

DIAGNOSTIC VALUE OF COLOUR IN DERMOSCOPIC IMAGES

Kajsa Møllersen
Ph.D. candidate, Statistics
University of Tromsø
University hospital of North Norway
Gjøvik University College

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MELANOMA WORLDWIDE

- Second most common cancer in the age group 25-49 years.
- Accounts for 90% of skin cancer deaths.

Cancer Registry of Norway

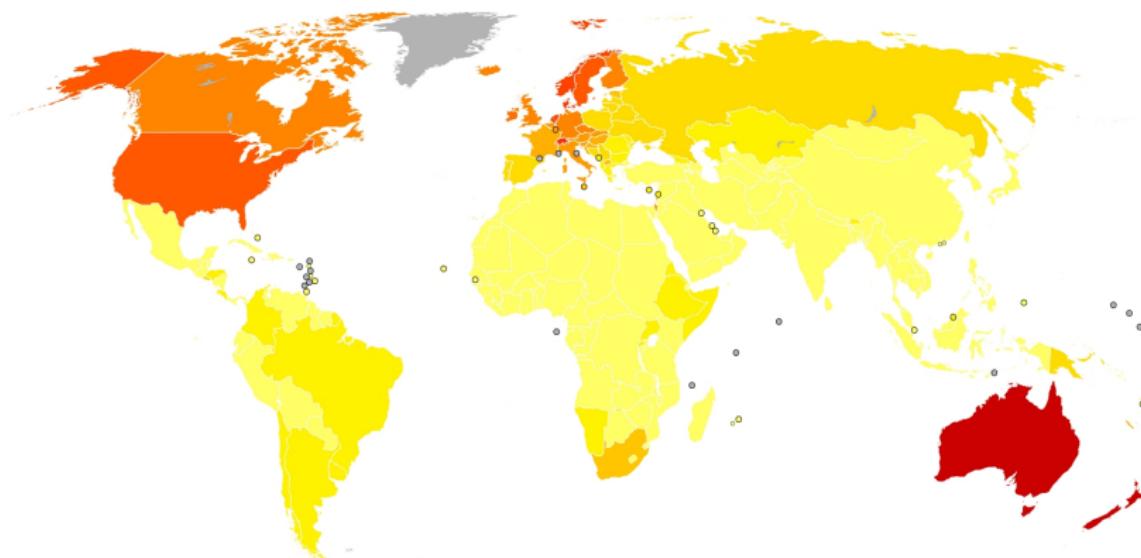


FIG : GLOBOCAN

HOW TO DIAGNOSE?

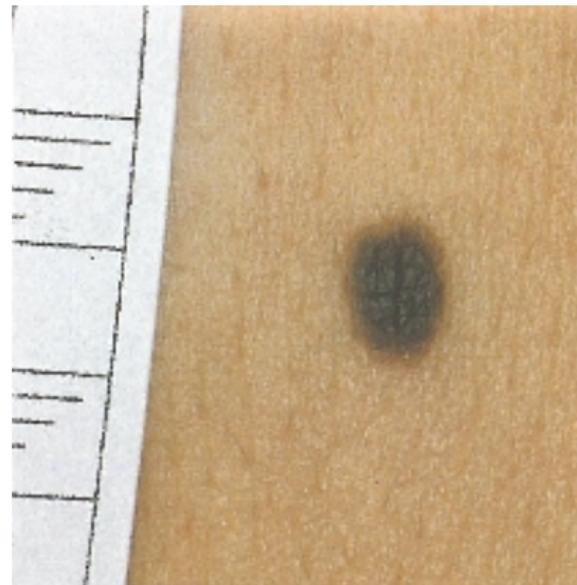
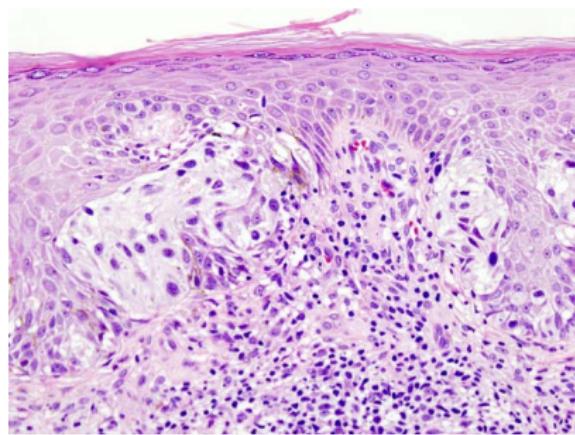


FIG : Stolz et al., Colour atlas of dermatoscopy

DIAGNOSIS: CLINICAL - HISTOPATHOLOGICAL



DERMOSCOPY; INCREASED DIAGNOSTIC ACCURACY

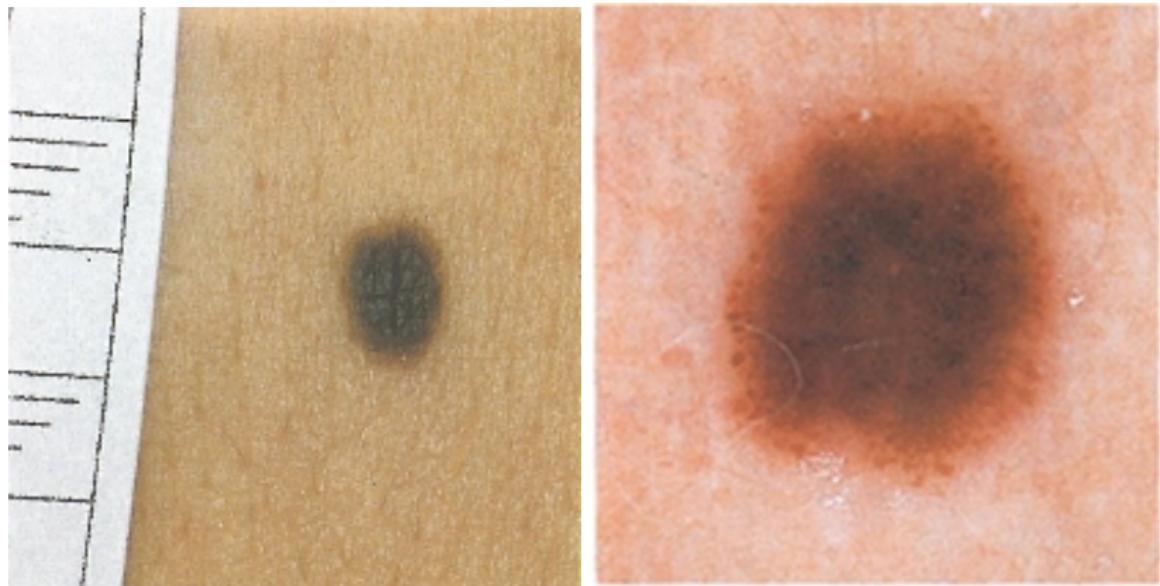


FIG : Stolz et al., Colour atlas of dermatoscopy

LIGHT PENETRATING UPPERMOST SKIN LAYER

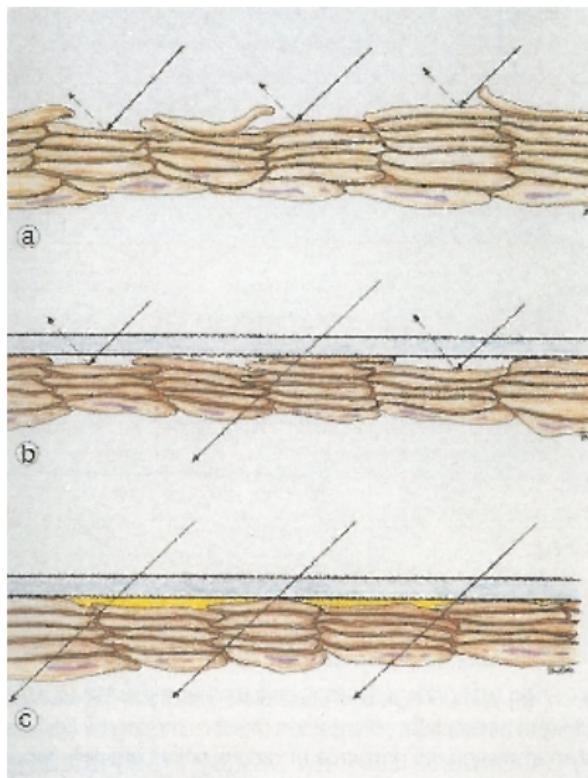
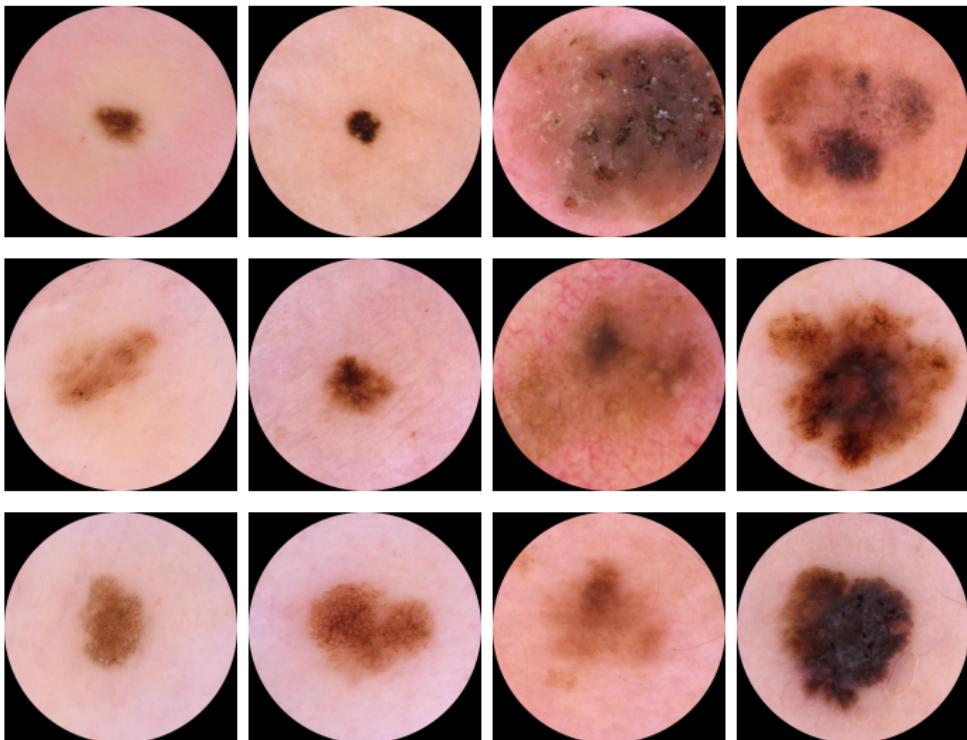


FIG : Stolz et al., Colour atlas of dermatoscopy

DERMOSCOPIC IMAGES OF LESIONS



DIAGNOSIS CONFIRMED BY HISTOPATHOLOGY

Benign



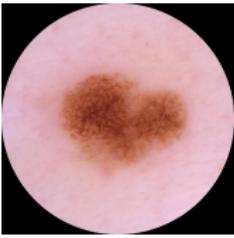
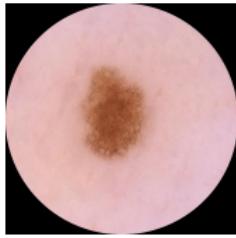
Malignant



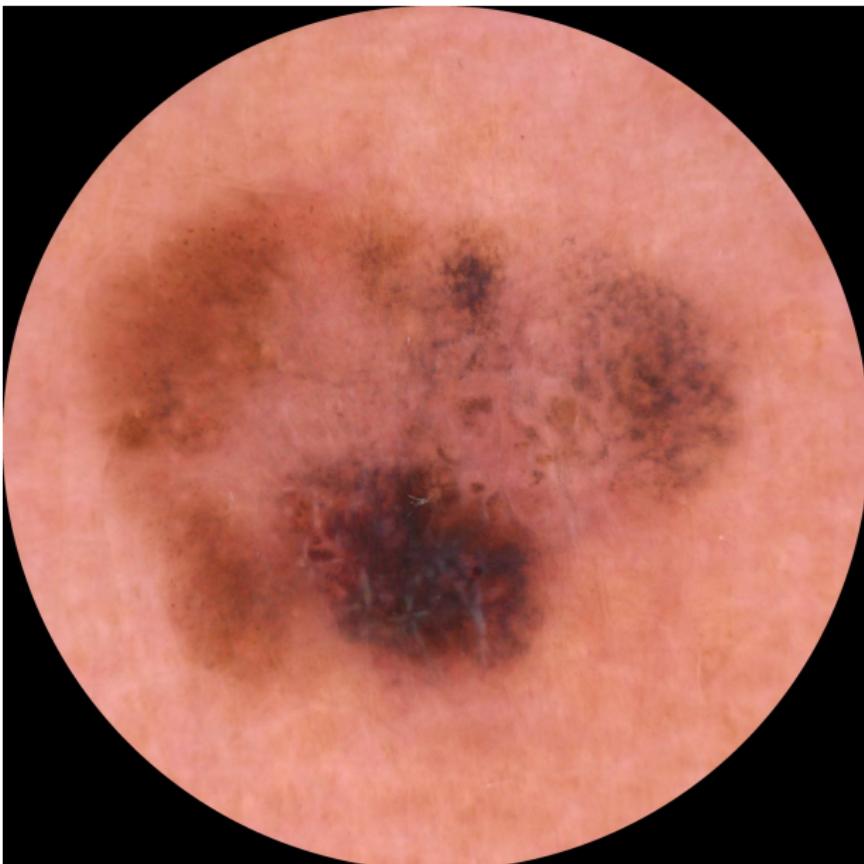
Benign



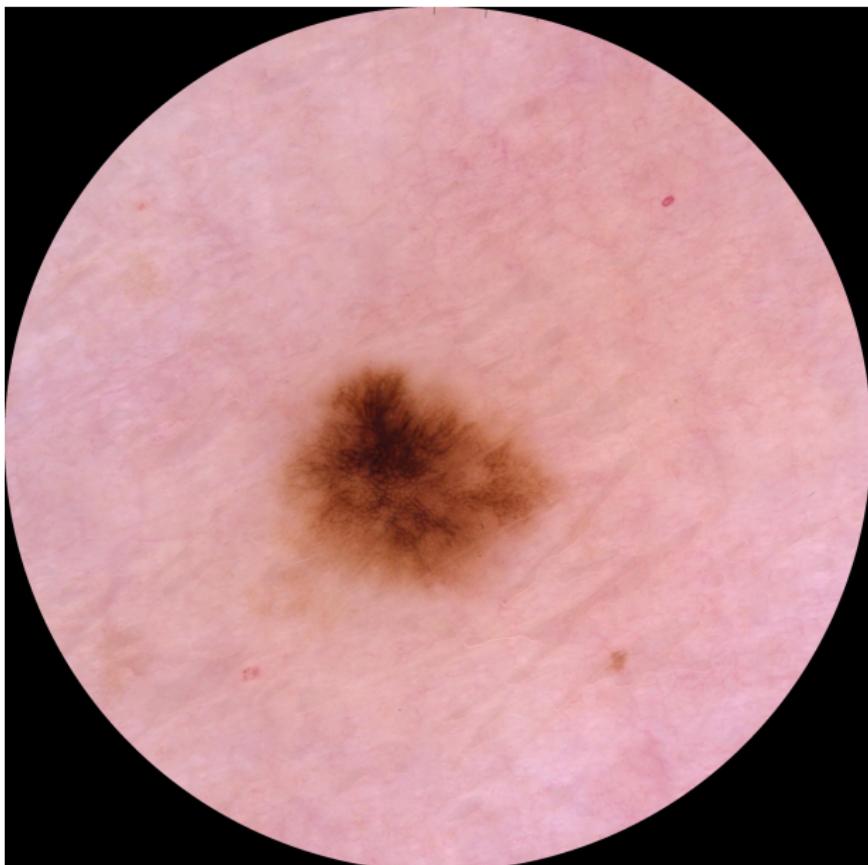
Malignant



DIAGNOSTIC IMPORTANCE OF COLOUR



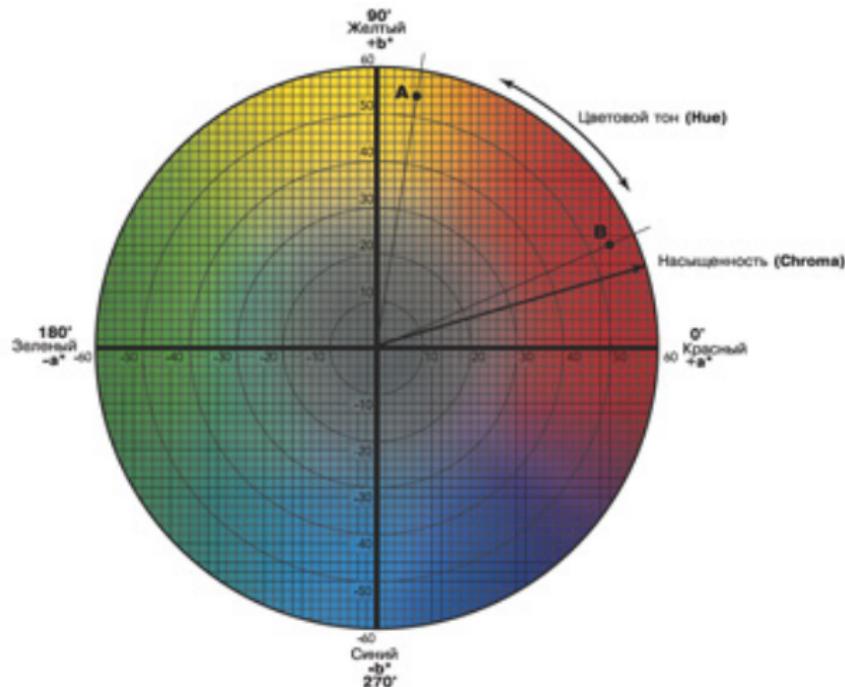
ASYMMETRY IN SPATIAL DISTRIBUTION



MELANOMA SPECIFIC COLOURS



MELANOMA SPECIFIC COLOURS



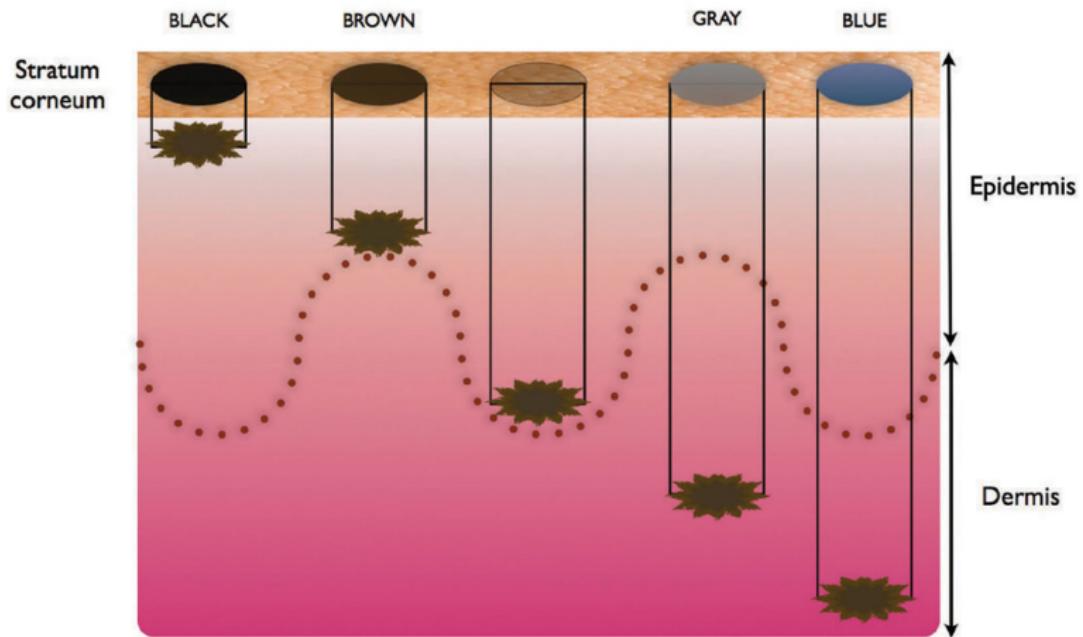
MELANOMA SPECIFIC COLOURS



MELANOMA SPECIFIC COLOURS



COLOURS CORRESPOND WITH LESION DEPTH



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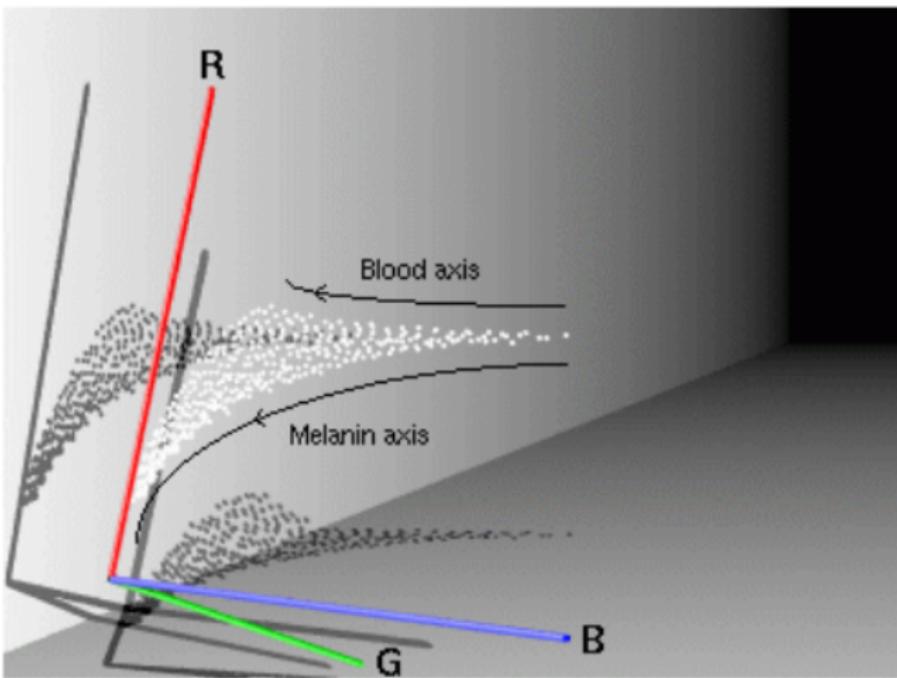


FIG : Cotton, A non-invasive image system for assisting in the diagnosis of malignant melanoma

COLOURS CORRESPOND WITH LESION DEPTH

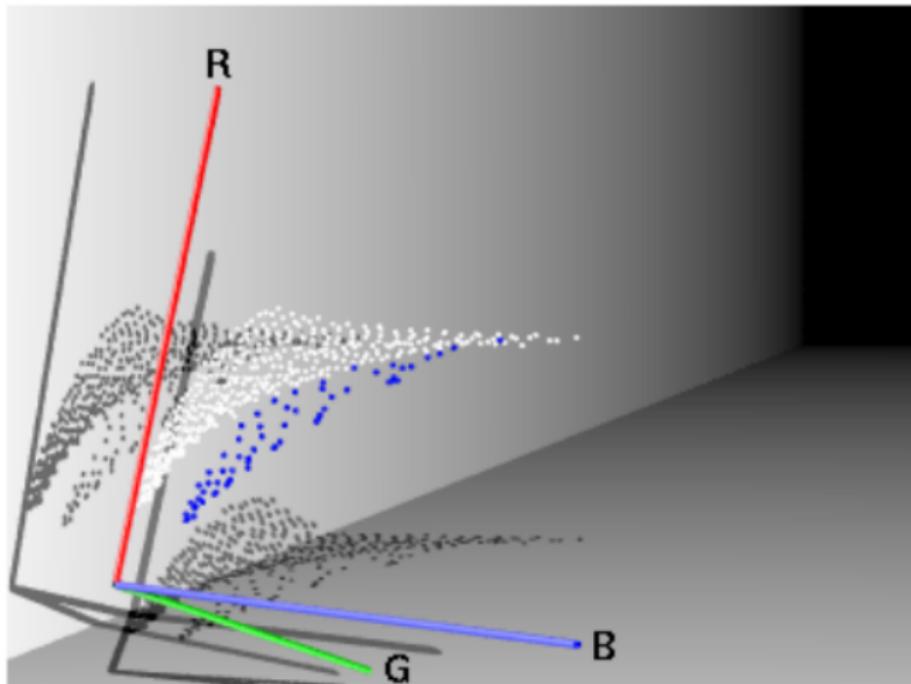
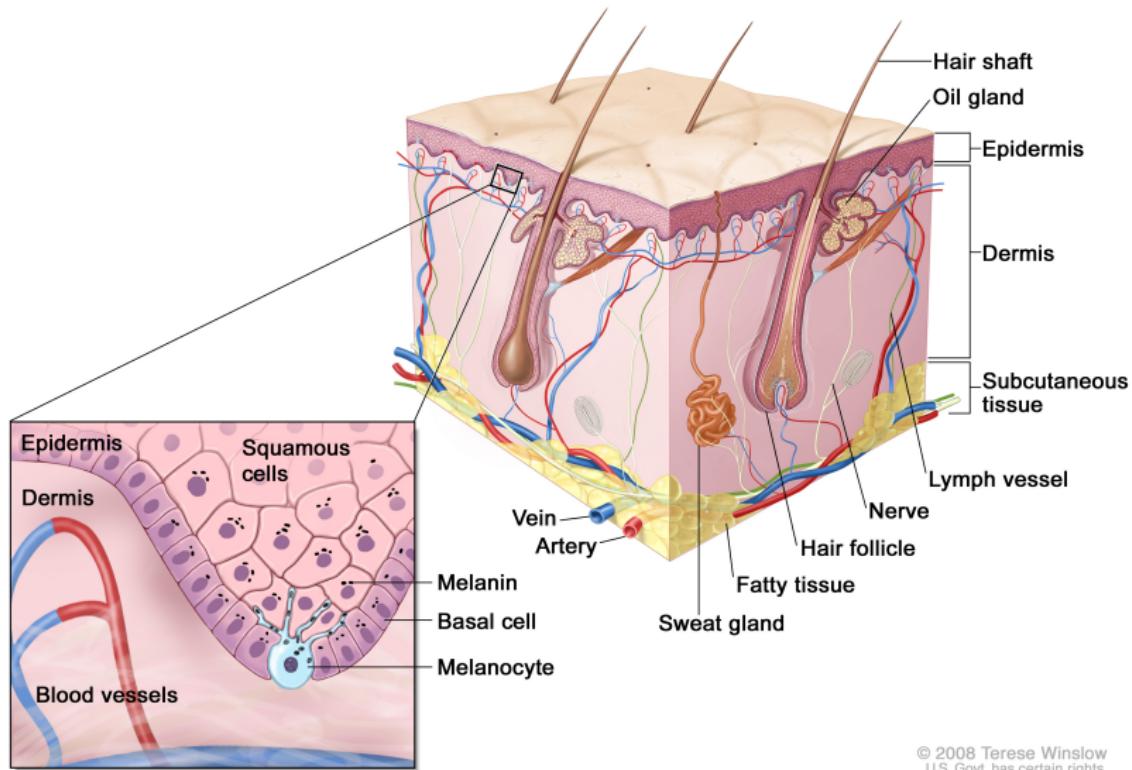


FIG : Cotton, A non-invasive image system for assisting in the diagnosis of malignant melanoma

NOT A ONE-TO-ONE CORRESPONDENCE



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HISTOPATHOLOGY

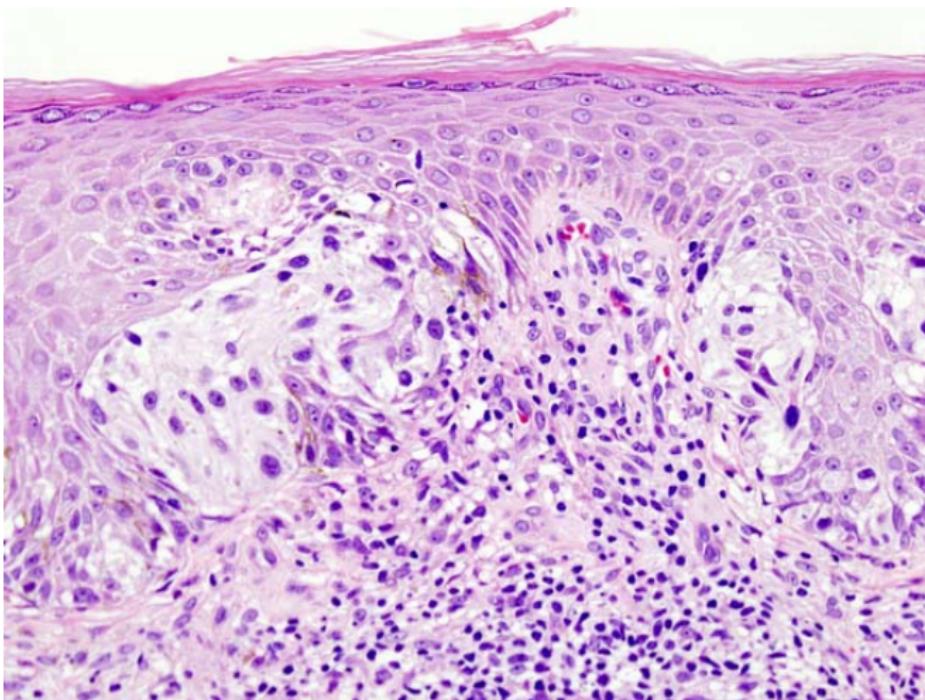
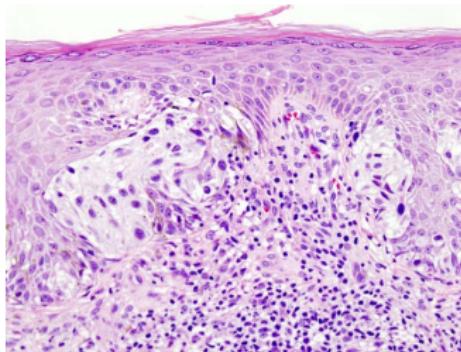


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COLOUR CALIBRATION

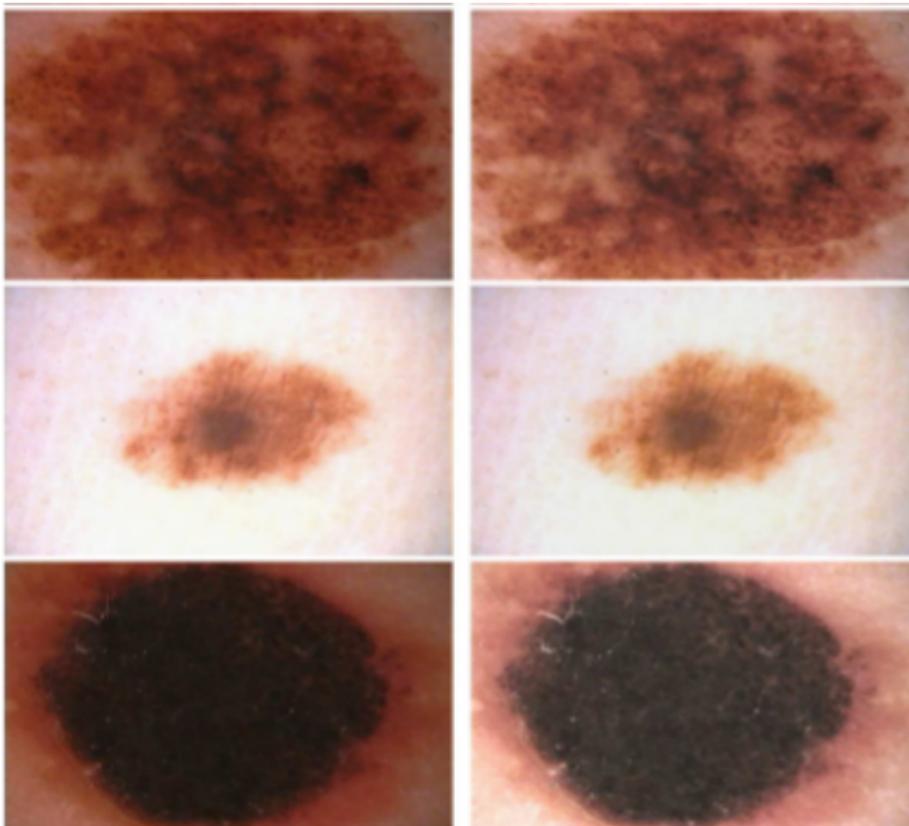


FIG : Iyatomi, Automated color calibration method for dermoscopy

- Display
 - anaesthesia
 - telemedicine
- Computer aided diagnosis
 - better melanoma detection
 - images from different sources



COLOUR CALIBRATION - FUTURE

- Stability
 - wider use of telemedicine
 - ...
- Accuracy
 - melanoma detection in primary health care
 - ...

