



Duke ALS Clinic

Sponsored by the ALS Association North Carolina Chapter

2017 ALS Research Update

2017 has seen tremendous progress in ALS research. We discovered new genes that cause familial forms of this disease. At the same time, in one of the medical biggest breakthroughs in history, scientists in other fields successfully edited disease-causing genes in human embryos. This means that in the very near future we may have a cure for the 10% of ALS that is caused by abnormal genes.

For the 90% of ALS that is caused by the environmental factors, we have increasing evidence that exposure to blue green algae may be important. This produces a neurotoxin called BMAA which gets incorporated into proteins, making them unstable. We figured out how to block this effect in animal models with an over the counter nutritional supplement called L-serine. Human trials of this supplement are underway and the preliminary results are very promising.

Closer to home, using funds from the LVH ALS Foundation, our Duke team discovered more individuals who appeared to have ALS and unexpectedly got better from it. We learned that these 34 “ALS reversals” have different demographics from patients with more typically progressive ALS, and take different nutritional supplements. We are now collecting blood samples to look at their immune systems and their genes to see if we can find answers to how they beat ALS. We are also testing the supplements they took to see if we can reverse ALS in anyone else.

Finally, Duke University just made a major commitment to ALS research by hiring world-renowned Dr. Albert LaSpada to build a Neurodegenerative Disease Center. This center will have a major focus on translational research, meaning we will see more drugs developed in Duke labs that will be available to patients in the Duke ALS Clinic. Duke has been a world leader in ALS patient care for 17 years; we are now be poised to become world leaders in ALS research as well. New donations to the LVH ALS Foundation, which are being used to create a research endowment, will be critical to this transition.

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