

2000 Town Center ■ Suite 1900 ■ Southfield, Michigan 48075

*AHCF President Lynn Egan's Holiday Message to AHC Community this December*

## Happy Holidays to You!!!

The holidays bring us together with family and friends. It is a time of love and goodwill, of reflection and appreciation.

This year our AHC community grew with the addition of many new families and we also were happy to reconnect with some families we had lost touch with over the years. For these and all the families we are happy to lend support and guidance.

Social media has played an increasingly important part of telling the trials of this devastating disease. But it also has told the story of celebration. We are thrilled to celebrate all of our children's accomplishments and look forward to an amazing 2016!



The Board of Directors and I wish you joy, love, laughter with your family and friends and an episode free holiday for your child.

Lynn Egan, President



*Familiar Face to AHC Community is elected to Serve on AHCF Board*

## Join us in welcoming a new director

Please join us in extending a big welcome to Dr. Mario R. Merida who was elected to the AHCF Board of Directors this past November.

Professionally, Dr. Merida is the current Dean of the College of Allied Health Sciences at Stevens Henager College. He also serves as a patient advocate for Spinal Muscular Atrophy Families (SMA) FAME in Argentina and Chile.

Dr. Merida has played an important role in assisting with the evaluation and enrollment of patients for clinical studies through the University of Utah Neurology Department. Mario is married to Dr. Sandra Reyna and they have 5 children ranging in age from grade school to adult. The whole family will be moving to Boston shortly where new positions await. Mario plays an important role in the clinical portion of AHCF Family Meetings and has been a great help as an interpreter for our Spanish speaking families.

**Welcome to the AHCF Board Mario!**

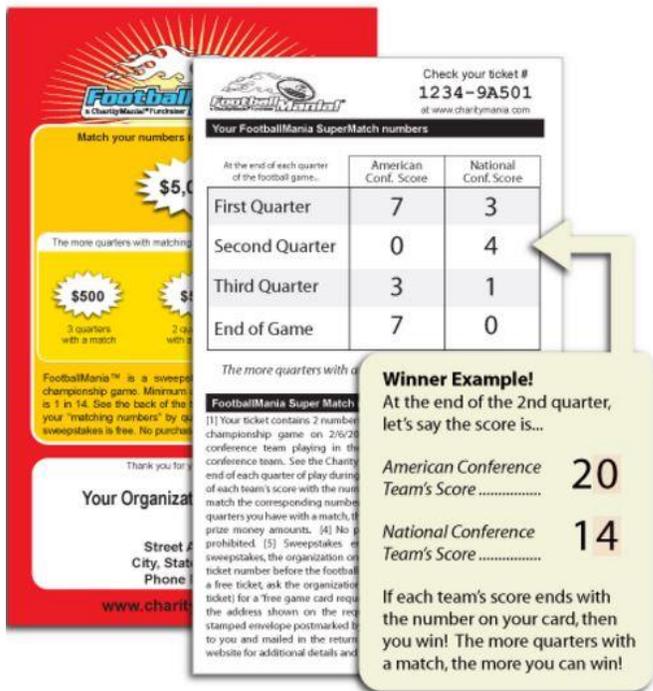
## Familiar Way to Easily Raise Money for AHC Research AHC teams up with football fans

### Okay Football Lovers - CharityMania tickets are here!

To raise money, we are conducting a \$5.00 per ticket FootballMania SuperMatch fundraiser. These are easy to sell and very profitable for the foundation.

FootballMania SuperMatch Edition is an exciting and engaging sweepstakes that gives participants a chance to win prize money during professional football's championship game.

The game is just like the popular "squares" pools played during the big game. In each quarter of the game, your game card is assigned a pair of numbers (one number for each of the teams playing in the game). At the end of each quarter, if each team's score ends with the number on your game card, then you win! The more matching quarters you have, the more you win!



You can buy your own tickets and sell some to your friends as well. Just get in on the fun and help AHC research at the same time. If you have any questions, please contact Paul Hodes at [pnhodes@gmail.com](mailto:pnhodes@gmail.com).

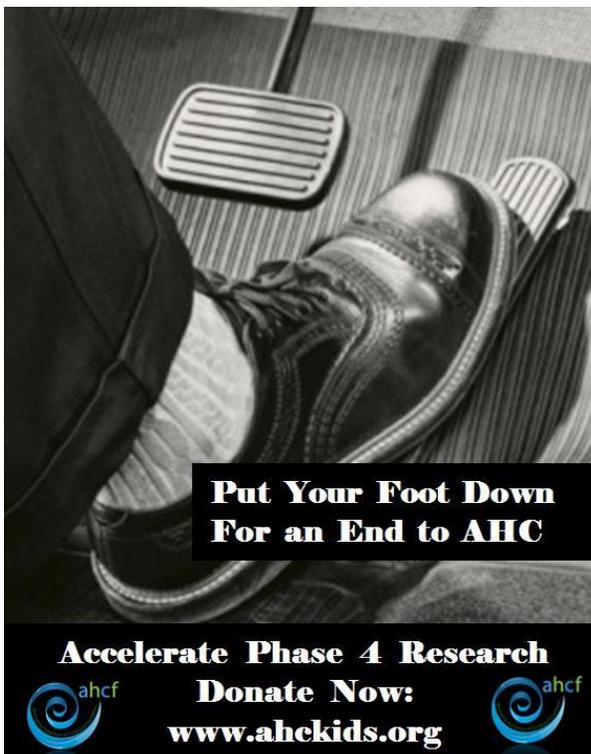
**Thank you for your support!**

Go to: <https://www.charitymania.com/give/p604b>



"Fall in Love" with Hope for Connor & Kids PuMPKiNs & More Fundraiser raises over \$6,000.00!

Thank you Corrin family and friends!



Donations are still being accepted to help accelerate AHC research currently underway.

Help speed up the research looking at possible treatments for AHC.

Simply go to [www.ahckids.org](http://www.ahckids.org) to make a donation this year.

Every amount gets us closer to helping our kids.

Thanks!!!

*New Research Ends an Exciting Year for AHC Researchers*

## Mice models are an important step to understanding AHC.

In this month's issue of *Behavioral Neuroscience*, researchers from the University of Toronto and the University of Leeds (UK), published an article titled, "**Characterization of Cognitive Deficits in Mice with an Alternating Hemiplegia-linked Mutation.**"



The article discusses how cognitive impairment is a prominent feature in a range of different movement disorders. Children with Alternating Hemiplegia of Childhood are prone to developmental delay, with deficits in cognitive functioning becoming progressively more evident as they grow older.

Heterozygous Myshkin mice have an amino acid change (I810N) in Na<sup>+</sup>,K<sup>+</sup>-ATPase α<sub>3</sub> that is also found in Alternating Hemiplegia. To investigate whether Myshkin mice exhibit learning and memory deficits resembling the cognitive impairments of patients with Alternating Hemiplegia, we subjected them to a range of behavioral tests that interrogate various cognitive domains.

Myshkin mice showed impairments in spatial memory, spatial habituation, locomotor habituation, object recognition, social recognition, and trace fear conditioning, as well as in the visible platform version of the Morris water maze. Increasing the duration of training ameliorated the deficit in social recognition but not in spatial habituation. The deficits of Myshkin mice in all of the learning and memory tests used are consistent with the cognitive impairment of the vast majority of AHC patients.

These mice could thus help advance our understanding of the underlying neural mechanisms influencing cognitive impairment in patients with ATP1A3-related disorders.

**We are grateful to this research team for continuing to move AHC research forward.**

