Thank you for considering referring your patient to the study entitled The Helix Research Network™

The goals of the Helix Research Network™ are to establish a collective of healthcare institutions to support the advancement of biomedical research, improve human health through genomics research, and accelerate integration of genomic and other omics data into clinical care.

At this time we are focusing on recruiting patients who have been diagnosed with myocarditis. We hypothesize that germline genetic variants may be associated with COVID-19 mRNA vaccine-associated myocarditis, SARS-CoV-2 associated myocarditis and myocarditis caused by other immune triggers. The goal is to better understand the genetics of variation causing myocarditis in order to improve understanding of the underlying biology of this rare vaccine and infection reaction and help in the development of better vaccines and improved treatments.

We are asking providers and institutions to refer eligible patients to consider enrolling in this research study.

Patients are eligible if they meet the following criteria:

1. Between 18 years old and 70 years old included at the time of consent.
2. Currently reside in the United States.
3. No known history of allogenic bone marrow transplant or allogenic stem cell transplant prior to DNA sequencing
4. Must have been diagnosed with myocarditis by a cardiologist and/or have the presence of at least one myocarditis ICD10 code such as the ICD10 codes: I40, I40.1, I40.8, I40.9, I41 and I51.4.
5. Once the above criteria are met, the participant is eligible for the study. Participants will then be separated into the following cohorts to meet the specific aims of the study. Cohorts will be divided as follows:
    - **Aim 1: mRNA Vaccine Associated Myocarditis:** Diagnosed within 14 days of vaccination by Pfizer or Moderna mRNA vaccines. It could be after any dose (e.g. after 1st dose, 2nd dose, booster 1, booster 2 etc.).
    - **Aim 2: SARS-CoV-2 associated Myocarditis:** Diagnosed within 8 weeks after a documented COVID-19 diagnosis or SARS-CoV-2 infection.
    - **Aim 3: Other Myocarditis:** Diagnosis of myocarditis by a cardiologist or other physician that is understood not to be associated with mRNA vaccine administration or SARS-CoV-2 infection.

Potential participants can express their interest using an online interest form. This will allow Helix to contact them and provide them with a copy of the informed consent form and HIPAA authorization for the study.

Participation in this study involves the following:

- Completion of research informed consent document
- Select participants will answer demographic and health history questions.
- Helix will reach out to the referring provider, or their delegate, to complete a case report form for clinical information collection.

- Helix will ship a saliva DNA collection kit to the participant for sample collection
- As part of their participation, participants will receive genetic screening results for three actionable health risks:
    - Hereditary Breast & Ovarian Cancer (HBOC)
    - Hereditary Colon Cancer (Lynch Syndrome)
    - Familial Hypercholesterolemia
    - About 1-2% (1 to 2 people out of 100) will be found to have a risk for one of the inherited cancer or heart conditions that are part of this study
- Participants testing positive for one of the above conditions:
    - Will be contacted by a Helix research coordinator who will inform them of their positive result and assist them in scheduling a no-cost genetic counseling appointment via a third party genetic counseling service. The genetic counselor will assist the participant with understanding their risks and their next steps.
    - Will be encouraged to review their results and their genetic counseling consult note with their primary care provider to determine the next steps in their care. Participants who do not have a primary care provider will be encouraged to establish care with one in order to review their results and genetic counseling consultation note and be referred to specialists as appropriate.
    - Will be able to review their positive test result and accompanying educational information directly through their Helix account if they choose to create one.
    - May elect to have their test report securely emailed to them for distribution to their healthcare providers.
- Participants testing negative for one of the above conditions:
    - Will be able to review their negative test result and accompanying educational information directly through their Helix account if they choose to create one.
    - May elect to have their test report securely emailed to them for distribution to their healthcare providers
    - Participants will also have the opportunity to learn about their genetic ancestry & traits, as well as receive updates on how their participation is helping advance scientific research.

The risks to participation are minimal and there is no guaranteed direct benefit to the patient.

Next Steps:

- A copy of the Informed Consent Form is attached for your review.
- If you have any questions regarding the study you may contact the principal investigator (PI) Alexandre Bolze at alexandre.bolze@helix.com or the study team at HRNstudyteam@helix.com
- If you have a patient who meets the inclusion criteria for one of these cohorts please consider providing them with a copy of the "Patient Recruitment Letter" so they may follow the instructions to participate if they are interested.

Thank you!
Helix Research Team