



Photo: Jarle Bruun

Developing a urine test for bladder cancer

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Dept of Molecular Oncology

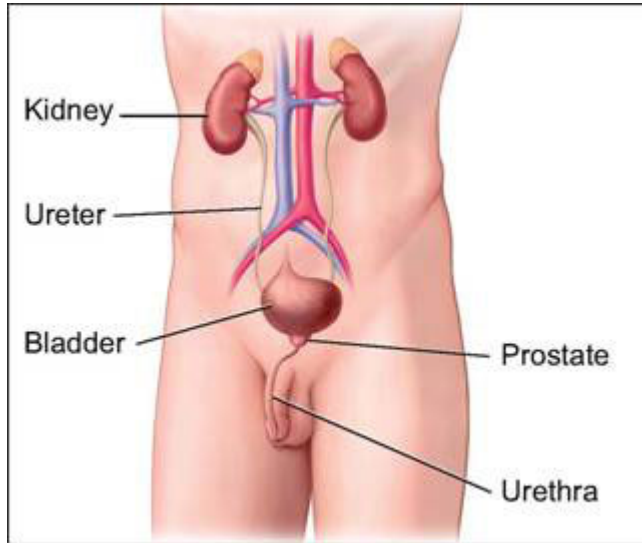


UiO • **Institutt for biovitenskap**



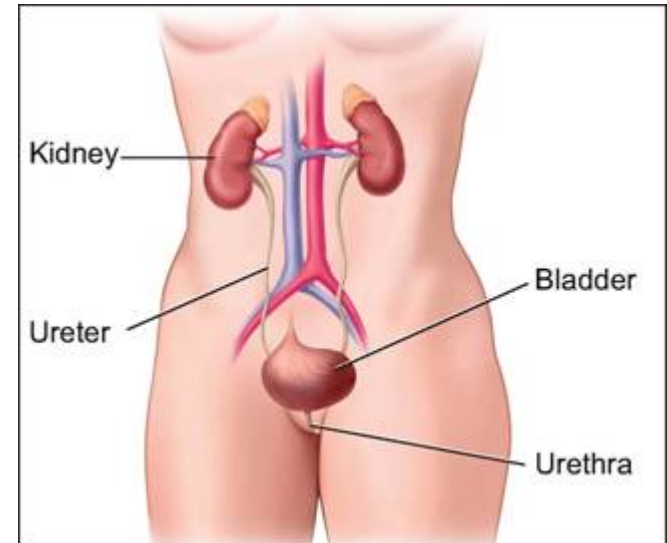
ff Norwegian
Centre of
Excellence
Cancer Biomedicine
University of Oslo

Bladder cancer



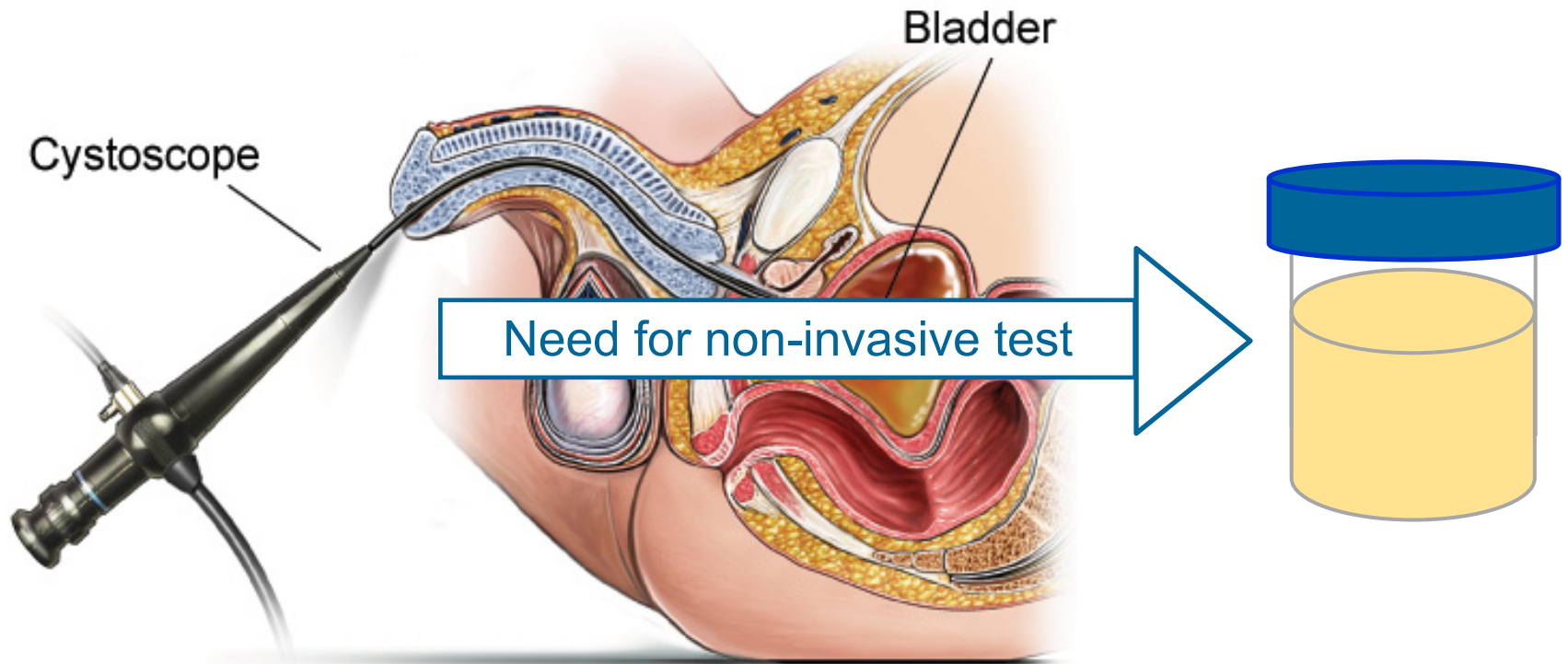
~118,000 men

Incidence Europe:
~151,000

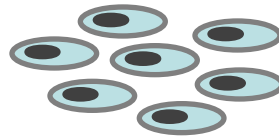
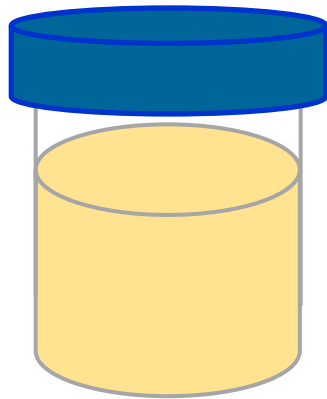


~33,000 women

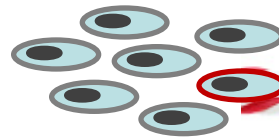
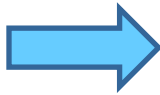
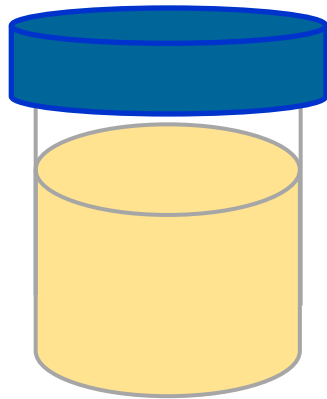
Monitored by cystoscopy



Urine contains cancer cells



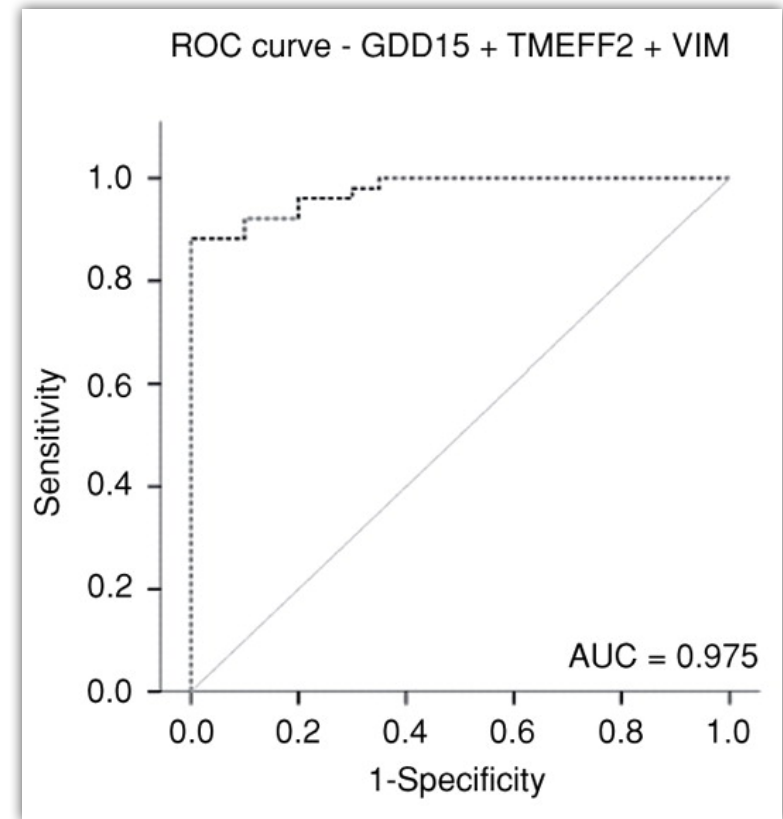
Urine contains cancer cells



Urine-based non-invasive test



Photo: T. Heiestad



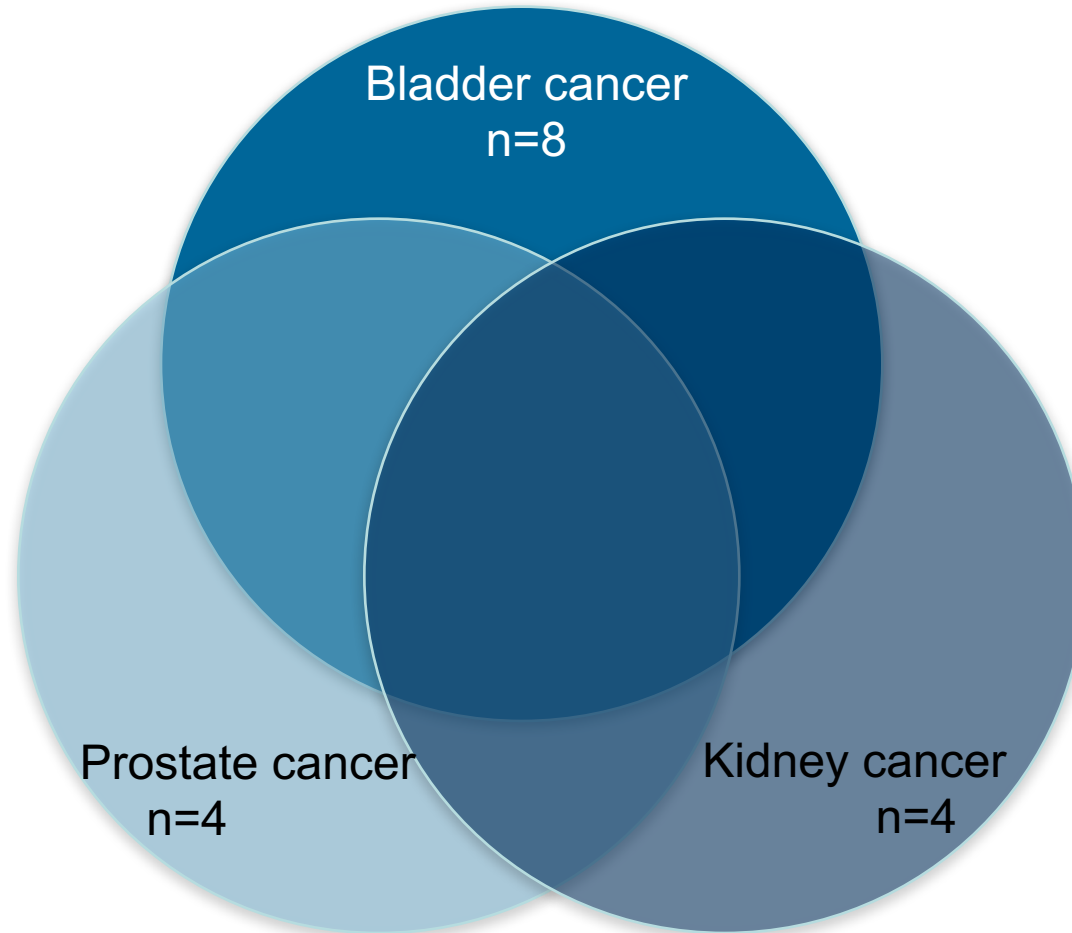
Costa et al, Clinical Cancer Research, 2010

Biomarker panels increase robustness



Discovery phase

In vitro models:
Cancer cell lines



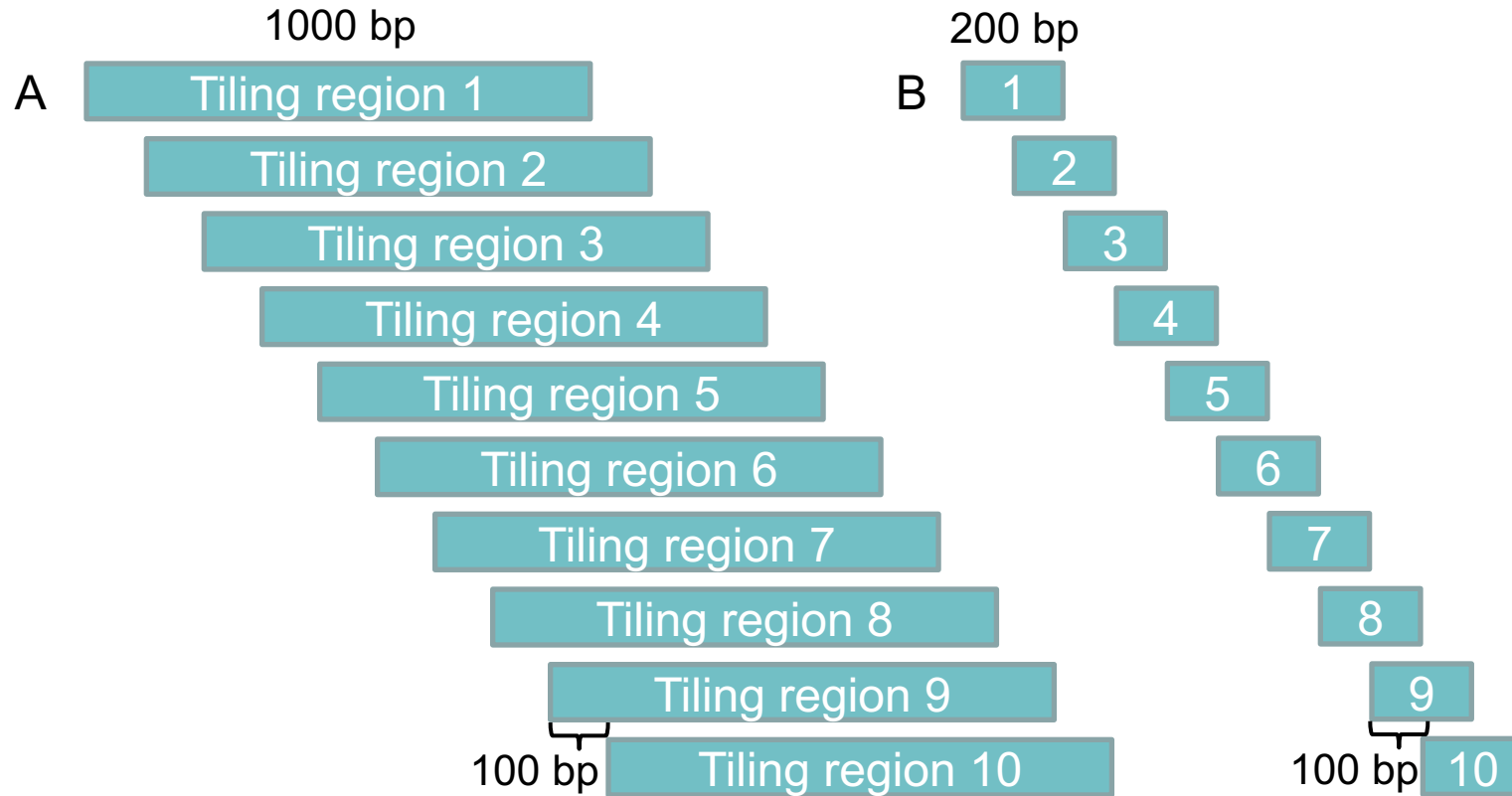
3 million positions analyzed



<https://www.flickr.com/photos/bigsmiling/15165096671>

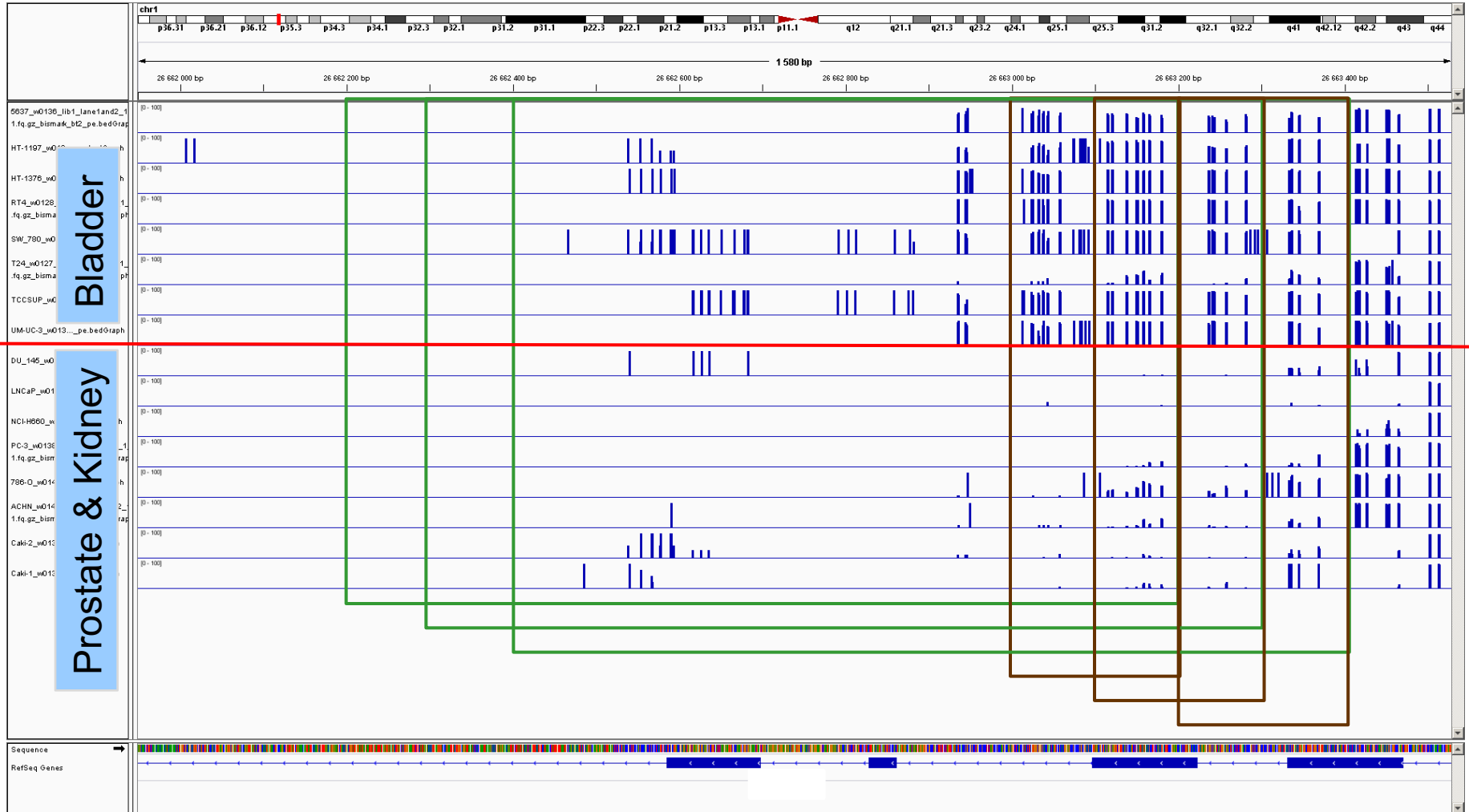
Genomic DNA sequence

CG.....CG..CG.....CG...CG.....CGCGCG.....CG..CG...CG...CG.....CG.....CG...CG



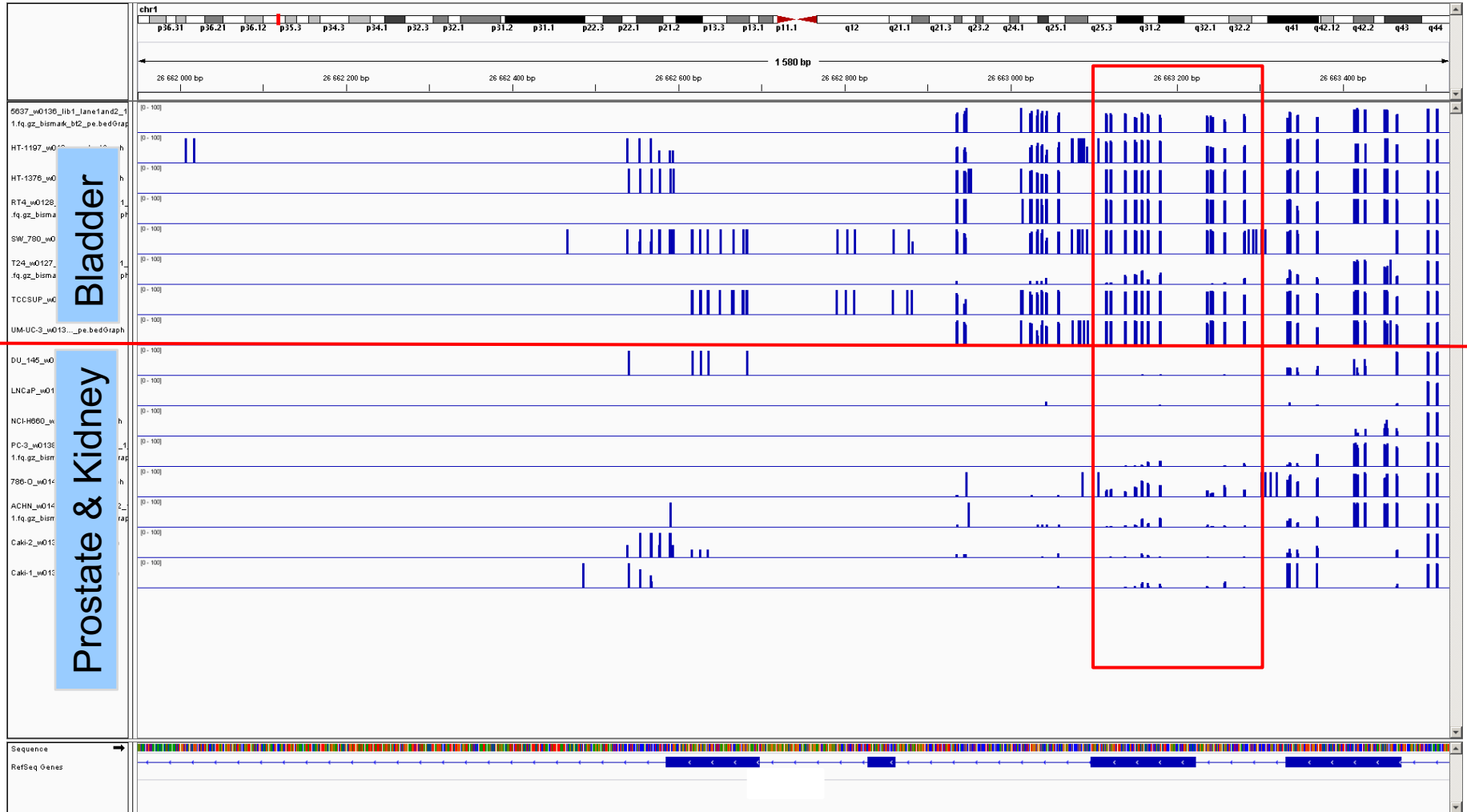


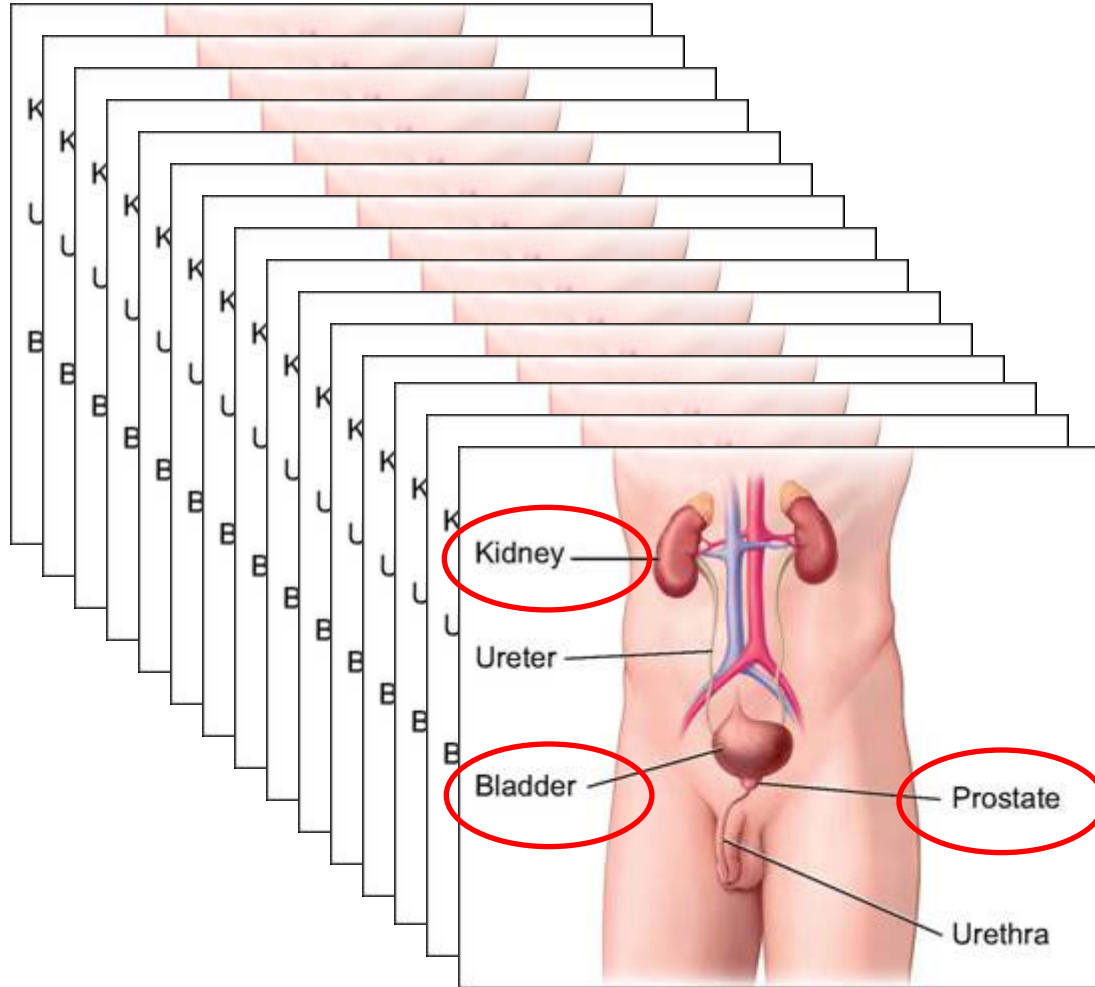
Candidate biomarker





Candidate biomarker







Urine samples

Bladder
cancer



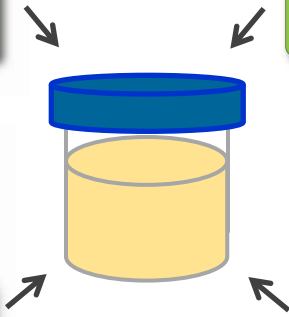
Healthy
controls



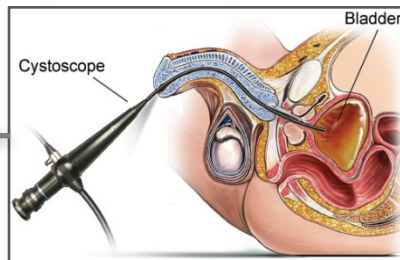
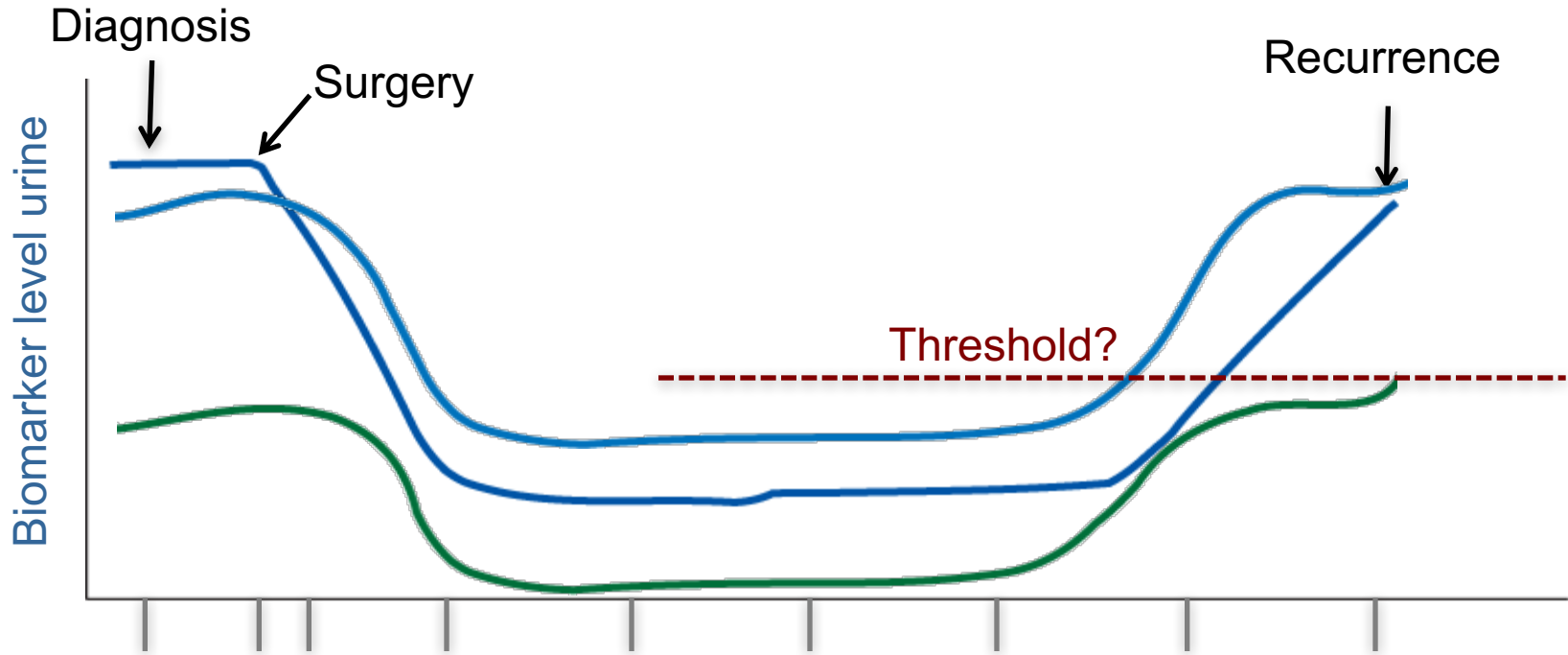
Prostate
cancer



Kidney
cancer



Monitoring using urine



Acknowledgement

