

Circulating extracellular RNAs linked to insulin resistance

February 15 2017



(HealthDay)—Circulating extracellular RNAs (ex-RNAs) are associated

with insulin resistance (IR), according to a study published online Feb. 9 in *Diabetes Care*.

Ravi Shah, M.D., from Massachusetts General Hospital in Boston, and colleagues examined the correlation between ex-RNAs and metabolic phenotypes in 2,317 participants without diabetes in the Framingham Heart Study (FHS) Offspring Cohort. The correlation between candidate ex-RNAs and markers of adiposity was measured. Individuals with diabetes were included in sensitivity analyses. Selected ex-RNAs and metabolites were measured in a separate cohort of 90 overweight/obese youth.

The researchers found that across 391 ex-RNAs in FHS, 18 were associated with IR in age-, sex, and body mass index-adjusted models. Independent of metabolites, miR-122 correlated with IR and regional adiposity in adults and IR in children. Metabolic regulatory roles for miR-122, including regulation of IR pathways, was observed on pathway analysis.

"These results provide translational evidence in support of an important role of ex-RNAs as novel circulating factors implicated in IR," the authors write.

More information: [Full Text \(subscription or payment may be required\)](#)

Copyright © 2017 [HealthDay](#). All rights reserved.

Citation: Circulating extracellular RNAs linked to insulin resistance (2017, February 15)
retrieved 24 April 2024 from
<https://medicalxpress.com/news/2017-02-circulating-extracellular-rnas-linked-insulin.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.