Open-Label Study of mRNA-3927 in Participants With Propionic Acidemia

Status: RECRUITING

Eligibility Criteria

Sex: ALL
Age:
Healthy Volunteers: This study is NOT accepting healthy volunteers
Inclusion Criteria:

Participants ≥1 year of age are eligible to be included in the study only if all of the following criteria apply:

- ≥ 8 years of age at the time of consent/assent if enrolled as 1 of the first 2 participants in Part 1.
- ≥1 year of age at the time of consent/assent if enrolled after the first 2 participants in Part 1.
- Confirmed diagnosis of PA based on diagnosis by molecular genetic testing via central laboratory (PCCA and/or PCCB mutations).
- Part 2 only: At least one documented MDE in the 12-month period before consent.

Participants <1 Year of Age :

- Identification by newborn screening shortly after birth or having suspected PA by presenting with a spectrum of metabolic symptoms, and having a sibling diagnosed with PA. Participant may enter the Screening Period while awaiting genetic testing results, provided that all other eligibility criteria are met but would not be enrolled until diagnosis of PA is confirmed.
- For infants in the neonatal intensive care unit (NICU) only: ≥37 weeks gestational age at the time of birth without other conditions/comorbidities that in the opinion of the Investigator may interfere with the interpretation of study results.
- Body weight ≥3 kilograms (kg) at Screening.
- At least 1 documented PA-related event prior to Screening defined as the following criteria:
    - Clinical signs of metabolic deterioration consistent with PA (for example, vomiting, not feeding well/poor suck, heavy breathing, lethargy, absence of proper perfusion, abnormal movements including bicycling, abnormal tone, low body temperature, seizure[s]), OR
    - Meeting the criteria of MDE definition, OR
    - Evidence of laboratory abnormalities as evidenced by at least one of the following:
- Metabolic acidosis with elevated anion gap.
- Acute hyperammonemia.
- Neutropenia or thrombocytopenia.

Exclusion Criteria:

Participants of all ages are excluded from the study if during Screening any of the following criteria apply:

- Any individual with laboratory abnormalities considered to be clinically significant (for example, markedly out of range, associated with clinical symptoms) in the Investigator or Sponsor's opinion that could interfere with or limit the participation in the study.
- Estimated glomerular filtration rate (eGFR) <30 milliliters (mL)/minute/1.73 square meter (m^2) for participants of all ages receiving chronic dialysis.
- History of organ transplantation or planned organ transplantation during the period of study participation.
- Corrected QT interval (QTc) >480 milliseconds (ms) using Bazett's correction.
- Grade 3 or 4 heart failure according to the Modified Ross Heart Failure Classification for Children or the New York Heart Association Classification.
- Pregnant or breastfeeding.
- Other clinically significant conditions that in the Investigator's opinion could interfere with the safety of the participant, the interpretation of study results, or limit the participation in the study.

Conditions & Interventions

Interventions:
BIOLOGICAL: mRNA-3927
Conditions:
Propionic Acidemia
Keywords:
mRNA-3927, Propionic Aciduria, Metabolism, Inborn Errors, Genetic Diseases, Inborn Amino Acid Metabolism, Inborn Errors, Acidosis, Acid-Base Imbalance, Metabolic Diseases, Organic Acidemias, Moderna, mRNA

More Information

Description:
This 3-part, Phase 1/2 study is designed to characterize the safety, tolerability, and pharmacological activity (as assessed by biomarker measurements) and to determine the selected dose of mRNA-3927 in participants with genetically confirmed propionic acidemia (PA). After establishing a dose with an acceptable safety and pharmacodynamic (PD) response for participants ≥1 year of age in Part 1, participants will be enrolled in Part 2 (which will serve as the pivotal study) to allow for determination of the efficacy, safety, and PD of mRNA-3927. Part 3 will evaluate

the safety, efficacy and PD response of mRNA-3927 in infants (\<1 year of age).

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IRB Number:
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