The Neuromuscular Research Lab brings a new Adeno-Associated Virus (AAV) Gene Therapy Trial for Duchenne Muscular Dystrophy to UC Davis Health

UC DAVIS HEALTH | SCHOOL OF MEDICINE

Department of Physical Medicine and Rehabilitation

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Neuromuscular Research Lab

INTRODUCTION

The Neuromuscular Research Lab at UC Davis Health is a team of clinical researchers and health providers working together to implement clinical trials safely and effectively and acquire high-quality data while fostering a welcoming and enjoyable environment for patients and their families. The NMRL partnered with Sarepta Therapeutics, Inc. in 2020 to test the safety and efficacy of the SRP-9001 drug in a Phase 1 trial for Duchenne Muscular Dystrophy (DMD). DMD is a genetic disorder characterized by progressive muscle degeneration and weakness due to the alterations of a protein called dystrophin that helps keep muscle cells intact.

This Phase 1 trial is designed to treat DMD by replacing a non-functional dystrophin protein in cardiac and skeletal muscle. From a recent release from Sarepta, there has been a mean of 55.4% of micro-dystrophin expression measured through the western blot method in the first 12 weeks after treatment. With the complexity of this trial, our team-oriented approach has played a pivotal role in our research lab's success and ability to provide high quality care for our patients.

STUDY DESIGN

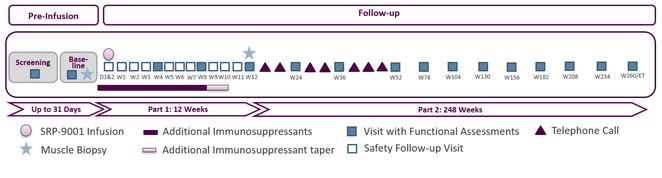
Protocol Title: An Open-Label, Systemic Gene Delivery Study Using Commercial Process Material to Evaluate the Safety of and Expression From SRP-9001 in Subjects with Duchenne Muscular Dystrophy (ENDEAVOR)

This open-label study will enroll approximately 46 subjects across 5 cohorts:

Cohort 1 consists of up to 20 male DMD ambulatory subjects who are ≥ 4 to < 8 years of age.
Cohort 2 consists of approximately 6 male DMD ambulatory subjects who are ≥ 8 to < 18 years of age.
Cohort 3 consists of approximately 6 male DMD non-ambulatory subjects.
Cohort 4 consists of approximately 6 male DMD ambulatory subjects who are ≥ 3 to < 4 years of age.
Cohort 5 consists of approximately 6 male DMD ambulatory subjects who are ≥ 4 to < 9 years of age (Cohort 5a) and approximately 2 male DMD non-ambulatory subjects (Cohort 5b)

Each cohort consists of three parts:

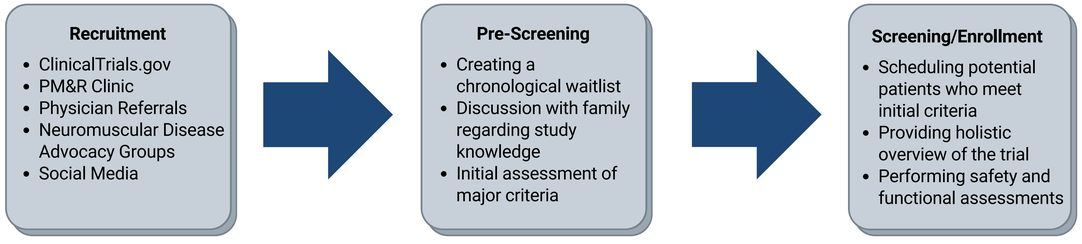
Part 1: Pre-Infusion - includes screening and baseline visits to evaluate subject eligibility
Part 2: Infusion - subjects receive a single dose IV administration of SRP - 9001
Part 3: Follow-up - subjects complete weekly visits for 12 weeks, monthly visits for 36 weeks, then visits every 26 weeks for the remainder of the study



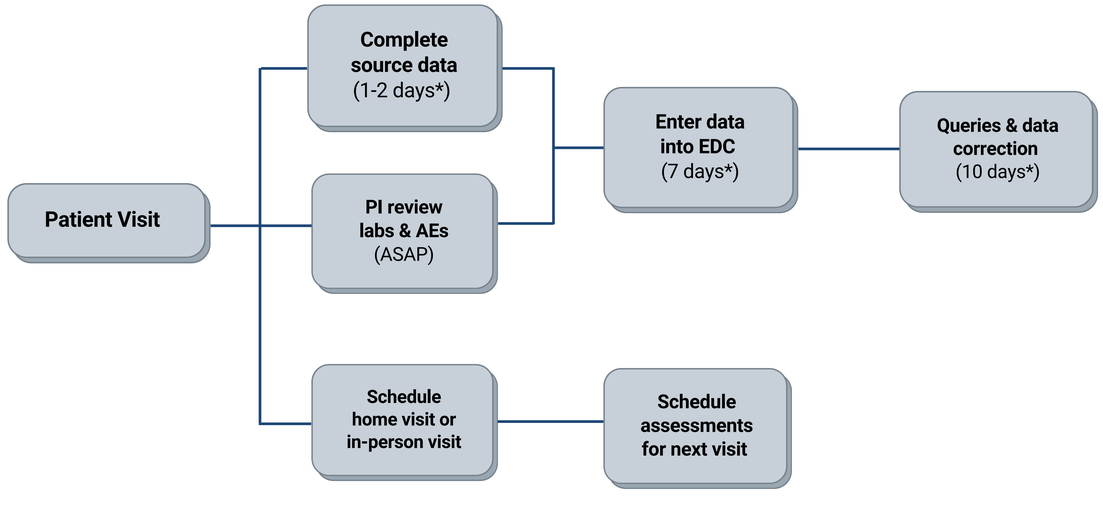
PROCESS

Recruitment:

Our team highly values a streamlined approach for successful subject enrollment. The approach includes a chronological waitlist of potential subjects, pre-screening to ensure initial criteria is met, and communication with families on expectations of the study. The chronological waitlist includes patients from our PM&R clinic, local DMD community, and families contacting us through clinical trials.gov. Upon our first contact with patients, the coordinator surveys the family's initial knowledge about the study and discusses major criteria. Once it is determined the potential subjects meets the initial criteria for the trial, they are scheduled for a screening visit. At Screening, families are provided with proper knowledge about the overall study expectations, risks involved with the trial, potential benefits, and visit timelines in order to determine whether to participate in the study. Once enrolled, we heavily communicate with patients and UC Davis ancillary services to schedule necessary assessments for the gene therapy trial, such as IV infusion of the SRP - 9001 drug, echocardiogram, muscle tissue biopsy, and any other medical services required to assure study visits run smoothly. In doing so, this leads to a high percentage of enrollment with minimal screen fails, allowing us to efficiently meet enrollment goals and continue being a high enrolling site.



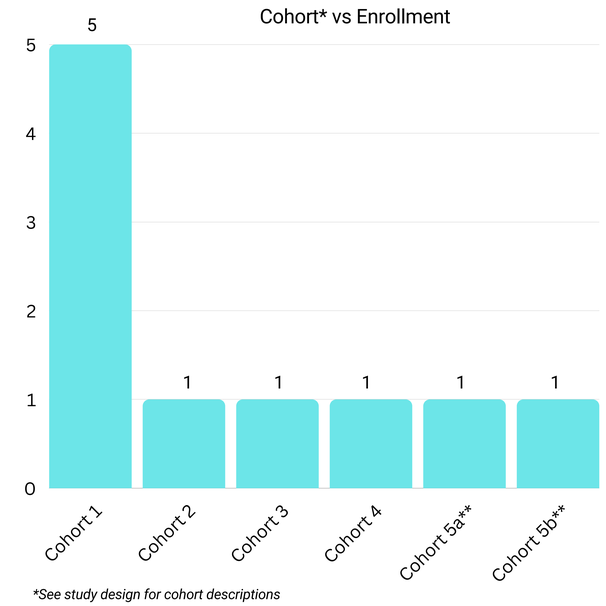
Post Visit Clean Up:



*All days refer to business days

ENROLLMENT

As one of the first sites activated, we have enrolled eight subjects over a span of four cohorts and are currently one of the highest enrolling sites in the trial. In the last three years, our team successfully coordinated all aspects of this high-profile clinical trial, which includes competitive enrollment, intensive patient care, and ensuring a high level of data integrity.



*See study design for cohort descriptions

**Enrollment ongoing for Cohorts 5a and 5b

REFERENCES

Sarepta Therapeutics' SRP-9001 Shows Sustained Functional Improvements in Multiple Studies of Patients with Duchenne. https://investorrelations.sarepta.com/news-releases/news-release-details/sarepta-therapeutics-srp-9001-shows-sustained-functional. 11 October 2022

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