

The Capital Region of Denmark

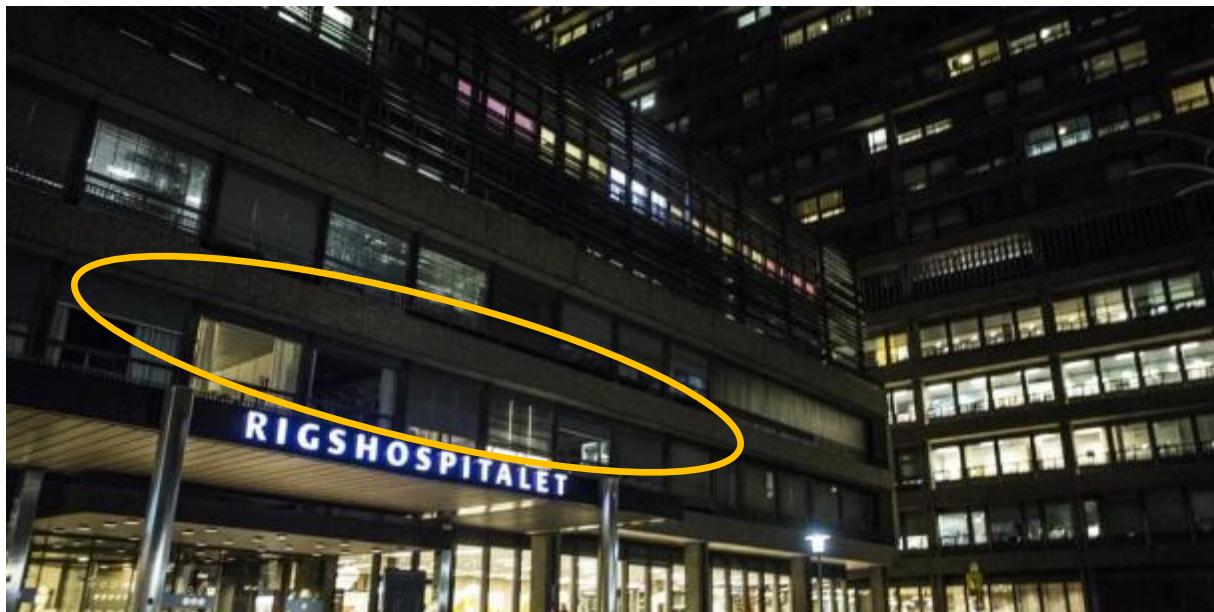
***“Molekylær klassifikation af
brystkræft”***

DBCG

**Repræsentantskabsmøde, 23.01.17,
Rigshospitalet.**

- Maria Rossing, MD, PhD
- Center for Genomic Medicine, GM4113, Rigshospitalet, Copenhagen University Hospital, Denmark

Genomisk Medicin, RH

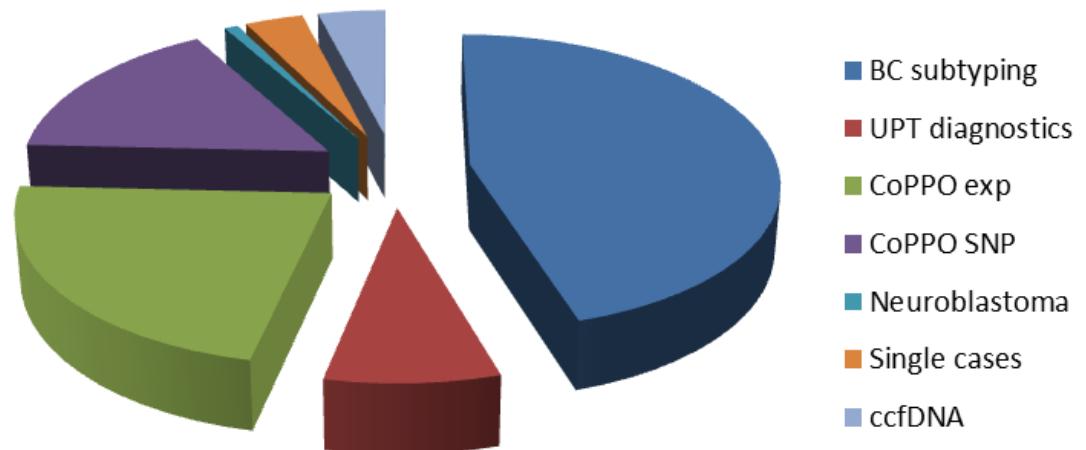
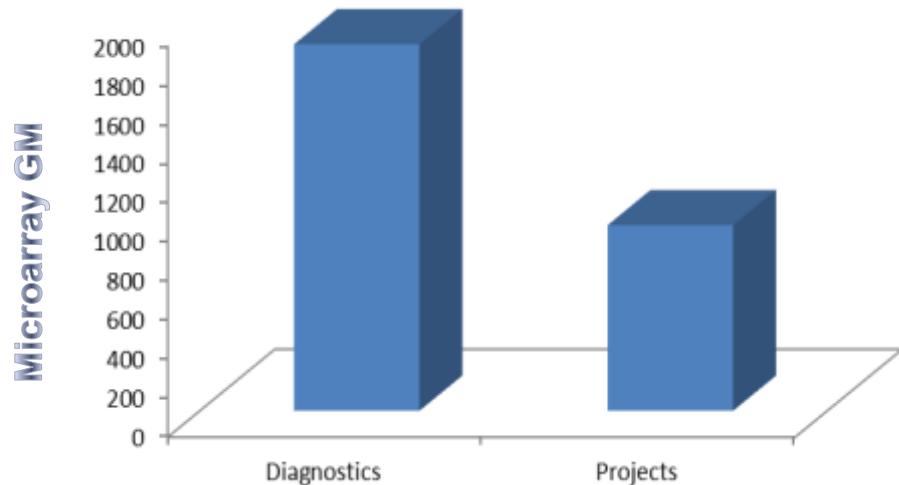


- sikre effektiv og præcis diagnostik og facilitere behandlingsbeslutninger
- skal være på forkant med molekylærgenetiske analyser
- sikre at de kliniske afdelinger har adgang til high-throughput teknologier

Genomisk Medicin, RH

- Diagnostisk enhed
 - Forsknings enhed
 - NGS Core Facilitet
 - Microarray Core Facilitet
-
- Arvelige sygdomme
(cancer, endokrinologi,
hæmatologi)
 - Cancer diagnostik
 - Målrettet cancerbehandling
 - Mikrobio- og virologi

Microarray Core Facilitet



Brystkræft; Molekylær klassifikation

- Transkriptionelle tumorprofiler har muliggjort klassificering af brystkræft i distinkte og biologisk forskellige subklasser
- Korrelerer med kliniske karakteristika og prognose

- *“However, in clinical practice, the key question is not the separation of the molecularly defined intrinsic subtypes, but the discrimination between patients who will or will not benefit from particular therapies”*

Subtypeklassifikationsmodel på RH

Oncogene (2012) 31, 1196–1206

© 2012 Macmillan Publishers Limited. All rights reserved 0950-9232/12

www.nature.com/onc/

ONCOGENOMICS

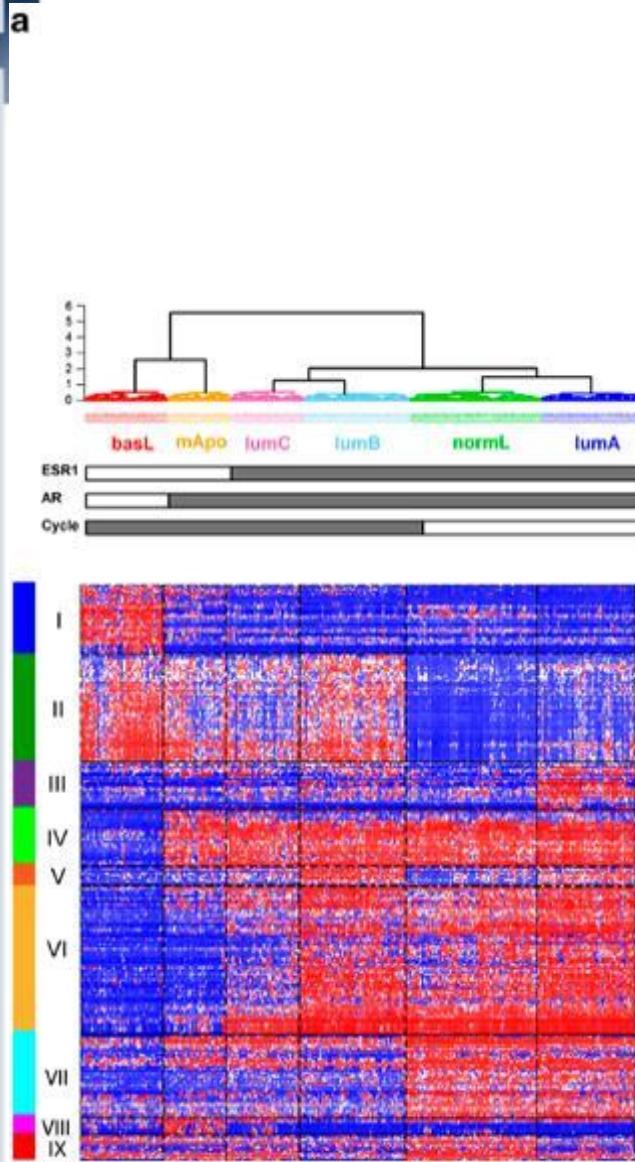
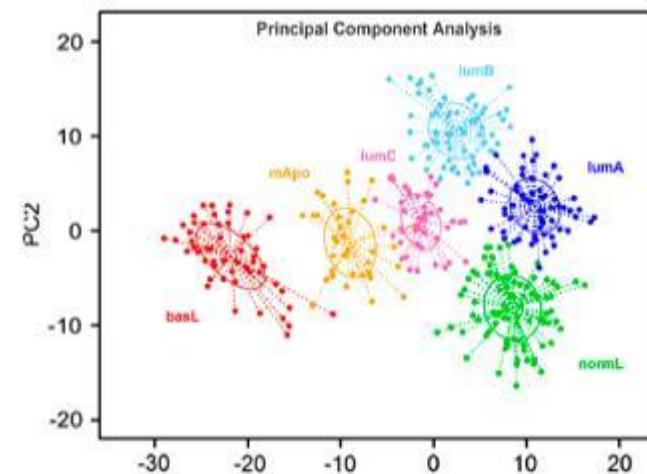
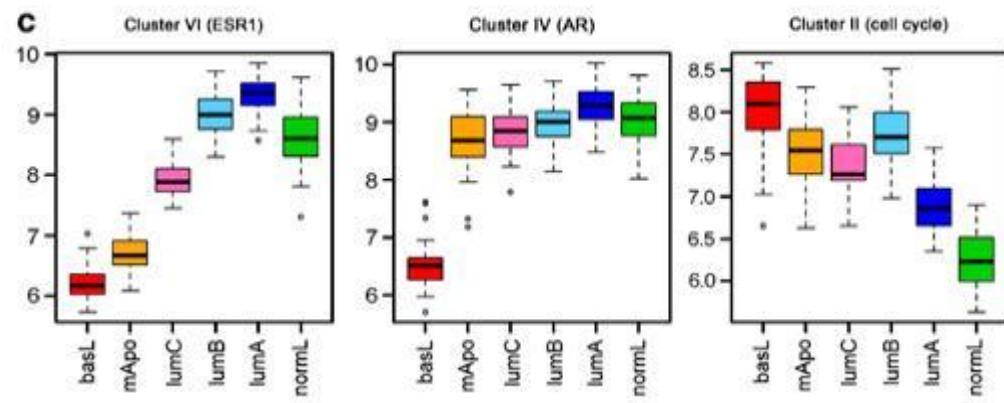
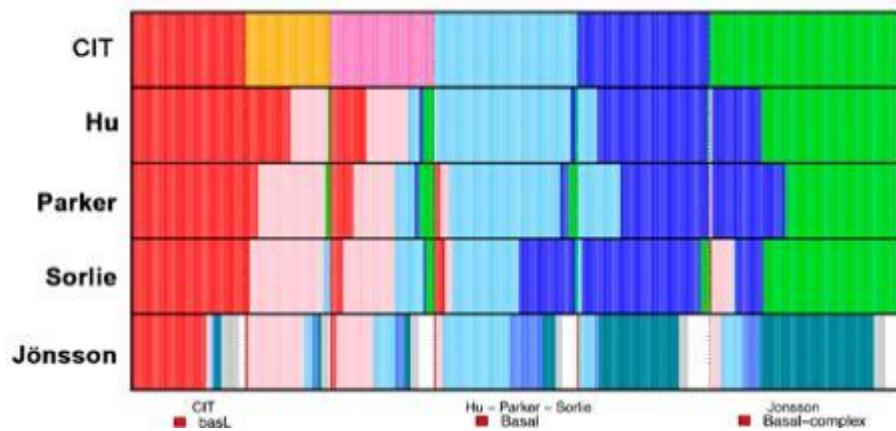
A refined molecular taxonomy of breast cancer

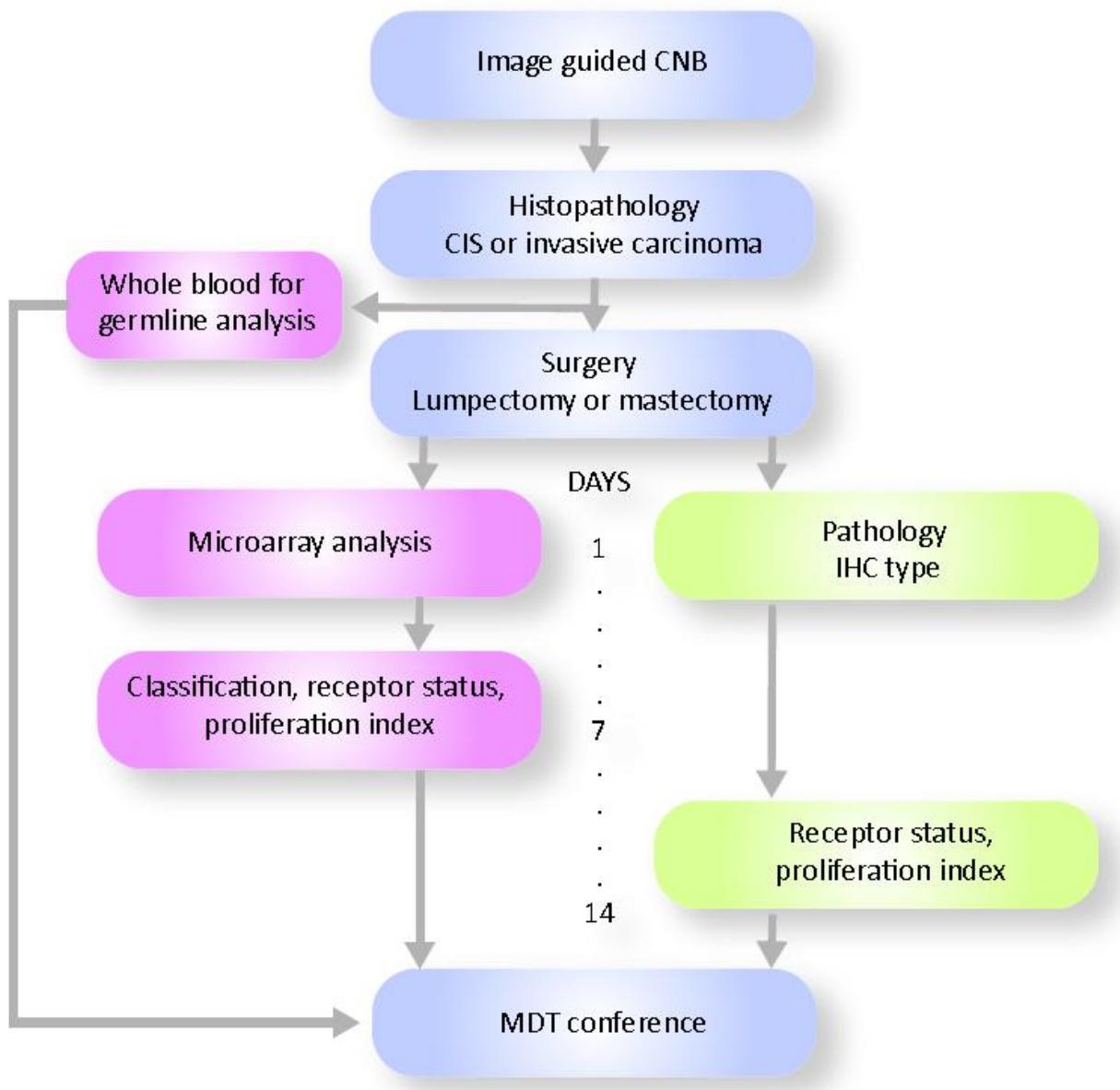
M Guedj^{1,15}, L Marisa^{1,15}, A de Reynies^{1,15}, B Orset^{1,15},
F Lerebours⁶, P Finetti⁷, M Longy⁵, P Bertheau⁸, I JP Feugeas^{10,11,12}, I Bièche⁶, J Lehmann-Che^{10,11,12}, J H de Thé^{10,11,12,15} and C Theillet^{2,13,14,15}

¹Ligue Nationale Contre le Cancer, Cartes d'Identité des Tumeurs pro
Cancérologie de Montpellier, Montpellier, France; ²CRLC Val d'Aurelle Pathology, CRLC Val d'Aurelle Paul Lamarque, Montpellier, France; ³Université Victor Segalen Bordeaux-2, Bordeaux, France; ⁴Oncogenetics, Institut René Huguenin, St Cloud, France; ⁵Department of Molecular Oncology, Institut Paoli Calmette, Marseille, France; ⁶Hôpital St Louis APHP, Paris, France; ⁷Fédération Nationale des Centres de Lutte Contre le Cancer Saint-Louis APHP, Paris, France; ⁸INSERM/CNRS UMR 944/7212, Paris, France; ⁹Université Paris-7 Denis Diderot, Paris, France; ¹⁰INSERM U896, CRLC Val d'Aurelle-Paul Lamarque, Montpellier, France and ¹¹Université Montpellier 1, Montpellier, France

- 256 gener
- 6 subklasser
- Genomisk data (incl.CNV)
- Korrelerer med kliniske karakteristika og prognose
- Robust (>3000 pt.)
- Affymetrix platform (open)
- "In house"

REGION

**b****c****d**



Bilag 1. Expression report: RH-RNABC-1172-10908-235699-U133_Plus_3-a1

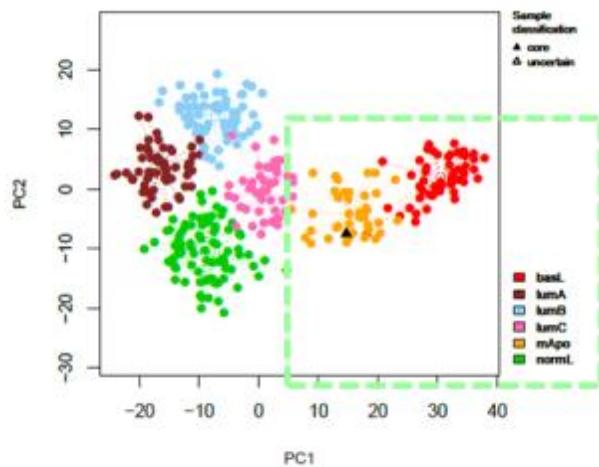


Figure 1: PCA on CIT data used to classify dataset & sample (black).

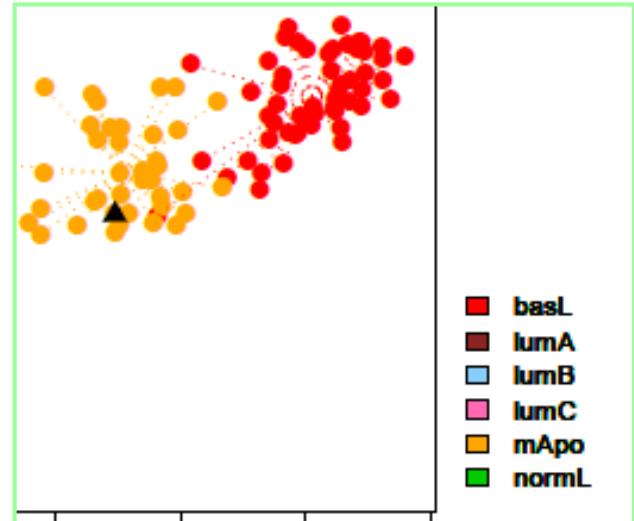
| Classification | Mixed | Confidence |
|----------------|-------|------------|
| mApO | - | CORE |

Possible confidences are: CORE, MIXED, and OUTLIER. If the confidence is MIXED, Classification lists the second of the two overlapping clusters under Mixed. In the case of an OUTLIER, the nearest cluster is listed under Classification.

Expression profiles

| | | |
|-----------------------|-------|----------|
| Her2 | ERBB2 | positive |
| Estrogen receptor | ESR1 | negative |
| Progesterone receptor | PGR | negative |

Proliferation Index(PI) score (tumor PI >5.5): 6.68



| Classification | Mixed | Confidence |
|----------------|-------|------------|
| mApO | - | CORE |

| | | |
|-----------------------|-------|----------|
| Her2 | ERBB2 | positive |
| Estrogen receptor | ESR1 | negative |
| Progesterone receptor | PGR | negative |

Proliferation Index(PI) score (tumor PI >5.5): 6.68