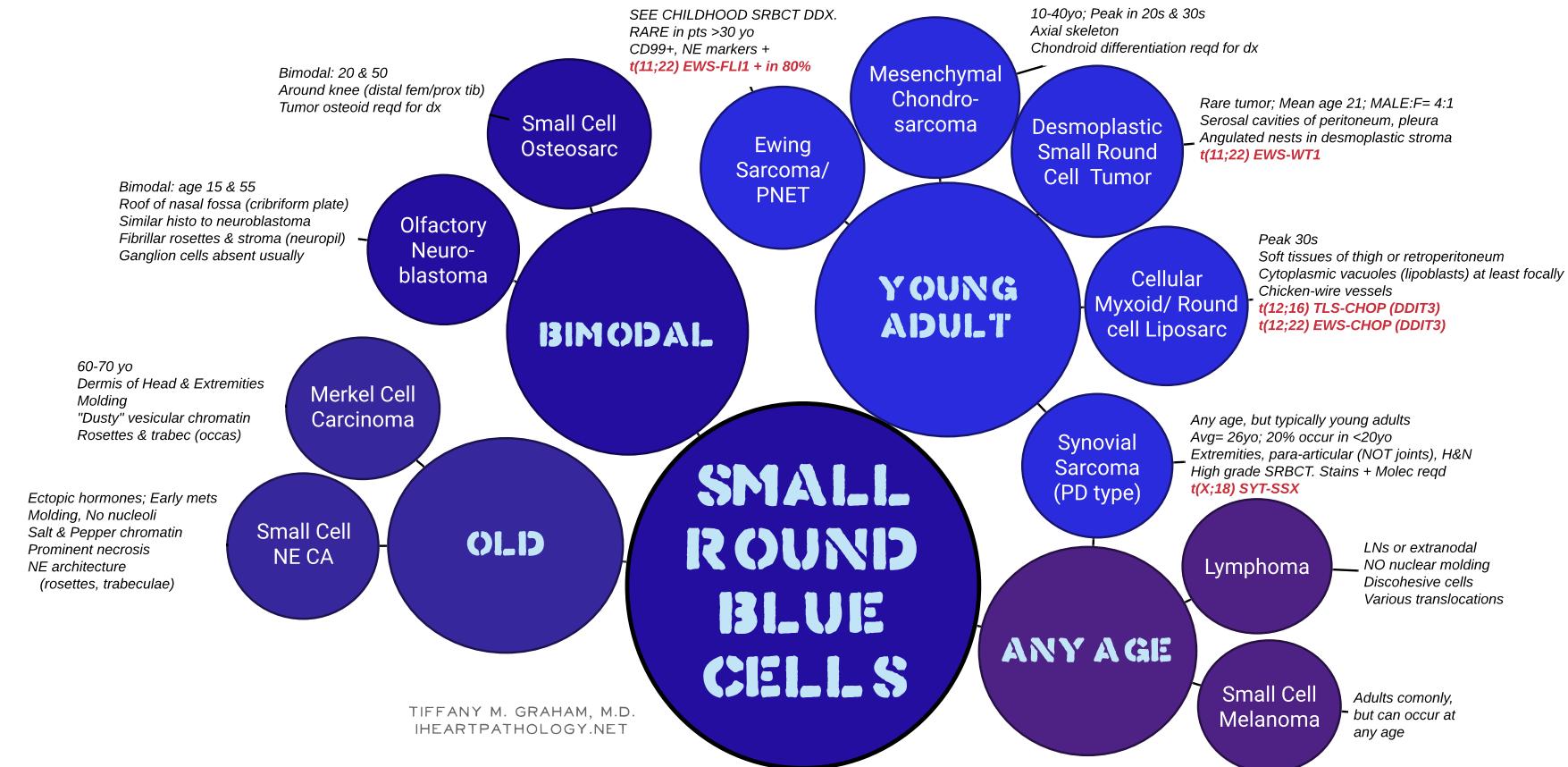


YOUNG ADULT

YOUNG ADULT

SMALL ROUND BLUE CELLS



Disease	Cytogenetics	Avg Age	CK & EMA	CD45	CD99 O13	NE markers	TTF1	WT1	S100	Desmin	Other
Lymphoma	Various translocations	Any	-	+	-	-	-	-	-	-	B cell: CD20+, CD79a+ T cell: CD3+
Small Cell Carcinoma	-	Old	+ (green)	-	-	+	+/-	-	-	-	Dot-like peri-nuclear reactivity CK; TTF1 + in 90% lung origin & 40% non-lung origin
Merkel Cell Carcinoma	-	60-70	+ (green)	-	-	+	ALWAYS -	-	-	-	Dot-like perinuclear reactivity of CK20, Neurofilament +, Merkel Cell polyoma virus +
DSRCT	t(11;22) EWS-WT1	Avg 21	+ (green)	-	few +	+ NSE only	-	+	-	+	Actin - NEG: SYN, CHR, and CD56
Mesenchymal Chondrosarcoma	t(9;22) EWS-CHN	Peak 20-30	-	-	+	-/+ see -->	-	-	+ (focal)	focal + in 50%	Sox9+, small blue cell component can be NSE & CD57+, with focally S100+. It will be NEG for SYN, CHR, and CD56 (NE markers)
Olfactory Neuroblastoma	-	Bl: 15 & 55	CK focal+ EMA NEG	-	-	+	-	-	+ (sus)	-	SYN most sensitive S100 + sustentacular staining
Ewing Sarcoma/ PNET	t(11;22) EWS-FLI1	11-15; <30yo	-	-	+	+	-	-	-	-	Rare in adults >30yo.
Synovial Sarcoma	t(X;18) SYT-SSX	Any; Avg 26	+ (green)	-	+	-	-	-	-	-	Calponin+
Cellular Myxoid/ Round Cell Liposarc	t(12;16) TLS-CHOP t(12;22) EWS-CHOP	Peak 30	-	-	-	-	-	-	+	-	S100+, but immuno are generally not used

NE markers= SYN, CHR, CD56, NSE

Modified & Adapted from Quick Reference Handbook for Surgical Pathologists