



Genitourinary cancers

Michal Chovanec

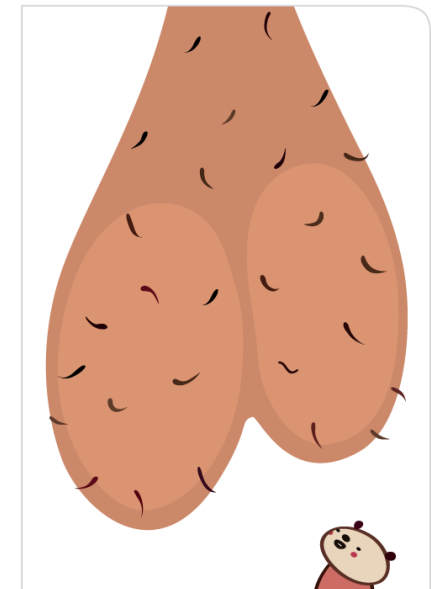
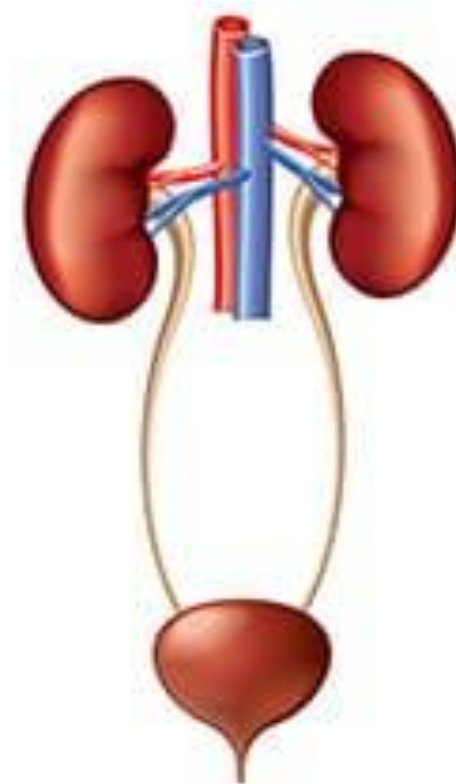
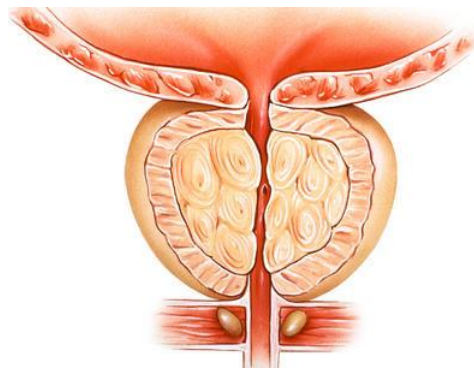
2nd Department of Oncology

Comenius University

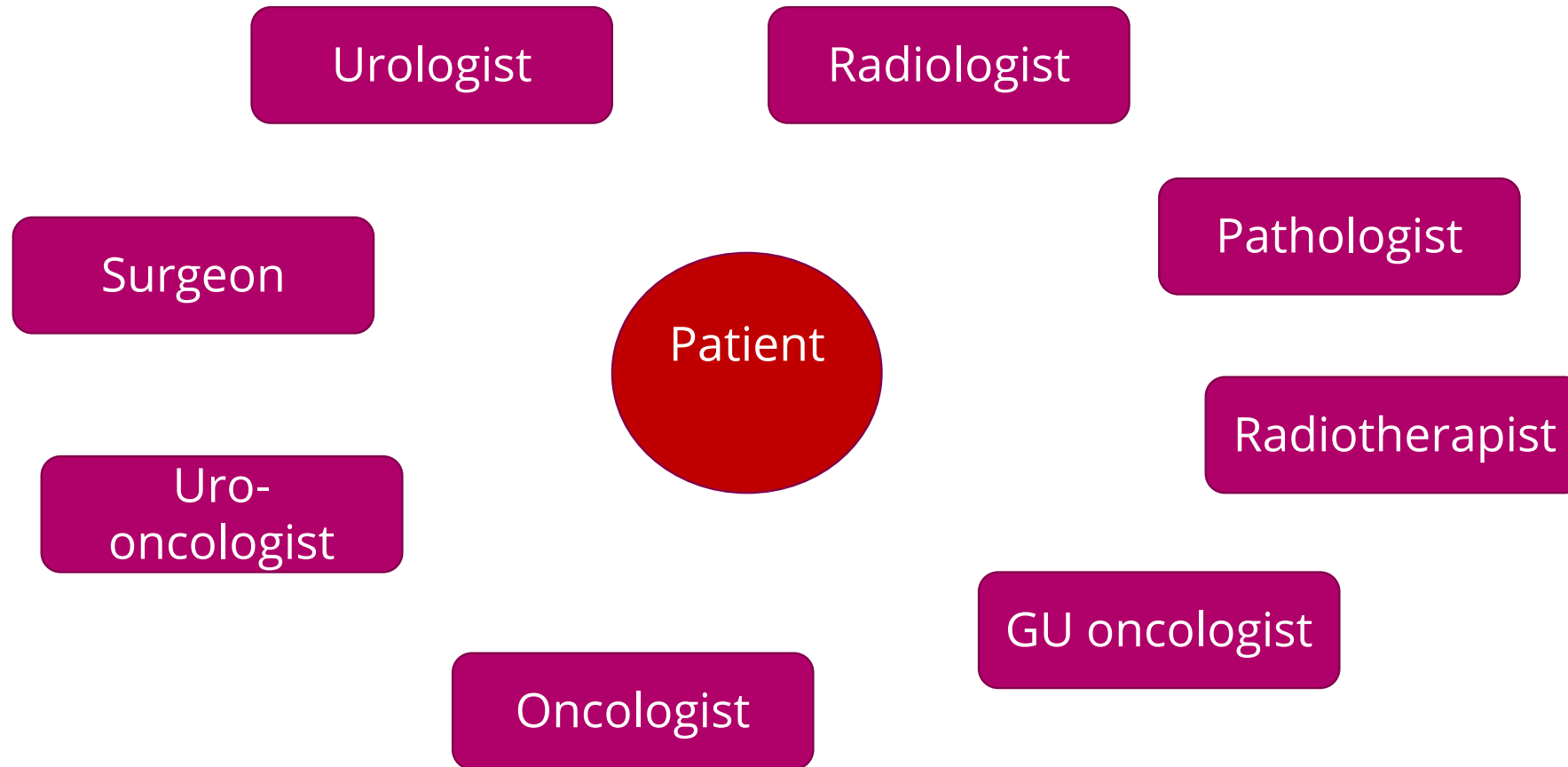
National Cancer Institute, Bratislava, Slovakia

Genitourinary cancers – what do we care for?

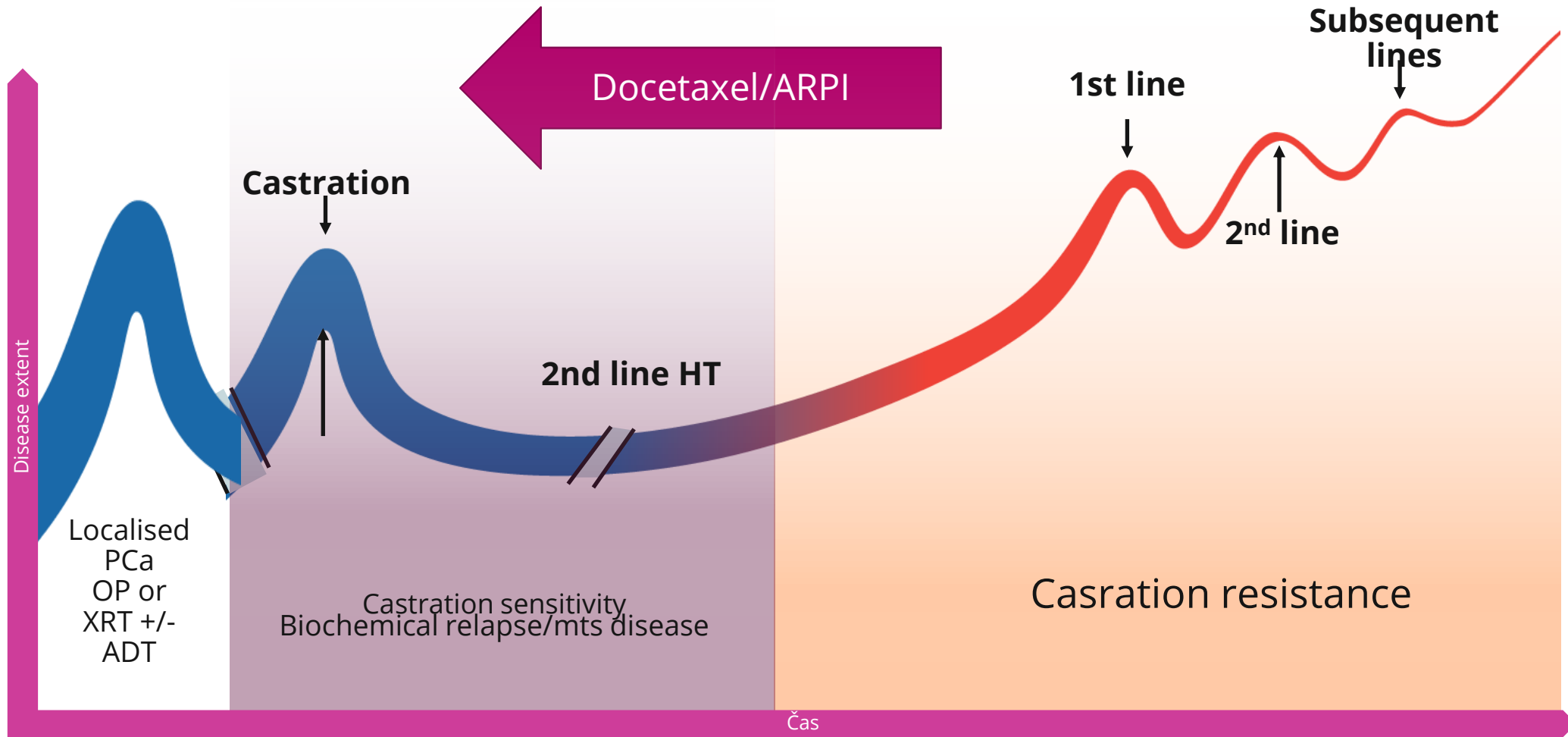
- Prostate
- Urothelial
- Kidney and adrenal
- Testicular



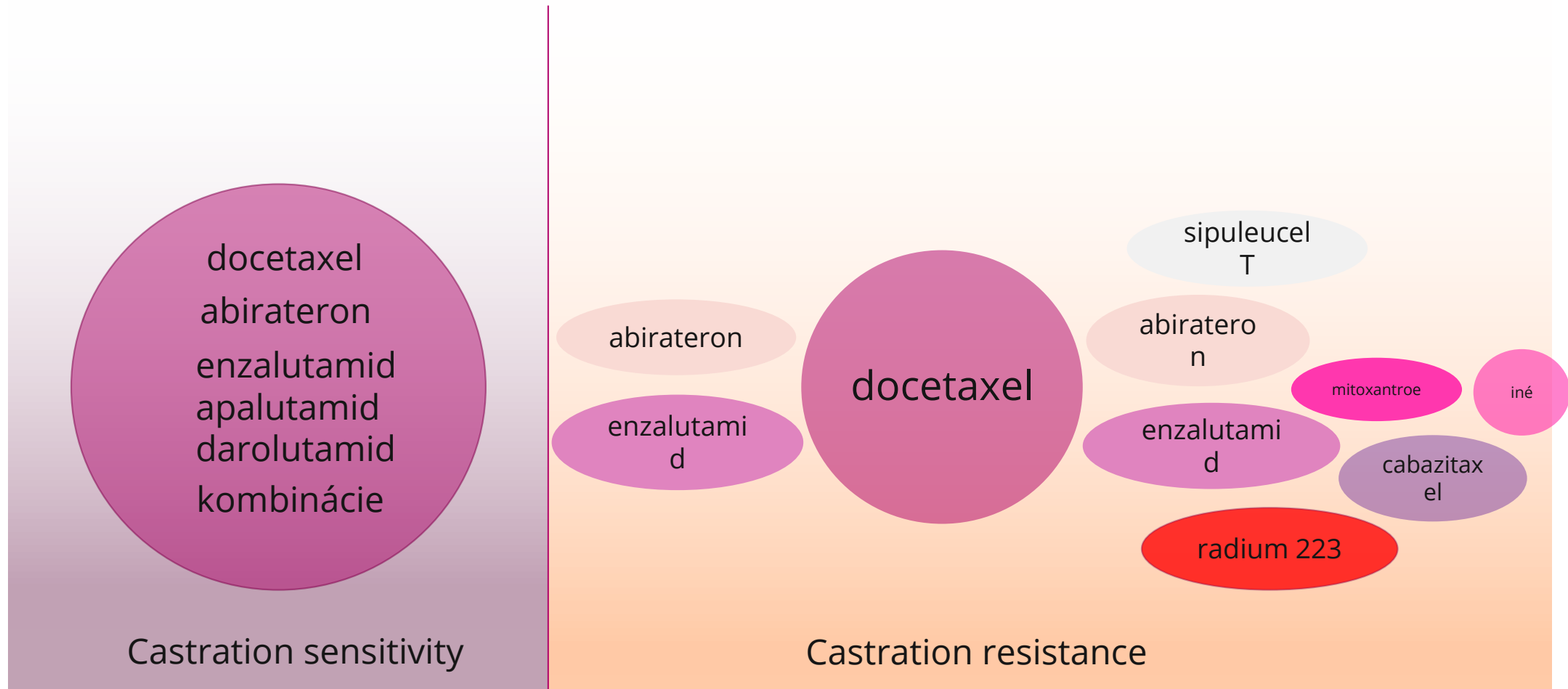
Multidisciplinary care in GU oncology



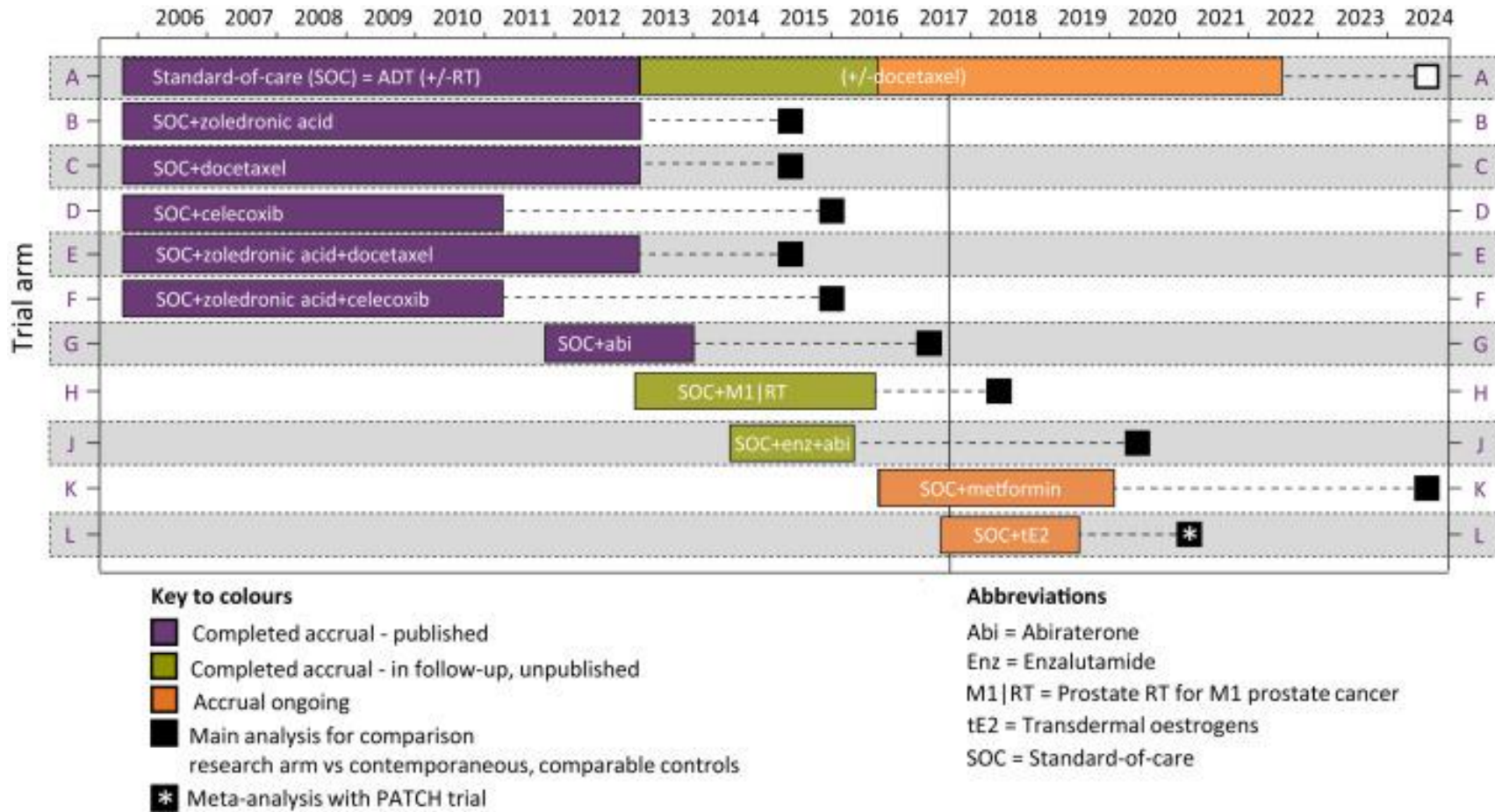
Prostate cancer – natural history and current shifts



Cornerstones of modern treatment in prostate cancer

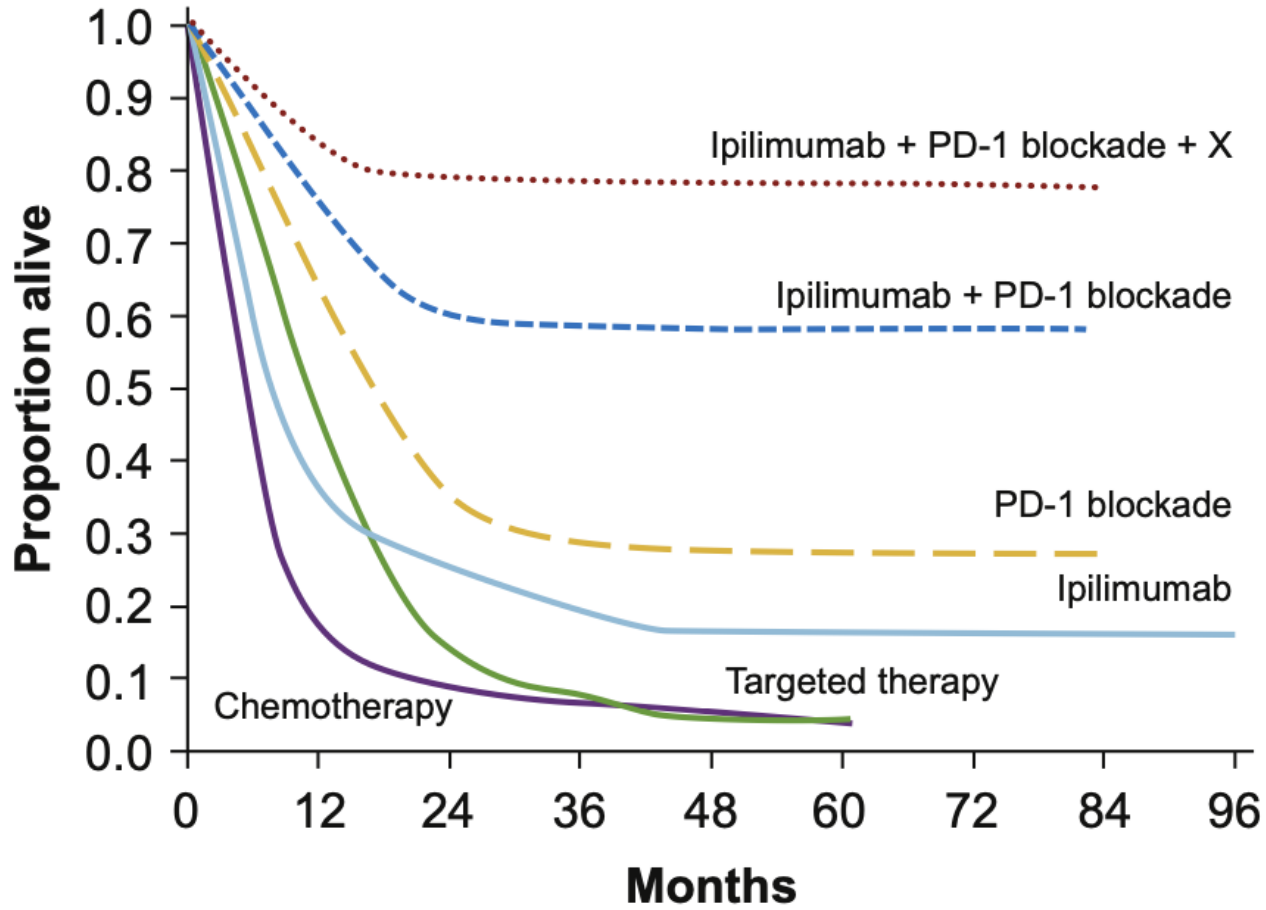


STAMPEDE – example of a unique trial design



Evolut

1980
cytotoxic
.....



2018
Combinations
ICI + ICI
ICI+ TKI

Emens A.L. et al. Eur J Cancer. 2017

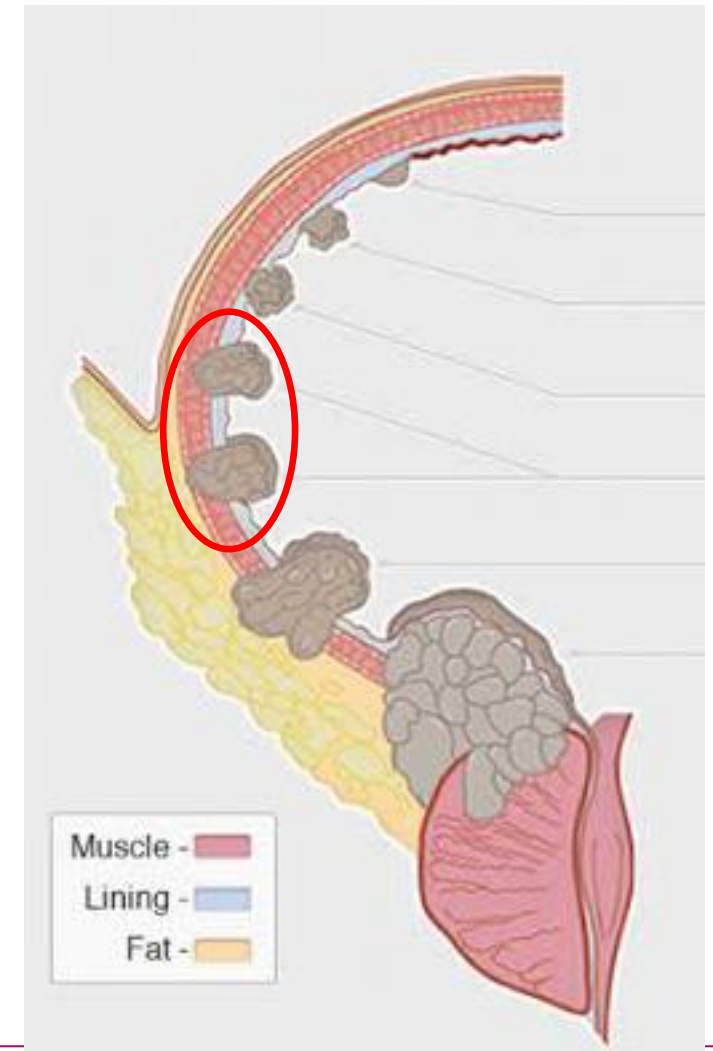
Bladder cancer - chemotherapy and immnotherapy sensitive disease

- Non-muscle invasive disease
- Muscle invasive disease
- Metastatic disease

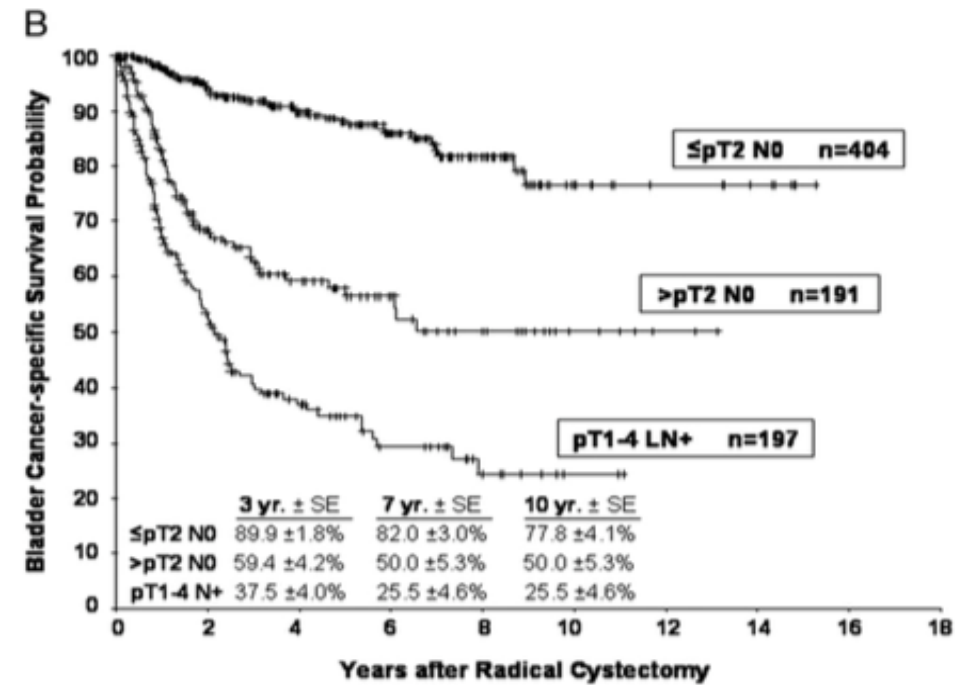
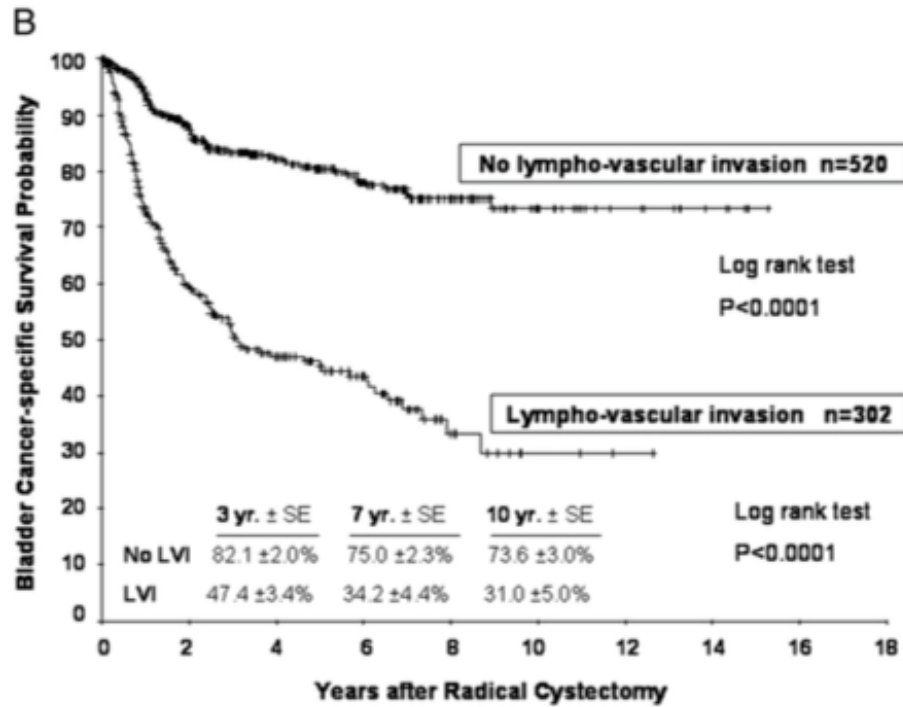


Localized urothelial cancer

- Curative intent
- Requires multidisciplinary approach
- > pT2 disease



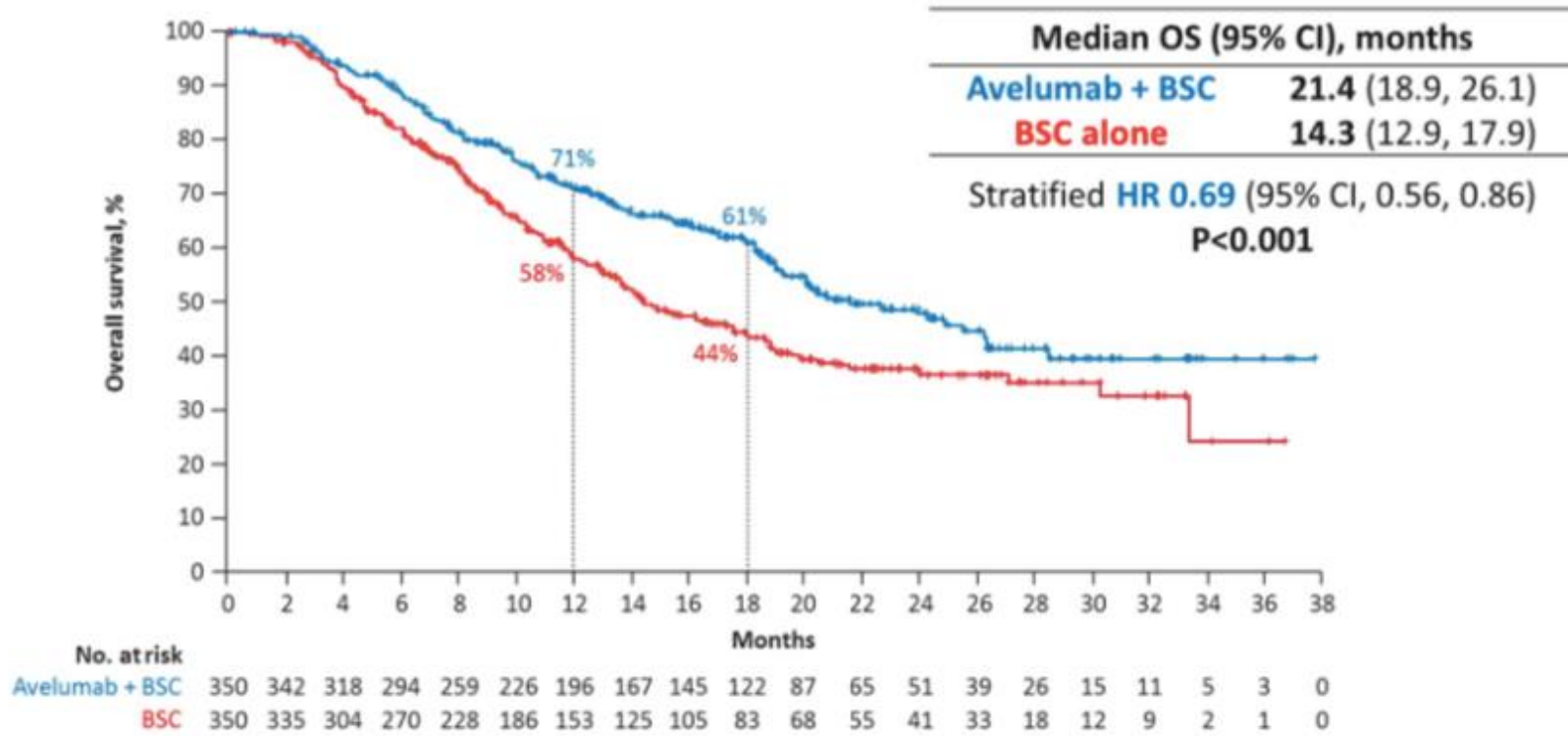
Outcomes of radical cystectomy



Shariat SF. J Urol. 2005

Changing treatment paradigms in urothelial cancer

OS in the overall population



OS was measured post randomization (after chemotherapy); the OS analysis crossed the prespecified efficacy boundary based on the alpha-spending function (P<0.0053)

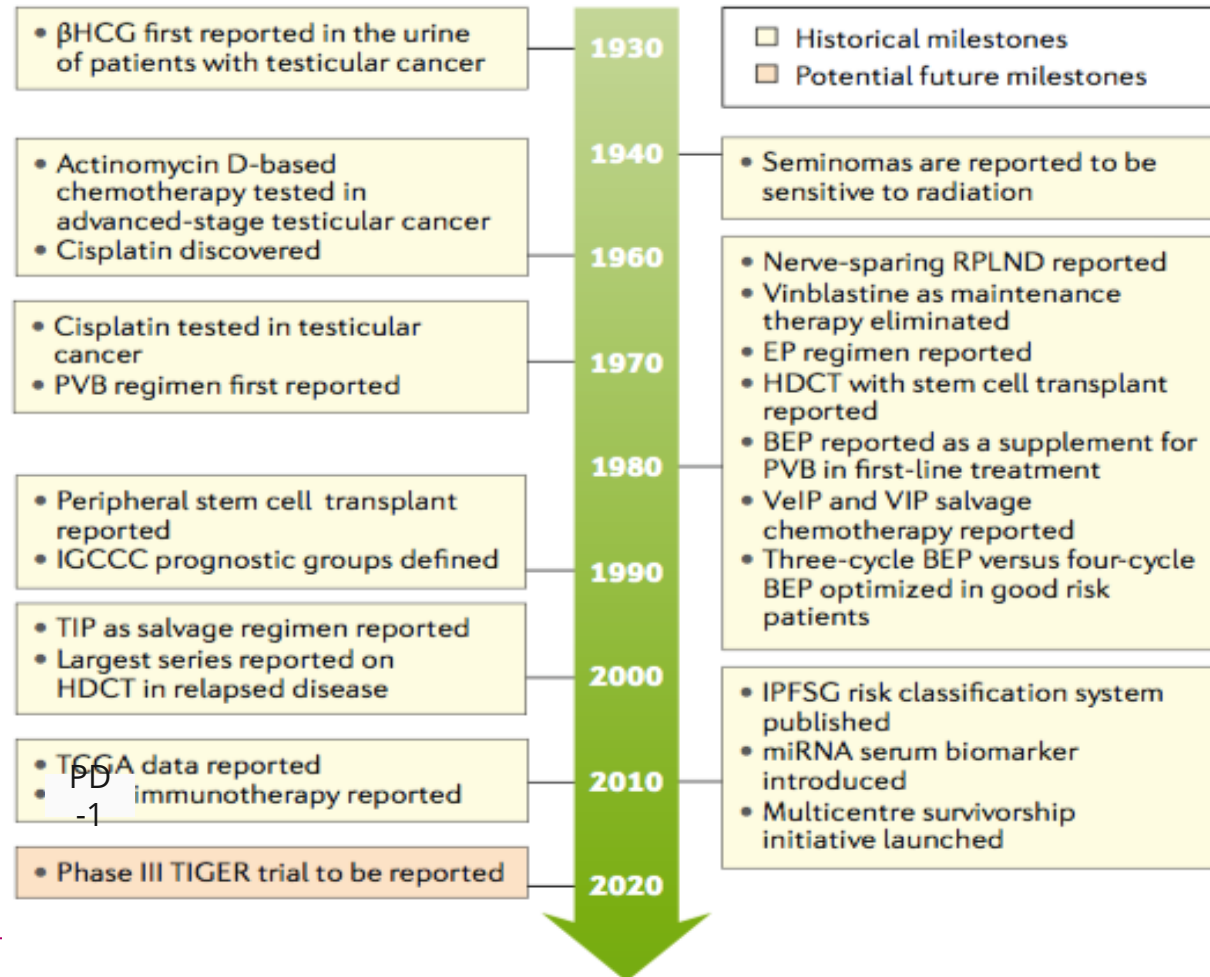
Testicular germ cell tumors (GCTs)

- Men 20 – 40 years old
- Rare – incidence of 8/100 000
- 1-2% of all cancers
- Curing GCTs – exceptional success story



10 r OS - 95% of all patients

Landmarks of germ cell tumors



Germ cell tumors – a traditional view

- Chemotherapy curable cancer
- Lacking efficacy of targeting treatments ¹
- Refractory disease – therapeutic dilemma
- The role of immune system – unclear

Shift in the prognosis of patients in contemporary cohorts –

IGCCCG v.2

Dynamic Nomogram

Age (years)
15 33 70
15 21 27 33 39 45 51 57 63 70

Site of primary tumor
Mediastinal

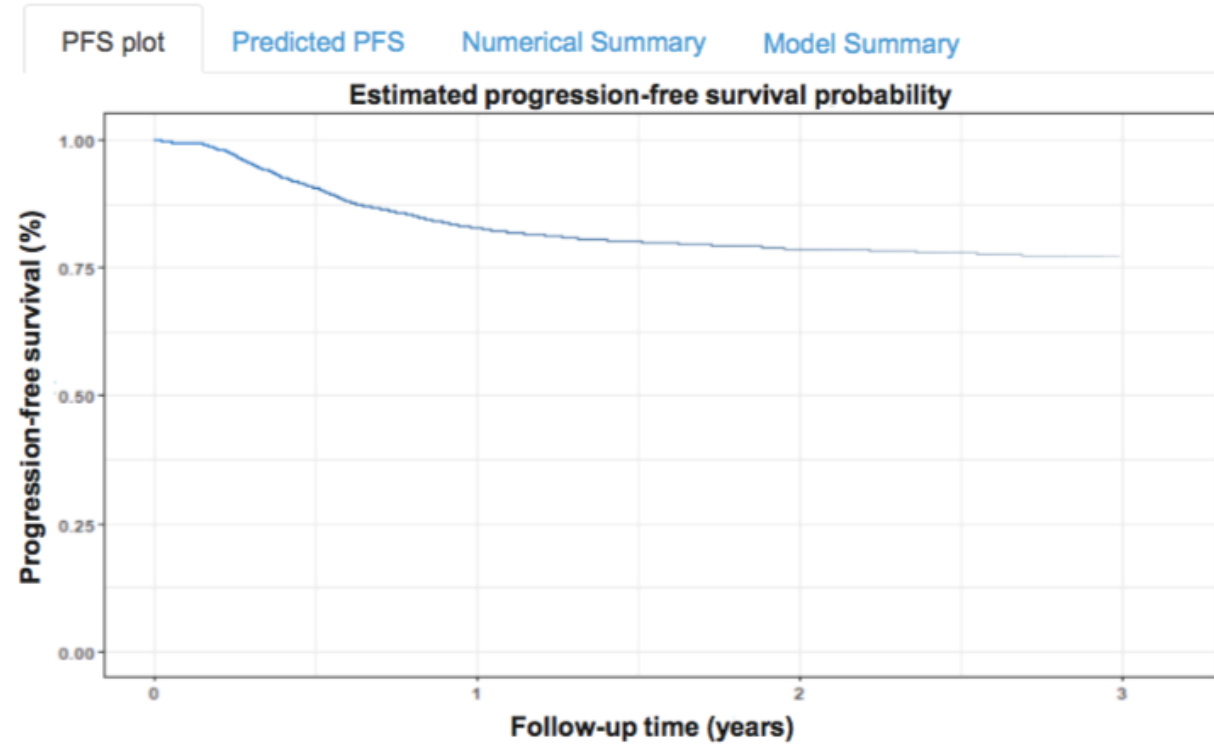
Lung metastases
no

Non-visceral pulmonary metastases
no

HCG levels
normal

HCG value if HCG abnormal (IU/L)
0 35,000,000
0 7,000,000 14,000,000 21,000,000 28,000,000 35,000,000

AFP levels
abnormal

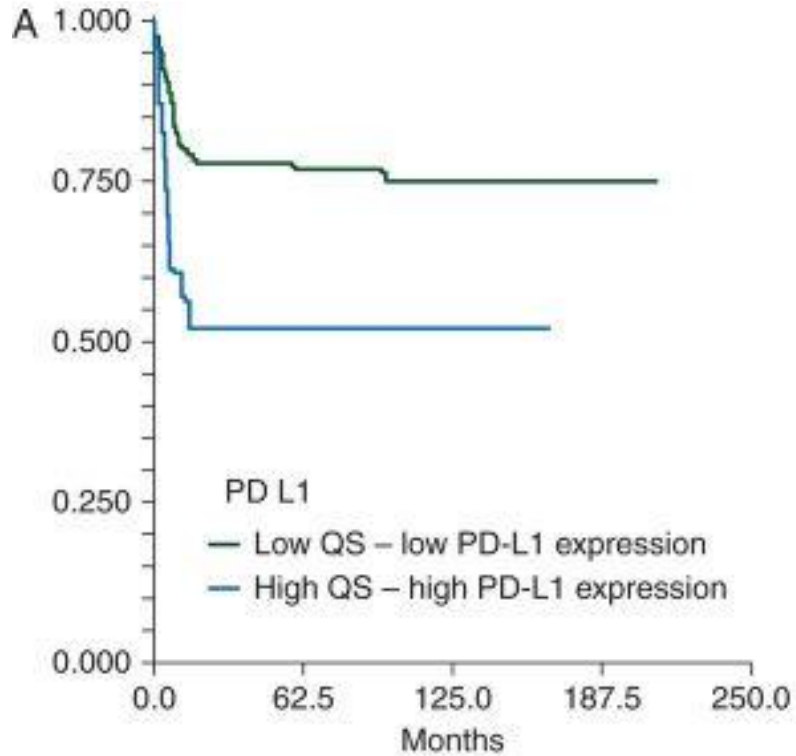


Gillessen S

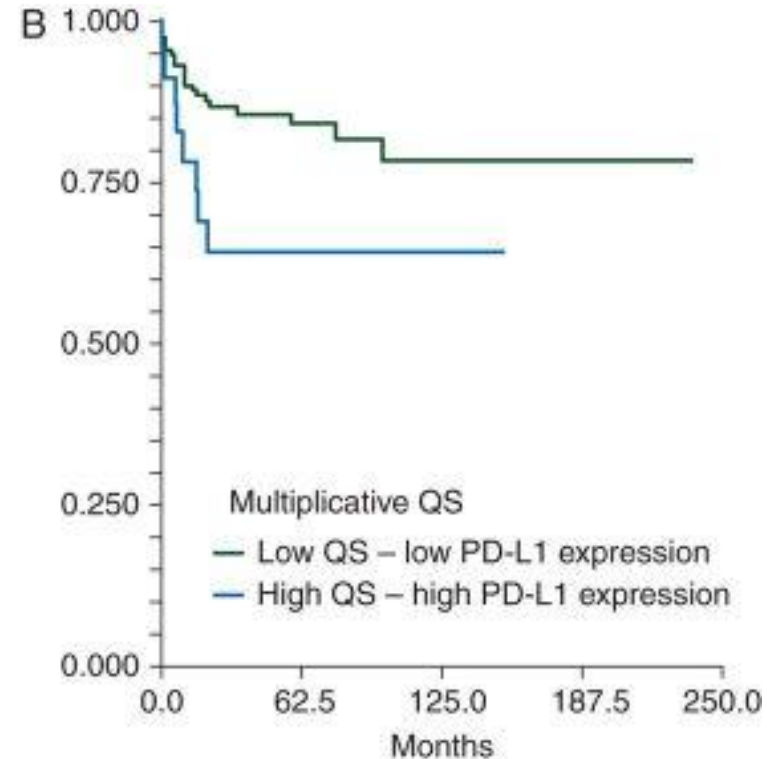
Translational research unit

- Established 2010
- The only one of its kind in Slovakia
- Focus:
 - Germ cell tumors
 - Breast cancer
 - CTCs
- Tissue and blood biobank
 - 300 paraffin embedded GCT
 - 300 frozen plasma before/after CT
 - 380 frozen plasma – survivors annually

PD-L1 in GCT - survival



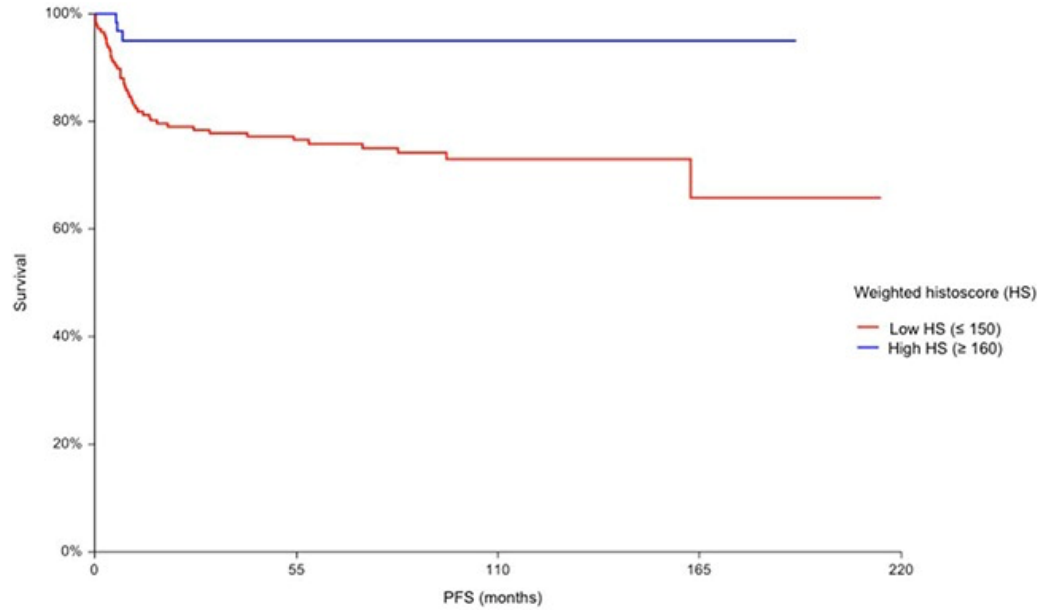
HR=0.40, P=0.008



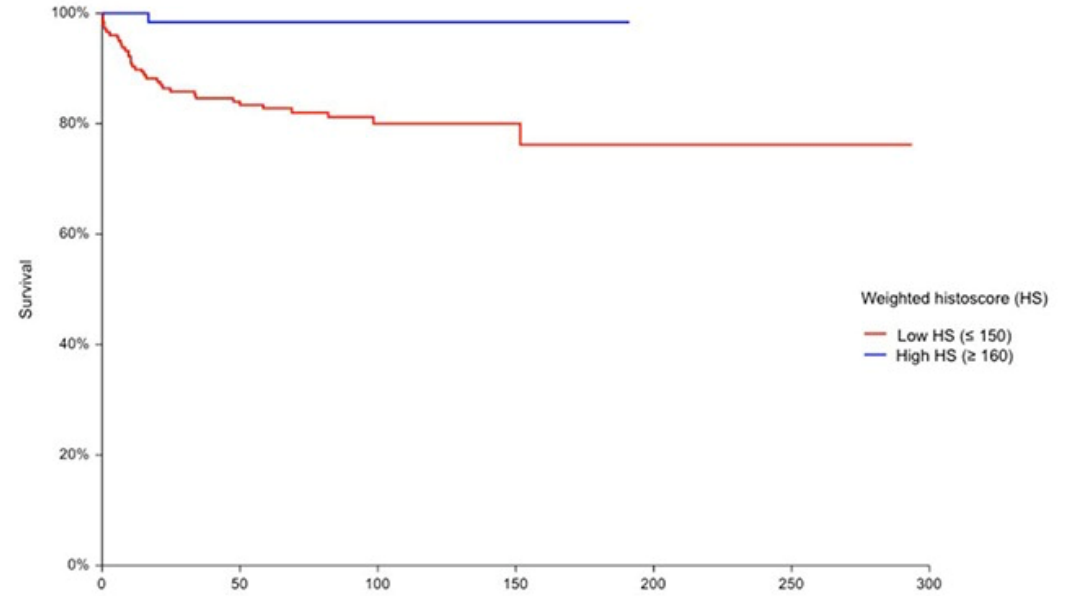
HR=0.43, P=0.039

Cierna et al. Ann Oncol 2016

PD-L1 TILs - survival



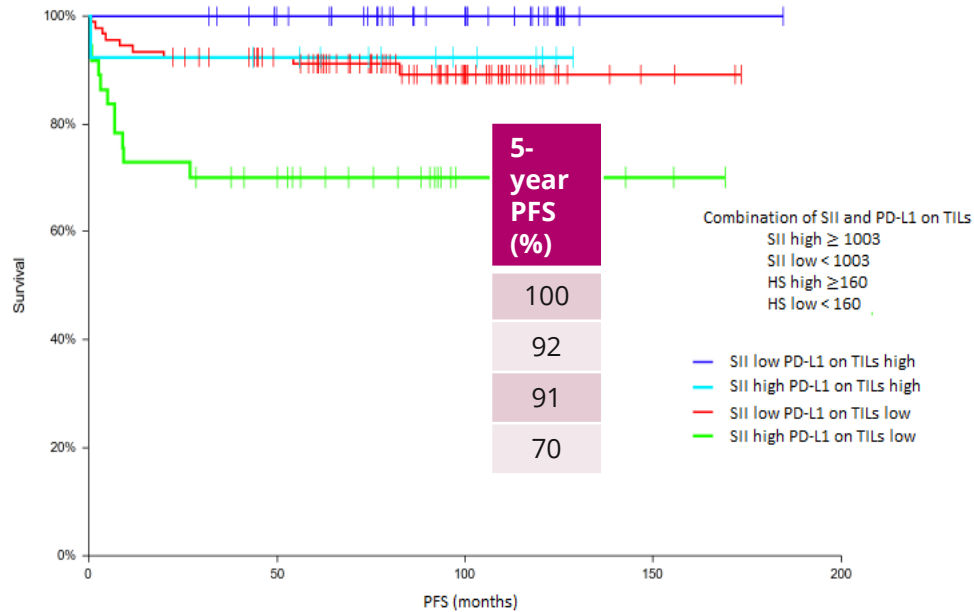
HR=0.17, P=0.0006
(95% CI, 0.09–0.31)



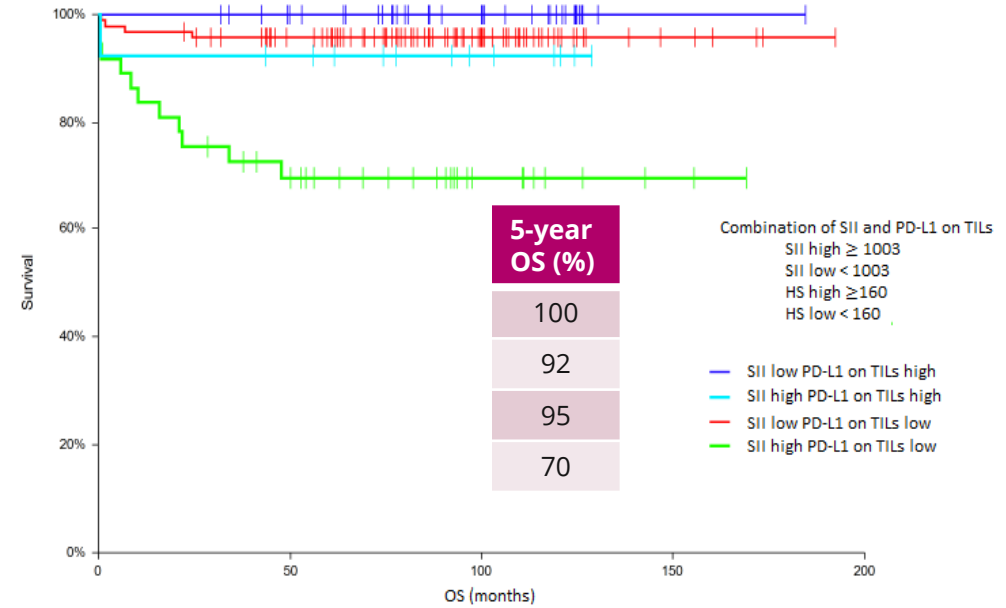
HR=0.08, P=0.039
(95% CI, 0.04–0.16)

Chovanec M et al. Oncotarget 2017

Combined prognostic value of SII PD-L1 TILs



HR=0.29, P=0.0004
(95% CI, 0.10–0.78)

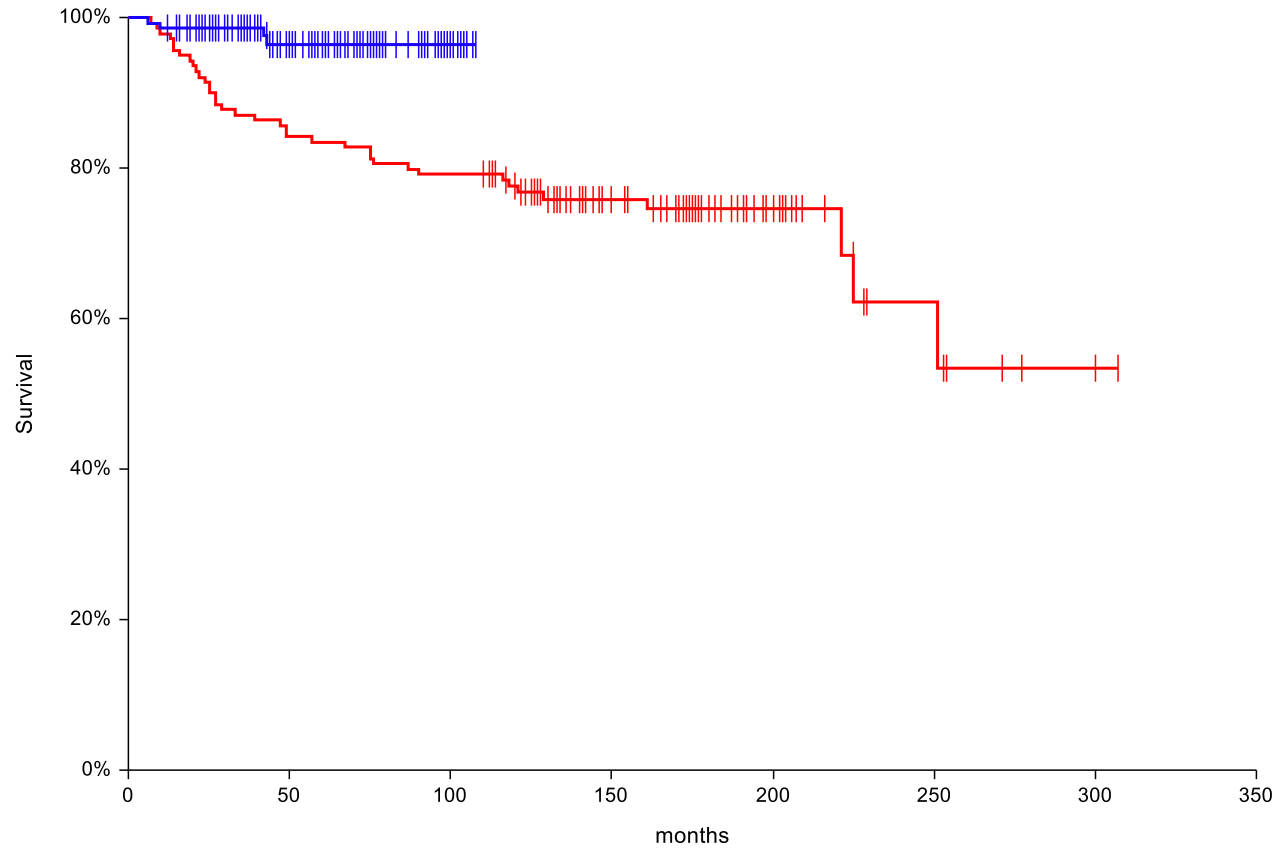


HR=0.13, P<0.0001
(95% CI, 0.04–0.40)

Abbreviations: SII – systemic immune inflammatory index

Chovanec M et al. Br J Cancer. 2018

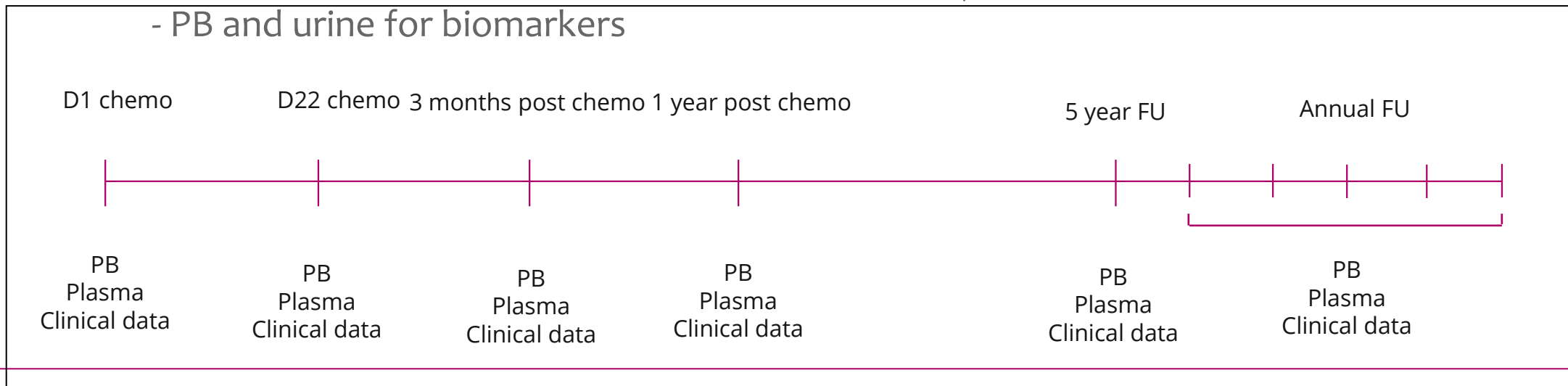
Shift in survival at the NCI > IGCCCG good risk OS



HR 0.20 (95% CI 0.10-0.38, P = 0.0002)

Survivorship research

- Survivors >5 years since treatment completion
- Annual follow up
- Annual collection:
 - clinical data
 - questionnaires – QOL, Cognitive function, Sexual function, CIPN



Thank you