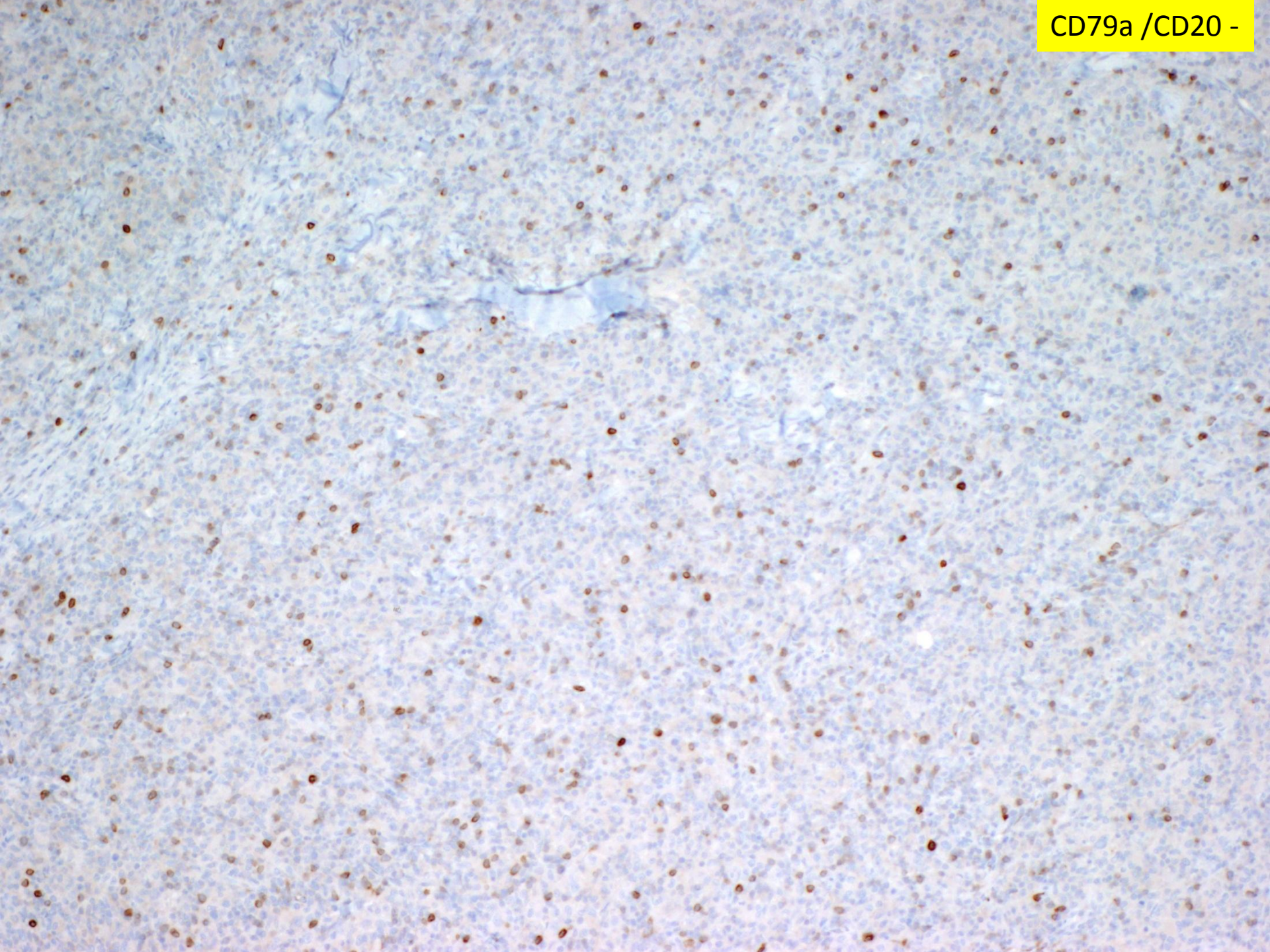
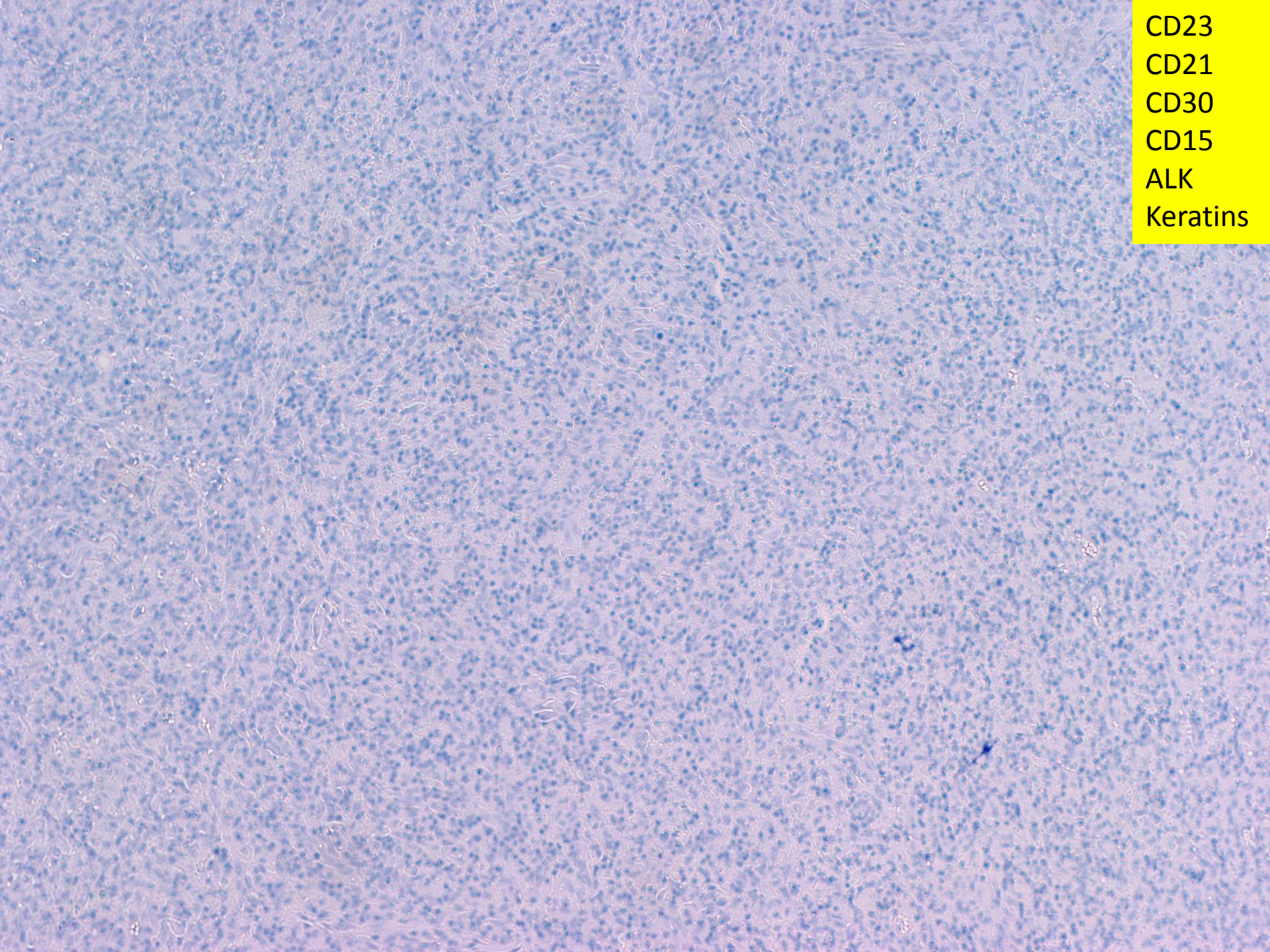
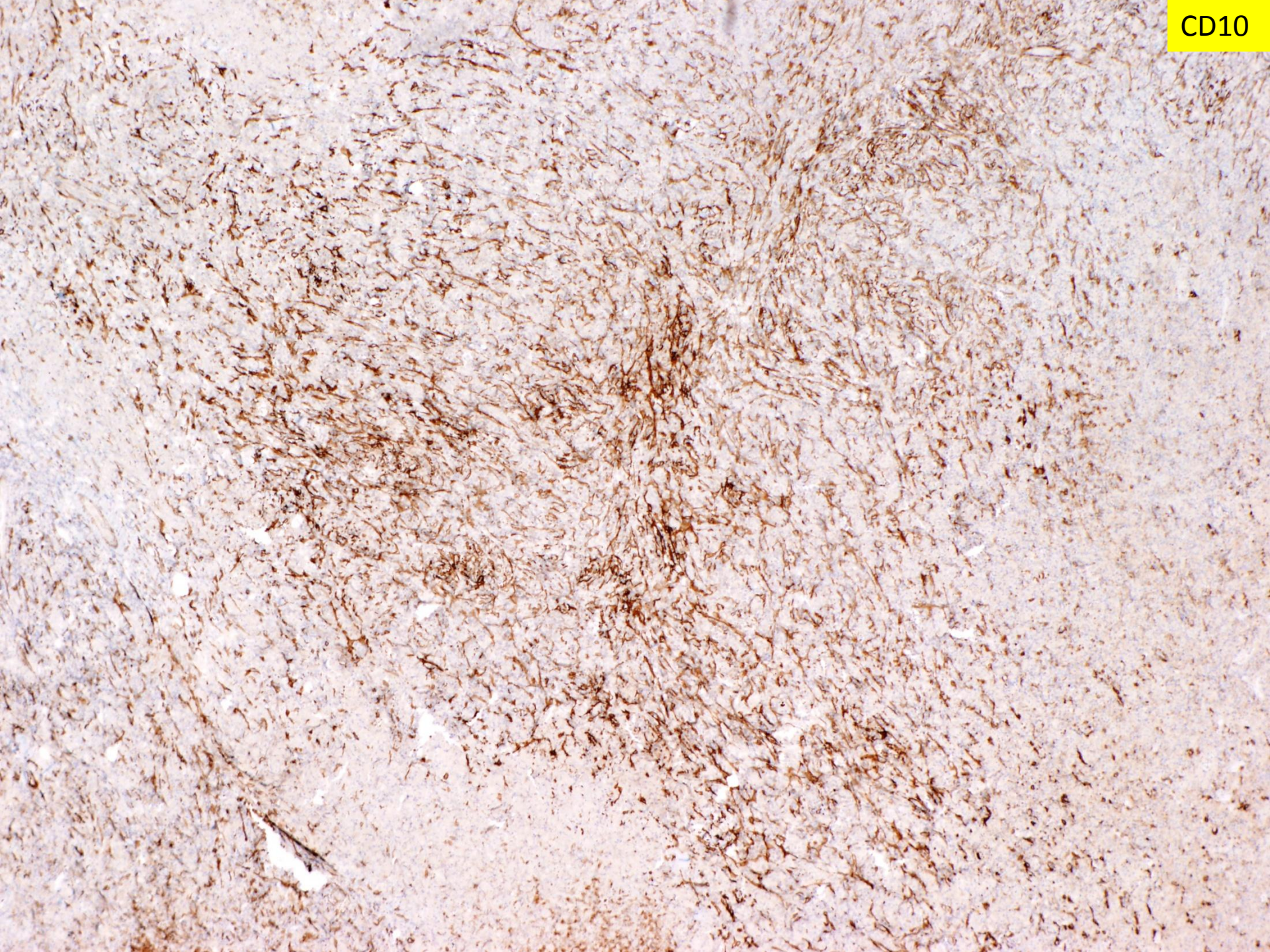

CD79a /CD20 -


CD23
CD21
CD30
CD15
ALK
Keratins


CD10

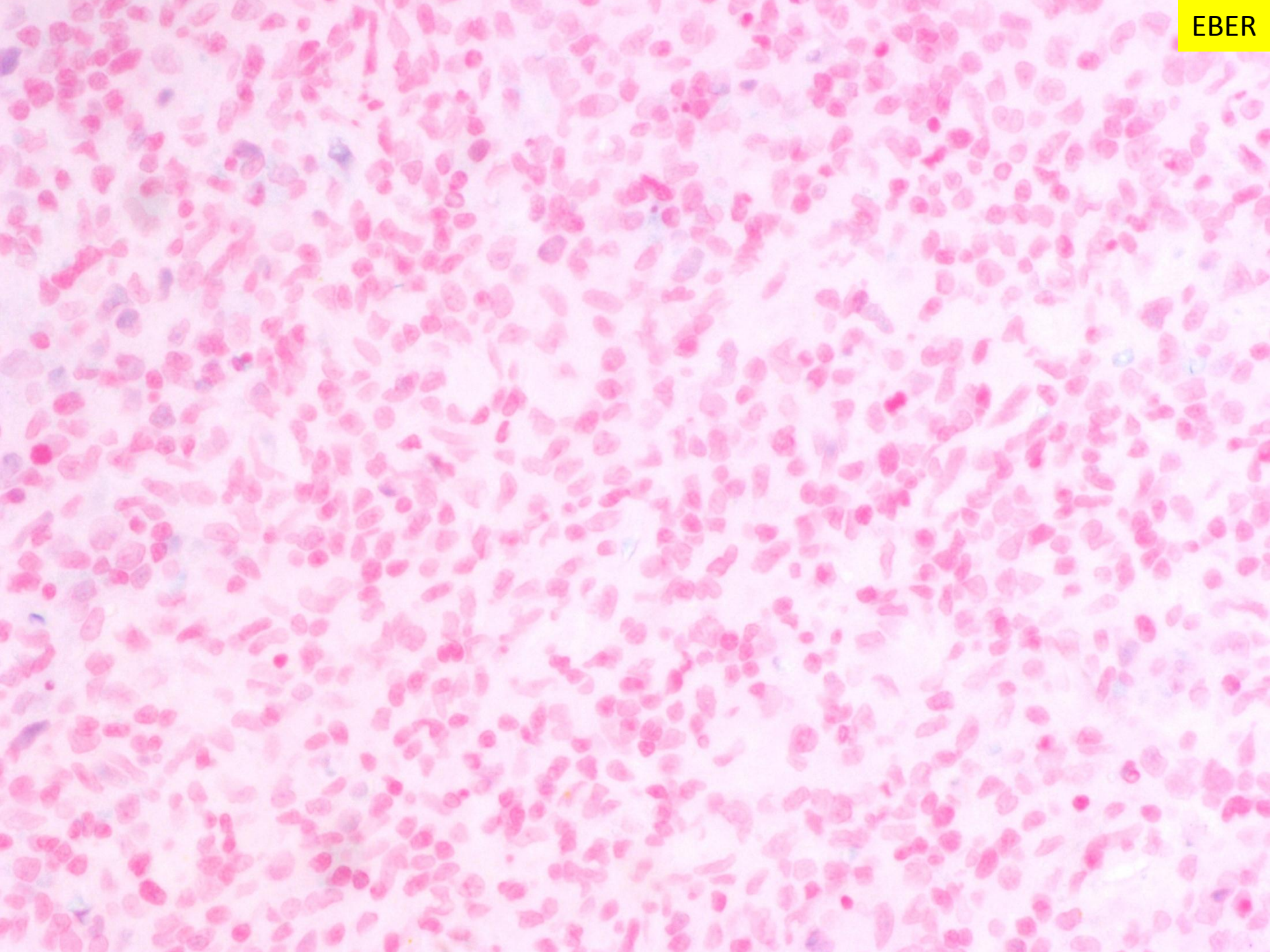

EBER

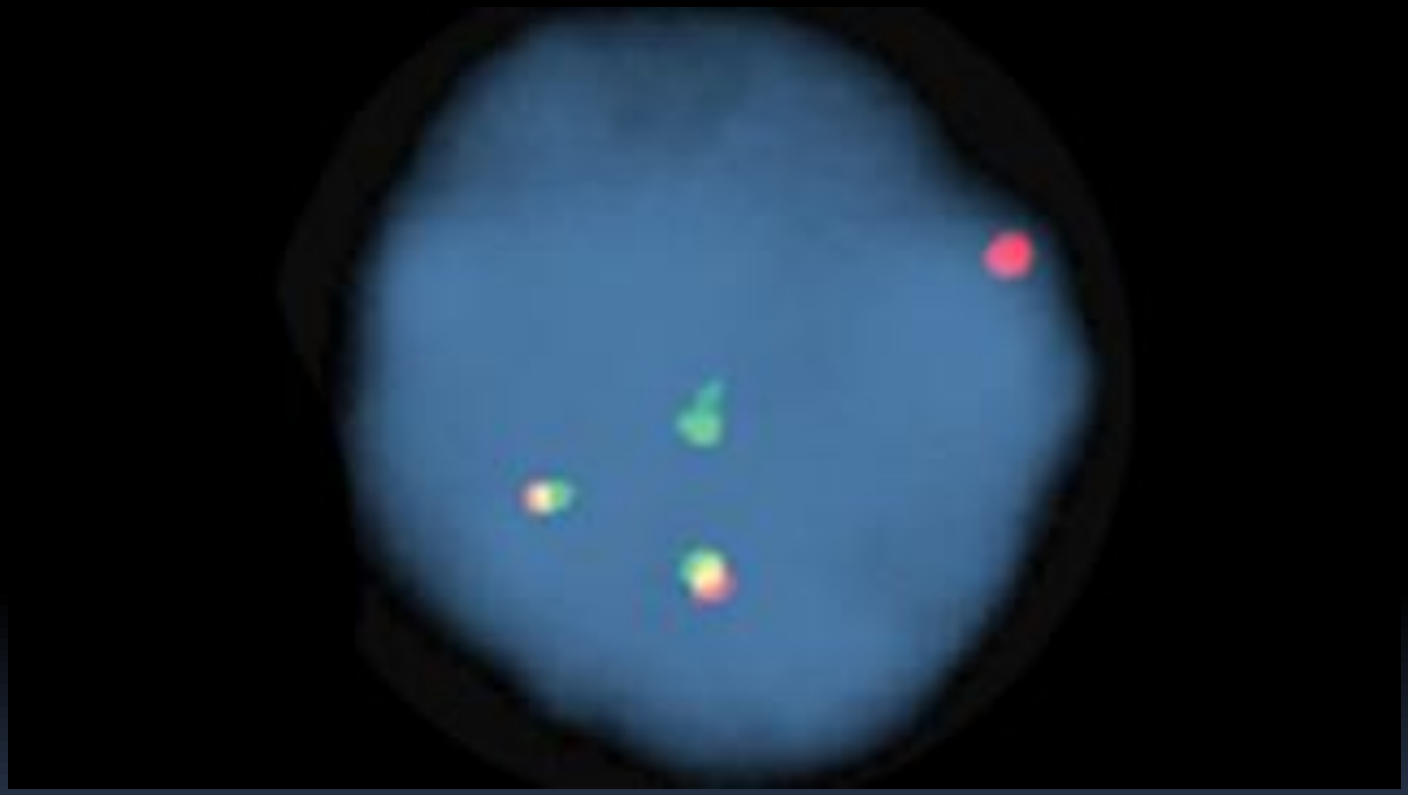
Table 6. Immunophenotypically defined categories of histiocytic and dendritic cell neoplasms

Histiocytic sarcoma (17 cases, 27%) CD68+, LYS+, CD1a–, S100–/+, FDC (CD21,35)–
Langerhans cell tumour/sarcoma (24 cases, 38%) CD68+, LYS–/+, CD1a+, S100+, FDC (CD21,35)–
Interdigitating cell tumour/sarcoma (4 cases, 7%) CD68+/–, LYS–, CD1a–, S100+, FDC (CD21,35)–
Follicular dendritic cell tumour/sarcoma (13 cases, 21%) CD68+/–, LYS–, CD1a–, S100–/+, FDC (CD21,35)+
Unclassifiable (4 cases, 7%)

	CD68	LYS	CD1a	S-100	FDC
HS	+	+	-	-/+	_
LCH	+	-/+	+	+	_
IDCS	+/-	_	_	+	_
FDCS	+/-	_	_	-/+	+

Histopathology.2002 Jul;41(1):1-29.

IGH/BCL-2 t(14;18)(q32;q21)
Dual fusion probe



blood

2008 111: 5433-5439
doi:10.1182/blood-2007-11-124792 originally published online February 13, 2008

Clonally related follicular lymphomas and histiocytic/dendritic cell sarcomas: evidence for transdifferentiation of the follicular lymphoma clone

Andrew L. Feldman, Daniel A. Arber, Stefania Pittaluga, Antonio Martinez, Jerome S. Burke, Mark Raffeld, Mireia Camos, Roger Warnke and Elaine S. Jaffe

ORIGINAL ARTICLE

Clonally Related Follicular Lymphomas and Langerhans Cell Neoplasms

Expanding the Spectrum of Transdifferentiation

Dava S. West, MD, Ahmet Dogan, MD,PhD,* Patrick S. Quint, PhD,*
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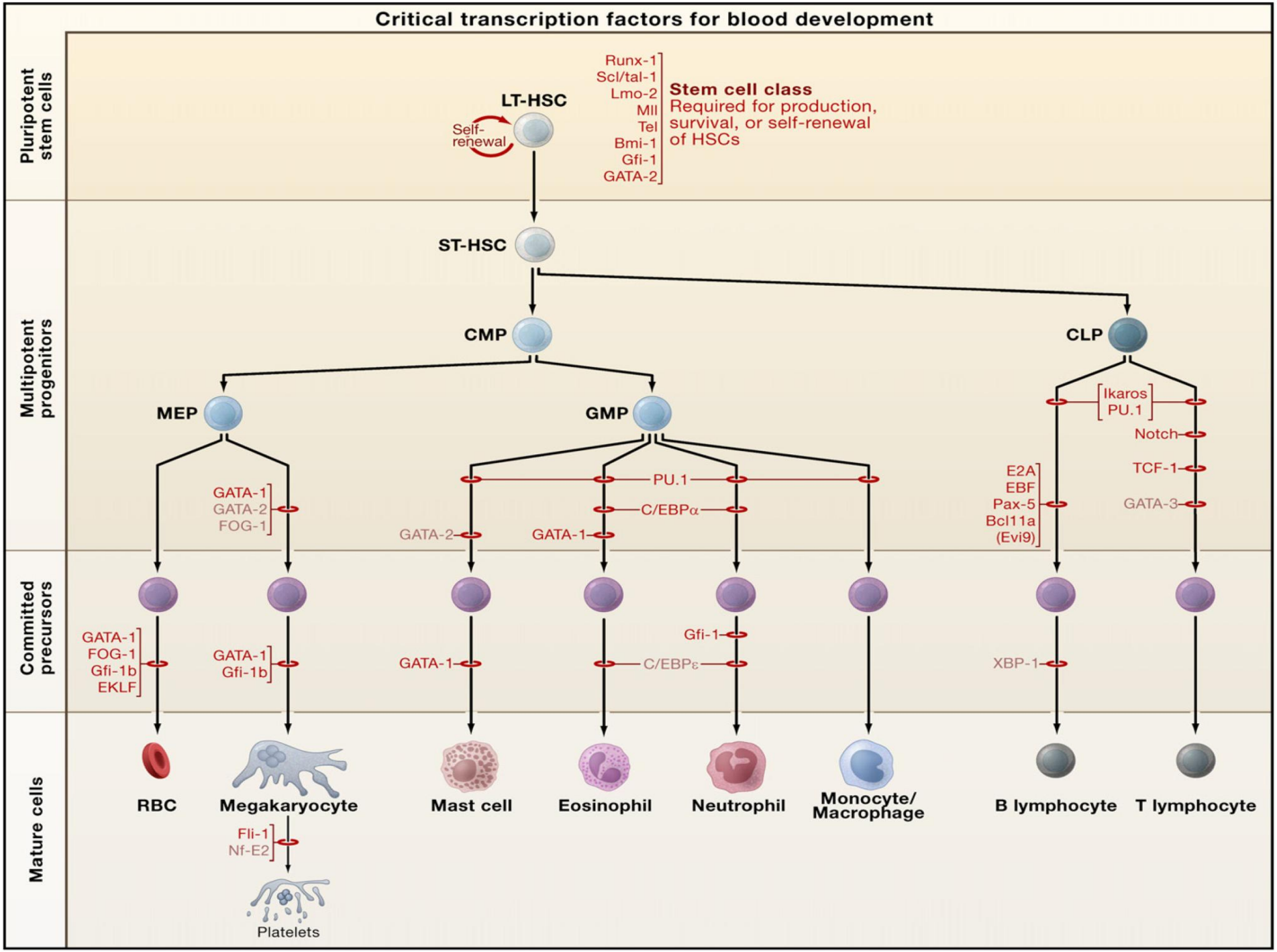
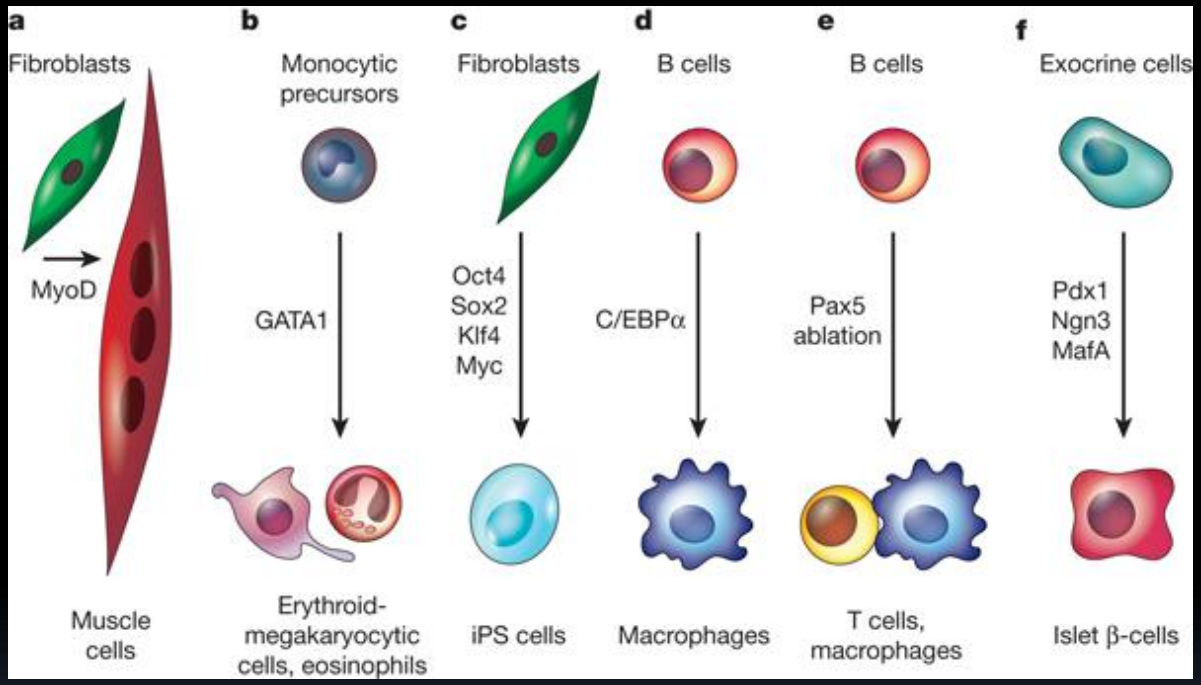
Linda N. Dao, MD,* Ryan D. Ritzer, BS,* Grzegorz S. Nowakowski, MD,†
and Andrew L. Feldman, MD**


Critical transcription factors for blood development
Pluripotent stem cells
Multipotent progenitors
Committed precursors
Mature cells
LT-HSC
Self-renewal
Runx-1
Scl/tal-1
Lmo-2
Mll
Tel
Bmi-1
Gfi-1
GATA-2
Stem cell class
Required for production, survival, or self-renewal of HSCs
ST-HSC
CMP
CLP
MEP
GMP
Ikaros
PU.1
Notch
TCF-1
GATA-3
E2A
EBF
Pax-5
Bcl11a
(Evi9)
GATA-1
GATA-2
FOG-1
PU.1
C/EBPα
GATA-2
GATA-1
GATA-1
FOG-1
Gfi-1b
EKLF
GATA-1
Gfi-1b
GATA-1
Gfi-1
C/EBPε
XBP-1
RBC
Megakaryocyte
Fli-1
Nf-E2
Platelets
Mast cell
Eosinophil
Neutrophil
Monocyte/ Macrophage
B lymphocyte
T lymphocyte

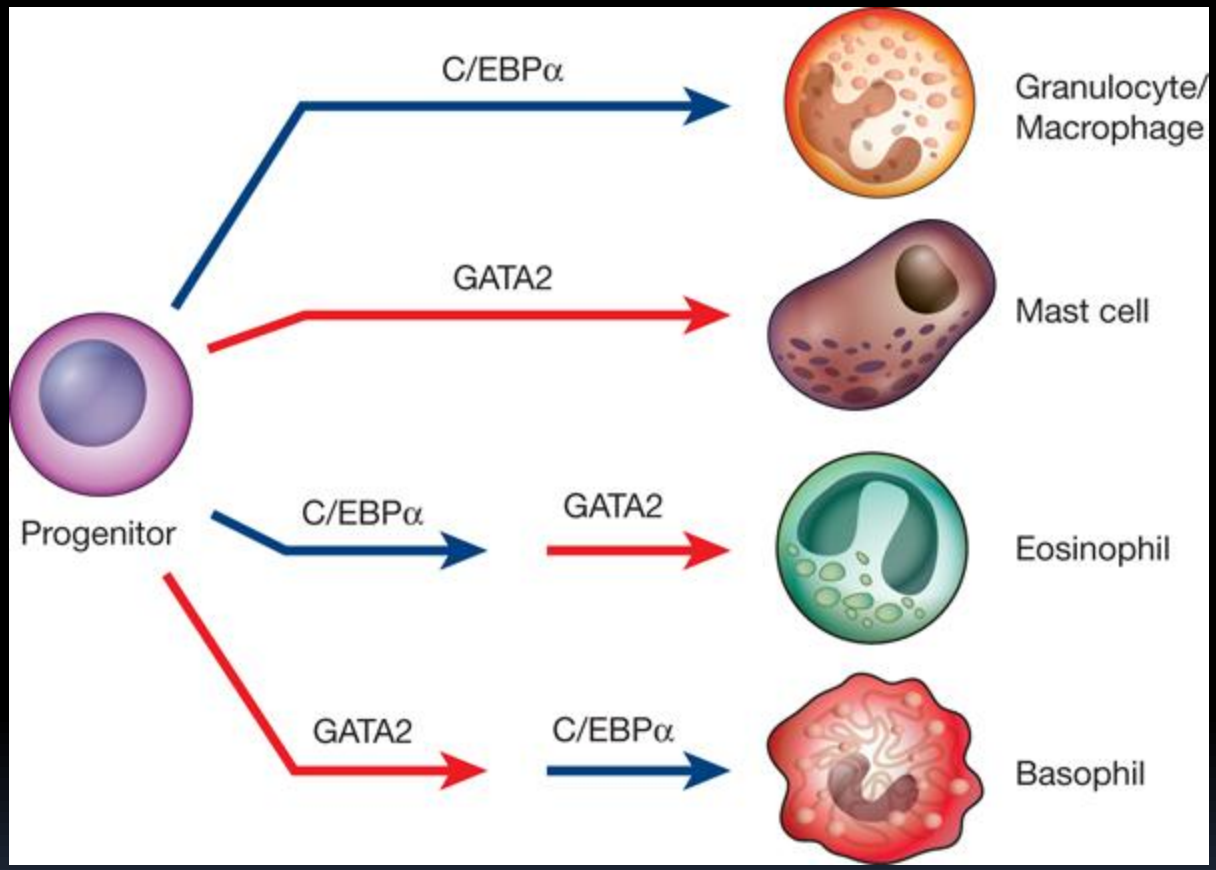
Examples of transcription factor overexpression or ablation experiments that result in cell fate changes.



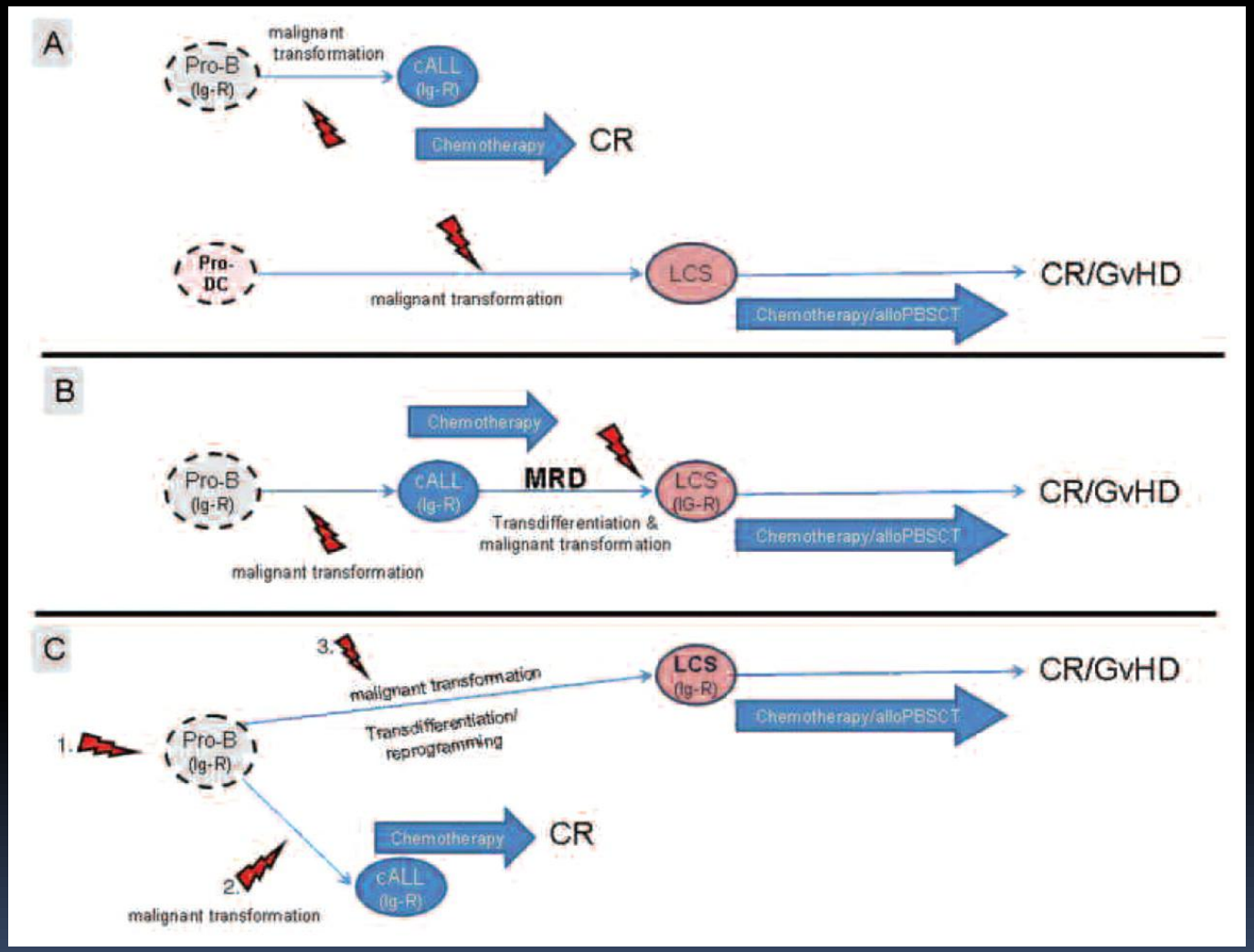
Thomas Graf & Tariq Enver *Nature* **462**, 587-594 (2009) doi:10.1038/nature08533

nature

Common lymphoid progenitor



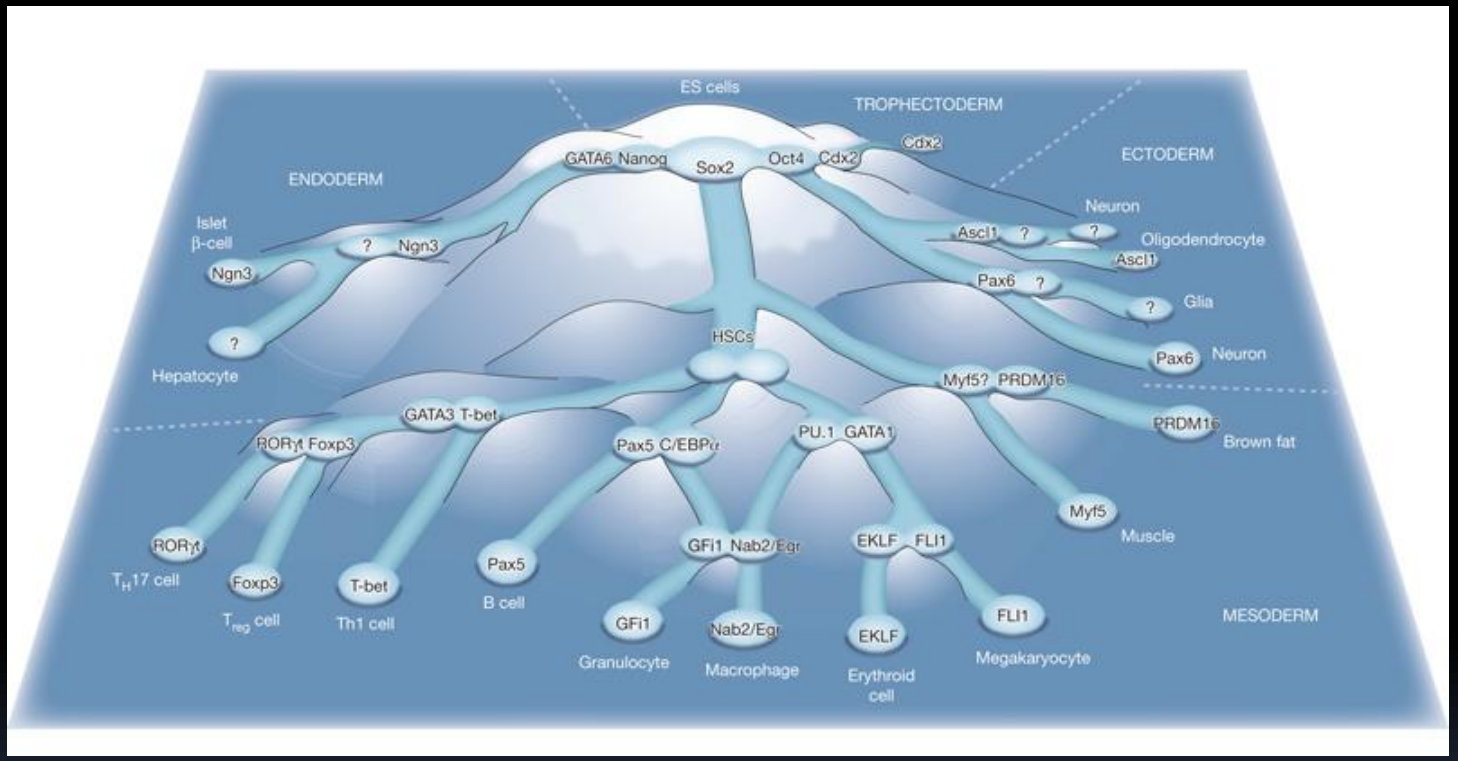
Nature.2009 Dec 3;462(7273):587-94



Ratei R et al. Haematologica 2010;95:1461-1466

haematologica
the hematology journal

Transcription factor cross-antagonisms in a cascading landscape of unstable and stable cell states.



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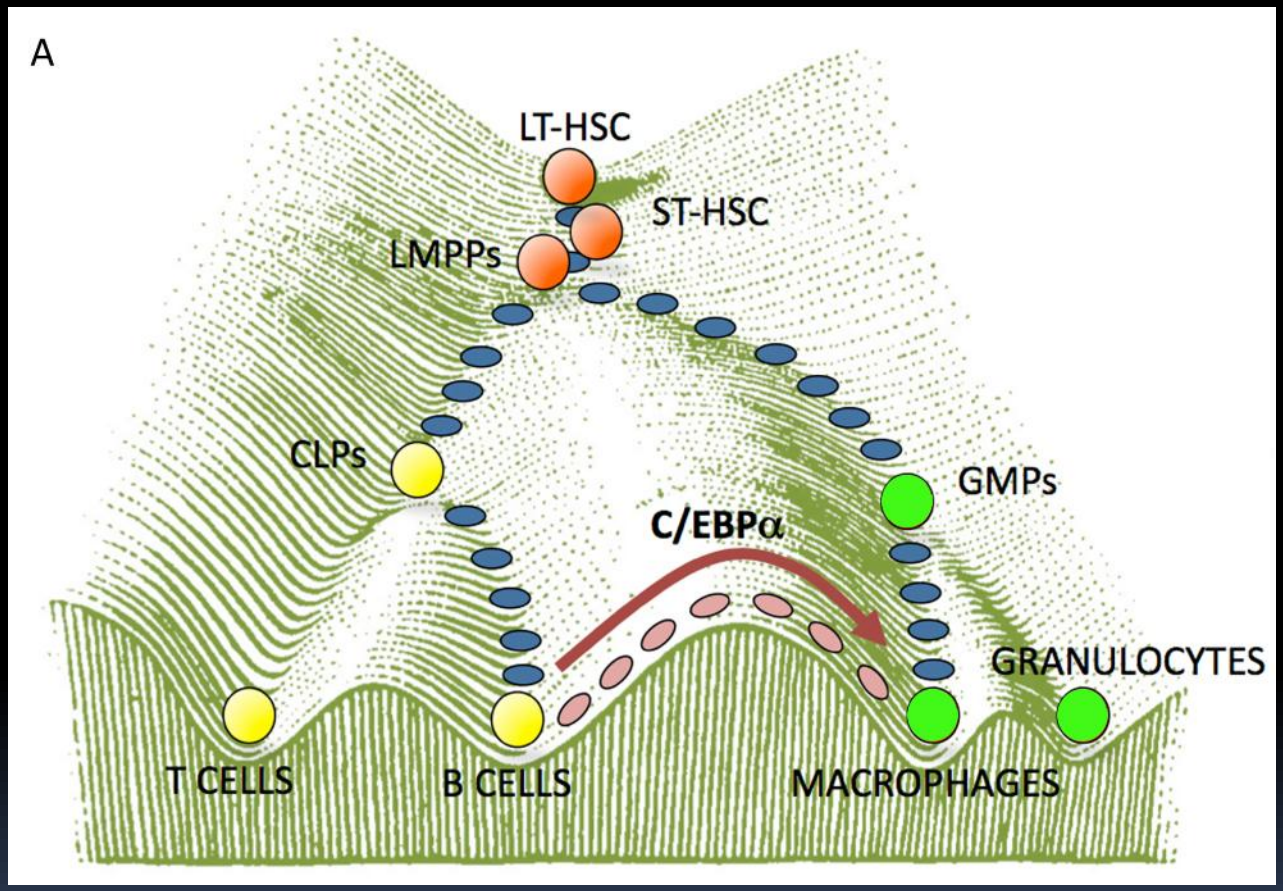

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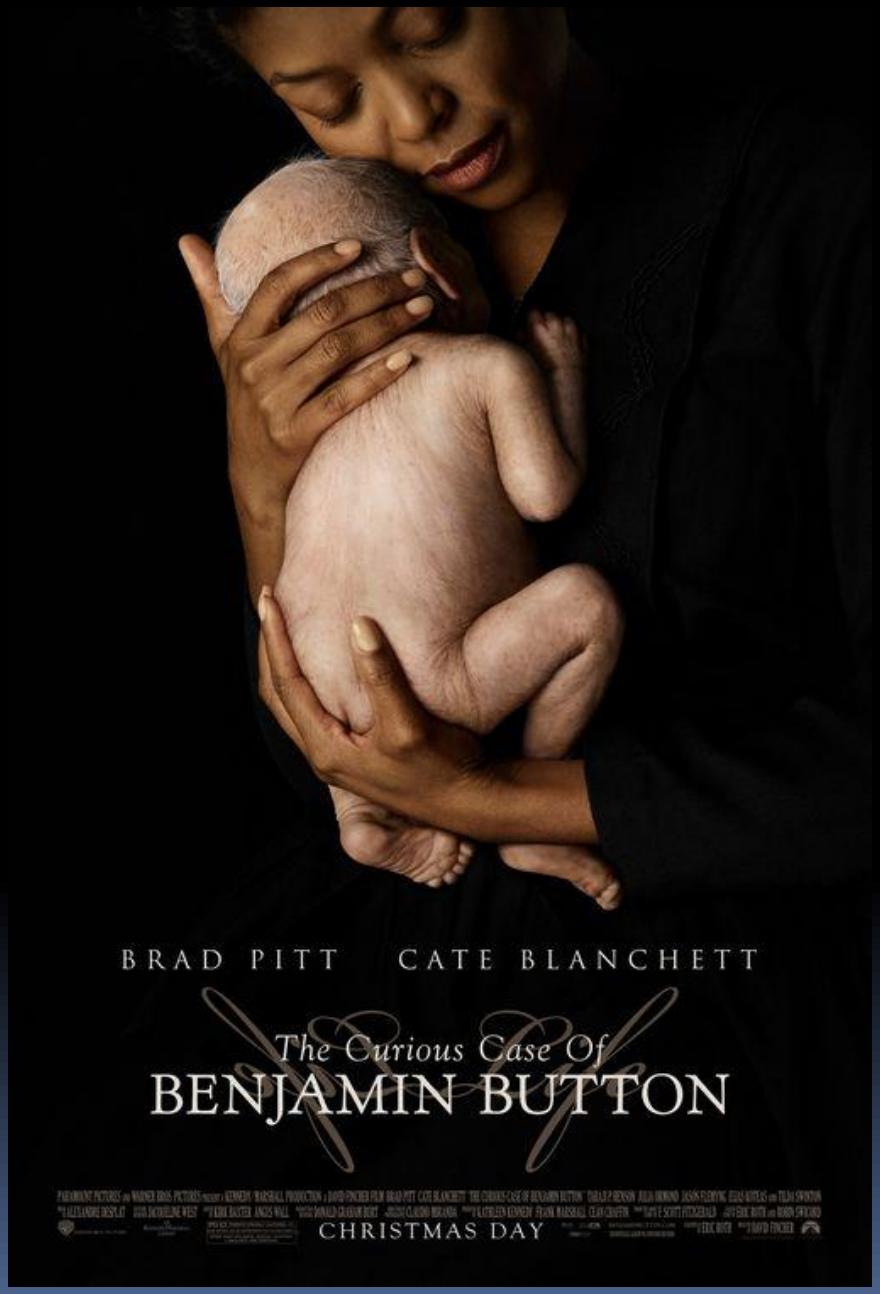
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