Validation of a molecular subtype-specific predictor in ovarian cancer in 12 validation microarray datasets

OR

Molecular subtypes and survival in ovarian cancer: a novel approach for prognostication

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## Abstract

# Introduction

# Materials and Methods

Table 1 describes the datasets (please update)

Description of the no subtypes approach

Molecular subtypes (only Stefan’s ones and we could include more if needed)

A figure to explain GENIUS + formula for the mixture of Gaussians used for subtyping, concordance index, stability and risk prediction

Method used to compute the published gene signatures (yoshihara, spentzos, Crijns, TCGA consortium)

# Results

Training of molecular subtype classifier in TCGA

Training of the no subtypes model in TCGA

Training of the GENIUS risk prediction model in TCGA

Validation in the 12 datasets

# Discussion

# References

# Tables

**Table 1 – Description of the datasets used as training and validation sets.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Contributors** | **Year** | **Set** | **Microarray platform** | **# Patients with ovarian tumor** | **# Patient with high grade, late stage, serous ovarian tumor** | **PMID** | **Source** |
| TCGA | 2011 | Training | Affymetrix GeneChip HG-U133A | 510 | 402 |  | <http://tcga-data.nci.nih.gov/tcga/tcgaHome2.jsp> |
| Bentink *et al.* | 2011 | Validation | Illumina DASL BeadArray 12k | 129 | 129 |  | E-MTAB-386 |
| Dressman *et al.* | 2007 | Validation | Affymetrix GeneChip HG-U133A | 118 | 55 | 17290060 | <http://data.cgt.duke.edu/platinum.php> |
| Yoshihara et al. | 2010 | Validation | Agilent G4112A | 110 | 43 | 20300634 | GSE17260 |
| Tothill *et al*. | 2008 | Validation | Affymetrix GeneChip HG-U133A | 285 | 139 | 18698038 | GSE9899 |
| Birrer *et al*. | 2010 | Validation | Affymetrix GeneChip HG-U133A | 185 | 185 | 18593951 | GSE26712 |
| Spentzos *et al*. | 2004 | Validation | Affymetrix GeneChip HG-U95v2 | 53 | 41 | 15505275 | GSE19161 |
| Zhang *et al*. | 2008 | Validation | Affymetrix GeneChip HG-U133PLUS2 | 55 | 46 | 18458333 | GSE19161 |
| Denkert *et al*. | 2009 | Validation | Affymetrix GeneChip HG-U133A | 80 | 41 | 19294737 | GSE14764 |
| Crijns *et al*. | 2009 | Validation | Operon human v3 35K | 157 | 85 | 19192944 | GSE13876 |
| Mok *et al*. | 2009 | Validation | Affymetrix GeneChip HG-U133PLUS2 | 53 | 53 | 19962670 | GSE18520 |

# Figures