
The Human Plasma Lipidome

TO THE EDITOR: In their review, Quehenberger and Dennis (Nov. 10 issue)¹ describe plasma lipids implicated in Gaucher's disease. Although they could not possibly mention every lipid, we believe it is worth commenting on the cationic amphiphilic glycolipid globotriaosylsphingosine (lyso-Gb3) and its contribution to a better understanding of the pathogenesis and monitoring of Fabry's disease. High plasma concentrations of lyso-Gb3 were observed in patients with this disease,² and these levels correlated with several of its manifestations³ and decreased in response to

enzyme-replacement therapy.^{4,5} Furthermore, lyso-Gb3 promoted vascular smooth-muscle cell proliferation² as well as transforming growth factor- β 1-mediated synthesis of extracellular matrix components in cultured podocytes at concentrations found in the plasma.⁶ In Fabry's disease, vascular smooth-muscle cells and podocytes are cell targets, whereas fibrosis is a key feature of organ injury. The novelty, from a pathogenetic point of view, resides in the fact that a soluble mediator promotes cell injury in a disease long thought to be the result of intracel-

lular lipid accumulation within lysosomes. This paradigm shift may have therapeutic implications.

Alberto Ortiz, M.D., Ph.D.

Instituto de Investigación Sanitaria de la Fundación
Jiménez Díaz
Madrid, Spain
aortiz@fjd.es

Maria D. Sanchez-Niño, Ph.D.

Instituto de Investigación Hospital Universitario La Paz
Madrid, Spain

Dr. Ortiz reports having received consulting fees from Genzyme. No other potential conflict of interest relevant to this letter was reported.

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THE AUTHORS REPLY: Although we made every effort to be as broad as possible in our article on the plasma lipidome in health and disease, space restrictions limited the number of lipid biomarkers that we could adequately discuss in the context of their potential use as diagnostic tools. As the most prevalent metabolic storage disorder, Gaucher's disease was cited as a representative example of the numerous lipid-storage diseases, including Fabry's disease.

Oswald Quehenberger, Ph.D.

Edward A. Dennis, Ph.D.

University of California, San Diego
La Jolla, CA
edennis@ucsd.edu

Since publication of their article, the authors report no further potential conflict of interest.