

BIOMEDREG



INSTITUTE OF MOLECULAR AND
TRANSLATIONAL MEDICINE

Exon array case study

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Study of treatment effect

- 30 ALL patients (age 0-16years)
- 4 samples per patient
(control, treatment1, treatment2, combination of treatments)
- 120 arrays: Human Exon 1.0 ST Array

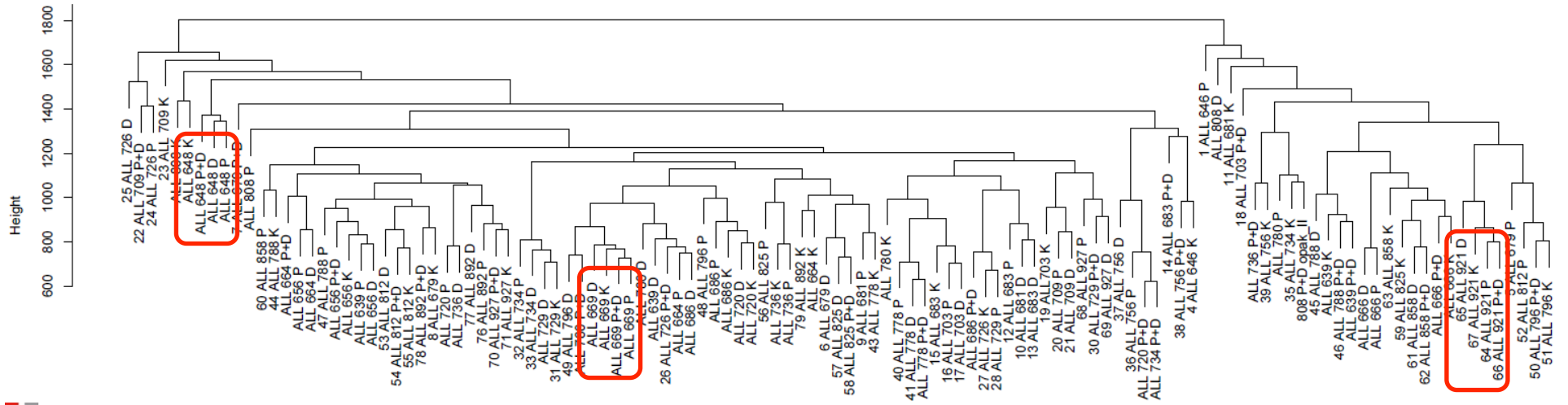


Workflow

- preprocessing: *oligo*
- quality control: *affyQCReport*
- PCA: *FactoMineR*
- unsupervised hierarchical clustering
- differentially expressed exons/genes: *limma*
- alternative splicing: *cosie.R*



Dendrogram for all arrays





Adjustment of patient effect

- „ordinary“ linear model:

model.matrix(~ 0 + treatment)

- linear model with effect of patient

model.matrix(~ 0 + treatment + patient)

- future plan: linear model with mixed effect

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Thanks for your attention



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