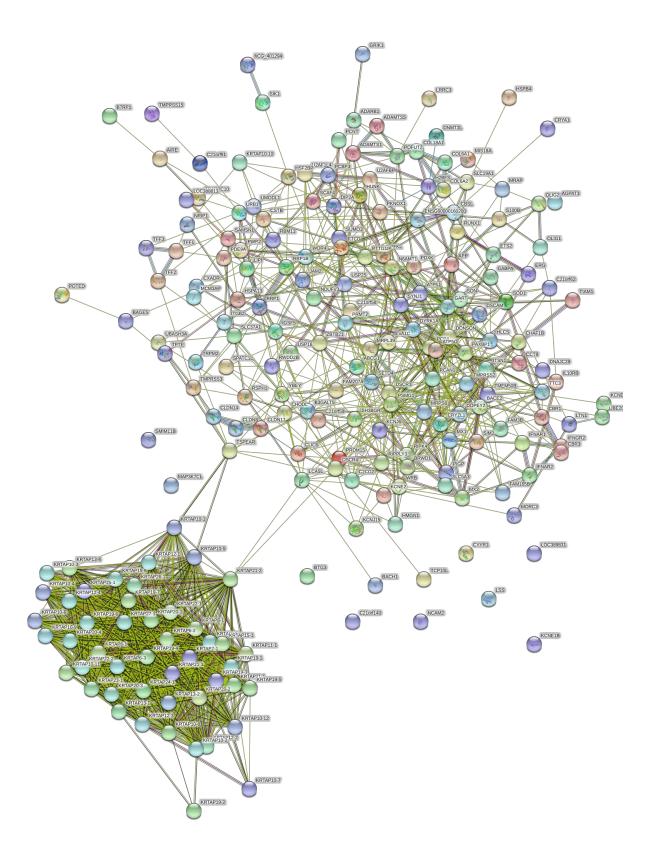
Supplementary Material

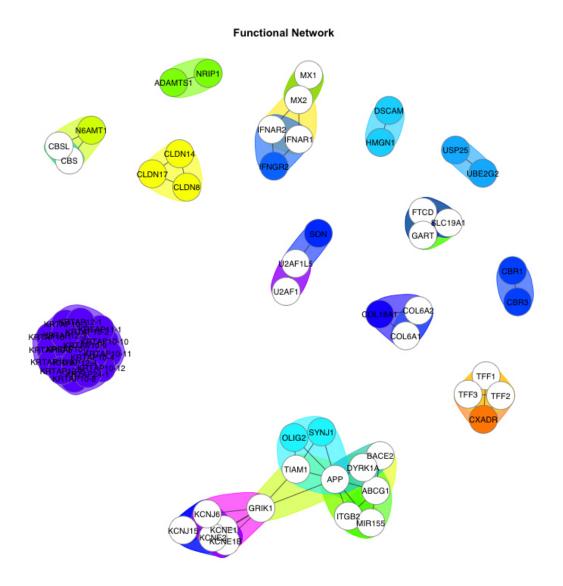
MicroRNA-155-5p Plays a Critical Role in Transient Leukemia of Down Syndrome by Targeting Tumor Necrosis Factor Receptor Superfamily Members

Valentina Sas^{a,b} Sergiu Pasca^c Ancuta Jurj^d Laura Pop^d Hideki Muramatsu^e Hiroko Ono^e Delia Dima^f Patric Teodorescu^a Sabina Iluta^a Cristina Turcas^a Anca Onaciu^c Raluca Munteanu^c Alina-Andreea Zimta^c Cristina Blag^{b,g} Gheorghe Popa^{b,g} Elias Daniel Alexander von Gamm^a Smaranda Arghirescu^{h,i} Margit Serban^{h,i} Sorin Man^b Mirela Marian^f Bobe Petrushev^c Cristian Berce^c Anca Colita^{j,k} Mihnea Zdrenghea^{a,f} Seiji Kojima^e Diana Gulei^{a,c} Yoshiyuki Takahashi^e Ciprian Tomuleasa^{a,c,f}

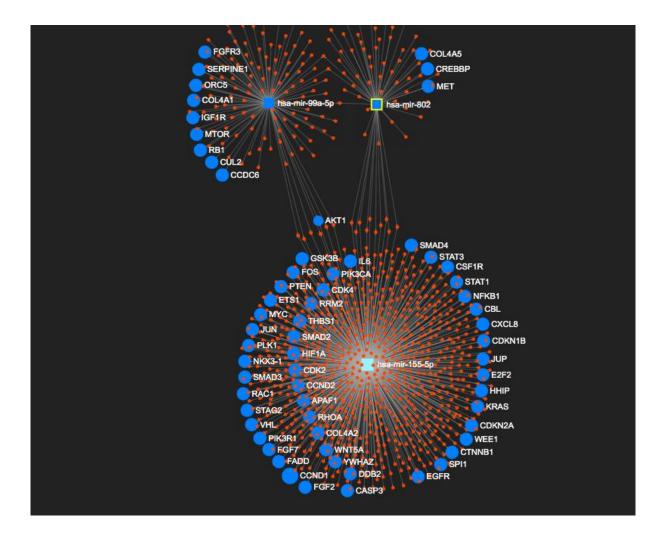
^aDepartment of Hematology, Iuliu Hatieganu University of Medicine and Pharmacy Cluj Napoca, Cluj Napoca, Romania, ^bDepartment of Pediatrics, Iuliu Hatieganu University of Medicine and Pharmacy Cluj Napoca, Cluj Napoca, Romania, ^cMedfuture Research Center for Advanced Medicine, Iuliu Hatieganu University of Medicine and Pharmacy Cluj Napoca, Cluj Napoca, Romania, ^dResearch Center for Functional Genomics and Translational Medicine, Iuliu Hatieganu University of Medicine and Pharmacy Cluj Napoca, Romania, ^eDepartment of Pediatrics, Nagoya University Graduate School of Medicine, Nagoya, Japan, ^fDepartment of Hematology, Ion Chiricuta Clinical Cancer Center, Cluj Napoca, Romania, ^gDepartment of Pediatrics, Emergency Hospital for Children in Cluj Napoca, Cluj Napoca, Romania, ^hDepartment of Pediatrics, Victor Babes University of Medicine and Pharmacy, Timisoara, Romania, ⁱDepartment of Pediatrics, Louis Turcanu Emergency Hospital for Children, Timisoara, Romania, ^jDepartment of Pediatrics, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania, ^kDepartment of Pediatrics, Fundeni Clinical Institute, Bucharest, Romania



Supplementary Fig. S1A. Functional enrichment analysis for genes localized on chromosome 21 using R3.5.3 database.

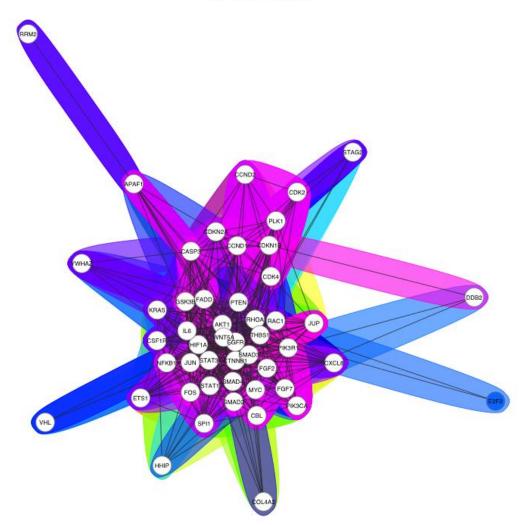


Supplementary Fig. S1B. Functional enrichment analysis for genes localized on chromosome 21 using GO database.

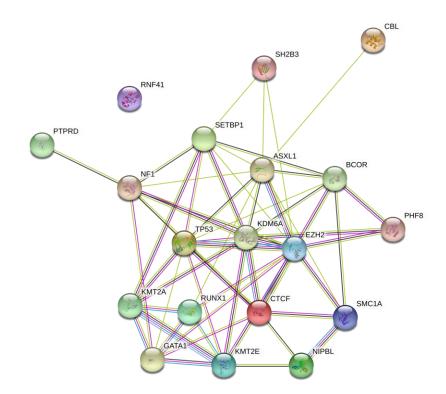


Supplementary Fig. S2. miRNAs from chromosome 21 implicated in bone marrow processes.

Functional Network



Supplementary Fig. 3. Functional enrichment analysis on genes targeted by hsa-miR-155-5p and deregulated in signaling pathways: cancer, AML, p53 and cell cycle.



Supplementary Fig 4. Functional enrichment analysis on genes that were identify by Labuhn et al. to have significant mutations in AML-DS.