Table S6. Top significant pathways and networks associated with genes exclusively deregulated by the human or the non-human miRNAs. Data based on the Ingenuity Pathway Analysis software.

		Top 5 canonical pathways	Top 5 networks
miR-299-3p	Human	RAN Signaling Estrogen-mediated S-phase Entry Ethanol Degradation IV Antiproliferative Role of TOB in T Cell Signaling Remodeling of Epithelial Adherens Junctions	Carbohydrate Metabolism, Hereditary Disorder, Lipid Metabolism Carbohydrate Metabolism, Small Molecule Biochemistry, Cell Cycle Cell Morphology, Cellular Compromise, Developmental Disorder RNA Post-Transcriptional Modification, Small Molecule Biochemistry, Hereditary Disorder Cellular Assembly and Organization, Cardiovascular Disease, Cardiovascular System Development and Function
	Non-human	RAN Signaling Estrogen-mediated S-phase Entry Protein Ubiquitination Pathway Mitochondrial Dysfunction Aryl Hydrocarbon Receptor Signaling	Hereditary Disorder, Metabolic Disease, Developmental Disorder Connective Tissue Disorders, Developmental Disorder, Hereditary Disorder RNA Post-Transcriptional Modification, Infectious Disease, Cardiovascular System Development and Function RNA Post-Transcriptional Modification, Developmental Disorder, Hereditary Disorder Cellular Assembly and Organization, Nervous System Development and Function, Cancer
miR-503-3p	Human	Melanoma Signaling ERK/MAPK Signaling Breast Cancer Regulation by Stathmin1 Regulation of Cellular Mechanics by Calpain Protease Antiproliferative Role of Somatostatin Receptor	Cell Cycle, Small Molecule Biochemistry, Cell-mediated Immune Response Digestive System Development and Function, Hepatic System Development and Function, Organ Development Post-Translational Modification, Cell Signaling, Gene Expression
	Non-human	Cardiac b-adrenergic Signaling ERK/MAPK Signaling FLT3 Signaling in Hematopoietic Progenitor Cells Ubiquinol-10 Biosynthesis (Eukaryotic) Insulin Receptor Signaling	Cell Morphology, Cellular Compromise, Cellular Assembly and Organization Cell Death and Survival, Cell Morphology, Cellular Assembly and Organization Increased Levels of Albumin, Cellular Assembly and Organization, RNA Post-Transcriptional Modification Cancer, Immunological Disease, Organismal Injury and Abnormalities RNA Post-Transcriptional Modification, Developmental Disorder, Neurological Disease

miR-508-3p	Human	Apoptosis Signaling	Cancer, Embryonic Development, Cardiac Regeneration
		PI3K/AKT Signaling	Cell Cycle, Cell Morphology, Cellular Function and Maintenance
		PEDF Signaling	Cellular Movement, Hematological System Development and Function, Immune Cell Trafficking
		TWEAK Signaling	Cellular Assembly and Organization, Cellular Function and Maintenance, Protein Synthesis
		PTEN Signaling	Cancer, Neurological Disease, Cell Morphology
	Non-human	Apoptosis Signaling	Cellular Response to Therapeutics, Connective Tissue Development and Function, Cell Cycle
		TNFR1 Signaling	Molecular Transport, Cellular Assembly and Organization, Tissue Development
		CD27 Signaling in Lymphocytes	Cell Death and Survival, Cardiovascular System Development and Function, Organ Morphology
		TWEAK Signaling	Cellular Assembly and Organization, Cellular Function and Maintenance, Cell Morphology
		PI3K/AKT Signaling	Cellular Assembly and Organization, Cellular Function and Maintenance, Cell Cycle
miR-541-3p	Human	NRF2-mediated Oxidative Stress Response	Hereditary Disorder, Neurological Disease, Psychological Disorders
		PI3K/AKT Signaling	Cellular Assembly and Organization, Cell Morphology, Cellular Function and Maintenance
		Acute Myeloid Leukemia Signaling	Gene Expression, Gastrointestinal Disease, Cell Death and Survival
		Protein Ubiquitination Pathway	Developmental Disorder, Hereditary Disorder, Metabolic Disease
		Estrogen Receptor Signaling	RNA Post-Transcriptional Modification, Cancer, Tumor Morphology
	Non-human	NRF2-mediated Oxidative Stress Response	Gene Expression, Carbohydrate Metabolism, Developmental Disorder
		Protein Ubiquitination Pathway	Dermatological Diseases and Conditions, Developmental Disorder, Endocrine System Disorders
		Mitochondrial Dysfunction	Developmental Disorder, Hereditary Disorder, Neurological Disease
		Acute Myeloid Leukemia Signaling	Cellular Development, Cellular Growth and Proliferation, Developmental Disorder
		Pyridoxal 5'-phosphate Salvage Pathway	Cell-To-Cell Signaling and Interaction, Hematological System Development and Function, Tissue Development