

Greenwich Citizen

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Extraordinary measures: Greenwich

A local family fights a rare disease and seemingly insurmountable odds

The Marella family, from left, is made up of father Phil; daughter Dana, 16; sons Andrew, 10 and Philip, 13; mom Andrea and daughter Julia, 18; and one of their two dogs, Lacy. Dana and Andrew both have Niemann-Pick Type C, a rare genetic affliction, that usually affects school-aged children by interfering with their ability to metabolize cholesterol.

By Barbara Perry Bind

Over the past eight years, Greenwich residents Phil and Andrea Marella have been living with the harsh reality that not one -- but two -- of their four children were afflicted with Niemann-Pick Type C (NPC), a rare, degenerative and potentially fatal disease that eventually leads to the inability to talk, speak or swallow and that affects school-age children. The Marellas explain that with just 200 cases diagnosed in the U.S. to date, it is a challenge to secure the research and funding support they need in their search for a cure for NPC.

Greenwich Citizen spoke with Phil and Andrea Marella about their ongoing efforts.

What is Niemann-Pick disease?

Niemann-Pick Type C disease is a rare, genetic affliction that causes the progressive deterioration of the nervous system. It usually affects children of school age by interfering with their ability to metabolize cholesterol, which accumulates within the liver, spleen and, particularly, in the brain. This leads to a series of neurological problems, eventually leading to the inability to walk, speak and swallow. Generally, children have not lived past their early teenage years.

What was your initial reaction when you learned of your daughter Dana's diagnosis?

Naturally, we were in shock. You read about these types of stories but you never imagine it can actually happen to you. Dana was only 8 years old and such an active and beautiful little girl that the thought of her steady deterioration and eventual death was inconceivable. After crying for what seemed like an eternity, we realized that we had to do something. We couldn't just sit back and watch.

Following her diagnosis, you created Dana's Angels Research Trust, or DART. Describe why you formed the organization and what its objectives are.



Venture Photography/Contributed Photo

We created DART when I was approached by an organization at Dana's school, Parkway, called Kids With a Purpose. They wanted to donate the year-end money they had raised to help find a cure for Dana's disease. That was in 2002, and we have been actively fundraising ever since. From school activities to large galas, we have raised about \$1.5 million to date and have funded numerous studies at major medical institutions around the country.

Three years later, in 2005, you learned your son Andrew has NPC. How did you react? How was it different from receiving Dana's diagnosis?

We had, for a long while, suspected that Andrew had NPC since he, too, had an enlarged spleen when he was a baby. We had hoped and prayed that he was healthy, but when the drug trial for Zavesca was about to begin, we knew that we had to know for sure. We had Andrew tested and found out two weeks later. Yet, neither he nor Dana were actually in the trial - Dana's condition was too advanced and Andrew was too late.

Having watched one child deteriorate and knowing that another is stricken with the same fate is horrifying for any parent.

It was almost worse, because we'd already watched the horrible reality of what the disease does to children.

How are Dana and Andrew doing today?

We thank God that Andrew is doing well and has been on Zavesca since he was 5. He is 10 and when Dana was 10, she was already in a wheelchair.

Dana is now 16 and severely handicapped. She no longer walks or talks, eats solely through a feeding tube in her stomach, receives breathing treatments many times a day and battles seizures. She requires constant care. Andrew attends school like any other child, plays baseball, has a great sense of humor and enjoys his friends. They are both on two experimental therapies that are not cures. It is buying us time until

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a cure or proven treatment is found. But we are close. Researchers are on the brink of finding some promising therapies for the kids, but it is up to the families to provide the funding and keep the studies moving forward. When you are dealing with an orphan disease (a very rare disease that doesn't get much support or attention) like NPC that receives very limited funding, the responsibility falls on the families. That is why we must continue our fundraising efforts and rely on the generosity of others. You gain such strength and perseverance when your children's lives are at stake.

Phil recently was given time in front of the Food and Drug Administration. How were you able to make that happen?

The FDA convened an Advisory Panel hearing on the application by Actelion Pharmaceuticals for the drug Zavesca; they permit a one-hour session for public comment at this type of hearing. Phil, as a trustee of DART, requested and was granted by the FDA an opportunity to speak. In an effort to make the greatest impact from the public session, DART coordinated the opportunity with two other NPC patient groups, Cindy Parseghian of the Ara Parseghian Medical Research Foundation and Barbara Vorpahl of the National Niemann-Pick Disease Foundation. These three were the only speakers in the public forum, and each person's speaking time was limited to seven minutes.



The whole Marella family, from left, Dana, Phil, Andrew, Andrea, Philip and Julia, traveled to Washington, D.C. to try and convince the FDA to approve the use of the drug Zavesca to treat NPC. In the front row is Barbara Vorpahl of the National Niemann-Pick Disease Foundation. Contributed Photo

A plea for support Phil Marella addresses FDA panel

On Jan. 12, Phil Marella spoke in front of an FDA Advisory Panel in Washington, D.C. seeking approval for the use of the drug Zavesca to treat NPC. What follows is his speech.

Ladies and gentlemen, my name is Phil Marella. My wife Andrea and I traveled from Connecticut with our four children. We are trustees of Dana's Angels Research Trust, a public charity that works with the Parseghian Foundation, the National Niemann-Pick Disease Foundation and other families to find treatments and a cure for NPC. I thank you for your time and consideration, and particularly for your attention to the NPC families.

We are here today to express our firm belief in the benefit of Zavesca as a treatment for NPC, and to tell our story of having two children with NPC, each on Zavesca for over five years, but each having first received Zavesca at markedly different times in the progression of their disease.

I would argue that we are far from alone in this room today. That there are, in fact, thousands of children -- many of them not yet born -- whose presence can be felt. I would argue that they will view your proceedings with the same intensity that they view the efforts of physicians and researchers seeking to protect their quality of life. So please permit me to speak on their behalf, as well as my own family.

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AP Photo/CBS Films, Merie Wesimiller Wallace

Brendan Fraser plays the father of a child with a rare disease in "Extraordinary Measures" and Harrison Ford plays a researcher racing the clock in search of a cure. Greenwich residents Phil and Andrea Marella are facing their own race against the clock in a search for a cure for Niemann-Pick Type C, a disease that afflicts two of their children.

What was the FDA's reaction, and what was the outcome?

Unfortunately, in mid-March the FDA advised Actelion that they would not yet approve Zavesca for NPC; that more definitive proof is required by the law. We are hopeful that further study efforts will lead to future approval.

The consequence of the FDA's decision is that too many children with NPC will not be on Zavesca. It is extremely expensive as with all treatments for rare diseases, and while perhaps 25 percent of NPC patients, including Dana and Andrew, are getting Zavesca "off label" (not specifically authorized for NPC) through their insurance, far too many children have to go without it.

The movie "Extraordinary Measures," which came out in January, profiles a family's mission to save their children from the often-fatal, genetic disorder Pompe disease. In the film, the husband, played by Brendan Frazer, teams up with a specialist to form a bio-tech company and develop a cure.

You have said that you've received calls from friends noting the similarities in the movie with your situation - and people have even commented that your husband looks like Brendan Frazer.

The story is similar, with the exception that for NPC, one drug alone is unlikely to provide the necessary impact to arrest the progression of the disease. DART is part of a collaborative effort to develop a drug cocktail for NPC, and our goal is to have it in clinical trial by 2011.

The collaboration, called SOAR-NPC (for Support of Accelerated Research), is funding research by four labs, one each at Mt. Sinai School of Medicine in Manhattan, Albert Einstein College of Medicine in the Bronx, Washington University School of Medicine in St. Louis and Oxford University in England.

Unlike what takes place in the traditional academic research process, these four labs are working closely together, sharing information and making the best use of their complementary expertise. Additionally, Dr. Forbes Porter's lab at the National Institutes of Health Clinical Center's National Institute of Child Health and Human Development has been doing an observational study of NPC for almost four years and is undergoing the first trial of a compound related to SOAR's drug cocktail.

Recently, the efforts and achievements of SOAR were recognized by the NIH. The NIH's Office of Rare Disease Research, through a new program called Therapeutics for Rare and Neglected Diseases (TRND) is going to provide the SOAR effort with the following additional resources: a fifth principal investigator from the NIH's Chemical Genomics Center, two project managers with pharmaceutical industry experience and an additional lab at the NIH Clinical Center to begin the trial of SOAR's second potential component of a drug cocktail.

This is tremendous news that will help SOAR accelerate its efforts but, of course, DART and its collaboration partners still need to fund the research at the four initial SOAR labs.

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Did you see the movie? If so, what was your reaction?

Yes, we did see "Extraordinary Measures," and it hit very close to home. We, too, have worked relentlessly to save our children. In addition, one of the striking similarities is how the parents got the researchers engaged with the patients and families. One of the things that the Niemann-Pick community has done is to make certain that the researchers know many of the children and their families. They have put a face to the disease. Therefore, they care as much about the kids as they do the science.

We, too, believe that our story will have a happy ending. Although ours is a different disease, our efforts, like theirs, will remain non-stop. We work as a family unit and, with our strong faith, we are sure that our children will eventually be healed.

What is your Hollywood ending?

We truly believe that our children will survive this. While it has taken

a toll on our whole family, I feel especially sad for our two healthy children who have had to deal with this ordeal. But we are grateful to so many people, mostly in our community, who have reached out to help support our foundation over the last eight years.

DART will hold a gala and concert to raise funds and awareness for Niemann-Pick Type C Disease on May 14 featuring the legendary King of Motown and Rock and Roll Hall of Famer, Smokey Robinson, along with his 12-member band at the Palace Theater in Stamford.

Co-hosts for the event will be long-time DART supporters Kathie Lee and Frank Gifford. Wine and hors d'oeuvres will be served at the gala reception, which begins at 6:30 p.m. and will feature live and silent auctions.

Tickets to the gala reception and concert are available by invitation at DanasAngels.org, via e-mail at tickets@danasangels.org or at DART, 203-861-2063.

A plea for support Phil Marella addresses FDA panel (continued)

You have an awesome responsibility here today, one I know you take seriously and we all appreciate that responsibility. There are others who will speak to the science. We can only speak to the very human dimension of your decision-making.

There may be nothing worse that you can hear in your life than your child has a rare, degenerative disease, and that there is no treatment and no cure.

Our story starts like many others: A beautiful little girl, perhaps a bit clumsy, but otherwise perfectly normal, starts to show signs of the disease. At the age of almost six, our daughter Dana started to have learning issues, then her balance and speech became more impaired. It took three years to get a diagnosis. Dana was then almost nine, could not walk without assistance and spent most of her day in special ed, but Dana was as cheerful and loving as ever.

It would be three very long years before the promise of the Zavesca drug trial was realized. By that time, Dana needed a walker or at times a wheelchair and her gaze palsy had progressed to a point where she could not be in the trial. We were devastated.

Our son Andrew, then almost five, was the only other one of our four children to have a slightly distended spleen as an infant. Wanting to be certain he was on Zavesca if he had NPC, Andrew was tested and, to our horror, tested positively.

The last six years have not been easy, but the one truly bright spot has been that Andrew, now going on 11, is stable. That represents a dramatic change from the first six years after Dana was diagnosed.

And while Dana's progression has been more apparent, the loss of other children not as fortunate reminds us of just how important this task is. I recall one other beautiful little girl with NPC. At age 11 she was a year older than Dana, yet healthier; she could walk without a walker, and her speech was more clear.

It would be another year - just before Dana's 11th birthday - that Dana would start taking Zavesca, and both girls declined over that year. The other little girl was never on Zavesca. Just two-and-a-half years later, she lost her battle at only 14 years of age. The tragedy is self-evident -- Dana is 16 going on 17.

Clinically speaking, in the six years that Dana and Andrew have been on Zavesca, the only side effect has been loose stools. The benefits are obvious and enormous.

Dana's disease has progressed, but at a considerably slower pace than before. Her quality of life has been better than it would have been without Zavesca. We have anecdotal evidence that within that body is a young lady who is aware of her surroundings, her family, her friends and the love of people who care deeply for her. Simple proof? She can

still laugh. When watching a comedy with the family, not a sitcom with a laugh track, but a feature film, Dana laughs at the appropriate moments. Ladies and gentlemen, can you imagine taking such profound delight from such a simple human response? Her teachers also tell us that she responds appropriately at school; reacting with her communication pad when one of her friends goes by.

And Andrew, well, he is nearly perfect. He has about the same down gaze limitation that he had almost six years ago, he does well in school, with minimal intervention, he's an excellent speller, writes essays, is a member of his school's editorial board and he's a pretty good baseball player too.

Simply put, Zavesca has been critical to both the longevity and quality of life of Dana and Andrew.

We understand the role of the placebo effect, as well. Before Zavesca, we worked with a physician who introduced natural remedies that we saw were not effective. Zavesca's benefit is real.

As scientists you look at cold, analytical metrics and make decisions. But as a parent of these young patients, I would respectfully suggest that there is also moral consideration woven into your decision-making process. It ensures that our children, and the thousands whose presence are in this room, will have access to treatments that will allow them to live their lives to the fullest.

By endorsing a positive recommendation, you have the means of achieving that goal.

By doing so, you give parents extra, precious years with our children.

By doing so, you encourage researchers to work diligently to find additional therapies of even greater benefit.

By doing so, you ensure that an insurance program will subsidize the cost of the medicine, given that, as with most rare diseases, that treatment is very, very costly.

We are fortunate to have a truly beneficial drug. It is not a cure, but it has extended children's lives, improved their quality of life and we know, for many of them, will provide the medical community with the means to do much more in the quest for a cure.

With a positive recommendation, children who need this drug but can't afford it will benefit. As will kids on less than the optimum dosage.

Just as with many other rare diseases, some children will still receive Zavesca at tremendous cost and hardship regardless of your decision -- our kids will continue to be on this treatment even if we have to sell our home.

Each week we read about a child newly diagnosed or a child who is taken from us. Zavesca is the proven first line of defense, giving what every parent so desperately wants -- more time with their child. And that is what we are asking for from this panel. A positive recommendation that gives all of us . . . more time.

Thank you.