

Michigan Professional FIREFIGHTERS



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STATE OF SCIENCE—MDA MICHIGAN FUNDED GRANTS

Each year MDA funds about 250 research grants aimed at developing treatments for the more than 40 neuromuscular diseases in our program. It's a huge investment — the largest of any nonprofit voluntary health agency dedicated to fighting neuromuscular disease. However, MDA does not simply "throw money at science." Biomedical research, by its very nature, is costly and carries some risk of failure. Only the best-conceived, most therapeutically relevant projects and most promising researchers — as judged by the world's leading biomedical experts — receive MDA funding. The process of awarding an MDA grant is objective, informed, rigorous and ethical.

MDA recognizes that research at every level, from fundamental research into muscle biology through clinical trials of new therapeutics, contributes to the development of treatments for our diseases. MDA recognizes that there are different challenges at each stage of research, so it has different types of grants and different procedures in place to maximize the effectiveness of our review process.

MDA also supports the training of new researchers, and it recognizes the importance of getting brilliant young scientists and physicians into the field of neuromuscular disease research.

Ann Arbor - The Regents of the University of Michigan

Anthony Antonellis Ph.D. RG Correcting the molecular defect of CMT-associated tRNA synthetase mutations

\$84,600.00 5/1/2014 4/30/2015 Year 1

\$84,600.00 5/1/2015 4/30/2016 Year 2

\$84,600.00 5/1/2016 4/30/2017 Year 3

Summary Charcot-Marie-Tooth (CMT) disease is a heterogeneous class of disorders characterized by progressive muscle weakness and loss of sensation in the hands and feet. Currently, there is no cure for CMT disease. Importantly, many different genes have been implicated in CMT disease making it difficult for efficient therapeutic design. The human genome contains 37 tRNA synthetase (ARS) genes that encode a class of enzymes with similar functions in producing cellular proteins.

To date, six of these 37 ARS genes have been implicated in CMT disease, and we predict that more ARS genes will be implicated in CMT disease in the

future. Disease-associated ARS mutations impair the primary function of the enzyme suggesting that improving this function will be a relevant therapeutic strategy for patients with CMT disease.

To address this, we will: (1) Systematically link impaired ARS function with CMT disease pathogenesis; and (2) Demonstrate that restoring ARS function will improve CMT disease characteristics. These efforts will have direct implications for developing therapies to treat the many patients with CMT caused by mutations in a large class of human genes. Andrew Lieberman M.D., Ph.D. RG Allosteric activators of Hsp70 to treat spinobulbar muscular atrophy \$34,375.00 8/1/2014 7/31/2015 Year 3 Summary Spinobulbar muscular atrophy (SBMA) is an inherited degenerative disorder of lower motor neurons that is caused by a CAG/glutamine tract expansion in the androgen receptor (AR) gene.

Daniel E Michele Ph.D. RG Reversing nitric oxide synthase dysfunction in muscular dystrophy

\$121,655.00 8/1/2014 7/31/2015 Year 3

Summary Muscular dystrophies are characterized by muscles that are weak, sensitive to injury, and fatigue rapidly during normal muscle activity. Recent work has focused on the role of loss of function of an enzyme nitric oxide synthase (nNOS) in muscle causing fatigue in muscular dystrophy. nNOS produces nitric oxide, which is required for maintaining increased blood flow to muscle during activity. Very little is known about how nNOS is regulated in muscle.

Although nNOS localization to the cell membrane is disrupted in Duchenne muscular dystrophy, the broad disruption of nNOS localization in other muscular dystrophies with normal dystrophin expression, raises considerable questions about what causes NOS dysfunction in dystrophic muscle. An important regulator of nitric oxide synthase activity in whole animals is modified forms of the amino acid arginine, that circulate in the bloodstream and inhibit nitric oxide synthase.

Our preliminary data show that methylated arginines are markedly elevated in serum of dystrophic mice, are acutely increased in result to direct skeletal muscle injury, and experimental elevation of methylated arginines is sufficient to reduce running exercise capacity in normal animals. This project will test if methylated arginines cause muscle fatigue, and test directly if reducing methylated arginines in dystrophic animals, reduces muscle fatigue/weakness and slows development of cardiomyopathy, and provides therapeutic benefit to dystrophic animals.

FAMILY SPOTLIGHT—THE SAWHILL FAMILY —TRAVERSE CITY



Thank you for joining me in supporting the Muscular Dystrophy Association's mission to fight muscle disease. Together, we are progress!

Our son, Finley, has a rare form of muscular dystrophy called Nemaline Myopathy. Your donations will help fund research, summer camps, MDA clinics and many other functions within the MDA. As a member of MDA Team Momentum, I am progress.! I completed the Chicago Marathon, and I'm making my miles count, bringing help and hope to more than 1 million Americans living with muscle disease and over 4,500 families within Michigan.

With every step I take, I'm advancing MDA's mission to assist families with health care services and day-to-day support, fund research breakthroughs worldwide, and fight back against dozens of life-threatening muscle diseases.

Thank you for your support and dedication....together we'll move toward a future in which muscle health, not muscle disease, prevails.

I appreciate all the love and support that the Michigan Professional Fire Fighters Union has shown over the years to families like mine!

CONGRATULATIONS TO KARI HARTMANN-BOLAK OF GREATER DETROIT!



Kari and Linden are both doing great! Linden was born on October 16, 2015 weighing in at 8 pounds 11 ounces and 20.5 inches long. Kari will be enjoying Linden the rest of the year and will return in January of 2016!

Team MDA Welcomes Linden!!!!

WELCOME TO GREATER DETROIT—KATIE KOCH—EXECUTIVE DIRECTOR



Katie worked the past 3 years as Executive Director for Share A Smile. (A Michigan based family foundation assisting low income families when facing an unforeseen crisis). Prior to that she worked 7 1/2 years with the March of Dimes, Detroit Division.

Katie graduated from Western Michigan University. She currently lives in live in Ferndale, MI with her boyfriend Jason. They enjoy traveling, attending sporting events and spoiling their 6 year old nephew Nathan. She is a die-hard Cubs fan :)

MDA welcomes Katie to the team!



2015 MDA FILL-THE-BOOT RESULTS

Department	2015 Total
L1029 - Southfield MI	\$ 50.00
L1355 - Dearborn Heights MI	\$ 50.00
L4962 - Grand Blanc - MI	\$ 50.00
L0356 - Wyandotte MI	\$ 630.00
L2659 - Farmington Hills - MI	\$ 996.67
L352 - Flint - MI	\$ 1,529.40
L4359 - Delhi Township - Mi	\$ 1,919.00
L1911 - Garden City MI	\$ 2,200.00
L0704 - Cadillac, MI	\$ 2,228.46
L0116 - Bay City MI	\$ 2,312.00
L1737 - Harrison Township MI	\$ 2,500.00
L0623 - Alpena MI	\$ 2,575.92
L1467 - Portage MI	\$ 2,596.54
I0035 - Dearborn Industrial - MI	\$ 3,221.00
L2154 - Commerce Township - MI	\$ 3,877.88
L0102 - Saginaw MI	\$ 3,909.95
L3961 - Northville MI	\$ 4,078.00
L0366 - Grand Rapids - MI	\$ 4,099.32
L0421 - Lansing MI	\$ 5,859.35
L1383 - Warren MI	\$ 6,539.00
L1292 - Lincoln Park MI	\$ 7,080.41
L0412 - Dearborn MI	\$ 7,600.00
L4112 - Brownstown - MI	\$ 10,310.68
L1279 - Westland MI	\$ 12,687.80
L1682 - Bangor Township - MI	\$ 14,618.02
L1306 - Jackson MI	\$ 16,178.70
L1600 - Meridian - MI	\$ 16,682.15
L0344 - Detroit MI	\$ 36,792.52
	\$ 173,172.77

FIREFIGHTER SPOTLIGHT—BLAKE MEYERING- CADILLAC L704



Blake Meyering, Cadillac Local 704 Firefighter, is this years new Fill the Boot Coordinator. Blake attended Boot Camp this past year for the first time and was impacted by meeting our campers at camp! He has a passion for helping others and has become a great asset to our MDA families collecting vital funds. He understands the importance of funds to help provide services, research, summer camp and equipment repairs for those right in their own community. While facing many obstacles not being able to stand in their own streets, Cadillac L704 have been able to raise funds by participating in other fundraisers such as their poker room in January, a basketball tournament and also standing at the local art fair in Cadillac. MDA is happy to have such a great fire fighter and local standing behind our mission.



Greater Michigan

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We are Progress

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FLAPPERS AND FEDORAS
A Roaring 20's Night for MDA
FRIDAY, NOVEMBER 6, 2015

RED TOWN PUB
Lansing, Michigan

1145 S. WASHINGTON AVE.
LANSING, MI 48910
8PM-MIDNIGHT

\$5 COVER CHARGE

Come out for a night of Music, Spirits, & Special Guest Bartenders from the MDA and Members of the Michigan Professional Fire Fighters Union.

Traverse City Firefighters Charity Night

Join us for a charitable evening of hors d'oeuvres, drinks, dancing and a special guest hosted by The Traverse City Firefighters Local 646.

When: November 21, 2015 7:00pm-11:00pm
Where: Top of The Park, in the Park Place Hotel

This is a formal, invitation only event, and all net proceeds will be split between Muscular Dystrophy Association and The American Lung Association. We also hope this will be an opportunity to bring the local professional service workers together for a relaxing night of fun and charity.

All invitees can purchase tickets for guests, however room capacity is 120 and tickets must be paid in full in order to reserve your spot.

Guests are asked to come in black tie attire. Hors d'oeuvres will be served from 7:00pm-8:00pm and there will be wine and beer available at the open bar. Full cash bar also available for other spirits. Special guest Magician, Ben Whiting will perform his highly acclaimed act at 8:00pm followed by dancing overlooking the beautiful Grand Traverse Bay.

Please return the reservation form below with a check made out to: Traverse City Firefighters Local 646
Contact- Jacob Steichen jsteichen@tcfrn.org

Name: _____ Number of Tickets ___ @ \$50.00/Ticket

Guest(s): _____

Email: _____ Dept of Affiliation _____

ATTN: L646 Fall Formal Event
Traverse City Firefighters
500 W. Front
Traverse City, MI 49684

Upon receipt of reservation slip you will be sent a confirmation email and more information in regards to our event. Thank you for supporting our cause and we look forward to seeing you. Fire Station 1 - (231) 946-0230