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- (71) **Applicant: REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US).
- (72) **Inventors: DI GRANDI, Deanna;** 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US). **FU, Yue;** 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US).

MUTHUSAMY, Kathir; 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US). **PALACKAL, Nisha;** 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US). **DAYETH, Daniel;** 777 Old Saw Mill River Road, Tarrytown, NY 10591 (US).

(74) **Agent: ISACSON, John, P.** et al.; Mccarter & English, LLP, 265 Franklin Street, Boston, MA 02110 (US).

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(54) **Title:** METHODS OF ANALYZING AND CHARACTERIZING MESSENGER RIBONUCLEIC ACID (MRNA) AND POLYADENYLATION ON MRNA

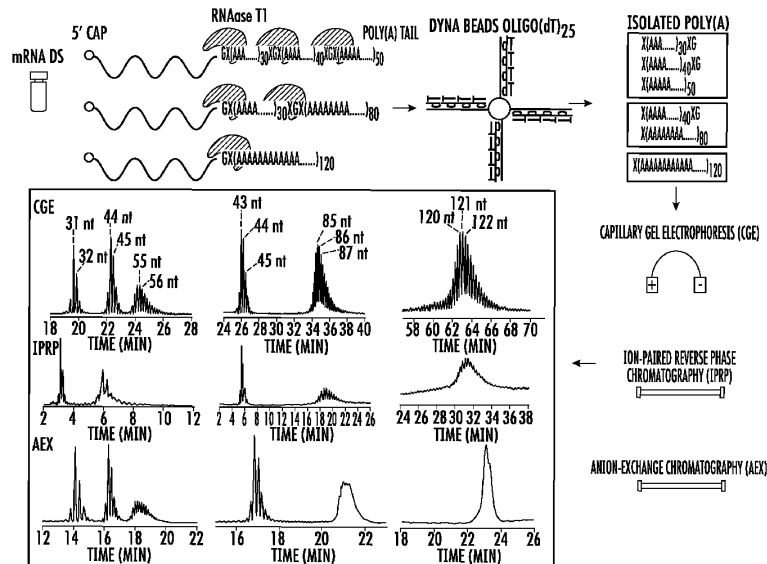


FIG. 1B

(57) **Abstract:** The inventions provide methods for characterizing messenger RNAs (mRNA) and polyadenylation on mRNAs. The disclosed inventions are developed for characterizing mRNA and poly(A) tail length on mRNA samples. These inventions can be used in release testing of mRNA drug substrate (DS) or drug product (DP), and can provide direct read-out of mRNA integrity and poly(A) tail length. The inventions further provide methods of analyzing the condition of mRNAs in samples. Characterized mRNA samples obtained by all of the inventive methods also are part of the inventions disclosed herein.

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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