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Series GSE116575

Query DataSets for GSE116575

Status	Public on Jul 04, 2018
Title	Overexpression of miR-155 alters the hierarchy of gene master regulators in the adenocarcinomic human alveolar basal epithelial cell line A549
Organism	Homo sapiens
Experiment type	Expression profiling by array
Summary	Several reports indicated that miR155 is upregulated in many cancer forms, including lung adenocarcinoma. Studies perfomed in Calin's lab (e.g. Van Roosbroeck et al., Clin Cancer Res, doi: 10.1158/1078-0432.CCR-16-1025) demonstrated that miR-155 induces resistance to multiple chemotherapeutic agents. We hypothesize that the induced resistance is related to the rearrangement of cellular gene hierarchy. In previous papers (Iacobas & Iacobas, Cancer & Oncol Res DOI:10.13189/cor.2017.050301; Iacobas et al., Oncotarget doi: 10.18632/oncotarget.23417) we proved that cancer nodules and surrounding normal tissue are governed by different gene master regulators (GMRs) and that expression manipulation of a cancer GMR can selectively destroy cancer cells with minimal effects on the normal ones. GMR is defined as a coding or non-coding transcript whose strictly controled abundance by the cell homeostatic mechanisms regulates most major cell functional pathways. Here, we determined how the gene hierarchy in the standard adenocarcinomic human alveolar basal epithelial cell line A549 is altered by overexpressing miR155.
Overall design	One condition, 4 replicas
Contributor(s)	Iacobas DA, Iacobas S, Van Roosbroeck K, Calin GA
Citation missing	*Has this study been published? Please login to update or notify GEO.*
Submission date	Jul 03, 2018
Last update date	Jul 05, 2018
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Platforms (1)	GPL10332 Agilent-026652 Whole Human Genome Microarray 4x44K v2 (Feature Number version)
Samples (4)	GSM3243088 B1