
Edit Protocol Record

<u>Edit</u>	Unique Protocol ID:	RDCRN 5301
	Secondary IDs:	5 U54 RR019482-02
	ClinicalTrials.gov ID:	
	Brief Title:	Characteristics of Andersen-Tawil Syndrome
	Official Title:	Andersen-Tawil Syndrome: Genotype-Phenotype Correlation and Longitudinal Study
	Study Type:	Observational
	IND/IDE Protocol?	No

<u>Edit</u>	Sponsor:	Office of Rare Diseases (ORD)
	Collaborators:	Rare Diseases Clinical Research Network

<u>Edit</u>	Review Board:	Approval Status: Approved Approval Number: RSRB00012399 Board Name: University of Rochester Research Subjects Review Board Board Affiliation: University of Rochester Medical Center Phone: 585-273-2398 Email: Robert_DiCenzo@urmc.rochester.edu
	Data Monitoring Committee?	Yes
	Oversight Authorities:	United States: Federal Government

<u>Edit</u>	Brief Summary:	Andersen-Tawil Syndrome (ATS) is a rare, genetic disorder that causes episodes of muscle weakness, potentially life-threatening changes in heart rhythm, and developmental abnormalities. Disease symptoms can vary,
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	<p>the cause of some ATS cases remains unknown, and no specific treatment has been identified. The purpose of this multi-site study is to better characterize ATS, establish whether symptoms change over time, and determine if symptoms are related to a mutation in the KCNJ2 gene.</p>
Detailed Description:	<p>ATS is an ion channel disorder that causes episodes of muscle weakness and potentially life-threatening heart arrhythmias for which no treatment has been identified. The majority of ATS cases are caused by a mutation in the KCNJ2 gene; other cases result from unknown causes. The KCNJ2 gene mutation alters potassium channels in such a way that it disrupts the flow of potassium ions in skeletal and heart muscle. This can lead to the characteristic periodic paralysis and irregular heart rhythms. The purpose of this study is to better define the genetic basis, clinical features, and disease progression of ATS. The study will also establish clinically relevant endpoints for use in future clinical studies.</p> <p>This observational study will last 2 years and will involve three study visits. The first visit will entail a 1.5- to 3.5-day inpatient stay; the length of stay will depend on whether a participant has been taking medications for their symptoms of weakness. Participants will be asked to discontinue use of such medications during the inpatient stay. Participants will not be asked to stop any medications they may be taking for heart symptoms. This first study visit will include a medical history, a quality of life questionnaire, a physical exam, and muscle strength testing. Nerve, muscle, and heart activity will also be measured, and blood will be drawn for laboratory tests and optional DNA analysis. The second and third study visits will take place 1 and 2 years after the initial study visit and will include the same evaluations. During the 8 weeks following</p>

	each study visit, participants will record in a telephone diary any muscle and heart symptoms that they experience. During the 1 week after both yearly visits, participants will also undergo an outpatient heart rhythm evaluation. A study coordinator will contact participants once a month by phone over the course of the study to review symptoms.
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Edit	Record Verification Date:	August 2007
	Overall Status:	Not yet recruiting
	Study Start Date:	August 2007
	Last Follow-Up Date:	

 NOTE: Last Follow-Up Date not entered.

Edit	Study Characteristics:	Primary Purpose: Natural History Duration: Longitudinal Selection: Defined Population Timing: Prospective Study Enrollment: 50 [Anticipated]
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Edit	Conditions:	Andersen-Tawil Syndrome Andersen Syndrome
	Keywords:	Arrhythmia Muscle Weakness Periodic Paralysis Channelopathy

Edit	Groups:	
	Interventions:	

Edit	Eligibility Criteria:	Inclusion Criteria: <ul style="list-style-type: none"> • Clinically confirmed diagnosis of ATS as defined by at least two of the following three criteria: <ol style="list-style-type: none"> 1. Presence of clear-cut episodes of transient muscle weakness
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	<p>with or without a fixed deficit, typically following exertion or prolonged rest OR atypical history with otherwise typical exam findings (absent reflexes with normal sensation during an episode) OR unexplained hypokalemia between episodes OR abnormal long-exercise nerve conduction study</p> <ol style="list-style-type: none"> 2. Heart conduction defects: prolonged QTc interval on 12-lead electrocardiogram OR ventricular ectopy, including uniform or multifocal PVCs, polymorphic VT, or bidirectional VT 3. Presence of two or more of the following physical features: low set ears, hypertelorism, small mandible, clinodactyly, syndactyly, micromelia of hands or feet --OR-- <ul style="list-style-type: none"> • Meets one of the above three criteria and has at least one family member with two of the criteria --OR-- • Does not meet the above three criteria, but possesses a mutation in the KCNJ2 gene <p>Exclusion Criteria:</p> <ul style="list-style-type: none"> • Age < 10 years • Pregnancy
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NOTE: Preferred format includes lists of inclusion and exclusion criteria

Gender:	Both
Minimum Age:	10 Years
Maximum Age:	
Accepts Healthy Volunteers?	No

[Edit](#) **Central Contact:** Kimberly Hart, MA
Telephone: 585-275-3767
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[Edit](#) **Study Officials/Investigators:** Rabi Tawil, MD
Study Chair
University of Rochester School of Medicine

Robert C. Griggs, MD
Study Principal Investigator
University of Rochester School of Medicine

[Edit](#) **Locations:**

Facility: University of California, San Francisco
San Francisco, California, United States
Contact: Kristin Wong
Investigator: Jeffrey W. Ralph, MD
Role: Principal Investigator
Recruitment Status: Not yet recruiting

Facility: University of Kansas Medical Center
Kansas City, Kansas, United States
Contact: Laura Herbelin
Investigator: Richard Barohn, MD
Role: Principal Investigator
Recruitment Status: Not yet recruiting

Facility: Brigham and Women's Hospital
Boston, Massachusetts, United States
Contact: Kristen Whiteside
Investigator: Anthony Amato, MD
Role: Principal Investigator
Recruitment Status: Not yet recruiting

Facility: University of Rochester School of Medicine and Dentistry
Rochester, New York, United States
Contact: Kimberly Hart
Telephone: 585-275-3767
Email: Kim_Hart@urmc.rochester.edu
Investigator: Robert C. Griggs, MD
Role: Principal Investigator
Investigator: Rabi Tawil, MD

	<p>Role: Principal Investigator Recruitment Status: Not yet recruiting</p>
	<p>Facility: University of Texas Southwestern Medical Center Dallas, Texas, United States Contact: Nina Gorham Investigator: Jaya Trivedi, MD Role: Principal Investigator Recruitment Status: Not yet recruiting</p>
	<p>Facility: Institute of Neurology and National Hospital for Neurology London, United Kingdom Contact: Doreen Fialho, MD Investigator: Michael Hanna, MD Role: Principal Investigator Recruitment Status: Not yet recruiting</p>
	<p>Facility: London Health Sciences Centre London, Ontario, Canada Contact: Kori LaDonna Investigator: Angelika Hahn, MD Role: Principal Investigator Recruitment Status: Not yet recruiting</p>

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Citations:

Tawil R, Ptacek LJ, Pavlakis SG, DeVivo DC, Penn AS, Ozdemir C, Griggs RC. Andersen's syndrome: potassium-sensitive periodic paralysis, ventricular ectopy, and dysmorphic features. *Ann Neurol.* 1994 Mar;35(3):326-30. PMID: 8080508

Sansone V, Griggs RC, Meola G, Ptacek LJ, Barohn R, Iannaccone S, Bryan W, Baker N, Janas SJ, Scott W, Ririe D, Tawil R. Andersen's syndrome: a distinct periodic paralysis. *Ann Neurol.* 1997 Sep;42(3):305-12. PMID: 9307251

Tristani-Firouzi M, Jensen JL, Donaldson MR, Sansone V, Meola G, Hahn A, Bendahhou S, Kwiecinski H, Fidzianska A, Plaster N, Fu YH, Ptacek LJ, Tawil R. Functional and clinical characterization of

KCNJ2 mutations associated with LQT7
(Andersen syndrome). J Clin Invest. 2002
Aug;110(3):381-8. PMID: 12163457