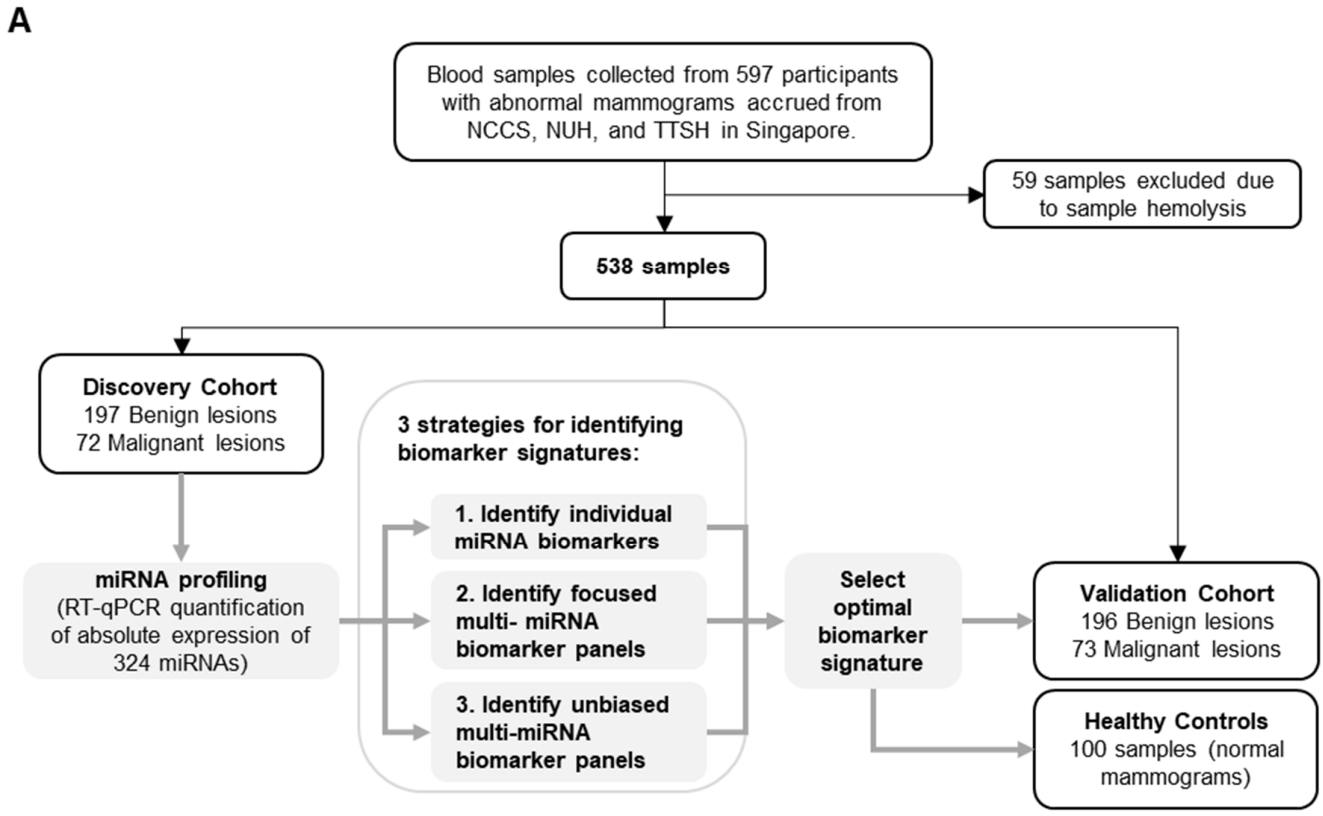
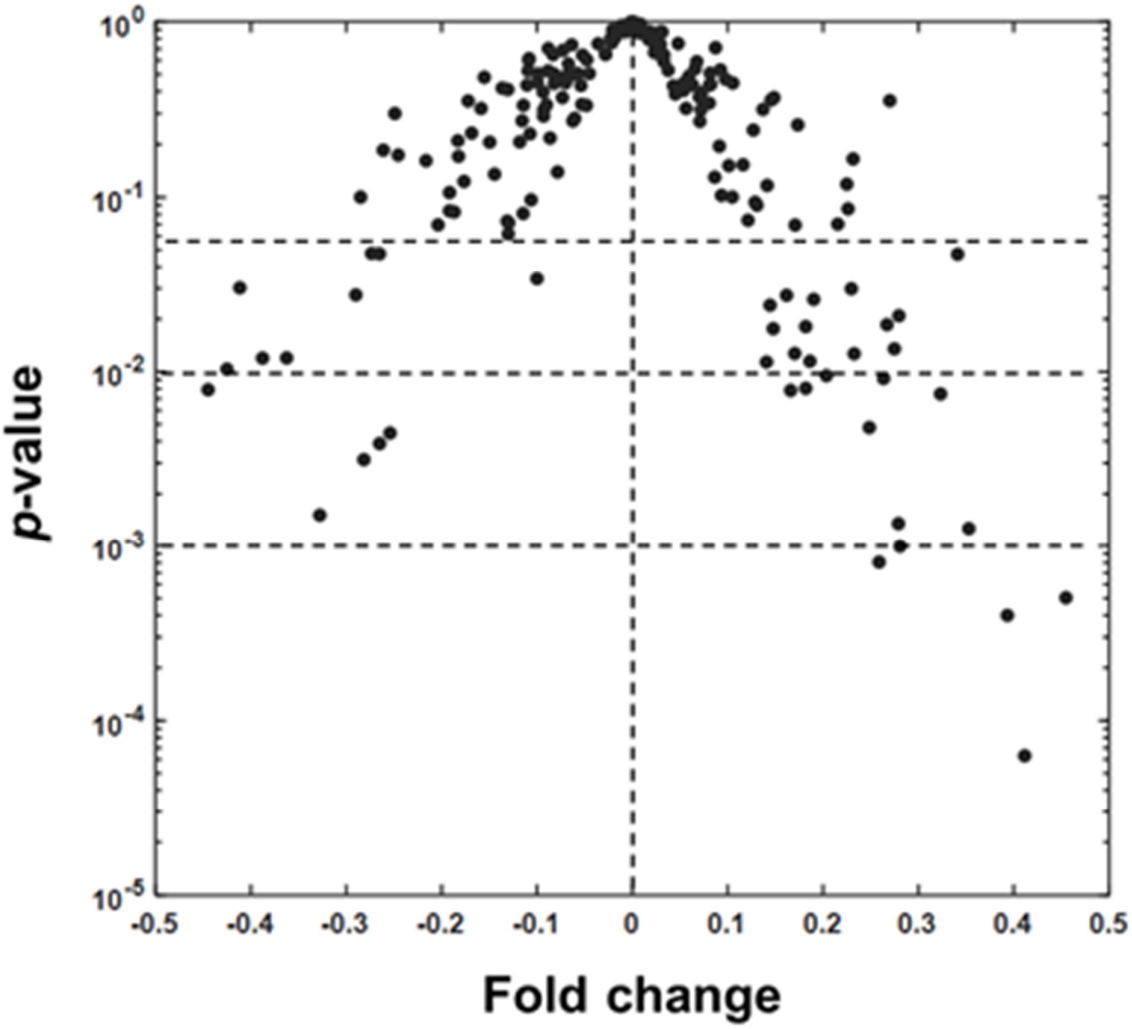

A
Blood samples collected from 597 participants with abnormal mammograms accrued from NCCS, NUH, and TTSH in Singapore.
59 samples excluded due to sample hemolysis
538 samples
Discovery Cohort
197 Benign lesions
72 Malignant lesions
miRNA profiling
(RT-qPCR quantification of absolute expression of 324 miRNAs)
3 strategies for identifying biomarker signatures:
1. Identify individual miRNA biomarkers
2. Identify focused multi- miRNA biomarker panels
3. Identify unbiased multi-miRNA biomarker panels
Select optimal biomarker signature
Validation Cohort
196 Benign lesions
73 Malignant lesions
Healthy Controls
100 samples (normal mammograms)

Figure 1

B



C

	P-value	FDR-adjusted *P*-value	AUC	Log2 (Fold Change)
hsa-miR-195-5p	0.00006	0.011	0.637	0.411
hsa-miR-451a	0.0004	0.030	0.629	0.393
hsa-miR-125b-5p	0.0005	0.030	0.642	0.455
hsa-miR-660-5p	0.0008	0.034	0.629	0.259
hsa-miR-25-3p	0.0010	0.034	0.619	0.281
hsa-miR-143-3p	0.0013	0.034	0.607	0.353
hsa-miR-363-3p	0.0014	0.034	0.617	0.279
hsa-miR-338-3p	0.0015	0.034	0.638	-0.328

Figure 1 (continued)

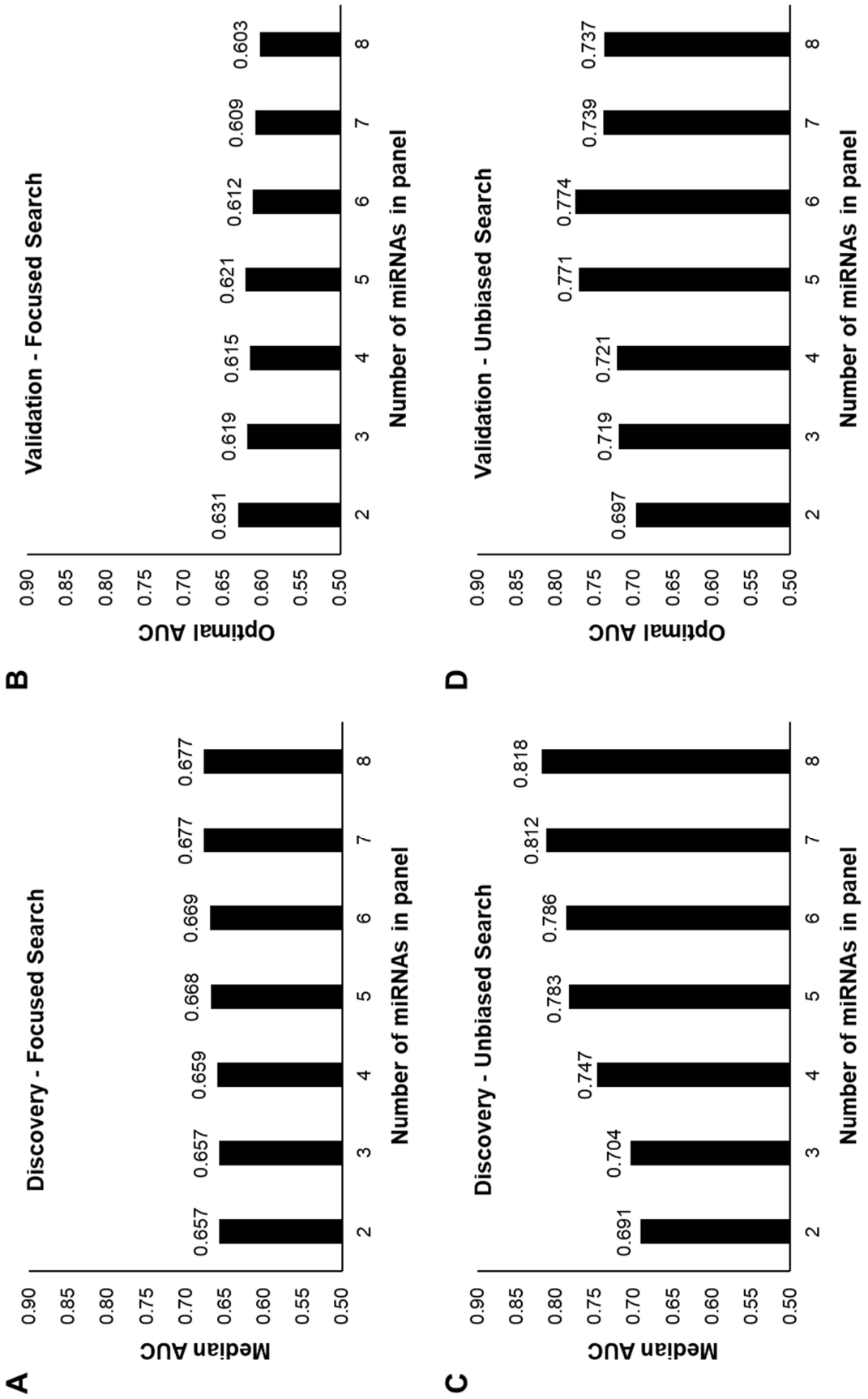

A
Discovery - Focused Search
Median AUC
Number of miRNAs in panel
0.657
0.657
0.659
0.668
0.669
0.677
0.677
B
Validation - Focused Search
Optimal AUC
Number of miRNAs in panel
0.631
0.619
0.615
0.621
0.612
0.609
0.603
C
Discovery - Unbiased Search
Median AUC
Number of miRNAs in panel
0.691
0.704
0.747
0.783
0.786
0.812
0.818
D
Validation - Unbiased Search
Optimal AUC
Number of miRNAs in panel
0.697
0.719
0.721
0.771
0.774
0.739
0.737

Figure 2

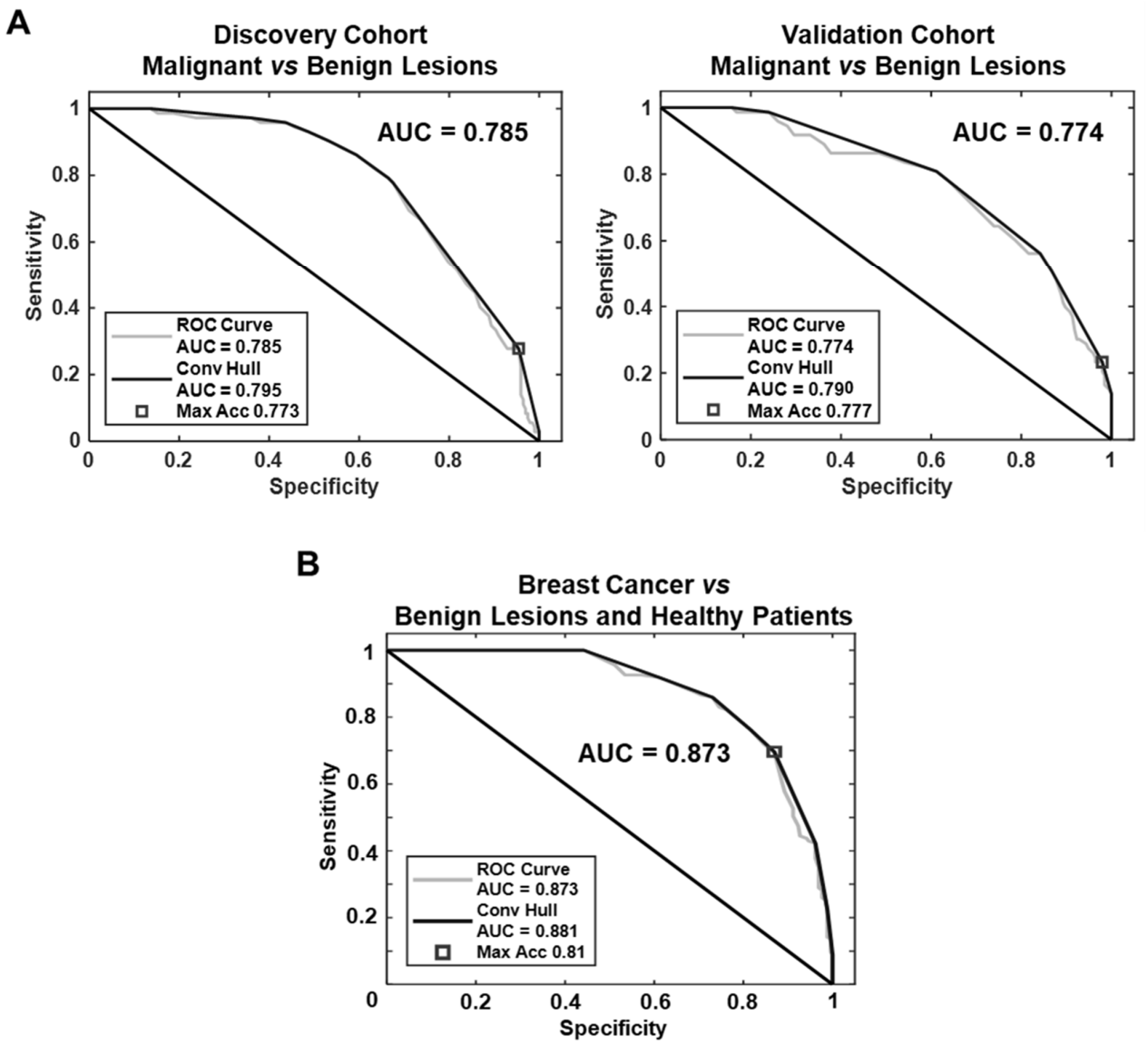

A
Discovery Cohort
Malignant vs Benign Lesions
AUC = 0.785
ROC Curve
AUC = 0.785
Conv Hull
AUC = 0.795
Max Acc 0.773
Sensitivity
Specificity
Validation Cohort
Malignant vs Benign Lesions
AUC = 0.774
ROC Curve
AUC = 0.774
Conv Hull
AUC = 0.790
Max Acc 0.777
Sensitivity
Specificity
B
Breast Cancer vs
Benign Lesions and Healthy Patients
AUC = 0.873
ROC Curve
AUC = 0.873
Conv Hull
AUC = 0.881
Max Acc 0.81
Sensitivity
Specificity

Figure 3

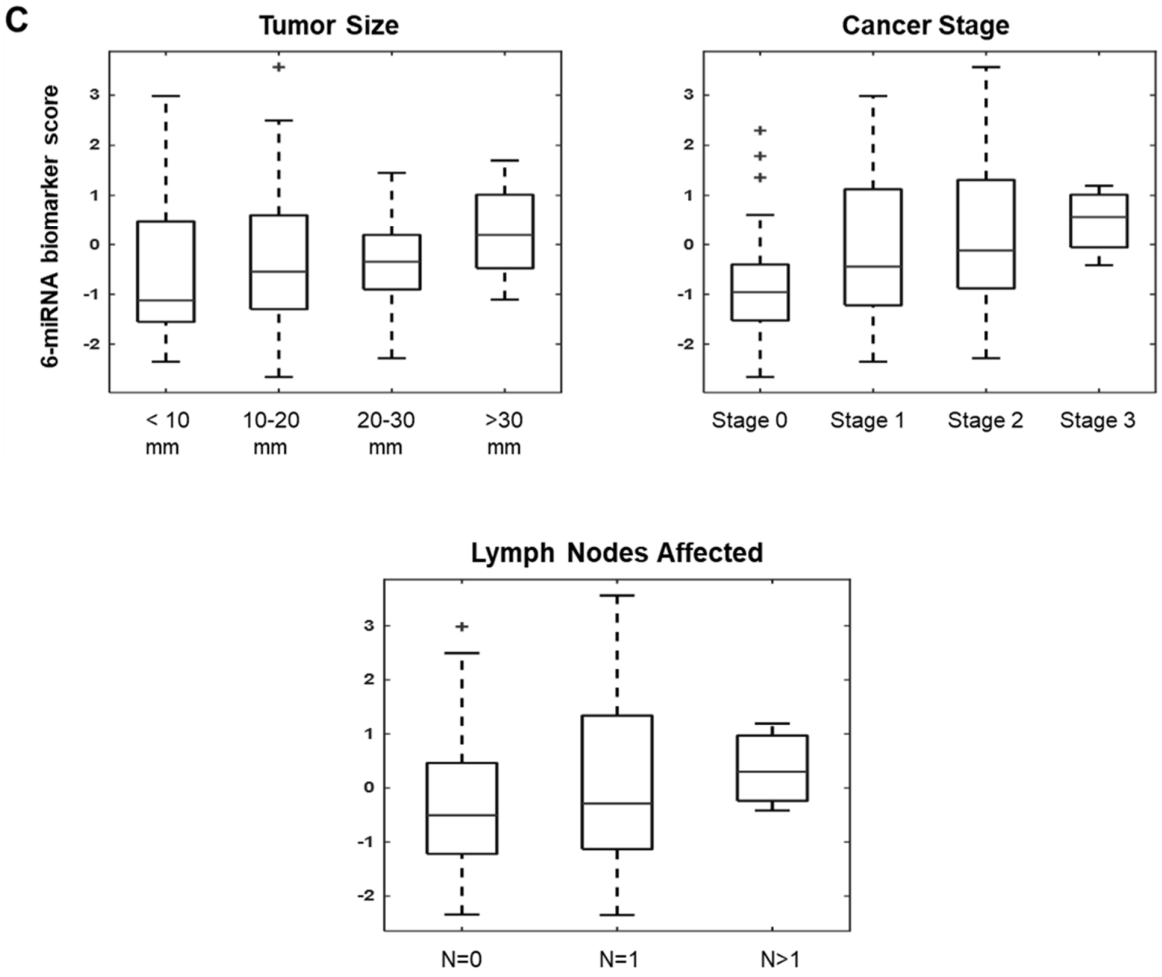


Figure 3 (continued)