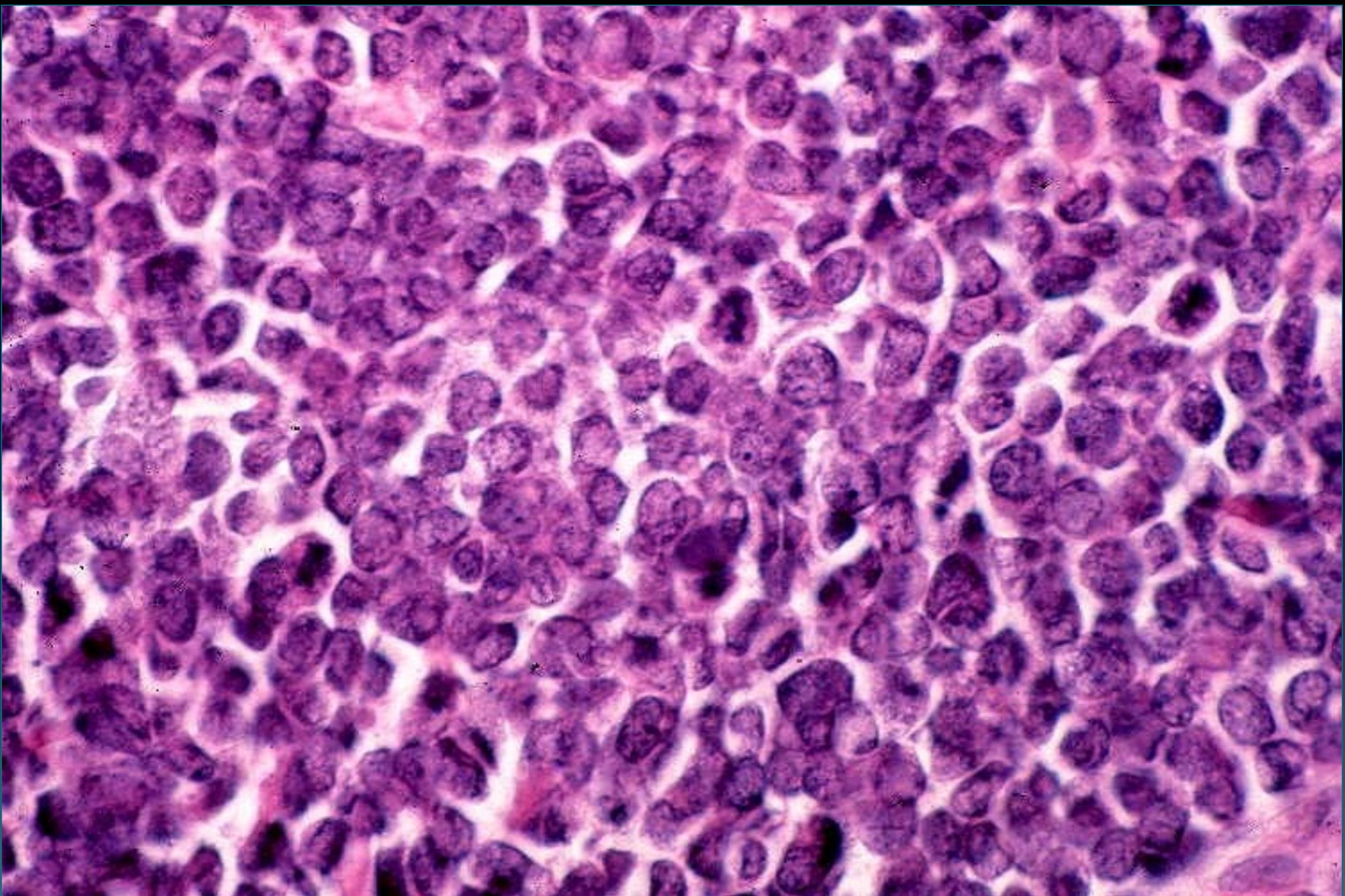


Primer of Immunohistochemistry (Evaluation of Pleomorphic Tumors)

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Dermatopathology Institute
Torrance, CA



Merkel Cell Carcinoma

ANTIBODIES APPLIED TO THE STUDY OF SMALL ROUND-CELL TUMORS

KERATIN

SI100

EMA

HMB45

CD45

MART-1

CD15

TTF1

VIMENTIN

SYN

DES

CGA/CGB

MSA

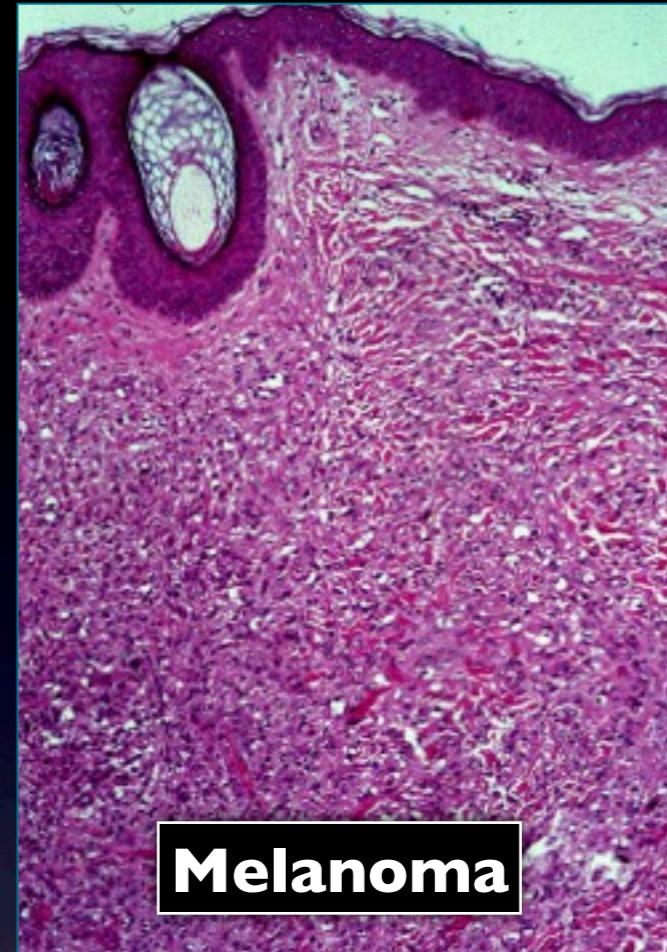
CD99

POTENTIALLY UNDIFFERENTIATED LARGE-CELL TUMORS OF THE SKIN

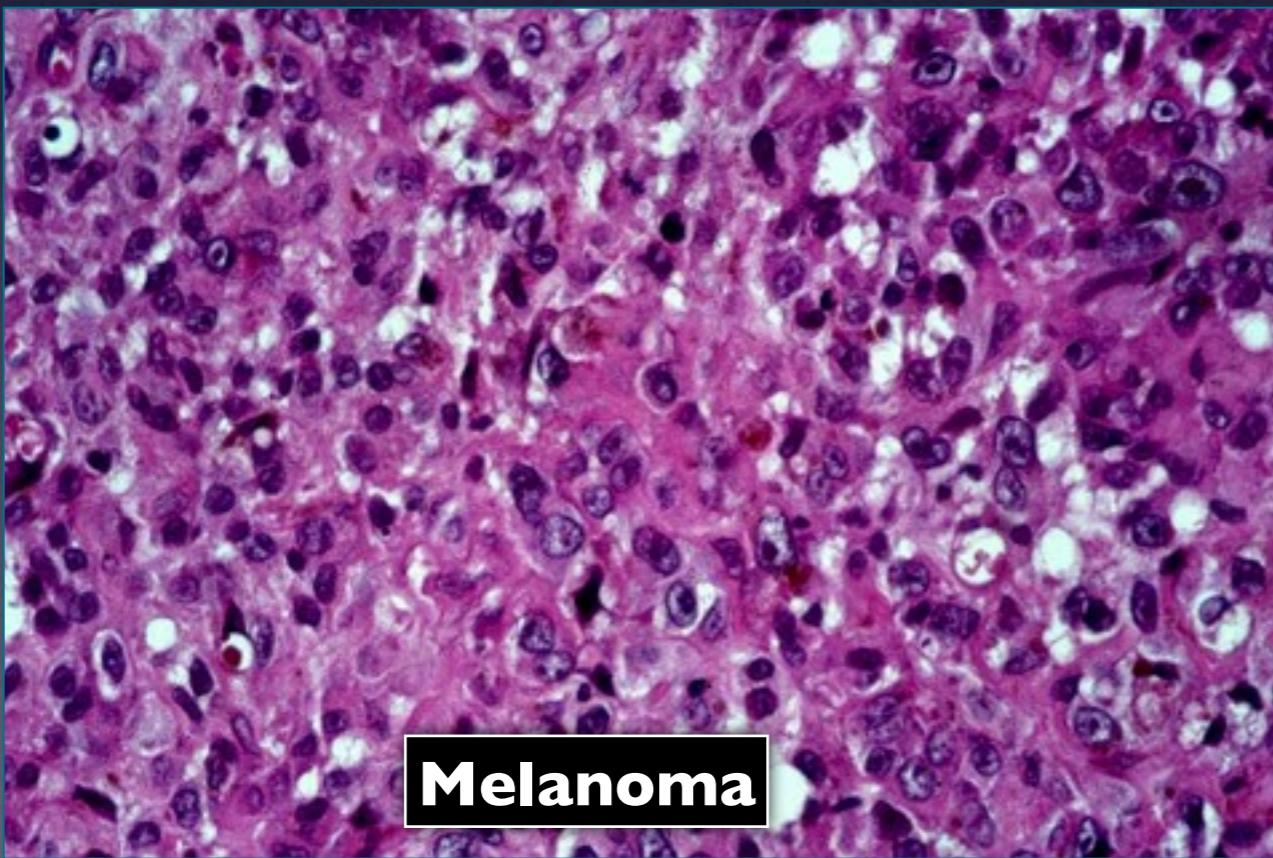
- Poorly-differentiated squamous cell carcinoma
- Lymphoepithelioma-like carcinoma of the skin
- Adenocarcinomas (sweat gland carcinoma and metastatic neoplasms)
 - Malignant melanoma
 - Malignant lymphoma
 - Granulocytic sarcoma
 - Epithelioid sarcoma
 - Clear-cell sarcoma



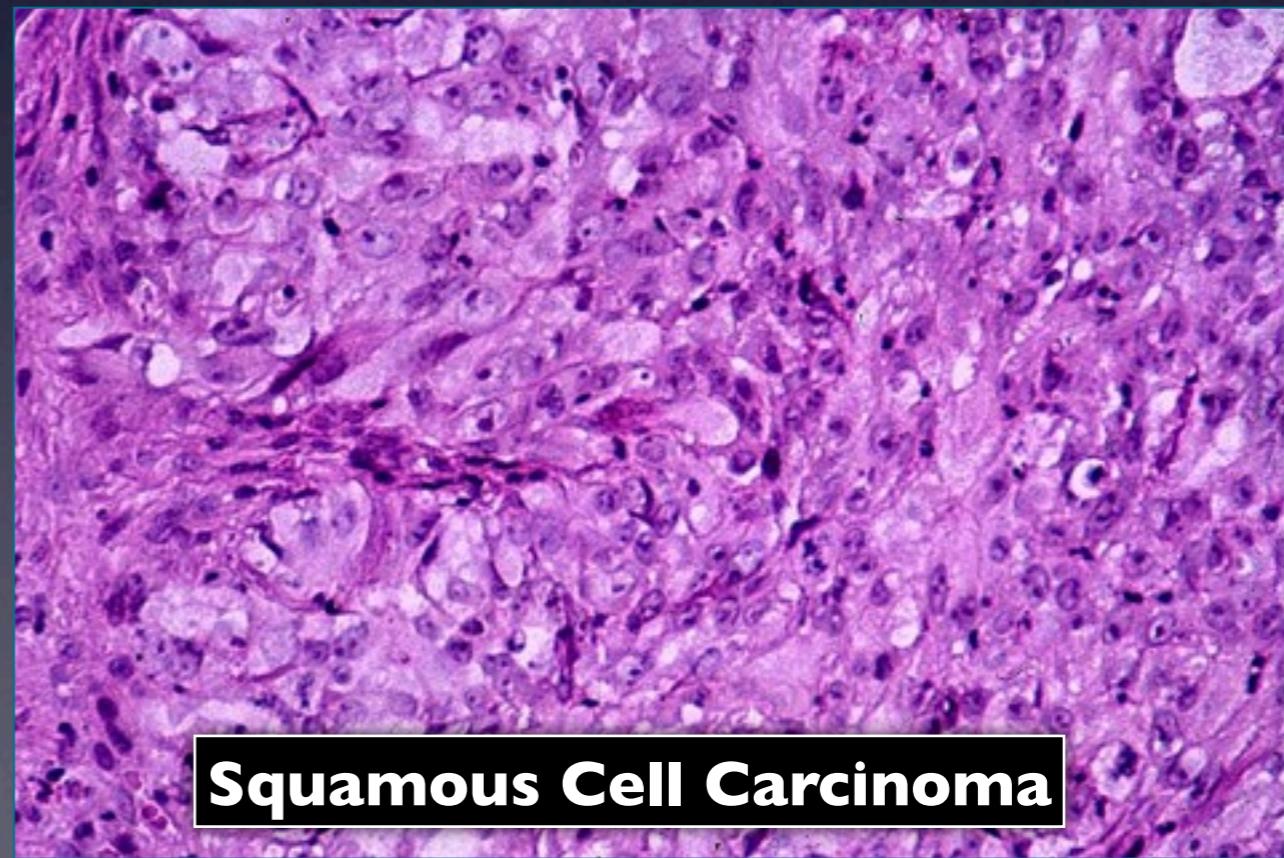
Epithelioid Angiosarcoma



Melanoma



Melanoma



Squamous Cell Carcinoma

ANTIBODIES APPLIED TO THE STUDY OF LARGE POLYGONAL-CELL TUMORS

KERATIN

S100

VIMENTIN

HMB45

BER-EP4

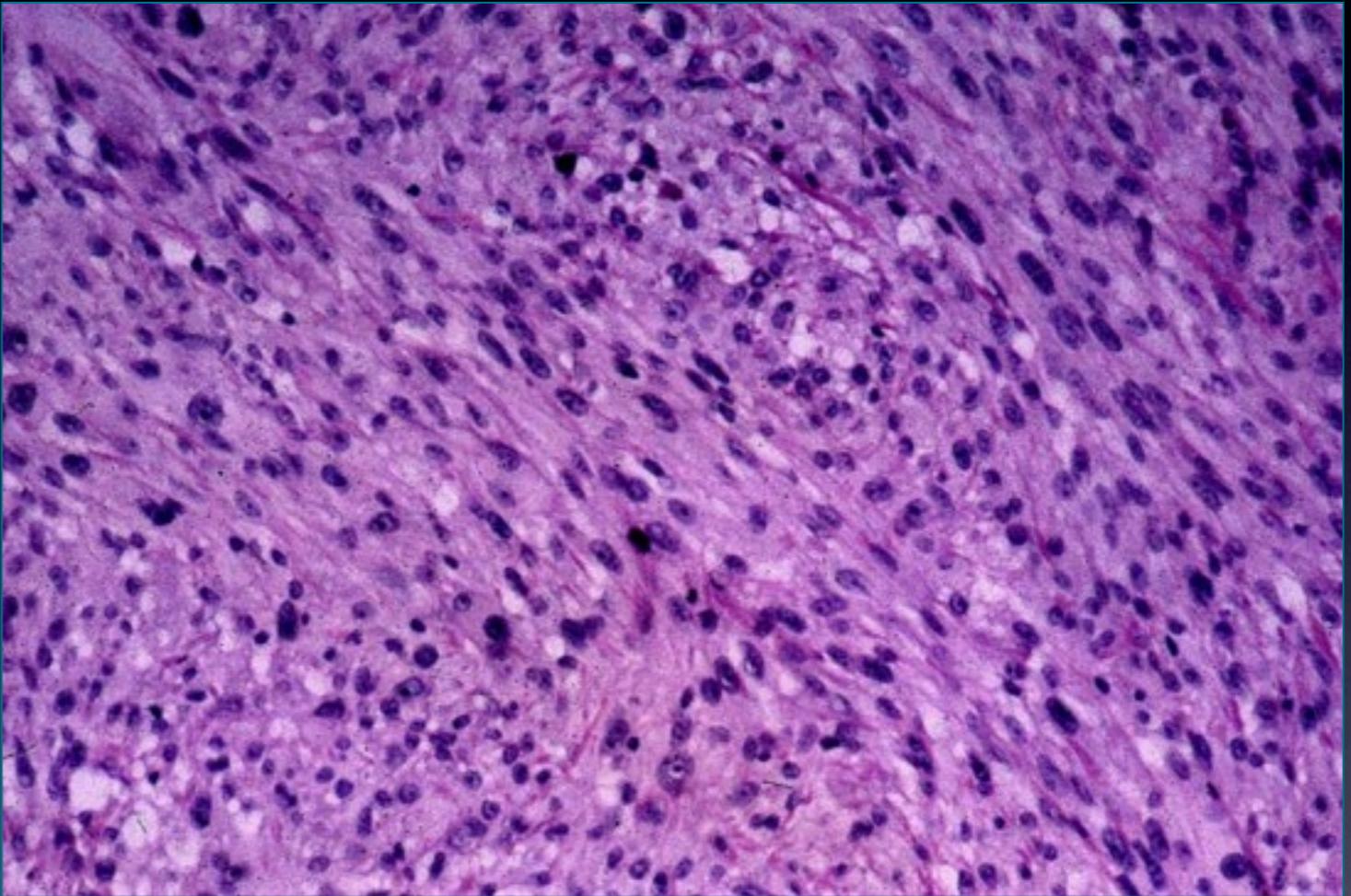
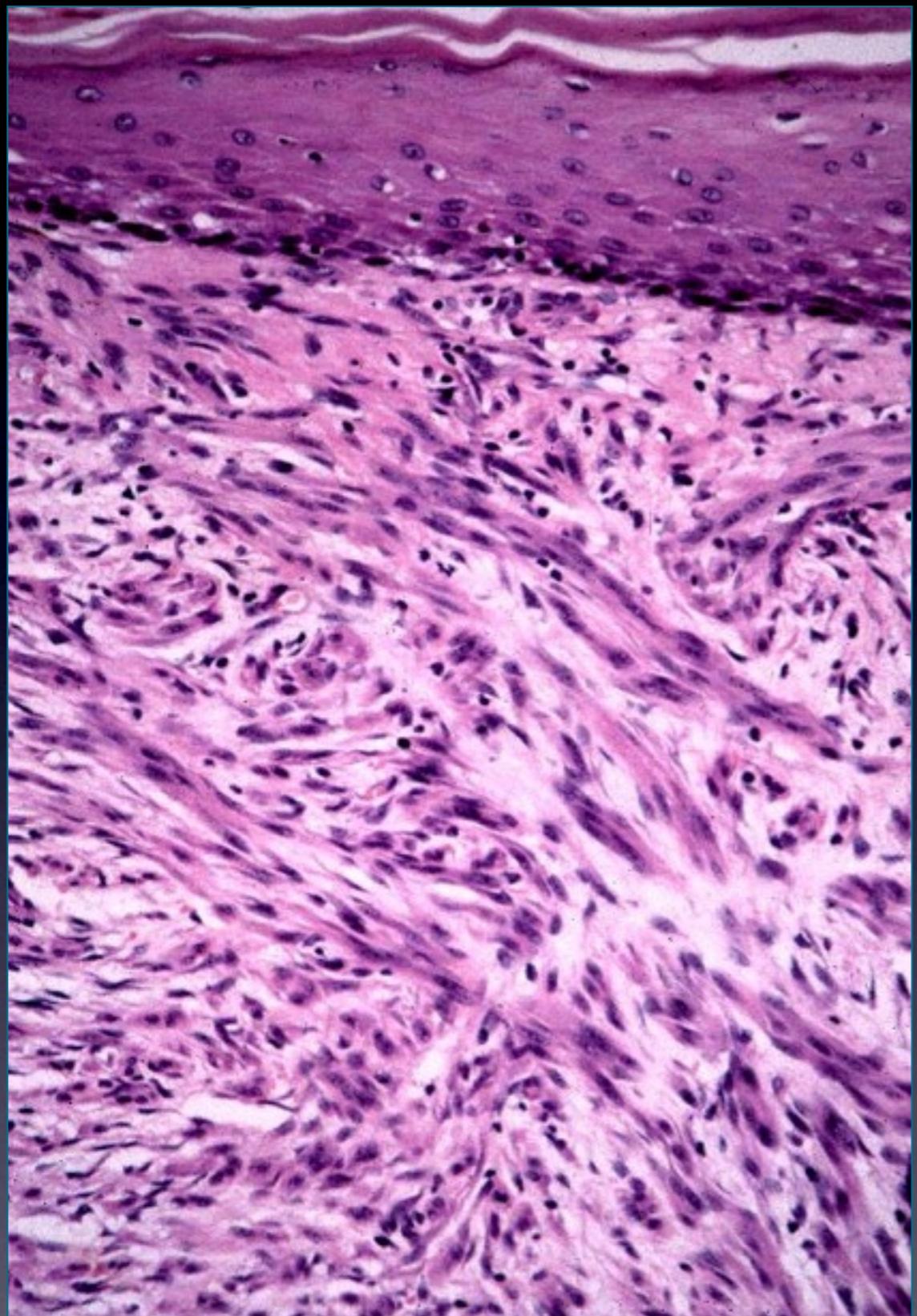
MART1

CD45

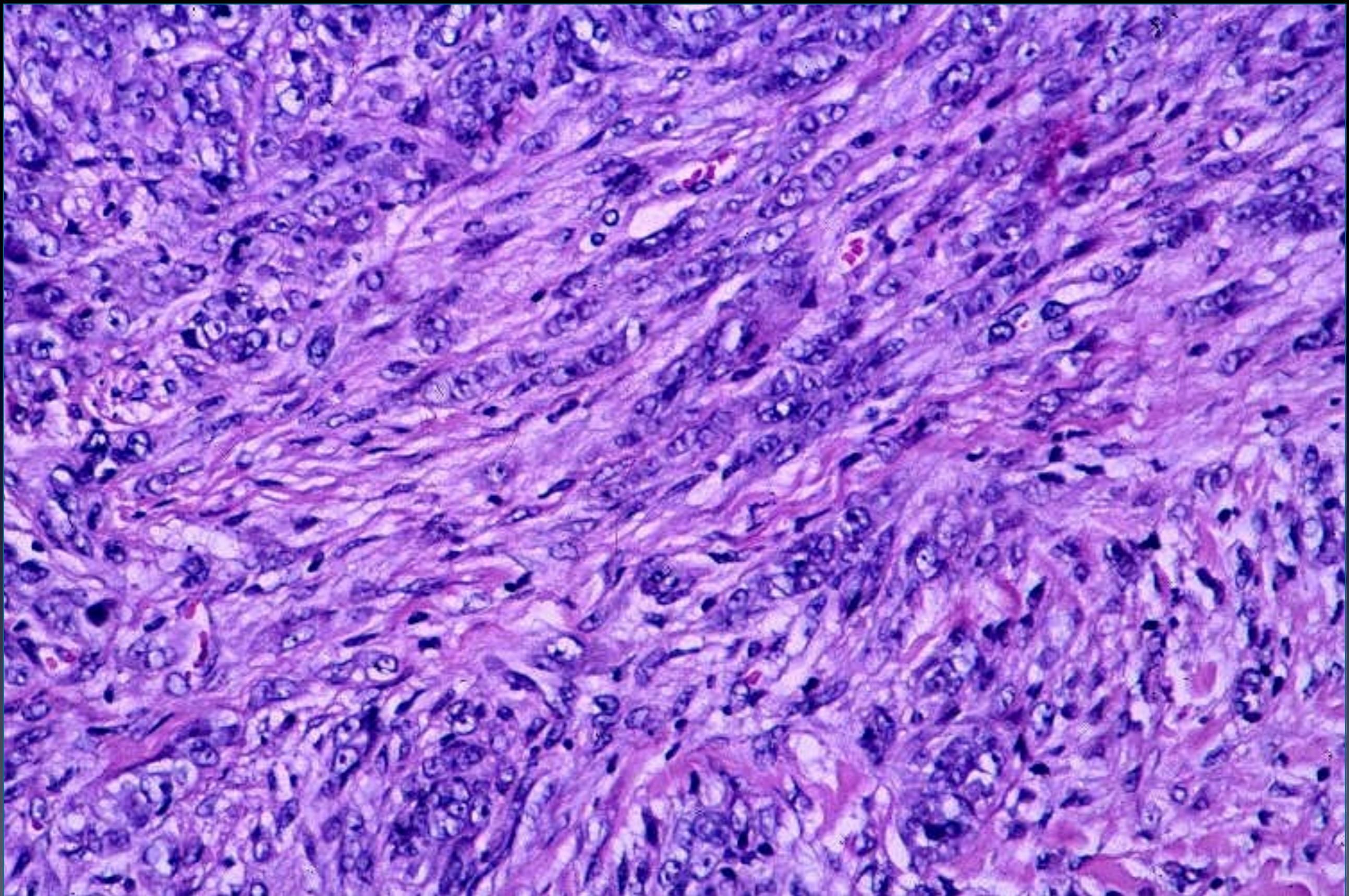
CEA

POTENTIALLY UNDIFFERENTIATED SPINDLE-CELL TUMORS OF THE SKIN

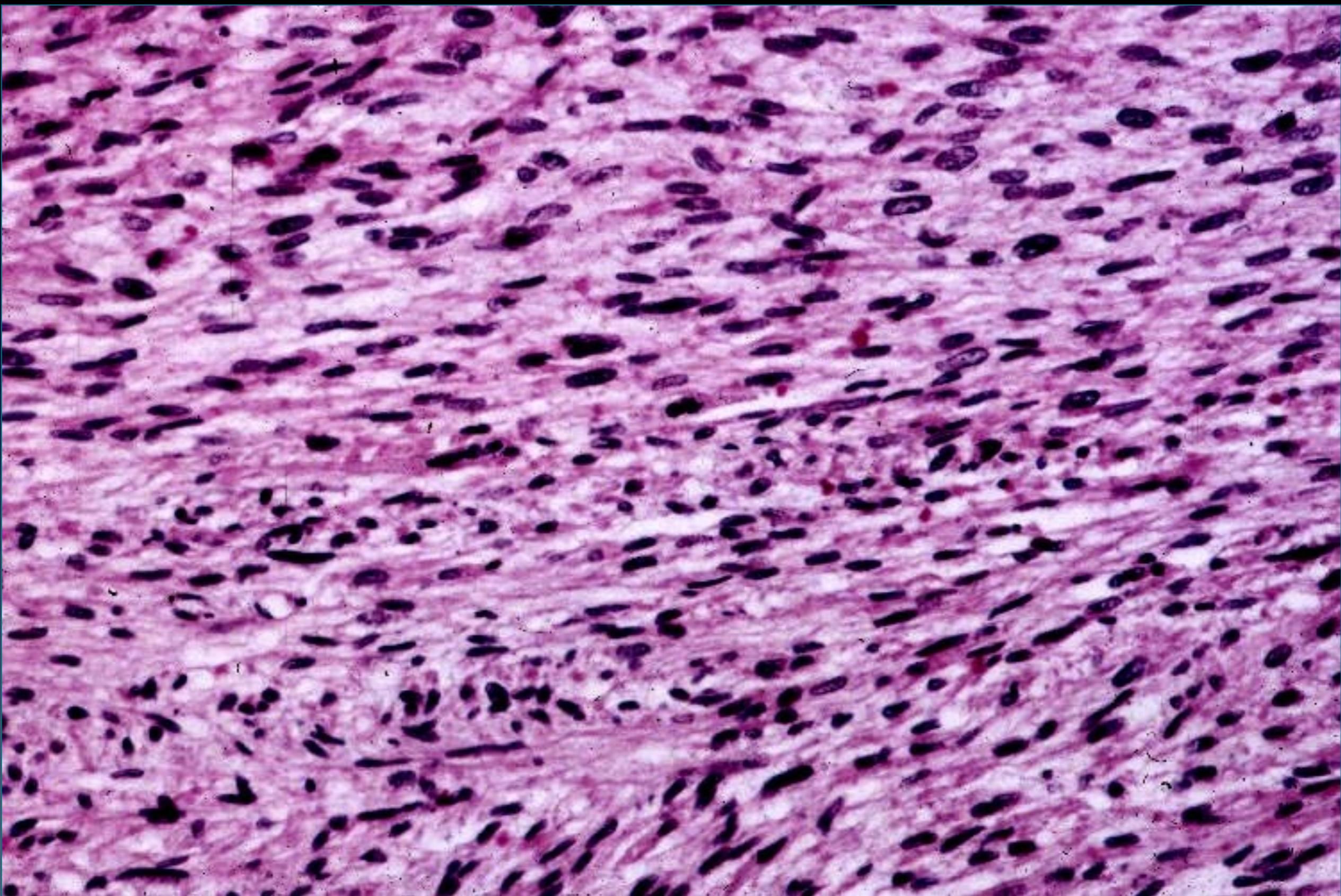
- Sarcomatoid squamous cell carcinoma
- Spindle-cell malignant melanoma
- Leiomyosarcoma
- Dermatofibrosarcoma
- Fibrosarcoma
- Atypical fibroxanthoma
- Malignant fibrous histiocytoma
- Malignant schwannoma
- Angiosarcoma



Sarcomatoid Squamous Cell Carcinoma



Sarcomatoid Malignant Melanoma



Leiomyosarcoma

REAGENTS APPLIED TO THE STUDY OF SPINDLE-CELL TUMORS

KERATIN

EMA

VIMENTIN

DESMIN

MSA

SI00 PROTEIN

NGFR

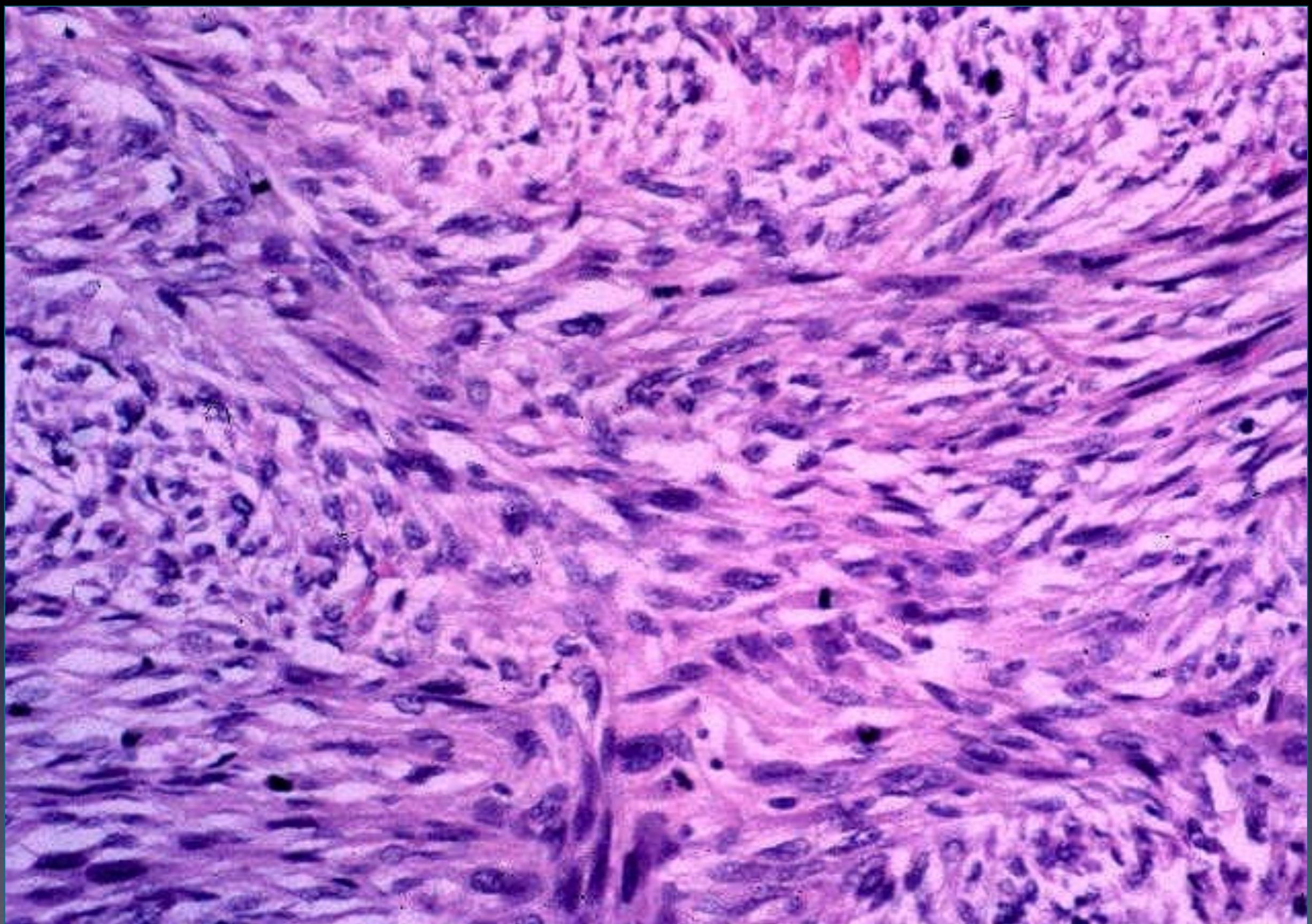
CD31

CD34

CD57

POTENTIALLY UNDIFFERENTIATED PLEOMORPHIC TUMORS OF THE SKIN

- Sarcomatoid squamous cell carcinoma
- Pleomorphic malignant melanoma
- “Dedifferentiated” leiomyosarcoma
- Atypical fibroxanthoma
- Malignant fibrous histiocytoma
- Malignant schwannoma
- Angiosarcoma



Atypical Fibroxanthoma

REAGENTS APPLIED TO THE STUDY OF PLEOMORPHIC TUMORS

KERATIN

HMB45

EMA

MART1

VIMENTIN
IV

COLLAGEN TYPE

DESMIN

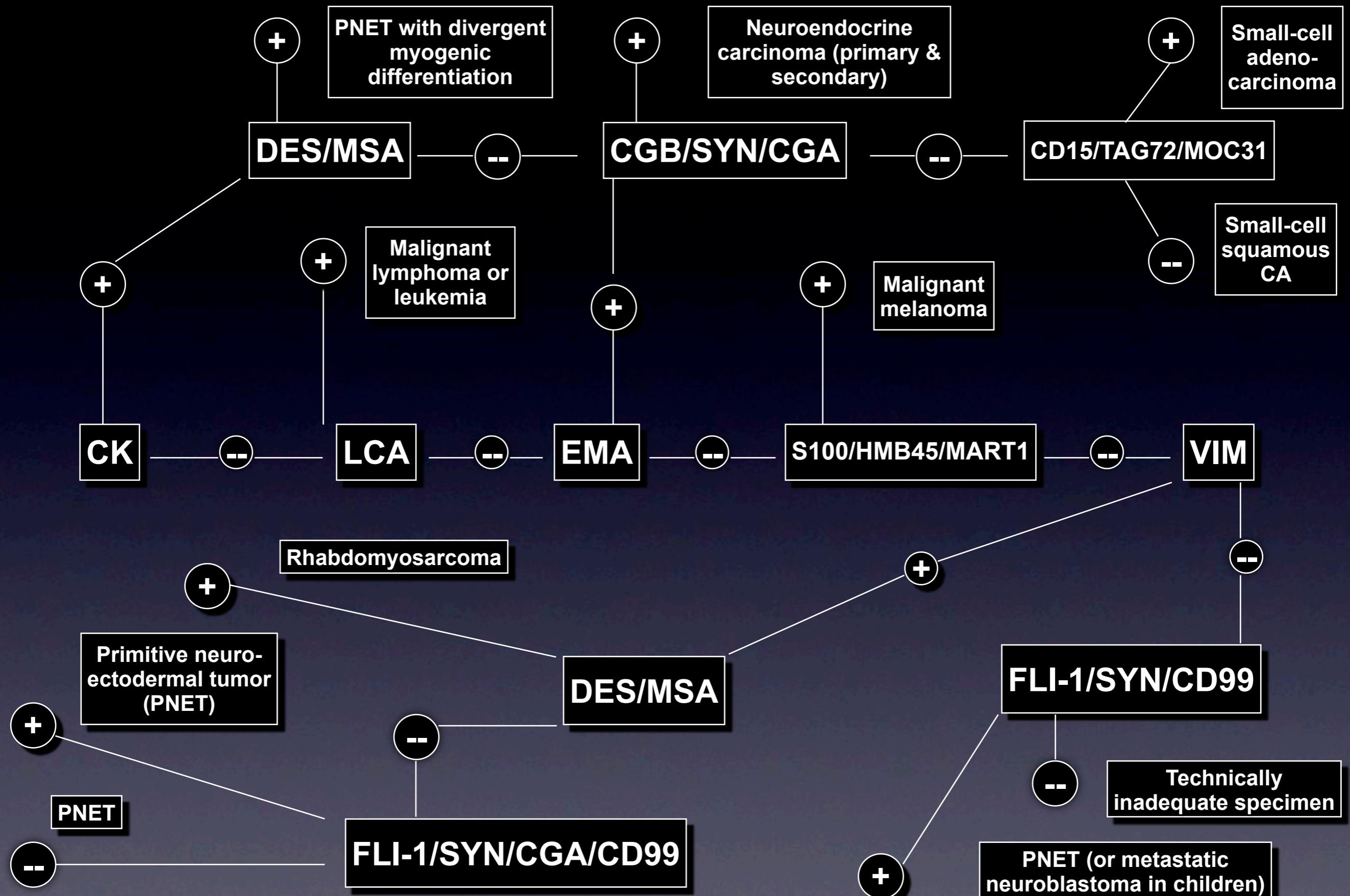
CD31

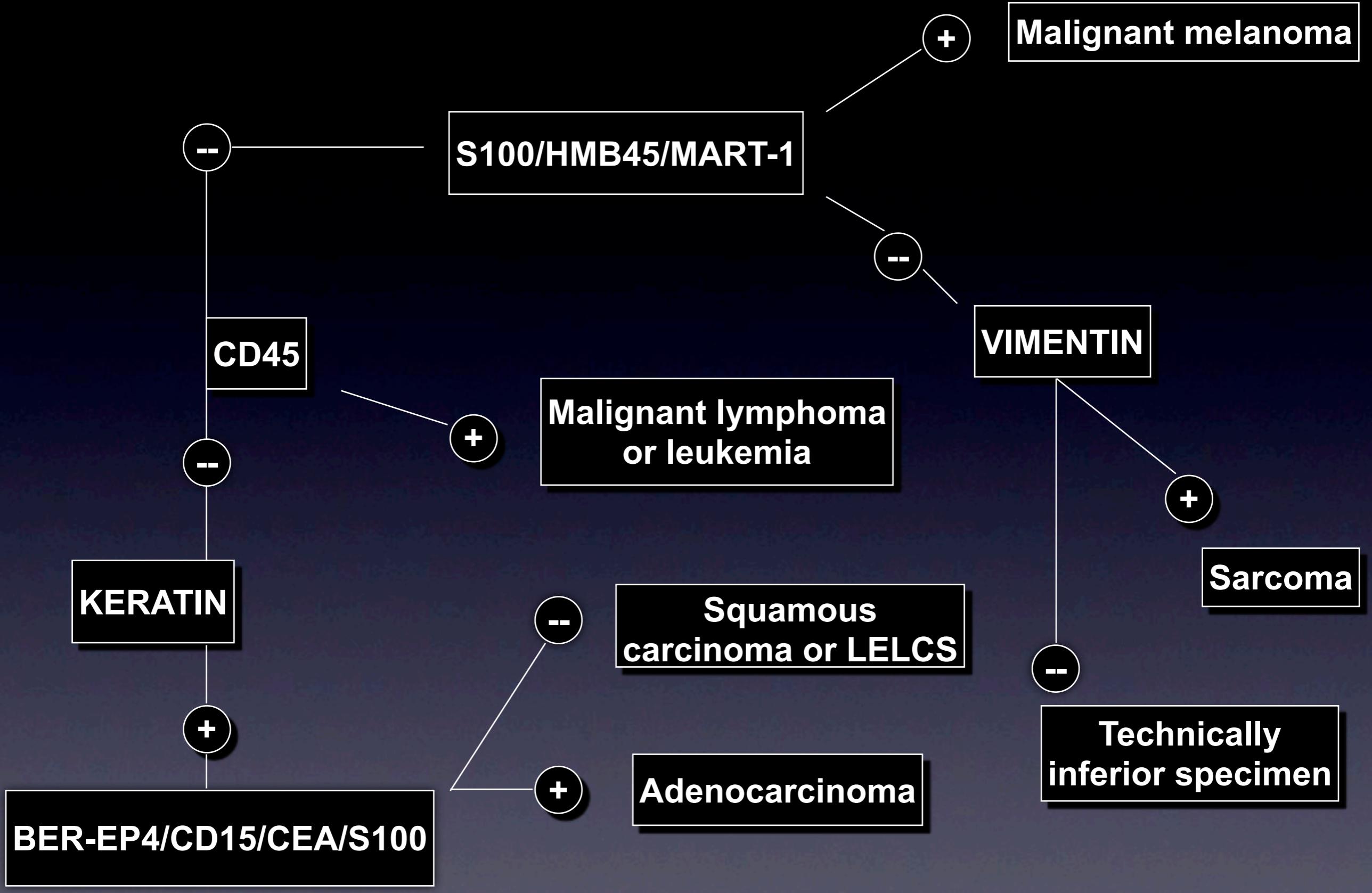
MSA

CD34

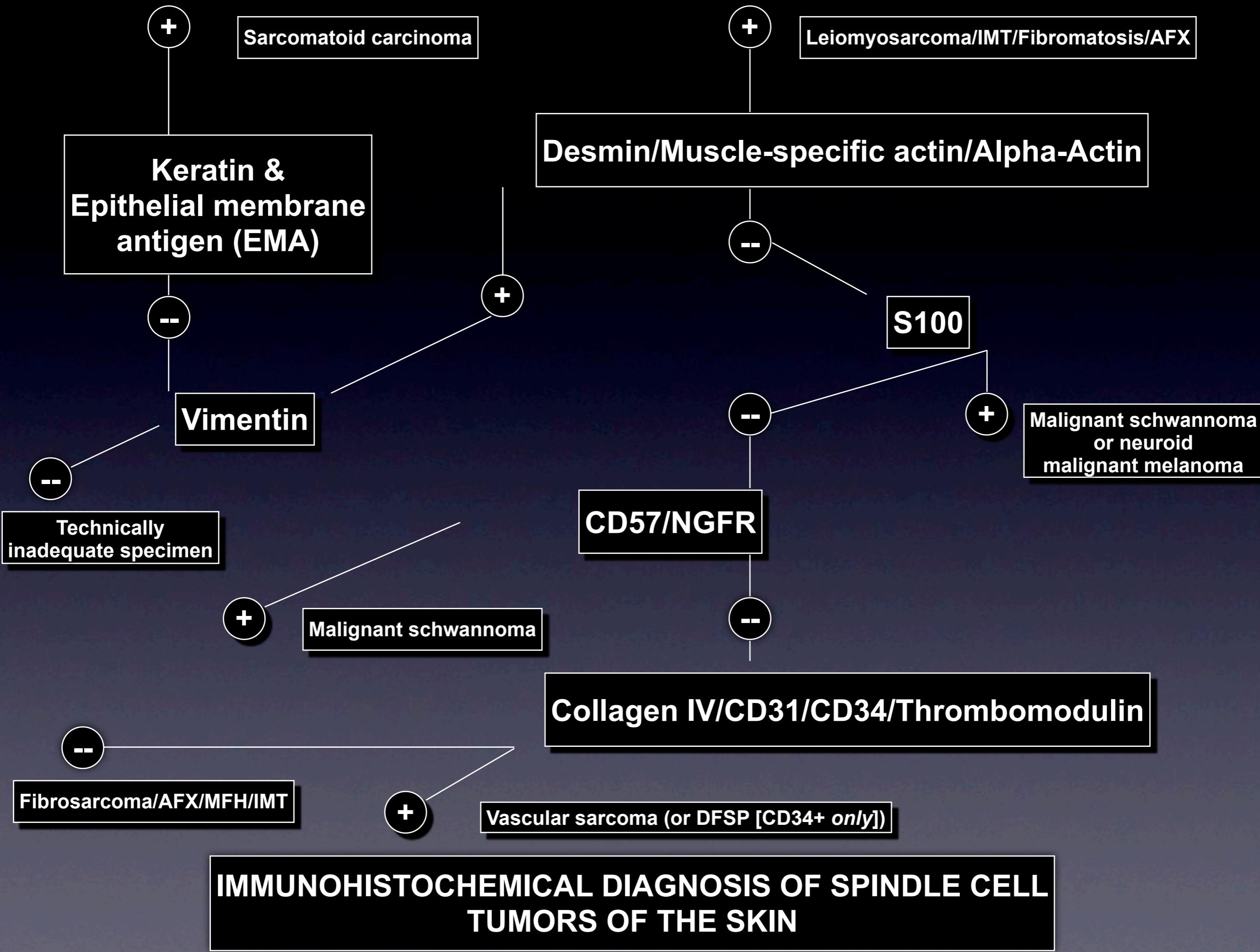
SI100 PROTEIN

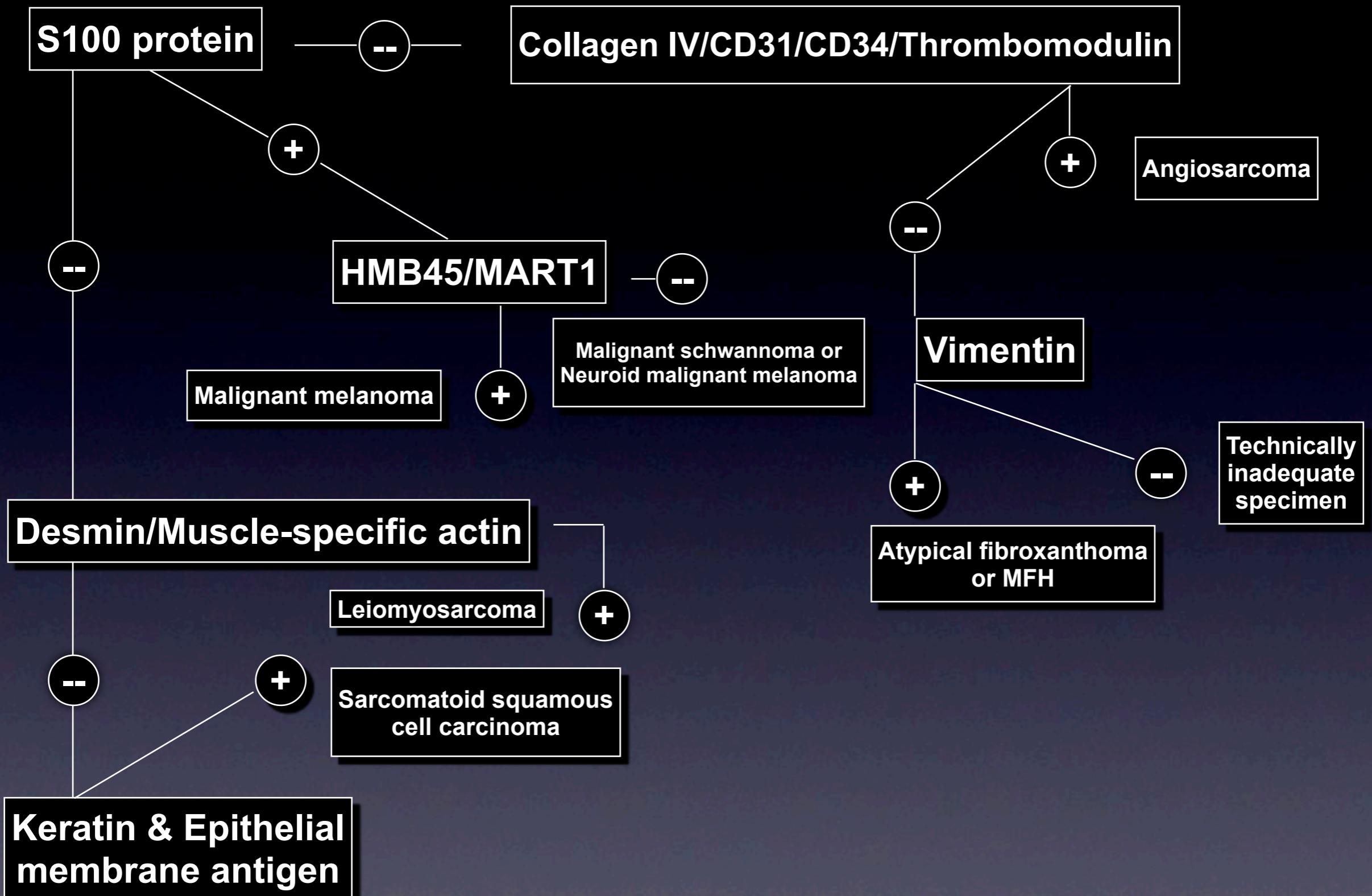
THROMBOMODULIN





IMMUNOHISTOCHEMICAL DIAGNOSIS OF MALIGNANT LARGE-CELL TUMORS OF THE SKIN





IMMUNOHISTOCHEMICAL DIAGNOSIS OF MALIGNANT PLEOMORPHIC TUMORS

REAGENTS USED IN PARAFFIN SECTION PHENOTYPING OF HEMATOPOIETIC TUMORS

CD3 through 5

CD45R0

CD15

CD79a

CD20

MYELOPEROXIDASE

CD30

LYSOZYME

CD43

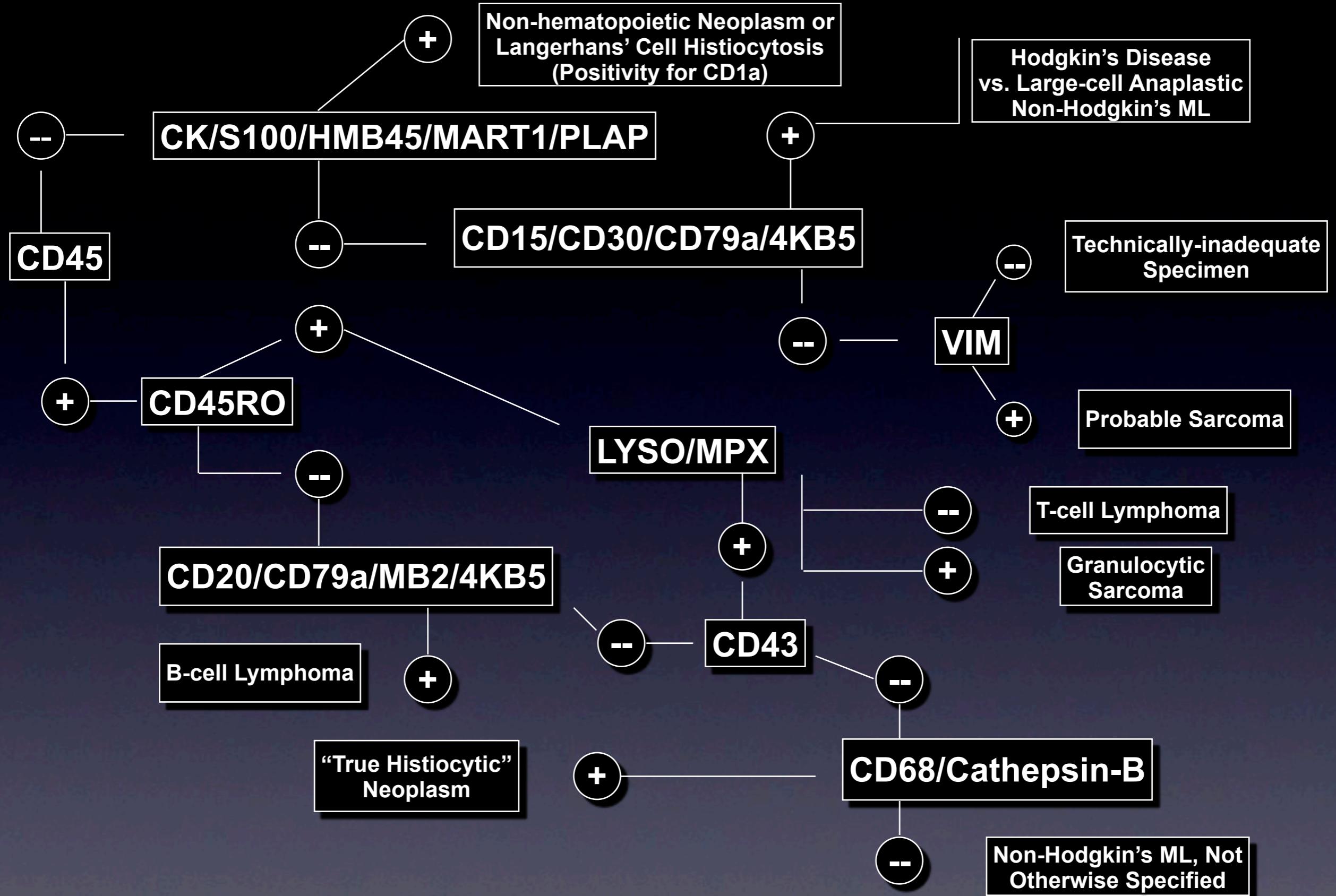
CD7 & 8

CD45

Cathepsin-B

CD68

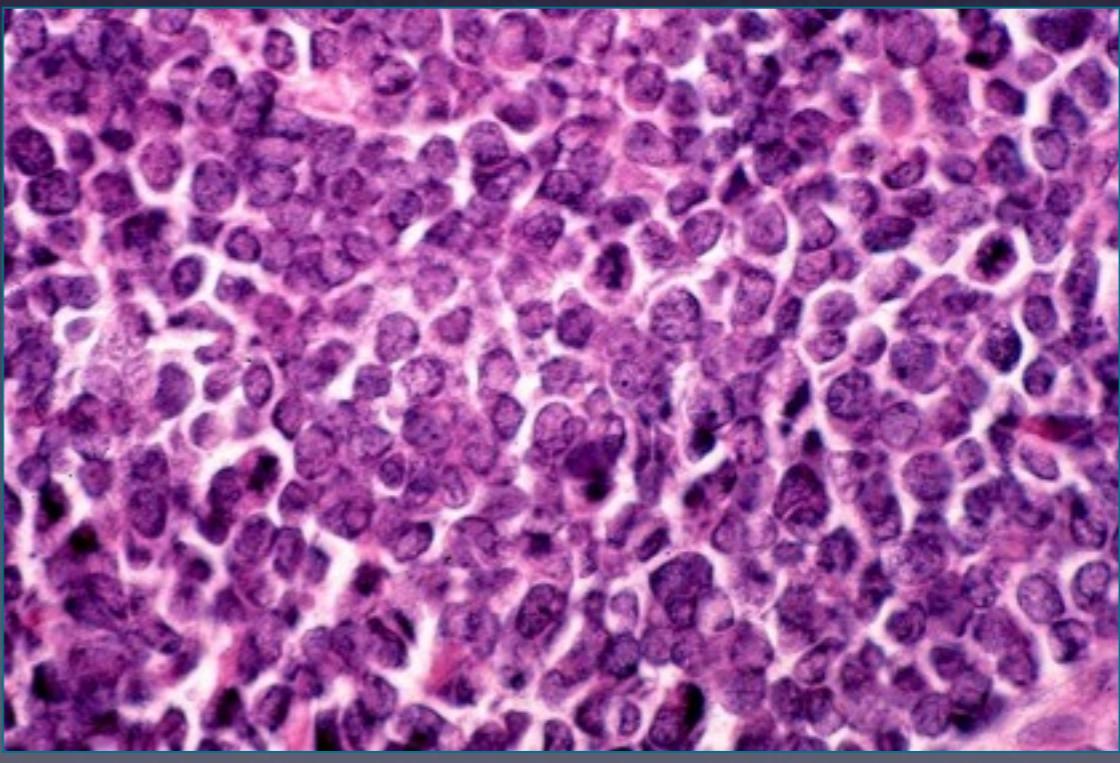
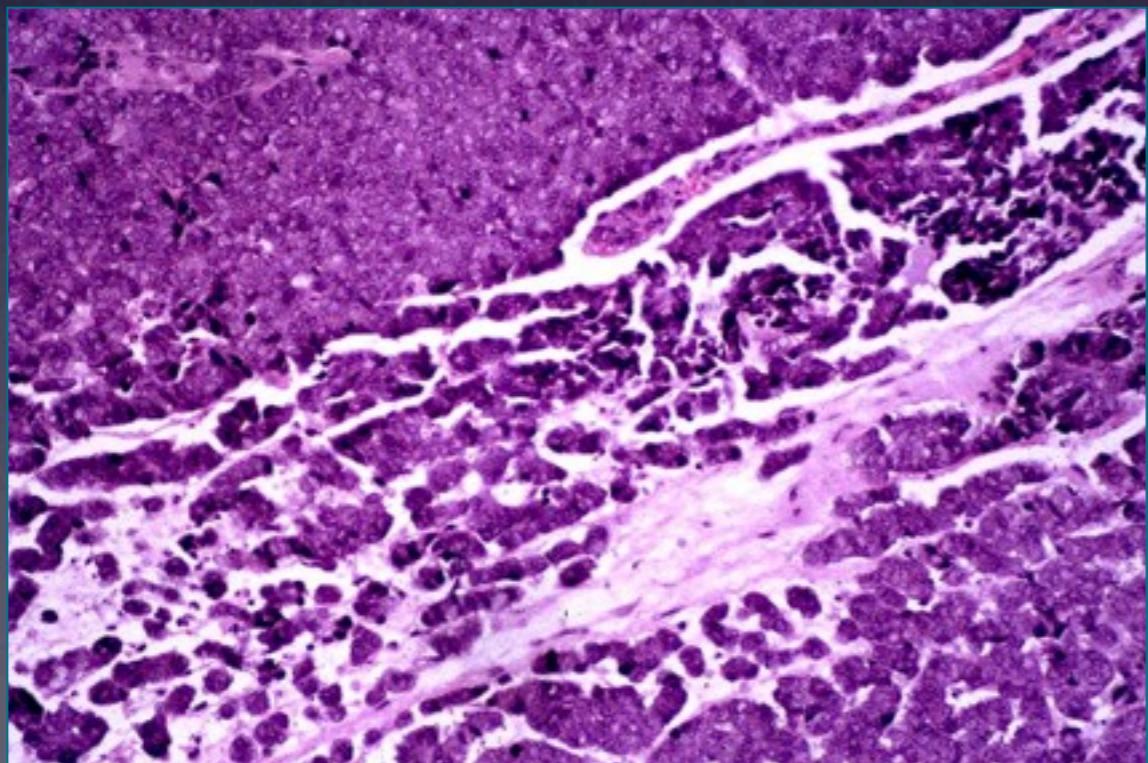
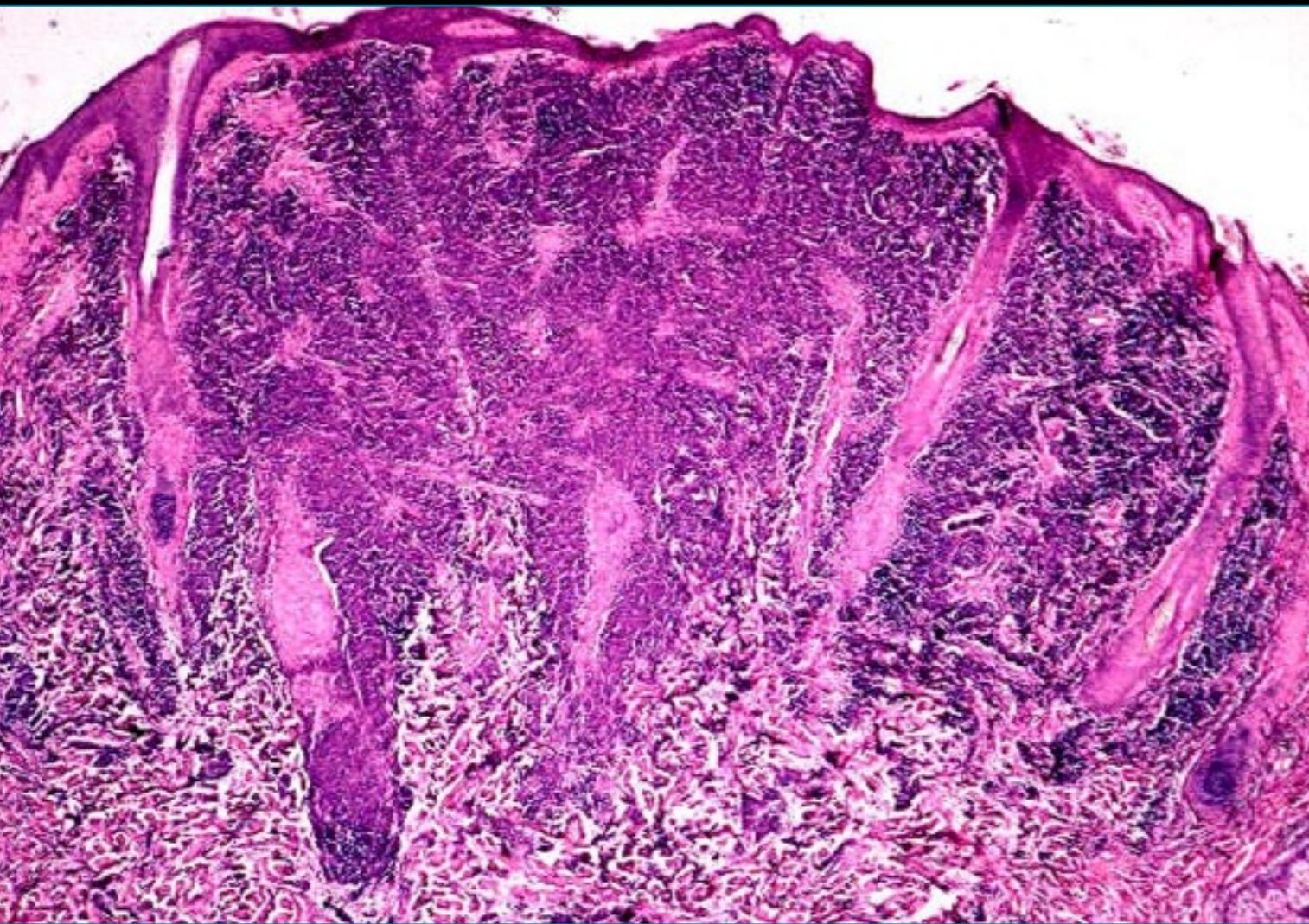
4KB5

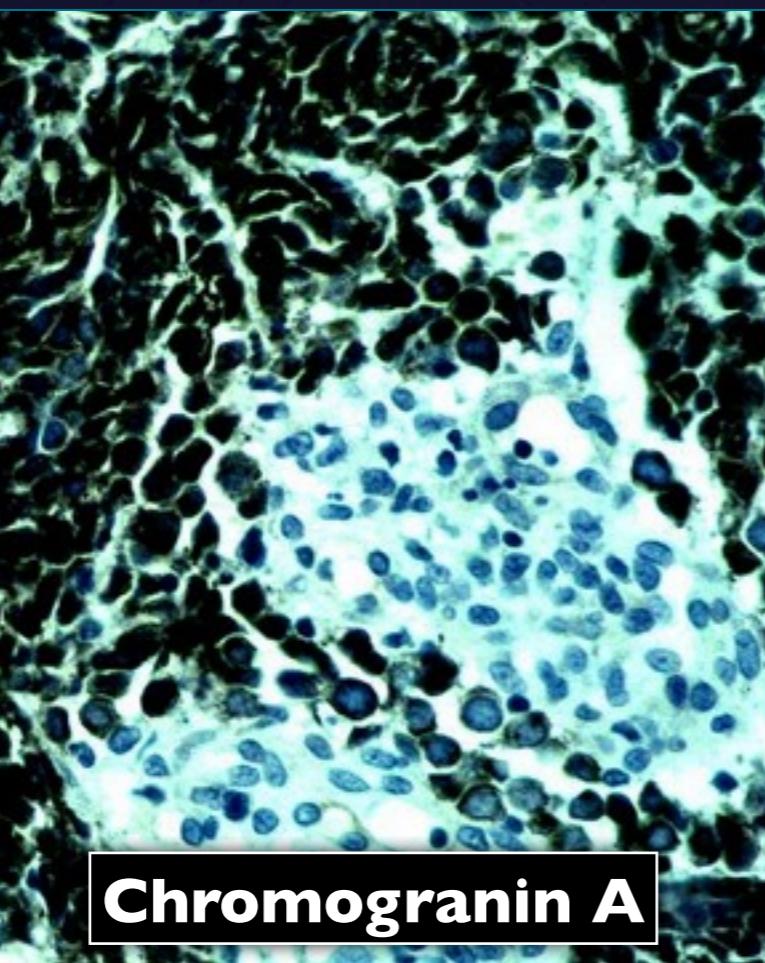


PARAFFIN SECTION IMMUNOPHENOTYPING OF HEMATOPOIETIC MALIGNANCIES OF SKIN

EXEMPLARY CASES

51 year old woman with a 3 cm violaceous nodule in the skin of the leg. The lesion had enlarged slowly over 3 years. An excisional biopsy was performed.





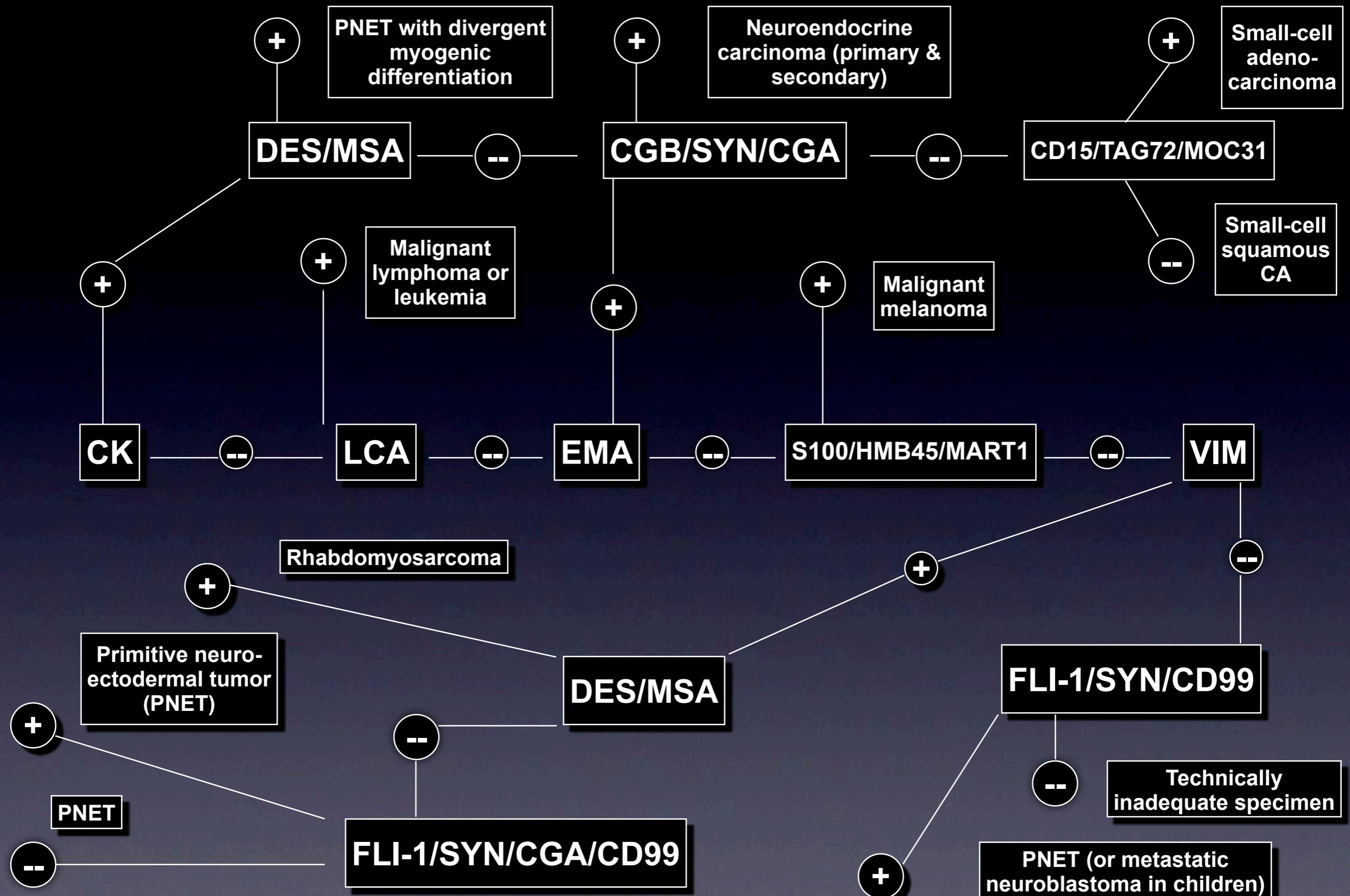
Chromogranin A

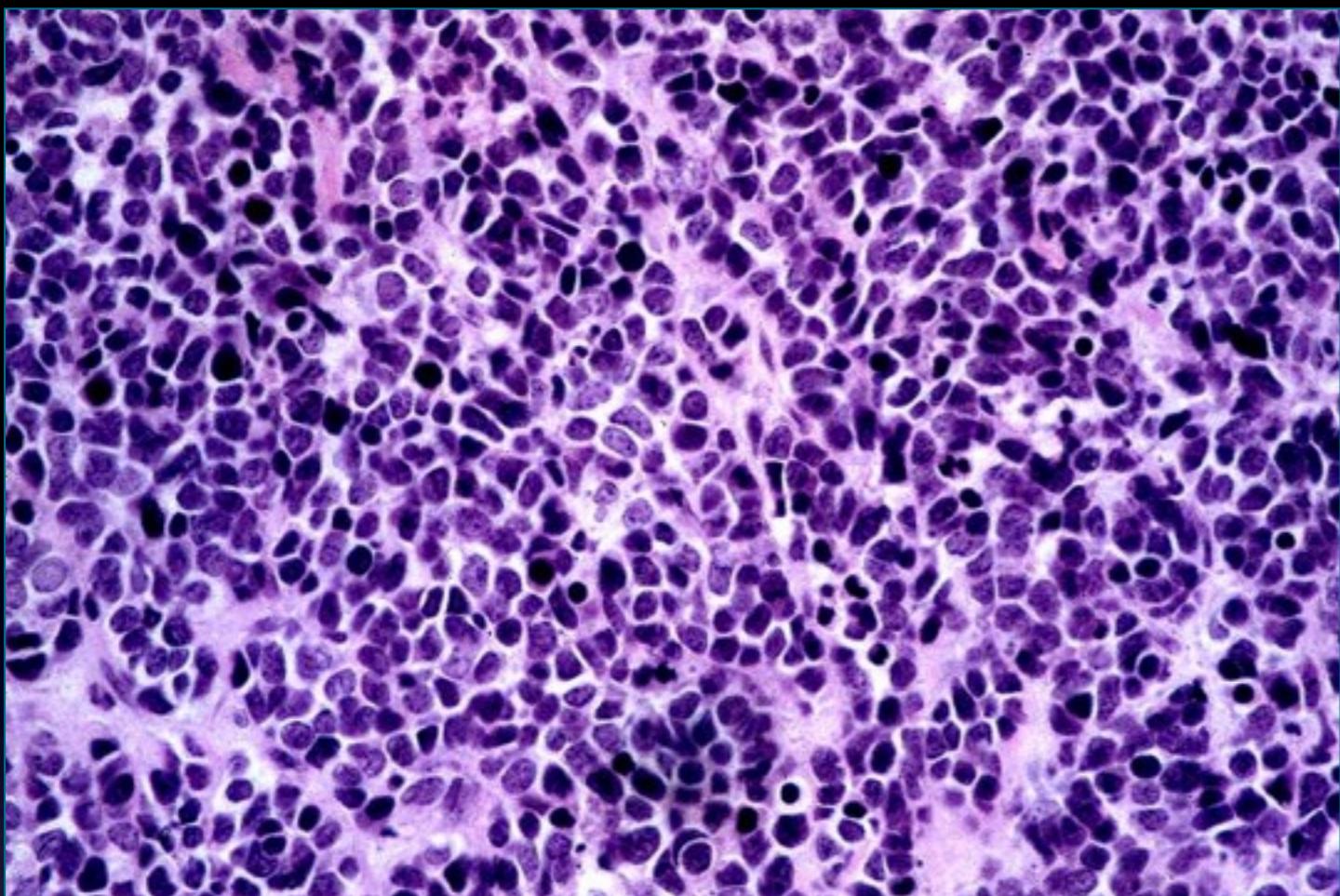


Cytokeratin 20

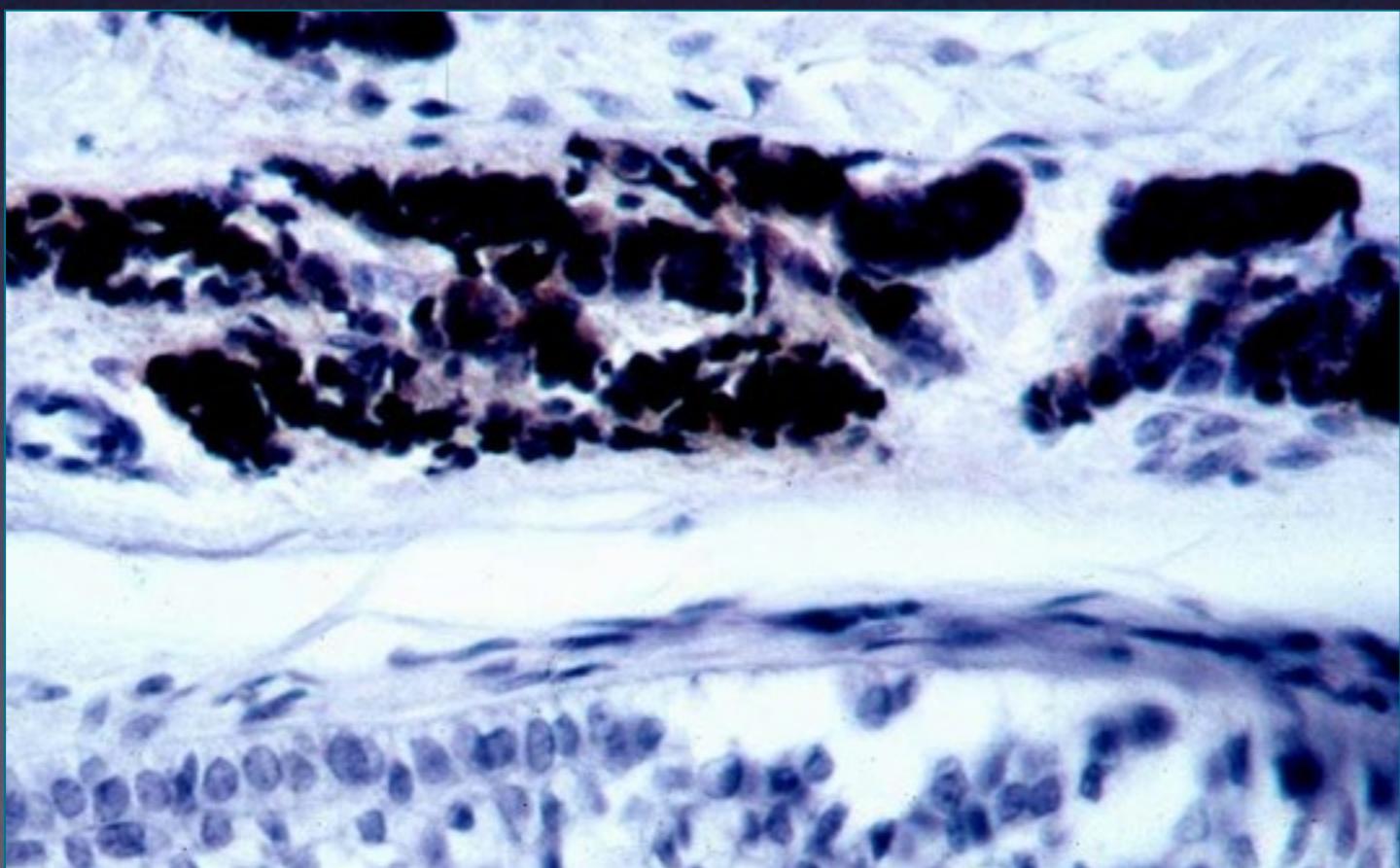
NEGATIVE IMMUNOHISTOCHEMICAL RESULTS:

- CD45
- S100 protein
- HMB45
- NK1/C3
- Desmin
- Muscle-specific actin
 - HBA71
 - Vimentin
 - CD15
- Synaptophysin





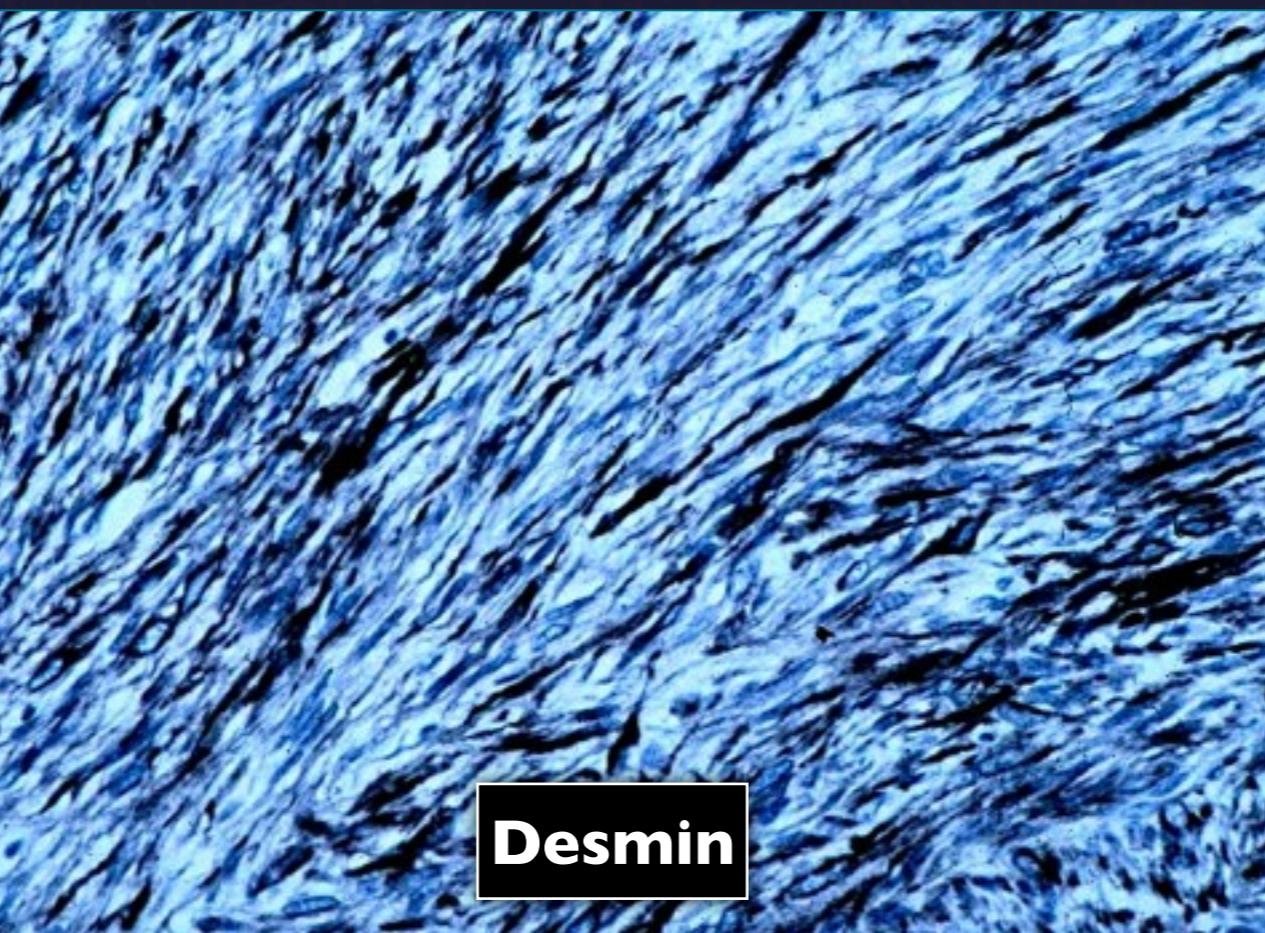
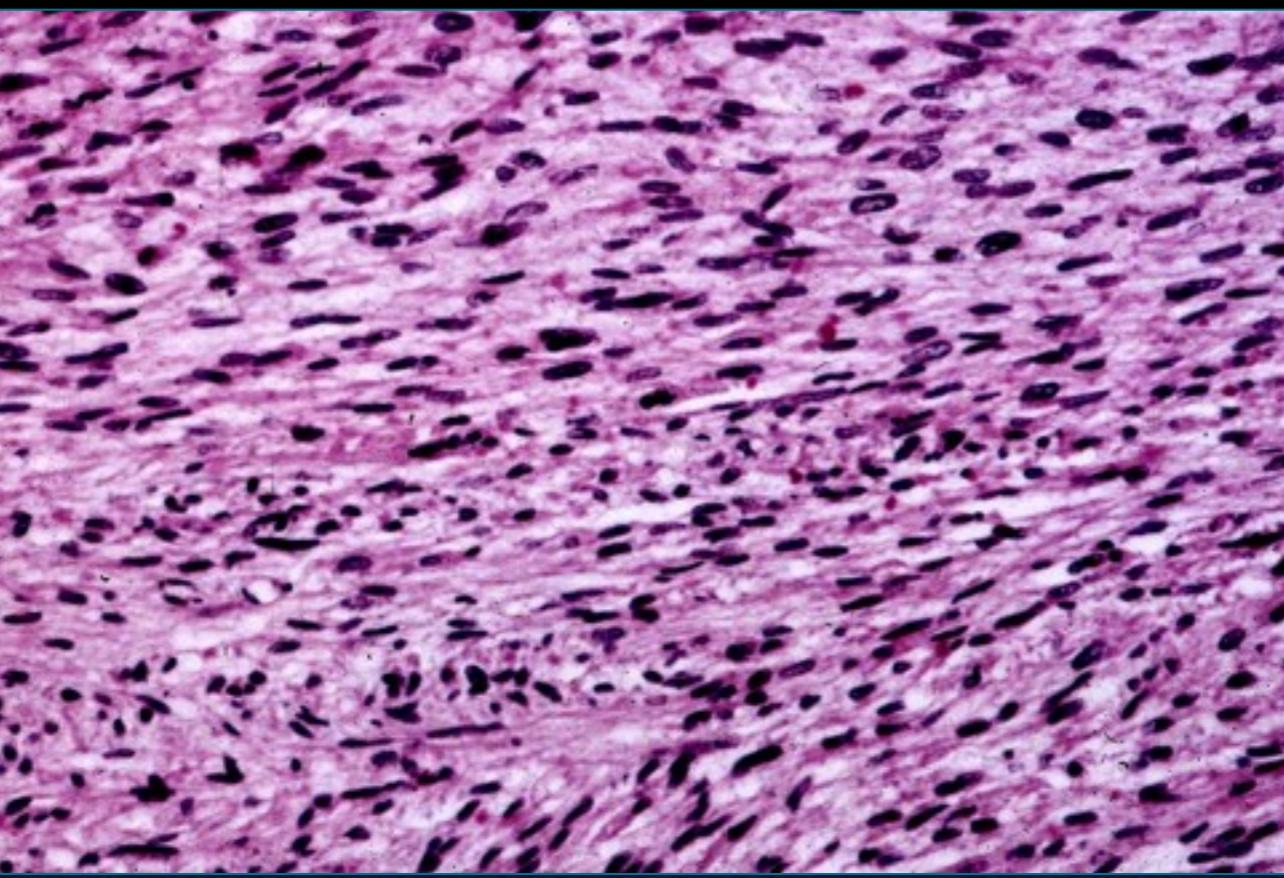
**Metastatic Small
Cell Carcinoma of
Lung**



**TTF-1 Positivity in
Metastatic Small
Cell Carcinoma of
Lung**

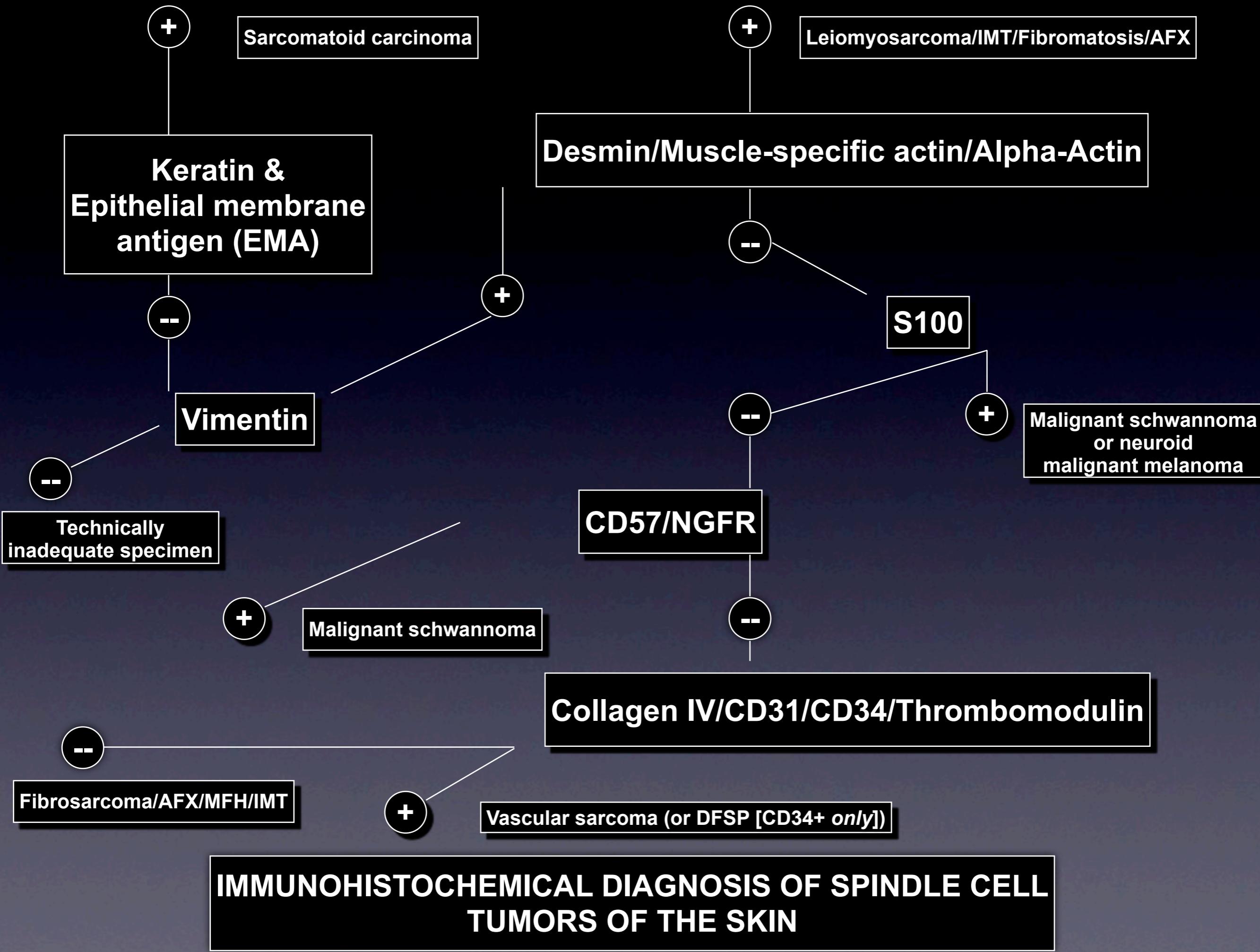
52 year old woman with a 5 cm reddish, deeply-seated nodule in the skin of the left forearm. It had been present and slowly enlarging for 4 years, but only recently had become painful.

An incisional biopsy was performed.

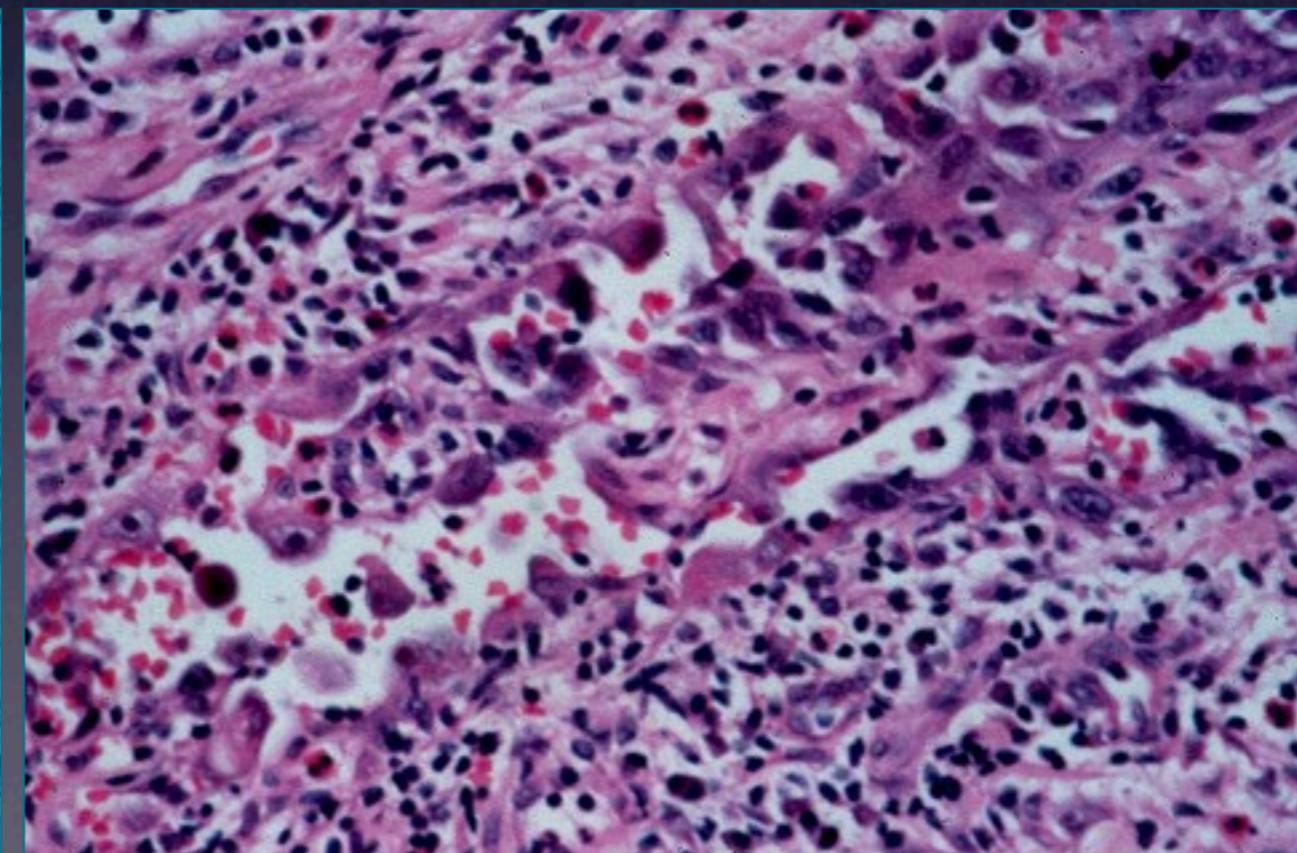
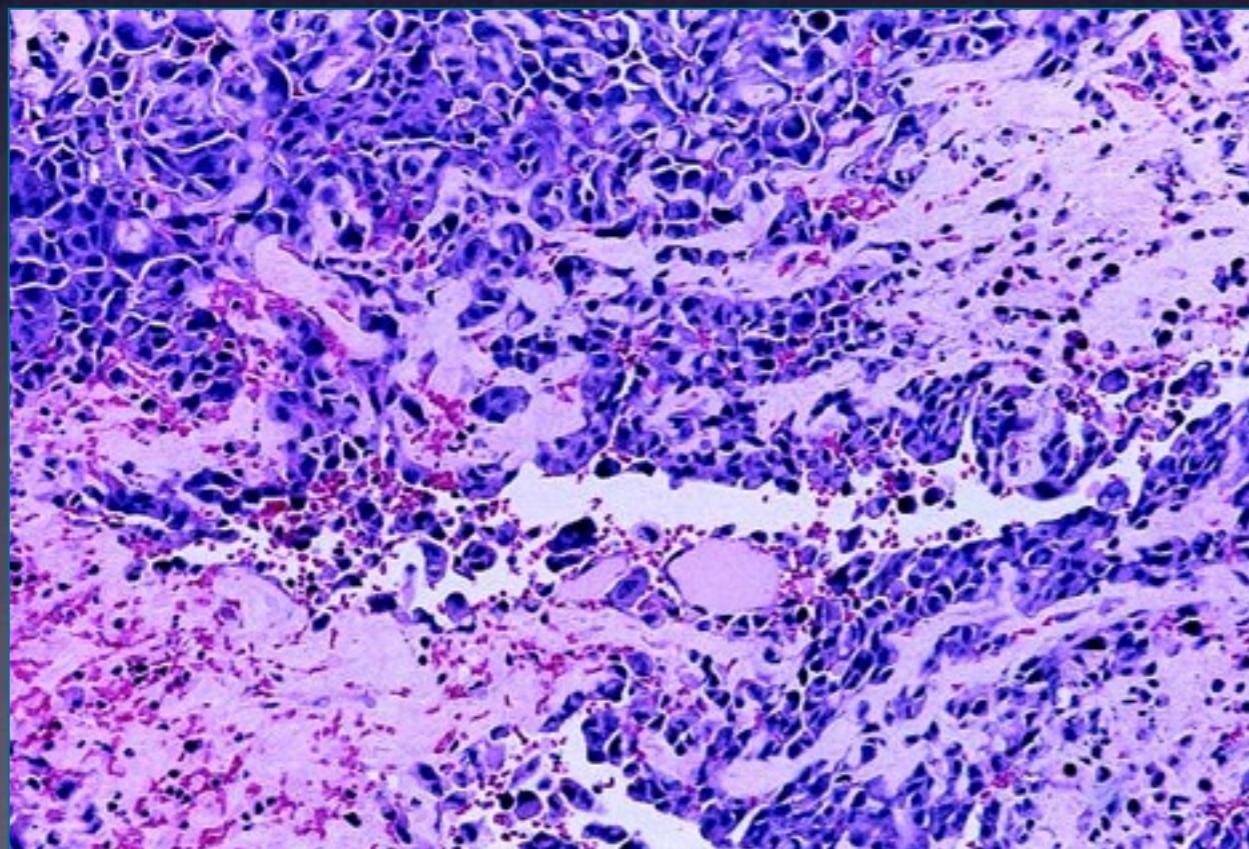
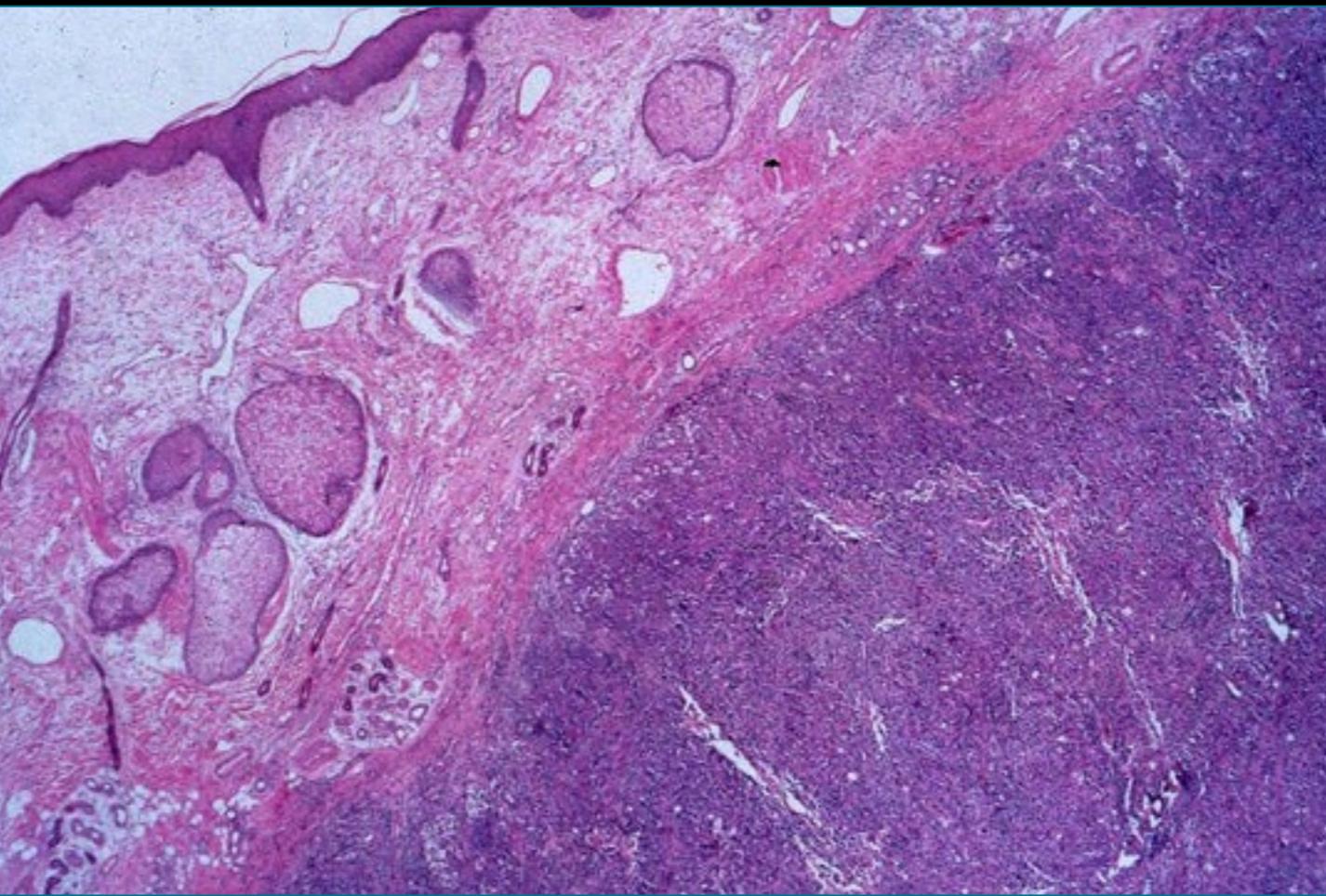


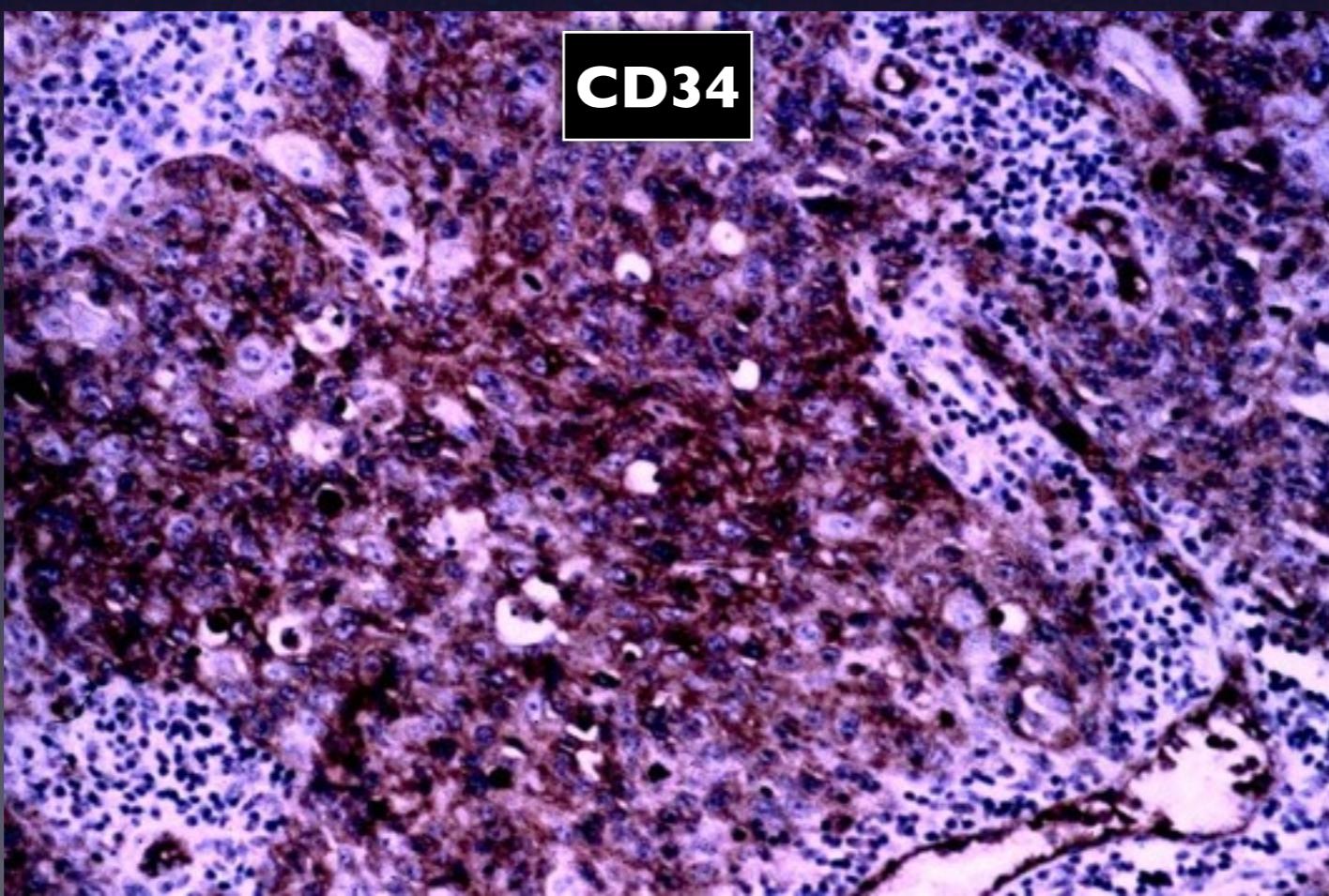
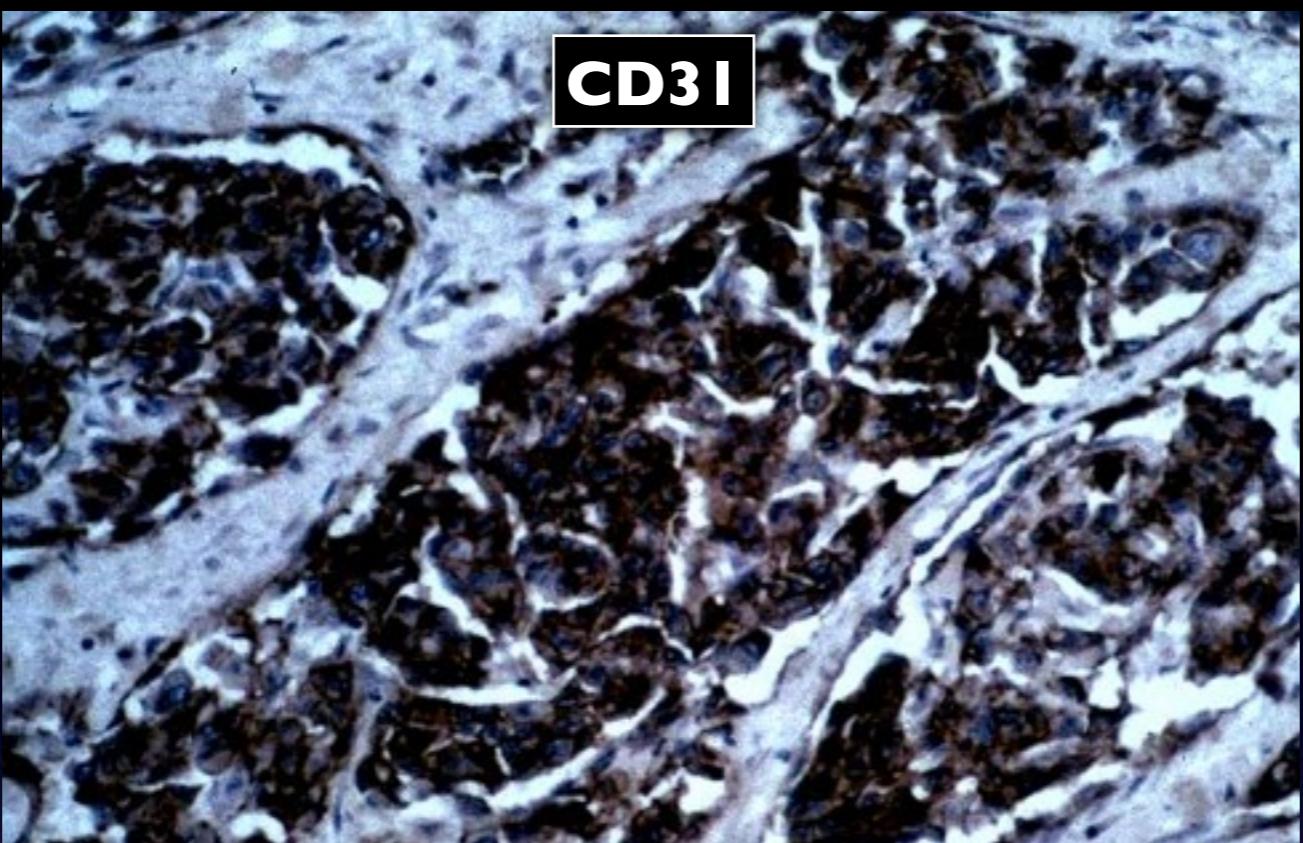
NEGATIVE **IMMUNOHISTOCHEMICAL RESULTS:**

- Keratin
 - EMA
 - CD57
- Myelin basic protein
 - CD31
 - CD34
- Ulex lectin



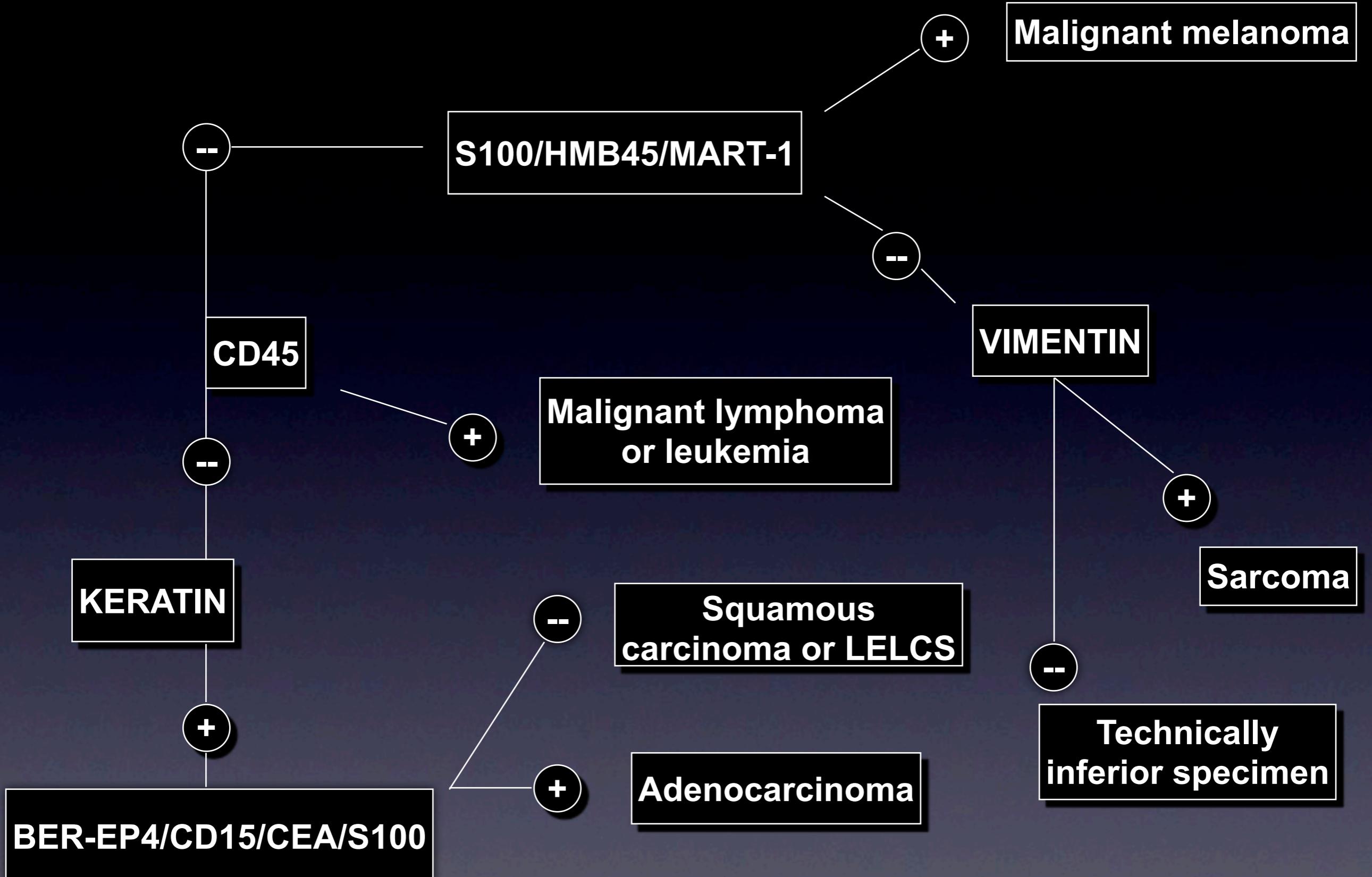
**81 year old woman with a huge,
ulcerated, multinodular,
bleeding mass in the posterior
scalp. It had grown relatively
rapidly over 8 months' time.
After a biopsy diagnosis was
established, the patient was
treated with irradiation and
chemotherapy.**





NEGATIVE **IMMUNOHISTOCHEMICAL RESULTS:**

- Keratin
- CD45
- S100 protein
 - HMB45
 - NK1/C3
- BER-EP4
- CD15
- CEA



IMMUNOHISTOCHEMICAL DIAGNOSIS OF MALIGNANT LARGE-CELL TUMORS OF THE SKIN

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