Association of mutations with morphological dysplasia in de novo acute myeloid leukemia without 2016 WHO Classification-defined cytogenetic abnormalities

Olga K. Weinberg,1 Christopher J. Gibson,2 Traci M. Blonquist,3 Donna Neuberg,3 Olga Pozdnyakova,4 Frank Kuo,4 Benjamin L. Ebert5 and Robert P. Hasserjian5

1Department of Pathology, Boston Children’s Hospital; 2Division of Hematology, Brigham and Women’s Hospital, Dana Farber Cancer Institute; 3Department of Biostatistics and Computational Biology, Dana Farber Cancer Institute; 4Department of Pathology, Brigham and Women’s Hospital and 5Department of Pathology, Massachusetts General Hospital, Boston, MA, USA

©2018 Ferrata Storti Foundation. This is an open-access paper. doi:10.3324/haematol.2017.181842

Received: September 29, 2017.
Accepted: January 4, 2018.
Pre-published: January 11, 2018.
Correspondence: olga.weinberg@childrens.harvard.edu
Supplementary Table 1  Types of dysplastic changes in de novo AML and inter-rater agreement of specific dysplastic features scoring

|                      | Median Observer Score |          |          |          |          |          | Kendall’s W |
|----------------------|-----------------------|----------|----------|----------|----------|----------|--------------|
|                      | Erythroid lineage     | NE       | 0 (<10% cells) | 1 (10-25% cells) | 2 (26-50% cells) | 3 (51-75% cells) | 4 (>75% cells) |            |
| Megaloblastic change in erythroid cells | 29 (17.3%) | 82 (48.8%) | 12 (7.1%) | 34 (20.2%) | 11 (6.5%) | 0 (0%) | 0.72 |
| Multi-nucleation in erythroid cells | 29 (17.3%) | 98 (58.3%) | 4 (2.4%) | 25 (14.9%) | 11 (6.5%) | 1 (0.6%) | 0.746 |
| Nuclear irregularities in erythroid cells | 29 (17.3%) | 28 (16.7%) | 22 (13.1%) | 59 (35.1%) | 24 (14.3%) | 6 (3.6%) | 0.769 |
| Myeloid lineage       |                      |          |          |          |          |          | Kendall’s W |
| Abnormal nuclear shape in myeloid cells | 23 (13.7%) | 71 (42.3%) | 18 (10.7%) | 39 (23.2%) | 16 (9.5%) | 1 (0.6%) | 0.71 |
| Hypogranulation in myeloid cells | 23 (13.7%) | 59 (35.1%) | 30 (17.9%) | 28 (16.7%) | 25 (14.9%) | 3 (1.8%) | 0.767 |
| Megakaryocytes        |                      |          |          |          |          |          | Kendall’s W |
| Micromegakaryocytes   | 36 (21.4%) | 68 (40.5%) | 10 (6.0%) | 29 (17.3%) | 19 (11.3%) | 6 (3.6%) | 0.744 |
| Megakaryocytes with separated lobes | 36 (21.4%) | 63 (37.5%) | 17 (10.1%) | 23 (13.7%) | 20 (11.9%) | 9 (5.4%) | 0.815 |
| Megakaryocytes with Hypolobated nuclei | 36 (21.4%) | 41 (24.4%) | 14 (8.3%) | 59 (35.1%) | 18 (10.7%) | 0 (0%) | 0.647 |