

TRACK-FA NEWSLETTER

Issue 03 – August 2023

TRACK-FA

TRACK-FA is a longitudinal natural history study that tracks brain and spinal cord changes in individuals with Friedreich's ataxia (FA). We have a team of researchers from Australia, USA, Germany, Brazil and Canada in collaboration with global industry partners. We are testing the sensitivity of neuroimaging biomarkers to provide a basis to include them in future clinical trials.

At a glance

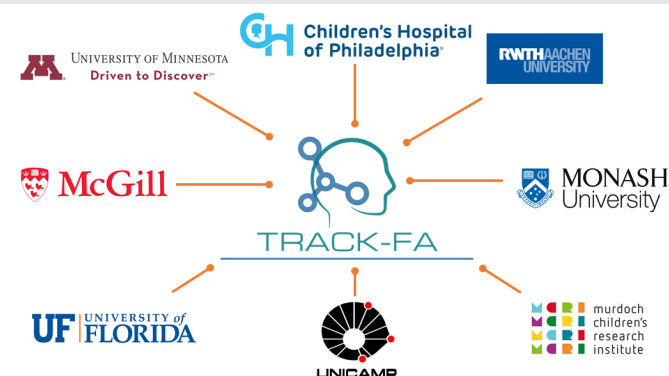
Baseline recruitment has concluded!

TRACK-FA is closing for recruitment at the end of August 2023. By the end of August 2023, across all study sites we will have enrolled over 272 participants¹, including over 177 participants with Friedreich's ataxia and over 95 matched control participants, whose ages range from 6 to 42 years old (Figure 1).

This means that overall, our baseline data set will contain over:

- ✓ 1062 clinical tests
- ✓ 272 blood samples
- ✓ 272 MRI sessions
- ✓ 657 cognitive and mood assessments
- ✓ 272 speech assessments

We thank everyone who continues to participate in TRACK-FA and contributes to the growing database to build our knowledge!



Our partners:



¹ Final recruitment number may be higher, after the final assessments for TRACK-FA study visit 1 are completed in late August 2023.

Recruitment summary (Aug 2023) by participant group and age.

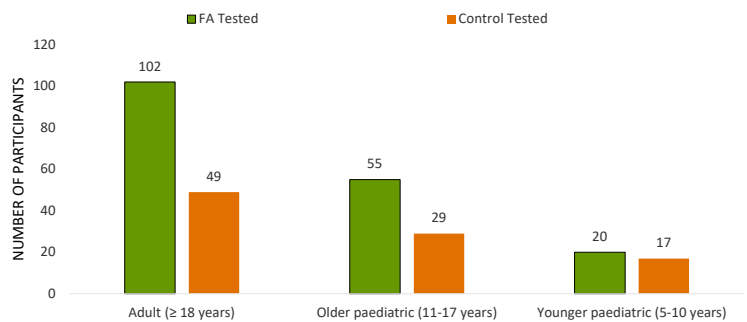


Figure 1.

Follow-up study visits are under way

We have finished assessing all participants for their first (baseline) study visit, and now we're keeping busy assessing TRACK-FA participants who are returning for their second (12 month) and third (24 month) study visits (Figure 2). As of August 2023:

- 115 participants have completed study visit 2
- 36 participants have completed study visit 3

After some early delays at the beginning of the study due to the pandemic, we are now on track to complete all data collection before the end of 2025.

Cumulative study-wide recruitment (Aug 2023) for FA and control participants combined, for study visit 1, 2 and 3.

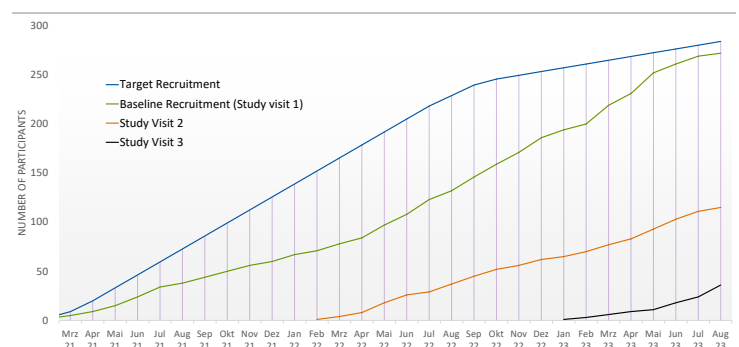


Figure 2.



What are we doing now that we’ve completed baseline recruitment?

TRACK-FA baseline recruitment may be over, but we still have much to do! Besides completing follow-up study visits 2 and 3 for our returning participants, we’re keeping busy analyzing our complete set of baseline data.

What regions are we analyzing in MRI scans?

We are investigating several regions in the brain (in particular the cerebellum) and spinal cord (Fig. 3), which we know from previous studies are important for coordinating and controlling movement, and which play a central role in FA.

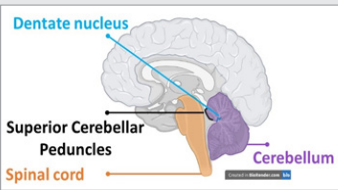


Figure 3: Major regions of interest in TRACK-FA.

What are we measuring in the MRI scans?

TRACK-FA is a multi-modal neuroimaging study, which means that in each scan we are measuring many different characteristics of the brain and spinal cord.

We are investigating the size, connections, iron levels, and neurochemical markers in several areas where we expect to find differences between healthy controls and people with FA, as well as changes over time. The table below summarizes the key measurements that we are taking for each region of the brain and spinal cord. In Figure 4, you can see some of the images of these different regions that we have acquired for TRACK-FA.

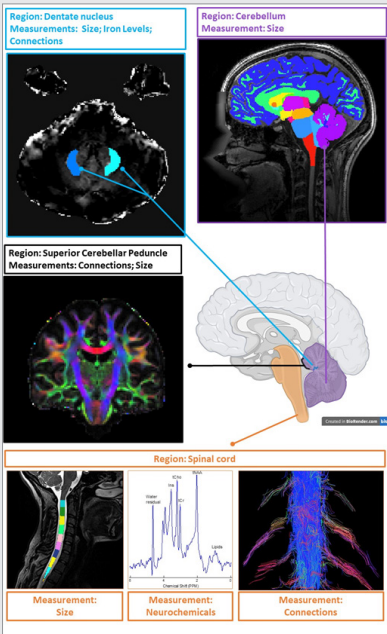


Figure 4: Examples of the images acquired for TRACK-FA for each region and each measurement.

Spotlight on a TRACK-FA Team: Children’s Hospital of Philadelphia (CHOP)

In the next few TRACK-FA Newsletters, we’ll introduce you to our teams at TRACK-FA sites around the world. In this issue, we introduce you to the TRACK-FA team at the Children’s Hospital of Philadelphia.

CHOP Research Assistants: Victoria Kaufman, Shana Ward and Charlotte Birnbaum

Getting to be a part of TRACK-FA has been a highlight of our time at CHOP. Our FA participants are awesome! We often discuss how impactful it is to meet our participants and their families since they are a huge part of what makes being involved in FA research so special.



Back: Tim Roberts, Shana Ward, Peter Lam, Bill Gaetz, Rachel Golemski, Kellie McIntyre, Medina Keita. Front: McKenzie Wells, Shivani Patel, Kyle Bryant, Jen Farmer, Charlotte Birnbaum. Inset bottom: Dave Lynch, Mina Kim, Lisa Blaskey, Victoria Kaufman.

We admire the eagerness and willingness of our FA participants to lend their time to important research! Being involved in FA research has also allowed us to reflect on some of the accessibility inequities of everyday life. As able-bodied people, these things may not have been as salient in our minds before. We find ourselves often considering wheelchair accessibility and sidewalk infrastructure in and around the Philadelphia area which makes us grateful to have the opportunity to learn more about these topics, and to advocate for people with mobility challenges. We have learned an incredible amount getting to be a part of this study and look forward to staying involved in FA research!

CHOP Principal Investigators: Dr. David Lynch, Dr. William Gaetz and Dr. Timothy Roberts

It is a distinct pleasure to participate in this multicenter imaging study. Our work with TRACK-FA involves collaboration with imaging scientists and clinicians from around the world, and we are excited to help discover new biomarkers of clinical change in people with FA. The cutting-edge imaging methods used in this study are truly ground-breaking and innovative. We are extremely optimistic that our findings will provide new insight into the systems and processes affected across the varying stages of disease progression in FA and believe that TRACK-FA will serve as the definitive reference for advanced imaging in the evaluation of novel and emerging candidate therapies and interventions for FA.

Summary of regions and measurements of interest in TRACK-FA

Region	Sub-Region	Location	Measurement			
			Size	Iron levels	Connections	Neurochemicals
Cerebellum	Total cerebellum	Sits at the back of the brain	☑			
	Dentate nuclei	Sits deep inside the cerebellum	☑	☑	☑	
	Superior cerebellar peduncles	Connects the cerebellum to the rest of the brain	☑		☑	
Spinal cord	Cervical spinal cord	Connects the brain to the rest of the body	☑		☑	☑



TRACK-FA Site Teams



University of Florida

Sub Subramony, Mackenzi Coker, Manuela Corti, Thomas Mareci

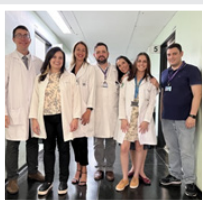
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Uniklinik RWTH Aachen

Imis Dogan, Kathrin Reetz, Shahram Mirzazade, Jörg Schulz, Ankica Grgic, Sandro Romanzetti, Stella Glasmacher, Ravi Dadsena, Sara Schawohl, Maha Sagar, Christina Krockauer, Katharina Hammers

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University of Campinas

Alberto Martinez, Cynthia Silveira, Rachel Guimarães, Marcondes Franca, Fernanda Bittar, Juliana Ferreira, Thiago Rezende

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Monash University and The Murdoch Children's Research Institute

Nellie Georgiou-Karistianis, Louise Corben, Ian Harding, Martin Delatycki, Helena Bujalka, Susmita Saha, Alessandra Tomaselli

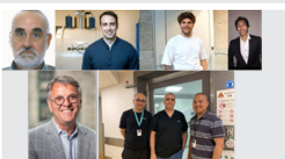
[More information](#)



University of Minnesota

Young Woo Park, Christophe Lenglet, James Joers, Pierre-Gilles Henry, Thiago Rezende, Pramod Pisharady, Isaac Adanyeguh, Diane Hutter, Gulin Oz, Shannon Smith, Katie Gundry, Not pictured: Dinesh Deelchand

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McGill University

Massimo Pandolfo, David Rudko, Dylan Sembinelli, Christian Rampal, Soheil M Quchani, David Costa, Ronaldo (Ron) Lopez, Julien Doyon

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More information

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