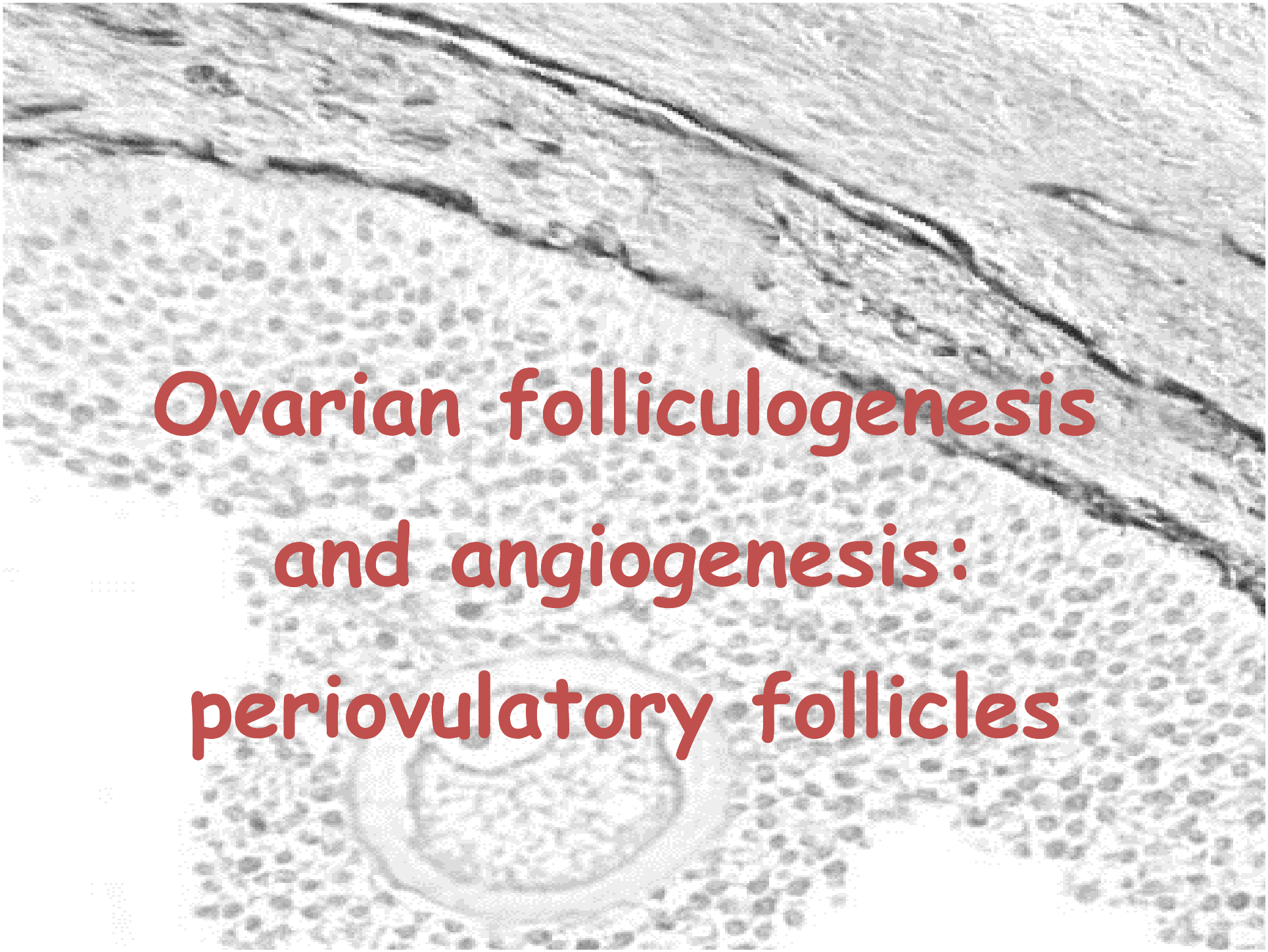
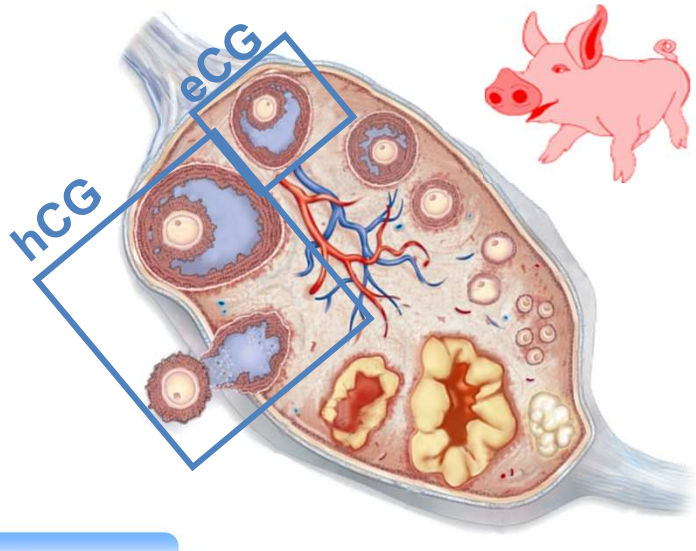
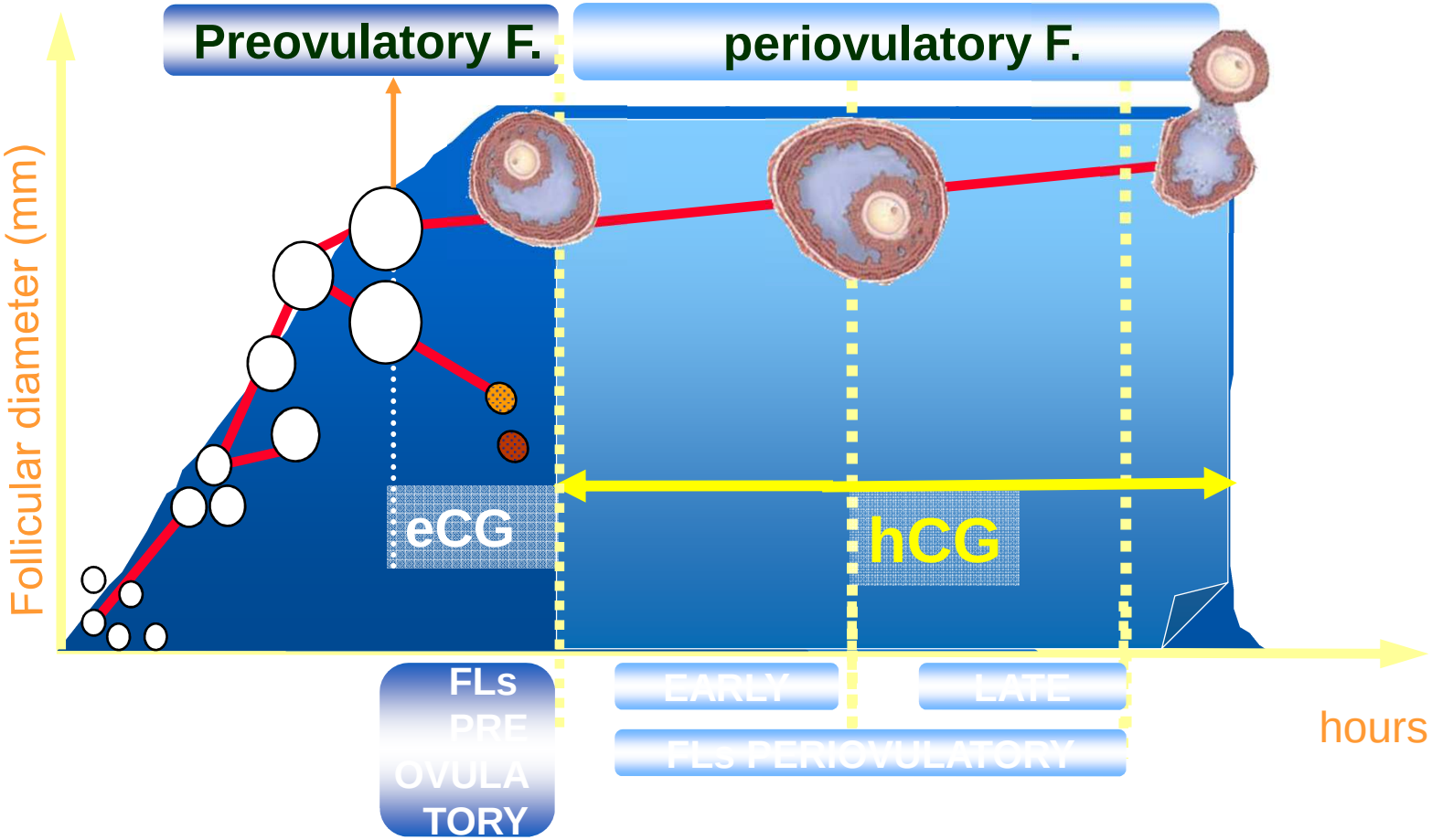
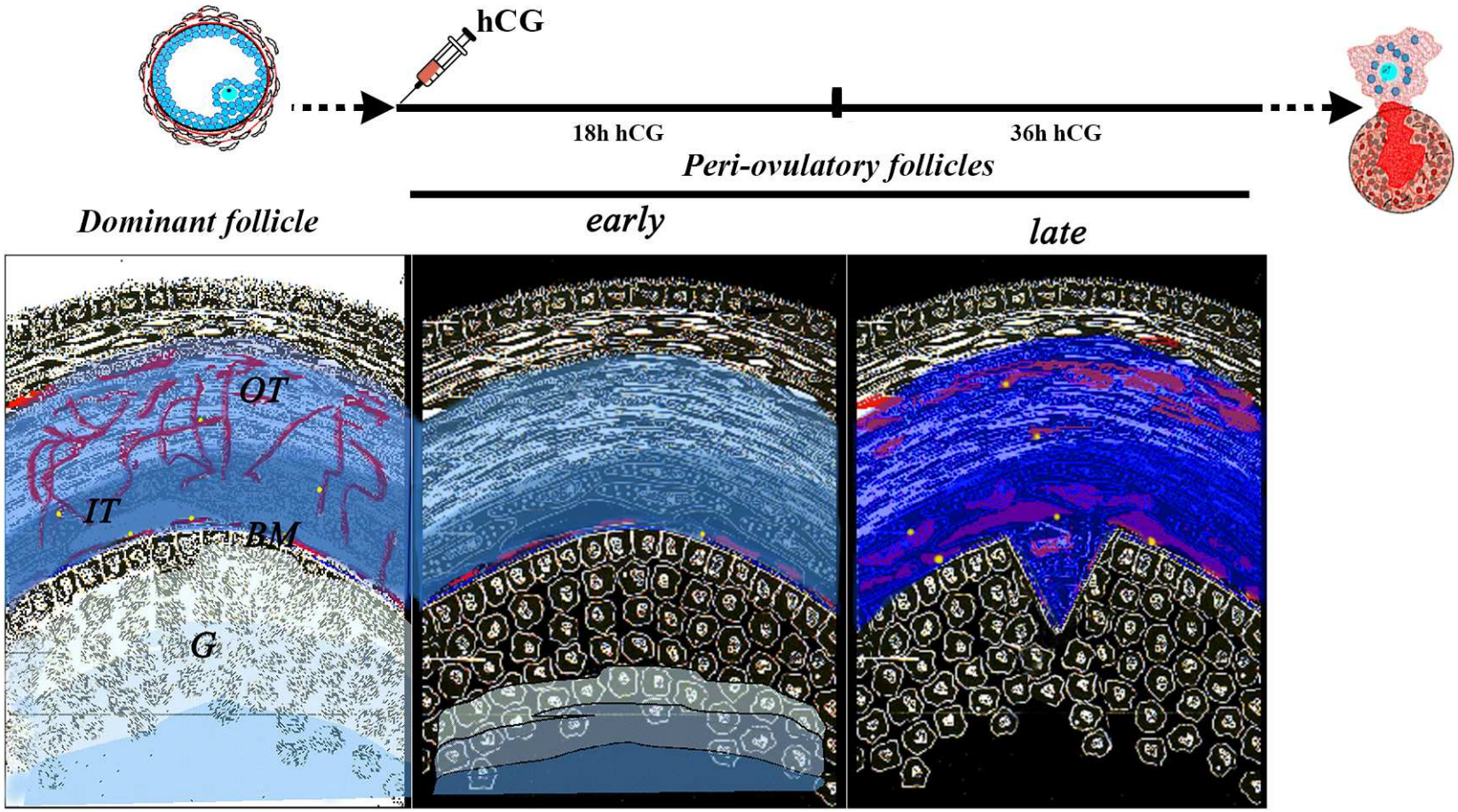

Ovarian folliculogenesis
and angiogenesis:
periovulatory follicles


eCG
hCG


Preovulatory F.
periovulatory F.
Follicular diameter (mm)
eCG
hCG
FLs PRE OVULATORY
EARLY
LATE
FLs PERIOVULATORY
hours

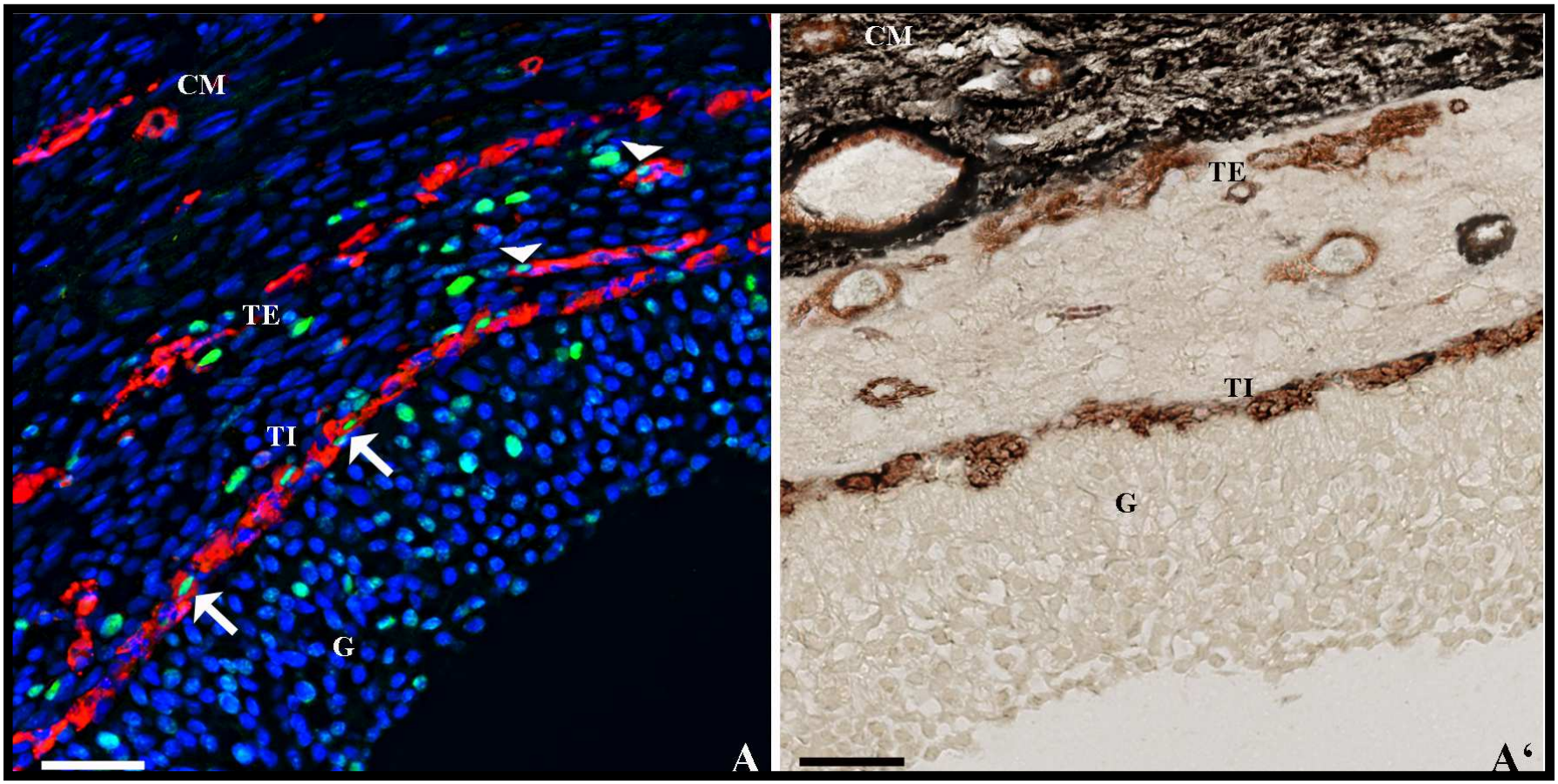
PERIOVULATORY PHASE



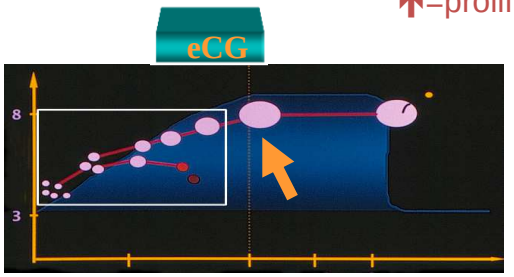
PREOVULATORY FOLLICLES

⇨ vWF Ki-67 DAPI

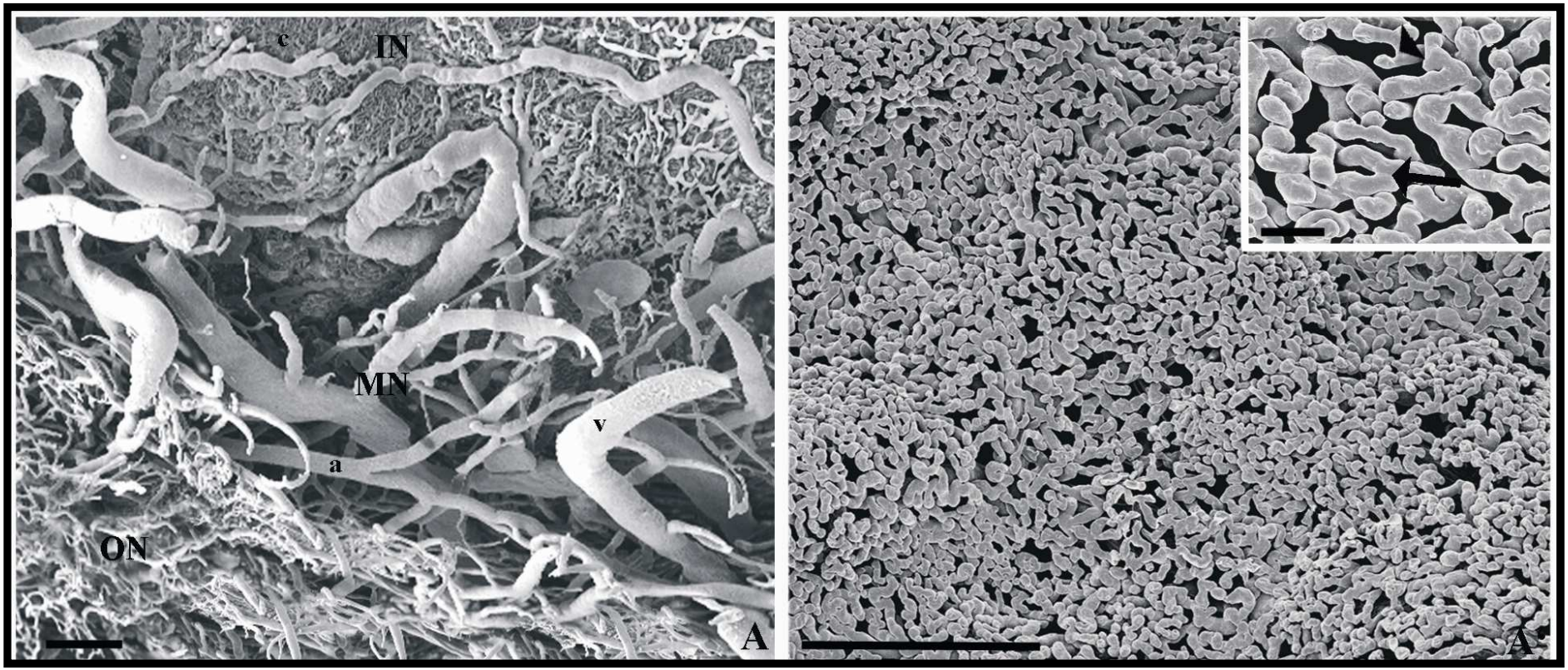
α-SMA vWF



LEGEND: G= granulosa cells, TI= theca *interna*, TE= theca *externa*, CM=capsule of smooth muscular fibres, ↑=proliferating endothelial cells in the TI, ▲= proliferating endothelial cells in the TE



PREOVULATORY FOLLICLES



c= capillaries, v= veins, a= arterioles, IN, MN and ON = inner, middle, and outer network, r= resin leakage artifacts, ⇧= sprouting, △= budding, ✱= infolding-intussusception

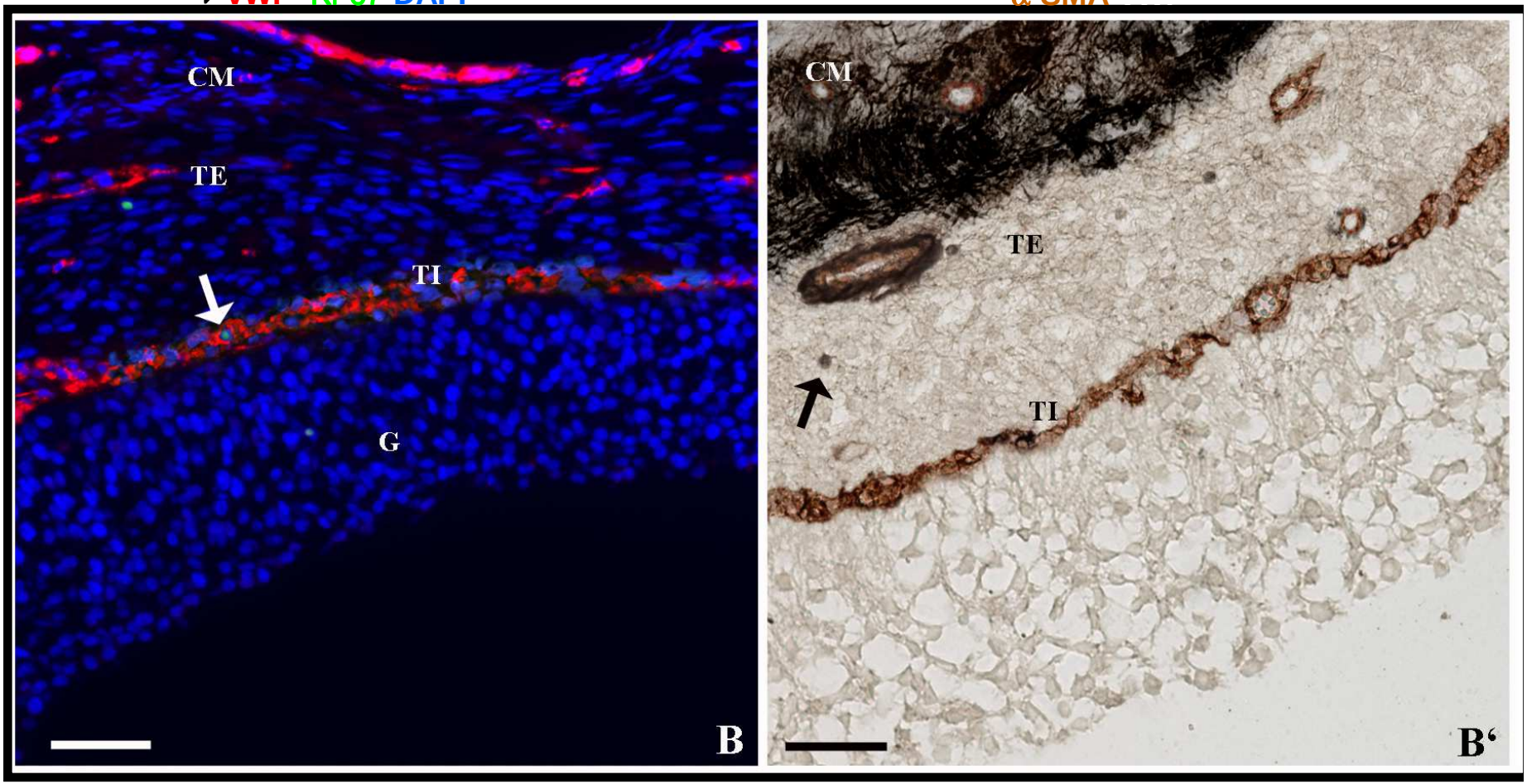
Bar= 100 µm

Bar in insert panel= 25 µm

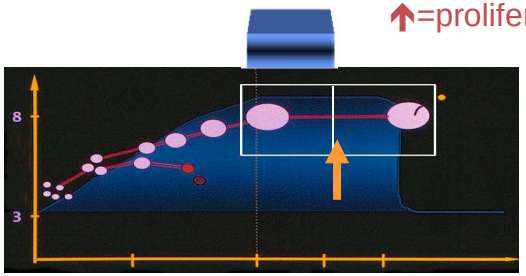
PERIOVULATORY FOLLICLES (EARLY)

⇨ vWF Ki-67 DAPI

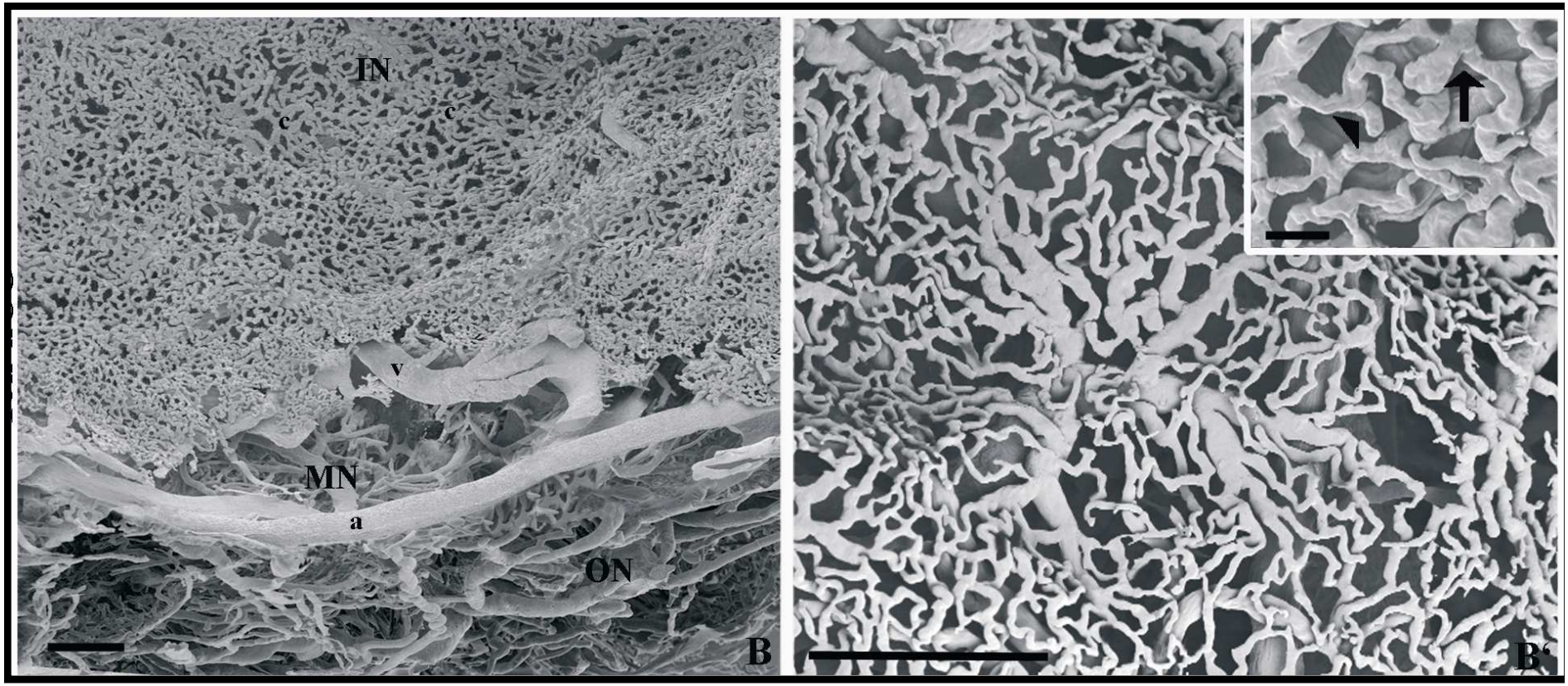
α-SMA



LEGEND: G= granulosa cells, TI= theca *interna,* TE= theca *externa,* CM=capsule of smooth muscular fibres, ↑=proliferating endothelial cells in the TI, ↑= single α-SMA immunopositive cells



PERIOVULATORY FOLLICLES (EARLY)



c= capillaries, v= veins, a= arterioles, IN, MN and ON = inner, middle, and outer network, r= resin leakage artifacts, ⇧= sprouting, △= budding, ✱= infolding-intussusception

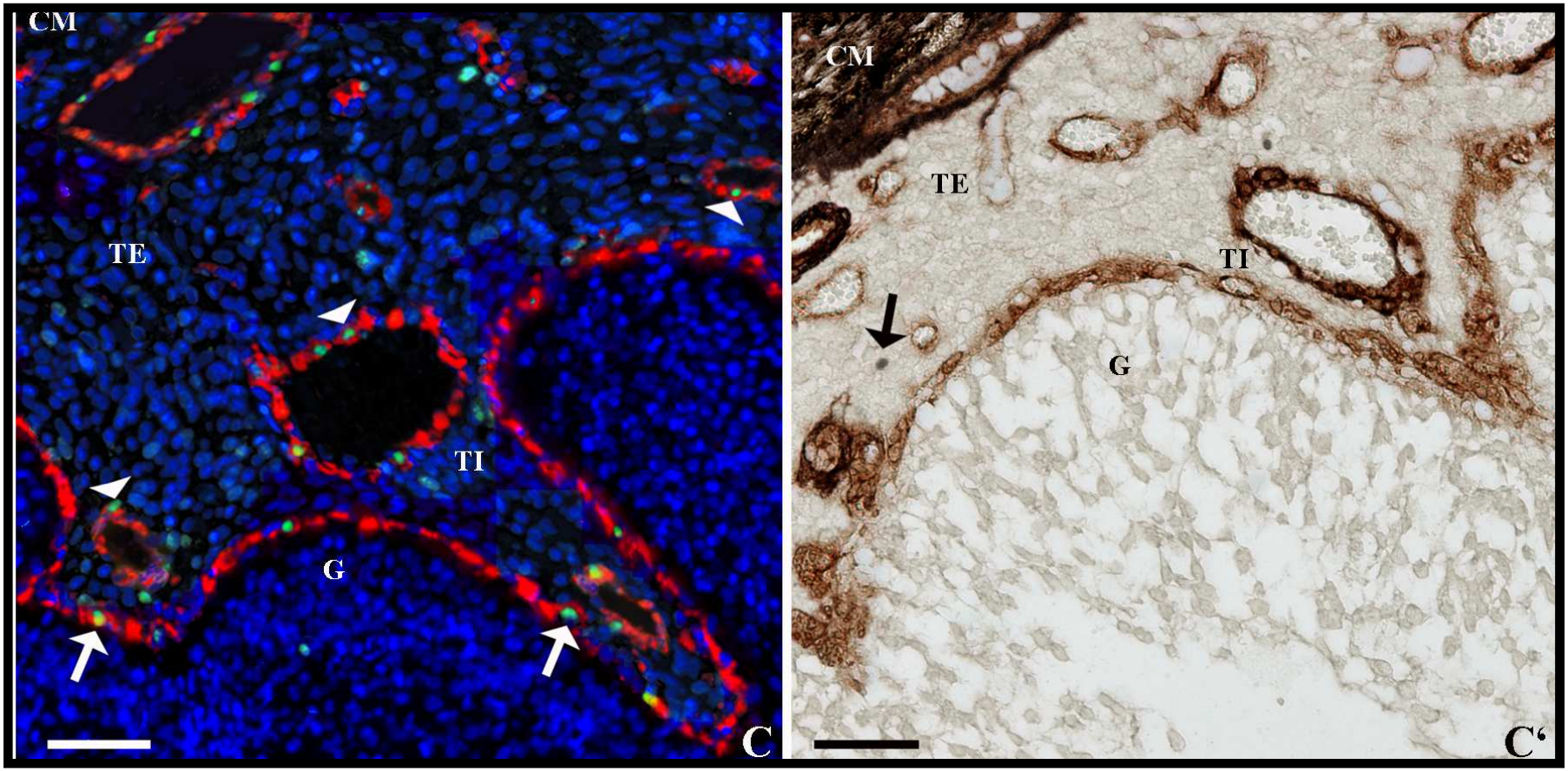
Bar= 100 µm

Bar in insert panel= 25 µm

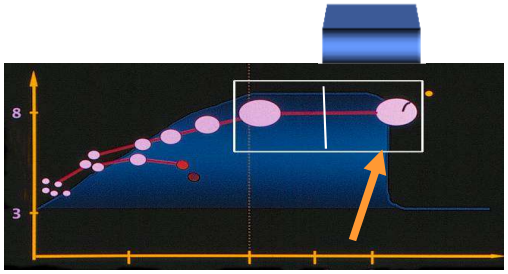
PERIOVULATORY FOLLICLES (LATE)

⇨ vWF Ki-67 DAPI

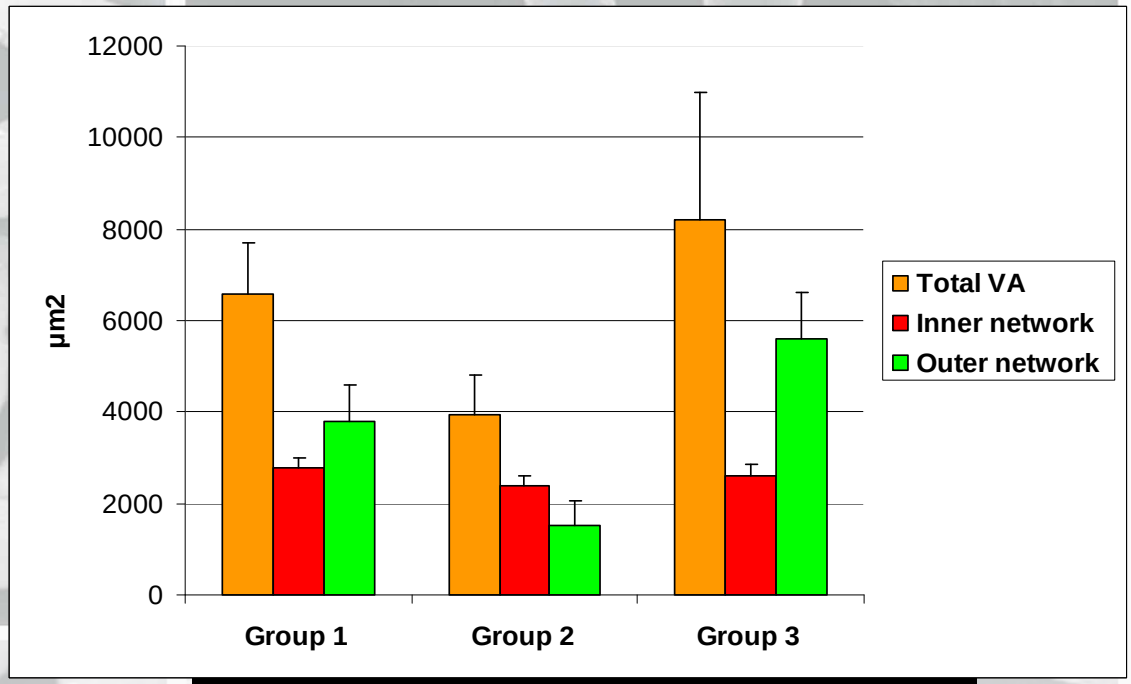
α-SMA



LEGEND: G= granulosa cells, TI= theca interna, TE= theca externa, CM=capsule of smooth muscular fibers, ⇧=proliferating endothelial cells in the TI, ⇧= single α-SMA immunopositive cells, ▲ = proliferating endothelial cells in the TE

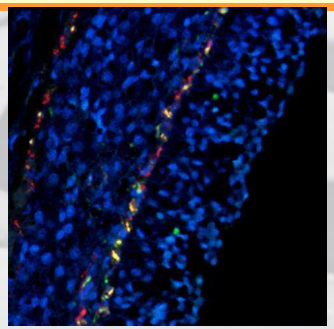


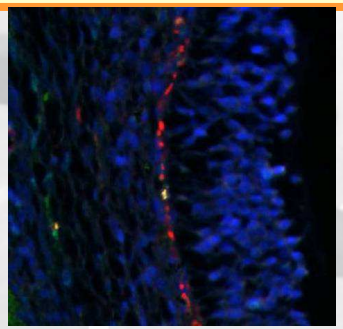
VESSELS DIAMETER: P<0.05

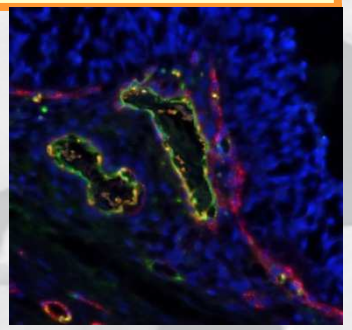


VASCULAR AREA (VA)

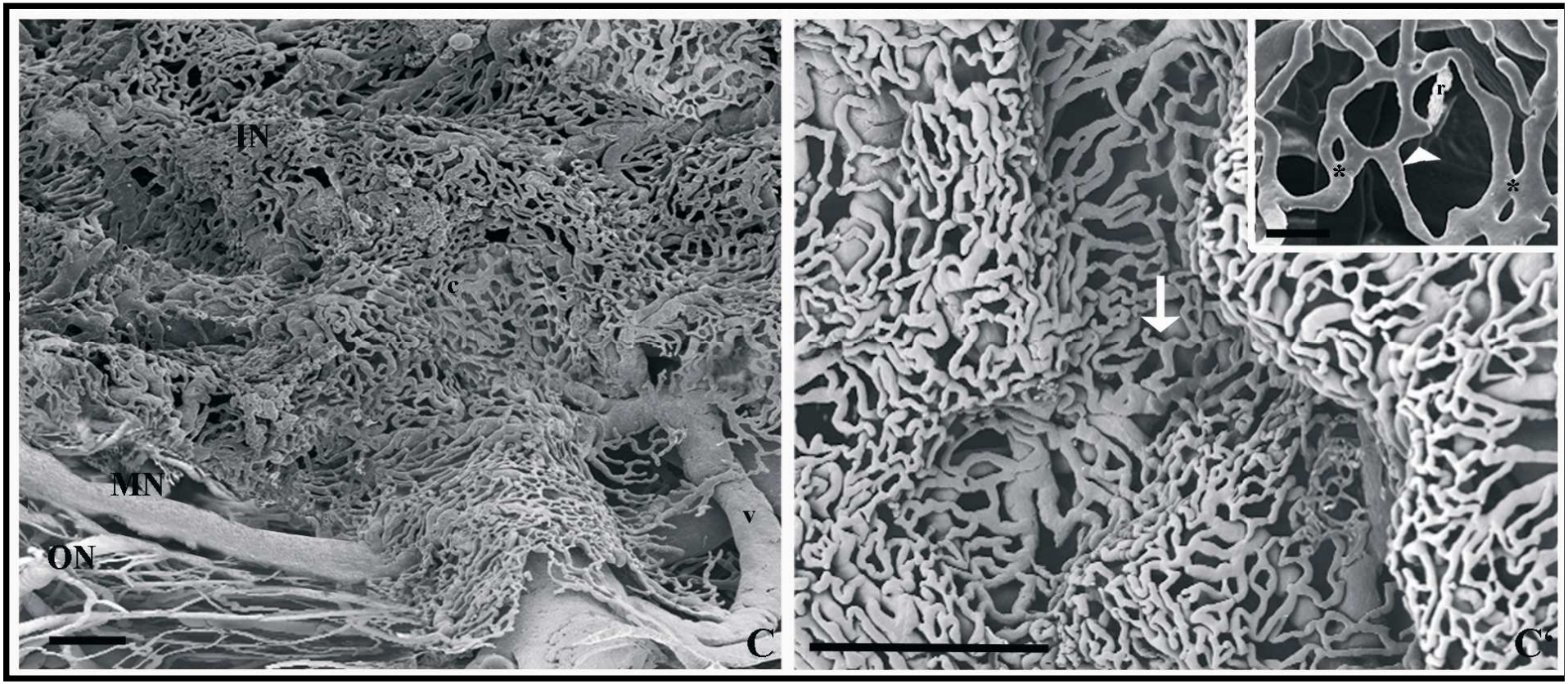
	60h-eCG	18h-hCG	36h-hCG
EPI (%)	11.43 ± 3.11 [a]	0.35 ± 0.24 [b]	14.28 ± 2.98 [a]







PERIOVULATORY FOLLICLES (LATE)



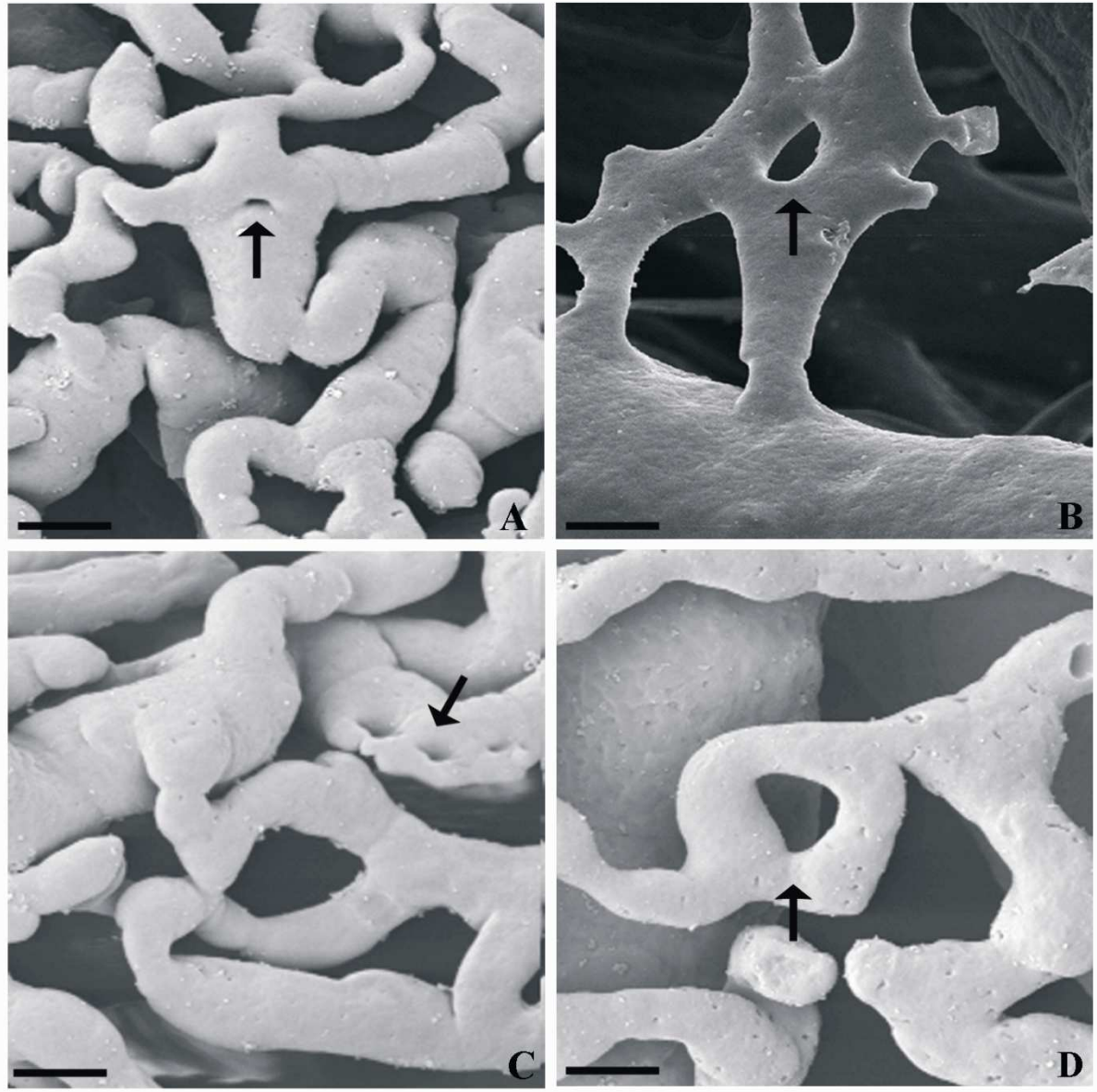
c= capillaries, v= veins, a= arterioles, IN, MN and ON = inner, middle, and outer network, r= resin leakage artifacts, ⇧= sprouting, △= budding, ✱= infolding-intussusception

Bar= 100 µm

Bar in insert panel= 25 µm

PERIOVULATORY FOLLICLES (LATE)

A= intussusceptive branching remodelling



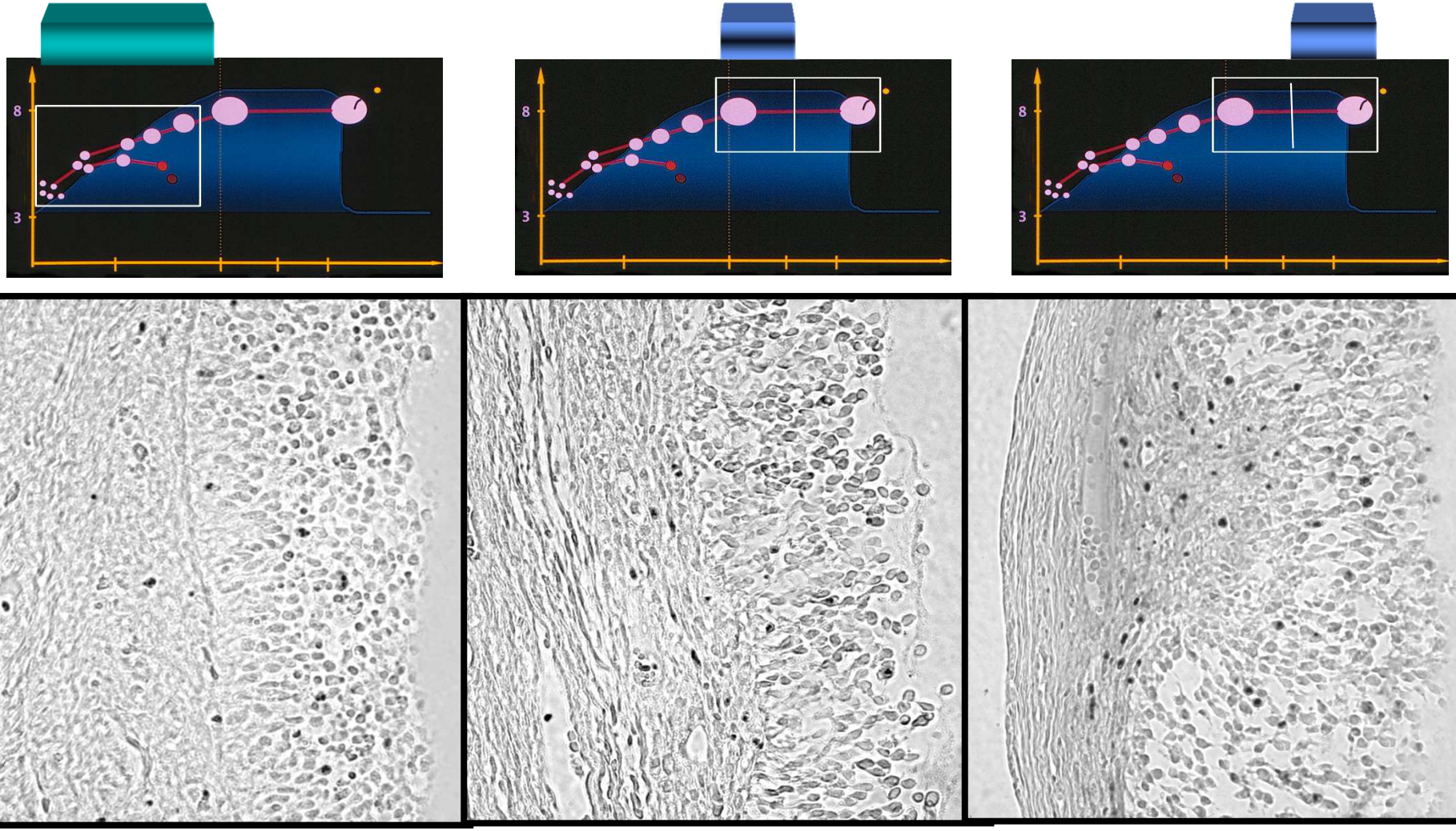
B= intussusceptive branching remodelling

C= intussusceptive arborisation

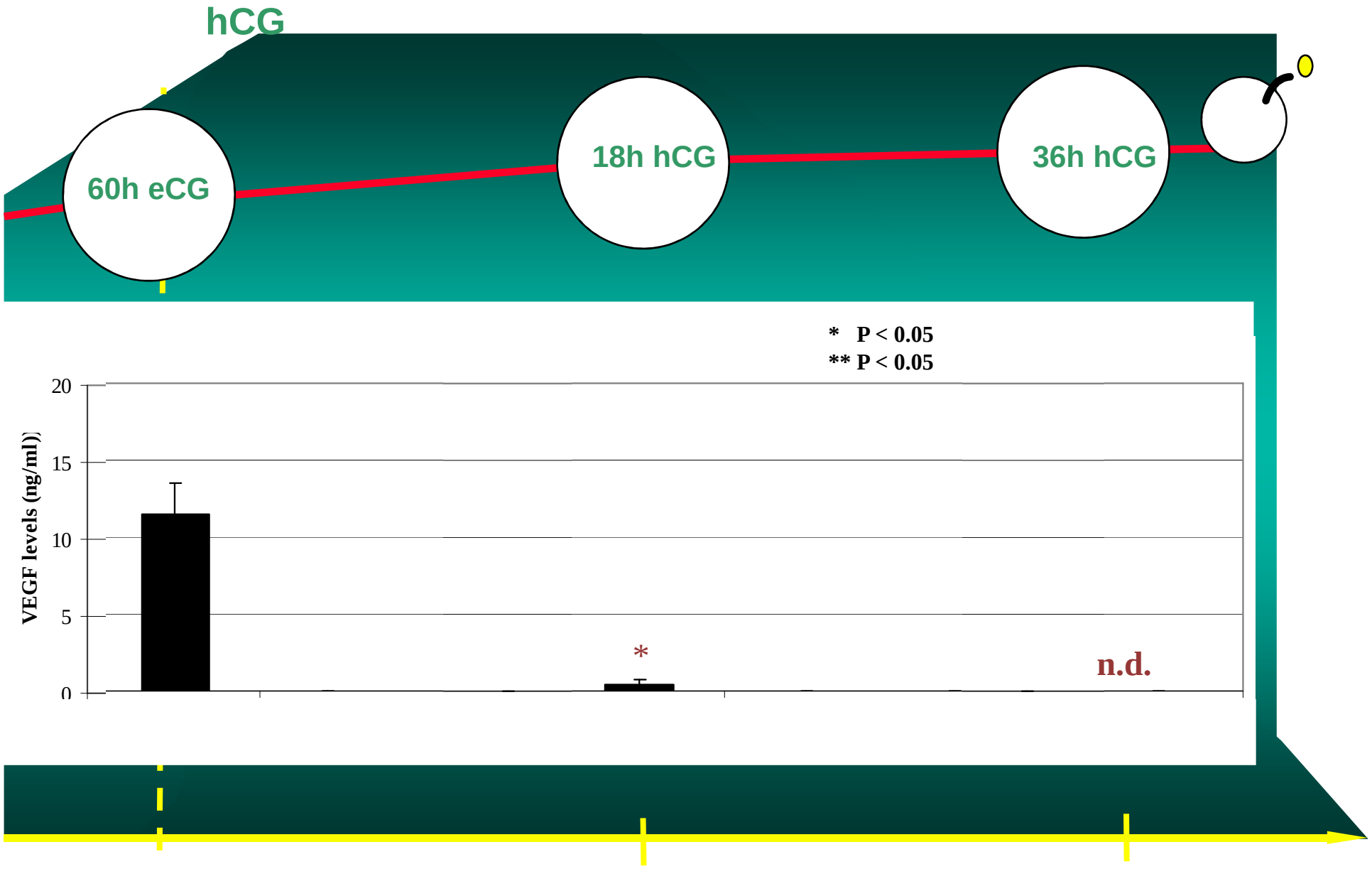
D= intussusceptive microvascular growth

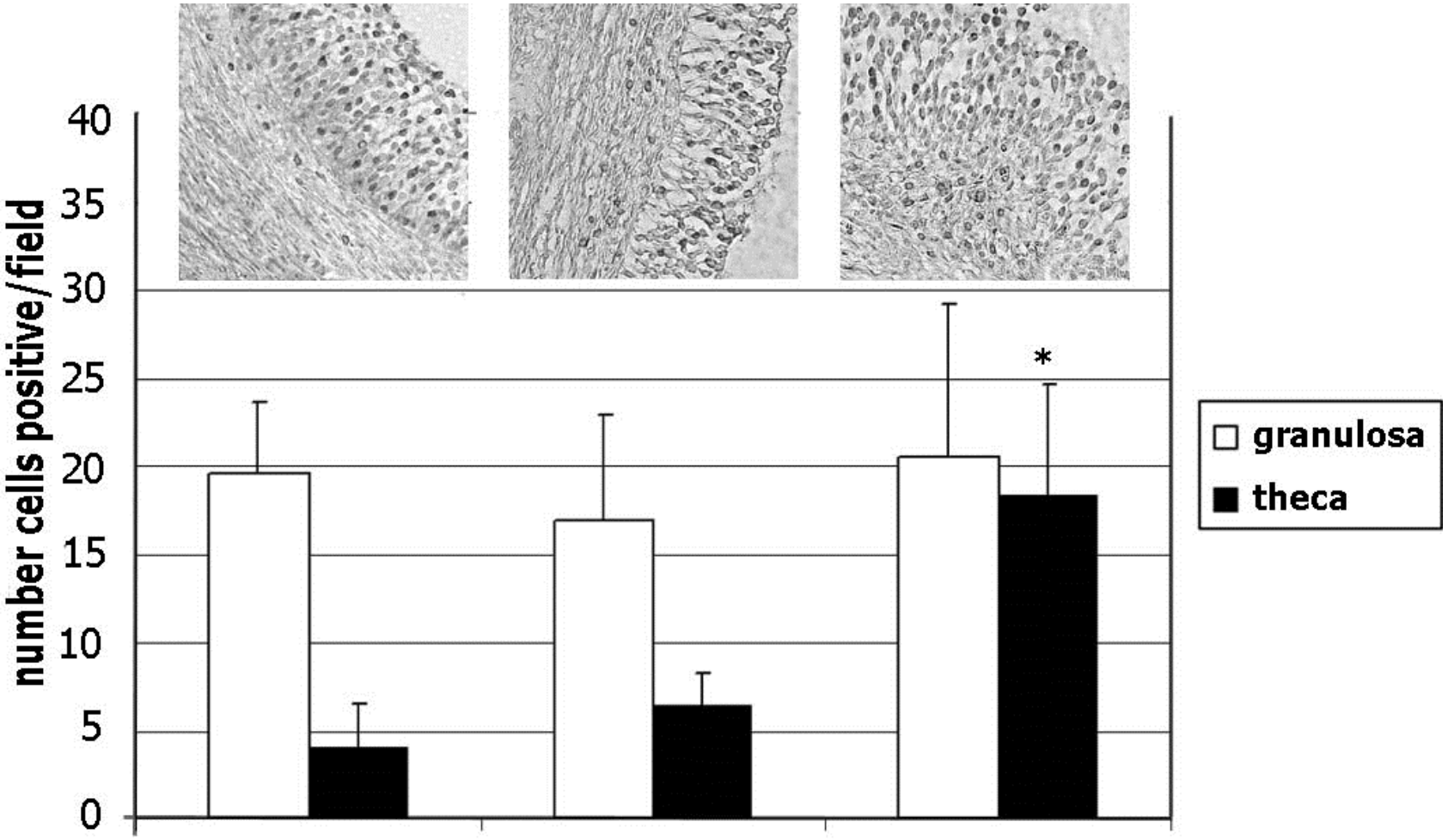
Bar= 100 µm

VEGF localization



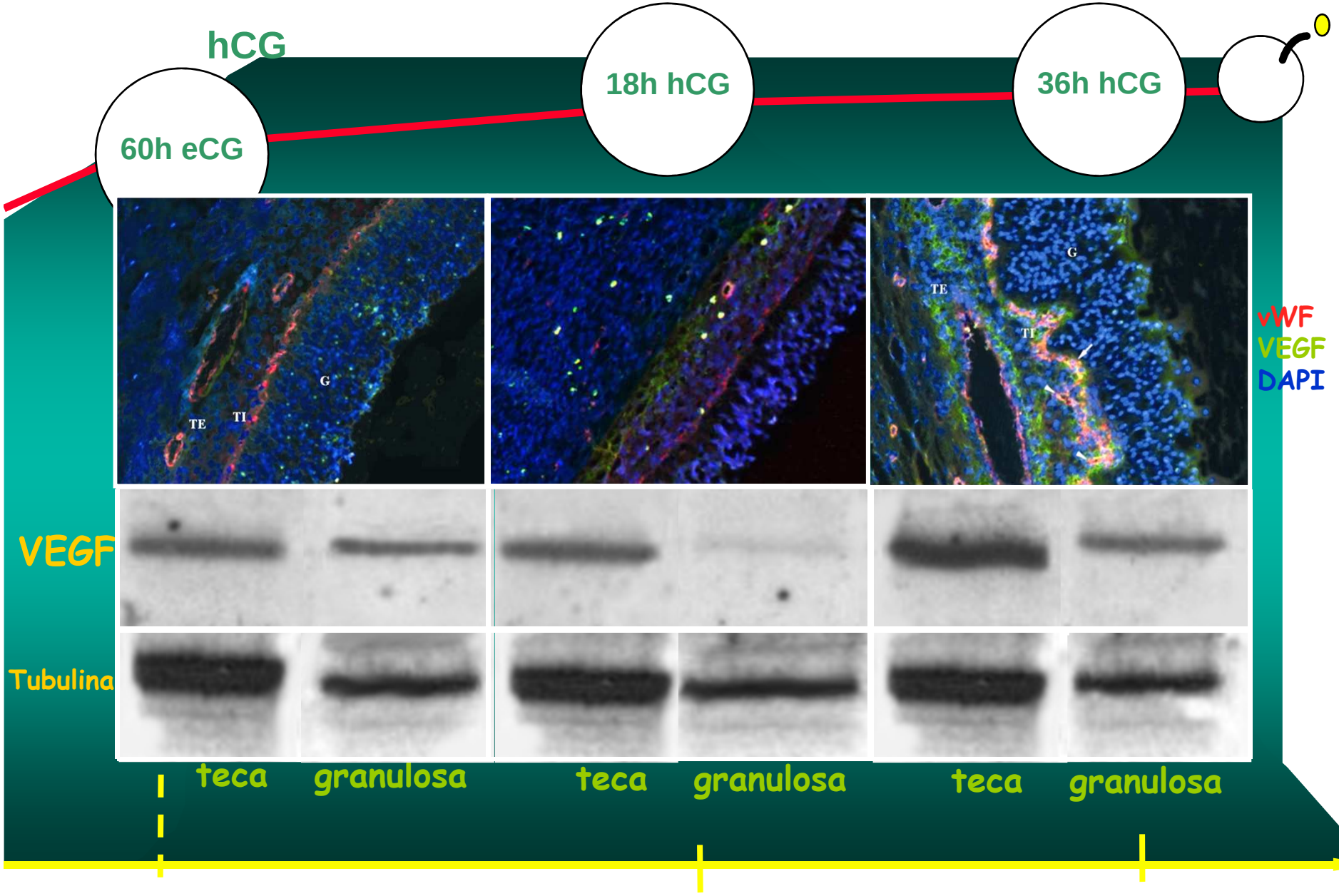
VEGF in follicular fluid

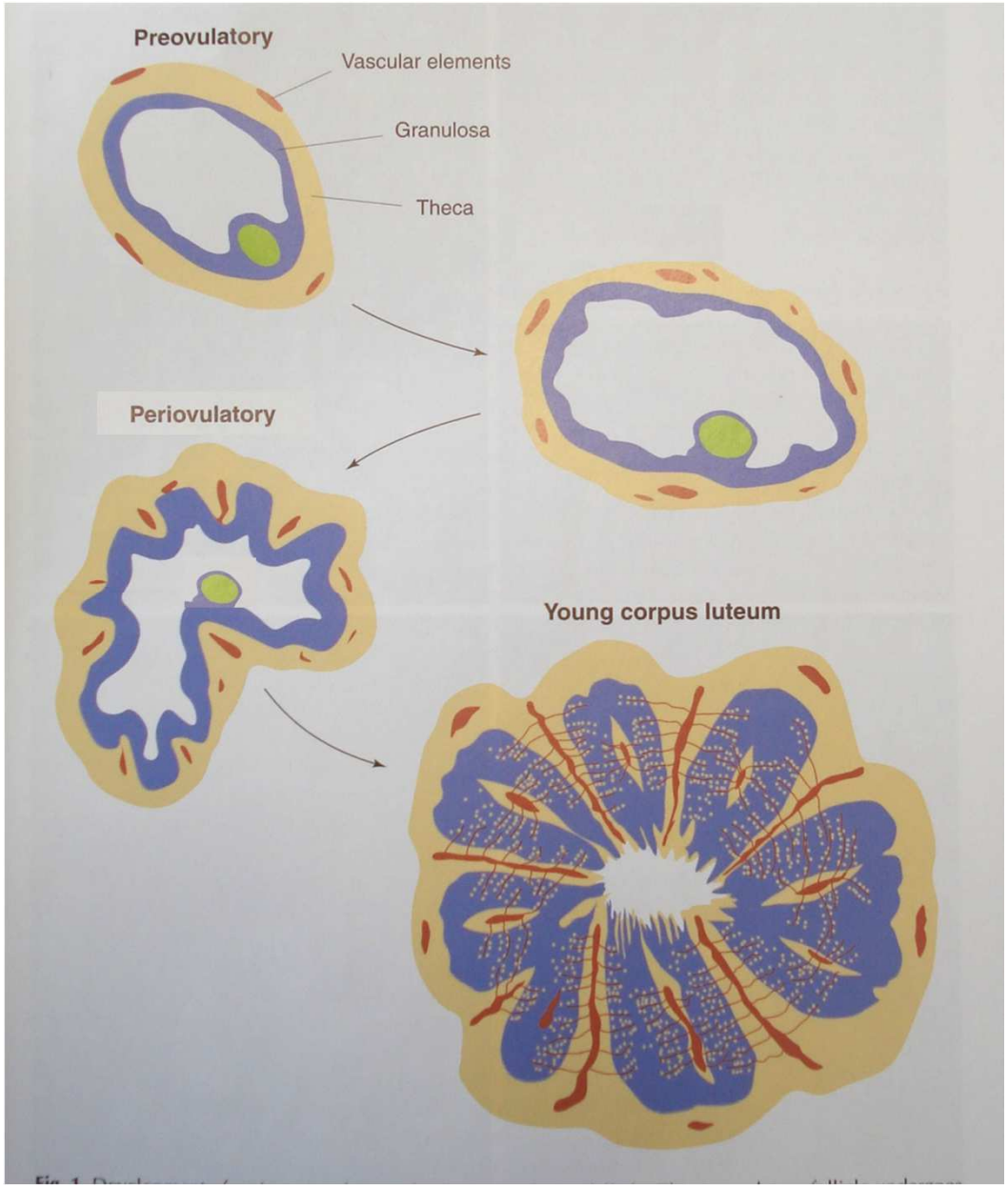



number cells positive/field
40
35
30
25
20
15
10
5
0
*
granulosa
theca

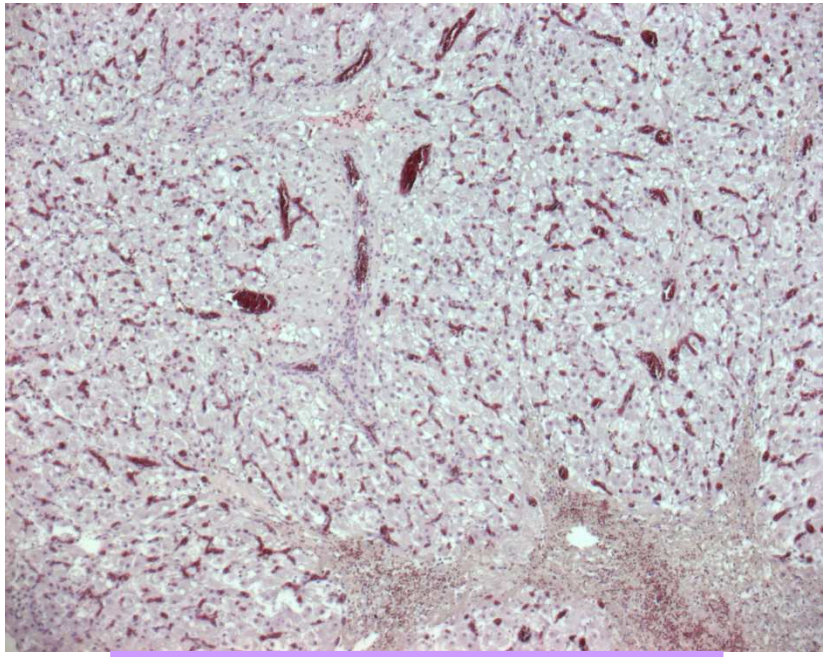
ISH

VEGF


hCG
60h eCG
18h hCG
36h hCG
TE
TI
G
vWF
VEGF
DAPI
VEGF
Tubulina
teca
granulosa
teca
granulosa
teca
granulosa

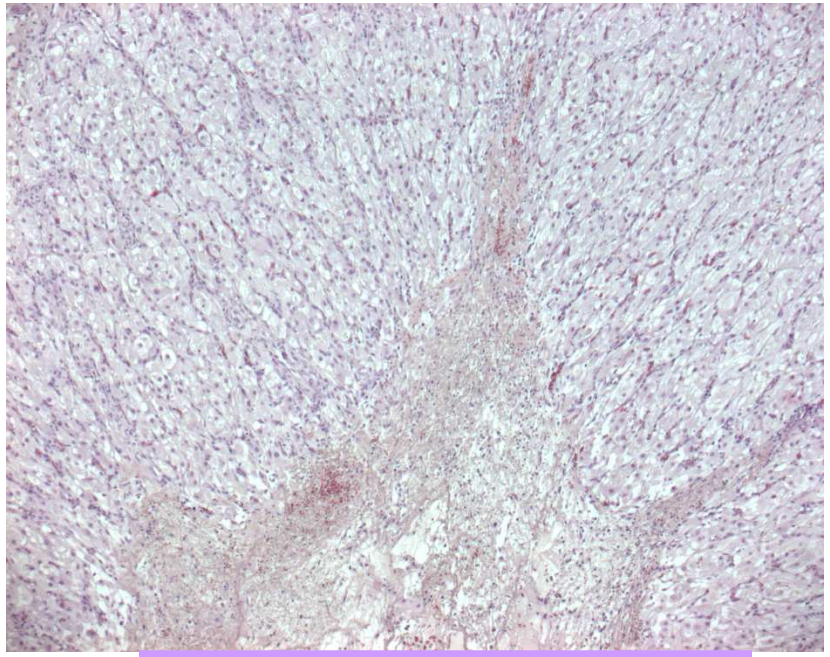

Preovulatory
Vascular elements
Granulosa
Theca
Periovulatory
Young corpus luteum

Corpus luteum (5gg)



VA (μm^2)	634.79 ± 125.46

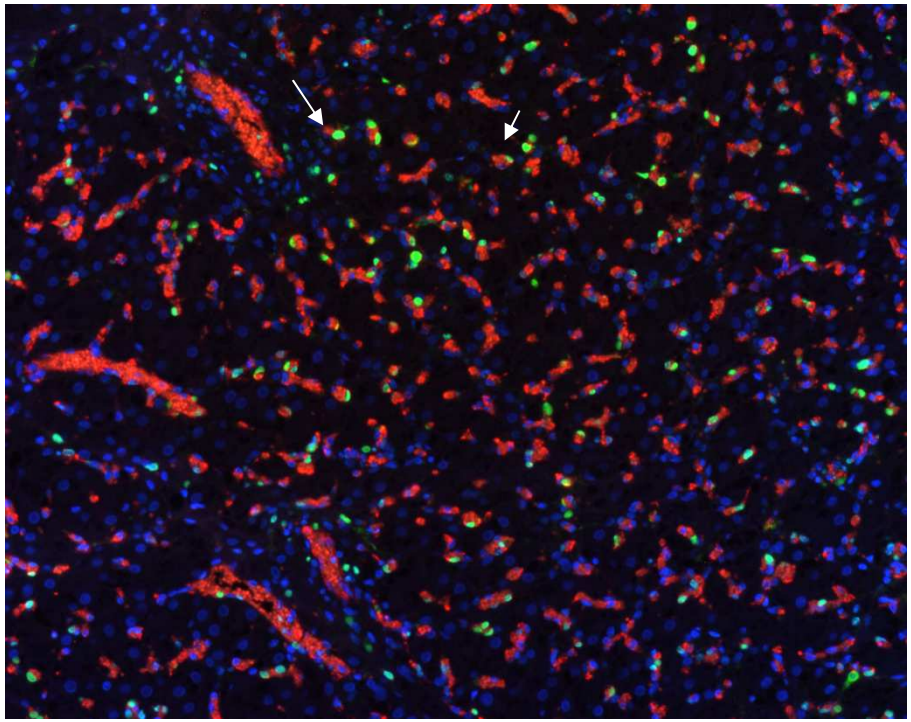
CTR



VA (μm^2)	223.45 ± 98.21 *

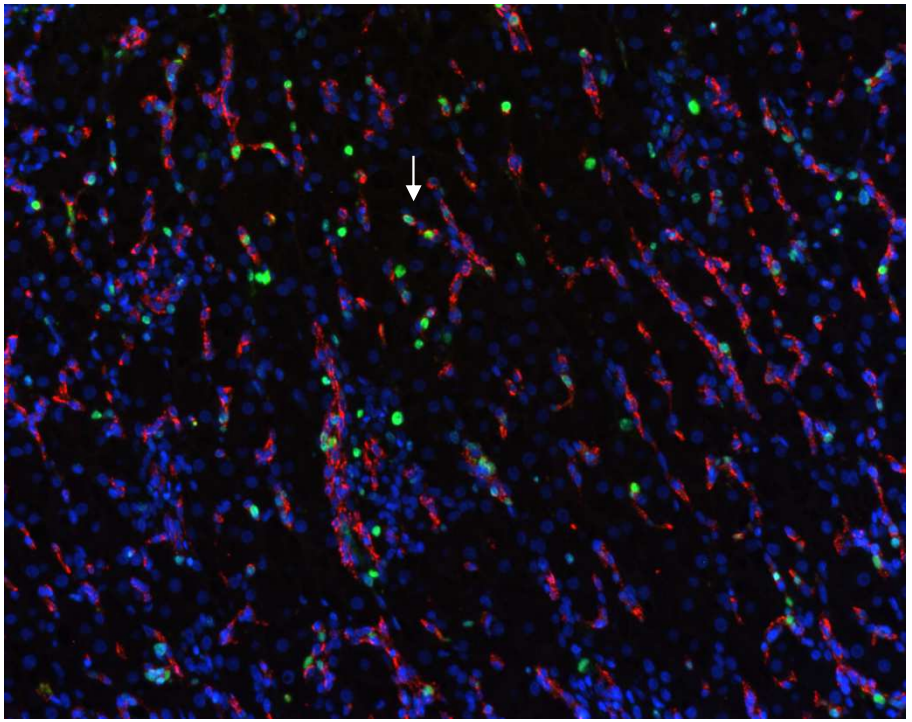
* P < 0.001

Corpus luteum (5gg)



PI (%)	13.42 ± 2.01

CTR



PI (%)	6.14 ± 2.28

FvW-Ki-67-DAPI