



**Animal Epigenetics Workshop**

**Organised by a Standing Committee:**      YES      NO

**Meeting information**

Date: 7/27/21
Time: 1-4pm CDT
Number of participants: 125 simultaneous participants; 2019 in-person meeting numbers: 145-188

**Chair**

Name: Kyle M. Schachtschneider
Affiliation: University of Illinois at Chicago
Contact email: kschach2@uic.edu

**Co-Chair (optional)**

Name:
Affiliation:
Contact email:

## Agenda

1:00 PM		<b>Welcome.</b>
1:05 PM	85434	<p><b>Micrococcal nuclease sequencing of pig sperm suggests a relationship between nucleosome retention and both semen quality and early embryo development.</b></p> <p>Marta Gòdia<sup>1</sup>, Saher S Hammoud<sup>2</sup>, Marina Naval-Sánchez<sup>3</sup>, Inma Ponte<sup>4</sup>, Joan E Rodriguez-Gil<sup>4</sup>, Armand Sánchez<sup>4,1</sup>, and Alex Clop*<sup>1,5</sup>, <sup>1</sup><i>Centre for Research in Agricultural Genomics CRAG, Cerdanyola del Valles, Catalonia, Spain</i>, <sup>2</sup><i>University of Michigan, Ann Arbor, Michigan, USA</i>, <sup>3</sup><i>CSIRO, St Lucia, Brisbane, AUS</i>, <sup>4</sup><i>Universitat Autònoma de Barcelona, Cerdanyola del Valles, Catalonia, Spain</i>, <sup>5</sup><i>CSIC, Barcelona, Catalonia, Spain</i>.</p>
1:20 PM	85483	<p><b>ISO-seq data reveals Allele Specific Isoform Expression.</b></p> <p>Shreya Bardoloi*, Loan Nguyen, Bailey Engle, Ben Hayes, and Elizabeth Ross, <i>University of Queensland, Brisbane, Queensland, Australia</i>.</p>
1:35 PM	85391	<p><b>A comprehensive RNA Editome reveals RNA editing sites affecting the function of <i>HSPA12B</i> in myogenesis via altering binding ability for <i>miRNA-181b</i>.</b></p> <p>Adeyinka. Abiola Adetula*<sup>1,2</sup>, X Fan<sup>1</sup>, Y Zhang<sup>1</sup>, Y Yao<sup>1</sup>, J Yan<sup>1</sup>, M Chen<sup>1</sup>, Y Tang<sup>1</sup>, Y Liu<sup>1</sup>, G Yi<sup>1</sup>, K Li<sup>1,2</sup>, and Z Tang<sup>1,2</sup>, <sup>1</sup><i>Genome Analysis Laboratory of the Ministry of Agriculture, Agricultural Genomics Institute at Shenzhen, Chinese Academy of Agricultural Sciences, Shenzhen, China</i>, <sup>2</sup><i>Institute of Animal Science, Chinese Academy of Agricultural Sciences, Beijing, China</i>.</p>
1:50 PM	85414	<p><b>Livestock methylomics: systematic evaluation of DNA methylation profiling assays for industry.</b></p> <p>Alex Caulton*<sup>1,2</sup>, Rudiger Brauning<sup>1</sup>, Ken G Dodds<sup>1</sup>, Amin Hagani<sup>3</sup>, Joseph Zoller<sup>4</sup>, Christine Couldrey<sup>5</sup>, Steve Horvath<sup>3</sup>, and Shannon M Clarke<sup>1</sup>, <sup>1</sup><i>AgResearch, Invermay Agricultural Centre, Mosgiel, New Zealand</i>, <sup>2</sup><i>University of Otago, Dunedin, New Zealand</i>, <sup>3</sup><i>Department of Human Genetics, David Geffen School of Medicine, University of California Los Angeles, Los Angeles, CA 90095, USA</i>, <sup>4</sup><i>Department of Biostatistics, Fielding School of Public Health, University of California Los Angeles, Los Angeles, California, USA</i>, <sup>5</sup><i>Livestock Improvement Corporation, Hamilton, New Zealand</i>, <sup>6</sup><i>University of Idaho, Moscow, Idaho, USA</i>.</p>
2:05 PM	85388	<p><b>Genetic and Epigenetic Regulation of Immune Response and Resistance to Infectious Diseases in Domestic Ruminants.</b></p> <p>ISKEEL ONJOKO*, <i>FARMING EXPERTS NETWORK, ABEOKUTA, OGUN, NIGERIA</i>.</p>
2:20 PM		<b>Break.</b>

2:40 PM	85447	<b>Identifications of epigenetic regulation mechanism according to the growth of pig in abdominal fat tissue through multi-omics integration analysis.</b> Do.-Young. Kim* and J.-M. Kim, <i>Functional Genomics &amp; Bioinformatics Lab, Department of Animal Science and Technology, Chung-Ang University, Anseong, Gyeonggi-do 17546, Republic of Korea.</i>
2:55 PM	85448	<b>Epigenetic marks in the promoter of <i>GNAS</i> and <i>EBF3</i> are associated with meat tenderness in <i>Bos indicus</i>.</b> M.M. de Souza <sup>1,2</sup> , S.C.M. Niciura <sup>1</sup> , M.I.P. Rocha <sup>1,3</sup> , W.J.S. Diniz <sup>1,4</sup> , J.J. Bruscadin <sup>1,3</sup> , J. Afondo <sup>1</sup> , P.S.N. de Oliveira <sup>1</sup> , G.B. Mourão <sup>5</sup> , A. Zerlotini <sup>6</sup> , L.L. Coutinho <sup>5</sup> , J.E. Koltés <sup>2</sup> , and Luciana.C.A. Regitano* <sup>1</sup> , <sup>1</sup> <i>Embrapa Pecuária Sudeste, Empresa Brasileira de Pesquisa Agropecuária, São Carlos, São Paulo, Brazil</i> , <sup>2</sup> <i>Department of Animal Science, Iowa State University, Ames, Iowa, USA</i> , <sup>3</sup> <i>Department of Genetics and Evolution, Federal University of São Carlos, São Carlos, São Paulo, Brazil</i> , <sup>4</sup> <i>Department of Animal Sciences, North Dakota State University, Fargo, North Dakota, USA</i> , <sup>5</sup> <i>Department of Animal Science, Luiz de Queiroz College of Agriculture, University of São Paulo, Piracicaba, São Paulo, Brazil</i> , <sup>6</sup> <i>Embrapa Informática Agropecuária, Empresa Brasileira de Pesquisa Agropecuária, Campinas, São Paulo, Brazil.</i>
3:10 PM	85457	<b>Characterization of the adipose tissue DNA methylation framework between male and female suckling lambs.</b> Aroa Suarez-Vega, Cristina Esteban-Blanco, Hector Marina, Rocio Pelayo, Maria Alonso-Garcia, Carlos Hervas-Rivero, Beatriz Gutierrez-Gil, and Juan-Jose Arranz*, <i>Universidad de León, León, Spain.</i>
3:25 PM	85424	<b>Maternal methionine supplementation alters alternative splicing and DNA methylation in bovine skeletal muscle.</b> Lihe Liu* and Francisco Peñaricano, <i>University of Wisconsin-Madison, Madison, WI, USA.</i>
3:40 PM		<b>Workshop business meeting.</b>

### Summary of the meeting

The workshop included nine invited speakers representing different areas of epigenetics spanning multiple species. Speakers were selected to represent different species, institutions, geographic locations, and disciplines. All presentations were recorded and uploaded ahead of time with the exception of 1 speaker (Iskeel Onjoko; abstract #85388) who was unable to attend the workshop and did not present. To fill this



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spot, presentations and Q&A sessions were allowed to run long as opposed to inserting a new presentation into that time slot. A business meeting was held at the end of the workshop. As all the previous committee members and the Chair were elected in the 2019 meeting, no new elections were required. Members were asked to bring up any other business; however, no further discussions were raised.

### **New Committee chair - None**

*Same as 2019 report.*

### **New Committee members - None**

Same as 2019 report.

**COMPARISON TEST (2020-2021)**      YES      **NO**

### **SIGNATURES**

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**Chair**