

**Supplementary Table 1: Patient demographics and AML blast characteristics.**

28 AML samples were analysed by microRNA microarray. 12 samples were from the St Vincent's Hospital (SVH) tissue bank and 16 were from the ALLG tissue bank. The FAB subtype was assigned to all patient samples as indicated. Peripheral blood (PB) leukocyte total and blast cell counts at initial presentation are detailed. Induction therapy was either with a standard (200mg/m<sup>2</sup> for 7 days) or high (>1g/m<sup>2</sup> for 8 doses) or was not offered (nil). First complete remission (CR1) was defined as being attained by those patients with <5% blasts on bone marrow biopsy at haematopoietic recovery from induction chemotherapy

| Sample Number | Age of Patient | Sex of Patient | Morphology (FAB) | % Marrow Blasts | PB Leukocyte Count | PB Blast Count | Induction Therapy | CR1 attained | NPM1 status | FLT3 Status |
|---------------|----------------|----------------|------------------|-----------------|--------------------|----------------|-------------------|--------------|-------------|-------------|
| 1             | 76             | F              | M5b              | 81              | 75                 | 9              | standard          | yes          | mut         | wt          |
| 2             | 81             | M              | M4a              | 82              | 5                  | 0              | nil               | no           | wt          | wt          |
| 3             | 23             | F              | M5               | 73              | 6                  | 0              | high              | yes          | mut         | mut         |
| 4             | 67             | M              | M1               | 89              | 44                 | 40             | standard          | yes          | wt          | wt          |
| 5             | 76             | F              | M1               | 61              | 9                  | 8              | nil               | no           | mut         | wt          |
| 6             | 75             | F              | M2               | 78              | 13                 | 2              | nil               | no           | mut         | mut         |
| 7             | 57             | F              | M1               | 85              | 83                 | 74             | standard          | yes          | mut         | mut         |
| 8             | 70             | M              | M1               | 80              | 5                  | 3              | standard          | yes          | wt          | wt          |
| 9             | 41             | M              | M2               | 90              | 158                | 155            | standard          | yes          | mut         | wt          |
| 10            | 33             | M              | M5b              | 90              | 28                 | 7              | high              | yes          | mut         | wt          |
| 11            | 49             | M              | M5               | 84              | 27                 | 2              | high              | yes          | mut         | wt          |

|    |    |   |         |    |     |     |      |     |     |     |
|----|----|---|---------|----|-----|-----|------|-----|-----|-----|
|    |    |   | b       |    |     |     |      |     |     |     |
| 12 | 56 | M | M5<br>b | 77 | 77  | 7   | high | yes | mut | wt  |
| 13 | 59 | M | M4      | 63 | 63  | 46  | high | yes | mut | mut |
| 14 | 59 | F | M2      | 66 | 8   | 1   | high | yes | mut | wt  |
| 15 | 40 | M | M4      | 80 | 104 | 14  | high | yes | mut | wt  |
| 16 | 46 | M | M1      | 89 | 4   | 2   | high | yes | mut | wt  |
| 17 | 45 | F | M2      | 67 | 5   | 3   | high | yes | wt  | wt  |
| 18 | 56 | M | M1      | 90 | 98  | 88  | high | yes | wt  | wt  |
| 19 | 48 | F | M5      | 72 | 6   | 1   | high | yes | mut | wt  |
| 20 | 41 | F | M5<br>b | 67 | 73  | 19  | high | yes | mut | wt  |
| 21 | 48 | M | M1      | 93 | 104 | 104 | high | yes | wt  | wt  |
| 22 | 46 | F | M4      | 52 | 162 | 70  | high | yes | mut | mut |
| 23 | 48 | M | M2      | 61 | 3   | 1   | high | yes | wt  | wt  |
| 24 | 44 | F | M4      | 64 | 20  | 4   | high | yes | mut | mut |
| 25 | 51 | M | M4      | 74 | 75  | 33  | high | yes | mut | mut |
| 26 | 46 | M | M2      | 62 | 21  | 15  | high | yes | mut | mut |
| 27 | 39 | F | M2      | 55 | 5   | 2   | high | no  | wt  | mut |
| 28 | 35 | M | M2      | 59 | 1   | 0   | high | yes | wt  | wt  |