

**14<sup>th</sup> Transgenic Technology Meeting - October 1 - 4, 2017 - Salt Lake City, Utah, USA - Snowbird Resort**

**Sunday, October 1, 2017**

- 4:00 - 4:30PM **Welcome Address and Meeting Start** Susan Tamowski and Jan Parker-Thornburg
- 4:30 - 5:30 PM **Keynote Address: Alex Joyner** *Dissecting cerebellum development, regeneration and disease with mouse transgenic approaches*  
Introduced by: Jan Parker-Thornburg
- 6:00 - 9:00 PM Opening Reception at the Summit

**Monday, October 2, 2017**

- 8:00 - 8:30 AM CONTINENTAL BREAKFAST
- 8:30 - 9:30 AM **Keynote Address: Jin-Soo Kim** *CRISPR genome editing in animals and plants*  
Introduced by: Channabasavaiah Gurumurthy
- 9:30 - 10:20 AM **Session 1: CRISPR optimization & traditional gene targeting**  
Chairs: Cheryl Bock, Aimee Stablewski Sponsored by:  *In the Era of CRISPR are ES cells obsolete?*  
1. Wojtek Auerbach *Innovative strategies of traditional gene targeting*  
2. Simon Titen
- 10:20 - 10:50 AM COFFEE BREAK
- 10:50 - 12:05 PM **Session 2: Novel CRISPR genome engineering tools and technologies**  
Chair: Channabasavaiah Gurumurthy  
1. Channabasavaiah Gurumurthy *Latest trends in CRISPR mouse genome editing technologies*  
2. Tomoji Mashimo *CRISPR-mediated genome engineering in zygotes*  
3. Hiroshi Arakawa *A method to convert mRNA into a gRNA library for CRISPR/Cas9 editing of any organism*
- 12:05 - 1:30 PM LUNCH & POSTER SESSION 1 (Even # posters)
- 1:30 - 3:30 PM **Session 3: Panel: How to Run a Transgenic Core/Emerging CRISPR results**  
Chair: Elizabeth Williams  
1. Ernst-Martin Fuechtbauer Danish Centre for Transgenic Mice  
2. Willie Mark Head of MSKCC Core Facility  
3. Branko Zevnik Head of CECAD in vivo Research Facility  
4. Kathy Krentz Manager of Genome Editing and Animal Models Core
- 3:30-4:00 PM COFFEE BREAK
- 4:00-5:15 PM **Session 4: Non-mammalian transgenesis**  
Chairs: Kristen Kwan & David Grunwald  
1. Kate O'Conner-Giles *CRISPR approaches for investigating novel neuronal gene in Drosophila*  
2. Lissa Herron *The transgenic chicken bioreactor for valuable protein production*  
3. Matt Schwartz *SapTrap: high-throughput gene modification in C. elegans*

**Monday, October 2, 2017 (continued)**

5:15 - 6:15 PM

**Special Session: ISTT Prize Introduction and Lecture**

Introduced by: Jan Parker-Thornburg,  
Susan Tamowski and Dr. Yacine Cherifi,  
COO, genOway

Sponsored by: 

Mario Capecchi

***Gene Targeting into the 21st Century***

6:30 - 8:30 PM

Exhibitor Reception and POSTER SESSION 2 (Odd # posters)

**Tuesday, October 3, 2017**

8:00 - 8:25 AM

CONTINENTAL BREAKFAST

8:25 - 10:30 AM

**Session 5: Large animal transgenesis; non-human primates**

Chair: Martina Crispo

1. Irina Polejaeva

***Generation of Goat and Sheep Models for Biomedical and Agricultural Applications***

2. Ana Paula Mulet/  
Alejo Menchaca

***CRISPR/Cas9 system for genome editing in sheep***

3. Tad Sonstegard

***Editing Livestock Genomes for Tropical Production***

4. Sen Wu

***Generation of Pig Models for Biomedical Research***

5. Marina Emborg

***Towards a genomic edited monkey model of Parkinson's disease***

10:30 - 11:00 AM

COFFEE BREAK

11:00 - 12:30 PM

**Session 6: Ethics and 3R's**

Chairs: Benoît Kanzler, Nikki Osborne  
3R Prize introduced by Boris Jerchow

1. Nicole Duffee

***How Did We Get Here?***

2. Nikki Osborne

***Opportunity Knocks***

3. Boris Jerchow

***Work to Be Done vs. Animal Welfare***

4. Roger Askew

***Maximizing certainty of ES cell germline transmission rates – A cascade of efficiencies using genetically sterile “goGermline” embryos - 3R's award winner***

5. Lin Wu

***CRISPR/Cas9 Gene Editing in Mice*** \*selected speaker from abstracts

12:30 - 1:30 PM

LUNCH

1:30 - 3:00 PM

**Session 7: Selected speakers from abstracts**

Chair: Wojtek Auerbach

1. Gary Kucera

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**REGENERON**  
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***Knocking Out Recombineering: An Innovative and Rapid Approach for the Targeted Generation of Complex Allelic Modifications***

2. Kazhuto Yoshimi

***Single strand DNA-mediated knock-in for large genomic region in rodents***

**Tuesday, October 3, 2017 (continued)**

**Session 7 (continued)**

3. Denise Lanza *Employing single-stranded DNA oligonucleotides for the high throughput production of conditional knockout alleles in mice*
4. Rachel Delston *Targeted insertion of polyA tracks with CRISPR-Cas9 allows titratable control of gene expression*
5. Katharina Boroviak *Genomic rearrangements generated by CRISPR-Cas9 and their characterization pitfalls*
6. Søren Warming *In-depth analysis of CRISPR off-targets in genetically engineered rodents*

3:00 - 3:30 PM COFFEE BREAK

**3:30 - 5:00 PM Session 8: Advanced Genome Editing**

Chair: Lluís Montoliu

1. Gaetan Burgio *Replications, ridicule and a recluse" NgAgo and beyond*
2. Maria Jasin *Protecting the genome by homologous recombination*
3. Tony Nolan *Using site-specific nucleases to build gene drives for suppression of populations of insect disease vectors*
4. Lauryl Nutter *Cas9 RNA-guided nuclease – efficient model generation by microinjection and electroporation \*selected speaker from abstracts*

5:00 - 6:00 PM ISTT General Assembly

7:00 - 10:00 PM BANQUET

**Wednesday, October 4, 2017**

8:00 - 8:30 AM CONTINENTAL BREAKFAST

**8:30 - 10:10 AM Session 9: Using Animal Models to Understand Human Disease**

Chair: Lynn Doglio

1. Zhongde Wang *Genetically engineered golden Syrian hamsters as models of human disease*
2. Monica Justice *A mouse forward genetic modifier screen reveals therapies for Rett syndrome*
3. Indira U. Mysorekar *Prevention of Zika Virus infections during pregnancy: Insights from mouse models*
4. Randy Peterson *Using zebrafish for in vivo drug discovery*

10:10 - 10:40 AM COFFEE BREAK

**10:40 - 12:10 PM Session 10: Phenotyping/imaging**

Chairs: Peter Hohenstein, Branko Zevnik

1. Nils Lindstrom *Four-dimensional phenotypic analyses of mouse and human kidney development*
2. Dario Valenzano *The short-lived African turquoise killifish sheds light on the basis of vertebrate aging*
3. Charlotte D'Hulst *MouSensor: super sniffer mice to decode human olfaction*

Wednesday, October 4, 2017 (continued)

Session 10 (continued)

4. John Wiseman

***Therapeutic genome editing with CRISPR/Cas9 in a humanized mouse model ameliorates  $\alpha$ 1-antitrypsin deficiency phenotype.***

\*selected speaker from abstracts

12:10 - 1:10 PM

LUNCH

1:10 - 2:00 PM

**Keynote Speaker: Martin Cohn**

Introduced by: Inken Beck, Czech Centre for Phenogenomics and Charlie Murtaugh

Orbis pictus lecture

***Development of external genitalia: from evolutionary origins to congenital malformations***

Sponsored by:



Czech Centre for Phenogenomics

hosted by the Institute of Molecular Genetics of the ASCR, v.v.i.

2:00 - 2:30 PM

**Young Investigator Award**

Introduced by: Benoît Kanzler and Thomas Zeyda, ingenious Targeting Laboratory



Sponsored by:

Dr. Alexis Komor

Young Investigator Awardee

***A New Approach to Genome Editing***

2:30 - 3:00 PM

**Poster Awards, Final Remarks, Presentation of TT2019**

Presenters: Elizabeth Williams, Wojtek Auerbach, Xin Rairdan, Susan Tamowski, Yasuhide Furuta

Poster Awards Sponsored by:

charles river

Travel Awards Sponsored by:

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