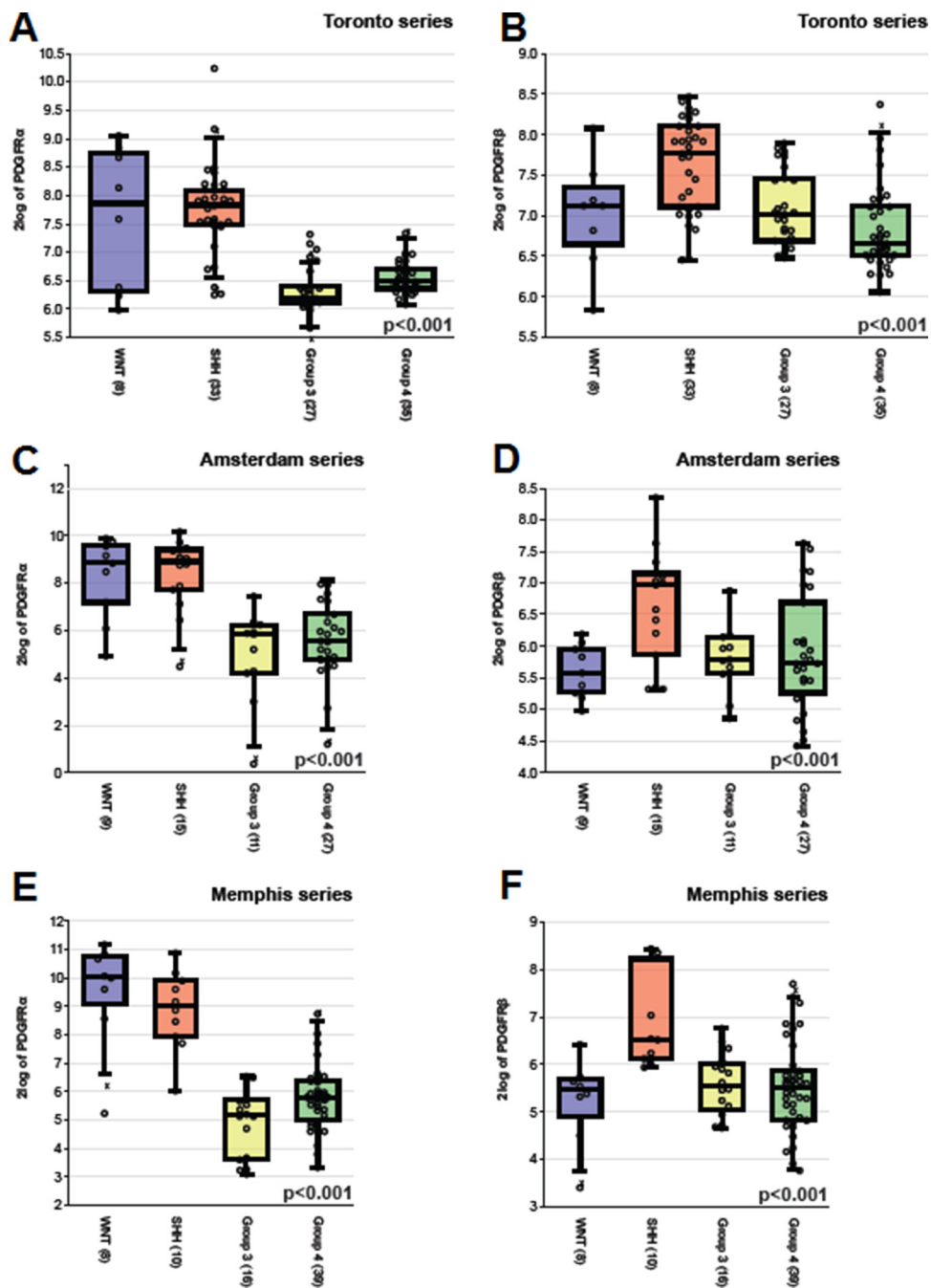
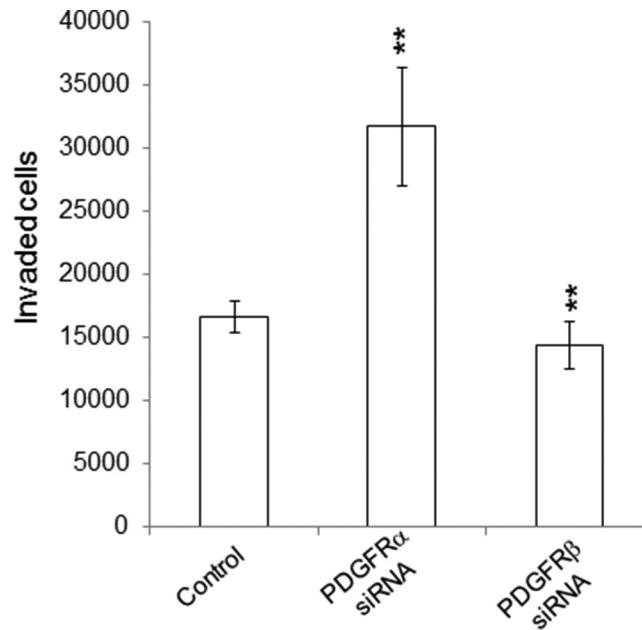


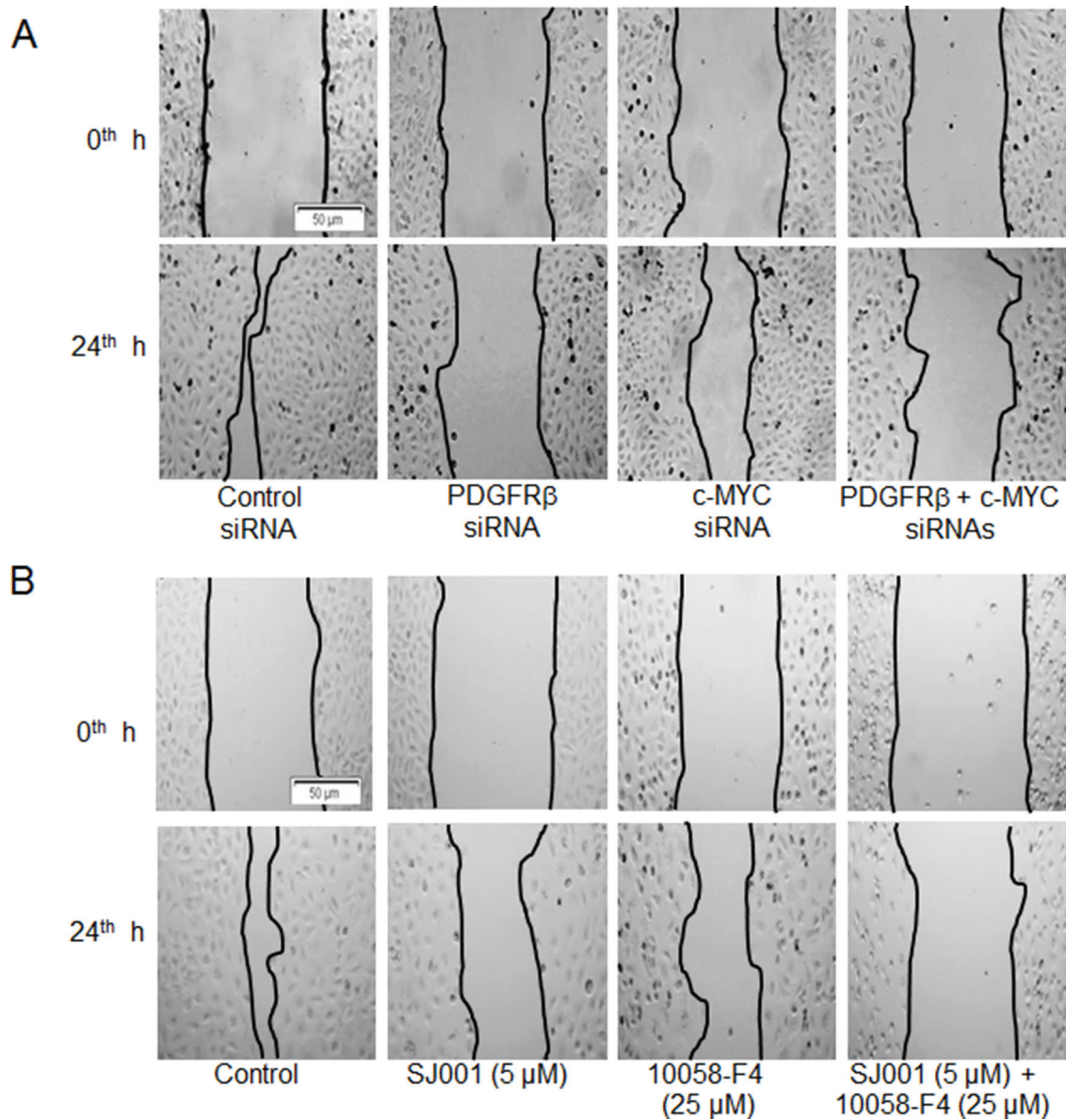
## SUPPLEMENTARY FIGURES AND TABLES



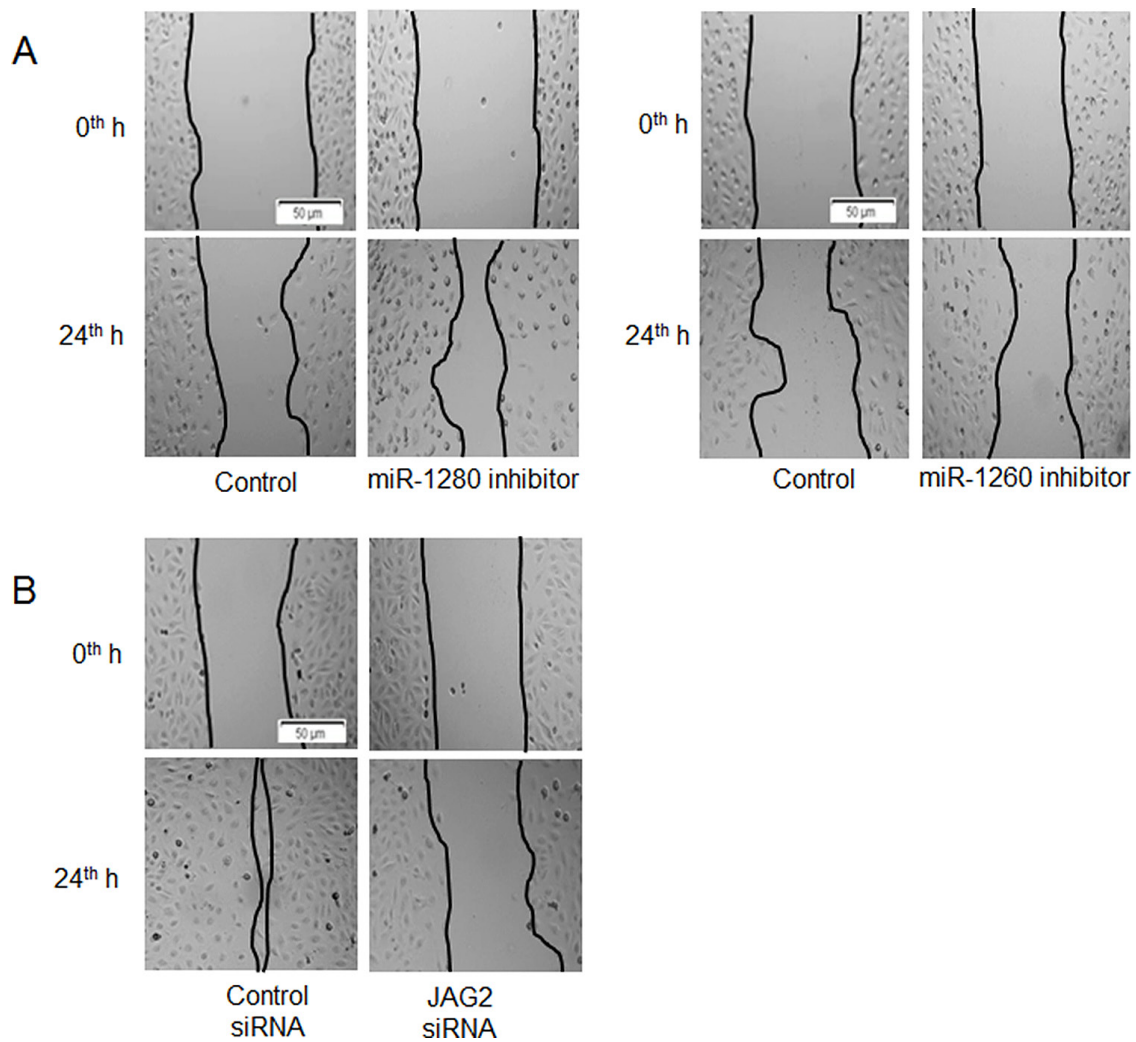
**Supplementary Figure S1: The subgroup specific expression of PDGFR $\alpha$  and PDGFR $\beta$  in primary MB.** Boxplot showing PDGFR $\alpha$  and PDGFR $\beta$  expression in three independent, non-overlapping gene expression profiling studies derived from Toronto (a/b), Amsterdam (c/d), and Memphis (e/f).



**Supplementary Figure S2: The effect of PDGFR siRNA on Daoy cell invasion.** A multi-well chamber-based assay was used to assess the ability of cells to migrate through a membrane coated with matrigel. In the presence of control or PDGFR siRNAs,  $2.5 \times 10^4$  Daoy cells were seeded in the upper chamber. 24 h later, cells that invaded or migrated to the lower chamber were labeled with Calcein AM. The labeled cells were measured for fluorescence with a fluorescence plate reader and set at an excitation wavelength of 485 nm and an emission wavelength of 520 nm. \*\* $p < 0.05$  (paired  $T$  test, sample vs. control)



**Supplementary Figure S3: The representative figures of co-targeting PDGFR and c-MYC on MB cell migration.** Daoy cells were treated with siRNAs for PDGFR $\beta$  and c-MYC and the specific inhibitors of PDGFR $\beta$  and c-MYC for 36 h. Treated cells were then detached and re-distributed in equal amounts in a 48-well plate before a linear wound was made. The images were captured immediately after that an artificial wound was made at 0<sup>th</sup> h and also at 24<sup>th</sup> h. The experiments were repeated for 3 times. The data are representative images for each condition.



**Supplementary Figure S4: The representative figures of miR-1280 inhibitors and JAG2 siRNA on MB cell migration.** PDGFR<sup>β</sup><sup>KD</sup> Daoy cells were treated with either inhibitor of miR-1280, or JAG2 siRNA for 36 h and then detached and re-distributed in equal amounts in a 48-well plate before a linear wound was made. The images were captured immediately after that an artificial wound was made at 0<sup>th</sup> h and also at 24<sup>th</sup> h. The experiments were repeated for 3 times. The data are representative images for each condition.

**Supplementary Table S1: The *p* values of subgroup comparisons for the Heidelberg dataset in Figure 1 PDGFR $\alpha$  – Boston cohort**

Comparison	Posthoc test ( <i>p</i> -value)
NCB vs WNT	0.06
NCB vs SHH	<b>0.01</b>
NCB vs Group 3	<b>1.60e-09</b>
NCB vs Group 4	<b>3.70e-04</b>
WNT vs SHH	0.83
WNT vs Group 3	<b>1.70e-12</b>
WNT vs Group 4	<b>1.20e-08</b>
SHH vs Group 3	<b>1.90e-24</b>
SHH vs Group 4	<b>8.80e-19</b>
Group 3 vs Group 4	<b>0.02</b>

**PDGFR $\beta$  – Boston cohort**

Comparison	Posthoc test ( <i>p</i> -value)
NCB vs WNT	0.10
NCB vs SHH	<b>1.4e-03</b>
NCB vs Group 3	0.13
NCB vs Group 4	0.24
WNT vs SHH	0.17
WNT vs Group 3	0.70
WNT vs Group 4	0.41
SHH vs Group 3	<b>8.2e-03</b>
SHH vs Group 4	<b>4.3e-04</b>
Group 3 vs Group 4	0.51

**PDGFR $\alpha$  – Heidelberg cohort**

Comparison	Posthoc test ( <i>p</i> -value)
WNT vs SHH	0.85
WNT vs Group 3	<b>3.7e-03</b>
WNT vs Group 4	<b>7.2e-04</b>
SHH vs Group 3	<b>1.6e-03</b>
SHH vs Group 4	<b>1.9e-04</b>
Group 3 vs Group 4	0.33

**PDGFR $\beta$  – Heidelberg cohort**

Comparison	Posthoc test ( <i>p</i> -value)
WNT vs SHH	<b>2.6e-06</b>
WNT vs Group 3	0.48
WNT vs Group 4	0.31
SHH vs Group 3	<b>6.5e-04</b>
SHH vs Group 4	<b>2.6e-05</b>
Group 3 vs Group 4	0.98

**Supplementary Table S2: Pathway analysis of genes co-expressed with PDGFR $\alpha$  in MB tumors (\*indicates genes in the pathways that are specific for PDGFR $\alpha$ .)**

**Supplementary Table S3: Pathway analysis of genes co-expressed with PDGFR $\beta$  in MB tumors (\*indicates genes in the pathways that are specific for PDGFR $\beta$ .)**

**Supplementary Table S4: Pathway analysis of genes co-expressed with c-MYC in MB tumors**