Using a **CLINICOPATHOLOGIC** and **GENE EXPRESSION PROFILE** (**CP-GEP**) model to predict **PROGNOSIS** in **STAGE I-II MELANOMA**

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AIM

To validate the performance of the CP-GEP model in predicting prognosis in stage I-II melanoma

BACKGROUND

EARLY-STAGE MELANOMA – A CLINICAL CHALLENGE[1-3]

- Increasing incidence of melanoma
- >80% is stage I-II (without metastasis)
- Stage I-II present notable heterogenous survival outcomes
  – Depending on factors beyond stages?

ADJUVANT IMMUNOTHERAPY - DILEMMA[4,5]

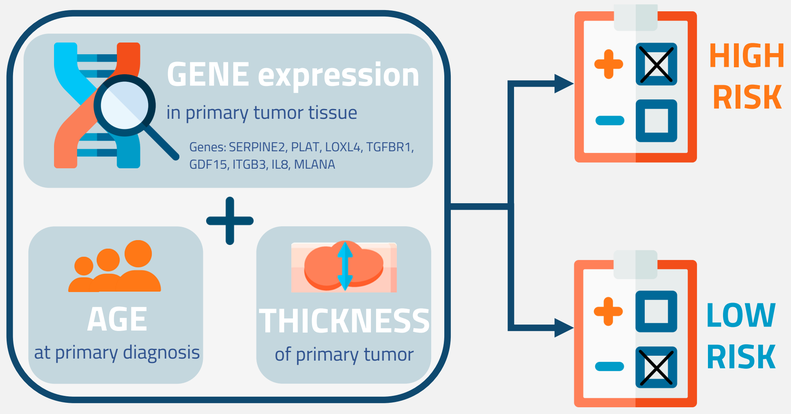
- Improved RFS in stage II substages (phase III trial)
- Risk of severe adverse effects
- Potential financial strain on healthcare systems

REFINED risk stratification of stage I-II is NEEDED to TAILOR treatment and surveillance

BUT HOW ?

The CP-GEP model

Developed and validated to **PREDICT** risk of **SENTINEL NODE METASTASIS**[6-10]



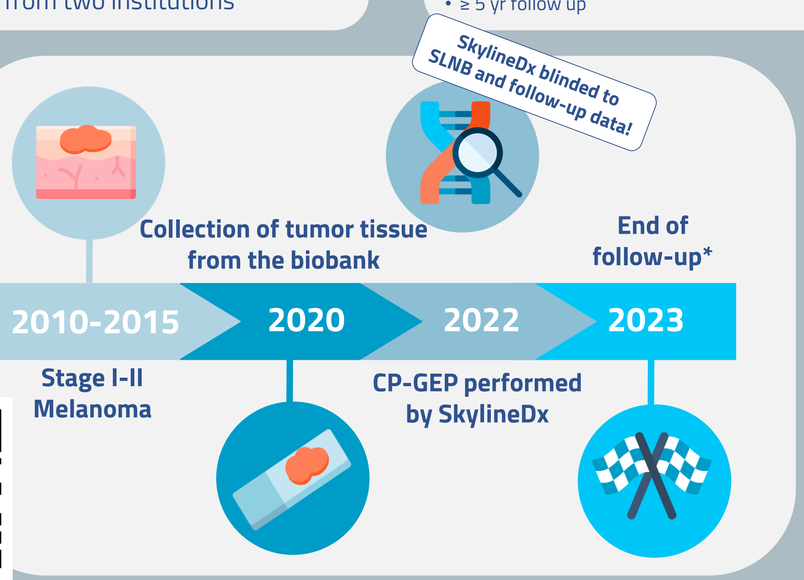
CAN CP-GEP PREDICT RISK OF RECURRENCE AND DEATH?

METHOD

Danish Multicentre cohort study
Retrospective patient selection from two institutions

Inclusion criteria

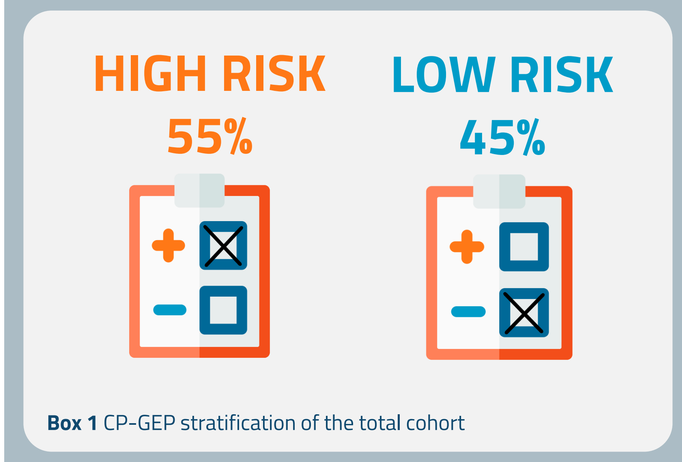
- First-time invasive cutaneous melanoma (T1-T3)
- Age ≥18 yr
- SLNB ≤90 days from primary biopsy
- No additional metastasis ≤90 days from primary biopsy
- Full histopathological report available
- ≥ 5 yr follow up



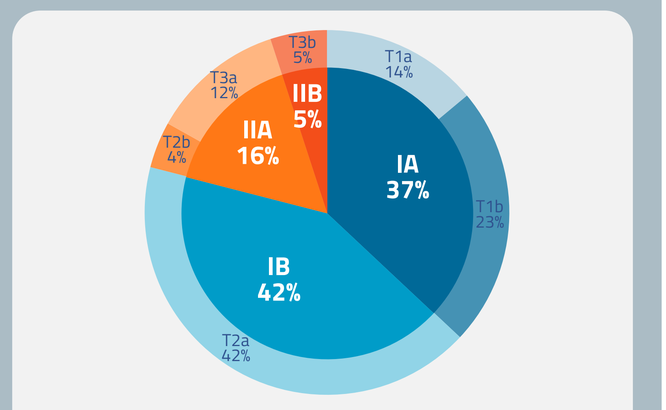
*MSS follow-up until Jan 2022

RESULTS

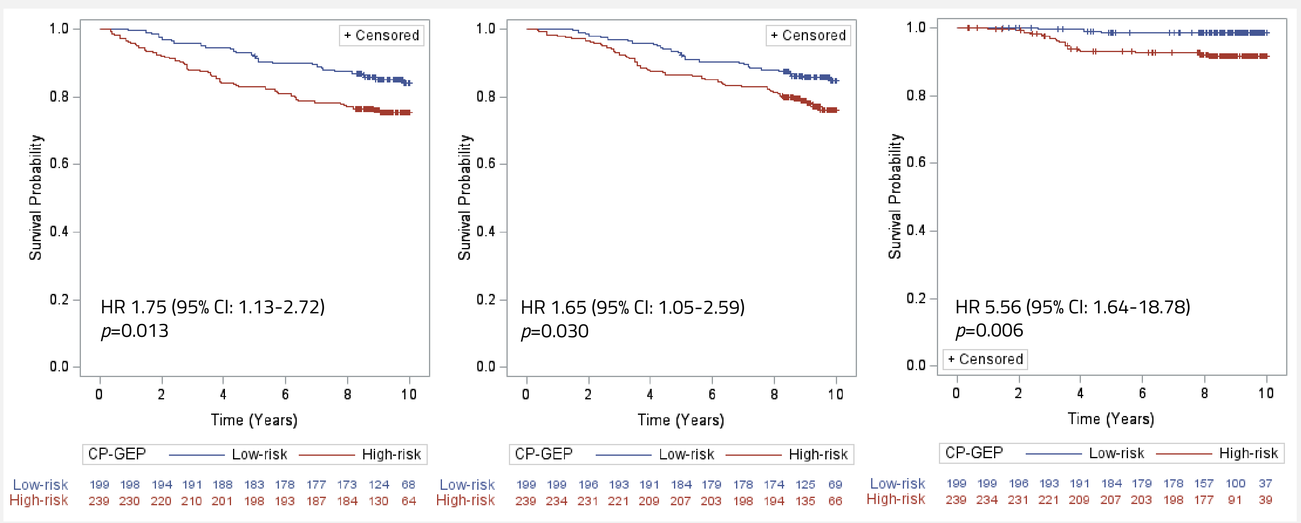
Total cohort n=438



Box 1 CP-GEP stratification of the total cohort



Box 2 AJCC8 pathological stages and T-stages for the total cohort



	RFS				OS				MSS			
	5-year		10-year		5-year		10-year		5-year		10-year	
	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Total (N=438)	87	(84-90)	79	(75-83)	89	(86-92)	80	(76-84)	96	(93-97)	95	(92-97)
CP-GEP High (N=239)	83	(77-87)	75	(69-81)	87	(82-90)	76	(70-81)	93	(89-96)	92	(87-95)
CP-GEP Low (N=199)	92	(87-95)	84	(78-89)	93	(88-95)	85	(79-89)	98	(95-100)	98	(95-100)

Box 3 Kaplan-Meier curves, Hazard ratios and 5-year and 10-year RFS, OS and MSS at a median follow-up of 115 months, stratified by CP-GEP result (High or Low risk).

CONCLUSION

CP-GEP may have potential as a **PROGNOSTIC TOOL** for **EARLY-STAGE MELANOMA**

Further analyses and potential model modification is needed to confirm its utility and optimize it for prognostication

TO BE CONTINUED...

Scan QR code for additional results, abbreviations and references.

This study was funded by SkylineDx. Unpublished data. Please do not share without permission.

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