

New Directions in Biology & Disease of Skeletal Muscle 2008  
New Orleans, LA  
April 27- April 30, 2008

## Summary

The third New Directions meeting was held in New Orleans at the Westin Hotel Canal Place April 27 to April 30, 2008. We had 285 registrants for this meeting with 80 of these being trainees. There were 165 poster presentations that were presented over two different evenings. The program began with a unique and special session that was extremely well received. This session included speakers from several pharmaceutical companies discussing pipeline products and clinical testing in Muscular Dystrophy. These individuals came from Santhera Pharmaceuticals, Wyeth, Summitplc, Novartis Research Foundation, Genzyme and PTC Therapeutics. This session was provided a particularly stimulating start to the meeting and directly demonstrated the progress of the field from our first meeting in 2004.

Following this, over three days there were six sessions where a total of 42 speakers presented data. Of these 12 talks were "New and Notable" in that they were selected from the abstracts that had been submitted in January. The Keynote address was given by Dr. Eric Olson from UT Southwestern on microRNA in muscle disease. This presentation provided groundbreaking work demonstrating that microRNAs play an essential role in regulating protein levels in heart and skeletal muscle. This presentation paved the way for an outstanding session on systems biology focused on muscle and muscle disease. The afternoon session of the first day centered on mechanisms of DNA-expansion mediated disease such as myotonic dystrophy. This was particularly relevant given the morning's presentations on microRNAs and highlighted the similarities in these systems. Mechanisms of Fascioscapulohumeral dystrophy were also discussed.

The second day's morning session highlighted the nuclear membrane and its role in Emery Dreifuss type muscular dystrophy. The role of the nuclear membrane in regulating gene expression was evident and the clinical implications were discussed. The afternoon session moved into discussing mechanisms for therapy. This session was the first to focus on Duchenne Dystrophy. The advances made in developing new therapies for Duchenne dystrophy were outlined including exon skipping and viral gene approaches. The progress in developing therapy for Duchenne has been very clear in the last three meetings. Clinical trials are now ongoing.

The third day's sessions discussed stem cells with an emphasis on matrix biology. The talks that discussed overexpression of the extracellular matrix protein biglycan offered a new approach for therapy for Duchenne. The afternoon session on the dystrophin complex included data on overexpression sarcospan as a therapeutic target. The meeting concluded with an overview on developing compounds and conducting clinical trials.

The meeting concluded with a riverboat cruise on the Steamboat Natchez where the participants were able to enjoy a lovely New Orleans evening. The city was viewed as a very fine backdrop for the meeting and the progress made in recovering from the hurricane and the hospitality of the city were evident. We awarded ten travel awards of \$500 to trainees (12.5% of trainees received support).

We solicited feedback on the meeting. The meeting was considerably larger than our prior meeting in 2006 of 187 participants. This growth was not anticipated but we were able to accommodate after making the decision not to limit participation. We suffered slightly from our larger size and will enlist improved meeting organization for our future meetings. The poster sessions were well received and offered a good opportunity for interaction. The feedback

strongly suggested that we not curtail the attendance and instead allow for a steady state meeting size of 250 to 300. The participants liked the fact that the meeting is not sponsored by Keystone or FASEB since this allowed us freedom to have a full program of speakers. Overall, the comments were extremely positive.