



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



HANAA ALY



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شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس التوثيق الإلكتروني والميكروفيلم

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Fluorescence in situ hybridization (FISH) for detection of c-MYC amplifications in AML Patients: A Potential Marker for Risk Stratification

Thesis

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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قالوا

لسبب انك لا تعلم لنا
إلا ما علمتنا إنك أنت
العليم العظيم

صدقة الله العظيم

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List of Abbreviations

Abb.	Full term
<i>ABL</i>	<i>Abelson murine leukemia</i>
<i>AML</i>	<i>Acute myeloid leukemia</i>
<i>APL</i>	<i>Acute promyelocytic leukemia</i>
<i>ASXL1</i>	<i>Additional sex combs like 1</i>
<i>BCOR</i>	<i>BCL6 Co repressor</i>
<i>BCR</i>	<i>Breakpoint cluster region protein</i>
<i>BET</i>	<i>Bromodomain and extra-terminal motif</i>
<i>bHLHZ</i>	<i>Carboxyl terminus basic-helix-loop-helix-leucine zipper</i>
<i>BL</i>	<i>Burkitt lymphoma</i>
<i>BM</i>	<i>Bone marrow</i>
<i>BMT</i>	<i>Bone marrow transplantation</i>
<i>CBC</i>	<i>Complete blood picture</i>
<i>CBF</i>	<i>Core-binding factor</i>
<i>CBFA</i>	<i>Core binding factor alpha</i>
<i>CBFB</i>	<i>Core binding factor beta</i>
<i>CBL</i>	<i>Casitas B-lineage Lymphoma</i>
<i>CD</i>	<i>Cluster of differentiation</i>
<i>CDK2</i>	<i>Cyclin dependent kinase 2</i>
<i>CDK9</i>	<i>Cyclin dependent kinase 9</i>
<i>CEBPA</i>	<i>CCAAT/enhancer-binding protein alpha,</i>
<i>CNS</i>	<i>Central nervous system</i>
<i>CR</i>	<i>Complete remission</i>
<i>CytoF</i>	<i>Cytometry by time-of-flight</i>
<i>DFN:</i>	<i>Difference from normal</i>
<i>EFS</i>	<i>Event-free survival</i>
<i>ELN</i>	<i>European Leukemia Net</i>
<i>ERK</i>	<i>Extracellular signal-regulated kinases</i>

List of Abbreviations (Cont...)

Abb.	Full term
<i>EZH2</i>	<i>Enhancer of zeste homolog 2</i>
<i>FAB</i>	<i>French-American-British</i>
<i>FBW7</i>	<i>F-box and WD repeat domain-containing 7</i>
<i>FCM</i>	<i>flow cytometry</i>
<i>FISH</i>	<i>fluorescence in situ hybridization</i>
<i>Flt3</i>	<i>FMS-like tyrosine kinase 3</i>
<i>G</i>	<i>Gilteritinib</i>
<i>GEP</i>	<i>Gene expression profiling</i>
<i>GIT</i>	<i>Gastrointestinal tract</i>
<i>GSK3</i>	<i>Glycogen synthase kinase 3</i>
<i>GVL</i>	<i>Graft versus leukemia effect</i>
<i>HB</i>	<i>Hemoglobin</i>
<i>HLHZ</i>	<i>Helix-loop-helix leucine zipper</i>
<i>HSCT</i>	<i>Hematopoietic stem cell transplantation</i>
<i>HR</i>	<i>Hematological Remission</i>
<i>Ig H</i>	<i>Immunoglobulin heavy chain</i>
<i>IGK</i>	<i>Immunoglobulin kappa</i>
<i>IGL</i>	<i>Immunoglobulin Lambda</i>
<i>IHC</i>	<i>Immunohistochemistry</i>
<i>ITDs</i>	<i>Internal tandem duplications</i>
<i>JAK</i>	<i>Janus kinase</i>
<i>KMT2A</i>	<i>lysine (K)-specific methyltransferase 2A,</i>
<i>LAIP</i>	<i>leukemia-associated immunophenotyped</i>
<i>MAX</i>	<i>MYC -associated protein X</i>
<i>MB0-IV</i>	<i>MYC box domains</i>
<i>MDS</i>	<i>Myelodysplastic syndrome</i>
<i>MECOM/ EVI-1</i>	<i>Ecotropic virus integration site 1 protein homolog</i>
<i>MKL1</i>	<i>Myocardin like protein 1</i>
<i>MLL</i>	<i>Mixed lineage leukemia</i>
<i>MLLT3</i>	<i>Mixed lineage leukemia translocated to 3</i>

List of Abbreviations (Cont....)

Abb.	Full term
<i>MPN</i>	<i>Myeloproliferative neoplasm</i>
<i>MPO</i>	<i>Myeloperoxidase</i>
<i>MR</i>	<i>Molecular Remission</i>
<i>MRD</i>	<i>Minimal residual disease</i>
<i>MYH11</i>	<i>Myosin heavy chain 11</i>
<i>NEC</i>	<i>Non-erythroid cells</i>
<i>NF1</i>	<i>Neurofibromin 1</i>
<i>NGS</i>	<i>Next-generation sequencing</i>
<i>NLS</i>	<i>Nuclear localization sequence</i>
<i>NPM</i>	<i>Nucleophosmin</i>
<i>NPM1</i>	<i>Nucleophosmin 1</i>
<i>NRM</i>	<i>Non relapse mortality</i>
<i>NSD1</i>	<i>Nuclear receptor binding SET domain protein 1</i>
<i>NUP</i>	<i>Nuclear pore complex</i>
<i>OS</i>	<i>Overall survival</i>
<i>PAS</i>	<i>Periodic acid- Schiff</i>
<i>PB</i>	<i>Peripheral blood</i>
<i>PBSCT</i>	<i>Peripheral blood stem cell transplantation</i>
<i>PEST domain</i>	<i>Proline, glutamic acid [E], Serine and Threonine rich</i>
<i>PHF6</i>	<i>PHD (plant homeodomain) finger protein 6</i>
<i>PI3 K</i>	<i>Phosphoinositide 3-kinase</i>
<i>PIN1</i>	<i>Peptidyl-prolyl cis-trans isomerase NIMA-interacting 1</i>
<i>PML</i>	<i>Promyelocytic leukemia</i>
<i>PLT</i>	<i>Platelet</i>
<i>PP2A</i>	<i>Protein Phosphatase 2A</i>
<i>P-TEFb</i>	<i>Positive Transcription Elongation Factor b</i>
<i>PTPN11</i>	<i>Protein Tyrosine Phosphatase Non-Receptor Type 11</i>
<i>Q</i>	<i>Quizartinib</i>

List of Abbreviations (Cont....)

Abb.	Full term
<i>RARα</i>	<i>Retinoic acid receptor alpha</i>
<i>RBM15</i>	<i>RNA binding motif protein 15</i>
<i>RFS</i>	<i>Relapse free survival</i>
<i>RT-PCR</i>	<i>Reverse transcription-polymerase chain reaction</i>
<i>RT-qPCR</i>	<i>Real-time quantitative PCR</i>
<i>RUNX1</i>	<i>Runt-related transcriptional factor 1</i>
<i>RUNX1T1</i>	<i>Runt-related transcription factor 1translocated to 1</i>
<i>s-AML</i>	<i>Secondary Acute myeloid leukemia</i>
<i>SBB</i>	<i>Sudan Black B,</i>
<i>SCT</i>	<i>Stem cell transplantation</i>
<i>SF3B1</i>	<i>Splicing Factor 3b Subunit 1</i>
<i>SMAPs</i>	<i>Small-molecule activators of PP2A</i>
<i>SRSF2</i>	<i>Serine/Arginine Rich Splicing Factor 2</i>
<i>STAG2</i>	<i>Stromal Antigen 2</i>
<i>STAT:</i>	<i>Signal transducer and activator of transcription</i>
<i>TAD</i>	<i>Trans-activation domain</i>
<i>t-AML</i>	<i>Therapy-related Acute myeloid leukemia</i>
<i>TCGA</i>	<i>The Cancer Genome Atlas</i>
<i>TET2:</i>	<i>Ten-eleven translocation oncogene family member 2</i>
<i>TF</i>	<i>Transcription factor</i>
<i>TLC</i>	<i>Total Leucocytic Count</i>
<i>TP:</i>	<i>Tumor protein</i>
<i>TP53</i>	<i>Tumor protein 53</i>
<i>TRM</i>	<i>Treatment related mortality</i>
<i>U2AF1</i>	<i>U2 small nuclear RNA auxiliary factor 1</i>
<i>WHO</i>	<i>World Health Organization</i>