June Research Roundtable Summary:
Clinical Markers for Lafora Disease

Chelsea's Hope hosted their second quarterly Virtual Research Roundtable on June 22nd, 2023, with more than 45 attendees representing the research, clinical, and patient communities. Instead of hosting a roundtable in the fall, our next convening will be in-person in Bologna, Italy, October 9-10. Please save the date on your calendar.

The topic of discussion for our June Roundtable was clinical markers in Lafora Disease (LD), with a particular focus on markers that will be important to track in clinical trials. Our guest speakers were Dr. Lorenzo Muccioli and Dr. Viet Nguyen.

Dr. Lorenzo Muccioli is part of a team of clinicians and researchers at the Instituto delle Scienze Neurologiche di Bologna (ISNB) who will be facilitating a clinical trial of Val-1221 in Italy later this year in collaboration with Parasail Therapeutics. Val-1221 was initially developed to treat patients with Pompe Disease and is now being tested for efficacy in LD patients. During the roundtable, Dr. Muccioli shared the details of the trial design and the clinical markers they will assess. Six Lafora patients in mid-stage disease progression (a score of 2 or 3 on the LD progression scale) will receive intravenous administration of Val-1221 for 12 months. For more details on patient eligibility, please contact Dr. Lorenzo Muccioli or Dr. Roberto Michelucci directly.

Dr. Muccioli stressed the importance of collecting as many data points as possible to determine the efficacy of Val-1221 administration for treating Lafora. LD patients in the trial will be monitored for epileptic activity, cognition, motor skills, speech, and overall ability to function independently. The study's primary objective is to determine the overall safety of Val-1221 administration in Lafora patients and determine if this therapy leads to non-worsening or improvement in patients after 12 months of administration. In addition to the clinical markers, brain-MRI, FDG-PET, serum, and CSF will be collected to assess biomarkers for Lafora disease progression.

Our second guest speaker was Dr. Viet Nguyen from Chapman University in California. Dr. Nguyen is a pharmacologist who has spent years tracking disease progression in Lafora patients. In collaboration with Dr. Antonio Delgado-Escueta and his team at UCLA, they have developed a set of clinical milestones to assess disease progression in Lafora patients. Their patient cohort includes current patients and pre-symptomatic siblings with mutations in both EPM2A and EPM2B. However, most of their patients have mutations in EPM2A, which codes for the protein laforin. Dr. Nguyen discussed the epileptic clinical presentation observed for patients in each stage of LD, starting with visual seizures in stage one, the onset of cognitive decline in stage two, the establishment of dementia and status epilepticus in stage three, and progressing to myoclonic encephalopathy by stage four. With this data, standards for clinician-reported outcomes can be determined, allowing for unified data collection that can be used as biomarkers to assist with clinical trials and the approval of novel therapeutics.

Thank you for reading our Roundtable Summary, and please do not hesitate to contact our Science Director, Dr. Kit Donohue, if you have any questions or suggestions: katherine@chelseashope.org