no evidence that sunscreens can protect from long-term risks.

Campaigns aimed at alerting the public to the features of early

melanoma should be encouraged, provided that elements for evaluating the outcome of the campaign are present.

Guidelines to promote primary and secondary prevention of melanoma (and skin cancer) have been recently published by the WHO Melanoma Programme [1].

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1. MacKie RM, Cascinelli N for and on behalf of the W.H.O. Melanoma Programme. Educational Strategies designed to promote Primary and Secondary Prevention of Melanoma. W.H.O. Melanoma Programme Publications, no. 1, March 1992. c/o National Cancer Institute, Milau (Italy).

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