



Using **GENE EXPRESSION PROFILING** to **PREDICT** sentinel node **METASTASIS** in **MELANOMA** could **REDUCE** the rate of **SENTINEL NODE BIOPSIES** with

**>40%**

## DANISH VALIDATION OF THE MERLIN TEST

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# BACKGROUND



**>3000**

**INVASIVE MELANOMAS**  
per year in DK



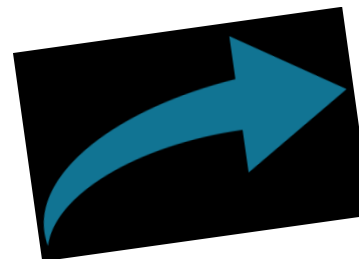
**~40%**  
undergo

**SENTINEL NODE BIOPSY**

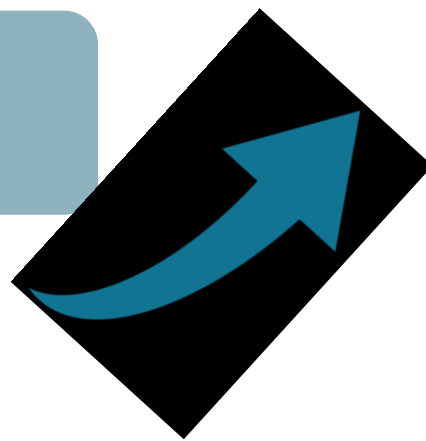


**>80%**

Do NOT have  
**SENTINEL NODE METASTASES**



**SELECTION** for sentinel node biopsy  
**NEEDS** to be **IMPROVED**  
**BUT HOW ?**



## THE MERLIN TEST



**GENE expression**  
in primary tumor tissue



**AGE**  
at primary diagnosis



**THICKNESS**  
of primary tumor

Sentinel node  
**METASTASIS RISK**



**HIGH RISK**



**LOW RISK**



# METHOD

# RESULTS

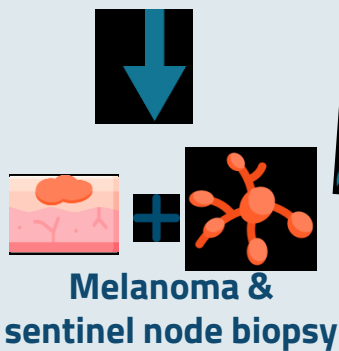


## Danish Multicentre cohort study

Retrospective patient selection\*

### \*Inclusion criteria

- First-time invasive cutaneous melanoma (T1-T3)
- Age  $\geq$  18 yr
- SLNB  $\leq$  90 days from primary biopsy
- No additional metastasis  $\leq$  90 days from primary biopsy
- Full histopathological report available
- $\geq$  5 yr follow up



## Unpublished data



## CONCLUSION



**HIGHLY PRECISE** in **DETECTING** melanoma patients **WITHOUT** sentinel node **METASTASIS**



Potentially **LARGE REDUCTION** in **SENTINEL LYMPH NODE BIOPSIES**



**CONSISTENT** with findings in previous **VALIDATION STUDIES**

**PROMISING** tool to **DESELECT** melanoma patients from **SENTINEL NODE BIOPSY** **ESPECIALLY** in **THIN MELANOMA**

*Need for comparison to other prediction tools,  
further prospective validation and cost-effectiveness analyses*  
**TO BE CONTINUED...**



# THANK YOU!

## Study group

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## Funded by



See you at

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