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(71) Applicant: **SIDERO BIOSCIENCE, LLC** [US/US]; 1214
Research Boulevard, Suite 1011A, Hummelstown, Pennsylv-
vania 17036 (US).

(72) Inventors: **WOLFE, Darren**; 5512 Bayberry Drive,
Cincinnati, Ohio 45242 (US). **CONNOR, James**; 955
Beech Avenue, Hershey, Pennsylvania 17033 (US).

(74) Agent: **PASSERIN, Alicia M.**; Leech Tishman Fuscaldo
& Lampl, LLC, 525 William Penn Place, 28th Floor, Pitts-
burgh, Pennsylvania 15219 (US).

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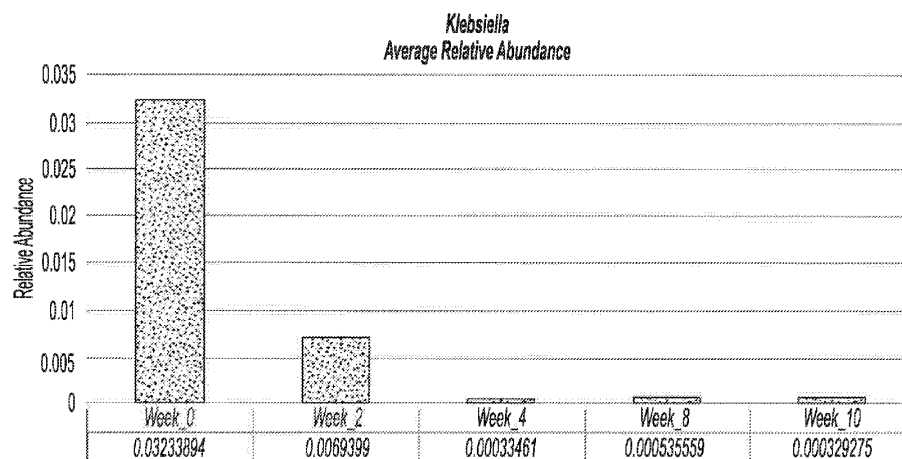


FIG. 20

(57) Abstract: Disclosed is a composition comprising a microbe expressing ferritin. The composition also comprises elemental iron in an amount of at least 3% by weight on a dry matter basis of the microbe expressing ferritin and the elemental iron. Also disclosed are ingestibles, dietary supplements, and pharmaceutical compositions comprising the composition. Also disclosed are methods for treating a subject comprising administering the composition to the subject. Also disclosed are methods of altering the composition of the gut bacterial microbiome in a subject, the method comprising administering the composition to the subject.

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