

SYMPOSIUM SFP - CARREFOUR PATHOLOGIE 2019

**ACTUALITES EN
PATHOLOGIE RENALE TUMORALE**

Classification des tumeurs du rein :
Algorithme diagnostique
Sophie Ferlicot

CHU de Bicêtre, Université Paris Saclay



Cellules claires

Architecture
papillaire

Tumeur de haut
grade



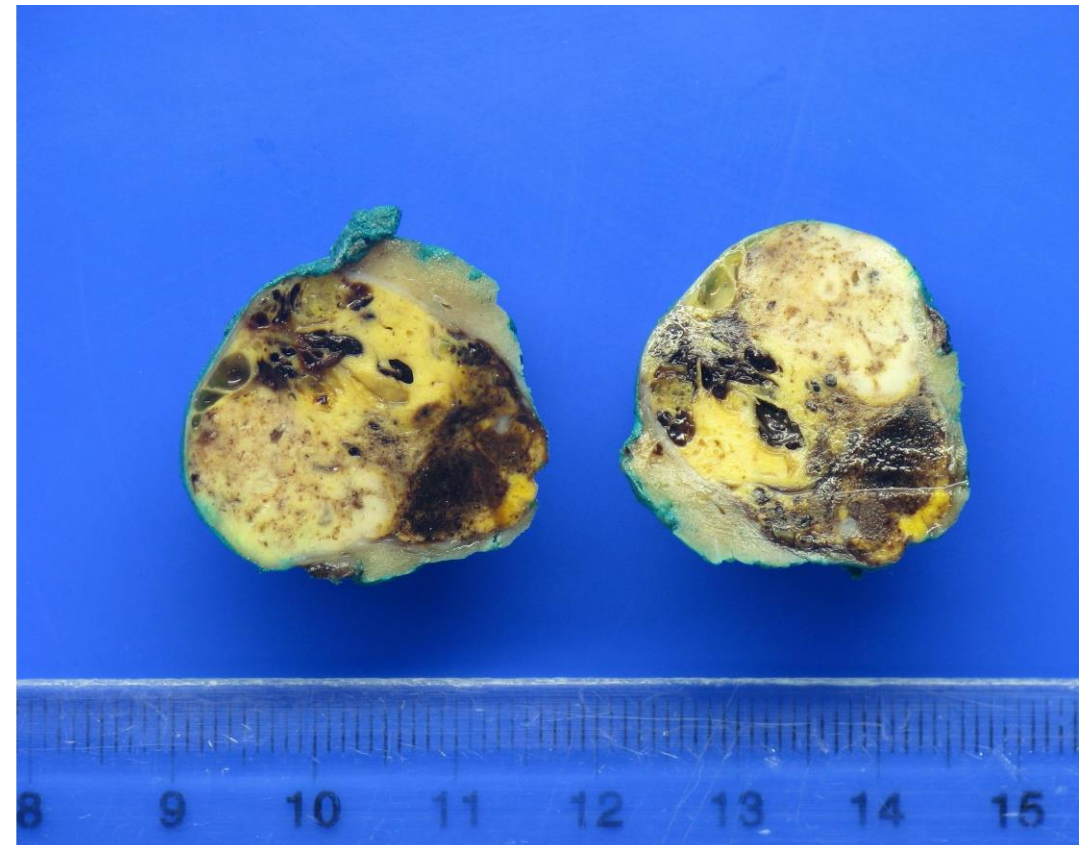
Architecture
fusiforme

Cellules éosinophiles

Tumeurs à cellules claires

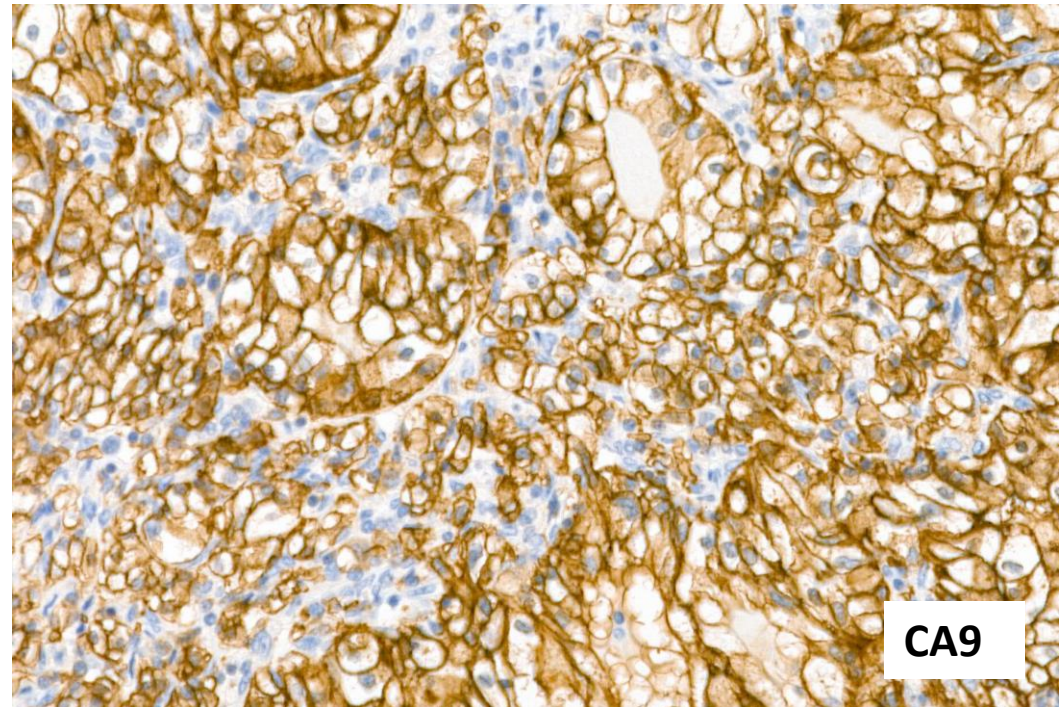
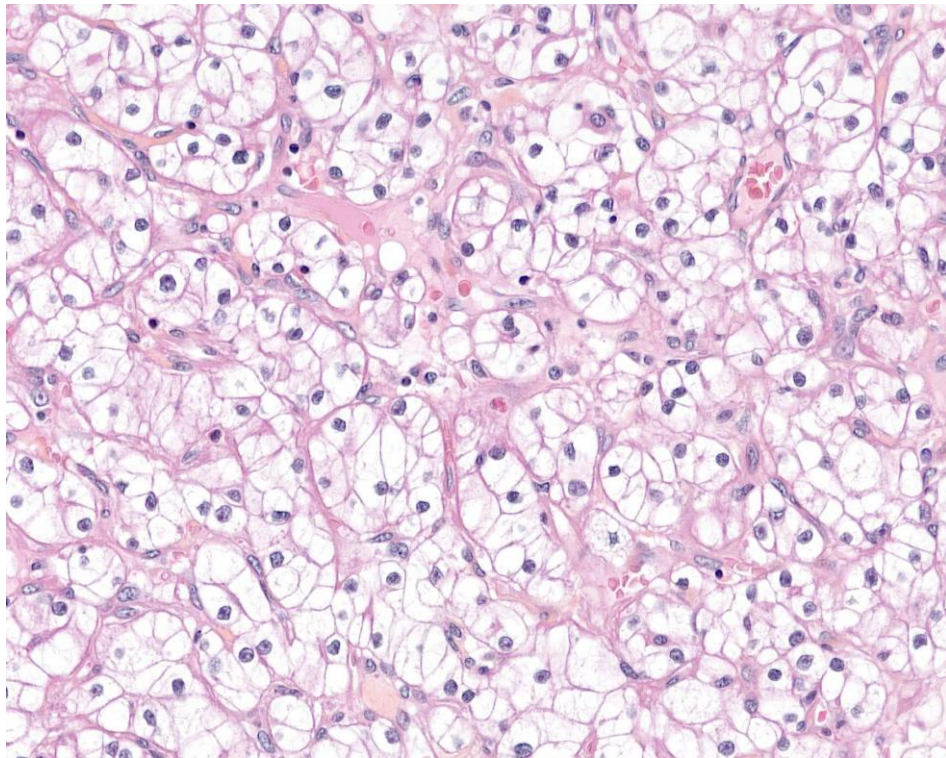
Carcinome rénal à cellules claires (ccRCC)

- Type histologique le plus fréquent (70-75% des tumeurs rénales).
- Aspect macroscopique évocateur.



Tumeurs à cellules claires

Carcinome rénal à cellules claires (ccRCC)



CA9 +, CK7 -, racémase -/+

Tumeurs à cellules claires

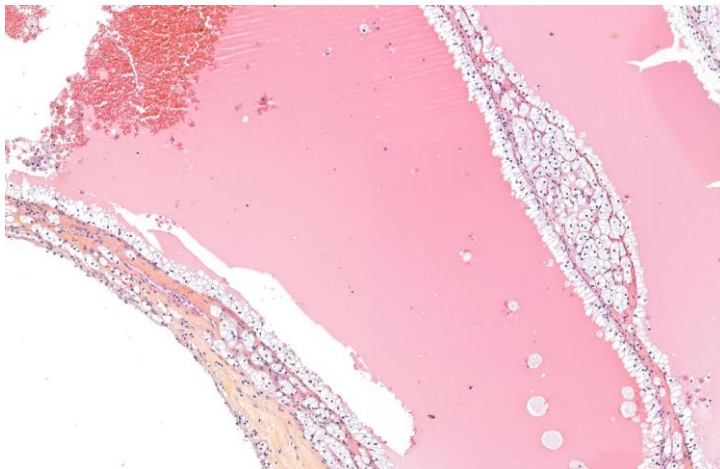
Diagnostics différentiels du carcinome rénal à cellules claires

- Néoplasie kystique multiloculaire à cellules claires
- Carcinome rénal papillaire à cellules claires
- Carcinome rénal à stroma léiomyomateux
- Carcinome rénal à translocation MiTF

Tumeurs à cellules claires

Néoplasie kystique multiloculaire à cellules claires

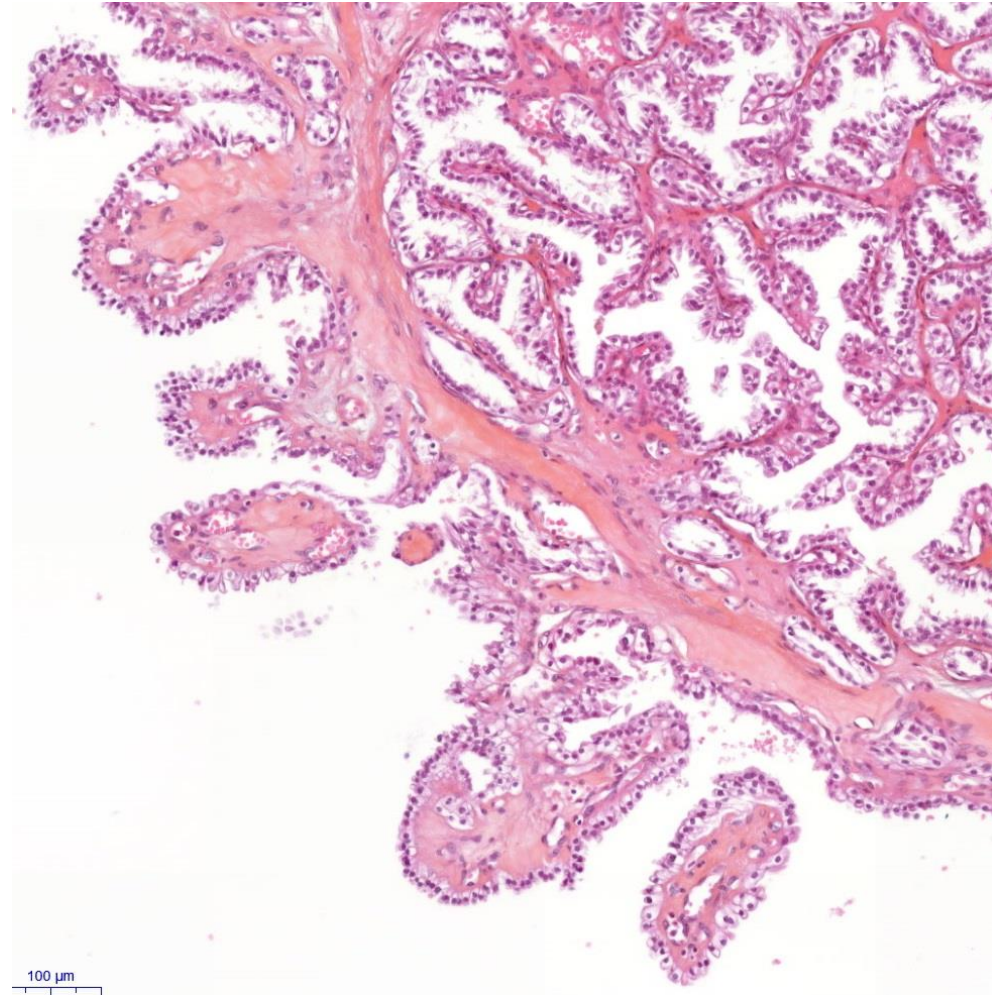
- < 1%.
- Aspect macroscopique évocateur : pas de contingent solide.
- Même profil immunohistochimique que le carcinome rénal à cellules claires.

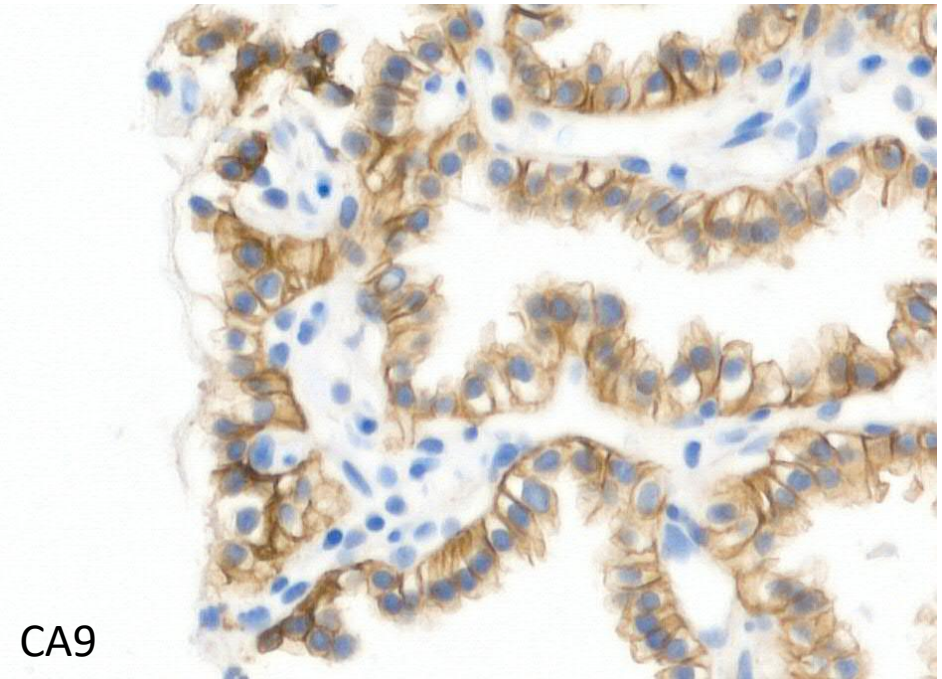
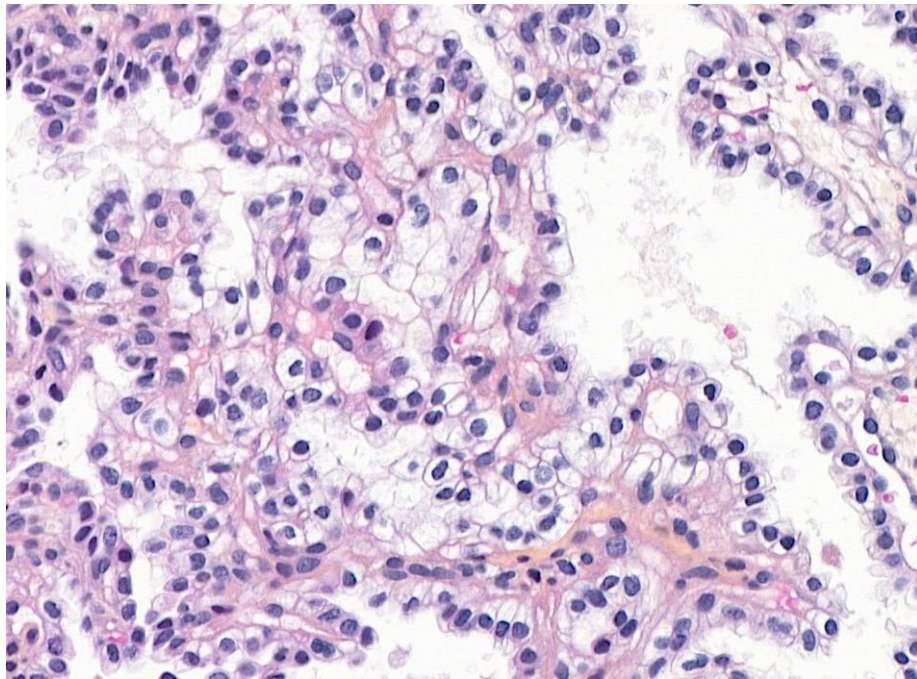


Tumeurs à cellules claires

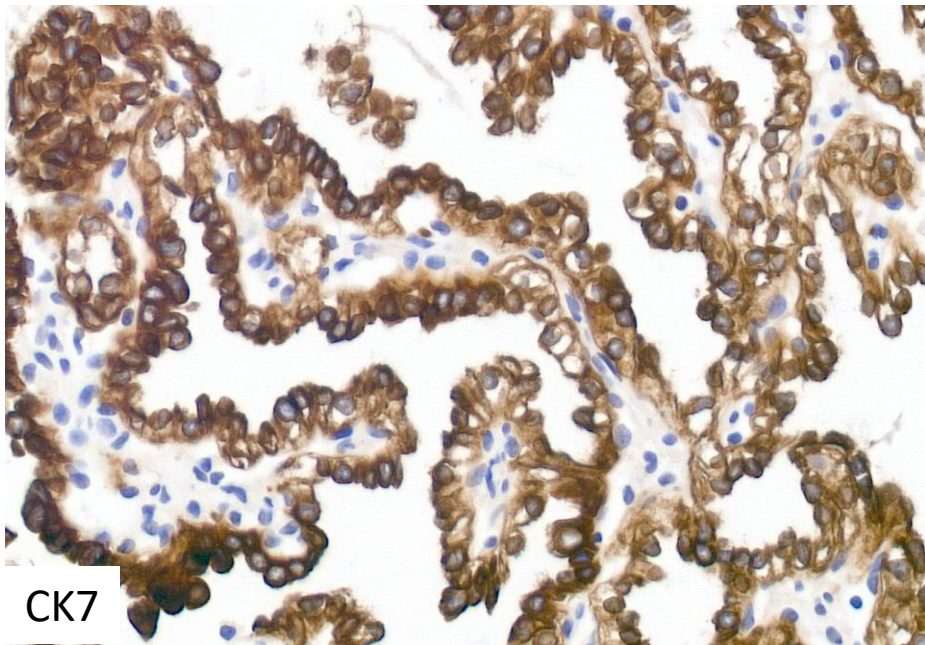
Carcinome rénal papillaire à cellules claires

- < 5%.
- Secteurs kystiques et des secteurs tubulo-papillaires.
- Aspect microscopique évocateur : disposition particulière des noyaux alignés en position supra-basale.

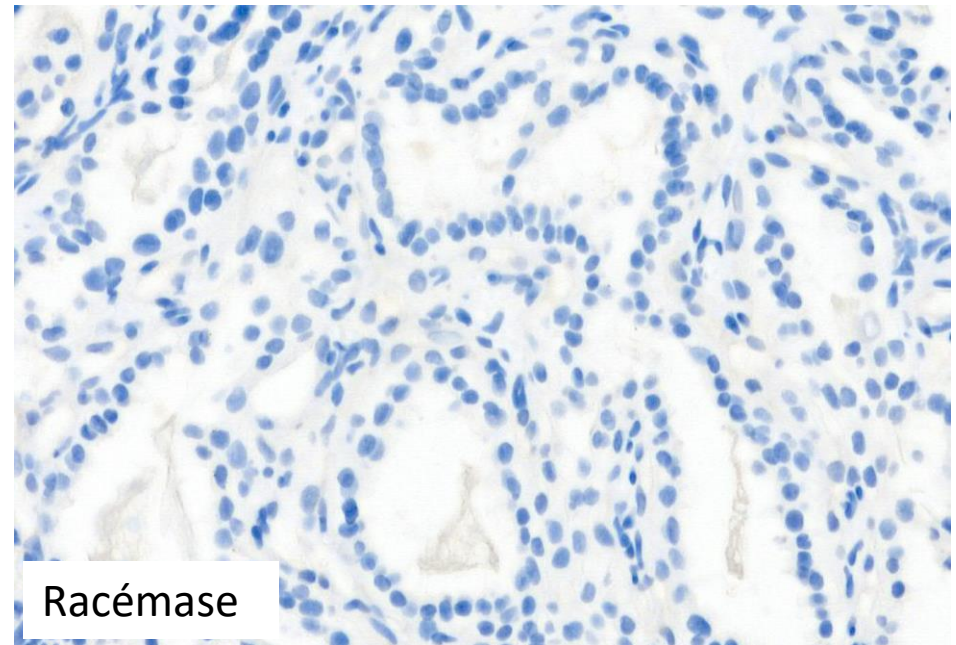




CA9



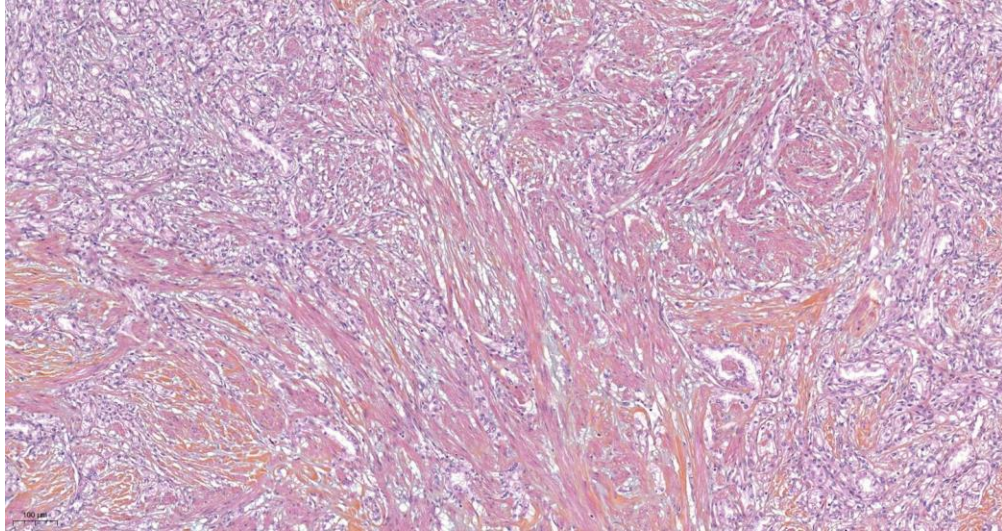
CK7



Racémase

Tumeurs à cellules claires

Carcinome rénal à stroma léiomyomateux

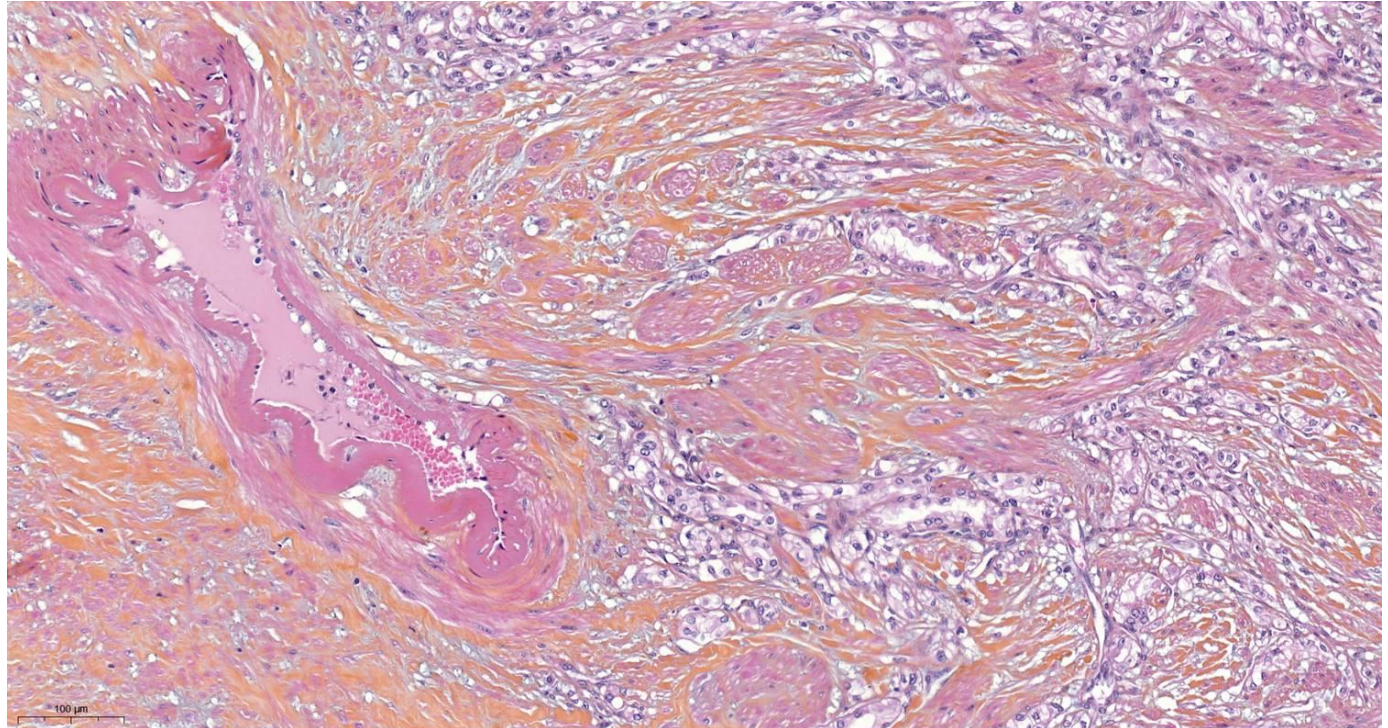


CA9 + en cupule

CK7 +

Racémase -

Vimentine +

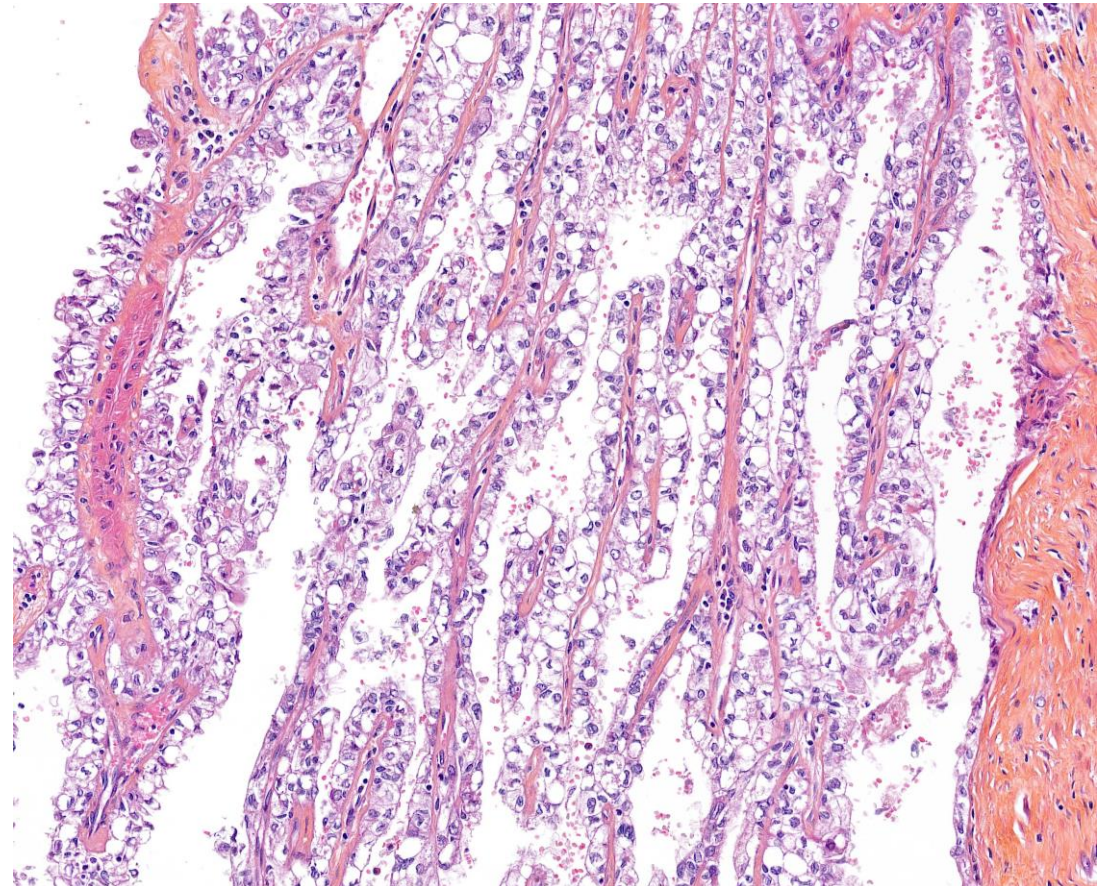


Tumeurs à cellules claires

Carcinome rénal à translocation MiTF (TFE3, TFEB)

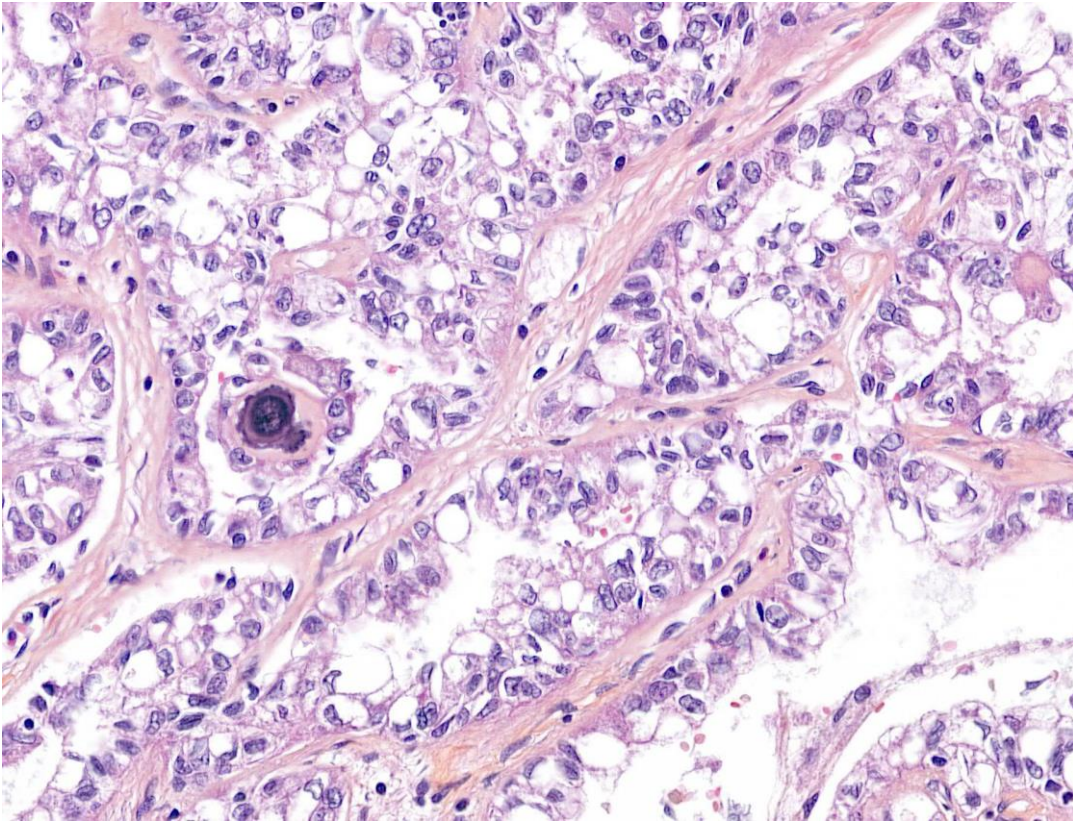
Y penser devant :

- Sujet jeune.
- Signes microscopiques inhabituels pour un ccRCC :
 - Nombreux psammomes (TFE3)
 - Double contingent cellulaire (TFEB)

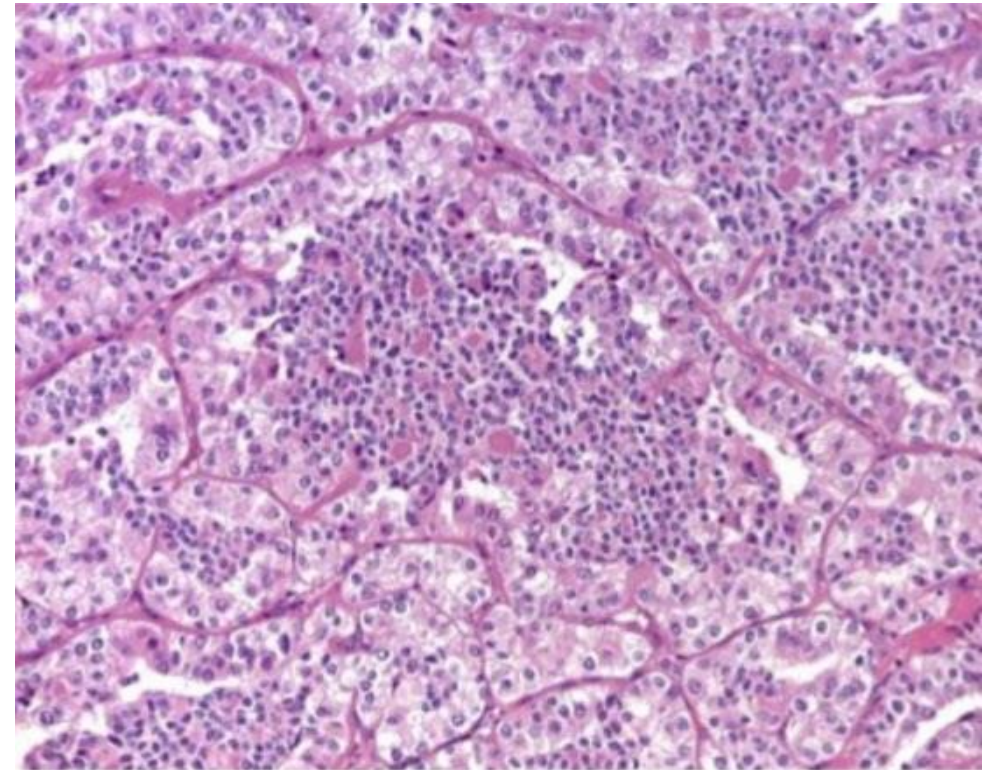


Tumeurs à cellules claires

Carcinome rénal à translocation MiTF



TFE3

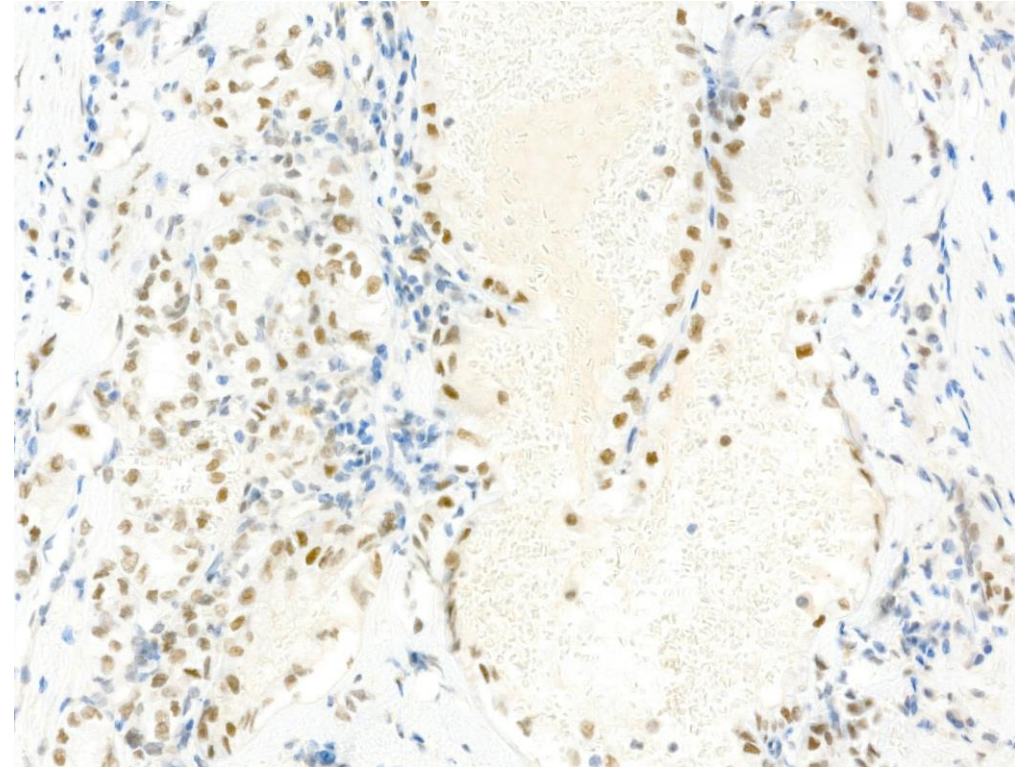
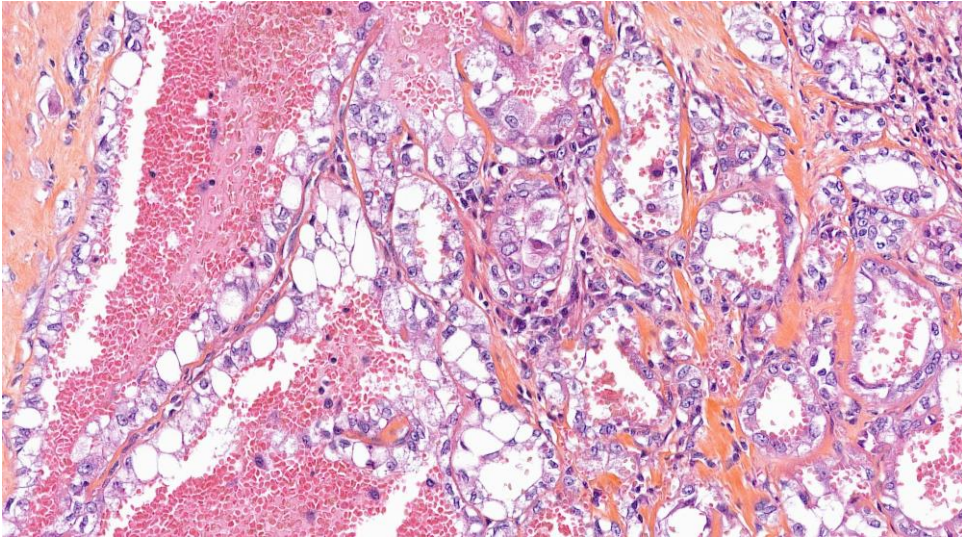


D'après Calio., Cancers 2019

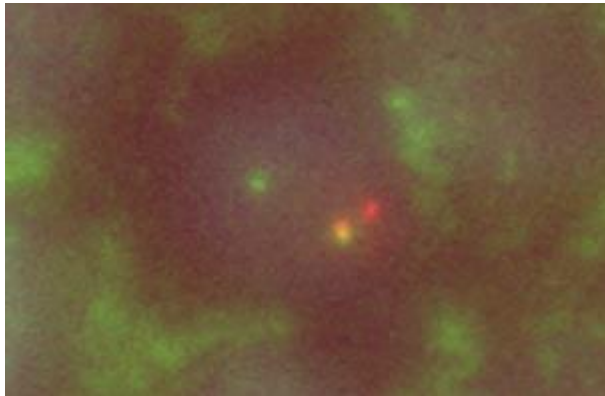
TFEB

Tumeurs à cellules claires

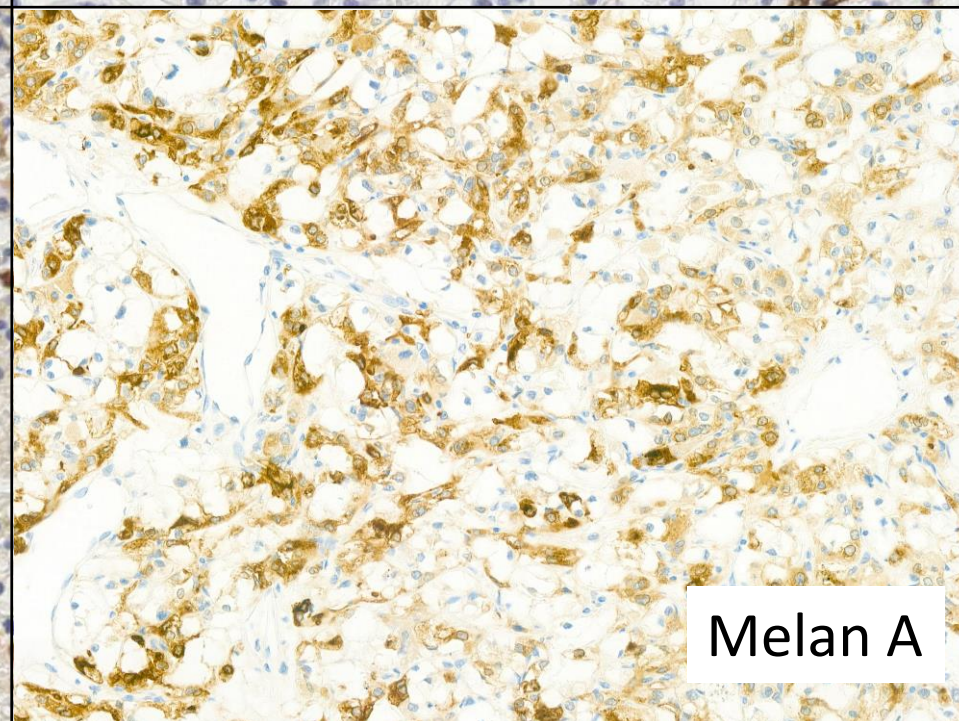
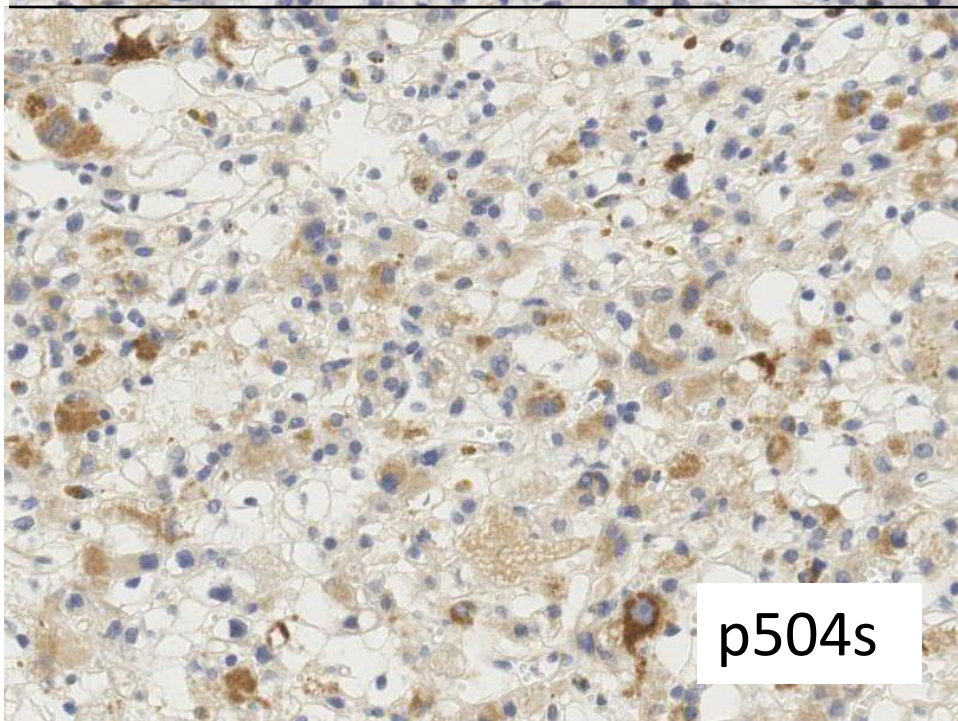
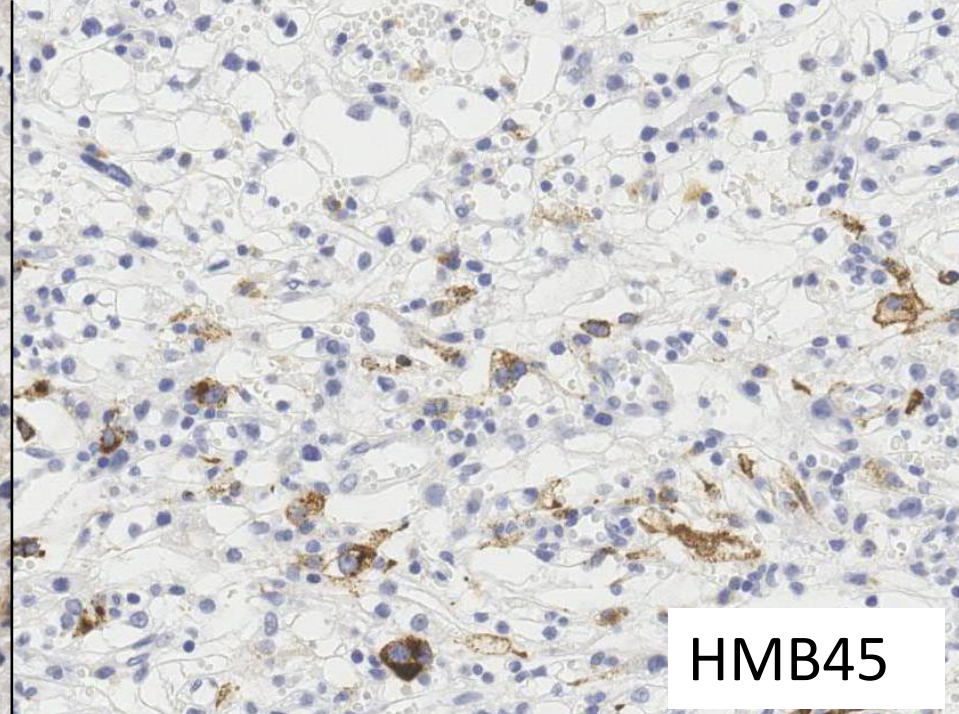
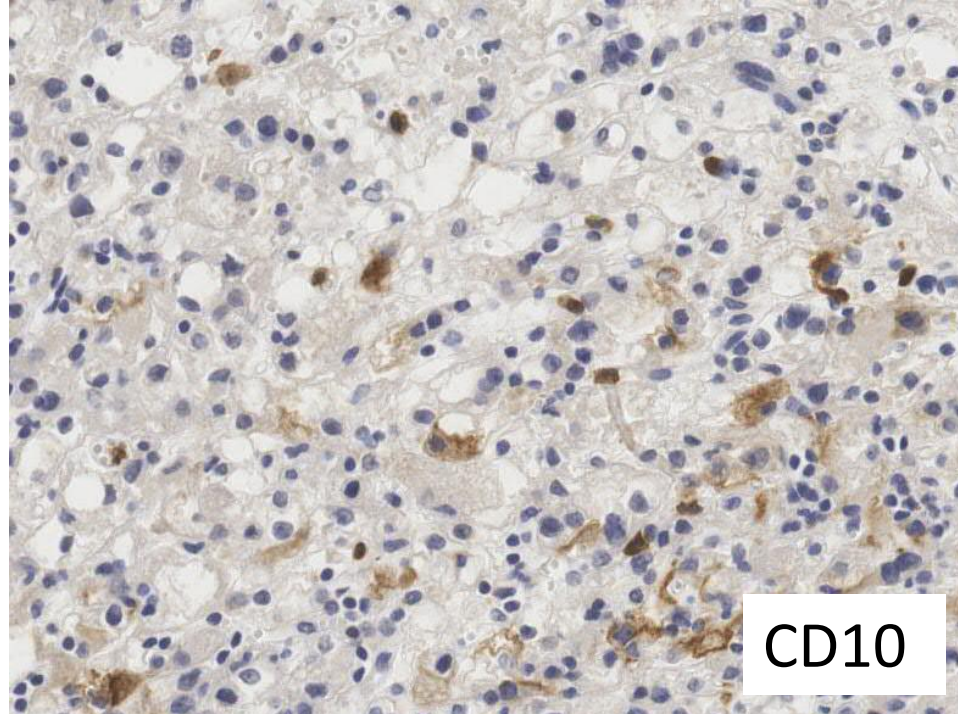
Carcinome rénal à translocation MiTF



TFE3



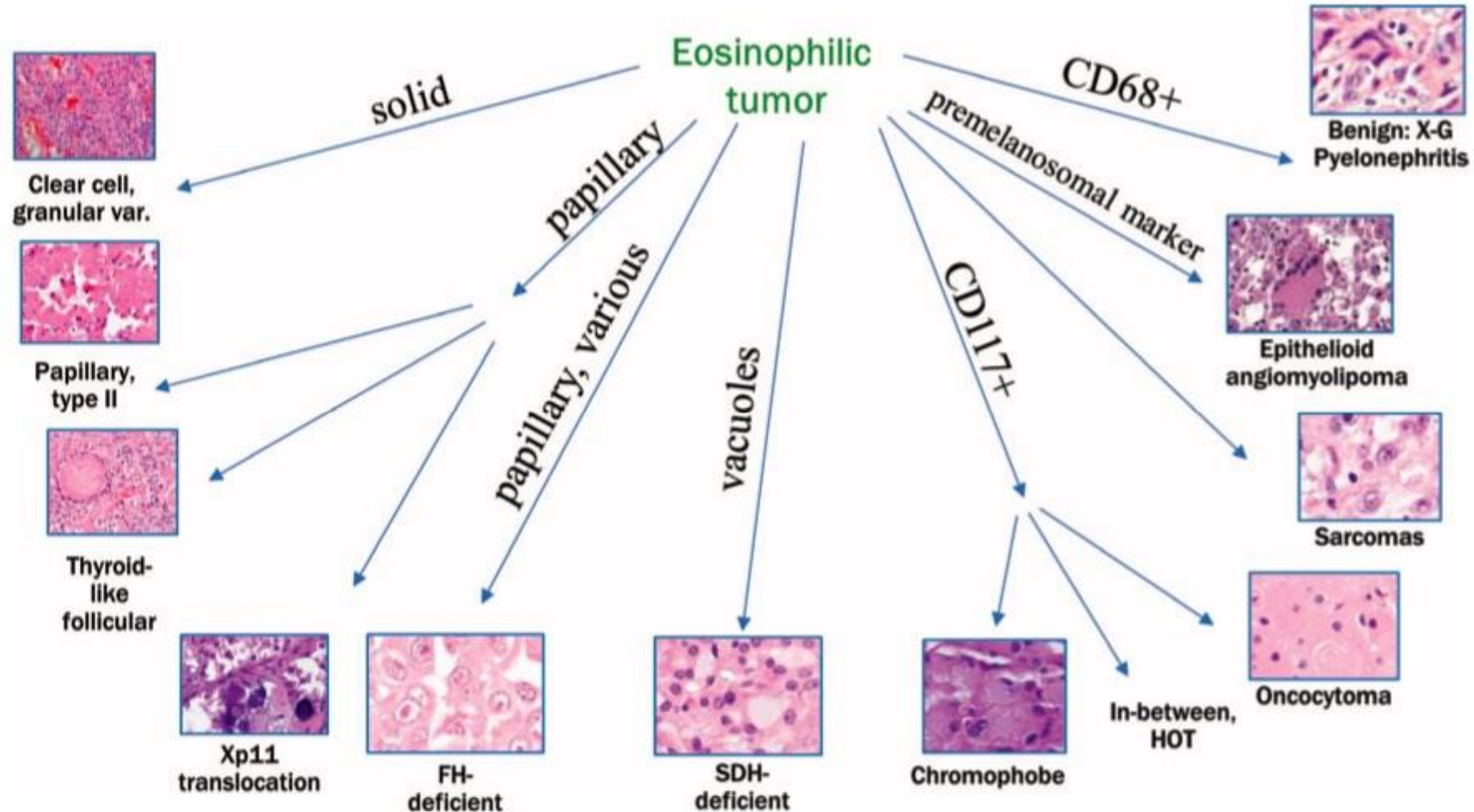
Cas communiqué par le Dr Yves Denoux



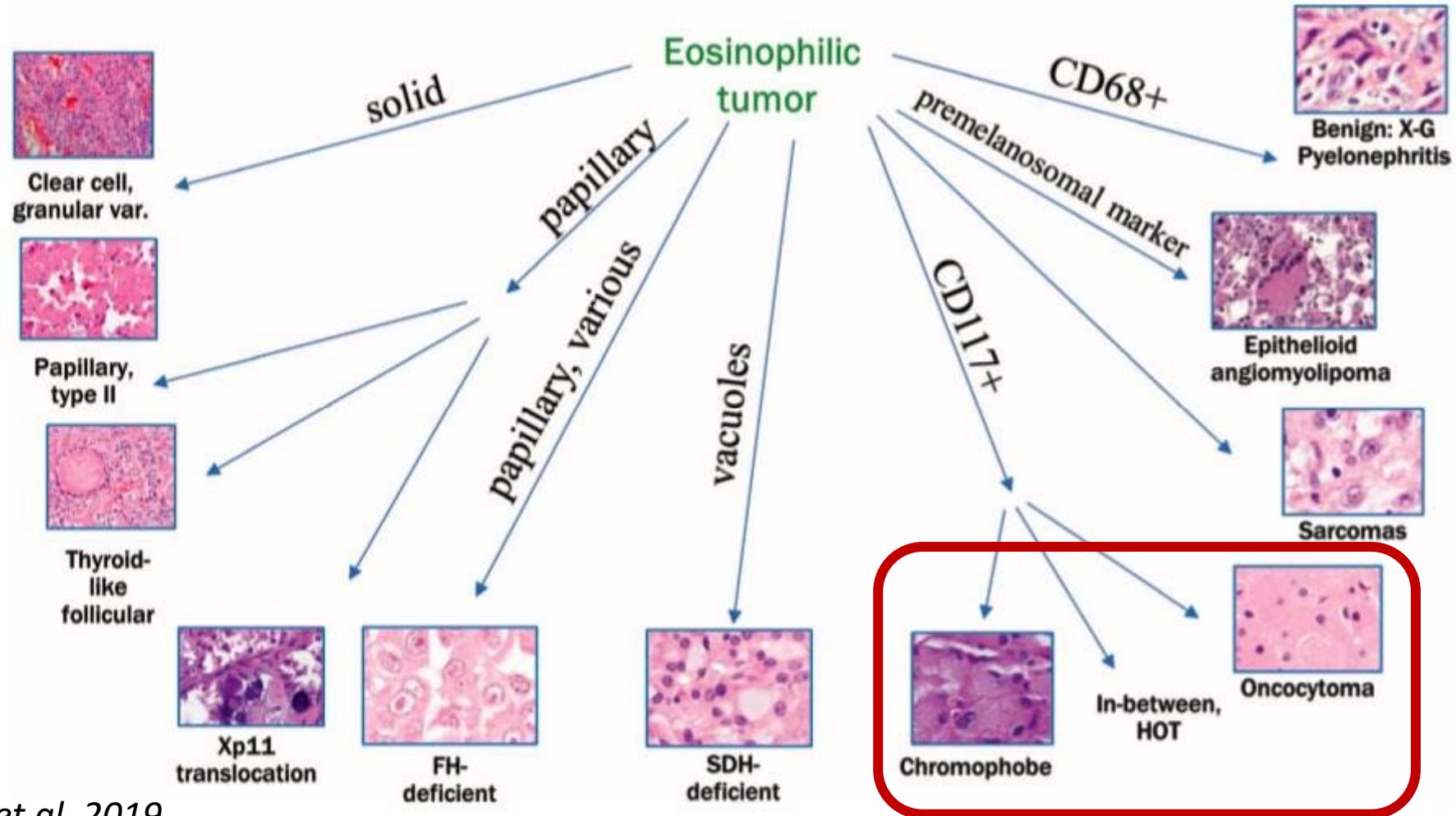
Tumeur à cellules claires

	ccRCC	CCPRCC	Stroma léiomyomateux	MITF
CA9	+	+ en cupule	+ en cupule	-
CK7	- ou focal	+	+	-
Racémase	-/+	-	-	+
CD10	+	-	Variable plutôt +	+
Marqueurs mélanocytaires	-	-	-	+ (HMB45 et Melan A)

Tumeur à cellules éosinophiles

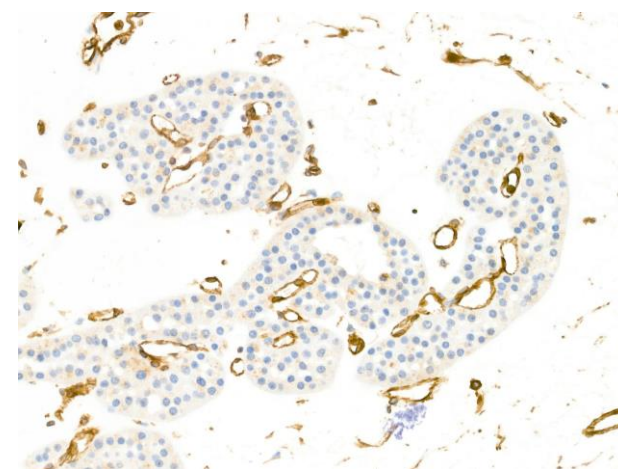
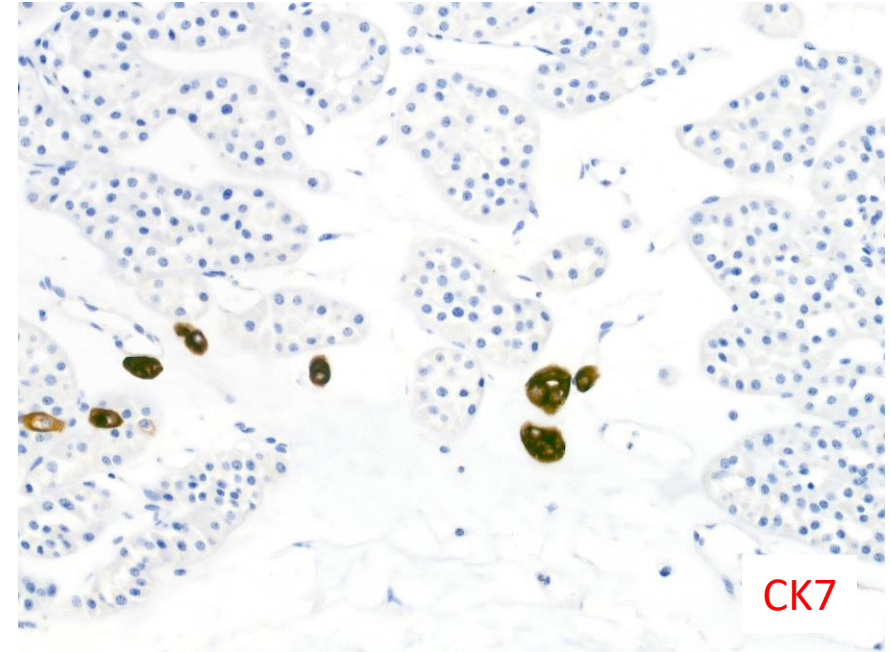
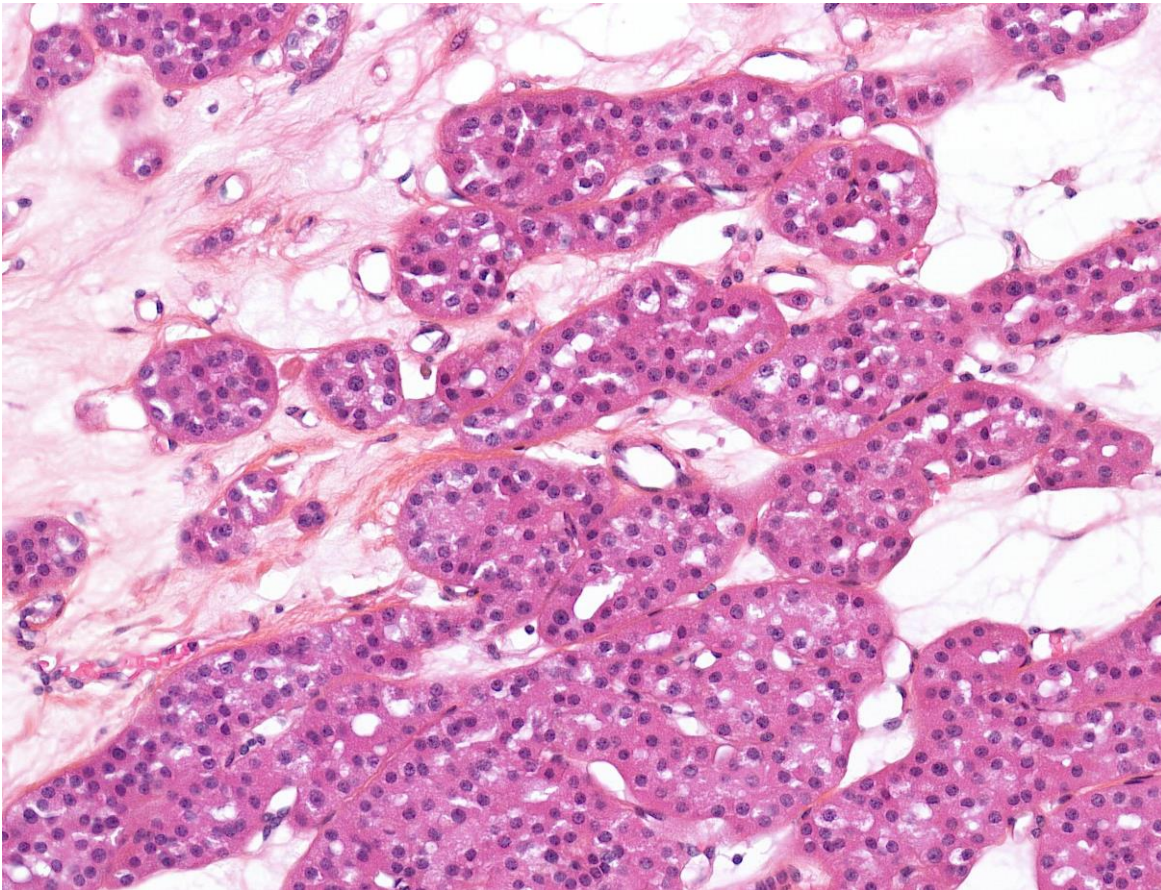


Tumeur à cellules éosinophiles



Tumeurs à cellules éosinophiles

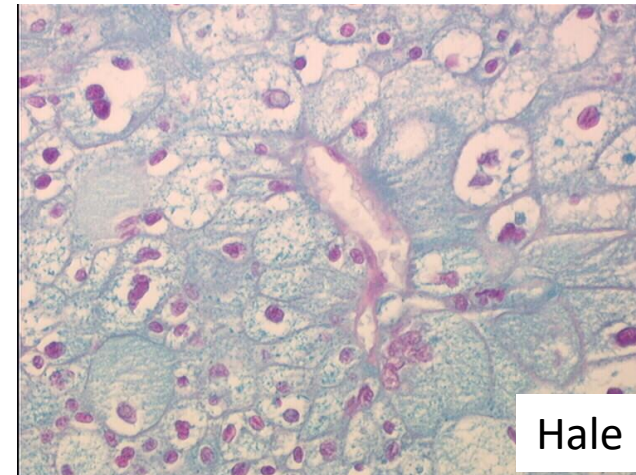
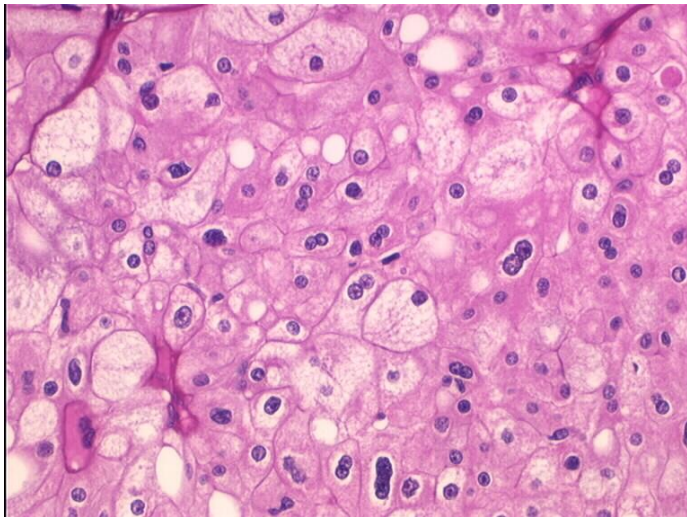
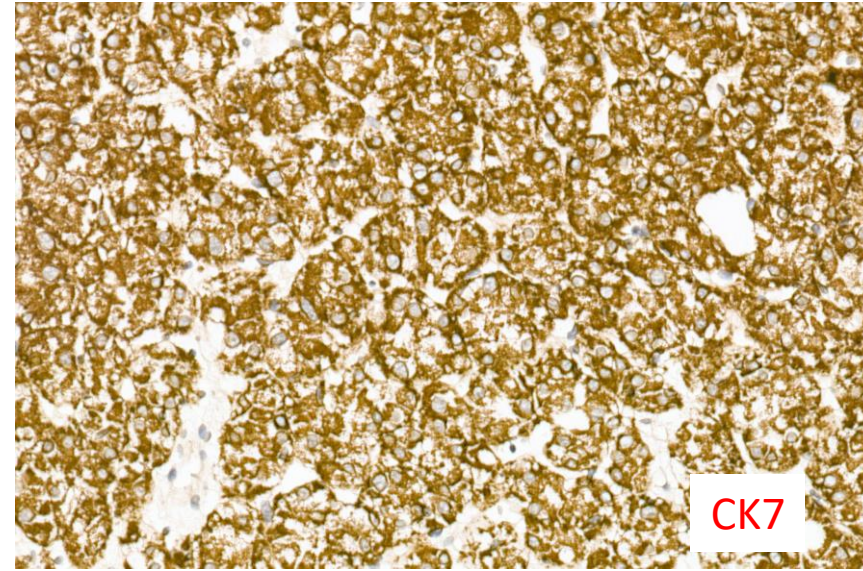
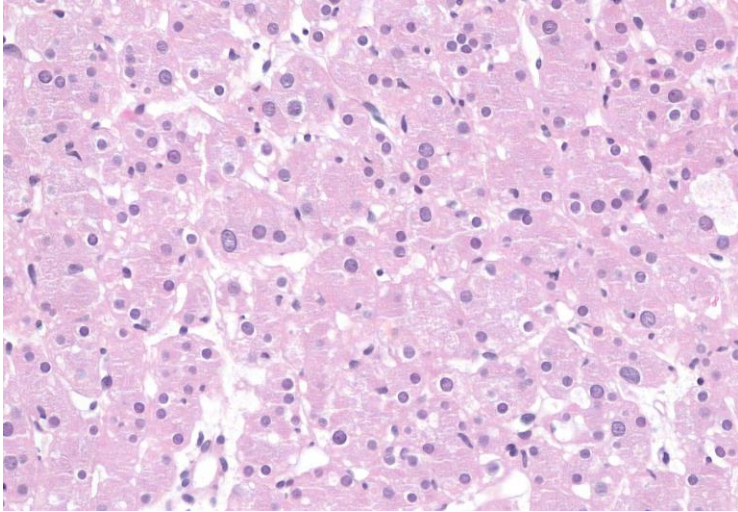
Oncocytome



Vimentine

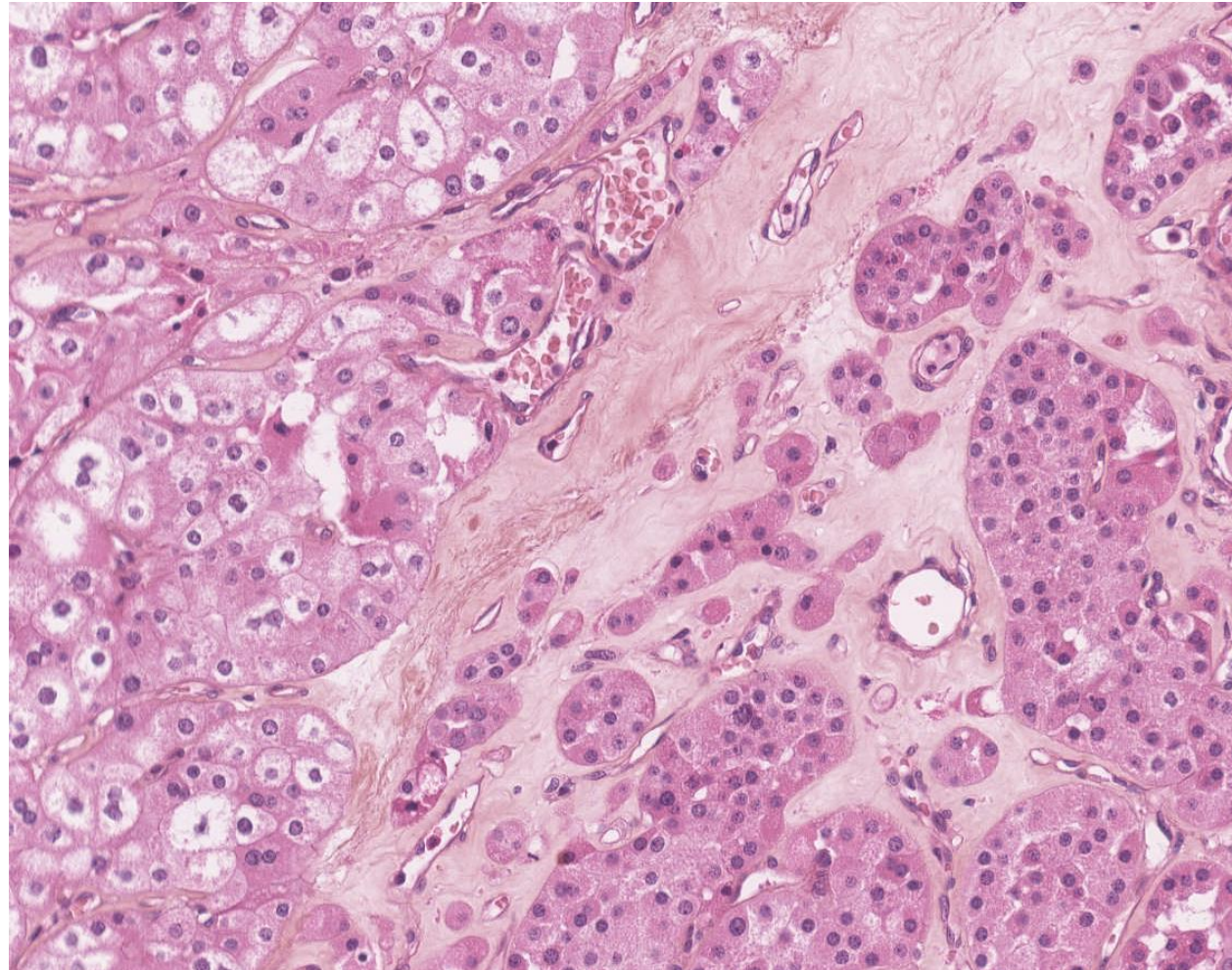
Tumeurs à cellules éosinophiles

Carcinome rénal chromophile



Tumeurs à cellules éosinophiles

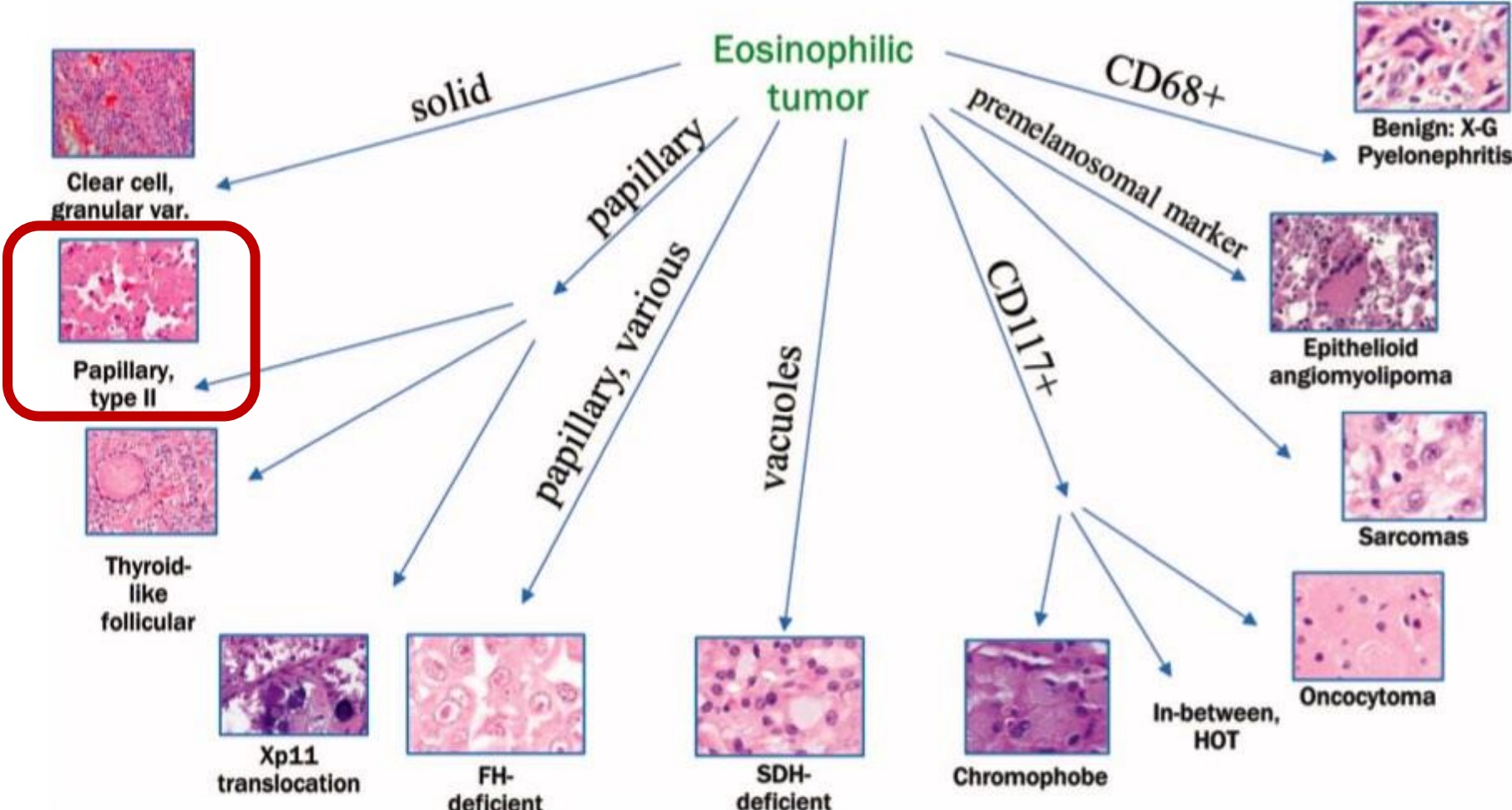
Tumeur hybride



Chromophobe

Oncocytome

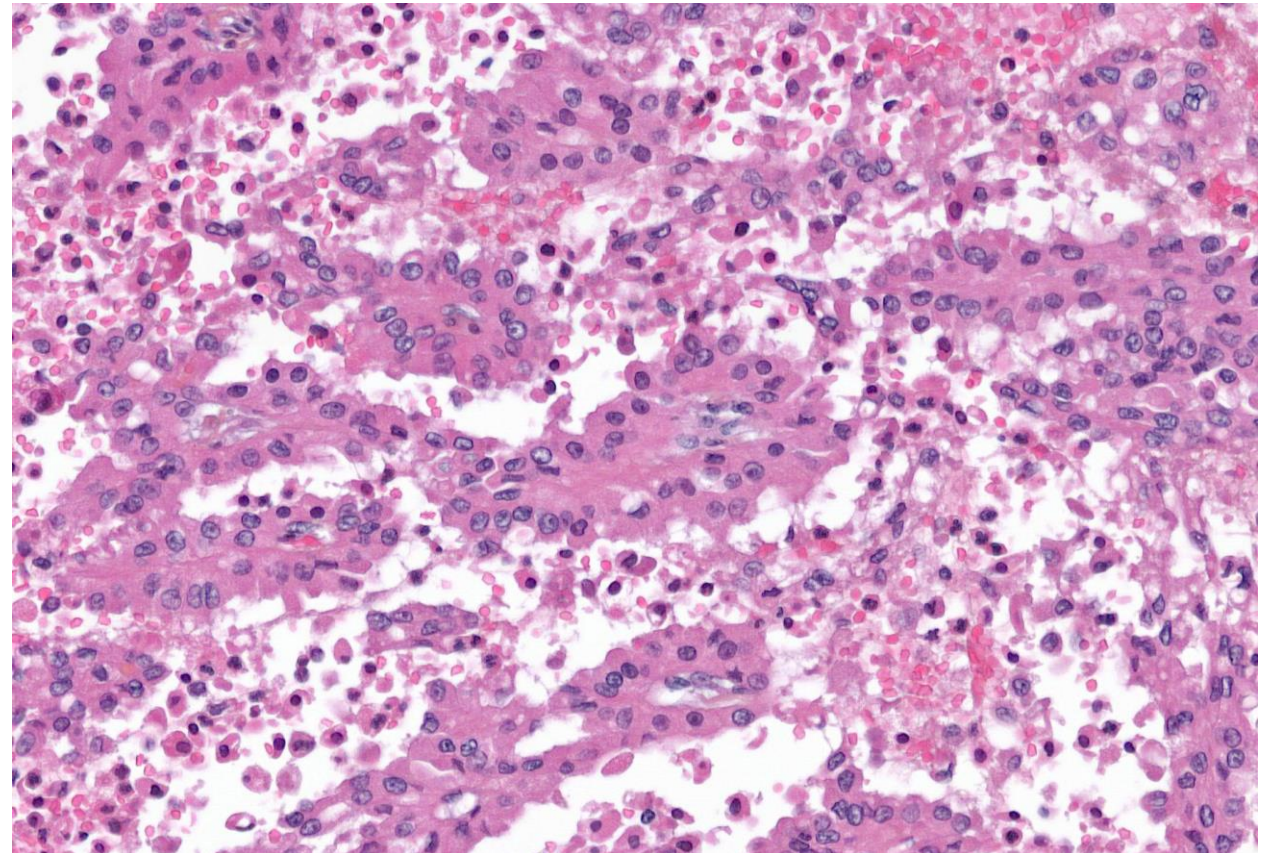
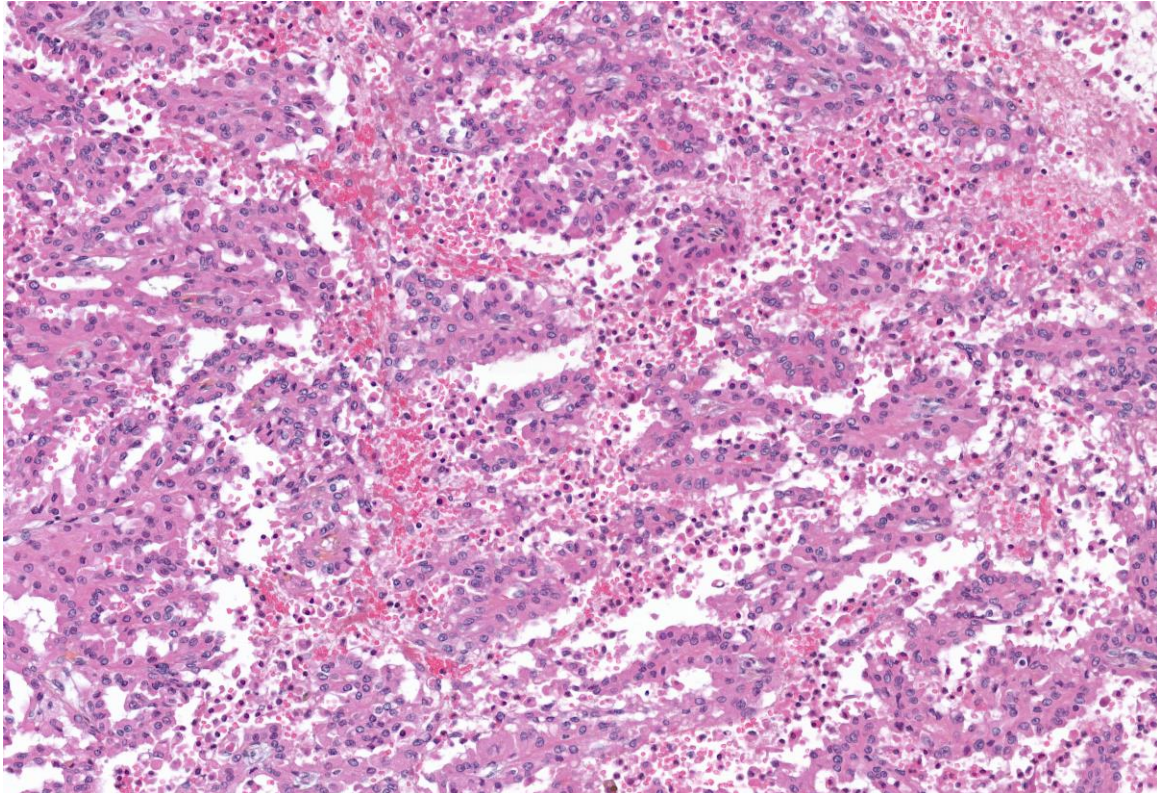
Tumeur à cellules éosinophiles

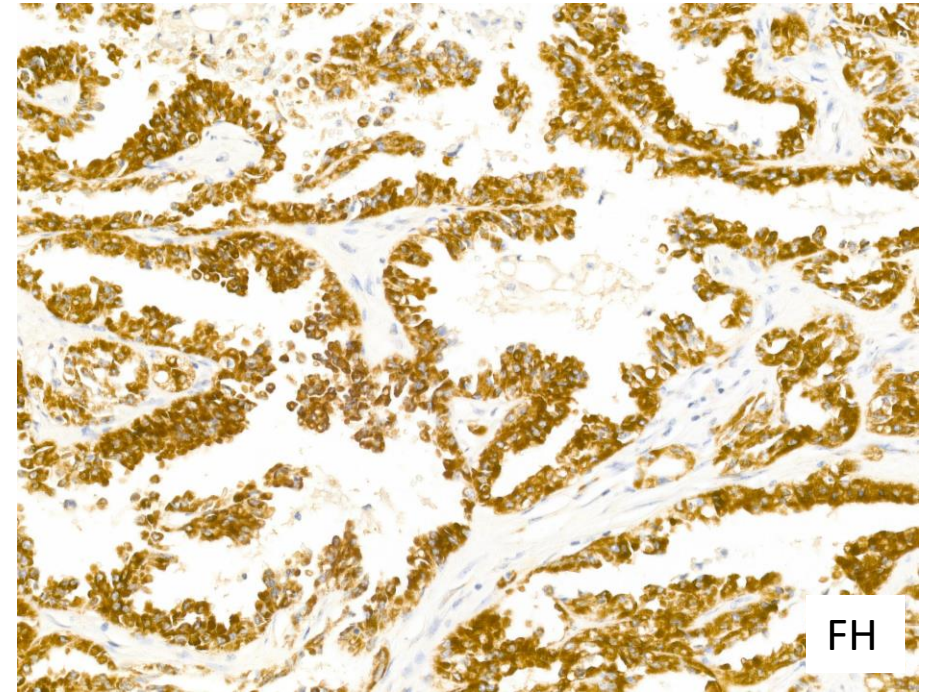
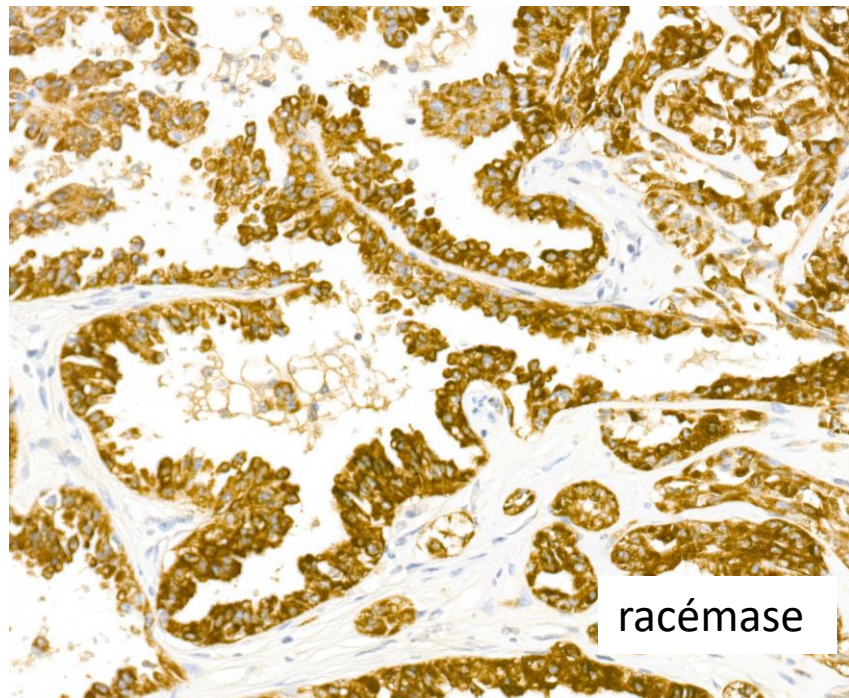
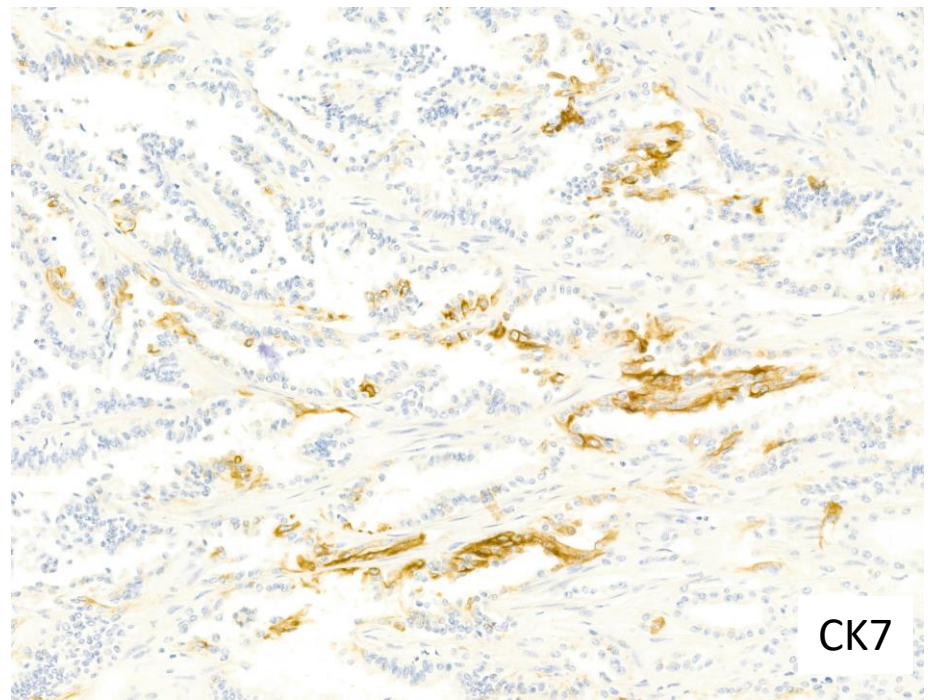
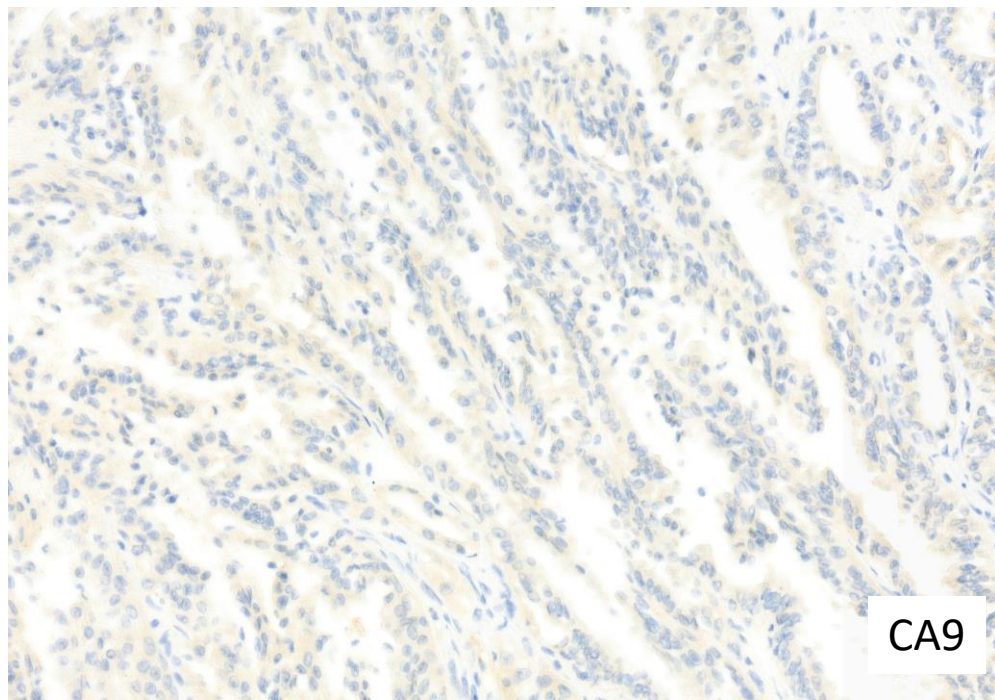


D'après Iczkowski et al. 2019

Tumeurs à cellules éosinophiles

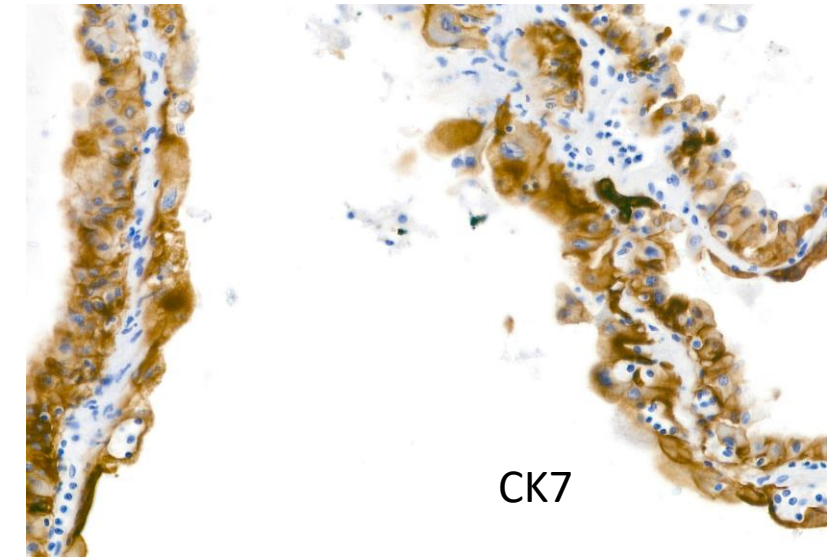
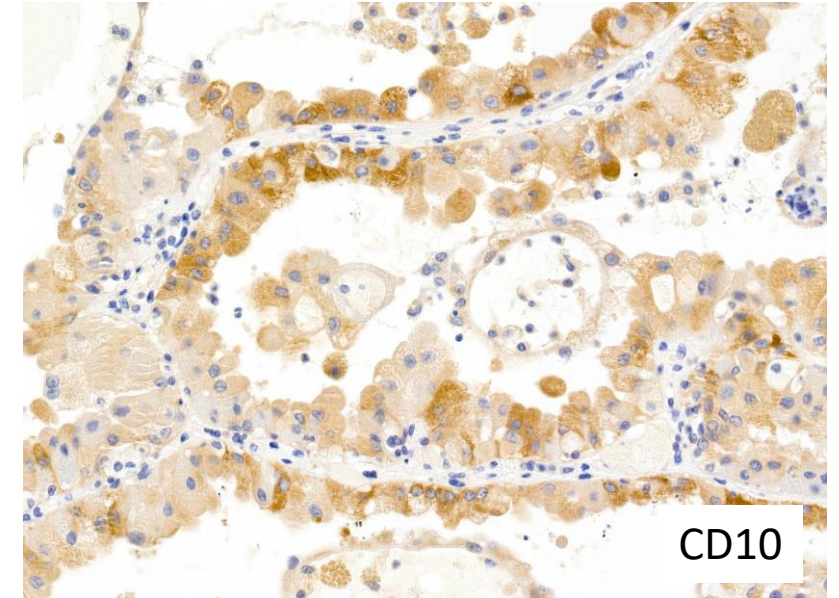
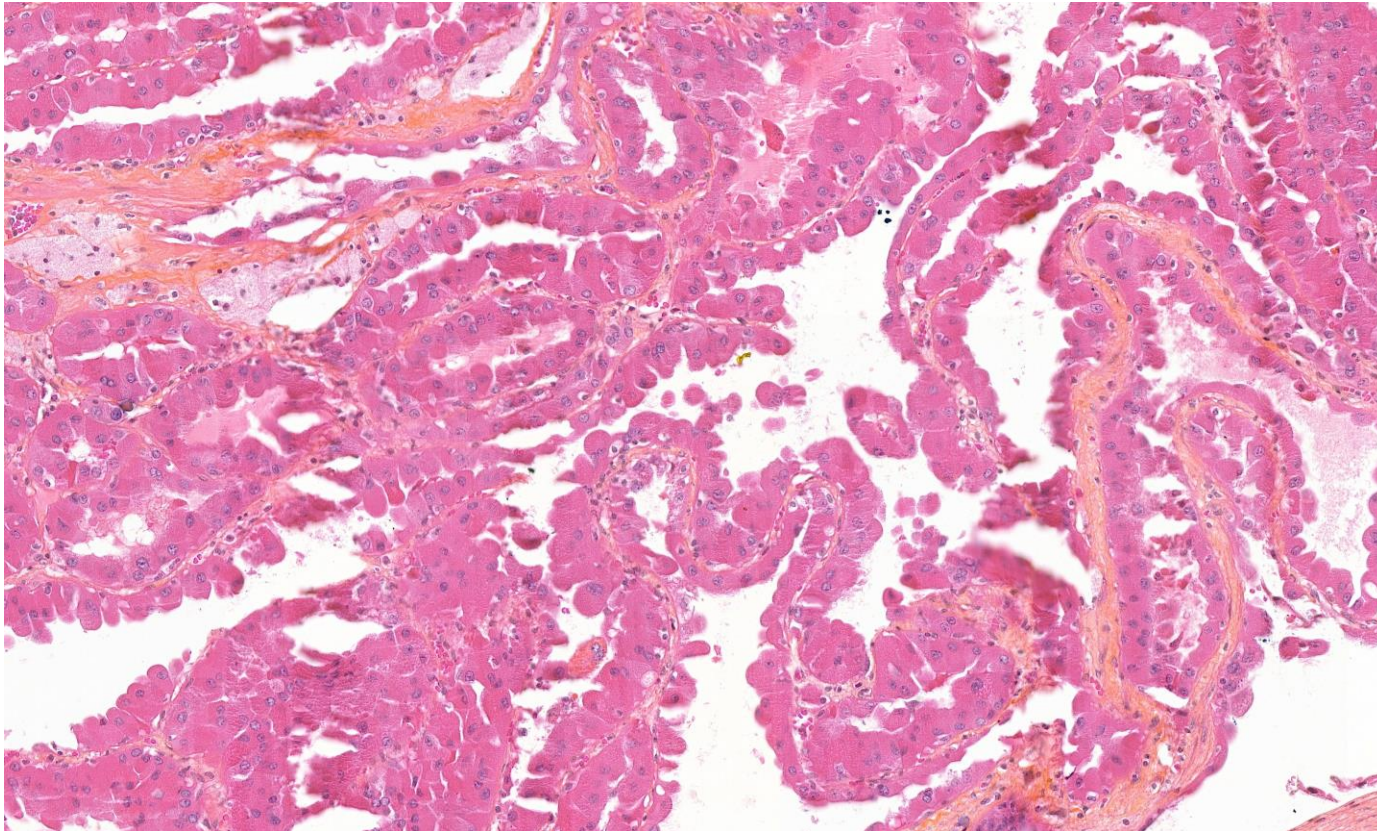
Carcinome papillaire de type 2



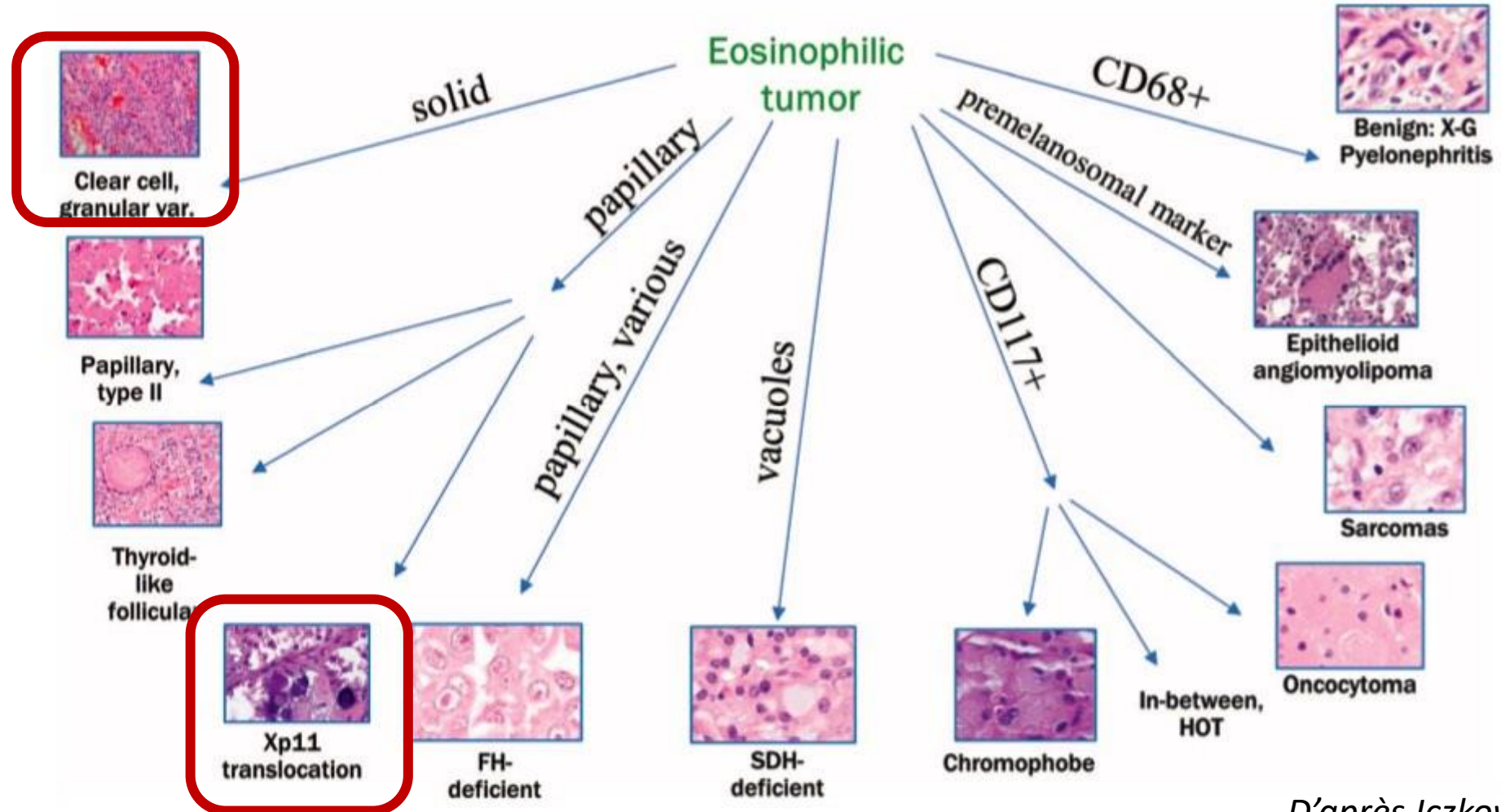


Tumeurs à cellules éosinophiles

Carcinome papillaire oncocytaire

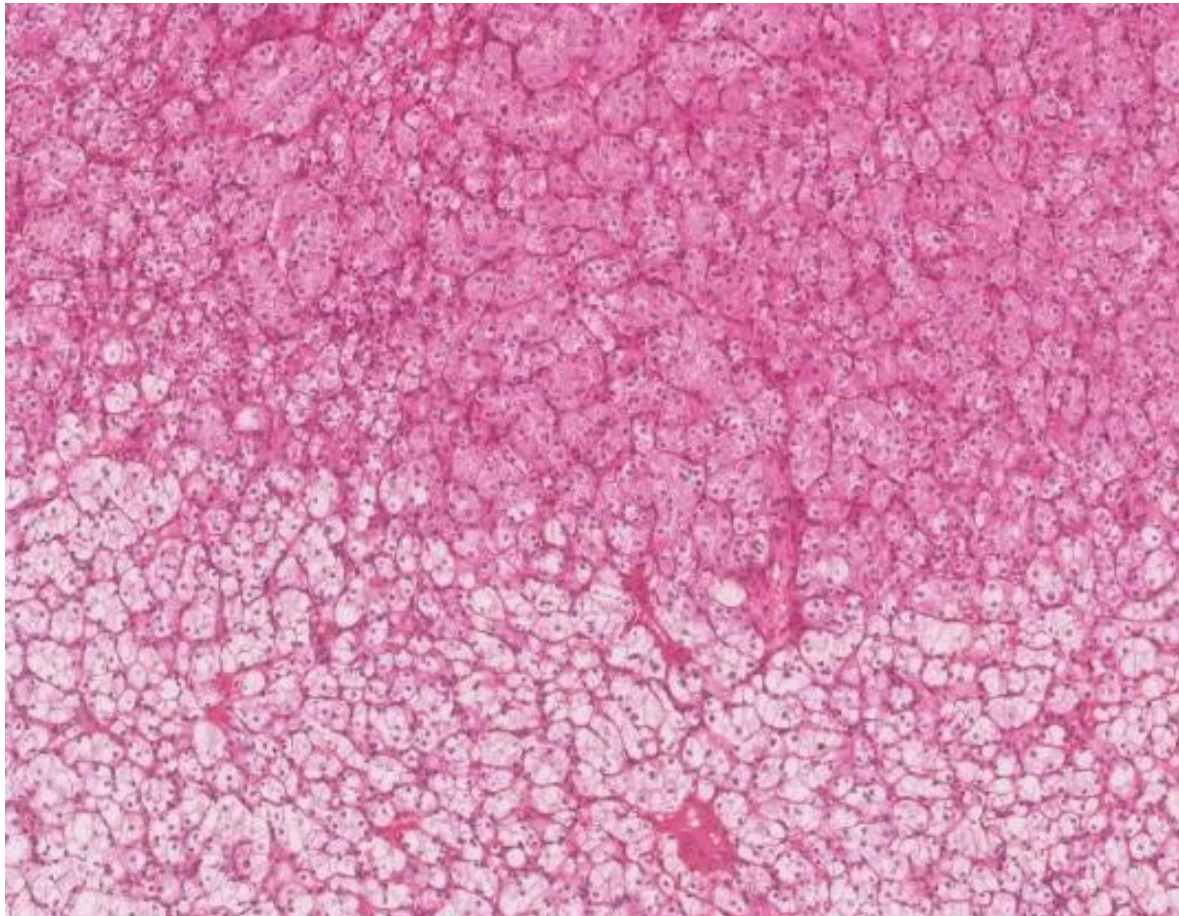


Tumeur à cellules éosinophiles



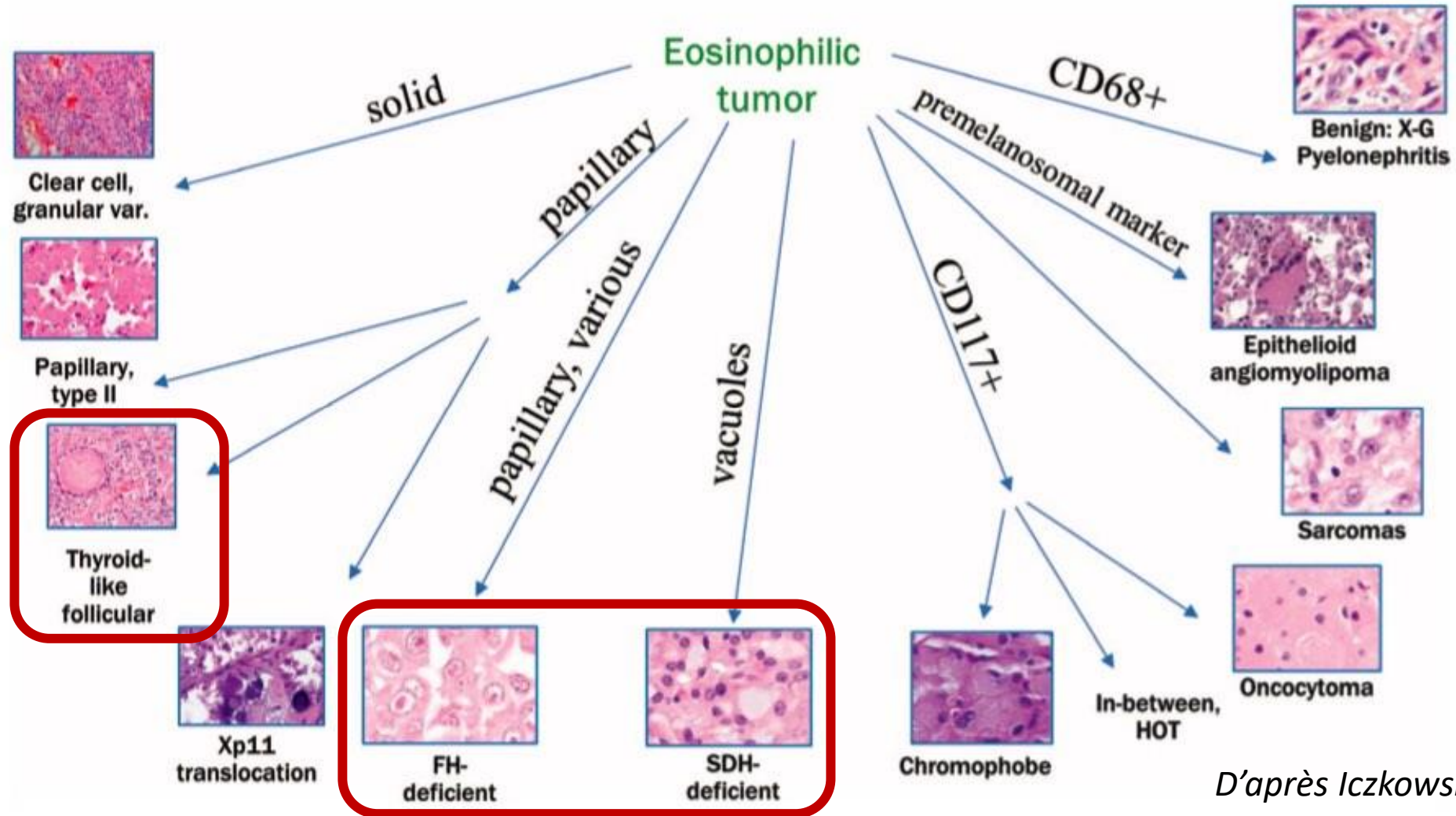
Tumeurs à cellules éosinophiles

Carcinomes déjà mentionnés : ccRCC / à translocation



Exemple d'un
carcinome rénal ccRCC

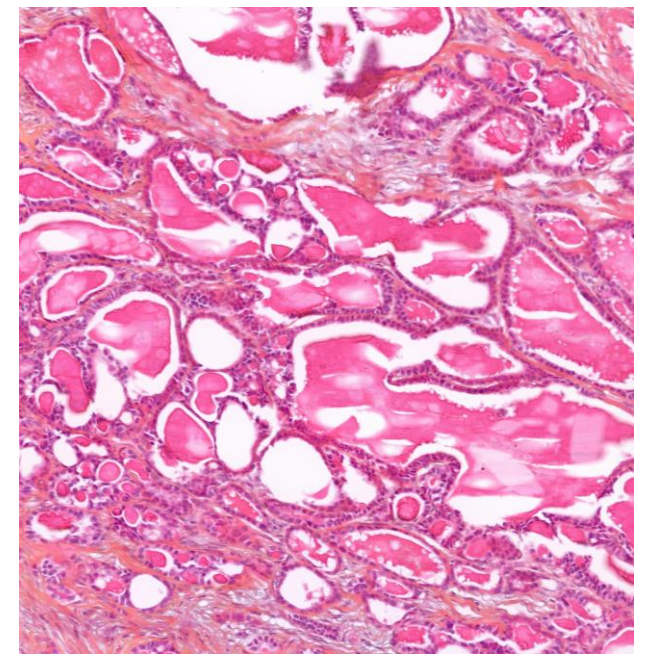
Tumeur à cellules éosinophiles



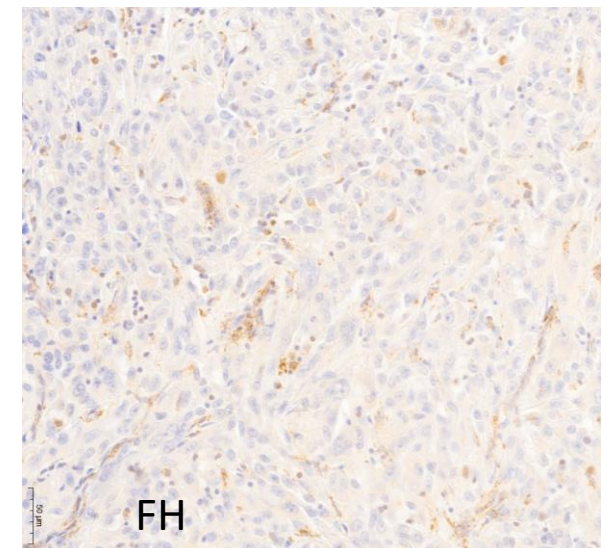
D'après Iczkowski et al. 2019

Tumeur à cellules éosinophiles

- Carcinome rénal folliculaire « thyroid-like »
- Carcinome rénal tubulo-kystique (CK7+ racémase +)
- Carcinome rénal associé à la léiomyomatose héréditaire (FH -)
- Carcinome rénal SDHB déficient (SDHB -)
- Carcinome rénal éosinophile solide et kystique (CK20 +)
- Carcinome rénal associé au réarrangement ALK
- Tumeur oncocytaire de bas grade (CD117 – et CK7+)



Aspect « Thyroid-like »



Tumeur à cellules éosinophiles

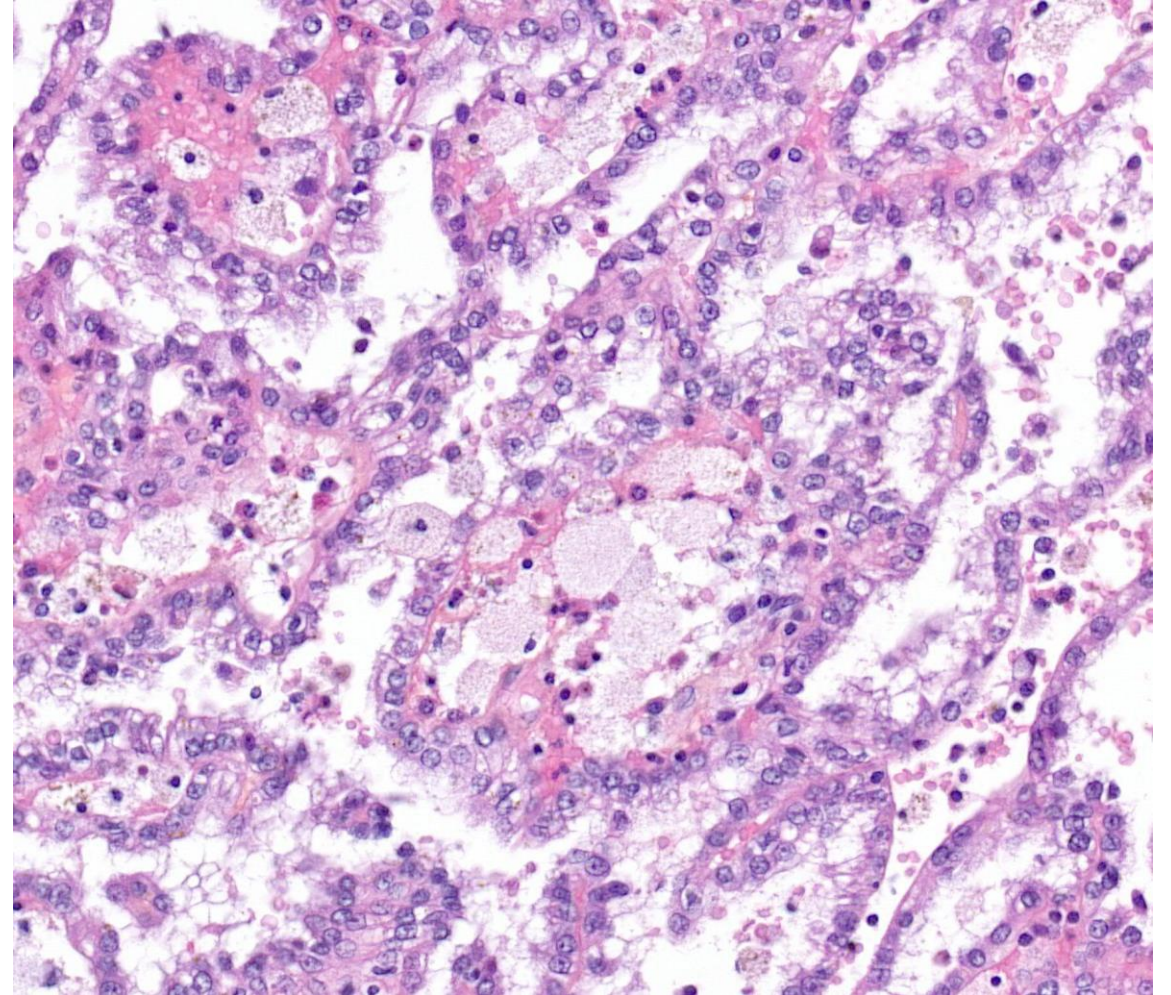
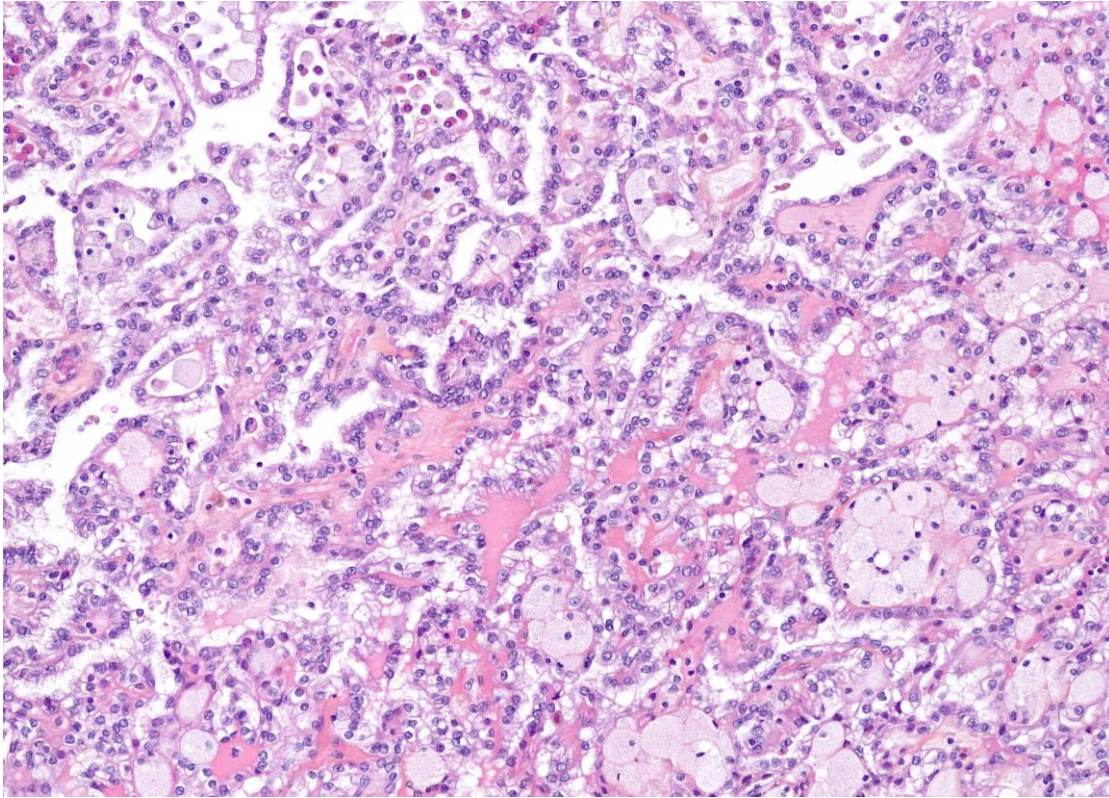
	Oncocytome	Chromophobe	Papillaire 2	Papillaire onco	ccRCC	AML
CA9	-	-	-	-	+	-
CK7	focal	+	+ (20%)	+/-	- ou focal	-
Racémase	-	-	+	+	-/+	-
CD117	+	+	-	-	-	-
Marqueurs mélanocytaires	-	-	-	-	-	+

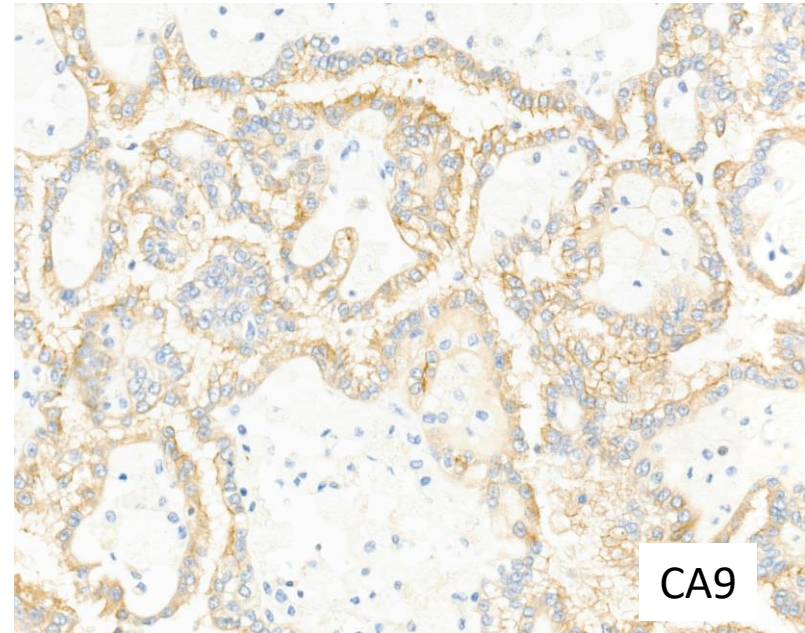
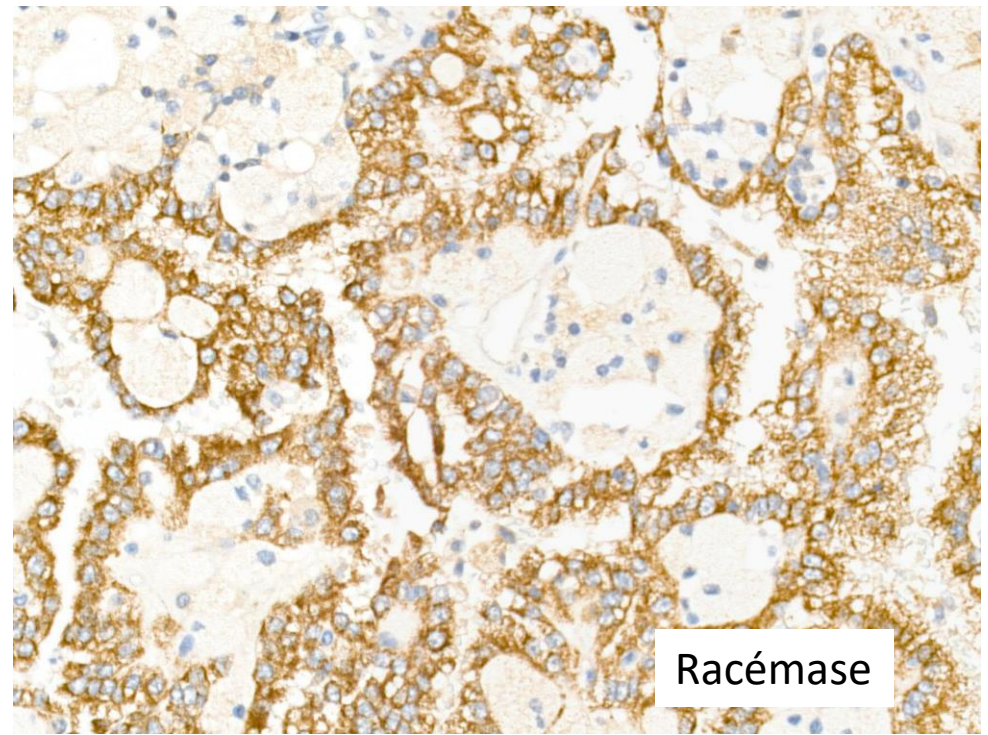
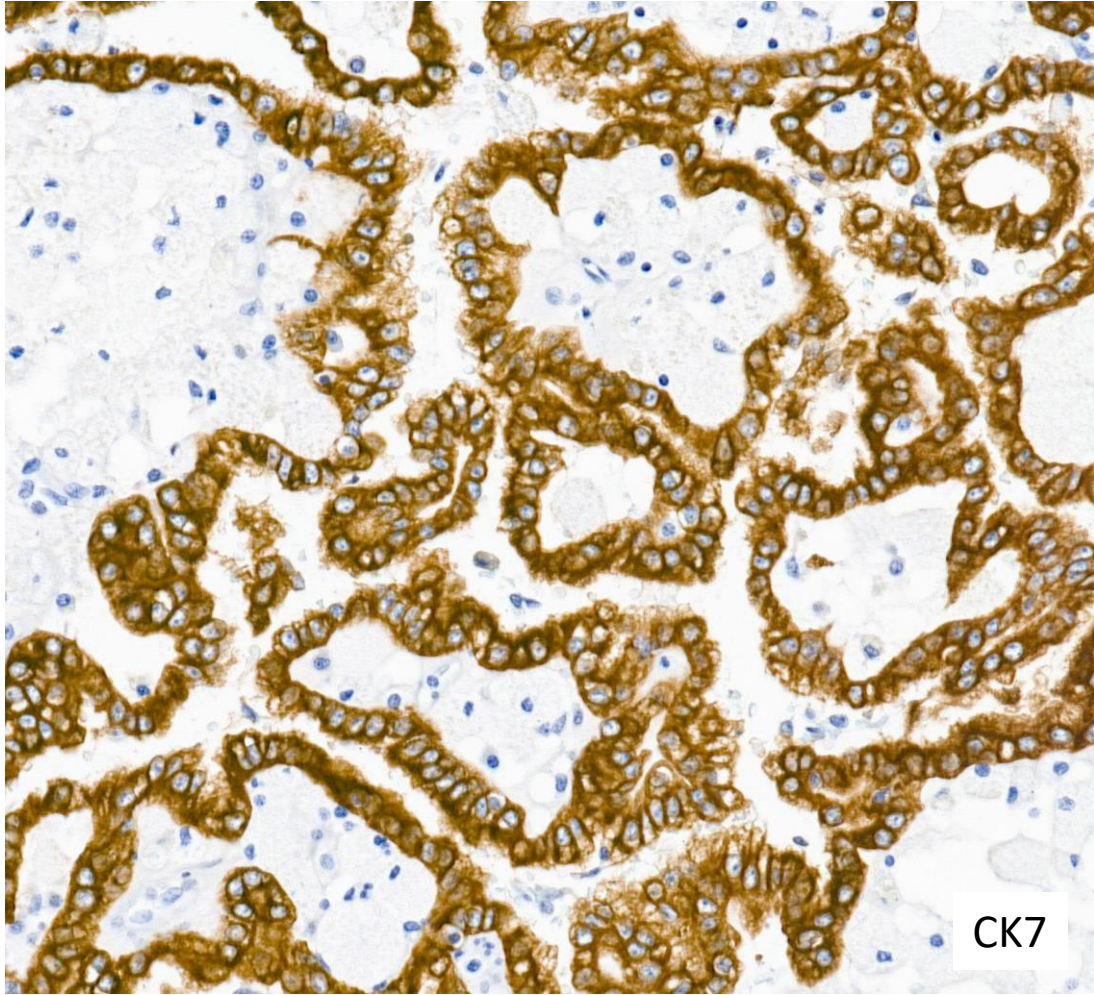
Tumeurs d'architecture papillaire

- Carcinome rénal papillaire de type 1
- Carcinome rénal papillaire de type 2
- Carcinome rénal papillaire oncocytaire
- Carcinome rénal à translocation MiTF
- Carcinome rénal papillaire à cellules claires
- Carcinome rénal tubulo-mucineux et à cellules fusiformes
- Carcinome rénal papillaire biphasique squamoïde

Tumeurs d'architecture papillaire

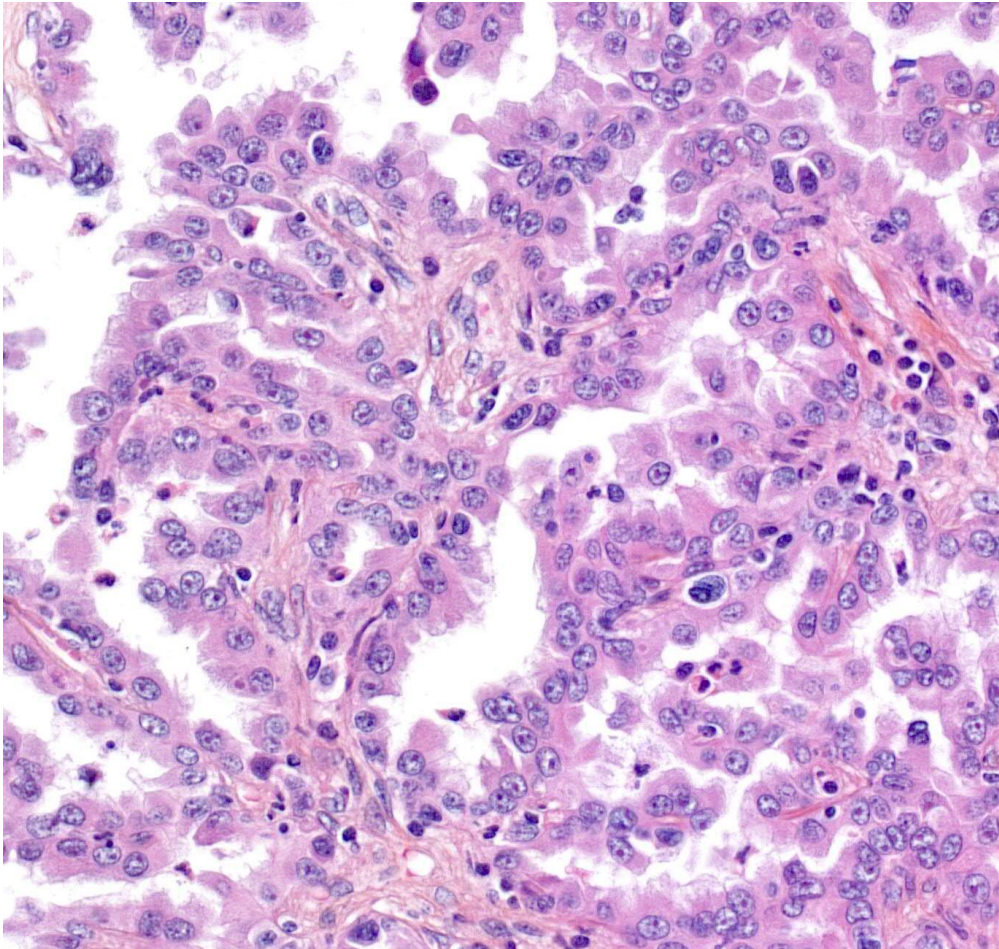
Carcinome rénal papillaire de type 1



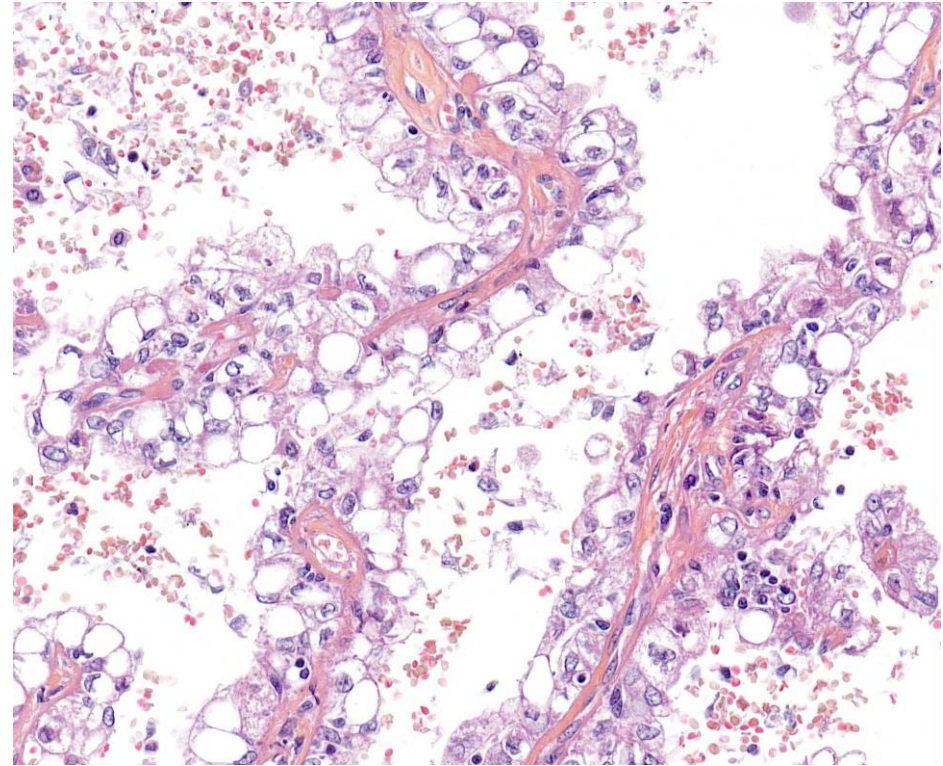


Tumeurs d'architecture papillaire

Carcinome rénal papillaire de type 2 / à translocation MiTF



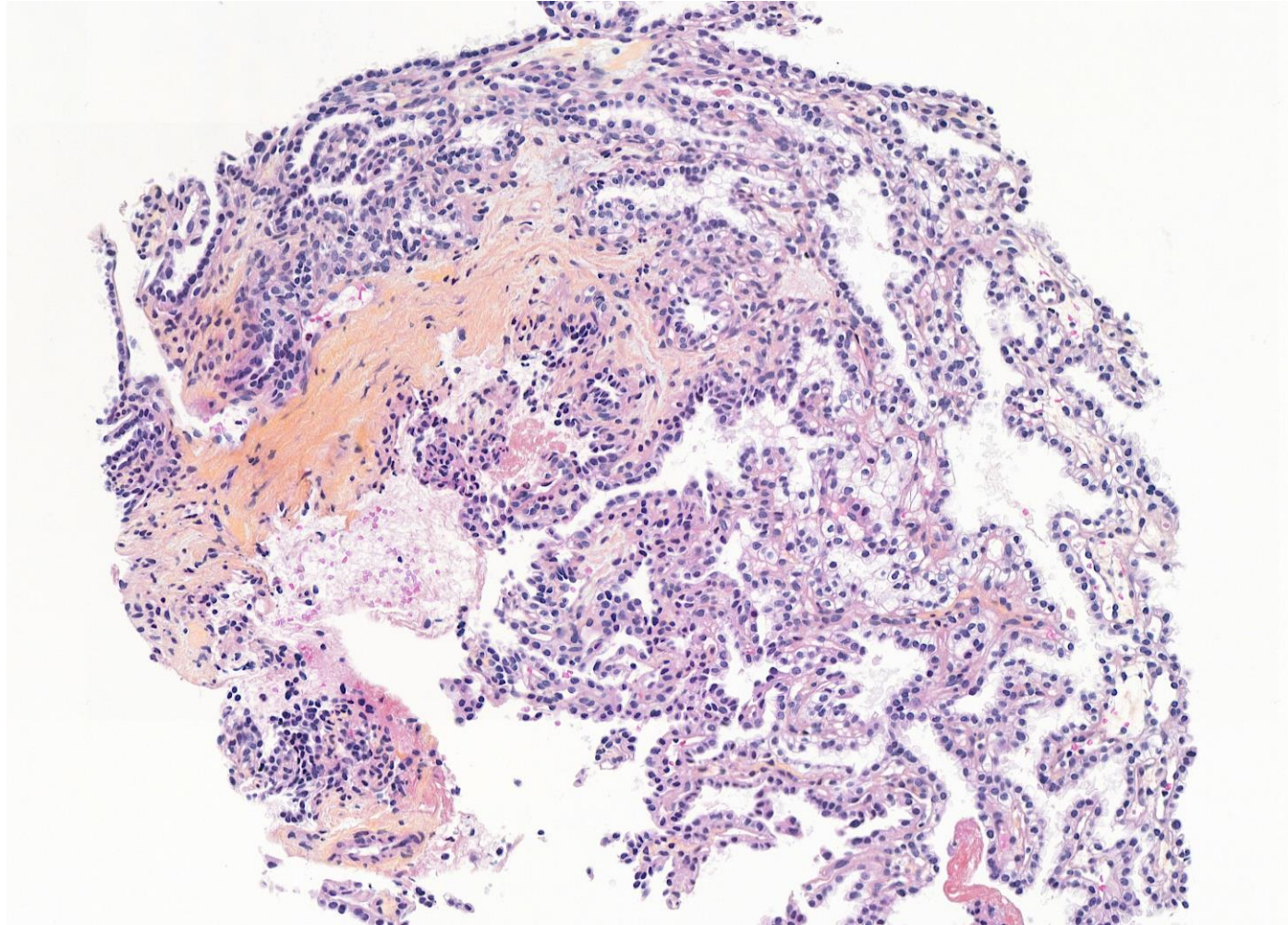
Carcinome papillaire de type 2



Carcinome rénal TFE3

Tumeurs d'architecture papillaire

Carcinome rénal papillaire à cellules claires



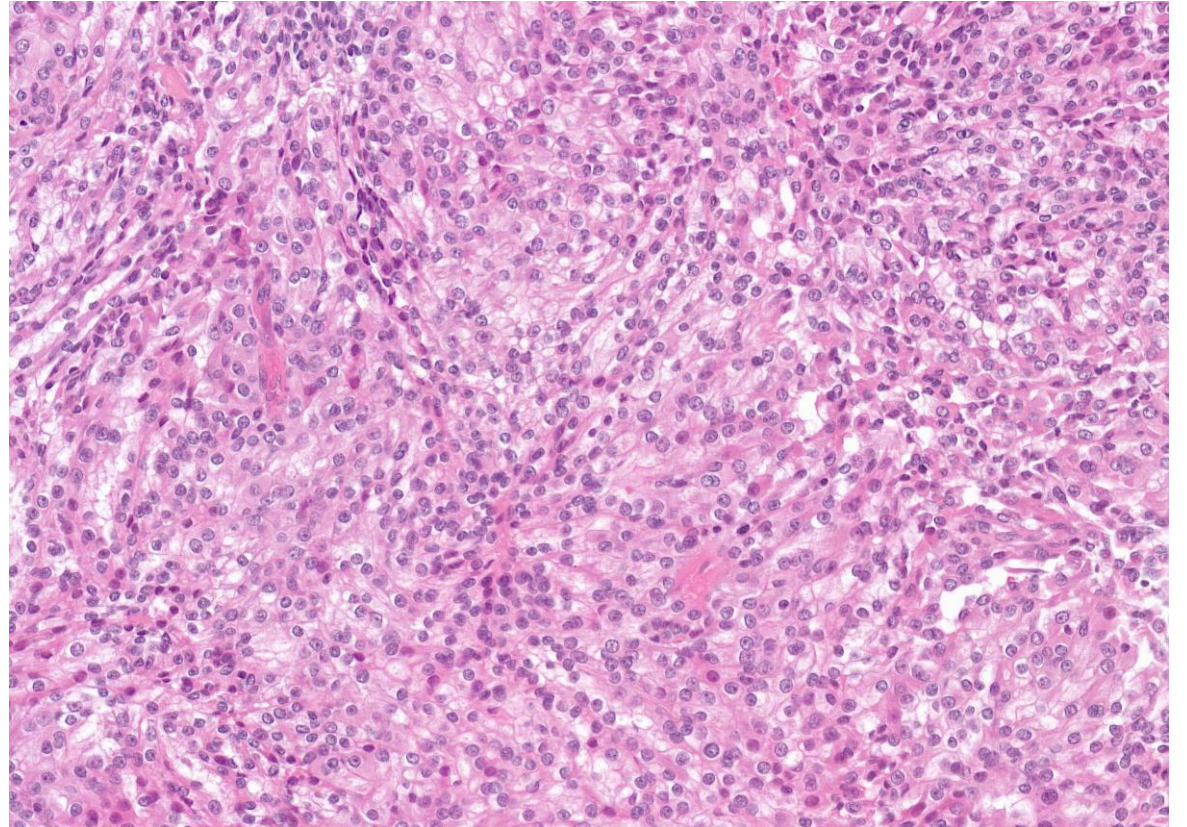
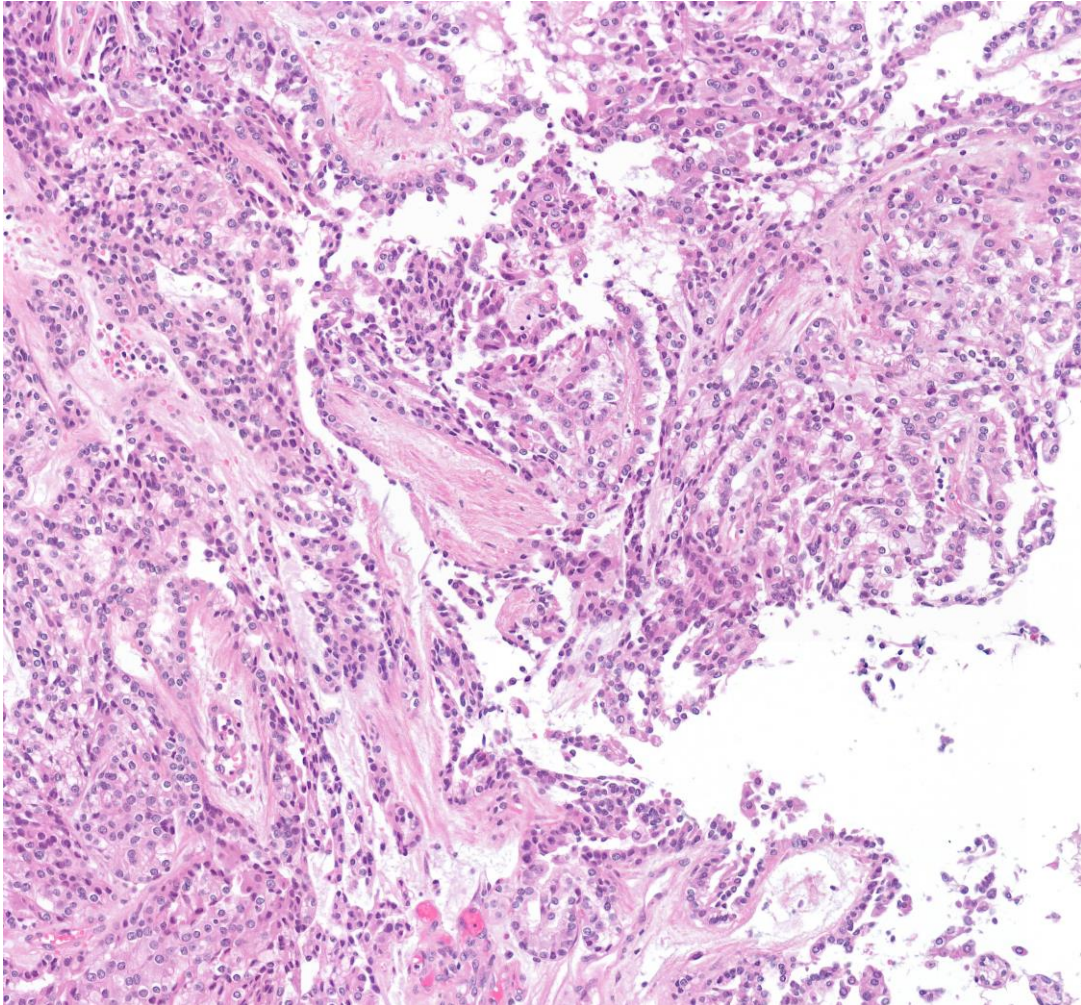
Tumeurs à cellules fusiformes

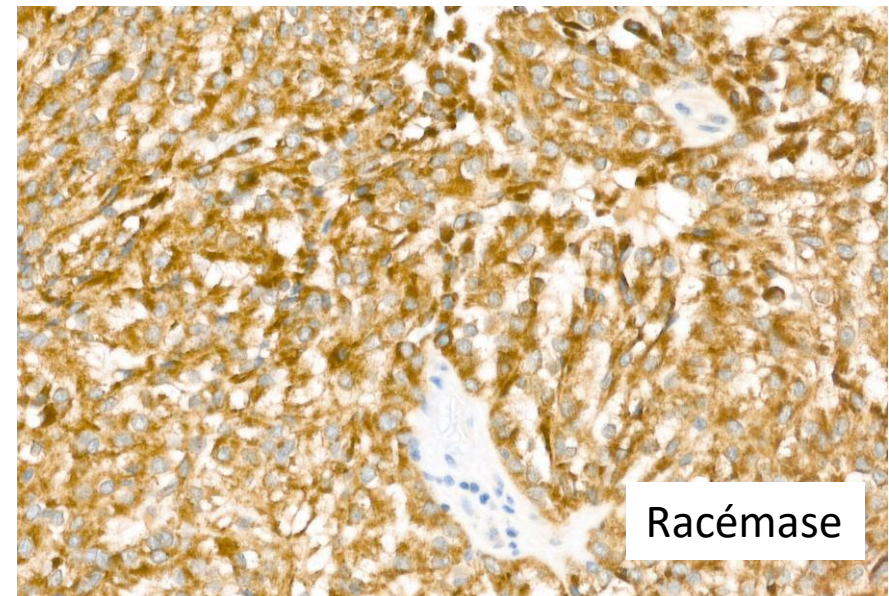
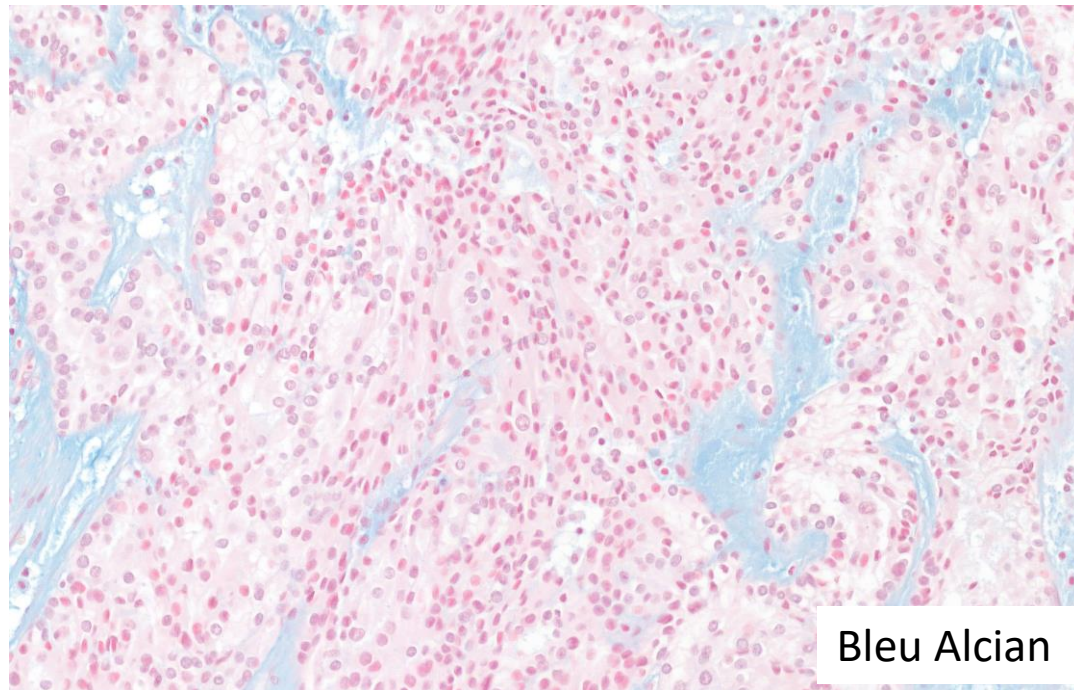
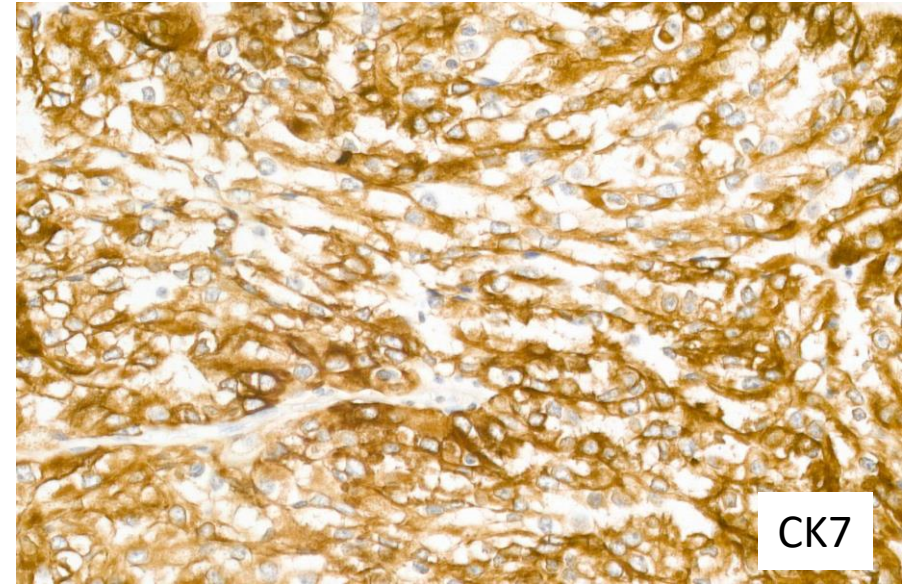
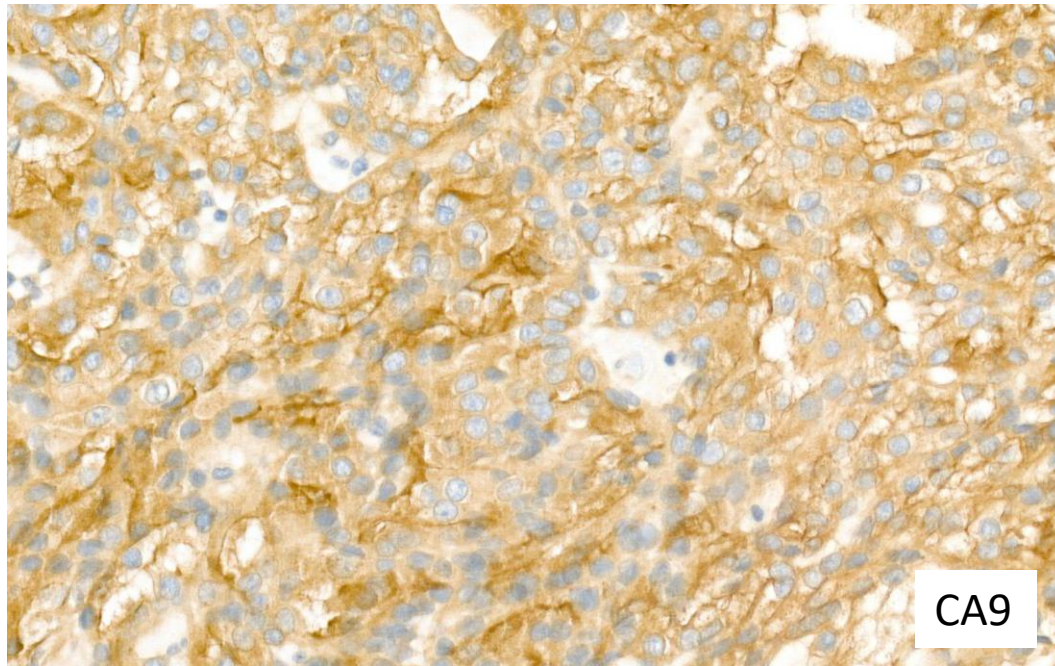
- Carcinome rénal tubulo-mucineux et à cellules fusiformes
- Carcinome sarcomatoïde
- Angiomyolipome

- Sarcome

Tumeurs à cellules fusiformes

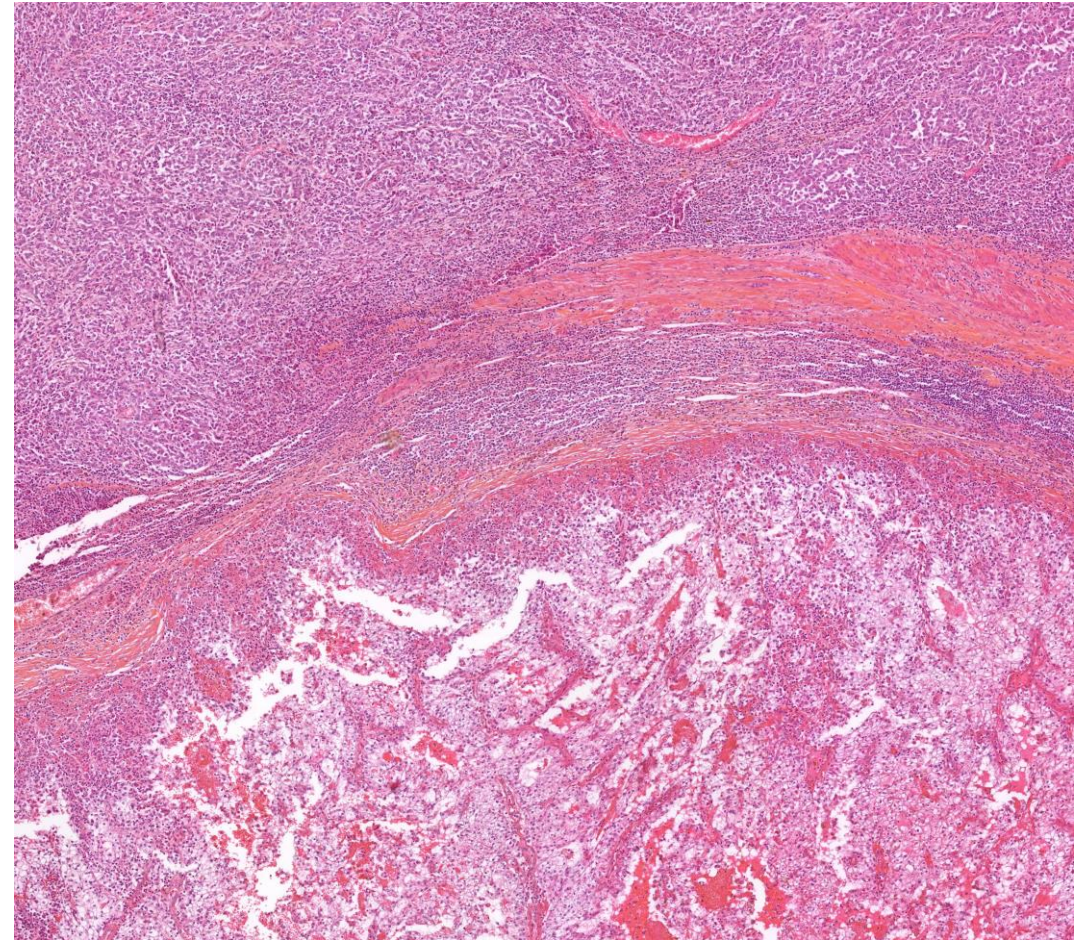
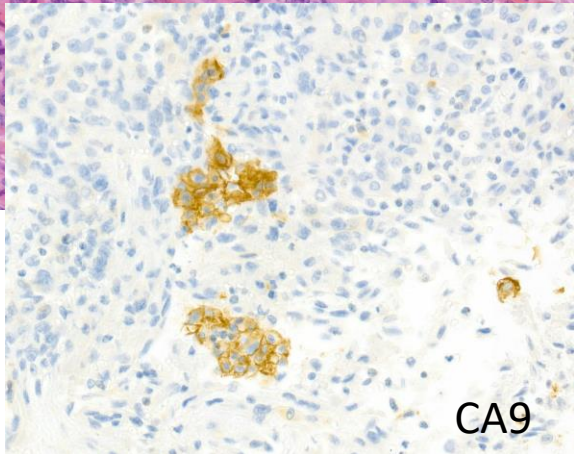
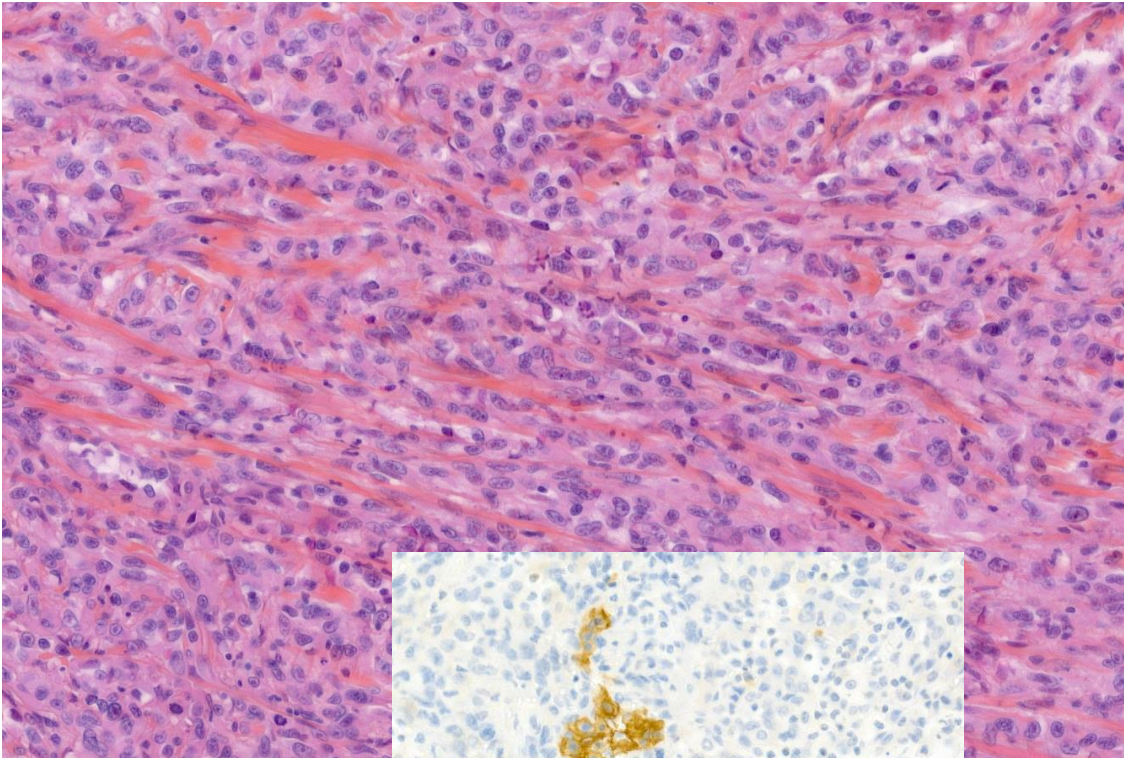
Carcinome rénal tubulo-mucineux et à cellules fusiformes





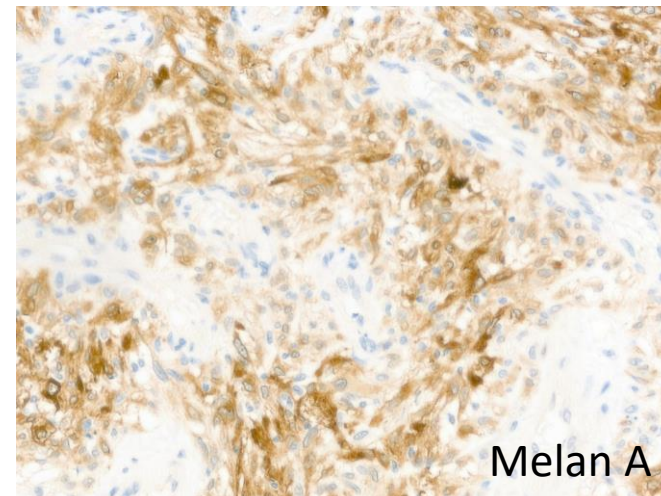
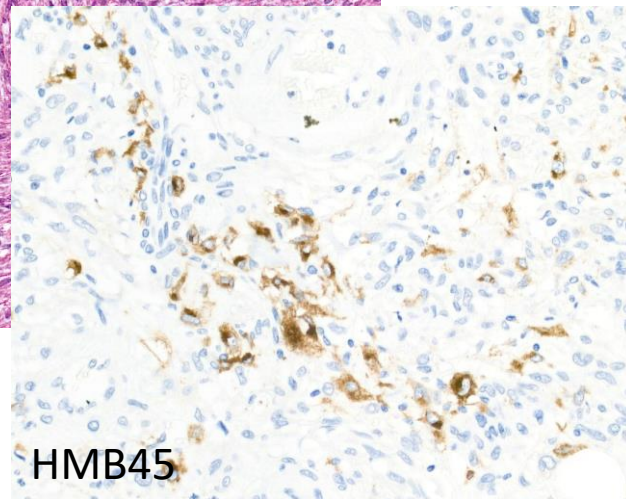
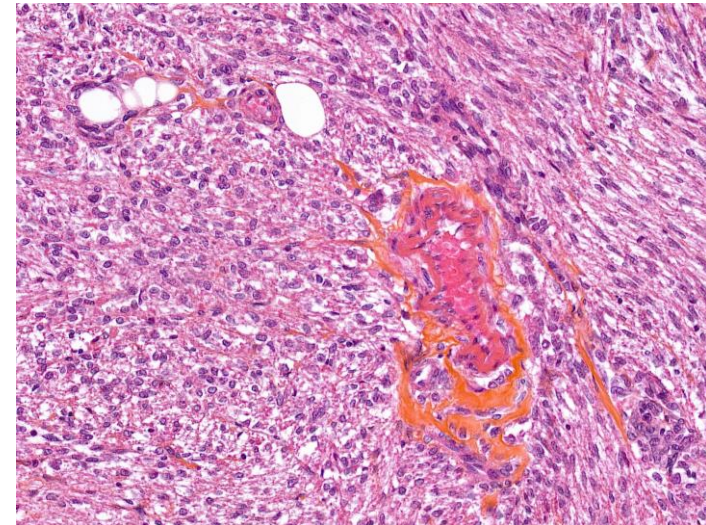
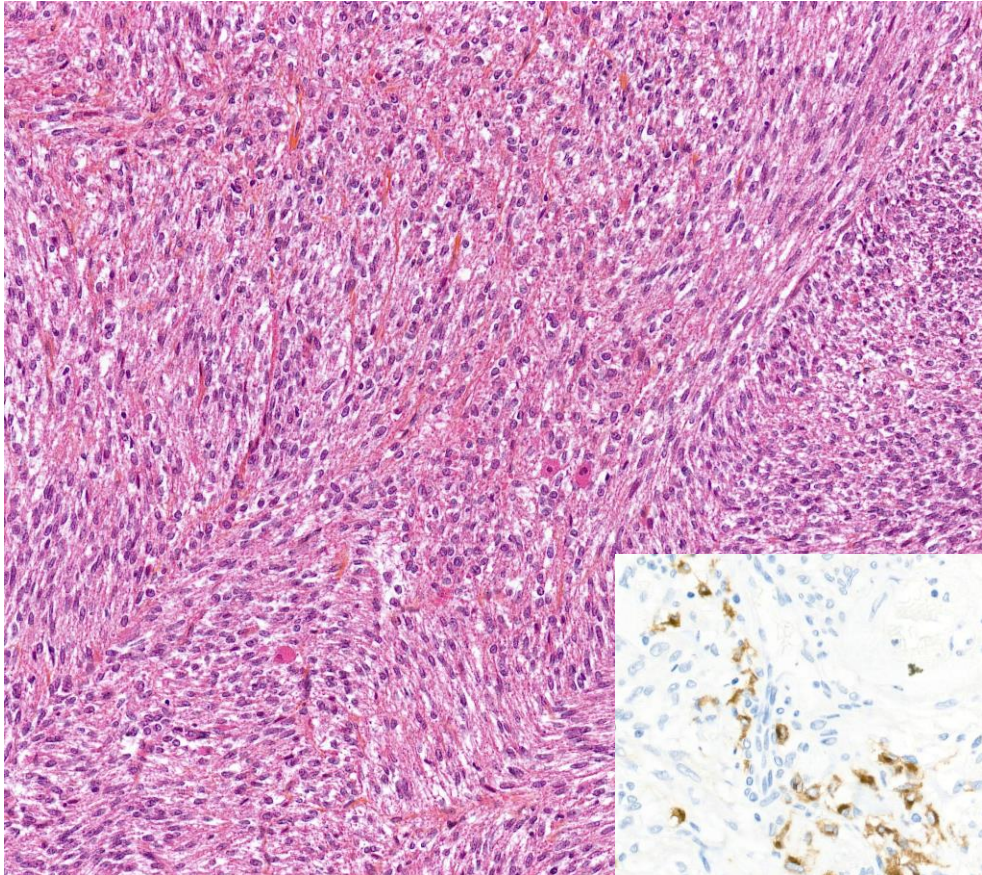
Tumeurs à cellules fusiformes

Carcinome sarcomatoïde



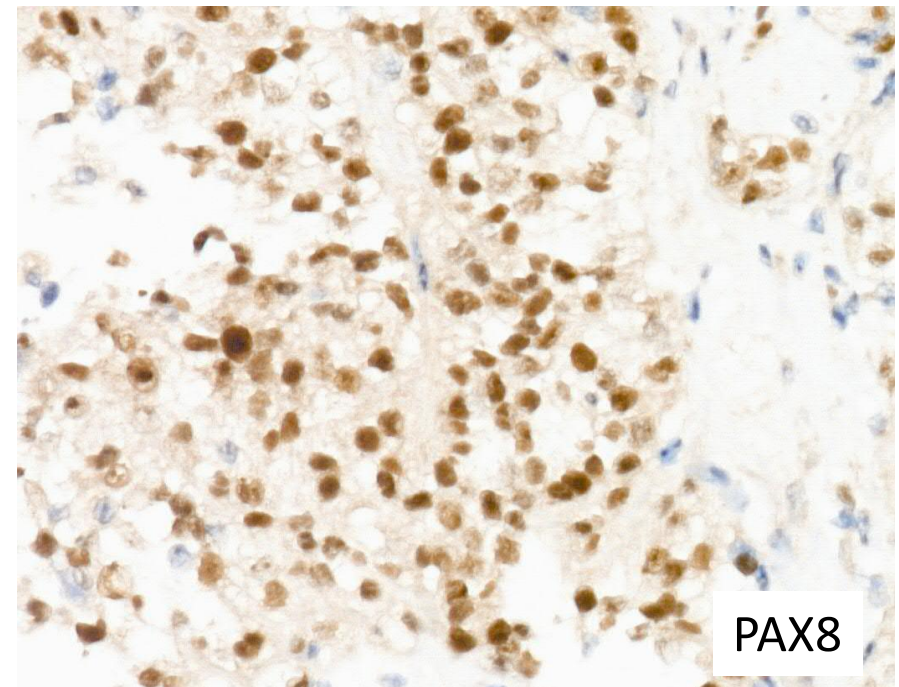
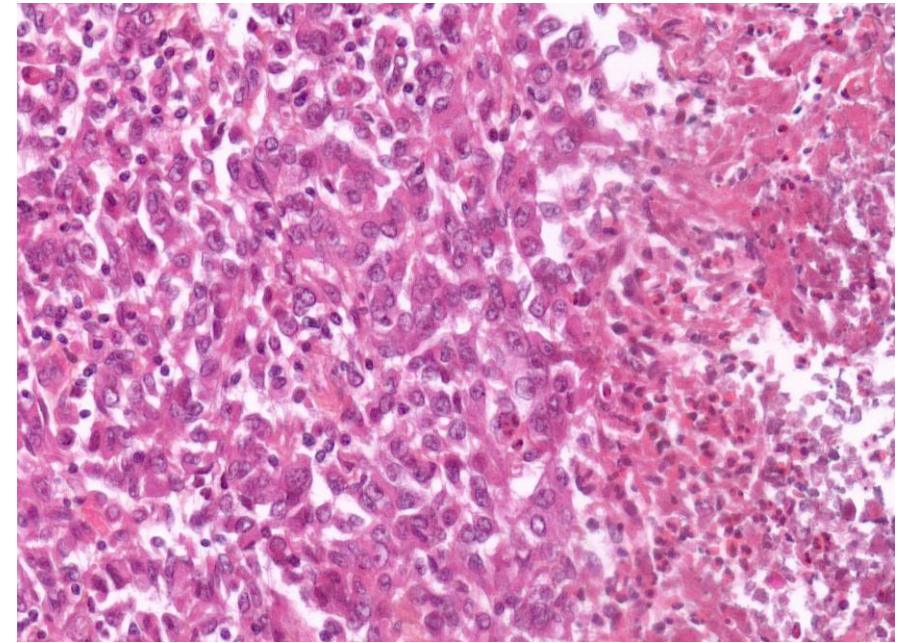
Tumeurs à cellules fusiformes

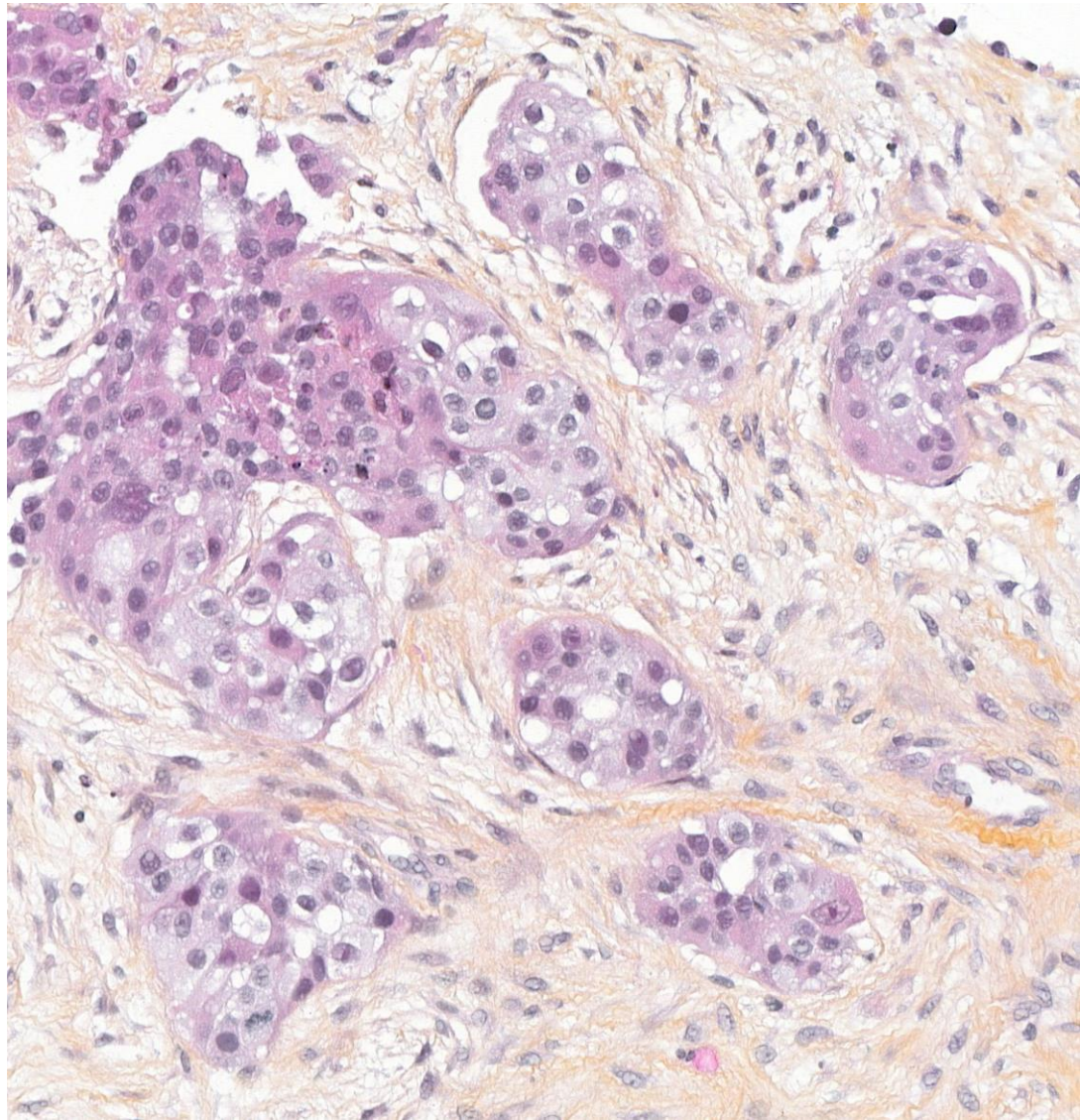
Angiomyolipome



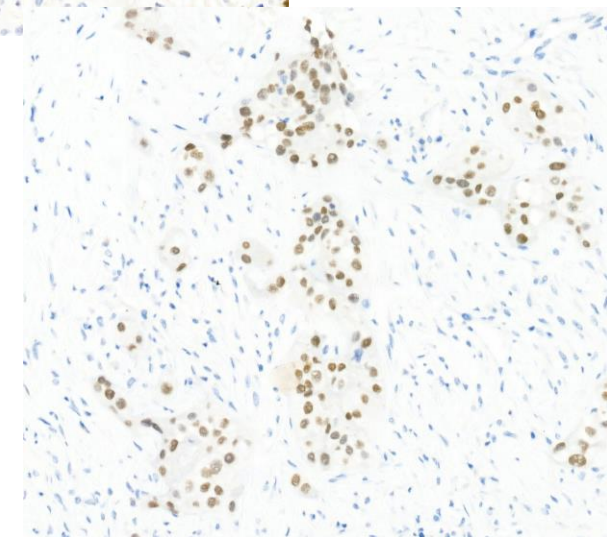
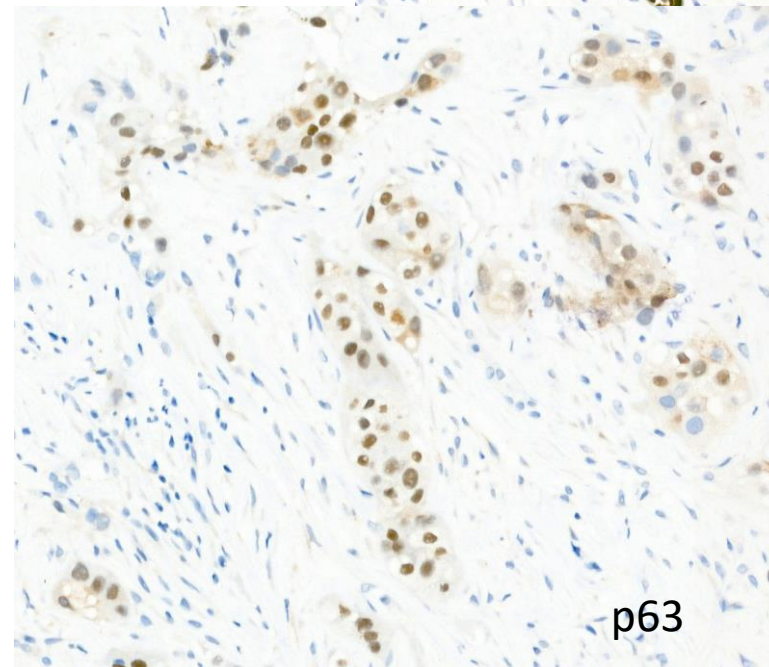
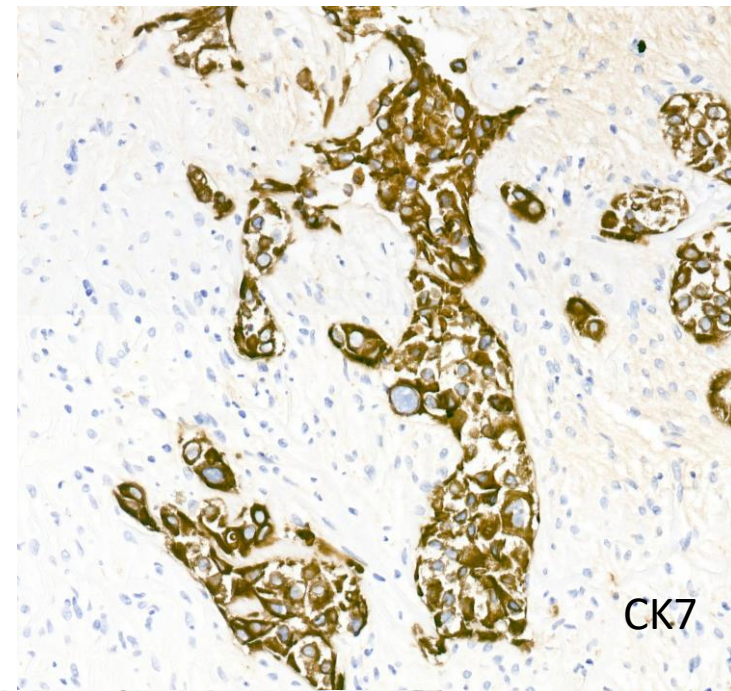
Tumeurs de haut grade

- S'assurer de l'origine rénale : IHC PAX 8
- Si PAX8 + : IHC CA9, CK7, Racémase, CD117.
- En seconde intention : INI1 (carcinome médullaire), TFE3, TFEB, SDHB, ALK, FH...
- Si PAX8 - :
 - Éliminer angiomyolipome épithélioïde (HMB45 et Melan A)
 - Éliminer un carcinome urothélial (GATA3, p63)





Carcinome urothélial

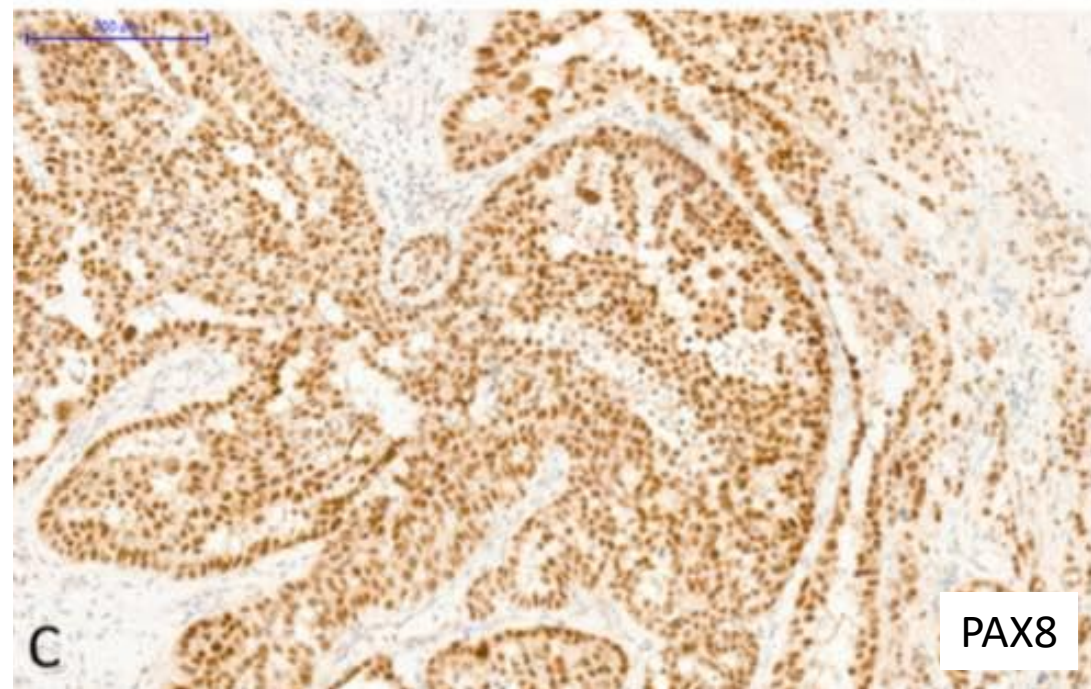
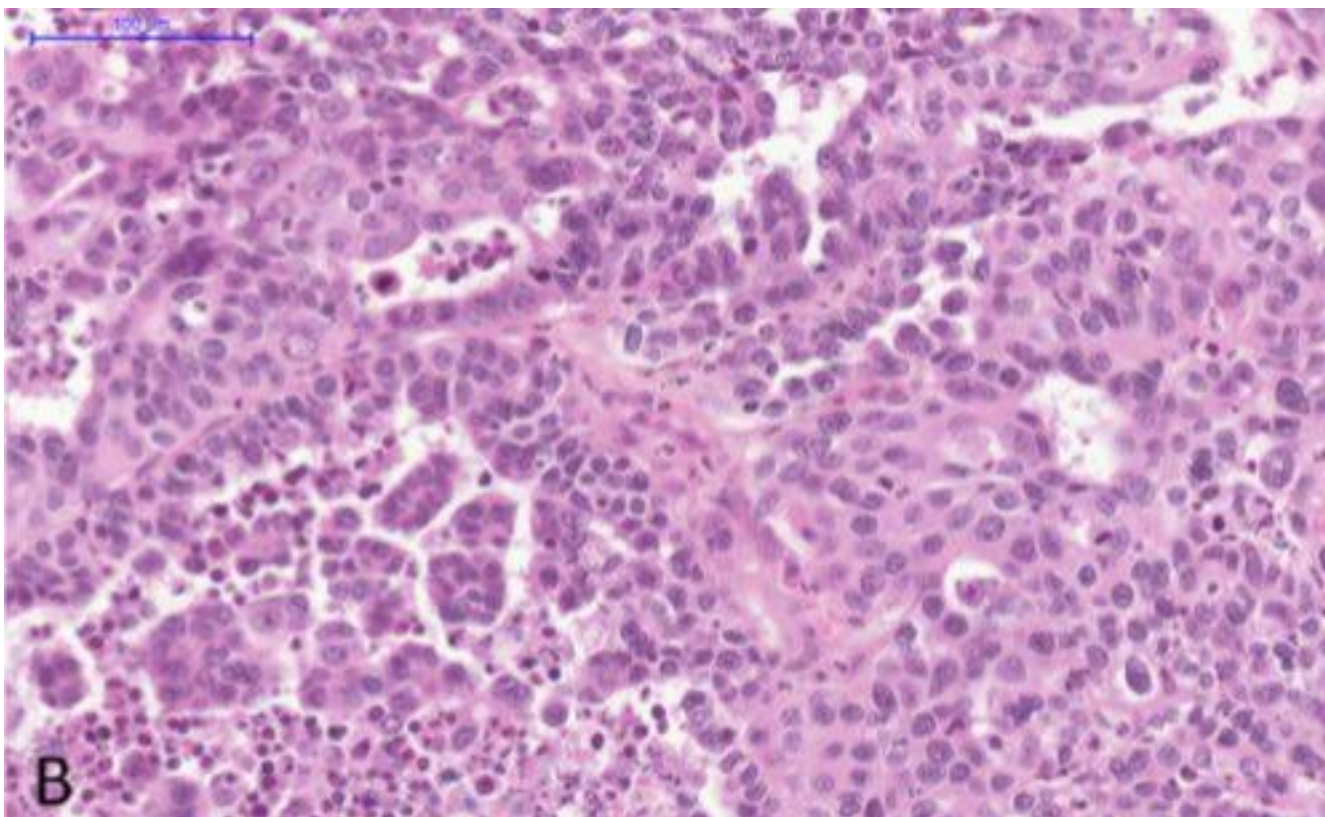
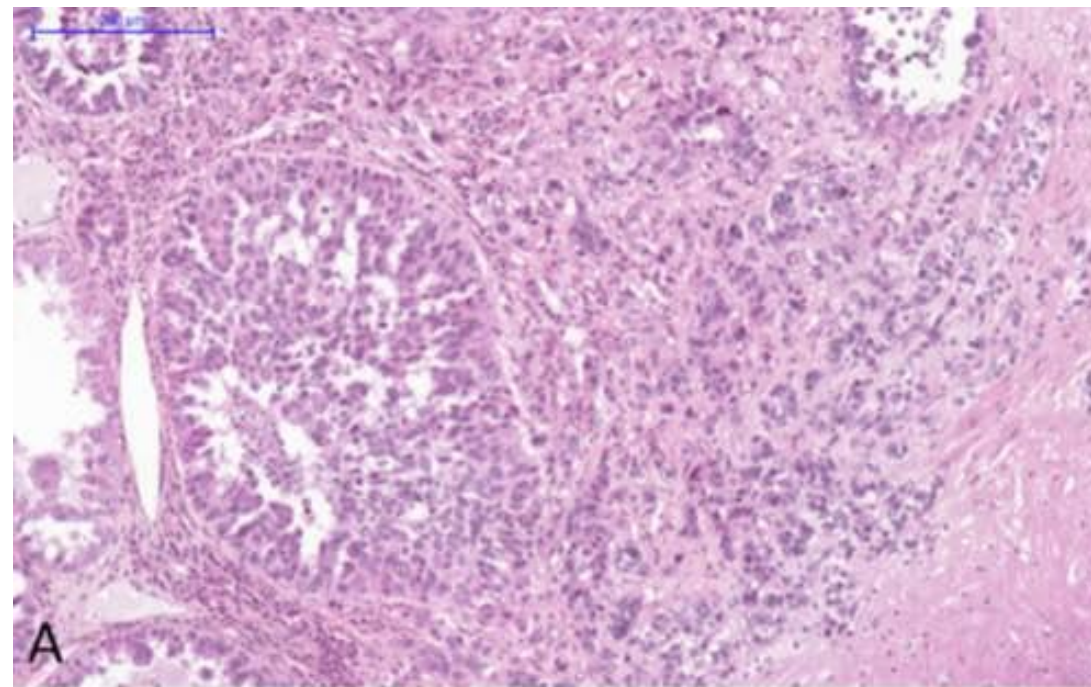


Carcinome des tubes collecteurs

Patient transplanté rein et pancréas.

Néphrite tubulo-interstitielle à BK virus 2 ans après la transplantation.

Tumeur sur greffon rénal 11 ans après la transplantation.



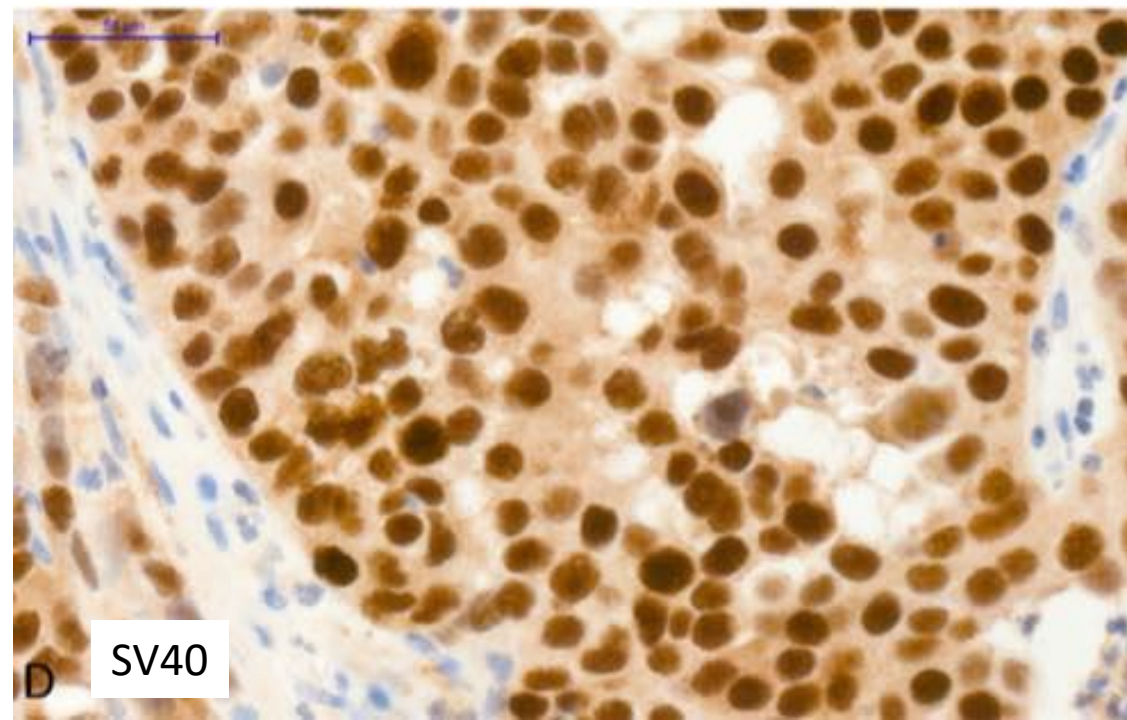
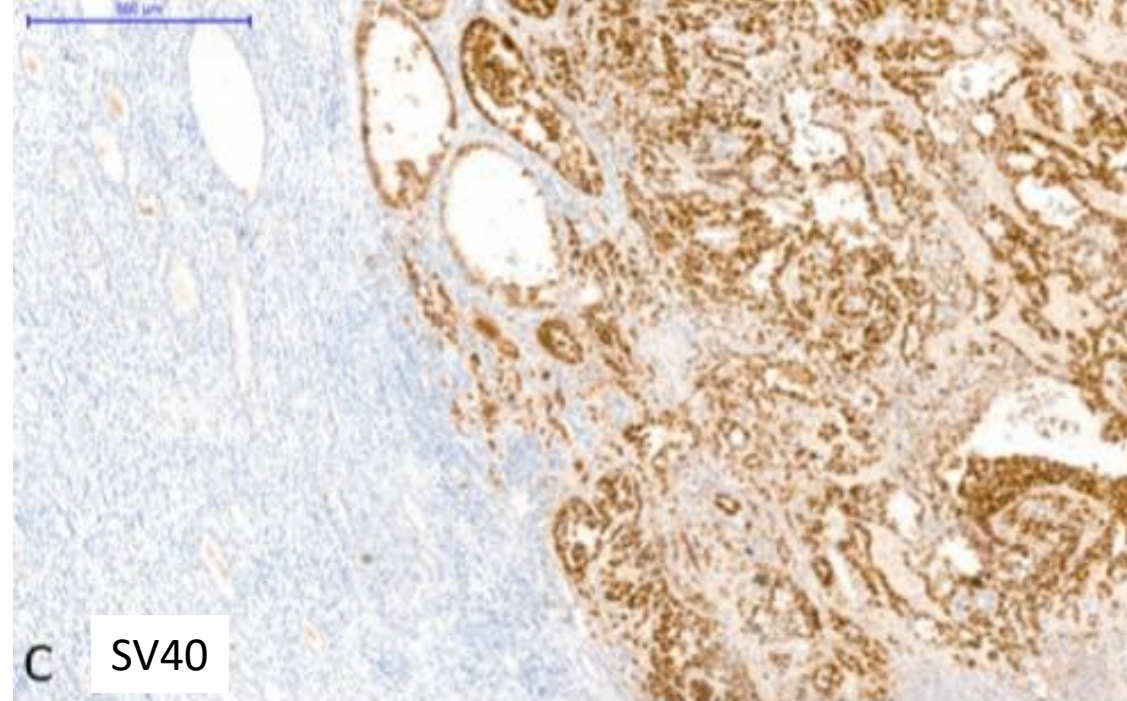
Case Report

BK virus-associated collecting duct carcinoma of the renal allograft in a kidney-pancreas allograft recipient

Myriam Dao^{1,2}, Adrien Pécriaux¹, Thomas Bessede^{2,3}, Antoine Dürrbach^{2,4}, Charlotte Mussini¹, Catherine Guettier^{1,2} and Sophie Ferlicot^{1,2}

- PAX8 +
- CK7 +
- CA9 focalement +
- Vimentine focalement +
- Racémase –
- GATA3 –
- CK20 –
- INI1 +

- SV40 +



- Carcinome à cellules claires
- Néoplasie kystique multiloculaire à cellules claires
- Carcinome à stroma léiomyomateux

Cellules claires

- Papillaire à cellules claires
- Carcinome MiTF

Architecture papillaire

- Carcinome papillaire 1
- Carcinome tubulo-mucineux et à cellules fusiformes



- Carcinome papillaire 2
- Carcinome papillaire oncocytaire
- Carcinome MiTF
- Carcinome associé à la léiomyomatose héréditaire
- Carcinome réarrangement ALK

- Carcinome tubulo-mucineux et à cellules fusiformes
- Carcinome sarcomatoïde
- Angiomyolipome

Architecture fusiforme

Cellules éosinophiles

- Oncocytome
- Carcinome chromophile
- Carcinome SDH déficient
- Carcinome éosinophile solide et kystique

Références bibliographiques

1. Eosinophilic kidney tumors. Iczkowski KA, Czaja R. *Arch Pathol Lab Med* 2019.
2. Morphologic, molecular and taxonomic evolution of renal cell carcinoma. A conceptual perspective with emphasis on updates to the 2016 World Health Organization Classification. Udager A, Mehra R. *Arch Pathol Lab Med* 2016, 140: 1026.
3. New and emerging renal entities: a perspective post-WHO 2016 classification. Trpkov K, Hes O. *Histopathology* 2019, 74:31-59.