

Letter to Editor

Are exogenous sRNAs in the Environment Absorbed Via Inhalation? If so, What Effects Might it Have on Brain Health?

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The role that small RNAs (sRNAs) play in health and disease has attracted considerable interest [1,2,3,4,5]. An area of recent speculation is the question as to whether dietary sRNAs are absorbed from the digestive tract and whether this is a form of inter-species / inter-kingdom epigenetic communication [6,7,8,9,10,11]. This possibility raises several related questions. What sRNAs might be in the air that we breathe? [12,13,14,15,16,17]. Could this be influenced by our environmental surroundings – for example urban versus rural? [17]. The pharmaceutical literature asserts that some medications for neurological conditions should be administered via inhalation to better target the brain [18,19,20,21,22,23]. Could air-borne sRNAs be absorbed and transmitted to the brain in a similar fashion – resulting in another form of inter-species / inter-kingdom epigenetic communication? If so, what might be the effects on brain health?

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