

ALS TDI Recognized for World Class Research by the ALS Association

Presentations from Drs. Bruijn, Maragakis, Boulis and others highlight process and progress in ALS research.

WASHINGTON, D.C.- May 12, 2011- This year's ALS Association (ALSA) Advocacy Days conference took place May 8-11 in Washington, DC, at the JW Marriott Hotel. The following is a recap of some of the events and sessions that took place. Questions, comments and other messages regarding this recap should be forwarded to ALS TDI at info@als.net.

Sunday, May 8, 2011: Roll Call of Chapters

According to conference organizers, there were representatives present from each of the Association's chapters; however, several chapter delegations were not in attendance during the roll call and opening remarks on Sunday afternoon. ALSA representatives reported that approximately 500 people had registered to participate in the multi-day get-together hosted by the charitable organization. Jane Gilbert, President and CEO, added that nearly 100 PALS and CALS had registered in advance for the annual meeting, a record for attendance. During the opening remarks, Gilbert announced that the Advocacy department and conference at ALSA would be renamed the public policy department and conference going forward. This change was made to better define the role and goals of the department and conference. Gilbert also welcomed and recognized representatives from the ALS Therapy Development Institute who attended the meeting. ALS TDI staff has attended this meeting at the request and urging of patients and families for the last several years.



The roll call was conducted using a “bingo” system procured by the Advocacy Committee Chair who led soap opera actress, Kate Linder, around the room to various chapters as they were recognized for their attendance. Several spirited introductions were given by chapter executive directors, board members and others representing the chapters, including many somber reports of

patients and families unable to be at the event due to hardship or illness related to ALS. While some folks had to turn back because of the lack of handicap van parking in the area, or were delayed due to unusually high traffic in the DC-metro area, others shared their stories of travelling great distances to be at the event; such as the delegation from Hawaii, which doubled in size from the previous year to include two chapter representatives. However, other delegations had much larger contingents present, such as the Greater Philadelphia Chapter, which numbered more than forty people. After the enthusiastic roll call, Linder shared her own personal story about being touched by ALS; her brother-in-law is living with the disease today. She talked about making a promise to continue to be a leader in the fight until an effective treatment and cure is found.

After a short refreshment break, the group gathered for a presentation from Steve Gibson, the Association’s vice president of advocacy (now vice president of public policy). His presentation was designed to outline the Association’s priorities, and arm advocates with important details on how those priorities were chosen. Gibson warned that since there are nearly 100 brand new members of Congress

this session that many of them will need to be educated about ALS, and on the differences between this request and an earmark. Approximately 85% of PALS already receive financial support from the US Government according to Gibson. In 2008, ALS TDI worked with Air Force Brigadier General Thomas Mikolajik, an ALS patient, to establish a Congressionally Directed Medical Research Program specifically for ALS (ALSCDMRP or ALSRP). The ALS Association has made it a priority to advocate for the continuation of funding for the ALSRP, which received \$8 million in federal funding for 2011. Following this session, the advocates and others arriving gathered for a "Mother's Day BBQ" followed by an extremely moving candle light vigil (pictured).

Monday, May 8, 2011: Research Overviews, Stem Cells and Familial ALS

The Monday morning session began with some words of welcome from Gibson, who took a moment to recognize the work of ALS TDI's partner organization, the MDA and its ALS Division represented at the meeting by Annie Kennedy, senior vice president for advocacy at the MDA. The MDA is the world's largest private funder of ALS research and operates a network of MDA/ALS Clinics across the country, including many multi-disciplinary clinics and clinical centers of excellence.



Lucie Bruijn, Ph.D., chief scientific officer of ALSA, then provided an introductory overview of the drug development process (pictured). Beginning with an important primer on the translational research process, Bruijn walked the room through what is known as the research "pipeline" and discussed how research done at each step is coordinated by ALSA and funded by its various research grants, which include both investigator-initiated studies as well as the Association's translational research program called "TREAT ALS". She described efforts to use whole genome sequencing to identify additional genetic factors related to disease onset, efforts to develop model systems using that information that mimic ALS, and how researchers use that information and tools to screen potential therapeutics. Bruijn took a moment to recognize the important work being done by ALS TDI to characterize a TDP43 mouse model as well as the Institute's drug screening program. (Note: While ALS TDI does not have a current grant from The ALS Association, Steve Perrin, Ph.D., CEO of ALS TDI did acquaint Bruijn with its characterization plan in advance.) Bruijn also spent significant time describing how ALSA research grants have helped to advance important therapeutic based programs, such as ISIS's SOD1 gene therapy trial and Neuralstem's stem cell trial. In both cases investments made by ALSA, and others such as the MDA, NIH, etc, in addition to private funding raised by each of those large biopharmaceutical corporations, went to advance research as well as technological development crucial to moving toward the clinic.



Lucie then introduced ALS neurologist and researcher Nicholas Maragakis, M.D of the Johns Hopkins University in Baltimore, MD (pictured). Maragakis was tasked with explaining the important developments in the use of stem cells as both a research tool and as a potential therapeutic. The basis of his research is that certain processes related to disease progression may be mitigated through the implantation of induced pluripotent stem cells customized to differentiate into a specific support cells called an astrocyte. To date, his lab has conducted proof of concept experiments in a rat model of ALS and is now attempting to repeat those experiments while simultaneously collecting skin biopsies from ALS patients from which they can derive iPS cell lines. According to Maragakis, it takes about 6 months to create an iPS cell line from a skin biopsy and another 3 months to create a line of astrocyte precursors from the original line. His team hopes to one day begin transplanting these cells into ALS patients and has entered into talks with representatives from the FDA regarding the necessary experimental data to initiate a clinical trial; however, no timeline was given on when such a trial would begin to enroll. In responding to an enthusiastic question from a

PALS, after his talk regarding how to donate a sample to his study, Dr. Maragakis said that researchers are in need of samples and that sharing of sample collection does occur; however, the cost of collecting a sample and then translating it into an iPS line is great and limiting.



Another PALS asked him about his thoughts on the Germany X Cell Center, and their claims to have a stem cell treatment which works in stopping and reversing the effects of ALS. Dr. Maragakis asked his colleague Dr. Richard Bedlack in the audience to respond. Dr. Bedlack (pictured) is a neurologist and ALS researcher based at Duke University, and is the co-founder of the ALSUntangled (www.alsuntangled.com) group which brings together 80 of his colleagues from 11 different countries to review claims made by organizations such as the X Cell Center. Bedlack reported that his group did in fact review the available data from the German company and found it to be inconsistent. He also reported that when his team sought additional information from the X Cell Center, they did not receive a response from staff there, despite several requests for verifiable information. In addition, Bedlack shared with the audience that the German government recently shut down the X Cell Center. A review of the X Cell Center by ALSUntangled is available by [clicking here](#). A discussion on stem cells in general is available [here](#).



The next speaker was Kevin Horton, Ph.D., MPH, from the CDC's ASTDR (pictured). Horton is the project manager behind the recently launched ALS Registry (www.cdc.gov/als). His presentation offered a look into the past, present and future of the ALS Registry. To begin he described why the federal government decided to launch the registry and what its goal were, which were described as: to determine the incidence and prevalence rates of ALS, collect demographic information, and to help identify potential risk factors associated with the onset of ALS. The Registry use a two-pronged approach, which included both a computer based query into the federally administered databases of Medicare, Medicaid, Veterans Administration and Social Security. According to Horton, some 90 million people in the United States receive government assisted healthcare through one of these programs currently and, as such, the CDC determined that by queuing these databases it will be able to identify approximately 85% of all cases of ALS in the United States. The remaining cases would be identified through a voluntary web-based portal through which current ALS patients may register and complete various surveys beyond the basic demographic, medical and diagnosis related questions. In describing the future of the ALS Registry, Horton commented that they would like to add additional surveys, develop a biorepository, and continue to work closely with advocacy groups to prompt the registry. Many questions followed his presentation, including a two-parter from a PALS who used his iPad to ask: 1) would the CDC query data prior to 2010 and 2) why the Massachusetts ALS registry wasn't being used as a source of information. Horton explained that the CDC has, in fact, gained access to data from 2001-2005 already for the federally administered databases and is in the process of gaining access to data from 2006-2010 now. Patrick Wildman, Director of Communications of the Public Policy Department at ALSA, added that changes to federal law in 2008 made it possible for additional information to be collected by Medicare and Medicaid. Horton explained that the Massachusetts registry was not used by CDC because it was not completed, fully funded and wasn't seen as a popular model because it was "involuntary"; meaning that doctors were required to report cases of ALS, regardless of the patient's wishes.



Finally, there was a state of ALS research update session with presentations from representatives of two corporations executing clinical trials in ALS patients today; Cytokinetics and Biogen Idec. Doug Kerr, M.D., Ph.D. of Biogen Idec provided a lengthy and thorough review of the dexamipexole Phase III clinical trial. According

to Kerr, the goal is to enroll 804 patients total, which will allow for sufficient statistical power to determine a 30% of effect. The company partnered with Knopp Biosciences, LLC. to move the drug into the clinic recently after results from a multi-dose Phase II clinical trial showed a trend toward dose response to the drug on the ALS-FRS scale. Biogen hopes to have the trial enrolled as quickly as possible and Kerr explained that there are more than 80 different sites around the world taking part in the trial. This includes clinics in Europe, North America and Australia. When asked why his company chose to limit enrollment to only those patients which had symptoms of ALS develop within 24 months of trial enrollment, Kerr explained that the decision was a difficult one but necessary as that was the criteria used in the Phase II trial. For more information on both these trials, [click here](#).



The afternoon featured several different break-out sessions; including a “Familial ALS” session hosted by neurogeneticist Nailah Siddique, Ph.D. (ALS researcher and self described gene hunter), S. Michele Farr (from a family with fALS and genealogist), and Debra Quinn (fALS patient). This session began with an overview given by Siddique (left). She walked us through the known genetics of fALS, including the approximately 12 known genes that “cause” ALS. These include well known genes such as mutated SOD1, Alsin, and TDP-43. But she added more recently identified genes FUS, ANG, FIG3, SETX, VAPB, Optineurin and VCP (announced just in the last few months). The point of her talk was to ensure that people knew that there are significant efforts underway to identify new genes linked to disease; including a pending announcement from her lab on a mutation on Chromosome X, which may indicate a new familial ALS gene. Her and her team at Northwestern University expects to make that announcement sometime very soon.



Quinn then took to the microphone and recounted for the packed room of about 100 people, including many fALS patients, her family’s story, which includes more than 20 people having passed on her father’s side from ALS. There are more than 140 different mutations in SOD1 alone which cause ALS, and Quinn (and Farr) identified their families’ as being the aggressive A4V mutation. Reading prepared comments, Quinn fought back tears as she recalled losing her father in 1991 to ALS, her grandmother in 1996 to ALS, and her sister in 2007 to ALS. Deb herself was diagnosed in 2009 with the progressive and fatal neurodegenerative disease. According to Siddique, about 50% of North American SOD1 families have the A4V mutation. Including former ALS TDI president Sean F. Scott, who died less than a year after the onset of his initial overt symptoms of fALS. A video of Deb's speech is available on YouTube (thanks Sharon!) by [clicking here](#).



Farr (left) initially became interested in ALS after learning that her husband’s family had a long known history of an unknown disease called “Farr’s disease”, which she later learned was a pseudonym for familial ALS. After conducting extensive genealogical research, Farr discovered that her husband’s and Quinn’s family were in fact related; connecting them to a shared relative who lived in 17th century England. She described her ongoing efforts to make connections to other families, as well as train others in the community to conduct which she described as important research. Farr maintains a popular blog called “Making Connections” (<http://www.making-connections.org/>) where she keeps much of this information posted and leverages social media tools (Facebook and Twitter) to connect with others interested in understanding familial ALS. Farr has made a copy of her slides available online, which can be accessed by [clicking here](#).

Tuesday, May 10, 2011 Celebration of Excellence



Finally, the Association held a breakfast and award ceremony where it recognized several people for their efforts to help rid the world of ALS. The Jacob Javits award went to former Secretary of Veterans Affairs, General James Peake, for his leadership in establishing ALS as a service-related disorder, thereby providing military veterans certain additional healthcare and financial assistance when battling the disease. Prior to Peake, only military veterans from Operation Desert Storm were eligible for benefits related to ALS. A special certificate of

recognition was also presented during the breakfast to Steve Frank, an ALS patient from Florida, which has been the curator and a co-creator of the Piece by Piece ALS Awareness display (pictured). The outside exhibit is a series of hundreds of mannequins with no limbs; signifying that ALS robs people of the use of their bodies, piece by piece. A black t-shirt is covering the torso, with the name of a PALS sponsor on the back. The eye catching display was available each day of the conference and cause several conversations among passersby and others that viewed it.