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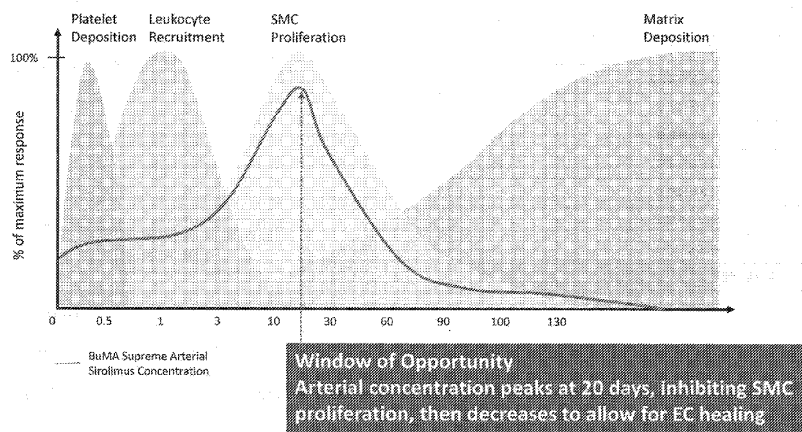
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(54) Title: DRUG ELUTING STENT

FIG. 16B Pharmacokinetics designed to suppress SMC without limiting functional healing



(57) Abstract: The present disclosure relates to drug eluting stents (DES), methods of making, using, and verifying long-term stability of the DES, and methods for predicting long term stent efficacy and patient safety after implantation of a DES. In one embodiment, a DES may include a stent framework; a drug-containing layer; a drug embedded in the drug-containing layer; and a biocompatible base layer disposed over the stent framework and supporting the drug-containing layer. The drug-containing layer may have an uneven coating thickness. In addition, or in alternative, the drug-containing layer may be configured to enable an instantaneous drug release which is maximum at a time where smooth muscle cells should have their maximum proliferation, to be essentially zero ca. 30 days after implantation, and to significantly dissolve/dissipate/disappear between 45 days and 90 days after stent implantation. Stents of the present disclosure focus on suppressing smooth muscle cells' over-proliferation, without hindering their normal growth, which may

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reduce, minimize, or eliminate patient risks associated with the implantation of a stent, including, for example, restenosis, thrombosis, and/or MACE.