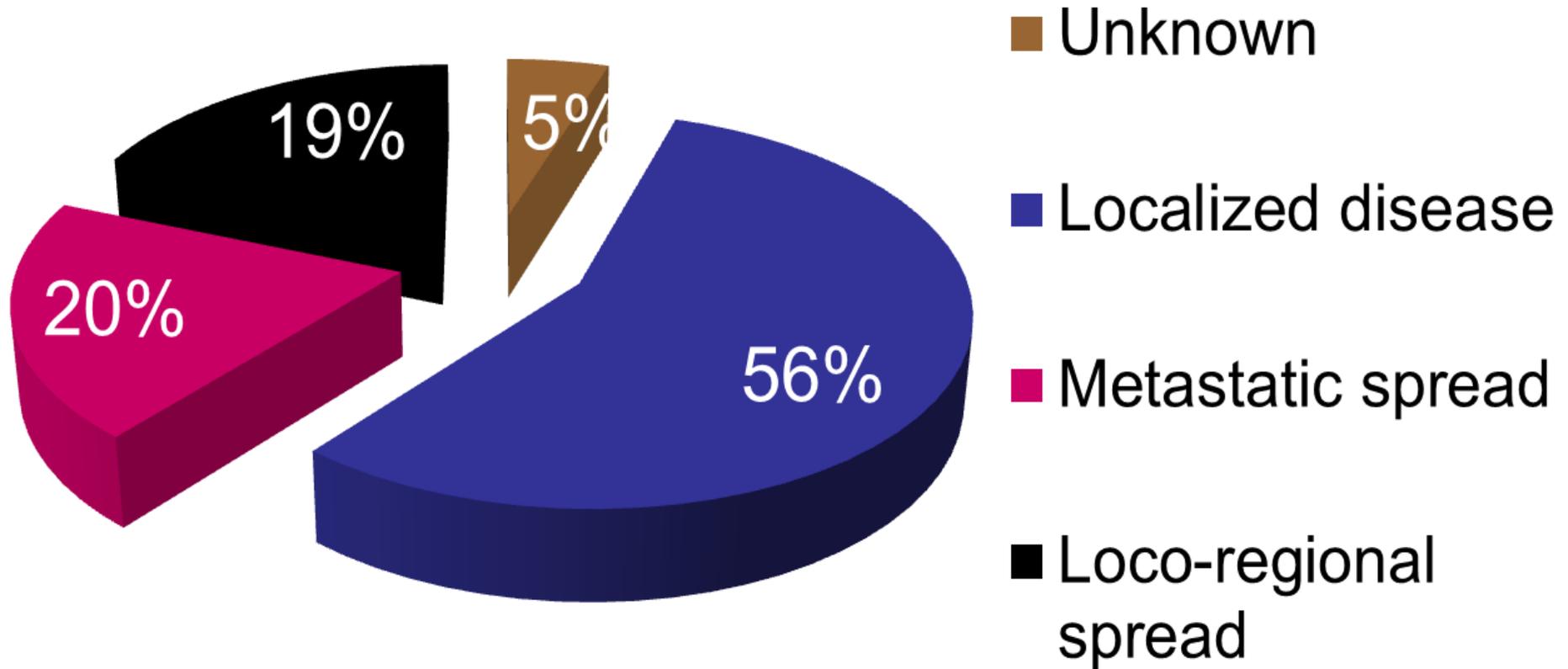


Historique des techniques chirurgicales sur les 10 années passées et mise en perspective des années à venir

Arnaud Méjean

Extend of Disease at Diagnostic

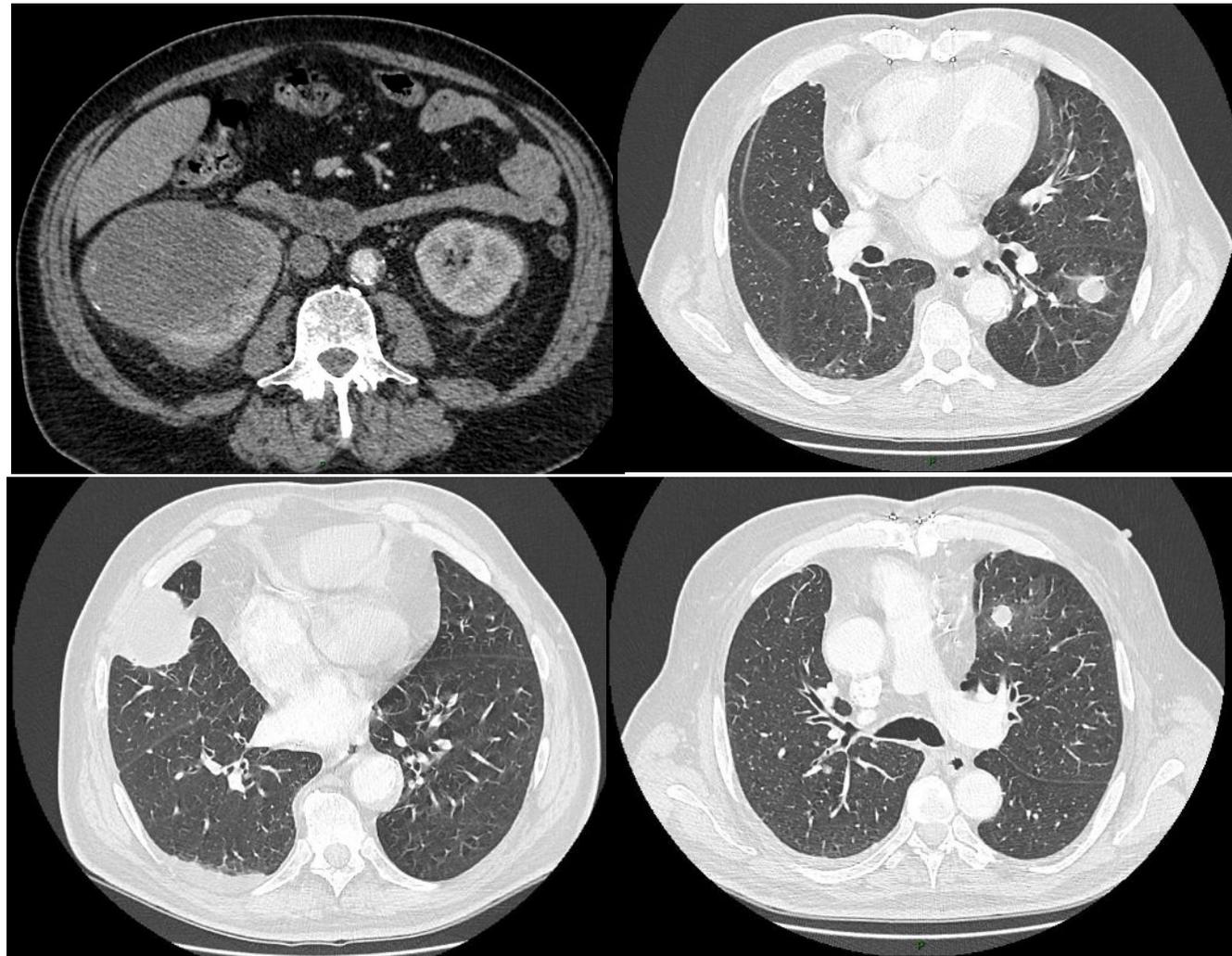


National Cancer Institute. SEER 2008, Cancer of the kidney

3 grandes situations

- Tumeur métastatique
- Tumeur localement avancée
- Tumeur localisée

CCR M+



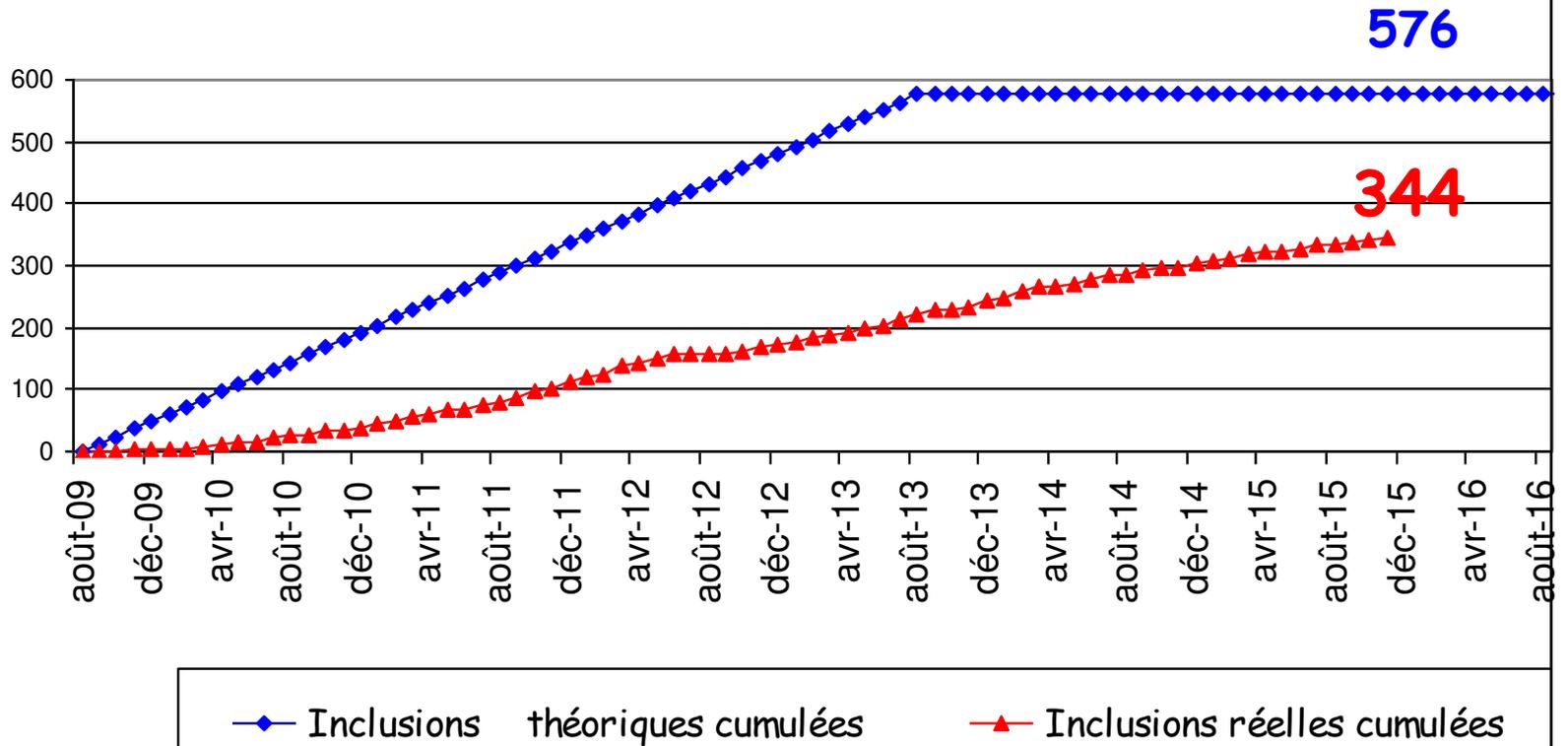
H, 66 ans
Hématurie
AEG, - 7 Kg
HTA, PTHD
CKD-EPI =
66 ml/min
TDM 2010 :
tumeur du
RD de 5 cm

CAT CCR M+ ?

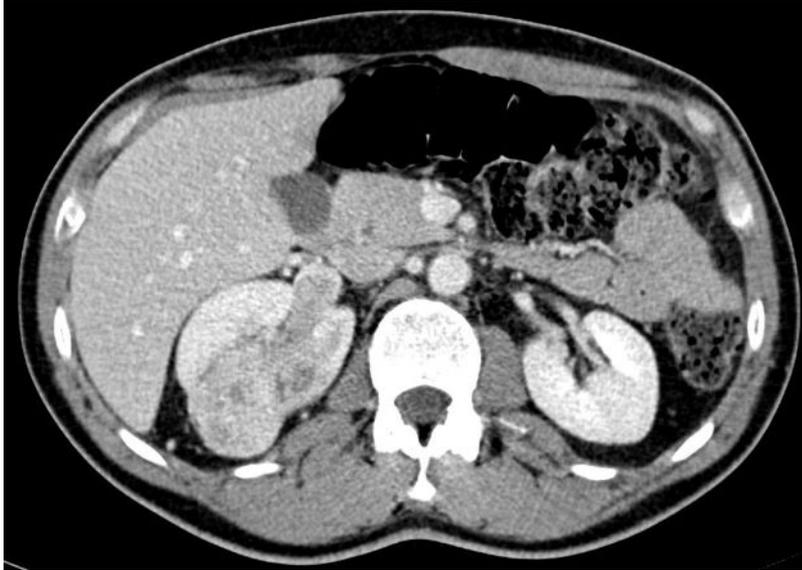
- Protocole CARMEMA
- Opérabilité ? (PS, Oncogériatrie, ...)
- Si oui : Néphrectomie cytoréductive
- Si non : Biopsie +++ puis antiangiogéniques

CARMENA - Courbe d'Inclusion France

Nombre de patients inclus

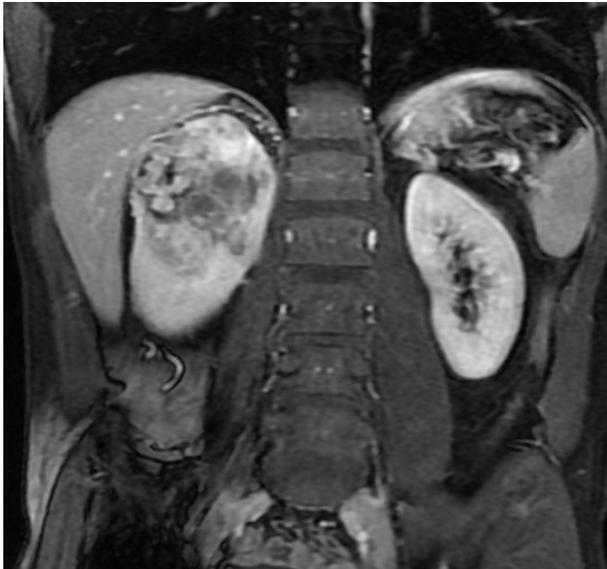


CCR localement avancé



H, 52 ans
Hématurie
TBEG
Otospongiose

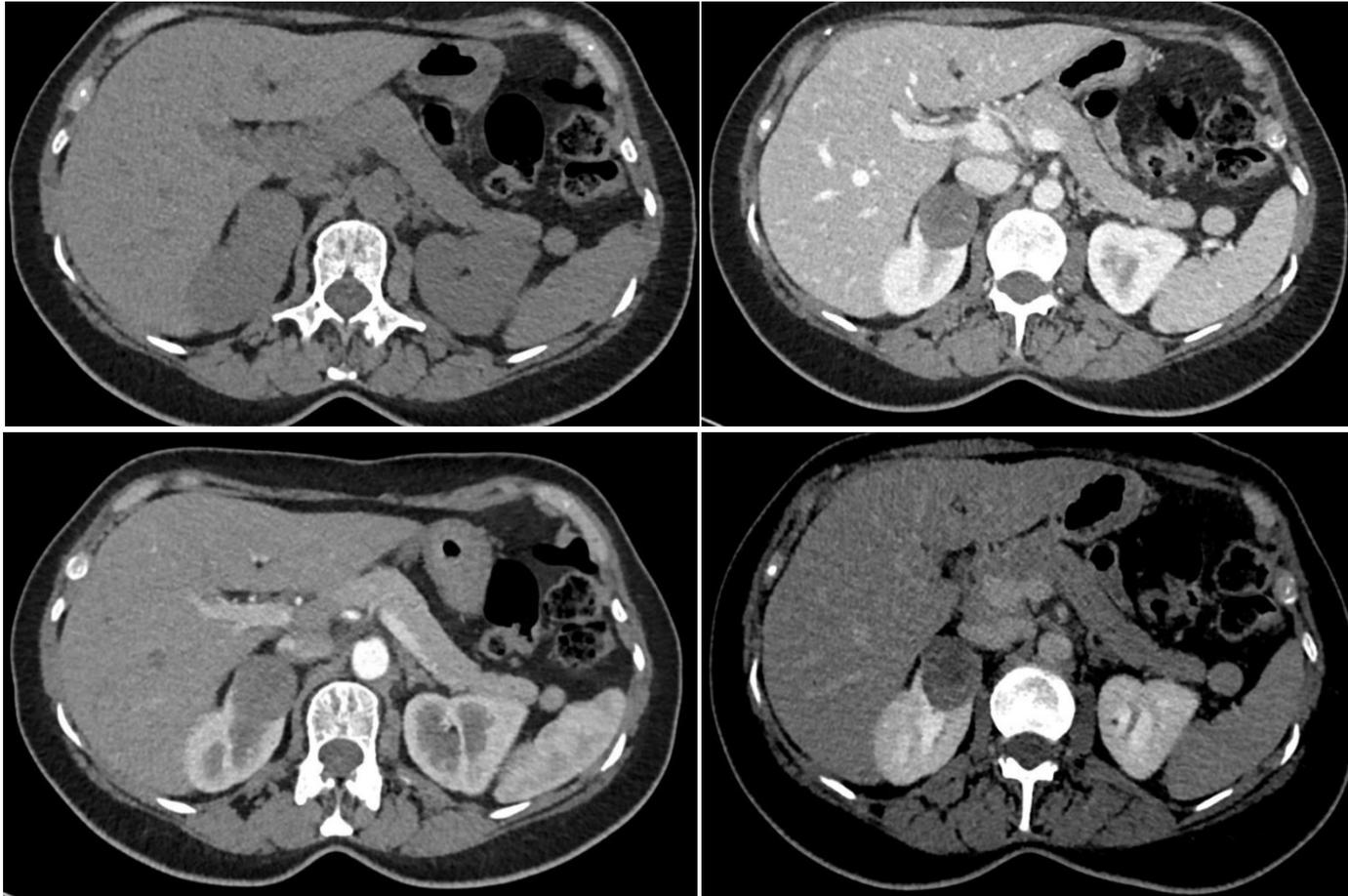
CKD-EPI =
86 ml/min
Doute sur
thrombus



CAT RCC localement avancé ?

- Bilan complet ?
- Opérabilité ? (PS, Oncogériatrie, ...)
- Antiangiogéniques néo-adjuvant après biopsie ?
- Traitement : Néphrectomie totale avec exérèse la plus complète possible

Tumeur du rein localisée



F, 42 ans

Découverte
fortuite sur
écho

ATCD
gynéco

CKD-EPI =
112 ml/min

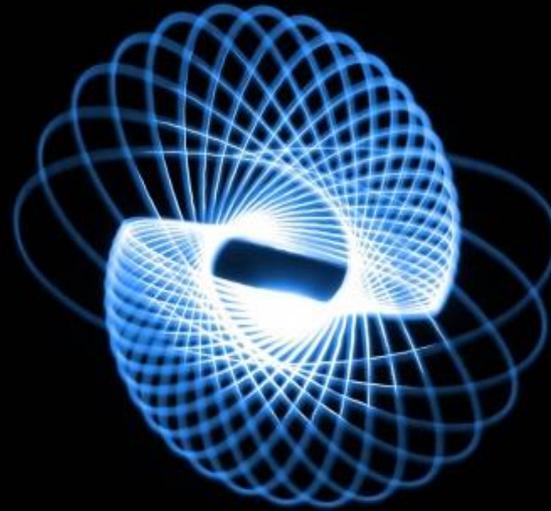
CAT Tumeur localisée ?

- Complément d'imagerie (TDM tho, IRM, écho de contraste) ?
- Biopsie ?
- Traitement ?
- RCP +++

Size, Volume
Location, Peri-tumoral fat
Limits, Hilar fat

Tumor

Kidney



Patient

Creat serum
eGFR
Renal disease

Age
BMI
Comorbidity
Oncogeriatry
Anticoag

MSKCC disease free survival

Open PN < 4 cm, pT1a, all histo

Lee, J Urol, 2000

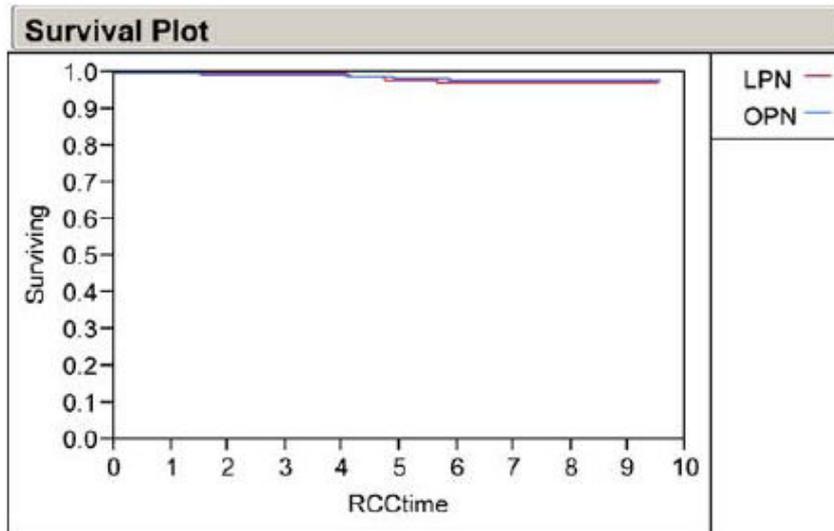
60 mo = 95 % DFS

7-Year Oncological Outcomes After Laparoscopic and Open Partial Nephrectomy

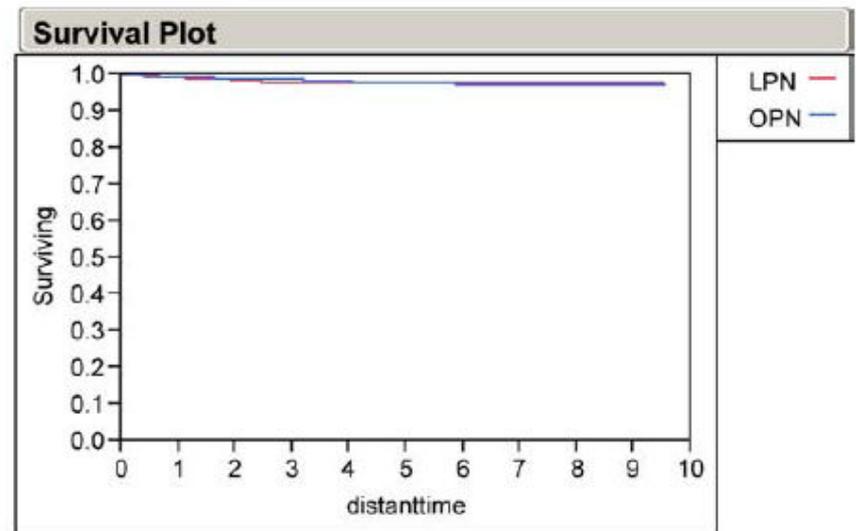
Brian R. Lane^{*,†} and Inderbir S. Gill^{‡,§}

THE JOURNAL OF UROLOGY[®] Vol. 183, 473-479, February 2010

A



B



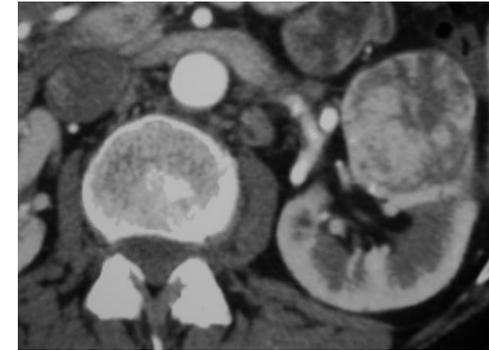
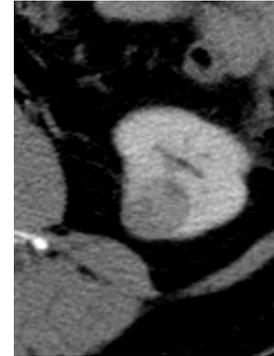
Kaplan-Meier estimates of cancer specific (A) and metastasis-free (B) survival after LPN and OPN.

Dogme de la NE



Néphrectomie partielle

Recommandations sur les traitements conservateurs des tumeurs du rein localisées		
Indications	Recommandations	Grade
Élective	La néphrectomie partielle est recommandée pour le traitement de toutes les tumeurs T1 sous réserve de l'obtention de marges saines et d'une morbidité prévisible acceptable.	C



Patard et al, Prog Urol, 2013

Recommendations	GR
Surgery is recommended to achieve cure in localised RCC.	B
PN is recommended in patients with T1a tumours.	A
PN should be favoured over RN in patients with T1b tumour, whenever feasible.	B
Ipsilateral adrenalectomy is not recommended when there is no clinical evidence of invasion of the adrenal gland.	B
LND is not recommended in localised tumour without clinical evidence of LN invasion.	A

Ljunberg et al, EAU, 2015

NE facteur de risque d'IR ?

- 662 pts, 1989 -2005, T unique < 4 cm, rein controlat sain, créat normale
- 390 NP, 272 NE

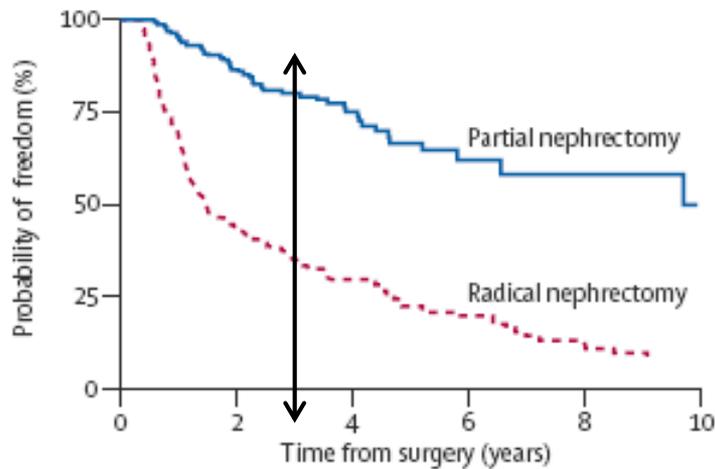
26 % MDRD préop < 60 ml/

Chronic kidney disease after nephrectomy in patients with renal cortical tumours: a retrospective cohort study

William CHuang, Andrew S Levey, Angel M Serio, Mark Snyder, Andrew J Vickers, Ganesh V Raj, Peter T Scardino, Paul Russo
Lancet Oncol 2006; 7: 735-40



26% pts (créat nle) sont IR avant chir

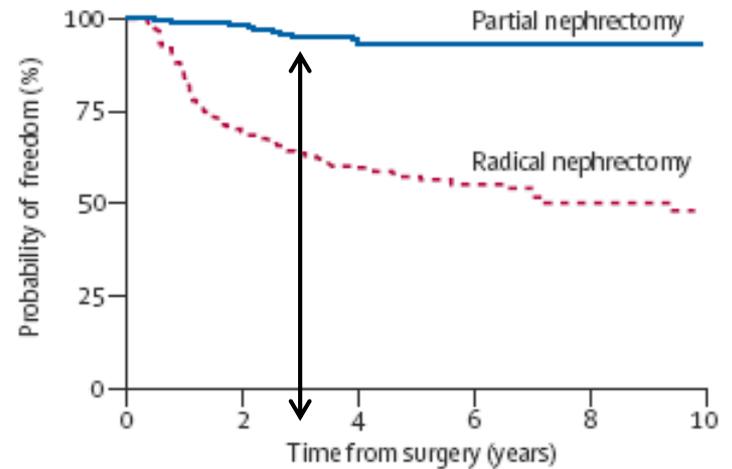


Number at risk	0	2	4	6	8	10
Partial nephrectomy	287	134	62	23	11	6
Radical nephrectomy	204	69	43	20	12	0

Figure 2: Probability of freedom from new onset of GFR lower than 60 mL/min per 1.72 m², by operation type

A 3 ans

80% après NP
35% après NE



Number at risk	0	2	4	6	8	10
Partial nephrectomy	385	187	84	33	13	6
Radical nephrectomy	262	130	86	56	33	21

Figure 3: Probability of freedom from new onset of GFR lower than 45 mL/min per 1.72 m², by operation type

95% après NP
64% après NE

ORIGINAL ARTICLE

Chronic Kidney Disease and the Risks of Death, Cardiovascular Events, and Hospitalization

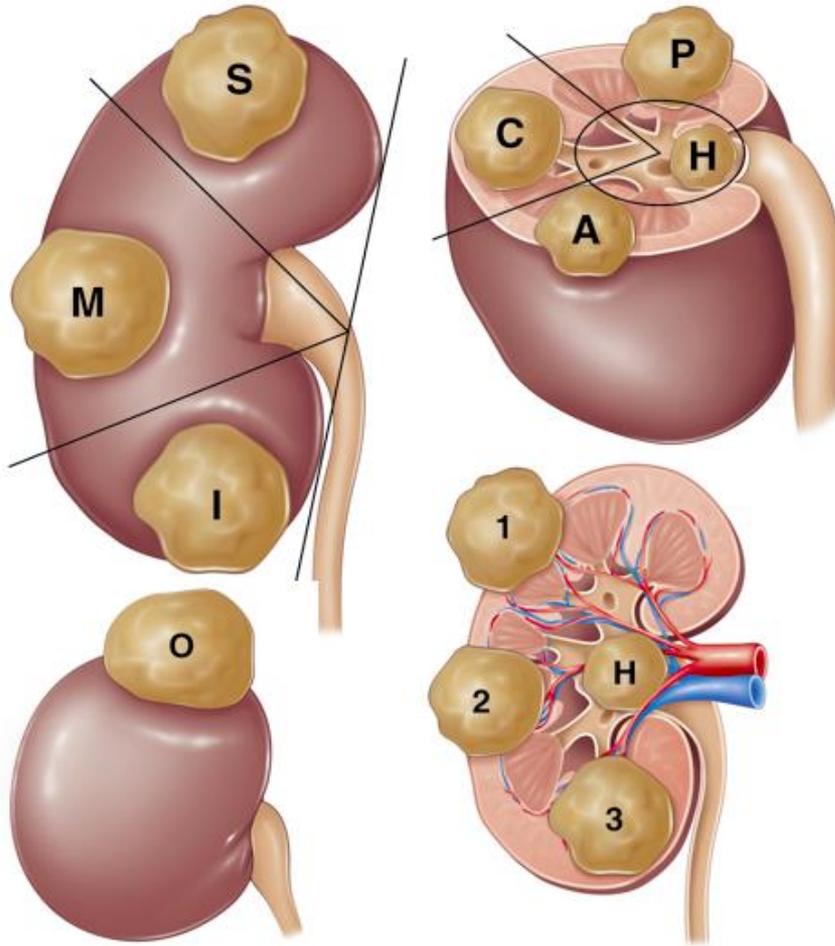
Alan S. Go, M.D., Glenn M. Chertow, M.D., M.P.H., Dongjie Fan, M.S.P.H., Charles E. McCulloch, Ph.D., and Chi-yuan Hsu, M.D.

1 120 295 adultes
FU = 2.84 ans



Estimated GFR	Death from Any Cause	Any Cardiovascular Event	Any Hospitalization
	<i>adjusted hazard ratio (95 percent confidence interval)</i>		
≥60 ml/min/1.73 m ² †	1.00	1.00	1.00
45–59 ml/min/1.73 m ²	1.2 (1.1–1.2)	1.4 (1.4–1.5)	1.1 (1.1–1.1)
30–44 ml/min/1.73 m ²	1.8 (1.7–1.9)	2.0 (1.9–2.1)	1.5 (1.5–1.5)
15–29 ml/min/1.73 m ²	3.2 (3.1–3.4)	2.8 (2.6–2.9)	2.1 (2.0–2.2)
<15 ml/min/1.73 m ²	5.9 (5.4–6.5)	3.4 (3.1–3.8)	3.1 (3.0–3.3)

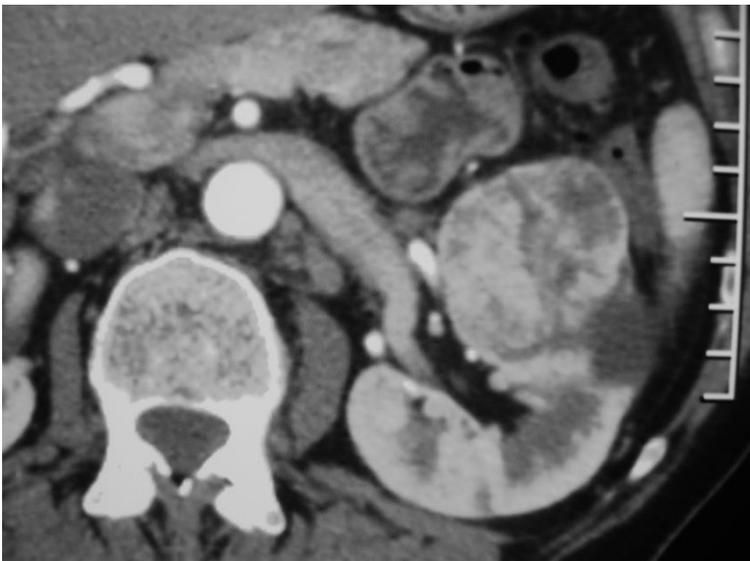
Néphrectomie partielle



- de 4 à 7 cm
- périphérie au centre
- ouverte au robot

Objectif :

Préservation néphronique



Femme de 60 ans

ATCD : K sein (2000) en rémission

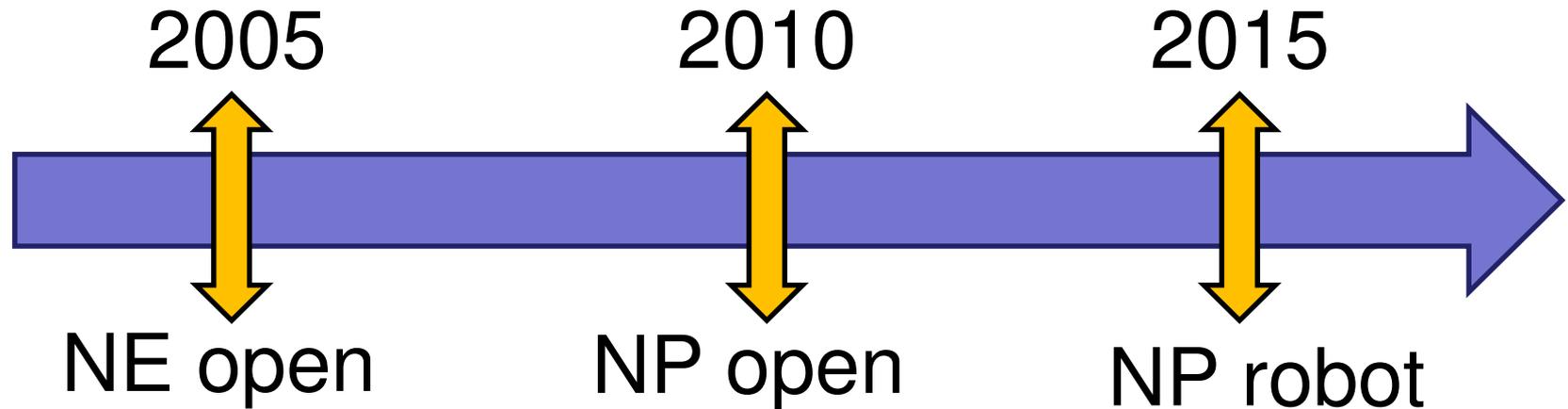
Tabac : 25 PA

HTA

1m60, 52 Kg, ECOG = 0, ASA = 1

Découverte fortuite pour douleurs abdo

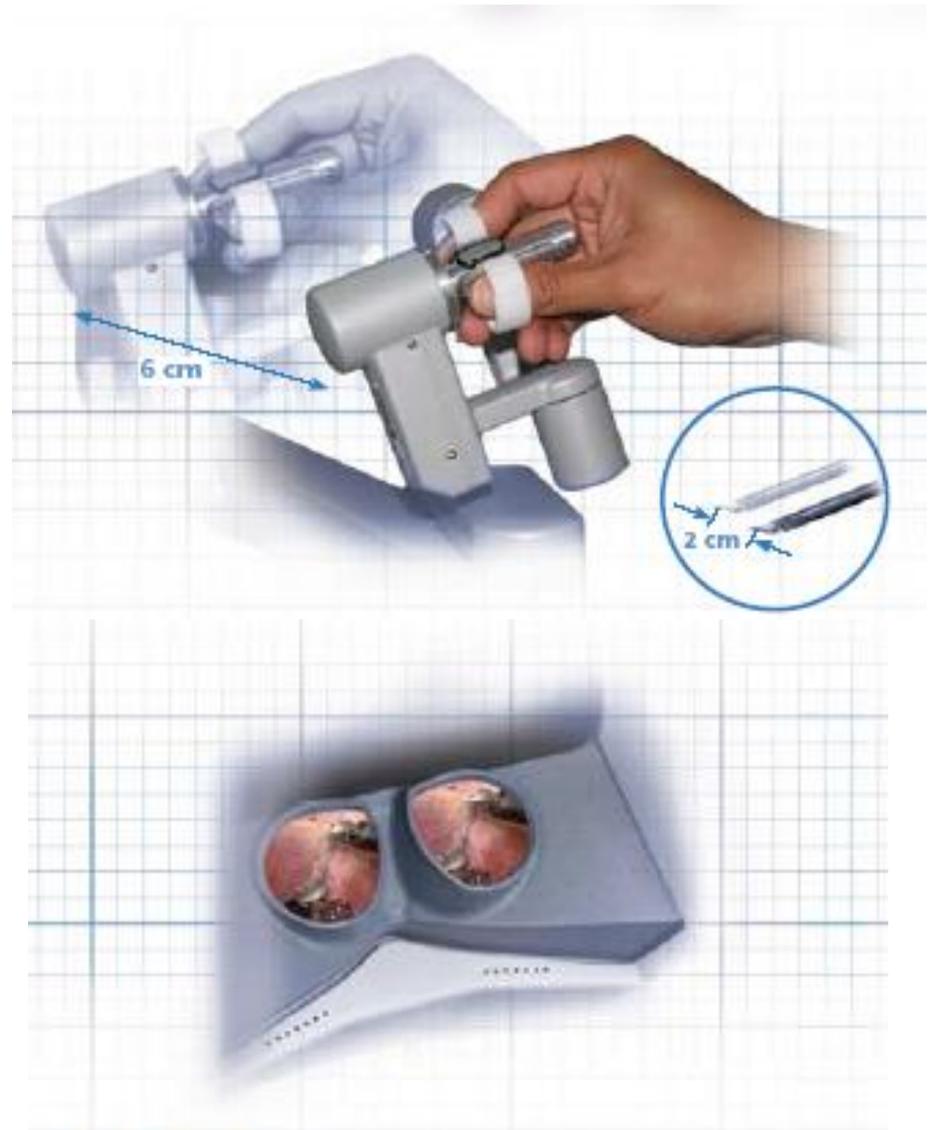
Créat : 66 $\mu\text{mol/L}$, DFG = 90 ml/min



Pertes sg, DMS, antalgiques

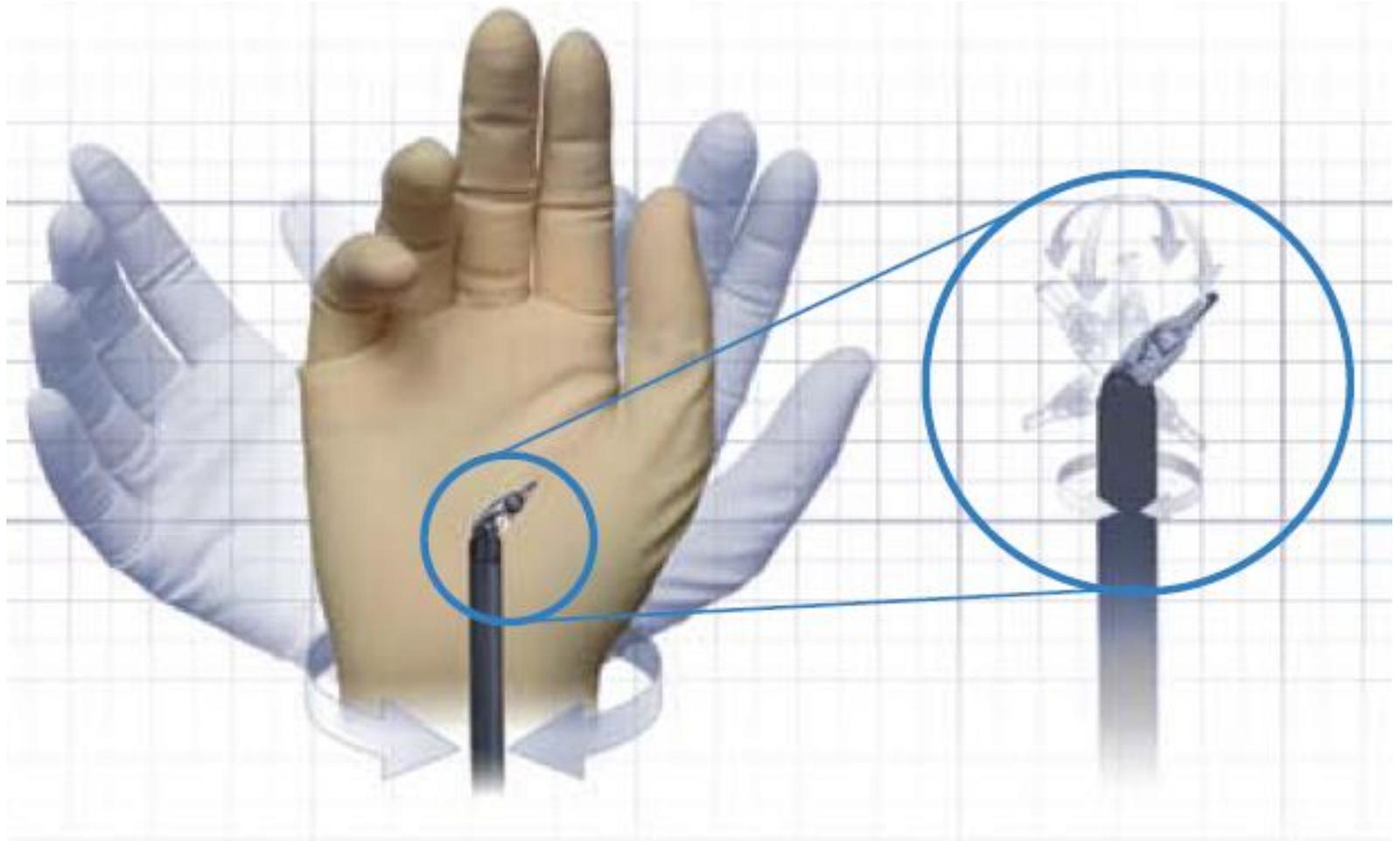
Robotique





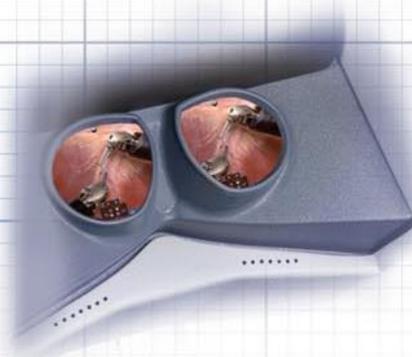
3D HD Vision
INTUITIVE

« Intuitive Surgery »

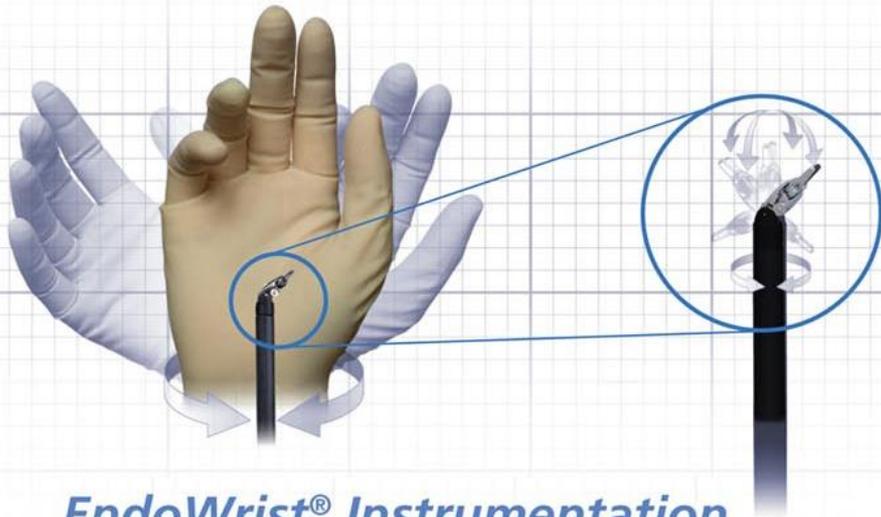




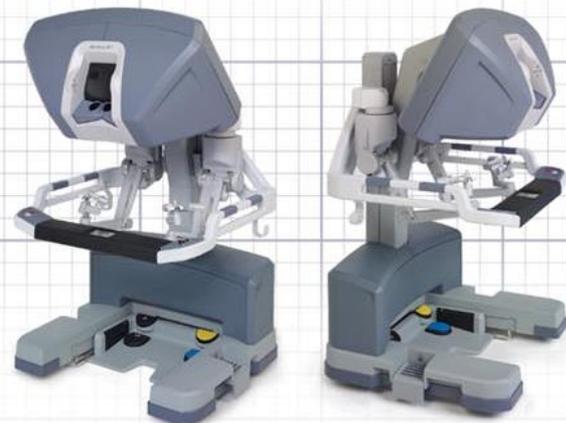
Intuitive® Motion



3D HD Vision



EndoWrist® Instrumentation

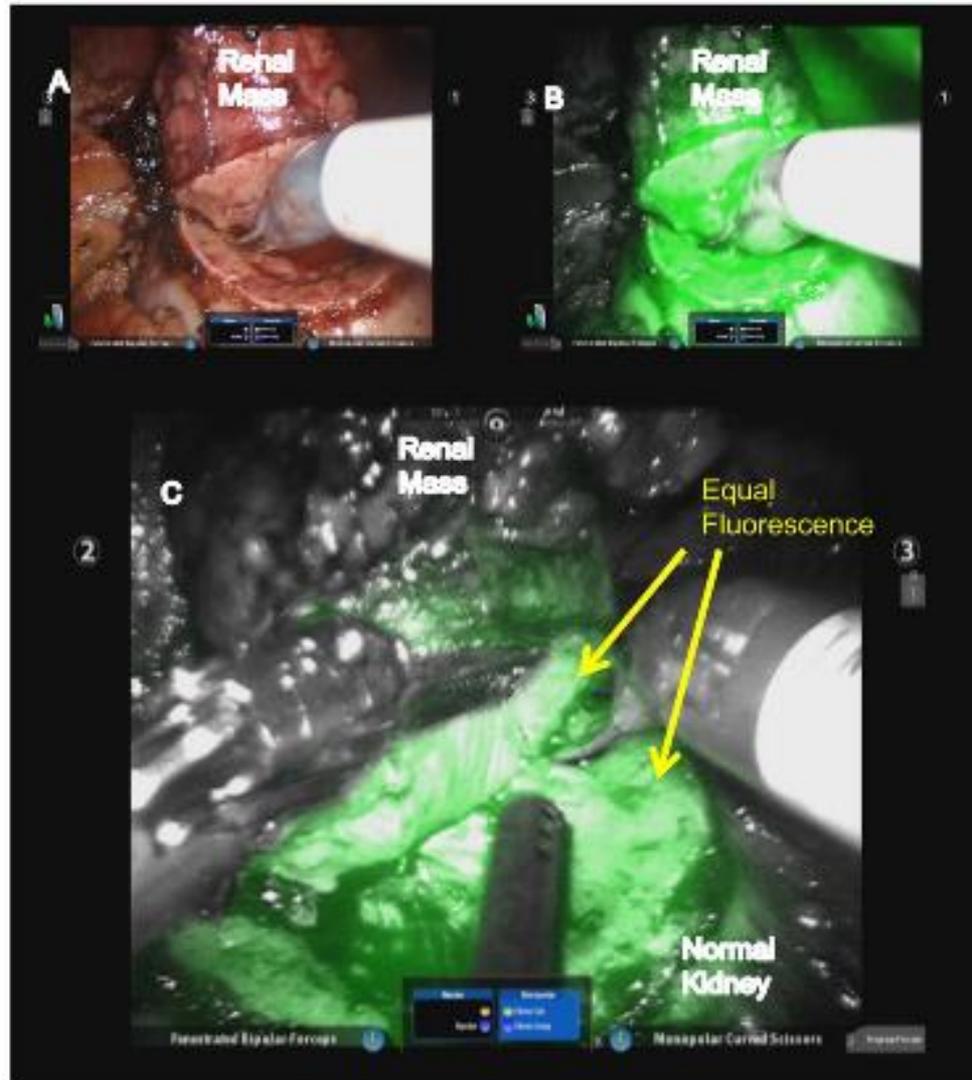


Dual Console Capability

Evolution

- Fluorescence
- Dissection hypervasculaire
- Navigation 3D
- « Vraie » chirurgie robotique

Fluorescence



De moins en moins invasif

NE open

NE lap

NP open

NP lap

NP rob

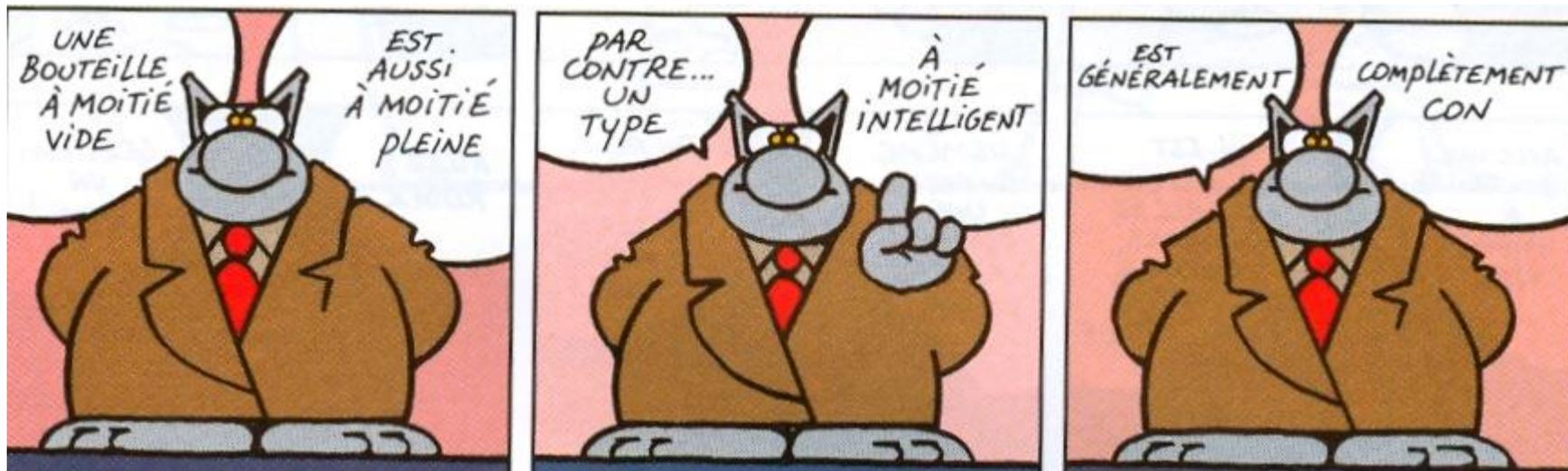
RFA

RxTh

SA



A-t'on vraiment progresser en 10 ans ?

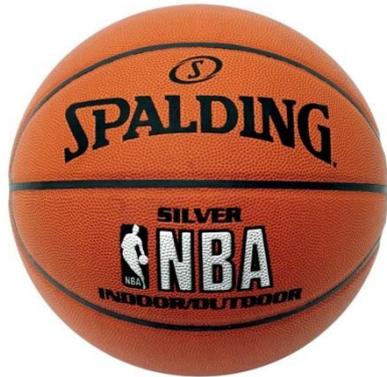
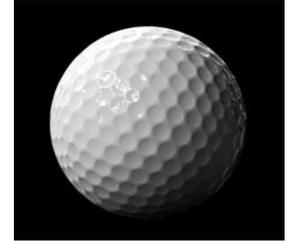
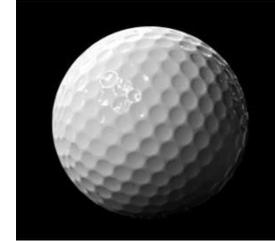
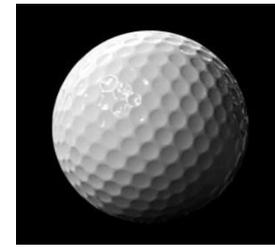
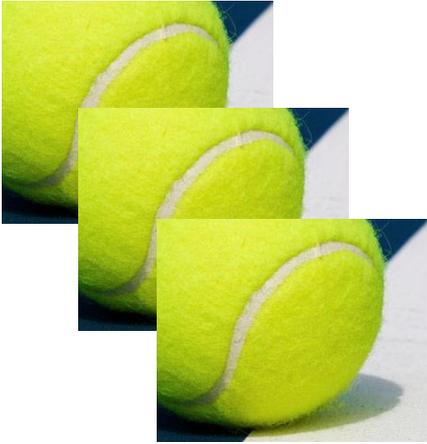


OUI

- Plus de NP et ses csq
- Plus de coelio et ses csq
- Plus d'ablatifs et ses csq.

NON

- Pas assez de NP....
- Qui dépister ?
- Qui opérer ?
- Qui ne pas opérer ?
- Néoadjuvant pour qui et comment ?
- Adjuvant pour qui et comment ?
- Métastatique ?





Femme 44 ans, TRG 2012, pRCC non type 1 de haut grade marges saines

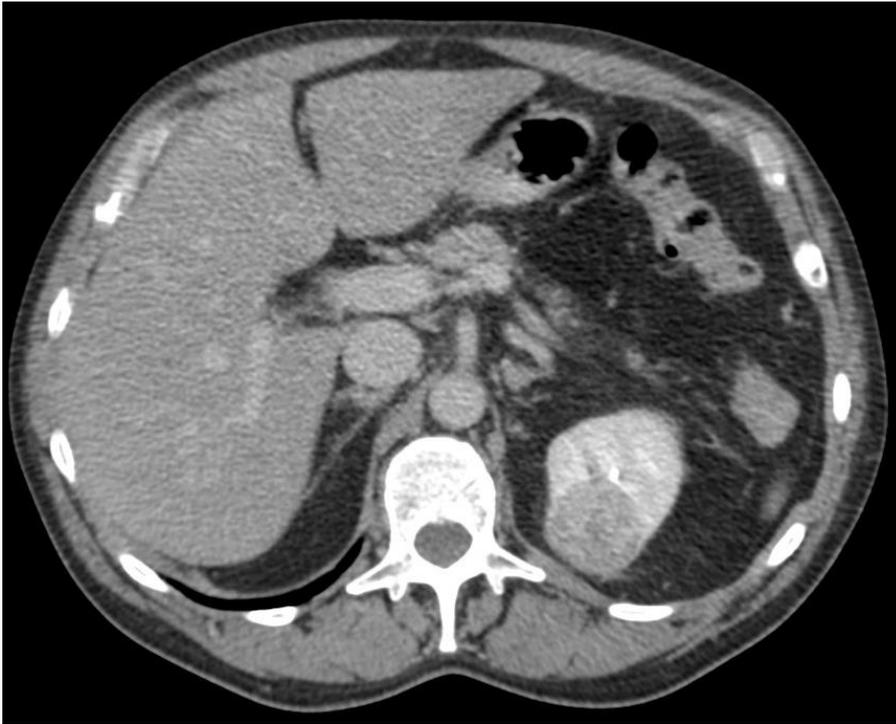


2012



2015

Homme, 65 ans, TRG 2013, cRCC,
Fuhrman 2, marges saines



2013



2015

Femme, 74 ans, VHL, cRCC, Fuhrman 2
RFA 2012,



2012

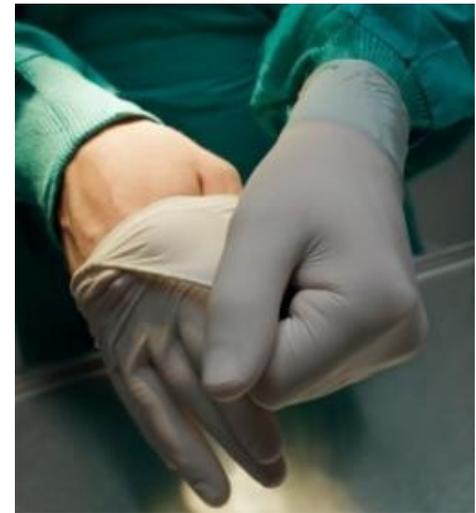


2015

Nous n'avons
aucune
stratégie élaborée

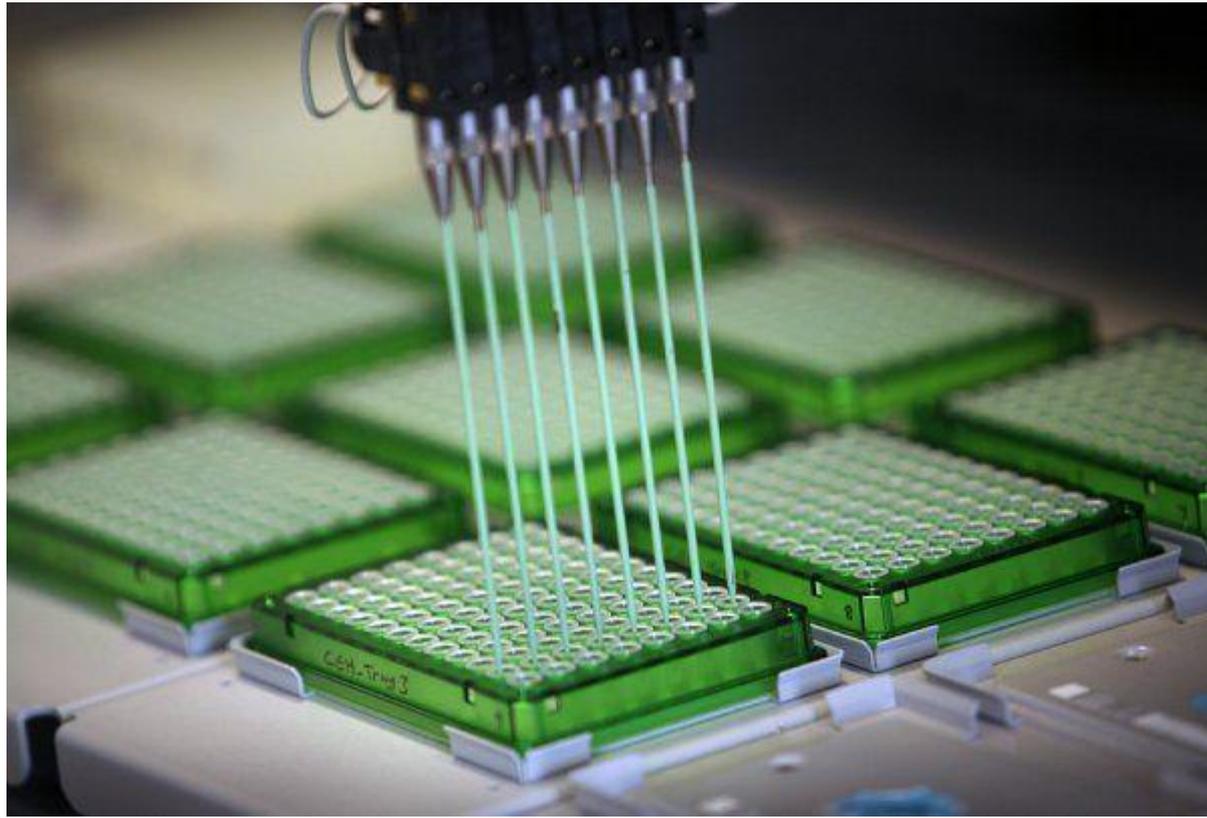


Nous restons sur
un modèle binaire :
opérer ou ne pas
opérer



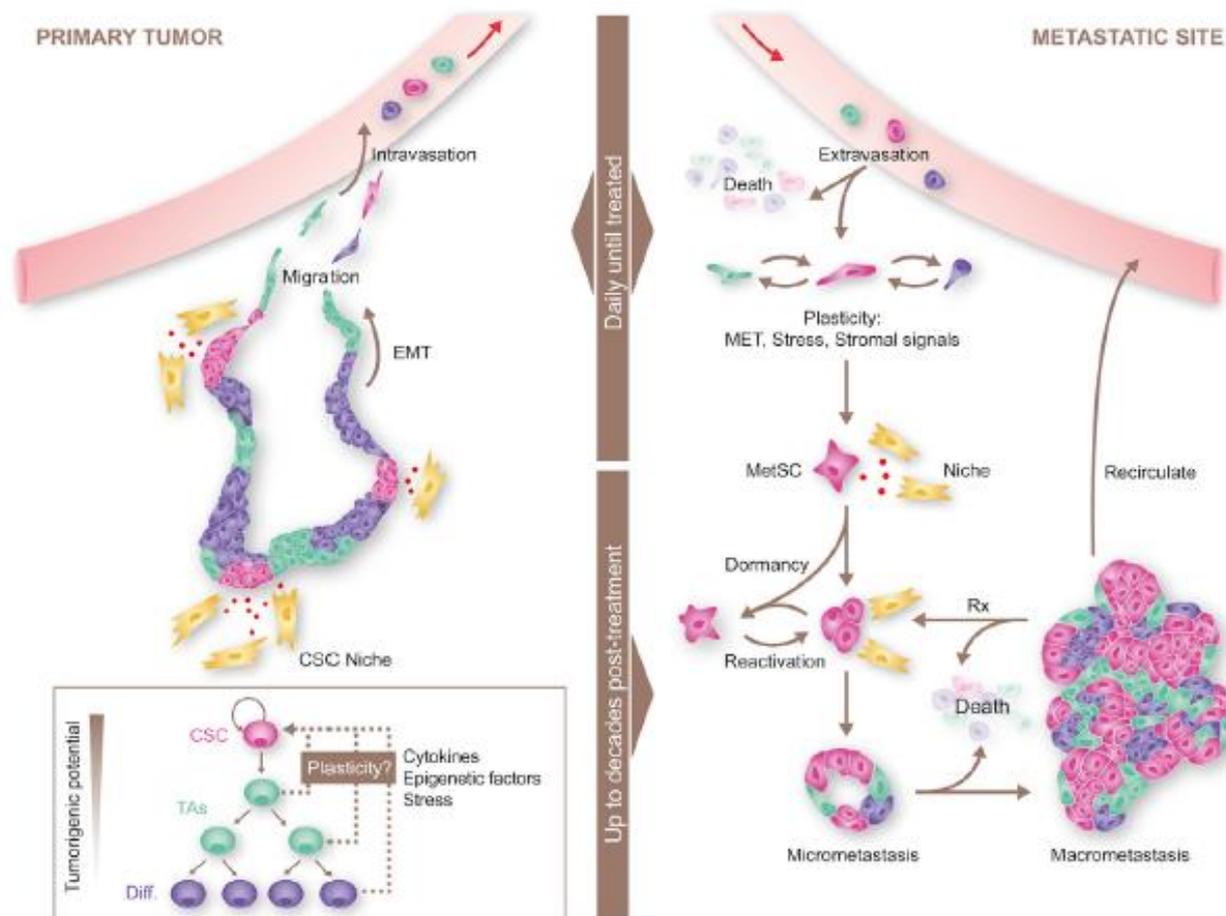
Quel Futur ?

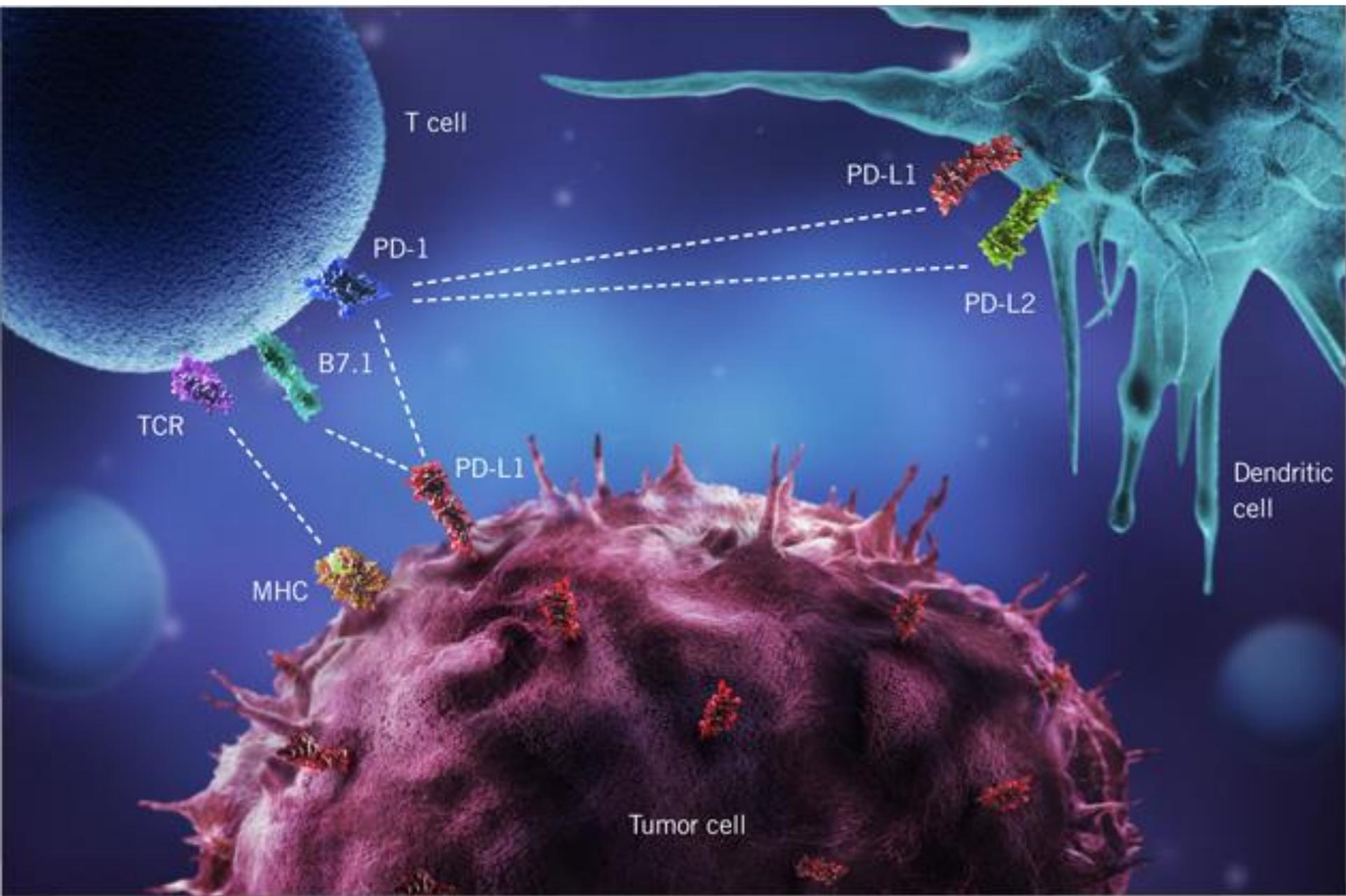
Traitement personnalisé



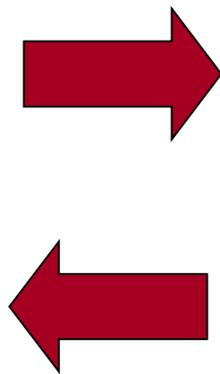
Metastatic Stem Cells: Sources, Niches, and Vital Pathways

Thordur Oskarsson,^{1,2,3} Eduard Batlle,^{4,5} and Joan Massagué^{6,7,*} Cell Stem Cell 14, March 6, 2014





Définir des séquences de traitement



The NEW ENGLAND JOURNAL of MEDICINE

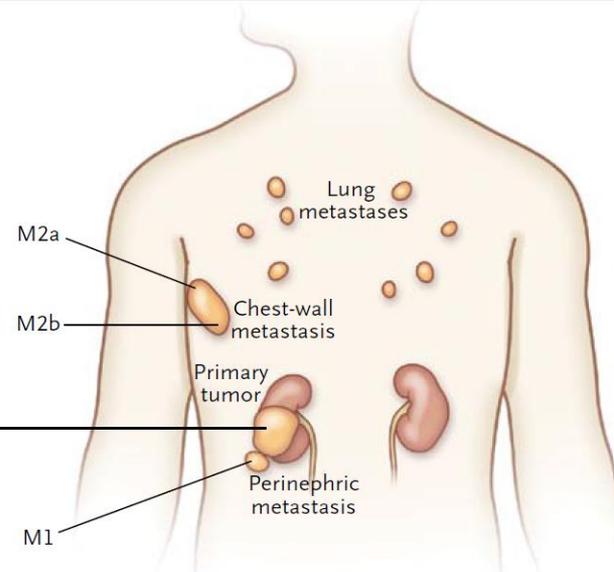
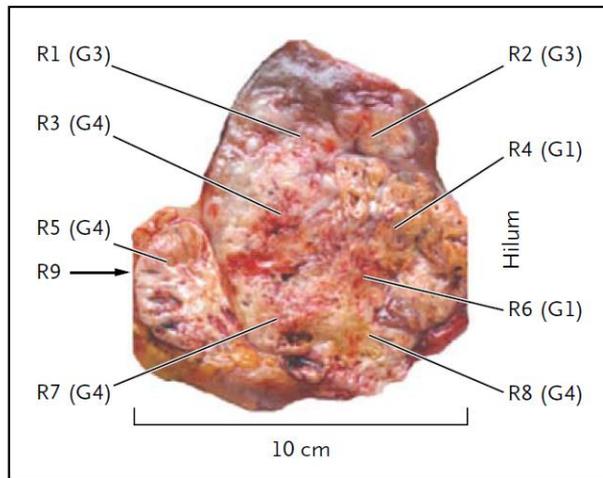
ESTABLISHED IN 1812

MARCH 8, 2012

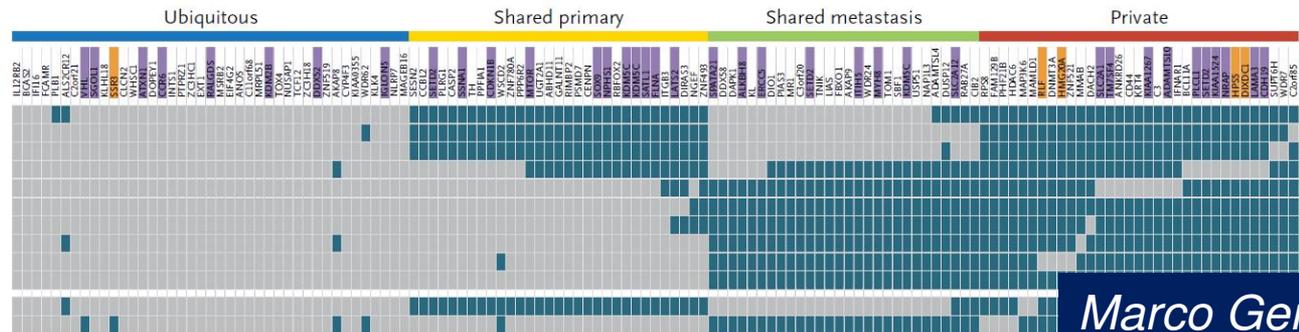
VOL. 366 NO. 10

Intratumor Heterogeneity and Branched Evolution Revealed by Multiregion Sequencing

A Biopsy Sites



B Regional Distribution of Mutations



Marco Gerlinger et al

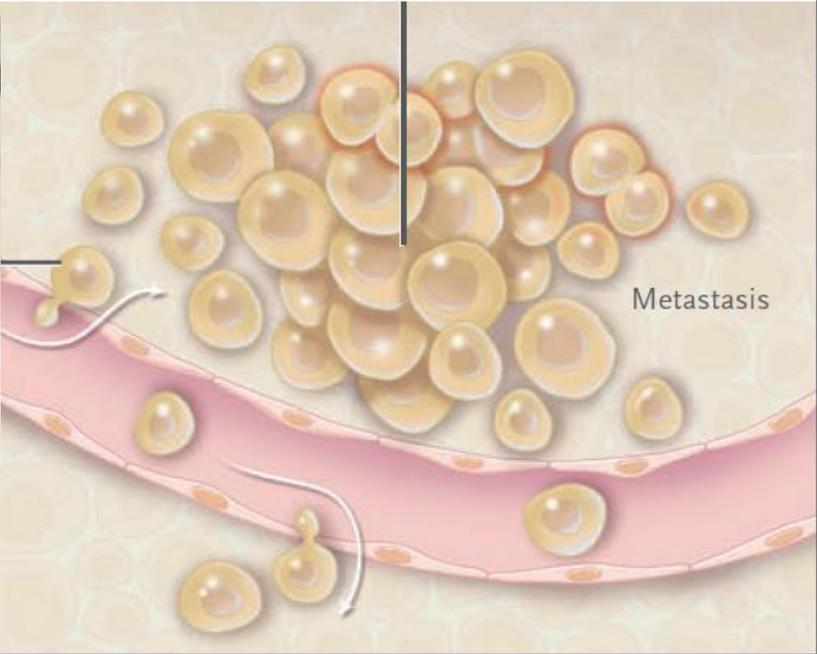
Molecular Basis of Metastasis

N ENGL J MED 359;26
DECEMBER 25, 2008

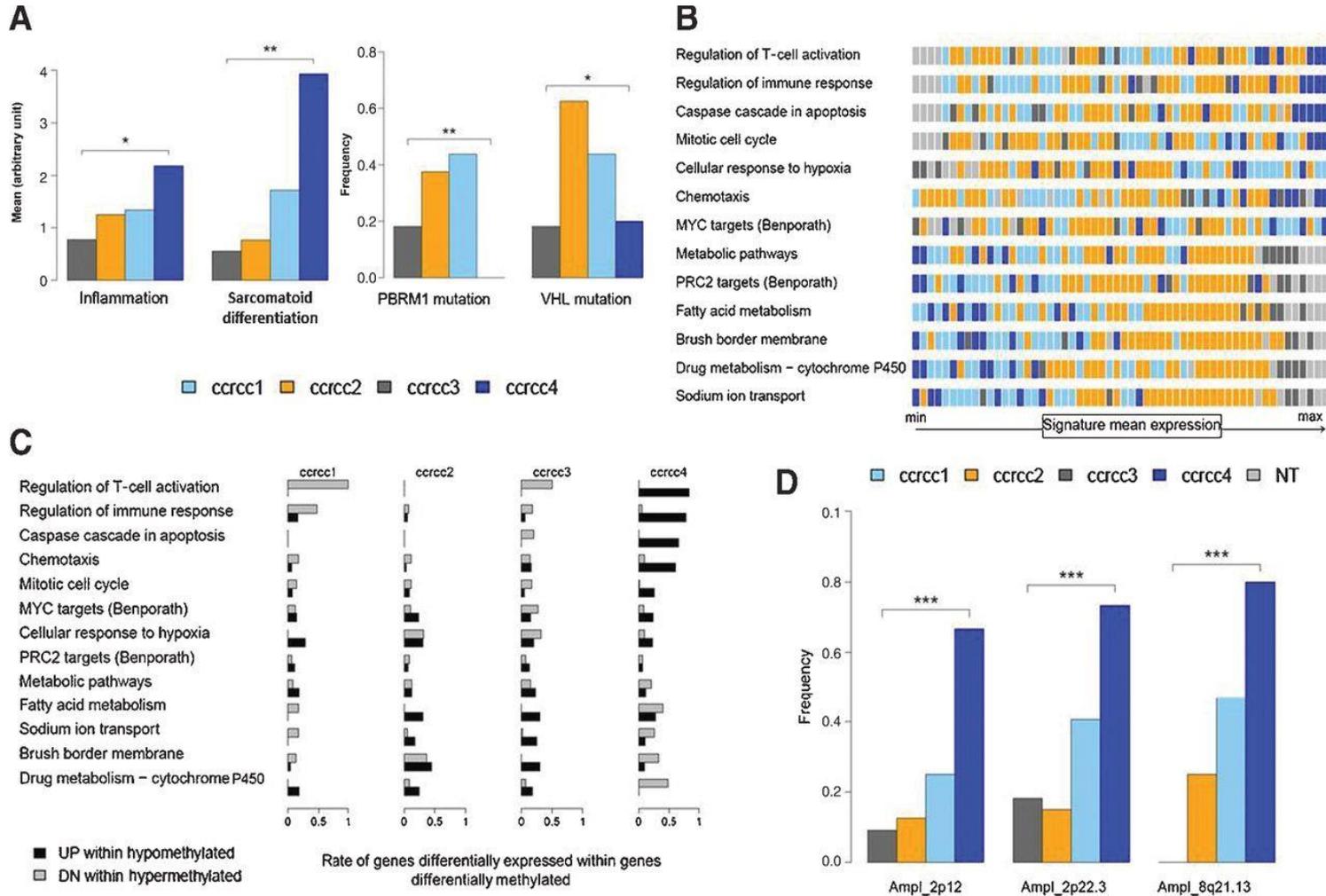
Anne C. Chiang, M.D., Ph.D., and Joan Massagué, Ph.D.

Tumor initiation: unlimited growth potential, survival, genomic instability Genes: <i>KRAS, BRAF, EGFR, HER2, P13K</i> (suppressors: <i>APC, p53, PTEN, BRCA1, VHL1</i>)			
Metastasis initiation: invasion, marrow mobilization, angiogenesis, epithelial-to-mesenchymal transition Genes: <i>RHoC, LOX, VEGF, CSF-1, ID1, TWIST1, MET, FGFR, MMP-9, NEDD9</i>			
Metastasis progression: vascular remodeling, immune evasion, extravasation Genes: <i>EREG, COX-2, MMP-1, CCL5, ANGPTL4</i>			
Metastasis virulence: organ-specific functions Genes: <i>CXCR4, RANKL, CTGF, interleukin-11, endothelin-1</i>			





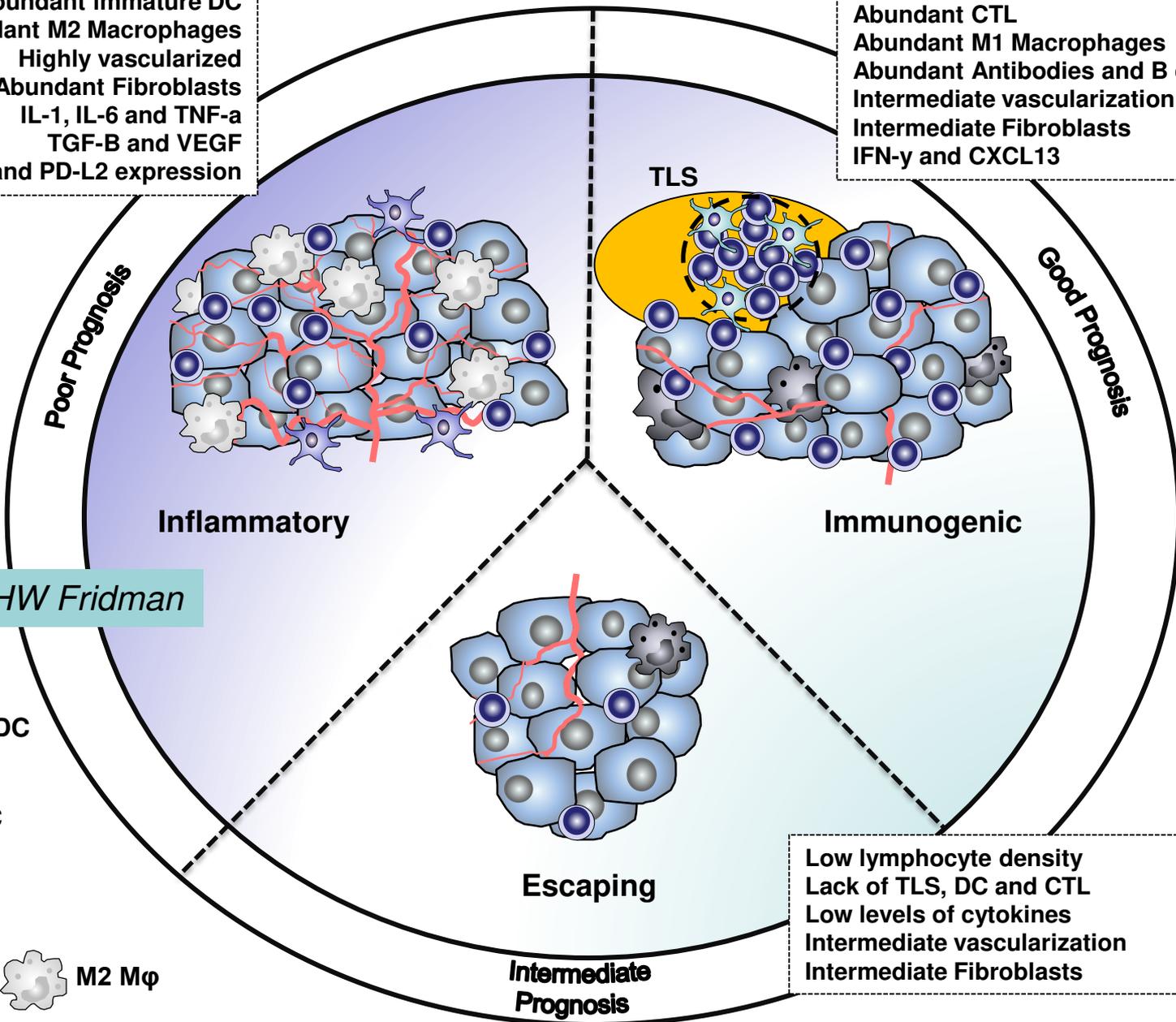
Characteristics of the four molecular subgroups of ccRCC



THE IMMUNE WHEEL

Abundant lymphocytes
Lack of TLS
Abundant immature DC
Abundant M2 Macrophages
Highly vascularized
Abundant Fibroblasts
IL-1, IL-6 and TNF- α
TGF- β and VEGF
PD-L1 and PD-L2 expression

Abundant lymphocytes
Abundant TLS and associated mature DC
Abundant CTL
Abundant M1 Macrophages
Abundant Antibodies and B cells
Intermediate vascularization
Intermediate Fibroblasts
IFN- γ and CXCL13



Poor Prognosis

TLS

Good Prognosis

Inflammatory

Immunogenic

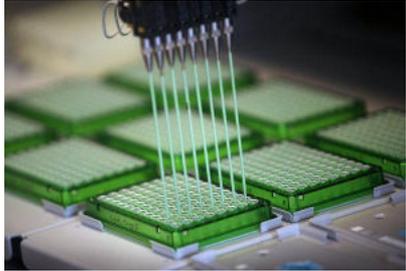
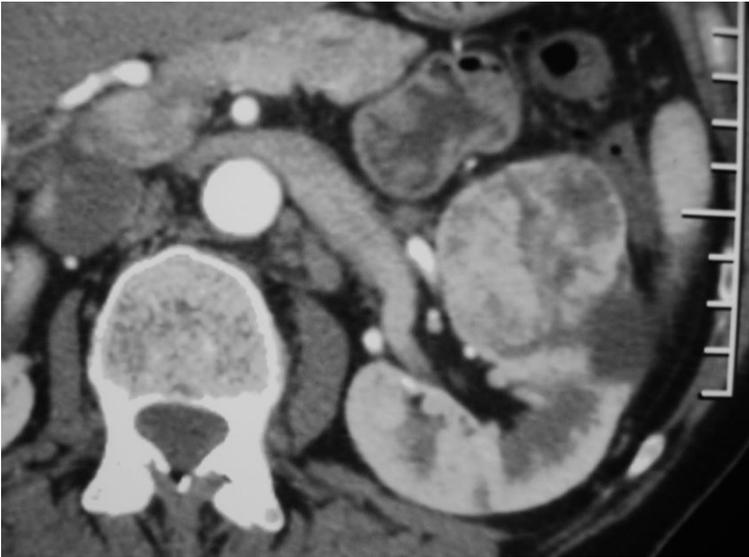
Escaping

Intermediate Prognosis

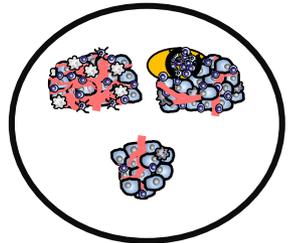
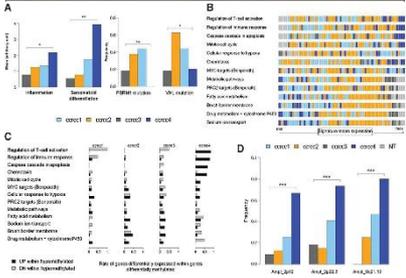
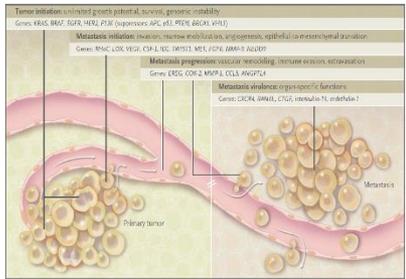
By Courtesy of HW Fridman

Low lymphocyte density
Lack of TLS, DC and CTL
Low levels of cytokines
Intermediate vascularization
Intermediate Fibroblasts

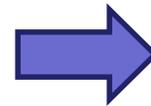
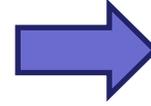
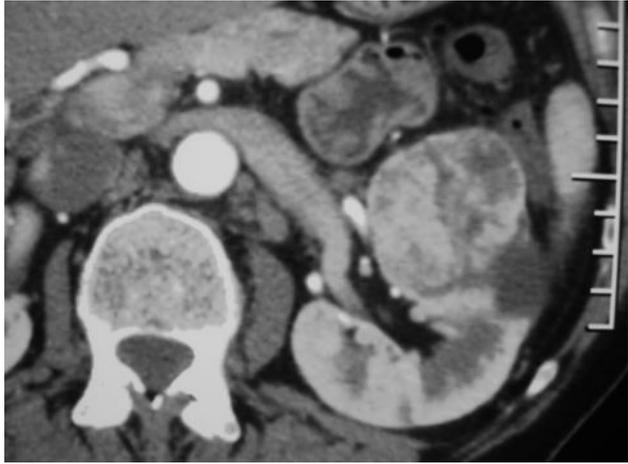
L'Avenir....



	Cellules claires	Chromophobe	Papillaire type 1	Papillaire type 2
M A C R O				
H I S T O				
G E N E	CCR VHL HIF-1α 3p25-26	CHCC BHD Folliculine 1-, Y	PRCC 2 HPRC FH 1q42.3-43	PRCC1 HLRCC MET 7q31.2-31.3

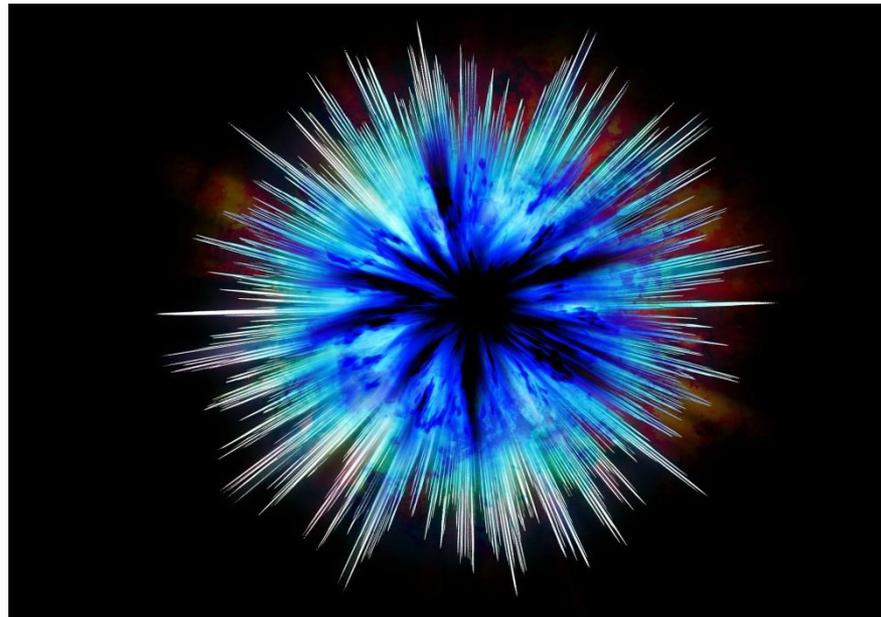


IDENTITALE



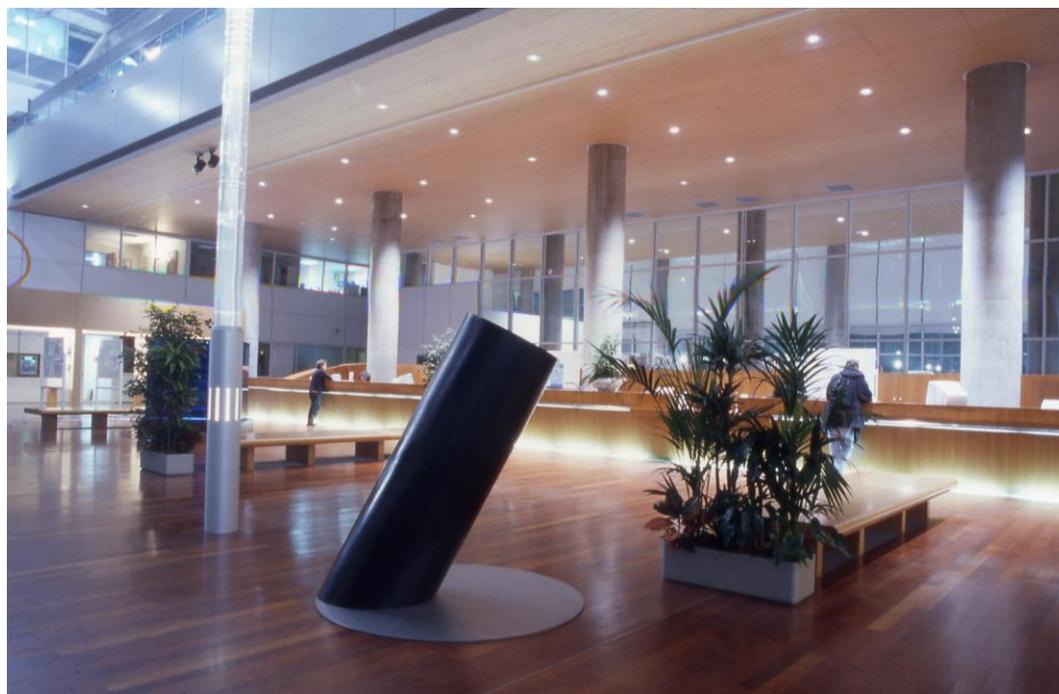
Conclusion

- Oui cette décennie a apporté son lot de progrès
- Mais le vrai « big bang » est encore à venir.....





HÔPITAL EUROPÉEN GEORGES POMPIDOU



arnaud.mejean@aphp.fr