ACUTE MYELOID LEUKEMIA Hematopoietic progenitor cell Hematopoietic progenitors PI3K-Akt signaling pathway Anti-apoptotic genes DNA Cell survival Apoptosis Protein mTOR signaling synthesis pathway K07828 Proliferative genes DNA Hematopoietic cell lineage MAPK signaling pathway Anti-apoptosis DNA Jak-STAT signaling pathway (M0)DNA ►O/► AMIL1 DNA (M1, 2, 4)DNA ►O∕► CÆBPα K09055 DNA (M0, 4, 5, 6) Block of differentiation K09438 (M2)DNA K08367. K09438 Genetic alterations target genes (M3) c-KIT, FLT3, N- or K-Ras, Oncogenes: DNA **P**ARα Acute myeloblastic leukemia with minimal differentiation (MD) K08527... AML1-ETO, PML-RARa, target genes PLZF-RARα Acute myeloblastic leukemia without maturation (M1) (M3) Tumor suppressors: AML1, C/EBPa, PU.1 K08527. ►CyclinA1 → Proliferation Acute myeloblastic leukemia with maturation (M2) DNA Acute promyelocytic leukemia (M3) DNA Cell cycle Acute myelomonocytic leukemia (M4) Acute myelomonocytic leukemia with abnormal eosinophils (M4Eo) - Proliferation Acute monocytic leukemia (M5) DNA K04504 Erythroleukemia (M6) K02620... Acute megakaryocytic leukemia (M7) 05221 8/27/15 (c) Kanehisa Laboratories