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(71) Applicant: **WEST PHARMACEUTICAL SERVICES, INC.** [US/US]; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US).

(72) Inventors: **LENNON, Dan**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **MOLONEY, Emer**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **BYRNE, Aidan**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **MCGARRY, Martin**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **DOWLING, Patrick**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **SULLIVAN, Michael J.**; 530

Herman O. West Drive, Exton, Pennsylvania 19341 (US). **KUMAR, Rajiv**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **HASAN, Md Abu**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **SANTOS, Jorge**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US). **BROUGH, Richard J.**; 530 Herman O. West Drive, Exton, Pennsylvania 19341 (US).

(74) Agent: **AKHAVANNIK, Hussein**; BLANK ROME LLP, 1825 Eye Street NW, Washington, District of Columbia 20006 (US).

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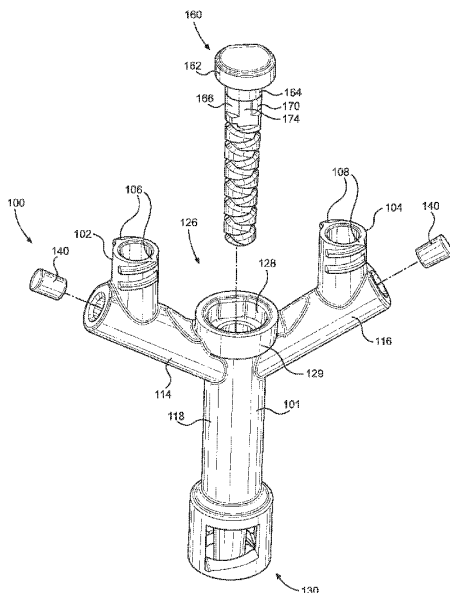


FIG. 2

(57) Abstract: Embodiments of an adapter (100), a system including the adapter, and methods of using the adapter may be for mixing a first substance and a second substance. The adapter (100) may include a body (101) having a first port (102) configured to connect with a first container to receive a first substance, a second port (104) configured to connect with a second container to receive a second substance, a third port (130) configured to connect with a recipient container to output a mixture of the first substance and the second substance, and a mixing chamber having a first portion in communication with the first port and the second port and a second portion in communication with the third port. The adapter may further include a mixing pin (160) inserted into the mixing chamber. In some embodiments, the mixing pin at least partially defines at least one microfluidic path for mixing the first substance and the second substance. In some embodiments, at least one of the first channel and the second channel are oriented offset of a central plane of the body.

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