

## **Description of Additional Supplementary Files**

### **File name: Supplementary Data 1**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per MAGIC Grades I-IV.

### **File name: Supplementary Data 2**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per PC1 Grades I-IV.

### **File name: Supplementary Data 3**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per Hierarchical clustering Grades I-IV.

### **File name: Supplementary Data 4**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per K-means clustering Grades I-IV.

### **File name: Supplementary Data 5**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per Consensus Grades I-IV.

### **File name: Supplementary Data 6**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per IBMTR Grades I-IV.

### **File name: Supplementary Data 7**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per Minnesota Grades I-IV.

### **File name: Supplementary Data 8**

**Description:** Proportion of redistributed MAGIC grade III patients in the external test cohort within PC1 grades I and II including the aGVHD phenotype.

### **File name: Supplementary Data 9**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per PC1 Grades I-XII.

**File name: Supplementary Data 10**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per PC1 Grades I-VI.

**File name: Supplementary Data 11**

**Description:** Proportion of patients in the external test cohort with their respective aGVHD phenotype per K-means Grades I-VIII.