

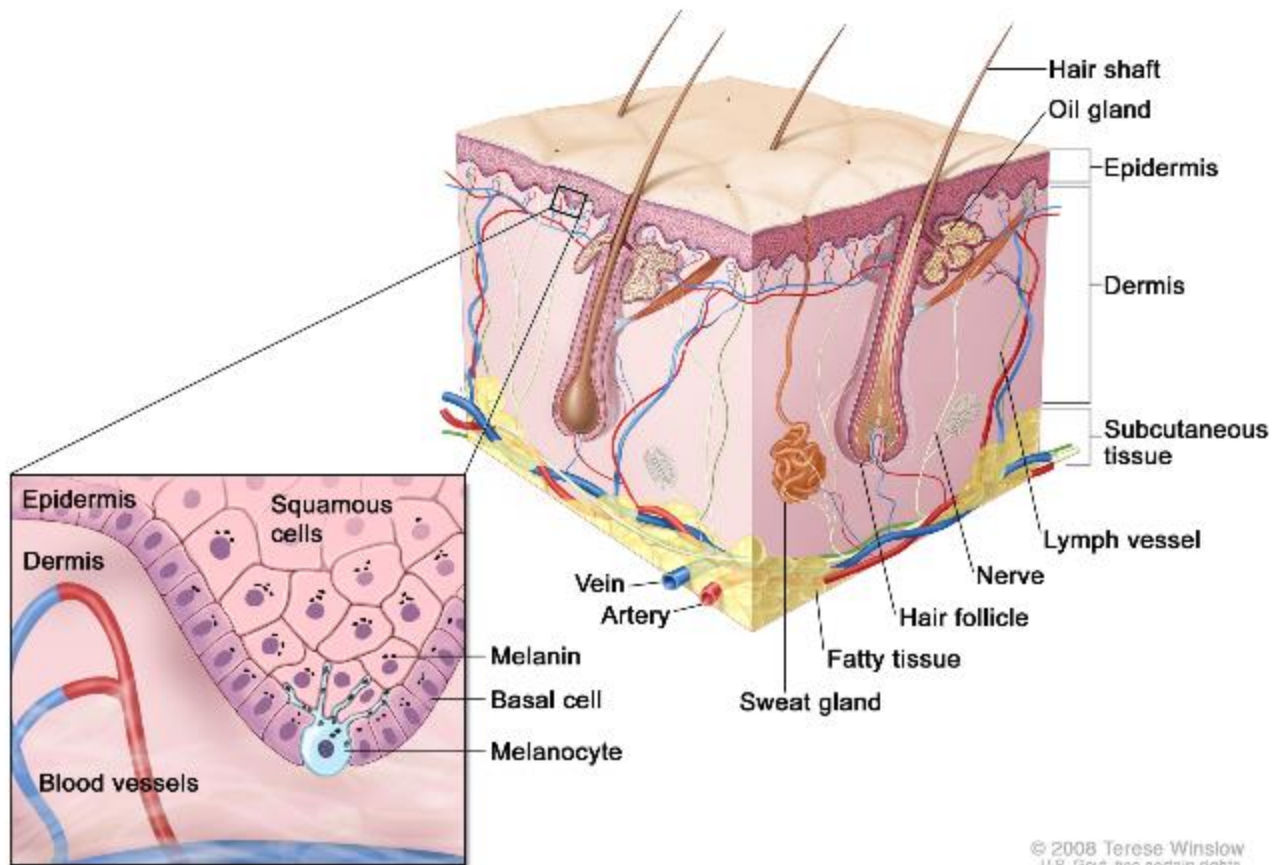
# **In Situ Melanoma- Holy Grail or Blind Alley**

## **Melbourne Melanoma Project Scientific Exchange 2016**

Prof John Kelly,  
Head, Victorian Melanoma Service,  
Alfred Health

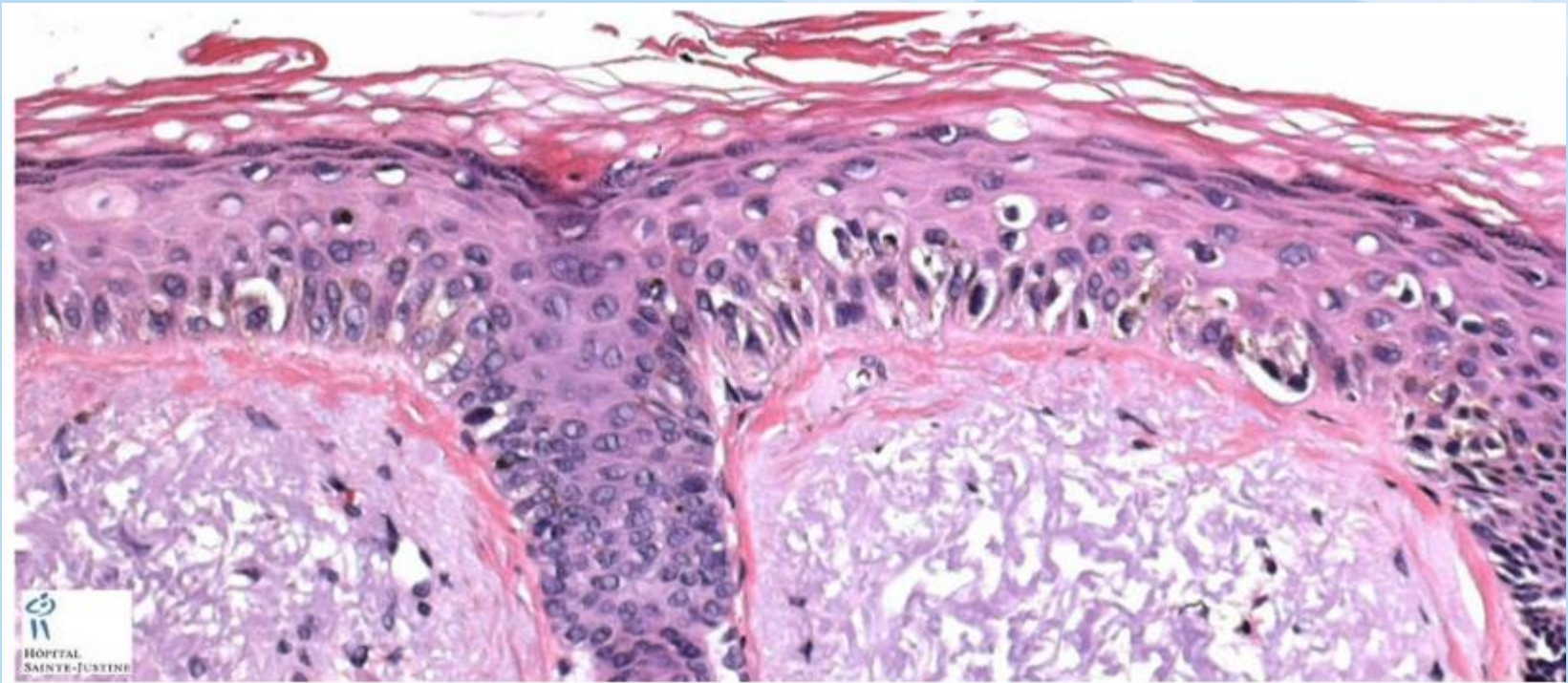


# In Situ Melanoma – Stage 0



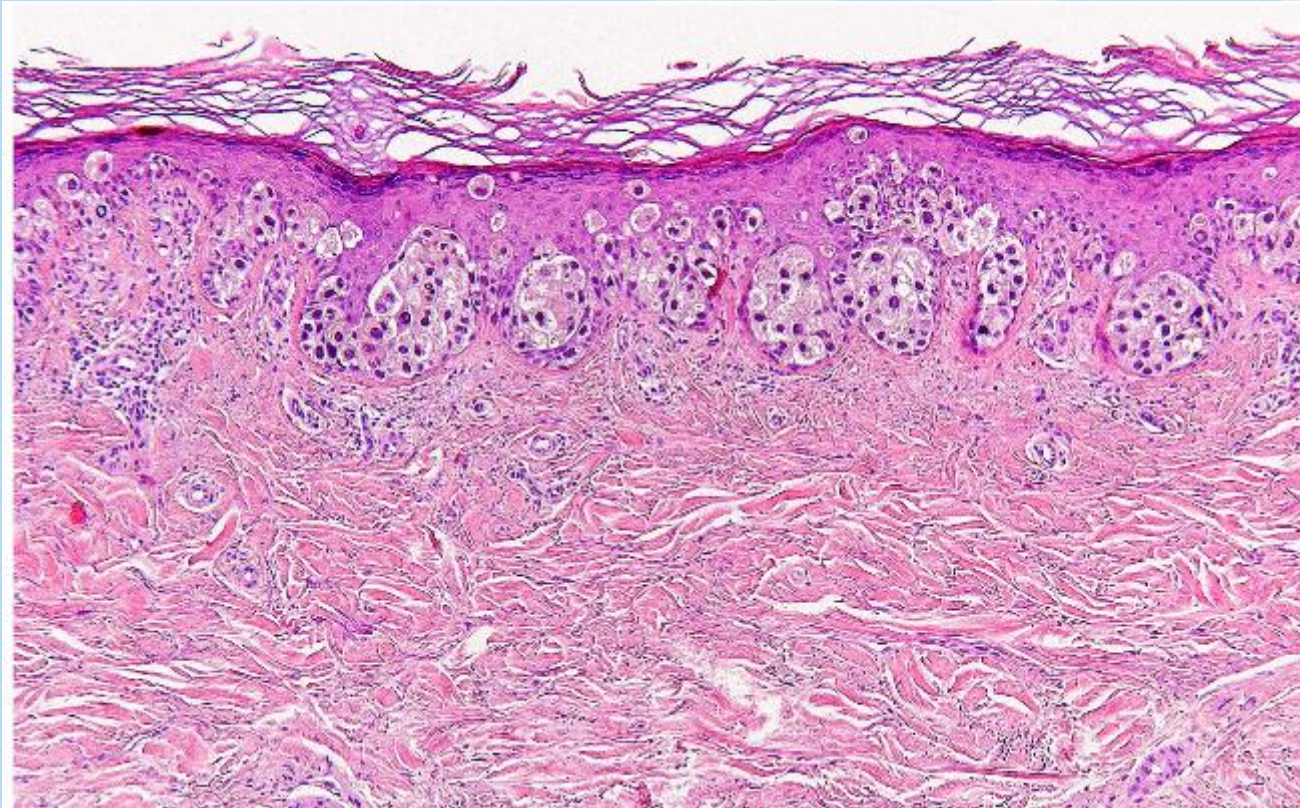
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# In Situ Melanoma – What the pathologist sees





# In Situ Melanoma – What the pathologist sees



# How common is in situ melanoma in Victoria - 2014?

- Total cases in 2014: 1,448 men, 1,213 women
- Cumulative rate: 3.7% men, 3.0% women
- Lifetime risk (to age 75): 1 in 27 men, 1 in 34 women

# What are the trends in in situ melanoma?

- For 30 years occurrence rates rising at 10% per year while invasive melanoma increases at 2% per year
- Rise not associated with reduction in death rates
- Differences with invasive melanoma: more men, more on head and neck (LM), older patients (61 vs 54 years)

# How significant is the diagnosis of an in situ melanoma ?

- No life threatening potential
- A strong risk factor for developing another melanoma
- Also risk for basal or squamous cell carcinoma

# If left how many in situ melanomas become invasive?

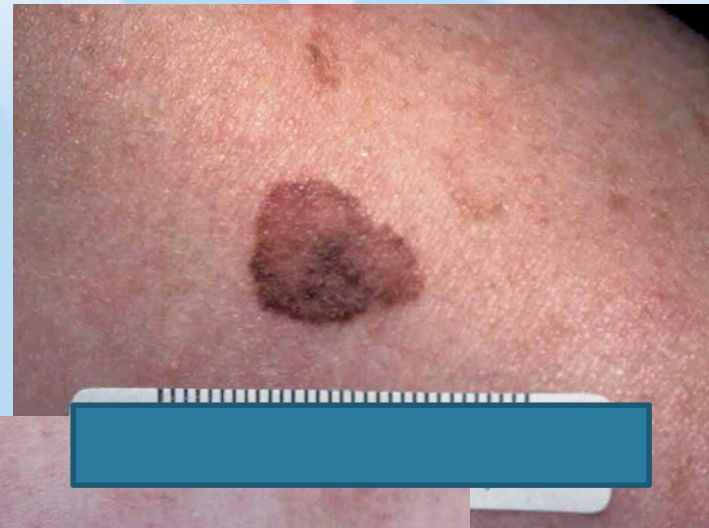
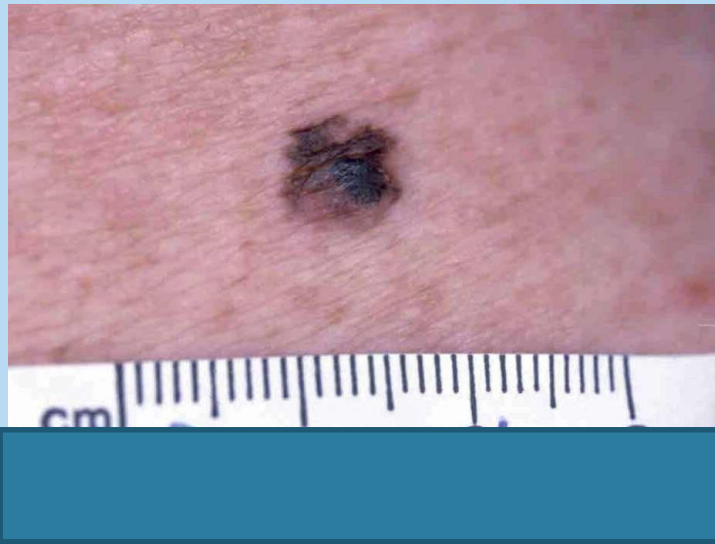
- We don't know!
- Estimates vary 5% - 50% for lentigo maligna
- We reviewed 34 in situ melanomas that were initially misdiagnosed. They were rebiopsied average 27 months later and 23 had become invasive = most progressed within 2 years



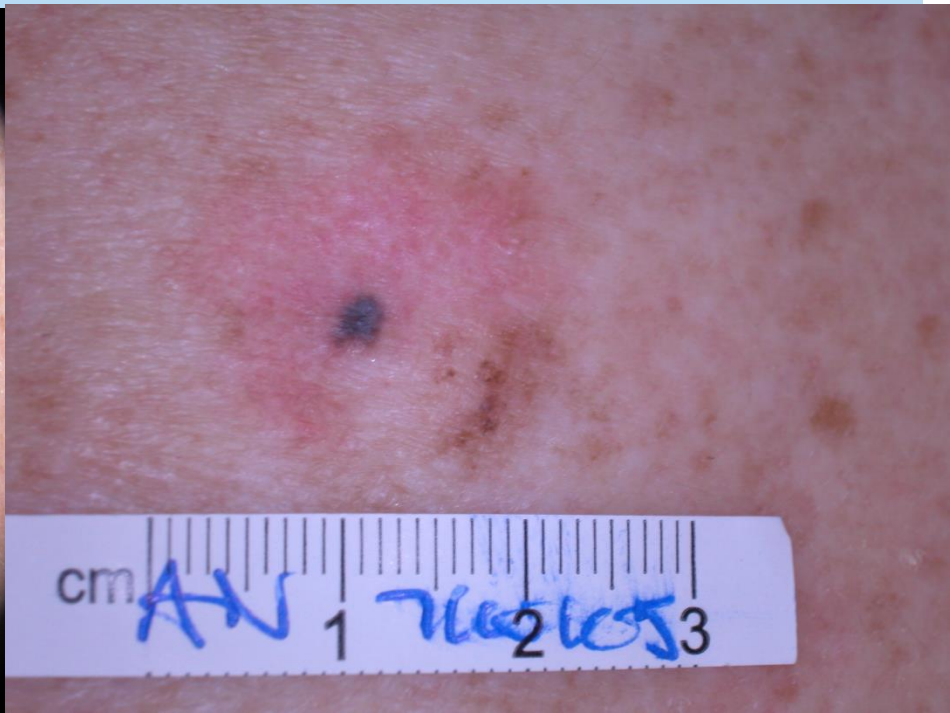
# What Causes In Situ Melanoma?

- UV induced mutations in pigment cells
- Deficiency in enzyme repair
- DNA damage will rarely occur at a critical point – oncogene (BRAF) or tumour suppressor gene (NF-1)
- Increased cell proliferation

# What does In Situ Melanoma Look Like? - Common (Superficial Spreading) Melanoma









# In Situ Lentigo Maligna





# Polarised dermoscopy

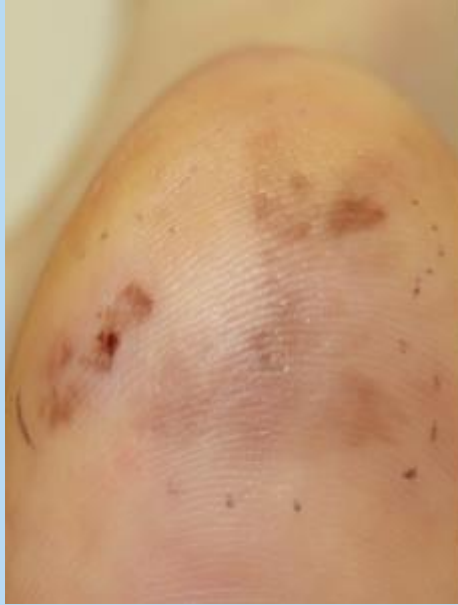


## Lentigo Maligna - Dermoscopy

- Granular grey dots
- Regression structures



# Acral Lentiginous Melanoma In Situ



Uneven light brown  
pigmentation

Pigmented bands of varying line width and  
colour



# What methods are used to detect in situ melanoma?

- Self Examination
- Clinical Screening with General Practitioner
- Clinical Screening with Dermatologist
- Clinical Screening supported by TB Photography
- Clinical Screening supported by TB photography and Sequential Dermoscopy



**Significant melanomas are  
changing, moles are stable**

**Most melanomas are new  
spots, not from a mole**

The more information you have  
about change the more effective you  
are in diagnosing early melanoma













# Sequential Dermoscopy

# Case History 1

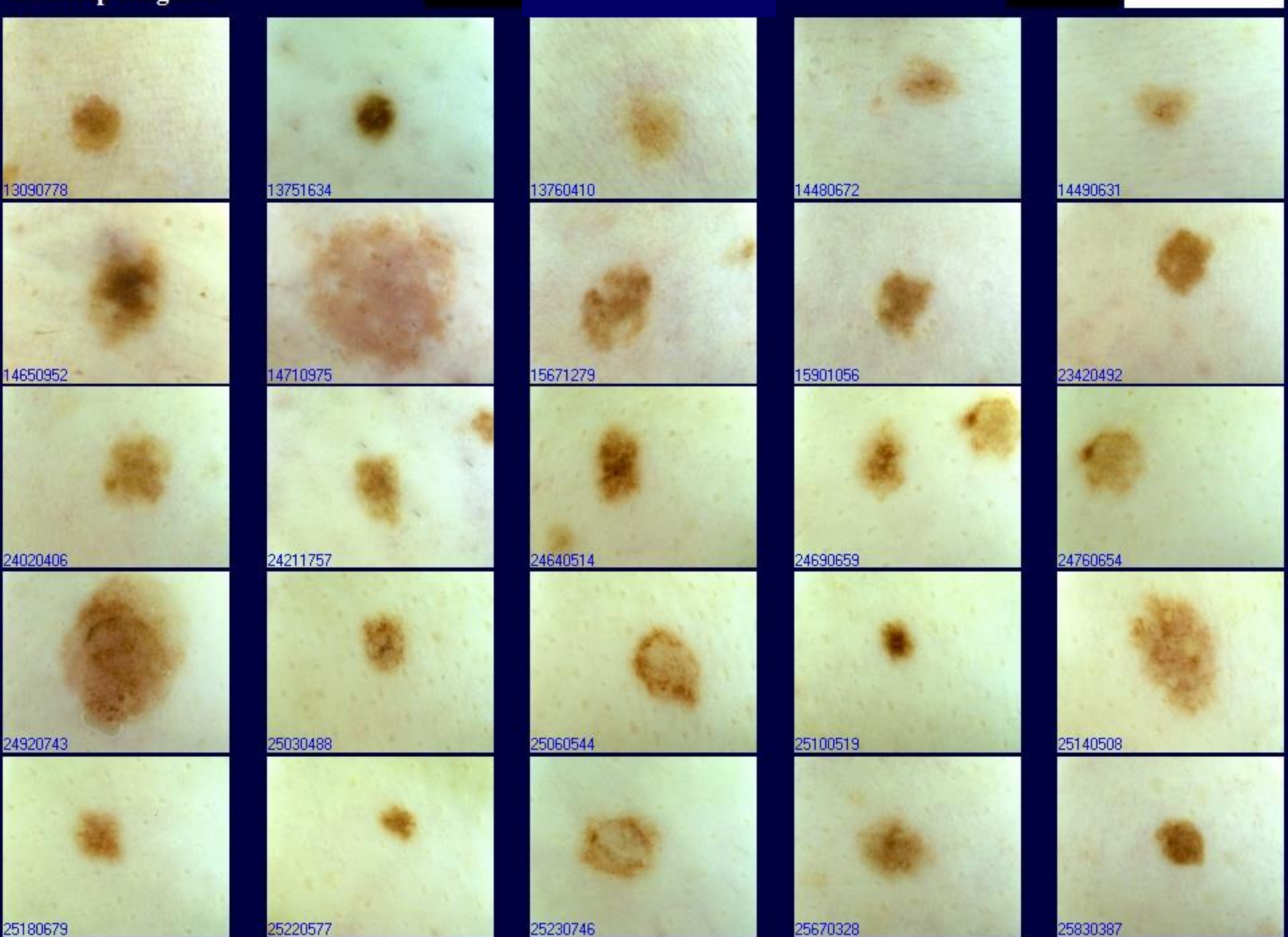
**29 y.o. Female**

**Many Naevi**

# Spot the melanoma







13090778

13751634

13760410

14480672

14490631

14650952

14710975

15671279

15901056

23420492

24020406

24211757

24640514

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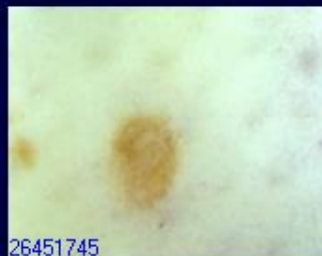
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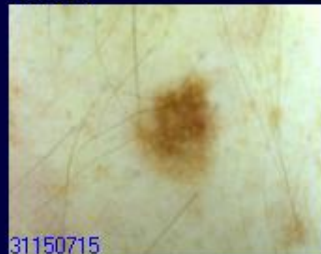
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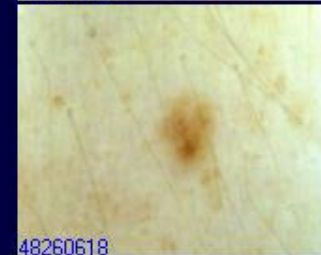
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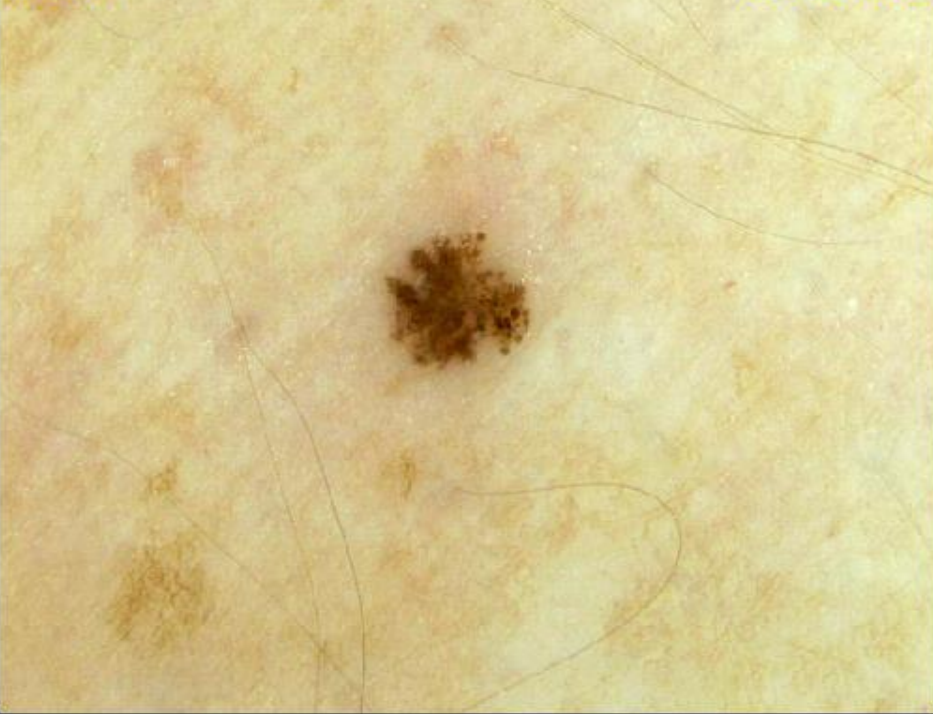


MICRO

21-SEP-2006

11-JAN-2007

MICRO



OVERVIEW - 47830473 - MICROS

DIAGNOSIS

MANAGEMENT

LOCATION / BODYSHOT

21-SEP-2006



11-JAN-2007



[2006-09-21]  
• 3 month follow-up

Help

Left Upper Arm



39 / 40



GRID  
2mm



BALANCE  
COLOURS

Show  
Macros

Menu

# Macrophotographs



**September 06**



**January 07**



# Questions about in situ melanoma?

- Are we overdiagnosing in situ melanoma?
- How many are stable and how many change?
- How many would progress to invasive melanoma?
- How do we better distinguish in situ melanoma from atypical moles and invasive melanoma?

# Acknowledgements



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Cancer  
Agency**

Linking research and patient care

