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(71) Applicant: **HARTON, INC.** [US/US]; 700 Main Street,
North Cambridge, Massachusetts 02139 (US).

(72) Inventors: **DAUGHARTHY, Evan**; 700 Main Street,
North Cambridge, Massachusetts 02139 (US). **TERRY,
Richard**; 700 Main Street, North Cambridge, Massachu-
setts 02139 (US).

(74) Agent: **MACCONAGHY, Kelsey** et al.; Wilson Sonsini
Goodrich & Rosati, 650 Page Mill Road, Palo Alto, Cali-
fornia 94304-1050 (US).

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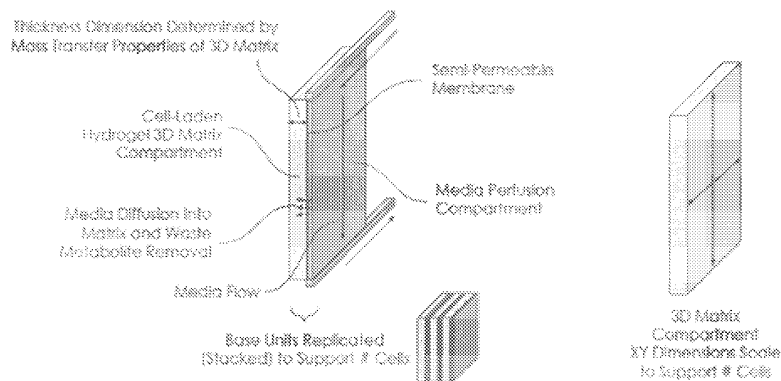


FIG. 21A

(57) Abstract: The present disclosure provides systems and methods for processing cells. The systems of the present disclosure may include a compartment, a three-dimensional (3D) matrix, a fluid flow path, an analysis unit, a preservation unit, or any combination thereof. The methods of the present disclosure may process cells via, for example, expansion, culturing, gene delivery, activation, or any combination thereof. The systems and methods described herein may be useful for producing cell products including, for example, cell therapy products.