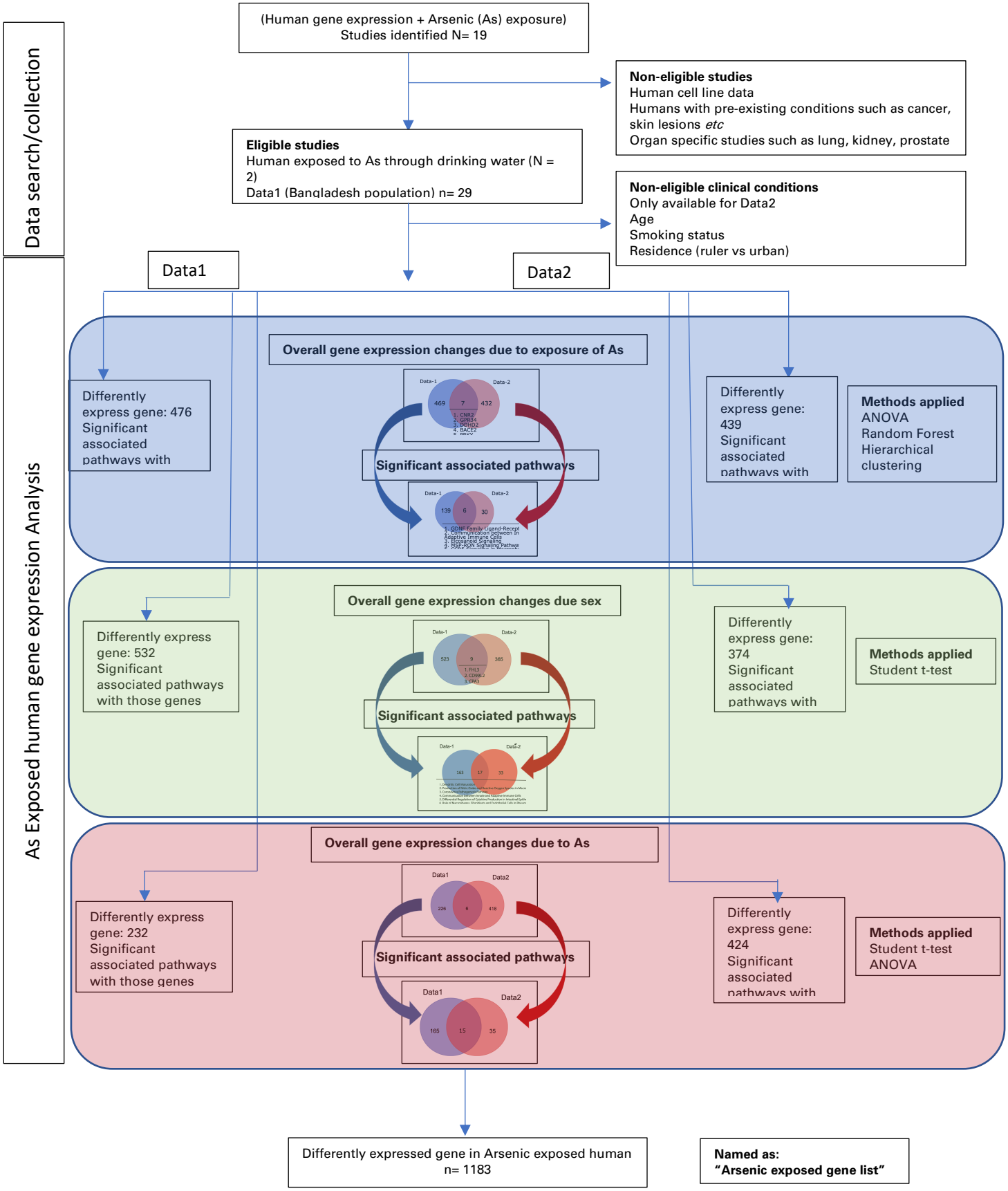
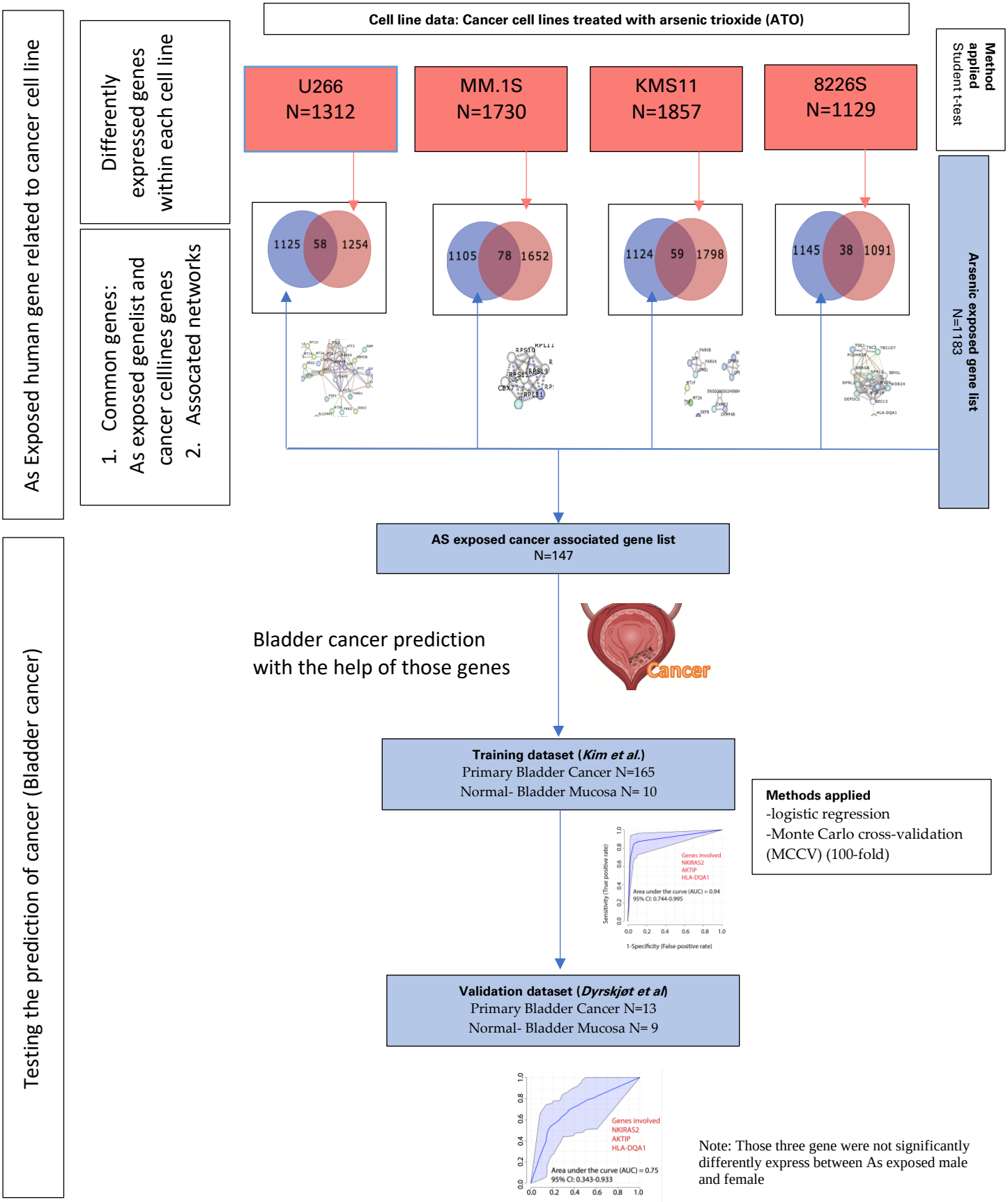
A


Data search/collection
As Exposed human gene expression Analysis
(Human gene expression + Arsenic (As) exposure)
Studies identified N= 19
Non-eligible studies
Human cell line data
Humans with pre-existing conditions such as cancer, skin lesions etc
Organ specific studies such as lung, kidney, prostate
Eligible studies
Human exposed to As through drinking water (N = 2)
Data1 (Bangladesh population) n= 29
Non-eligible clinical conditions
Only available for Data2
Age
Smoking status
Residence (ruler vs urban)
Data1
Data2
Overall gene expression changes due to exposure of As
Differently express gene: 476
Significant associated pathways with
Significant associated pathways
Differently express gene: 439
Significant associated pathways with
Methods applied
ANOVA
Random Forest
Hierarchical clustering
Overall gene expression changes due sex
Differently express gene: 532
Significant associated pathways with those genes
Significant associated pathways
Differently express gene: 374
Significant associated pathways with
Methods applied
Student t-test
Overall gene expression changes due to As
Differently express gene: 232
Significant associated pathways with those genes
Significant associated pathways
Differently express gene: 424
Significant associated pathways with
Methods applied
Student t-test
ANOVA
Differently expressed gene in Arsenic exposed human
n= 1183
Named as:
"Arsenic exposed gene list"

B



Note: Those three gene were not significantly differently express between As exposed male and female