## Genomic characterization of triple negative breast cancers with high-resolution SNP 6.0 Affymetrix arrays

**Emanuele de Rinaldis**, Anita Grigoriadis, Mamunur Rashid, Patrycja Gazinska, Leticia Bosshard-Carter, Elodie Noel, Cheryl Gillett, Pierfrancesco Marra and Andrew Tutt

> Breakthrough Breast Cancer Research Unit King's College - Guy's Hospital , London



• The histopathological <u>absence of ER, PR and HER2</u> defines a subgroup of breast cancers named "triple negative", characterized by aggressive behaviour and poor prognosis.

• No targeted therapies are yet available.



## Aberrant regions: Triple-Negative vs Non-Triple-Negative Tumors



## TN specific aberrations harbor cancer-related miRNAs



> TN specifically deleted or gained/amplified regions harbour a number of cancer-related miRNAs, including miR-135a, miR-let7g (3p) and miR-95 (4p)





## Heatmaps of Non-Random Co-Aberrations



202

9421.1 9421.1 9421.5 9424.1 9424.3 9424.3 9424.3 9424.3 9424.3 9424.3 9424.3

2112-1041-2112-212-282-

-log10 p-value

40022 (1000) 40020

-log10 p-value

-log10 p-value

deleted