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- (71) **Applicant: REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).
- (72) **Inventors: SHIERLY, Eric;** c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **BRENNAN, Kevin;** c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **MAO, Nathan;** c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).
- (74) **Agent: TERMES, Lance A.;** Schwabe, Williamson & Wyatt PC, 1211 SW 5th Ave., Suite 1900, Portland, Oregon 97204 (US).
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(54) **Title:** ULTRAVIOLET MONITORING OF CHROMATOGRAPHY PERFORMANCE BY ORTHOGONAL PARTIAL LEAST SQUARES

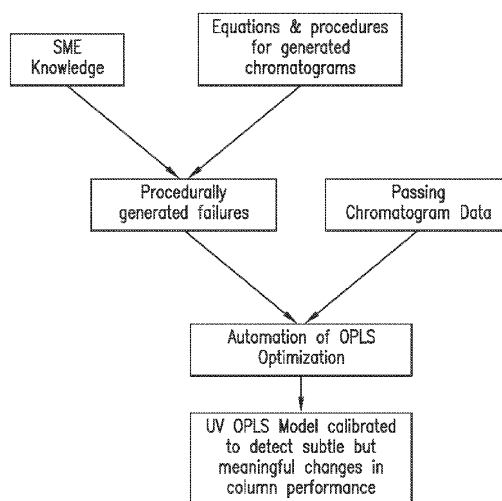


FIG. 1A

(57) **Abstract:** Disclosed are methods for monitoring column chromatography performance. The methods can include acquiring one or more chromatogram ultraviolet (UV) traces generated by a chromatography system during sample purification and/or separation; and analyzing the one or more acquired chromatogram UV traces with an orthogonal partial least squares (OPLS) model, thereby allowing detection of column deterioration prior to column failure and quantitative analysis of UV signal in the one or more chromatogram UV traces.

[Continued on next page]

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- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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