**Clearance of Plasma Proprotein Convertase Subtilisin/Kexin 9 by Low-Density Lipoprotein Apheresis**

To the Editor:

Proprotein convertase subtilisin/kexin 9 (PCSK9) is a secreted protein that modulates plasma low-density lipoprotein (LDL) concentrations in part by facilitating degradation of the LDL receptor. It also mediates degradation of the very-low density lipoprotein receptor and apolipoprotein E receptor 2. PCSK9 in plasma is primarily secreted by hepatocytes and is thought to have paracrine and exocrine effects, but the role of circulating PCSK9 in the modulation of LDL clearance from plasma remains unclear.

Insights into the partitioning of PCSK9 in plasma were provided by recent studies published by Tavori, Fazio, and colleagues that demonstrated a high degree of binding of PCSK9 to LDL particles in plasma, among plasma lipoproteins because some investigators have been unable to demonstrate binding of PCSK9 to LDL particles in plasma, as well as the data published in *Circulation Research* showing a 52±5% clearance of PCSK9 from plasma during LDL apheresis. The removal of PCSK9 during LDL apheresis seemed to be mediated predominantly by sequestration of 81% of LDL-bound PCSK9 as a result of adsorption of LDL via apolipoprotein B binding to the dextran sulfate apheresis column, but 48% of the bound PCSK9 as a result of adsorption of LDL via apolipoprotein B containing lipoproteins (primarily LDL) and that the majority of LDL-bound PCSK9 can be removed from plasma during LDL apheresis with dextran sulfate adsorption. Additional studies are needed to elucidate the physiological and clinical implications of these observations.

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**Disclosures**

P.B. Duell served as a consultant to Kaneka for purposes unrelated to this study. The other authors report no conflicts.

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**References**


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