Caution on the Interpretation of Plasma Fatty Acid Composition as a Proxy Marker for SCD1 Activity: Particular Implications for Using the 16:1/16:0 Ratio in QTL Studies Involving Hyperlipidemic Patients

In response:
The justification of using the desaturation index as a measure of SCD was based primarily on studies with mouse models, including a hypertriglyceridemic model. Also, because the individuals were fasted, the effect of fatty acids from the diet would be minimized. However, we do not disagree with the points made by Drs Karpe and Hodson. Clearly, the desaturation index is not a very accurate measure of SCD activity. Our primary objective was not to estimate SCD activity but rather to find novel genetic markers for analysis of familial combined hyperlipidemia. For example, it is interesting that one suggestive quantitative trait locus for the desaturation index overlaps with a locus for fatty liver in the same group of patients.2

Jake Lusis
UCLA School of Medicine, Department of Medicine, Microbiology, and Human Genetics
Los Angeles, Calif

Rebecca A. Mar-Heyming
UCLA School of Medicine, Human Genetics
Los Angeles, Calif


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Jake Lusis and Rebecca A. Mar-Heyming

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