

M Marinesco
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NEWS

Winter 2006
Colleen Yinger, Editor

Website: <http://www.marinesco-sjogren.org>
Email: mss@marinesco-sjogren.org

About the Newsletter

This edition of the newsletter provides an update on the MSS gene (Sil1), announcement of our new discussion group (listserv), a request for families to provide MSS growth profiles, and exciting news about the Lau family winning a “Family of the Year” award.

Feel free to distribute the newsletter by email or to print copies for interested individuals. Email us if you wish to be added to or removed from the newsletter mailing list. Current and back issues of the newsletter are available at the website on the publications page.

<http://www.marinesco-sjogren.org/pubs.html>

Sil1 Gene Update by William Wilcox, MD, PhD

Sil1, also known as the Bip associated protein (BAP), was originally discovered in yeast, and is an important component of the protein folding

apparatus. Proteins that are destined to be secreted from the cell or stay within the many compartments of the cell are first manufactured in the endoplasmic reticulum. Proteins are not active when they are first made. They have to fold into a compact structure. While some proteins are able to fold all by themselves, most proteins need help from another group of proteins called chaperones. The chaperones bind unfolded proteins and try to help them fold. Sil1 helps turn on the chaperone proteins. Without Sil1, proteins do not fold as well. The unfolded proteins are either destroyed or stored inside the endoplasmic reticulum. When the cell becomes “constipated” with these unfolded proteins, the cell becomes sick and dies.

Mutations that disrupt the Sil1 protein have been found in the Sil1 gene in many MSS patients from around the world. However, my group and others have so far not been able to find Sil1 gene mutations in more than 50% of people with typical MSS. We are currently using other techniques to see if we could have missed some mutations. It is very likely that there is another gene for MSS, perhaps in the chaperone family of proteins. Importantly, there is a mouse model of MSS called woody that

develops ataxia and has exactly the same ringed storage bodies in brain cells that we have seen in cultured skin cells. The availability of a mouse model will allow us to test potential treatments.

If your family member with MSS has not submitted samples for mutation testing, please consider doing so. It is the only way we will be able to sort out the different genes involved in MSS. My email is William.wilcox@cshs.org and my phone number is (310) 423-6673.

MSS Discussion Group

We are pleased to introduce our new MSS discussion group (listserv). Families, friends, therapists, caregivers, medical professionals, or anyone else with an interest in MSS is welcome to participate.

To subscribe, send us an email (mss@marinesco-sjogren.org) requesting to be added to the listserv, **or** simply click on the link below and enter the requested information (email, name, and password):
http://www.galists.org/read/all_forums/subscribe?name=mss

After subscribing, you can post messages to the discussion group by sending email to:
mss@listserv.galists.org
and read the archives (previously posted messages) by logging onto:
<http://www.galists.org/read/login/?forum=mss>

Topics for discussion may include questions about characteristics of MSS, care, therapy, education, social issues, and transition to adulthood. Personal updates and announcements of relevant educational or social events or news items are also encouraged. Members may use the discussion group to find others dealing with common questions and problems, find pen-pals, or provide support to

others in need. Please see your physician or attorney for medical or legal advice.

Feel free to email us with any questions about the listserv. We look forward to your participation and having the opportunity to get to know each other better!

MSS Growth Profiles – Family Inputs Needed

Small stature is a feature observed in most, but not all, cases of MSS. One of the first questions that families often ask when they first contact our support group is, “How big is your child?”, “How tall was she when she was a certain age?”, or “How tall will my child get?”

In order to have more concrete information to provide to families, we are asking families to provide data on the growth of those affected by MSS. If you have height and weight at each year from birth to adulthood, that is great. If you only know current height, age, and gender, that is perfectly fine, too. You can provide information in either metric (meters, kg) or English (inches, lbs) units. Please send the information to mss@marinesco-sjogren.org. The information will be summarized in a future newsletter and on the website, without any identifying personal information (name, country, etc.)

Congratulations to the Lau Family!

In a conference sponsored by the University of Hawaii Healthy & Ready to Work Conference, JoAnn and Norrin Lau and their children, Tammy and Isaac, were named "Family of the Year". Norrin and JoAnn received the award for their efforts in helping Tammy and Isaac and volunteering at VSA (Vision, Strength, and Artistic Expression) Hawaii, a non-profit

organization that fosters opportunities for participation in the arts by youth and adults with disabilities. Norrin is treasurer of VSA Hawaii, and Isaac is vice president. They received the award from Governor Linda Lingle. More information about VSA Hawaii is available at the website: <http://www.vsarts.hawaii.edu/>



Lau Family named “Family of the Year”

Lumping versus Splitting – What does it mean to us?

Lumping and splitting refers to the generic problem of how to place examples in categories, e.g., defining categories in the arts or literature, defining species in biology, or categorizing diseases. Lumping assigns categories more broadly. Splitting makes more precise definitions with additional categories.

Lumping and splitting is relevant to diagnosis in genetics, particularly when diagnosis is based solely on symptoms. When a disease is first described, the diagnosis may be applied to many people that did not previously have a diagnosis (lumping). For some patients, the diagnosis

fits well. For others, it may not. When another new disease with overlapping symptoms is described, some of the earlier cases may better fit the new disease (splitting).

In the past few years, MSS has experienced exactly this “lumping and splitting” phenomenon. In the past two years, the genes responsible for three clinically overlapping syndromes have been identified, allowing for accurate diagnosis of CCFDN (Congenital Cataracts Facial Dystrophy Neuropathy Syndrome), CMRD (Chylomicron Retention Disease), and classical MSS (caused by the gene SIL1). It is possible that some patients suspected to have classical MSS will not have mutations of the SIL1 gene, but may have mutations of other genes in the same pathway (a chain of reactions in a critical sequence) or mutations causing a different syndrome.

Although this process can be frustrating for families, it is very typical in the rare disorder community. New information about diseases and genetics is constantly being discovered. Patients and families can contribute to the process by maintaining periodic contact with their diagnosing geneticist, participating actively in the MSS support group (including keeping address, phone, and email contact information up-to-date), and participating in research. A strong partnership between families and medical professionals is the key to understanding what MSS is all about and eventually finding treatment methods.

ACMG Conference

Colleen Yinger will attend the American College of Medical Genetics (ACMG) Conference in San Diego, CA, March 23-26, 2006 as a participant in the ACMG and Genetic Alliance Advocacy Training Partnership Program. Colleen is one of ten advocacy organization leaders selected to participate in the specially designed track. Activities will

include a introductory briefing by the ACMG president and Genetic Alliance leaders, full participation in all conference program activities, and end-of-day sessions that allow the advocates to ask questions of the geneticists. All participants will write summary papers on two presentations or posters for publication on the ACMG and Genetic Alliance websites. Look for a summary of the ACMG conference in the next issue of this newsletter.

Upcoming Conferences

California State University, Northridge, Center on Disabilities' 21st Annual International Technology and Persons with Disabilities Conference, Los Angeles, California, March 20-25, 2006, <http://www.csun.edu/cod/conf/>

American College of Medical Genetics (ACMG) Conference, San Diego, California, March 23-26, 2006, <http://www.acmg.net/resources/ACMG/2006/2006-main.asp>

Genetic Alliance Conference, Bethesda, Maryland, July 28-30, 2006, http://www.geneticalliance.org/ws_display.asp?filter=conference06

International Congress of Human Genetics, Brisbane, Australia, August 6-10, 2006, www.ichg2006.com

American Society of Human Genetics (ASHG) Annual Meeting, New Orleans, Louisiana, October 9-13, 2006, <http://www.ashg.org/genetics/ashg/menu-annmeet.shtml>

Research versus Clinical Genetic Testing

In the United States, laboratories are designated as either clinical or research laboratories. A clinical laboratory examines specimens and reports results to providers and/or patients for the purpose of diagnosis, prevention, or treatment of individual patients. Clinical laboratories are subject to Clinical Laboratory Improvement Act/Amendment (CLIA) regulation – i.e., they must meet certain federal quality and proficiency standards. There is usually a charge for tests done at a clinical laboratory.

A research laboratory examines specimens for the purpose of understanding a condition better or developing a clinical test. Test results are generally not given to patients. A research laboratory can, at the patient's request, share findings with a clinical laboratory so the patient's test results can be confirmed. Laboratories performing research testing are not subject to CLIA regulation. The cost of testing in a research laboratory is generally covered by the researcher.

More information about genetic testing is available at: <http://www.geneclinics.org/>

Kimberly Hits the Slopes

Kimberly Yinger enjoyed a day of downhill skiing at Bear Mountain Resort in Southern California in early February as part of the United States Adaptive Recreation Center (USARC) program (www.usarc.org). USARC provides both summer activities (water sports and summer camping) and winter activities (skiing and snowboarding) for the disabled.

Kimberly used a walker ski with a tether held by the instructor (see picture). The program has

many kinds of equipment that enable a wide-range of disabled skiers, including wheelchair users and the visually handicapped, to safely enjoy the slopes. This was Kimberly's second year skiing, and she definitely recommends it to all of our MSS families. The cost for a full-day of skiing (including all equipment, two instructors, lift ticket, and annual membership in USARC) is under \$100.



Kimberly Enjoys Downhill Skiing

Supplemental Security Income (SSI)

Supplemental Security Income (SSI) is a Federal income supplement program funded by general tax revenues (not Social Security taxes) to help aged, blind, and disabled people who have little or no income. It provides cash to meet basic needs for food, clothing, and shelter. Eligibility criteria and the application process are available at:

<http://www.ssa.gov/notices/supplemental-security-income/>

California Disability Community Action Network

The California Disability Community Action Network (CDCAN) provides information on state and federal public policy issues relevant to the disabled. Their website, <http://www.cdcan.us/>, is a good source of information on state and federal legislation, special education, disability access rights, medical insurance issues, and much more.

DNA Day Essay Contest

The American Society of Human Genetics (ASHG) is sponsoring an essay contest for high school students in celebration of National DNA Day. Essays are due by midnight EST March 31, 2006 on one of two essay topics:

- (1) Why is it important for everyone to know about DNA and genetics?
- (2) If you were a genetics researcher, what would you like to study (and why)?

For more information, including contest rules and regulations, visit the website at:

<http://www.ashg.org/genetics/ashg/mentor/essay-contest.shtml>