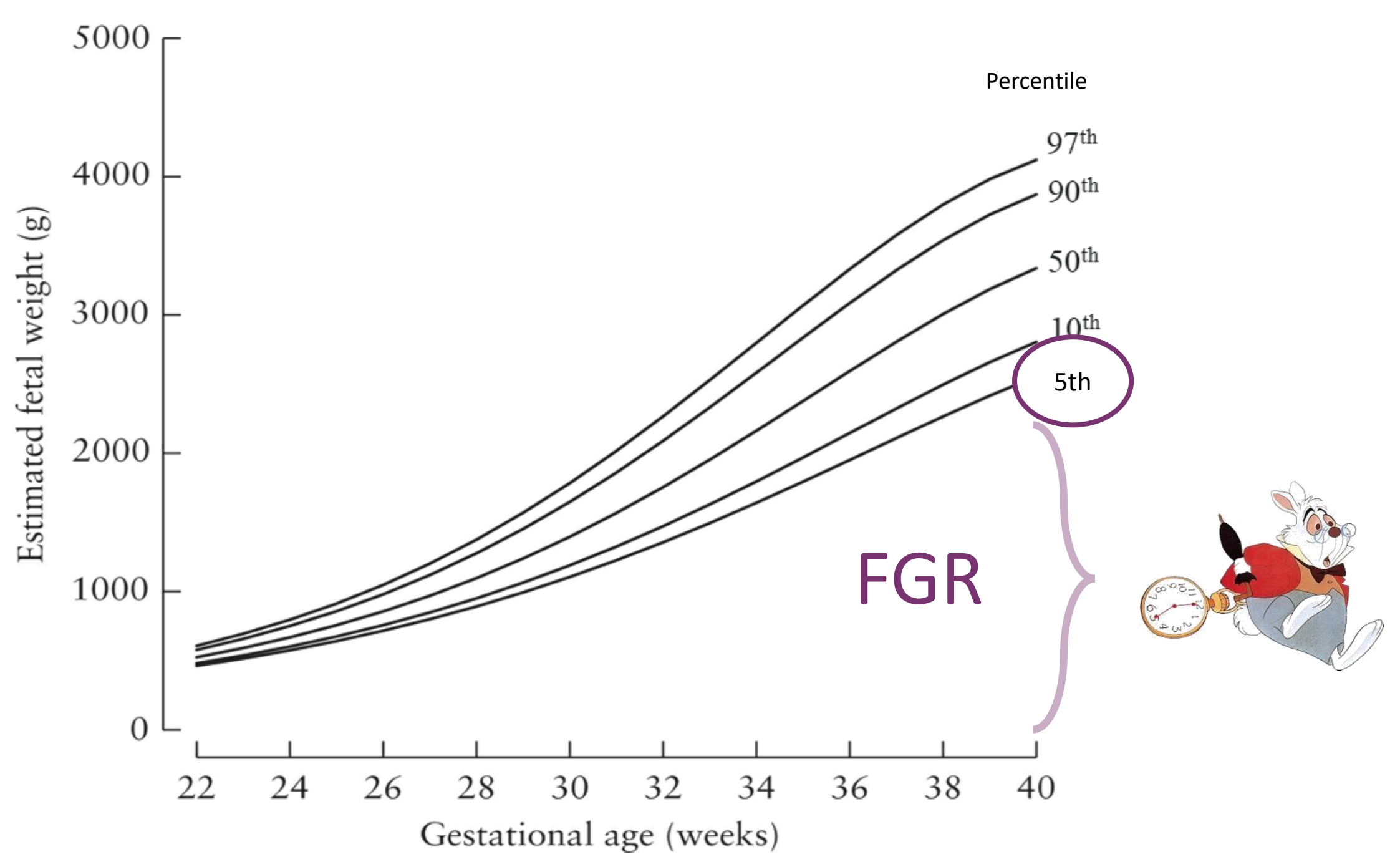




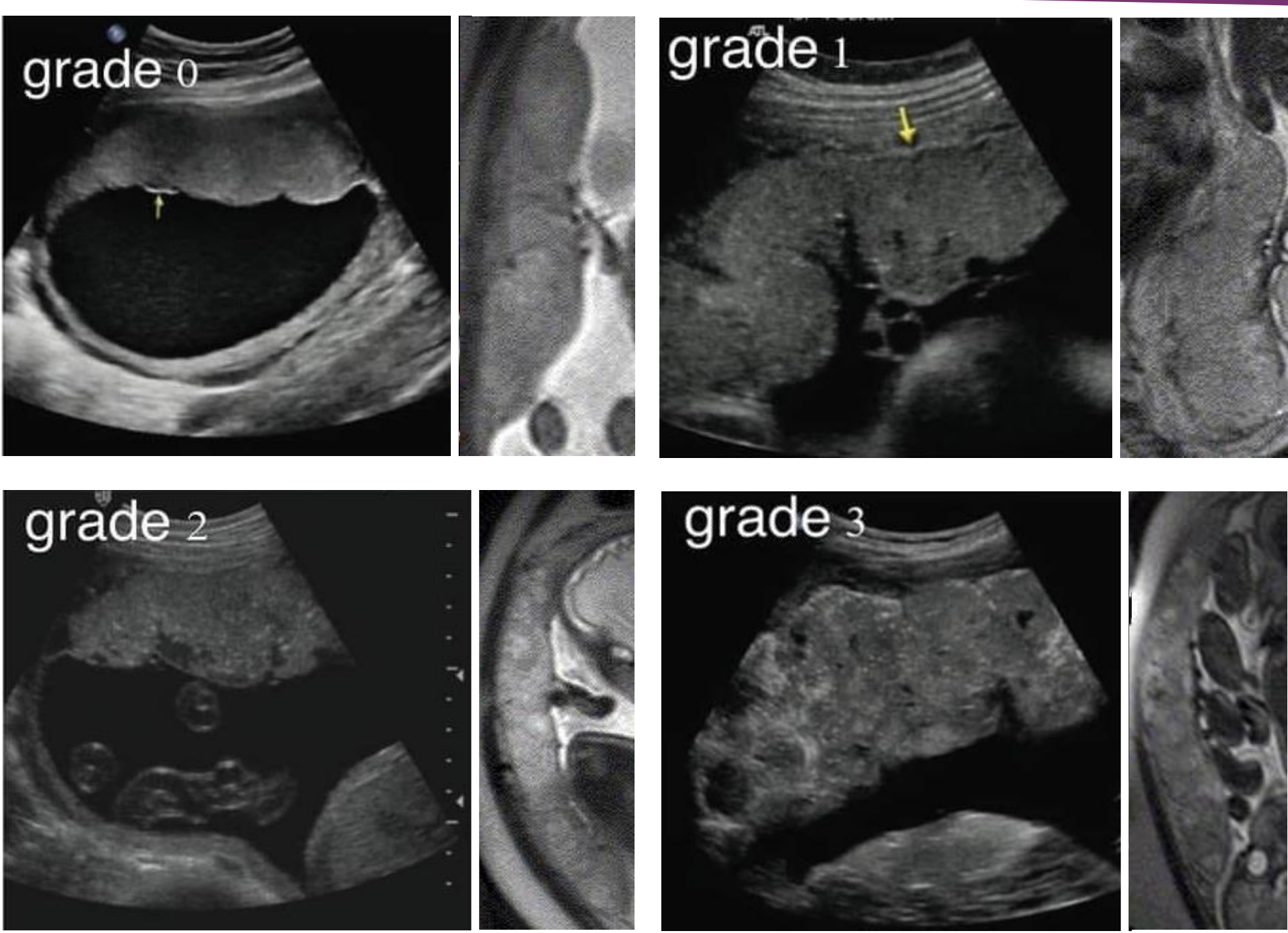
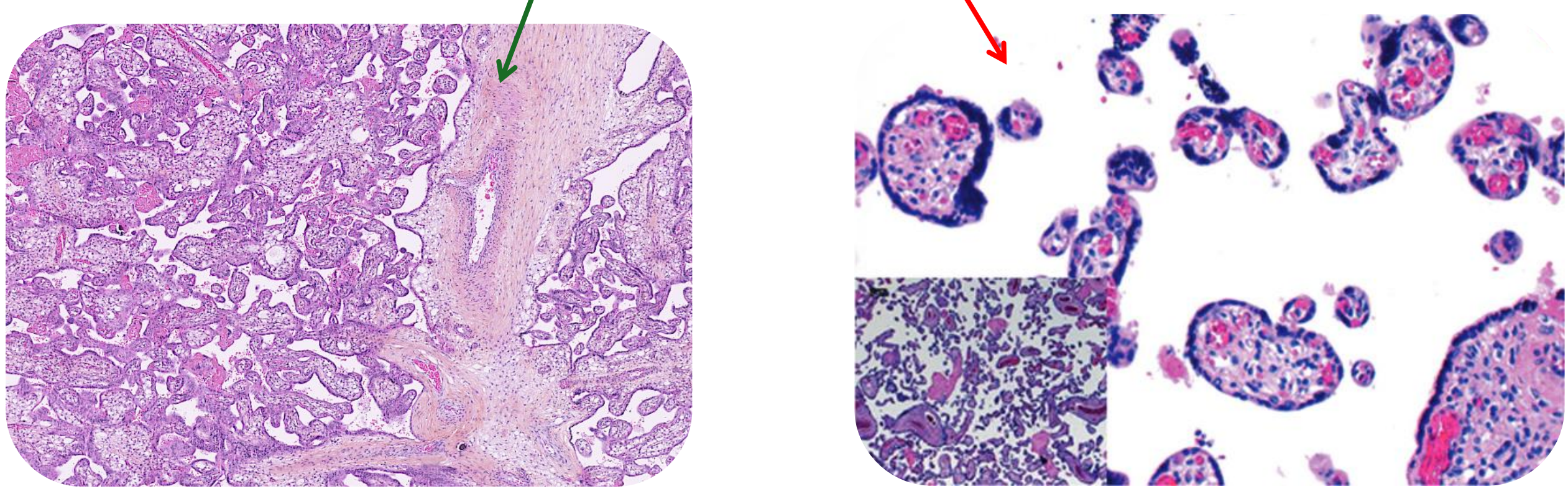
What is FGR ?

⊕ Mortality & Morbidity
(metabolic → obesity,
hypertension, diabete II)



Why ?

Placental vascular failure
≠ Between healthy and FGR placenta texture



Grannum grades with
ultrasound (left)
and MRI (right)

I. Cohort

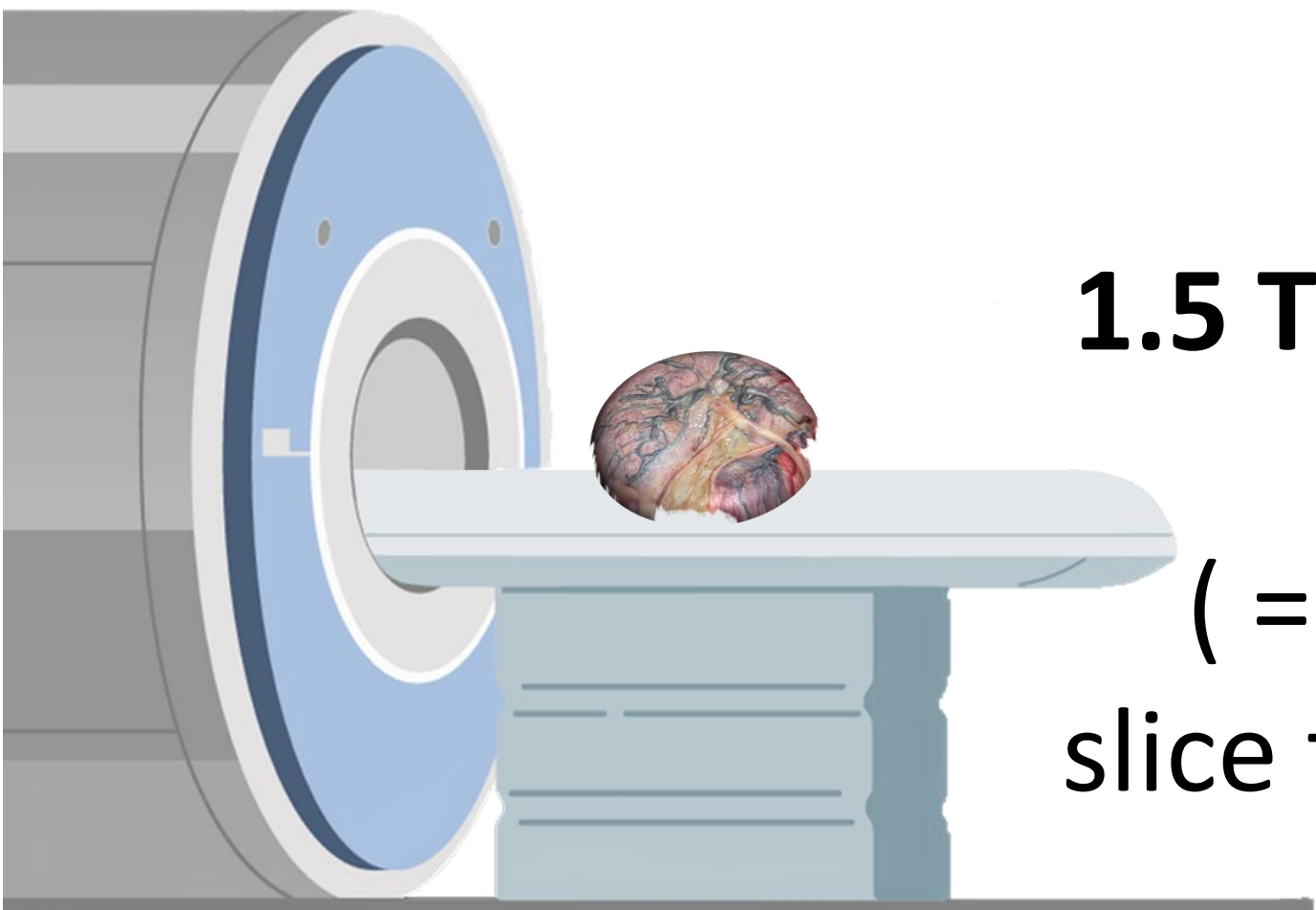


Newborn	Healthy (n=9)	FGR (n=6)
GA at birth (median) [min ; max]	39+4 [38+3 ; 41+2]	40 [37+2 ; 41+3]
Sex (male/female)	5 / 4	4 / 1
Weight at birth (g) [min ; max]	3250 [2750 ; 4090]	2462,50 [1730 ; 2765]
Percentile [min ; max]	39,32 [9,18 ; 56,72]	0,36 [0 ; 2,41]

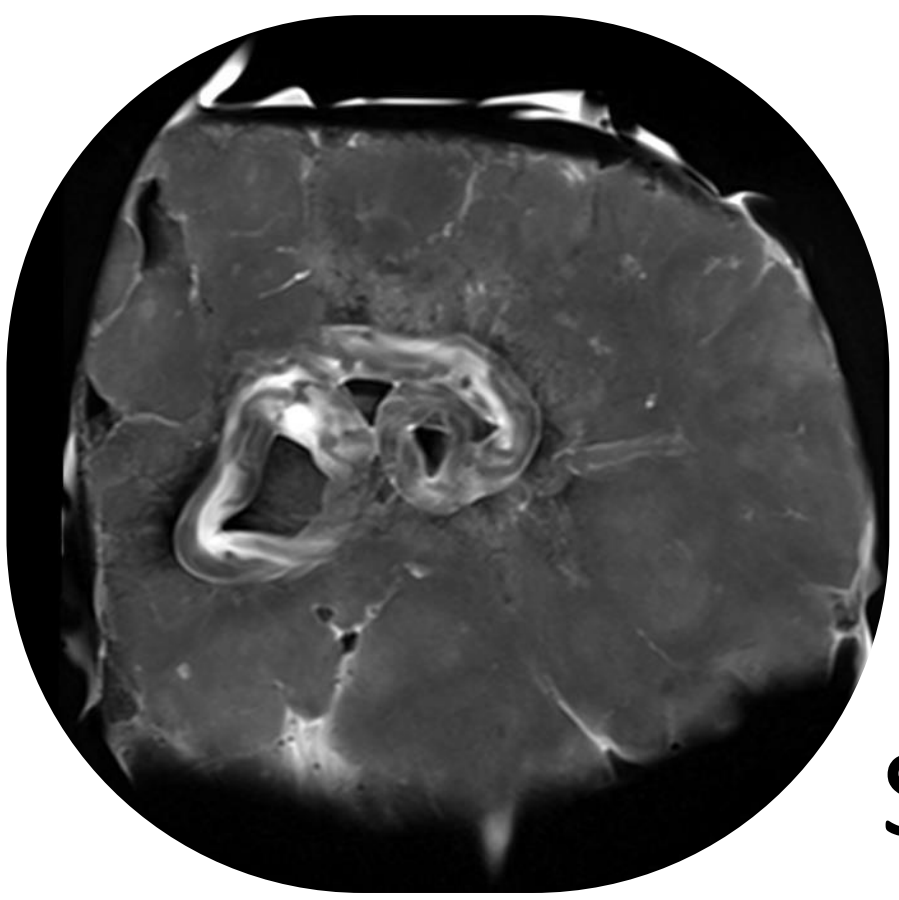


Placenta (ex vivo)	Healthy (n=9)	FGR (n=6)
Volume (cm ³) [min ; max]	499,5 [89,5 ; 760] <i>Two missing</i>	240 [22,5 ; 627] <i>One missing</i>
Weight (g) [min ; max]	356 [317 ; 488] <i>Five missing</i>	308 [228 ; 542]

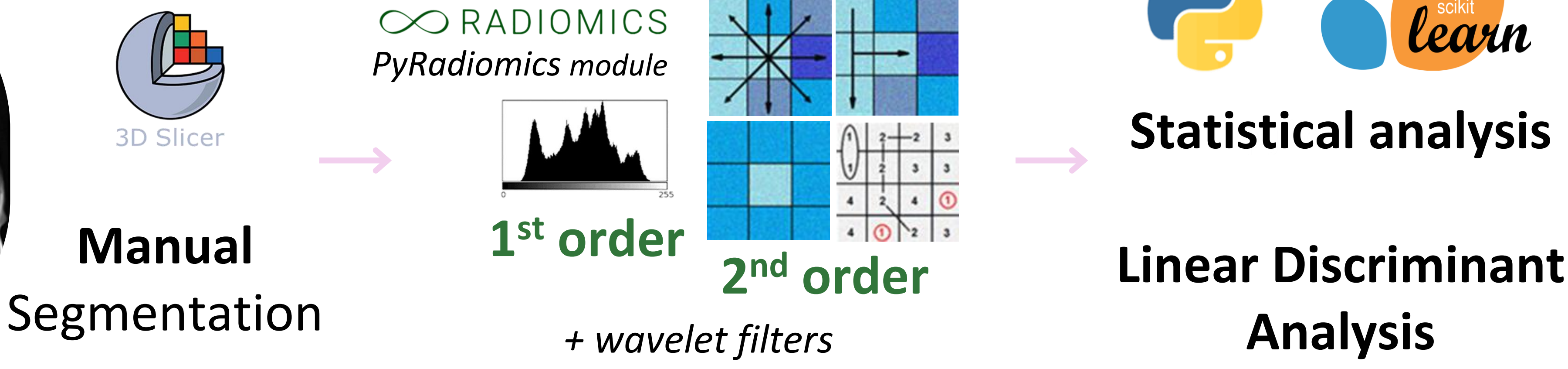
II. Acquisitions



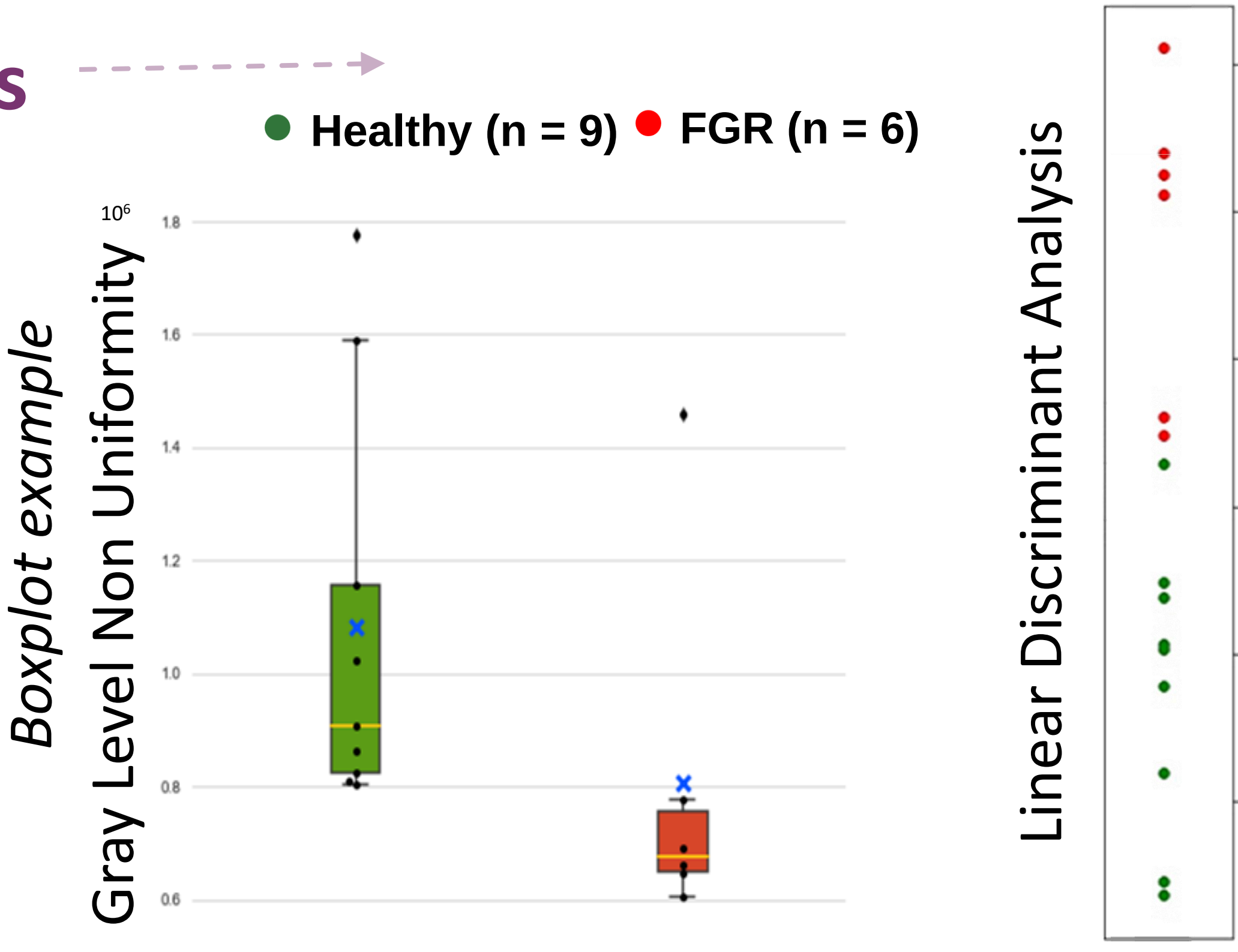
1.5 T whole-body unit
T2-WI SPACE
(= Turbo Spin Echo)
slice thickness = 1,20 mm



III. Placental Texture Analysis



IV. Results



Perspectives

Assess : radiomics reproducibility and transferability
(from one sequence, one population or one device to another).
Correlate : image modalities (ultrasound and MRI) with histopathology.

CONCLUSION

Radiomics show potential to identify differences between healthy and FGR-related placentas, using techniques already in obstetrical practice

Limitations

Very small cohort
Lack of histological comparison