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63/053,836 20 July 2020 (20.07.2020) US(71) Applicant: **REGENERON PHARMACEUTICALS, INC.** [US/US]; 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US).(72) Inventors: **MAO, Yuan**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York10591 (US). **KLEINBERG, Andrew**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **ZHAO, Yunlong**; c/o Regeneron Pharmaceuticals, Inc., 777 Old Saw Mill River Road, Tarrytown, New York 10591 (US). **GUO, Lili**; 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: USE OF AMINO ACIDS TO ENHANCE SIGNAL IN MASS SPECTRAL ANALYSES

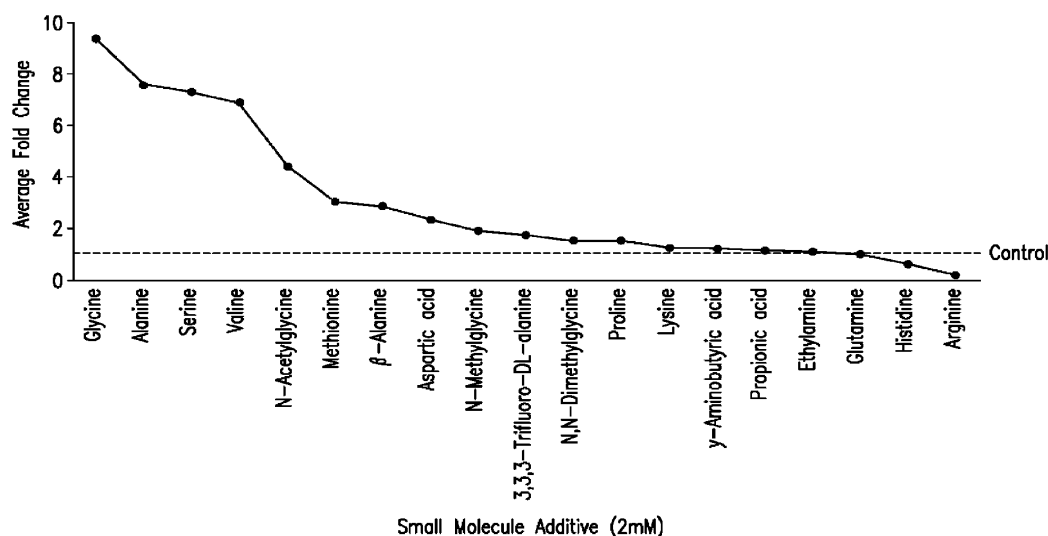


FIG.3

(57) **Abstract:** A method of enhancing a mass spectral signal is disclosed. The method can include contacting a sample to a separation column under conditions that permit sample components to bind to the substrate; applying a first mobile gradient to the separation column, wherein the first mobile phase gradient comprises trifluoroacetic acid (TFA) and a small molecule additive (e.g., an amino acid) or formic acid (FA) and a small molecule additive (e.g., an amino acid); applying a second mobile gradient to the separation column, wherein the second mobile phase gradient comprises TFA in acetonitrile (ACN) and a small molecule additive (e.g., an amino acid) or formic acid (FA) in ACN and a small molecule additive (e.g., an amino acid); and performing mass spectrometric analysis on eluted sample components.

[Continued on next page]

NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
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