**Our Supporters** 

Thank you to these great friends and brands for all

of your support. Warriors,

they're there to support

you, too! Think of them

for your next event or

purchase.

Print



Hello to all Blazeman Warriors and Supporters!

It has been a very busy and exciting time since our last newsletter in July! A simple idea turned into an amazing Ice Bucket Challenge...creating ALS awareness like never before in it's long history! An amazing amount to money was raised for all the various ALS organizations and we are thrilled to have been a beneficiary, enabling us to grow our escrow ALS research account. This also gave us the chance to add to our small community based funding. Thank you all again for your generosity!



Mike Reilly taking it from both sides at IM Mont Tremblant In Mike's own words..."Thinking of the blazeman after 19 hours at the finish line!" The vast amount of videos everyone shared is on facebook...so much support...so much gratitude from us! Please check out the Blazeman Foundation for ALS facebook page for some of them!



As a proud Ambassador for Blazeman Foundation for ALS, I willingly accepted the <u>#IceBucketChallenge</u> with <u>Tom Lowe</u>. Take up the challenge. Donate. Spread awareness. "So Others May Live" Chrissie Wellington

From Aseltine School where Jon taught the staff took up the Challenge and remembered Jon...I do know that Jon would have loved to douse Hayden, the headmaster (second from right) personally!



A special shout out to Blazeman Warrior, Debra Saltz, who took the challenge for the BMF thirteen times if I counted right! Our constant attorney warrior from Maryland! Debra complied a video of all her challenges on FB!

As we move toward yet another Ironman World Championship in Kona...nine years since we arrived on that island with Jon in 2005, we wish Allysin Bridges #179 who will be racing in memory of her dad who passed away from ALS. Congratulations Allysin!

The Blais and Murphy Family celebrated Jon's life as we always do on August 30<sup>th</sup> by having ice cream. Every year we go to a different ice cream shop. Jon most likely tried them all here in Southern New England growing up. We also received a special donation honoring his birthday from the **Mariposa Ice Cream** in San Diego where Jon took me, telling me it was his favorite, as he became a special friend to owners, Anna and Dick. It is quite special to have Jon remembered year after year at Mariposa! Thank you Anna and Dick! 'til next time,

Mary Ann Jon's mom

# From the Battlefields

At IM Boulder. It's Dave Schultz and the IronBand!

Dave wrote to us saying, "During this time of ice bucket challenges and an increasing awareness of ALS I thought I'd share some footage from our show at Ironman Boulder earlier this month. Jon Blais, the original IRONMAN Warrior Poet....footage from his awe-inspiring finish in Kona in 2005 played on the jumbotron next to us while we played this song, one which we wrote while thinking about Jon's struggle."

Thank you, Dave and The IronBand for keeping Jon's memory alive and reminding us all what ALS is...a horrific disease that needs at minimum an effective treatment in the early stage of the disease! From Blazeman Warrior Don Soranno

Don has been highlighted in "The Platform Magazine" Special men's edition, highlighting men who are making a difference. They used Don's story about his race in 2013 at Penticton and spreading of Jon's ashes. Don's entire piece is included in this newsletter! Congrats Don!

In Rhode Island on a September weekend there was a triathlon that included **Spinworks** members. A number of motivational signs along the ways were spotted! And the rolls at the finish speak for themselves! Thank you Peter!

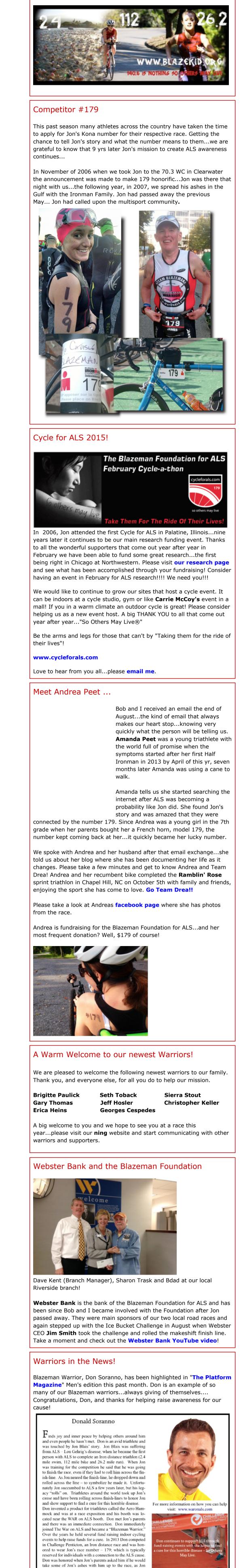


From **Mac Robinson**, triathlete and ALS researcher at Wake Forest:



I finally got in the Ice Bucket Challenge... Was the last in a line of about 15 folks who work in the ALS Center who work with people everyday who have this disease. Felt good. "Cold is the water" bdad, but warm is the heart. And yes, I was rockin my Blazeman gear.

Jenny Hansen, aka Blaze kid, completed 2 Ironman Distance Triathlons within a month! Ironman Louisville in August and the inaugural IM Maryland in September wearing #179 for both events! Quite a feat as a full time student at Johns Hopkins!



Make a donation today! Join Team Blazeman!

The list of registered **Blazeman Warriors** keeps growing! We are proud to have you representing us on the battlefields!



Wake Forest and the Blazeman Foundation

had never visited that part of Canada. Don gladly accepted

# Wake Forest UNIVERSITY

SCHOOL of MEDICINE



race day.

The following are excerpts from our interview and an article written by and about the research done by Carol Milligan, Ph.D. Director of the ALS Center Translational Science Unit, Director at Wake Forest School of Medicine- a program funded by the Blazeman Foundation's warriors, donors and supporters. Your donations at work!

Over the course of the past few months with the craze about the "Ice Bucket Challenge" the question of why do so much for ALS research as opposed to diseases that affect a larger number of people. The answer is

simple- because we have nothing to offer ALS patients. While it is true that the quality of care has improved significantly since the time of Lou Gehrig, the fact is that the average lifespan from time of diagnosis to death has not changed. The only way to begin to understand the disease and ultimately develop an effective therapeutic will be through roll-up your sleeves and work hard basic science research. This is not easy, it take time, effort and yes, money.

Tell us about the project that the Blazeman Foundation is currently funding?

Our research project on Heat Shock Protein 70 or Hsp70 is a perfect example of "bench to bedside" research. It is also a good example of the time involved in this type of project. In 1981, a colleague in our department, Dr. Mike Tytell published a paper that demonstrated that supporting cells that surround the squid giant axon made proteins and then transferred those proteins to the axon. One of the proteins was heat shock protein 70.

### What is heat shock protein 70?

The protein is called "heat shock protein" because it is one of a series of proteins that cells make more of at times of stress, such as "heat shock." Hsp70 is a "chaperone" protein. It helps to transport other proteins between the different parts of the cells. It is also important because it protects proteins during time of stress when they can be damaged.

#### Can you move toward a clinical trial? Recently, our project was "dead in the water." I say this because we

simply could not move forward. We had been purchasing the recombinant protein for our studies. For the 2007 study the company that made Hsp70, Stressgen gave us an 85% discount so we could purchase enough for the study. Stressgen was sold to a company that was then sold to another company and for the 2012 study we were getting a 15-20% discount. We simply could not afford to purchase enough protein to move forward. We also found that the quality of the protein started to vary between batches making it hard to interpret results of our studies. If we could not do this to conduct a few experiments, obtaining the protein in sufficient quantity and purity for a clinical trial was out of the question.

But couldn't you get funding to help move the study along? That was the problem. Nobody wanted to pay for us to make a protein. This is understandable. Funding agencies want you to provide answers not a product. But, if we could not make the protein, we could not do additional studies for get answers. This was very frustrating and we were accepting that the project would just stop.

# What changed?

The Blazeman Foundation! I had had a conversation with Bob and Mary Ann about the different projects we had going on in the lab. Around the same time, a fellow from our "innovations" group learned about our results with Hsp70 and thought they might be able to help move it forward toward clinical trial. With the conversations between Bob and Mary Ann and Innovations, the Department of Neurology also go on board. Another key piece of this was that Mac Robinson, a former student in my lab was completing his postdoc. Mac had done the initial work on Hsp70 on the chick motor neurons. He also began to make the recombinant protein. It is a tricky protein to make because it is rather big, but Mac has a good protocol started. That was about the time he finished his PhD work. He went onto to do work in our Genomics Group and got his Masters in Public Health Science. But he realized that of all the disorders to devote his efforts to, ALS was the one most in need. So with the momentum generated by the Blazeman Foundation, Mac joined our department as a junior faculty member in our ALS group.

And how is the project going? I think we are making progress and pretty much are on schedule. We started with Mac's original protein and purification protocol. The big problem was being able to make enough of the protein and to be able to get it purified. Mac has achieved that much. He is getting very good yields of protein. By our analysis, it looks to be fairly pure. We have just begun testing it in animals.

# So you are well on your way?

Well, we are on the right track. We are at a crossroads right now that is both very exciting and a bit scary. We have to decide if we should continue to improve the purification process or do we move toward having the protein be made in a GMP facility. GMP means "good manufacturing process" and this is the standard for all clinical agents. We have begun discussions about this, and the folks at one GMP facility think we have it to a point where they can take over. This will be an expensive endeavor- with an estimate of about \$200K to make enough protein for an initial phase 1 safety trial. As a scientist I do not want to hand this over until we get the results from our animal studies confirming that the protein is working as we expect. I think we are looking at least another six-ten months before we know this for sure. We also need to complete a dose response study that will give us a better idea of the appropriate starting dose. Our initial studies used only one dose- simply because we could not afford to do more. But if we are seriously thinking of going into patients, then we need to do this right and get a dose response. I think if we get confirmation that we can repeat our original results with our protein, we could have a GMP facility start production while we work out the dose response. We will want an independent lab to test that GMP-made protein, and I have a colleague who is interested in doing this.

And, with discussions of going into patients- we have more questions to answer as well. For example, we need to demonstrate that we can detect the protein we inject into patients, and that it is getting to the area we expect it to be - to the muscle. We are working with our ALS clinicians to figure out the best way to do this. This is not as easy as it might sound because the body already makes Hsp70, so we need to be able to distinguish what we inject versus what the patient makes. We have some ideas of how to do this though. But, the clinicians are starting to think about the best way to do the first safety trial.

We of course, also have to start thinking about going to the FDA. While getting FDA approval is challenging, we do have a few advantages, the biggest being that unlike a virus or new drug, we are treating with a human protein that is normally present in the body. Our first step will be to show that by giving more of that protein, we do not harm the patient. Fortunately, so far we have not seen any adverse effects in our mice. This is all encouraging.

#### When do you think you will start testing in patients? I think if we stay on tract, we should be in a Phase 1 trial in 3-5 years. Maybe sooner, but I think this is a good estimate. If course, that is only phase 1 and will only test safety. It will be the Phase 2 and 3 trials that will look for effect.

### So bench to bedside?

Yes, we started in the early 2000's with cells in a dish. Actually, in 1981 if you trace back to Mike's original study. And, after all this, there is still no guarantee that it will work. This is really the hard part. When I start to think about how much we have done, and how much we have to still do- and how much it is going to cost- it is unnerving. No one else is doing this. But it's times like this when I go look at the Blazeman Website ; "Decision must be instant- Commitment must be total."

### Photo Gallery

Thank you so much for sharing your highlights and favorite moments from the 2014 Summer events! But don't stop now! Please keep sending your photos of the many events coming!



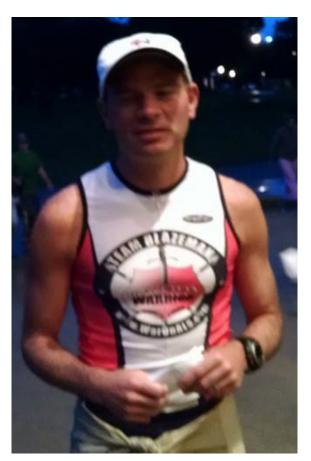
Jeff Galvin pushing Robin on a leg of the Toledo to Columbus run!



Chuck Narod at NJ State Tri 2014



Blazeman Warrior Jenny Hanson on the run at IM Maryland. She PRd during her second Ironman in a month!



Blazeman Warrior Mike Meisterling at St Croix Valley Triathlon



Another picture of Robin Mower and Blazeman Warrior Jeff Galvin at the Toledo to Columbus Run for ALS Awareness



Bill Almond #179 at Goddard Park Triathlon 2014



1 of 1

On May 2, 2005, twenty-year Multi-Sport veteran Jon Blais a.k.a. "Blazeman" at age 33 was diagnosed with the fatal motor neuron disease ALS (Amyotrophic Lateral Sclerosis). Blazeman dubbed himself the "ALS Warrior Poet" and brought his battle to the big