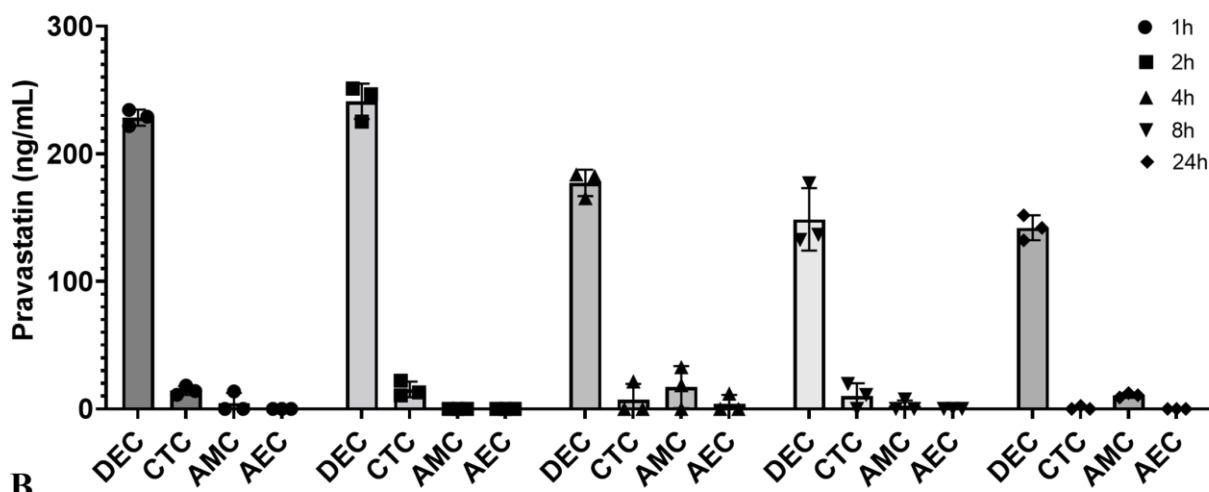
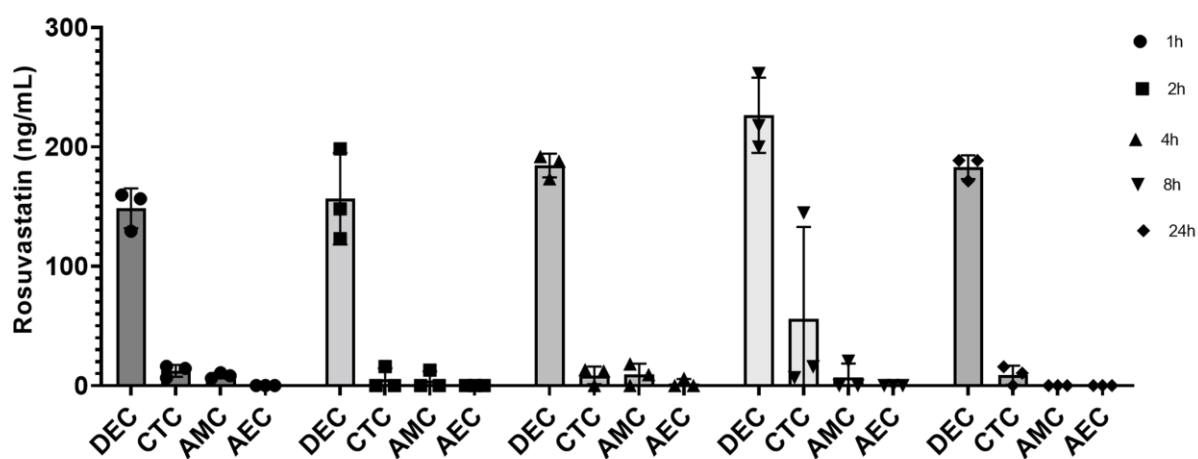


Supplemental Figure 1

A



B

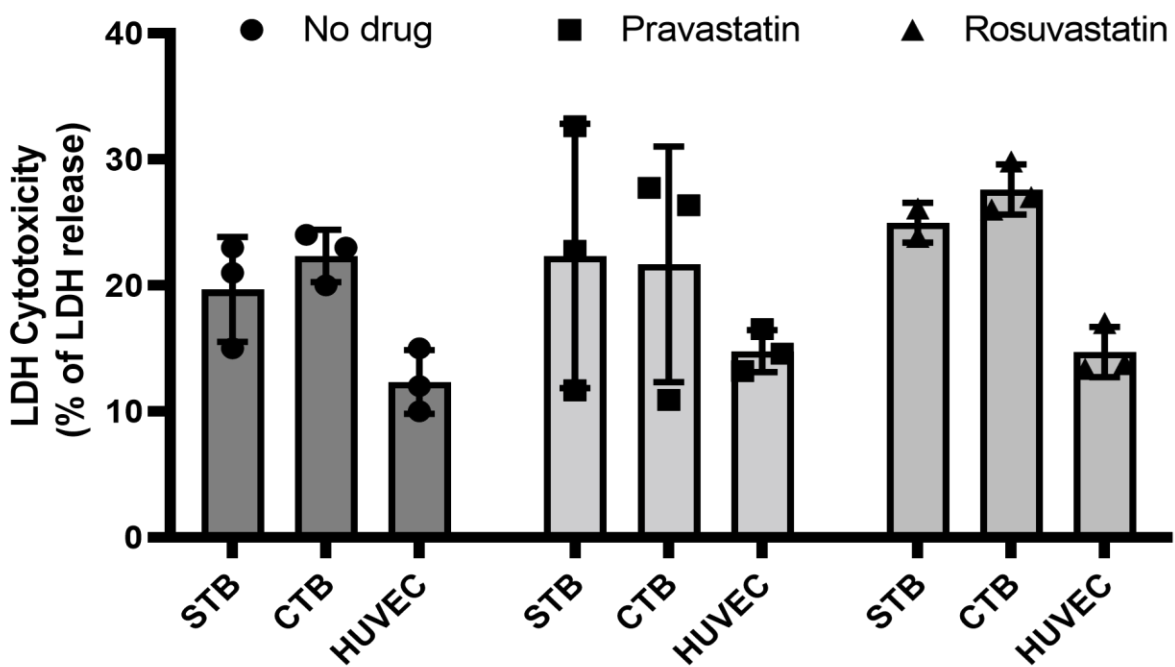


Supplemental Fig 1: Determining drug kinetics on-chip

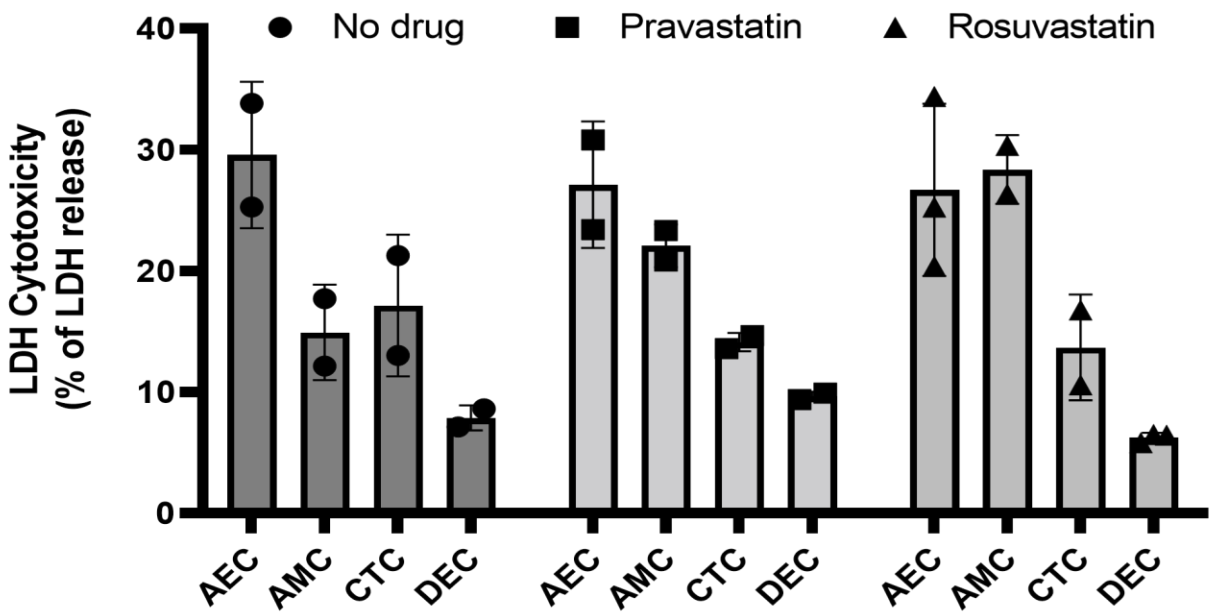
As a proof of principle, to establish a time course for future experiments, Pravastatin and Rosuvastatin were added to the maternal decidua chamber of the FMI-OOC for 1, 2, 4, 8, or 24 h. Pravastatin (A) and Rosuvastatin (B) propagated across the FMI-OOC device within 4 h and values decreased over time. This established 4 h as our earliest timepoint for this study. Values are expressed as mean intensities \pm SD (n=3).

Supplement figure 2

A



B



Supplemental Fig 2: Determining statins cytotoxicity on-chip
 The cellular cytotoxicity on chip was determined by the Lactate dehydrogenase (LDH) assay. LDH is an cytosolic enzyme present in many different cell type that is release into the cell culture medium upon damage to the plasma membrane. Using CyQUANT™ LDH assay kit, cytotoxicity was determined. (A) Cytotoxicity of Pravastatin and Rosuvastatin in PLA-OOC. (B) Cytotoxicity of Pravastatin and Rosuvastatin in FMI-OOC.