

Predicting Disease Labels

Prostate Cancer

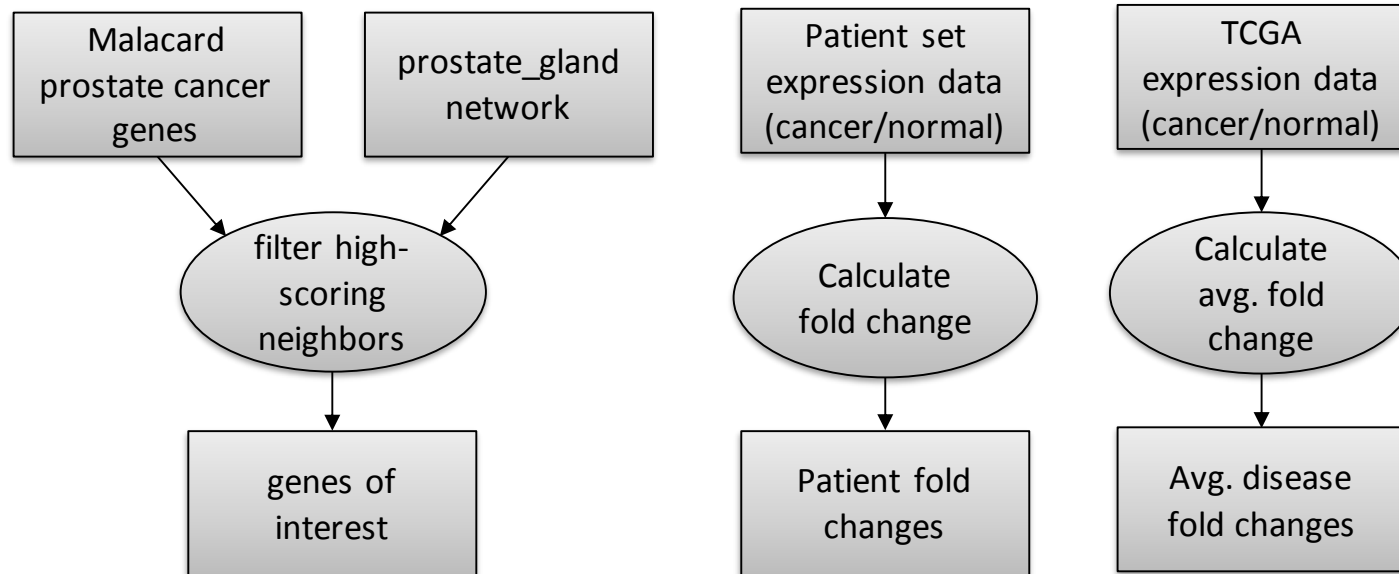
Stefan Weber, Julian Schmidt

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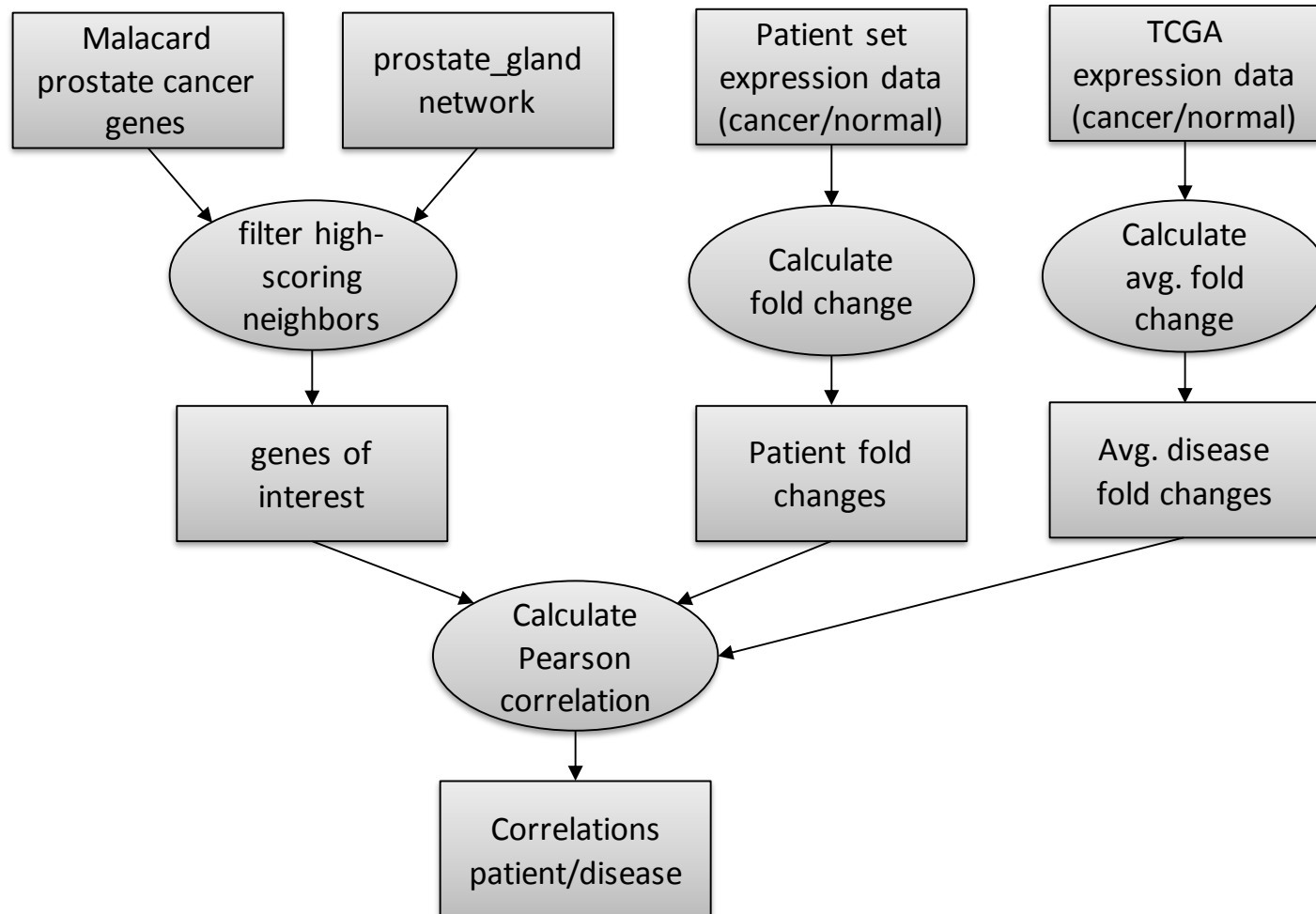
Malacard Genes related to prostate cancer

Gene	Description
CHEK2	Protein encoded by this gene is a putative tumor suppressor
AR	Mutations associated with complete androgen insensitivity
BRCA1	Tumor suppressor
BRCA2	Tumor suppressor
PTEN	Tumor suppressor mutated in cancers
SRD5A2	Microsomal protein expressed at high levels in prostate
CTNNB1	Mutations are a cause of cancer
NKX3-1	Expression of tis gene is associated with prostate tumor progression
STAT3	Cancer associated fibroblasts by promoting this gene

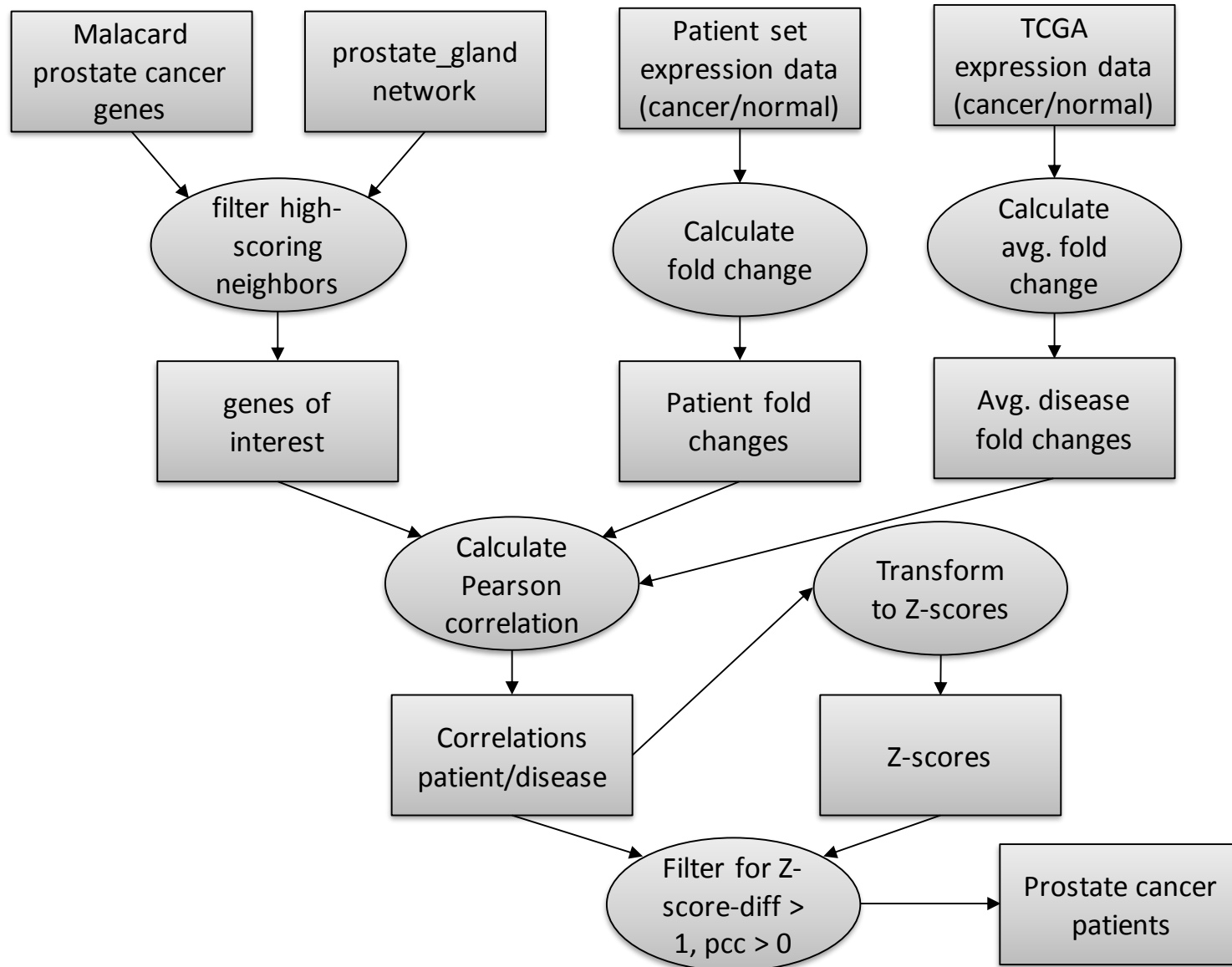
Scoring approach - workflow



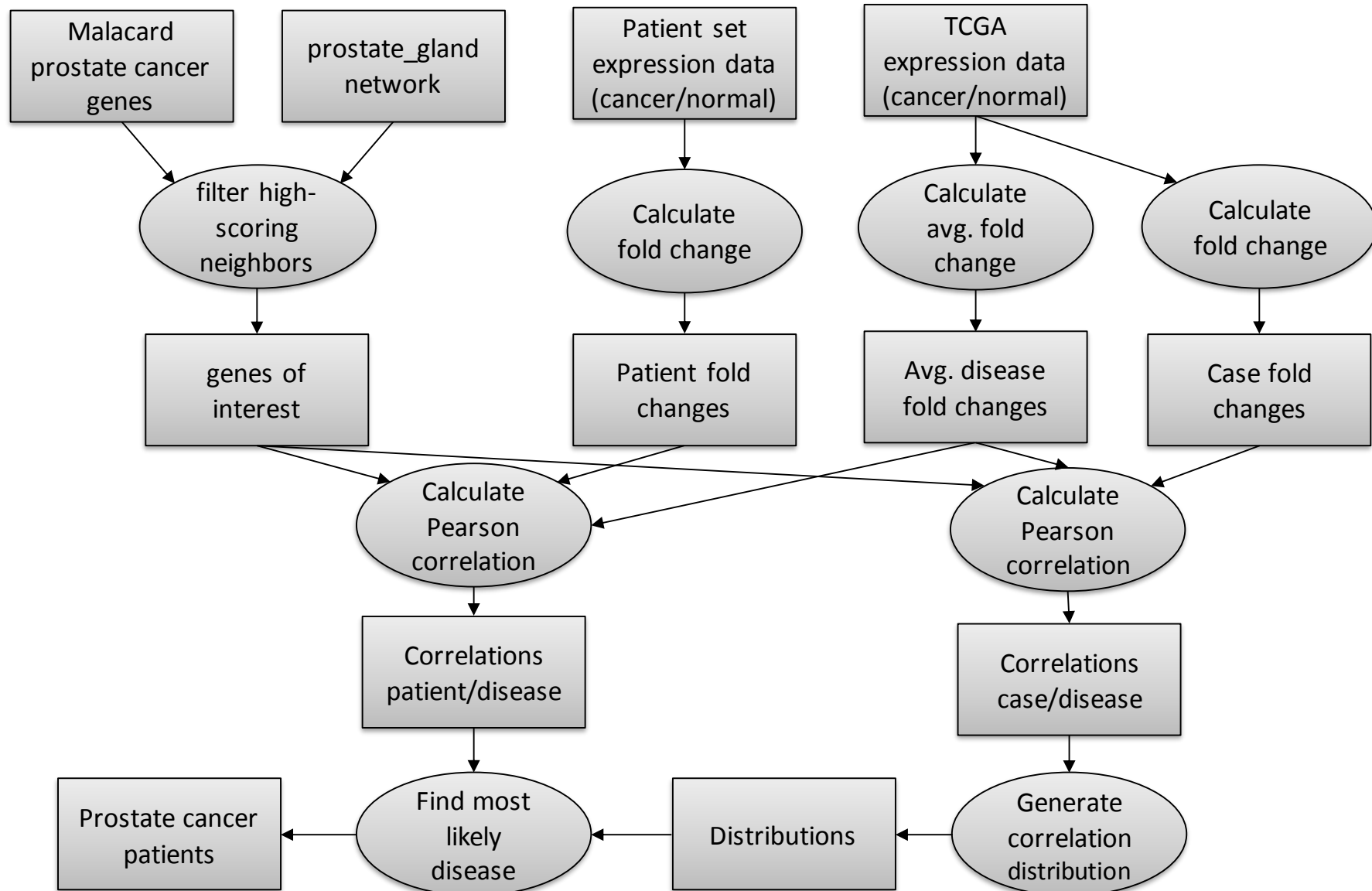
Scoring approach - workflow



Scoring approach - workflow



Expansion - Workflow



Open Issues/Ideas

- Find genes related only to prostate cancer
- Use SVM based decision
 - Input triplets (Disease, Gene, Fold change)
- More sophisticated use of gene interaction networks