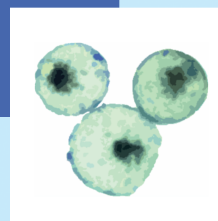


32nd Annual Conference of the **International Embryo Transfer Society**

January 7-11, 2006

**Caribe Royale Hotel and
Convention Center**

Orlando, Florida



Cover image of in-vitro produced bovine blastocysts
provided by Amber Brad, University of Florida



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Program Book



The 32nd Annual Conference of the International Embryo Transfer Society

**“Gametes to Fertilization –
Impact of New Technology on Embryo Production”**

January 7-11, 2006

**Caribe Royale Hotel & Convention Center
Orlando, Florida, USA**

**Co-Chairs of the Scientific Program:
Ina Dobrinski and Richard Fayrer-Hosken**

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2006 Preface and Acknowledgements

The 32nd Annual Conference of the International Embryo Transfer Society (IETS) is held at the Caribe Royale Resort & Convention Center, Orlando, Florida, on January 8-10, 2006. This year's program theme is "Gametes to Fertilization – Impact of New Technology on Embryo Production". The annual conference of the IETS is organized with five plenary sessions providing in depth overviews of different aspects related to the main theme together with short oral presentations selected from the submitted abstracts. Poster sessions address recent advances in animal biotechnology. In addition, there is a key note lecture on Developmental Diversity in Mammals.

We are grateful to many people for their valuable contributions of time and effort in organizing this scientific meeting. We would like to thank the main session speakers and their co-authors, authors of the abstracts included in these proceedings, participants of the student competition, section editors, reviewers of the manuscripts and abstracts, and delegates for their involvement in making this meeting a success. Special thanks go to Dr. Peter Hansen, Chair of the Local Organizing Committee, and his committee members as well as student volunteers for the tremendous efforts they have put forth in organizing the venue for the conference, the social events, and a post-conference symposium. We also wish to thank the organizers of the pet cloning symposium and Drs. Mapeltoft, Bavister and Brenner for organizing 2 pre-conference symposia. Our sincere appreciation is extended to Jennifer Gavel, the Executive Secretary of IETS, and Camilla Myers, Managing Editor of Reproduction, Fertility and Development for their help in the production of the conference booklets and proceedings. We thank you all for attending and contributing to the conference and hope that you have an exceptionally rewarding time at the 32nd Annual Conference of the IETS.

Ina Dobrinski and Richard Fayrer-Hosken
Program Co-Chairs

2005-2006 Board of Governors

Matthew B. Wheeler, President
Gabriel A. Bo, Immediate Past President
Takashi Nagai, Vice President
Janneke Van Wagtendonk, Secretary/Treasurer
David C. Faber, Governor
Richard A. Fayrer-Hosken, Governor
Cesare Galli, Governor
Pat Lonergan, Governor
Ed L. Squires, Governor

2006 Recipient of the IETS Pioneer Award

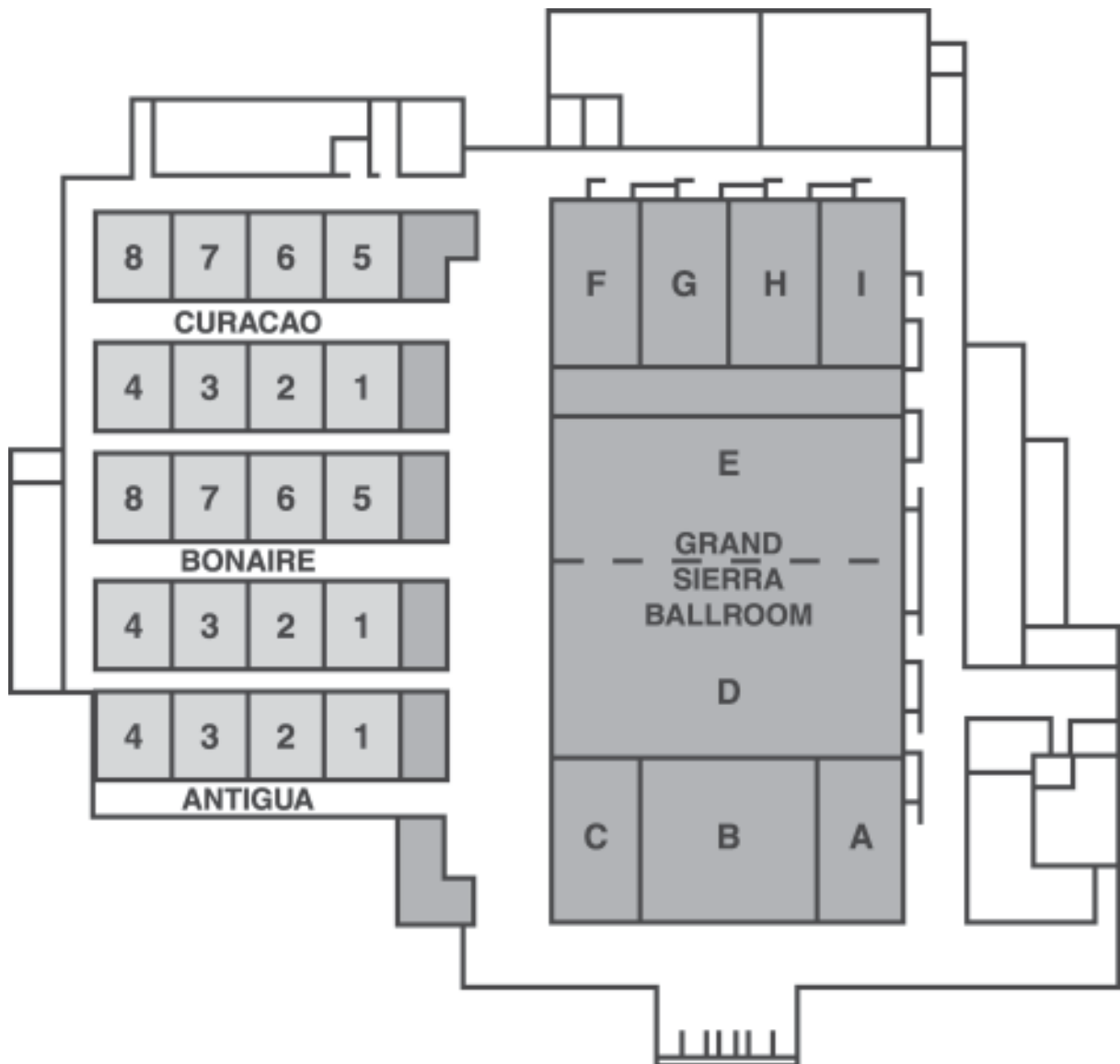
DUANE KRAEMER

Award Presentation: Monday, January 9 at 17:00

Previous Recipients:

S. Willadsen (2005)
B. Brackett (2004)
K. Betteridge (2003)
R. Foote (2002)
P.J. Dziuk (2001)
R. Yanagimachi (2000)
R.M. Moor (1999)
I. Gordon (1998)
S. Wintenberger-Torres (1997)
W.K. Whitten (1996)
C.R. Austin (1995)
N.W. Moore (1994)
R.G. Edwards (1993)
R.L. Brinster (1992)
A.K. Tarkowski (1991)
J.D. Biggers (1990)
G.C. Thibault (1989)
A.L. McLaren and D. Michie (1988)
E.J.C. Polge (1987)
T.M. Sugie (1986)
L.E.A. Rowson (1985)
L.E. Cassida (1984)
M.C. Chang (1983)
R.O. Berry (1982)

Meeting Room Layout



Calendar of Events

Thursday, January 5, 2006

8:00 – 18:00 IETS Board of Governors Meeting (Curacao 5)

Friday, January 6, 2006

8:00 – 12:30 **Pet Cloning Symposium**

8:00 – 17:00 Health And Safety Advisory Committee (HASAC) – Research Subcommittee (Curacao 8)

13:00 – 17:00 IETS Board of Governors Meeting (Curacao 5)

16:00 – 19:00 Registration with pick up of pre-registrations only (Grand Sierra Registration North)

Saturday, January 7, 2006

07:00 – 17:00 Registration (Grand Sierra Registration North)

8:00 – 17:00 AETA Board Meeting (Bonaire 6)

8:00 – 17:00 **Pre-Conference Workshop: Successful Publishing in an English Language Journal** (Bonaire 5)

8:00 – 18:00 **Pre-Conference Symposium: Challenges and Opportunities for In Vivo Embryo Production in Cattle** (Bonaire 2/3/4)

8:15 – 18:00 **Pre-Conference Symposium: Primate ART to ES Cells** (Curacao 2/3/4)

8:00 – 17:00 Health And Safety Advisory Committee (HASAC) – Food Safety Subcommittee (Curacao 6/7)

13:30 – 17:00 IETS Foundation Board of Trustees Meeting (Curacao 1)

17:00 – 19:00 Health And Safety Advisory Committee (HASAC) – Forms & Certificates Subcommittee (Curacao 5)

14:00 – 18:00 Commercial Exhibit Setup (Grand Sierra A/B/C/D/E)

14:00 – 17:00 AETA Certification Exam

17:00 – 21:00 W1171 Meeting

16:00 – 18:00 Poster Setup (Grand Sierra A/B/C/D/E)

Sunday, January 8, 2006

7:30 – 8:30 Past President's Breakfast (Curacao 1)

7:30 – 8:15 Student Competition Breakfast with Foundation Education Comm.(Curacao 5)

7:00 – 18:00 Registration (Grand Sierra Registration North)

9:00 – 17:00 Commercial Exhibits (Grand Sierra A/B/C/D/E)

8:00 – 12:00 Poster Setup (Grand Sierra A/B/C/D/E)

8:00 – 12:00 **Pre-Conference Workshop: Successful Publishing in an English Language Journal** (Bonaire 5)

8:00 – 17:00 A/V Library/Speaker Preparation (Curacao 6/7)

8:30 – 10:00 IETS Foundation Education Committee (Curacao 1)

8:00 – 11:00 Health And Safety Advisory Committee (HASAC) – Regulatory Subcommittee (Curacao 2)

10:30 – 10:45 **Opening and Welcome** (Grand Sierra F/G/H/I)

10:45 – 12:50 **Session I: New approaches to gamete preservation** (Grand Sierra F/G/H/I)

12:50 – 14:00 Lunch break

13:00 – 14:00 Theriogenology Editorial Board Meeting (Curacao 3)

14:00 – 15:30 IETS-Foundation: Student competition presentations (Grand Sierra F/G/H/I)

15:30 – 16:00 Coffee Break / Exhibition (Grand Sierra A/B/C/D/E)

16:00 – 18:05 **Session II: Manipulation of the male germ line** (Grand Sierra F/G/H/I)

19:00 – 21:00 Poster session I (Grand Sierra A/B/C/D/E)

Monday, January 9, 2006

- 8:00 – 15:00 Registration (Grand Sierra Registration North)
8:00 – 18:00 Commercial Exhibits (Grand Sierra A/B/C/D/E)
8:00 – 17:00 A/V Library/Speaker Preparation (Curacao 6/7)
8:30 – 11:00 **Session III: Sperm, eggs and fertilization** (Grand Sierra F/G/H/I)
11:00 – 11:30 Coffee Break / Exhibition (Grand Sierra A/B/C/D/E)
11:30 – 13:30 Poster session II (Grand Sierra A/B/C/D/E)
13:30 – 14:30 Lunch break
12:00 – 16:00 IETS Data Retrieval Committee Meeting (Curacao 5)
14:30 – 16:35 **Session IV: Epigenetics and placental function** (Grand Sierra F/G/H/I)
16:35 – 17:00 Coffee Break / Exhibition (Grand Sierra A/B/C/D/E)
17:00 – 17:30 IETS-Pioneer award (Grand Sierra F/G/H/I)
17:30 – 18:15 IETS Annual Business meeting (Grand Sierra F/G/H/I)
18:30 – 23:00 Dance at The Groove at Universal Orlando City Walk
19:00 – 21:00 Health And Safety Advisory Committee (HASAC) Open Meeting (Curacao 3/4)

Tuesday, January 10, 2006

- 7:00 – 9:00 Organizational Meeting of the IETS Board of Governors (Curacao 5)
9:00 – 11:00 Organizational Meeting of the IETS Foundation (Curacao 4)
11:00 – 15:00 Registration (Grand Sierra Registration North)
8:00 – 14:30 Commercial Exhibits (Grand Sierra A/B/C/D/E)
8:00 – 17:00 A/V Library/Speaker Preparation (Curacao 6/7)
8:30 – 10:35 **Session V: Advances in biotechnology and species conservation** (Grand Sierra F/G/H/I)
10:35 – 11:00 Coffee Break / Exhibition (Grand Sierra A/B/C/D/E)
11:00 – 12:30 **Practitioner Forum: The influence of sperm quality on in vivo and in vitro embryo production.** (Grand Sierra F/G/H/I)
12:30 – 13:30 Lunch break
13:30 – 14:00 IETS-Distinguished service award (Grand Sierra F/G/H/I)
14:00 – 14:45 IETS-Foundation Student Competition awards, CANDES & HASAC Updates (Grand Sierra F/G/H/I)
14:30 – 17:00 Commercial Exhibit Teardown (Grand Sierra A/B/C/D/E)
14:30 – 17:00 Poster Teardown (Grand Sierra A/B/C/D/E)
14:45 – 15:30 **Session VI: Keynote address** (Grand Sierra F/G/H/I)
15:30 – 15:45 Closing Ceremony (Grand Sierra F/G/H/I)
16:30 4th IETS Annual Running Competition

Wednesday, January 11, 2006

- 8:30 – 17:45 **Post-conference Symposium: Realizing the Promise of IVF in Cattle: Optimizing Embryonic and Fetal Survival** (Grand Sierra B)
12:00 The Center for Elephant Conservation Tour
12:30 – 16:00 Backstage Tour of Animal Kingdom Veterinary Facilities

Thursday, January 12, 2006

- 19:30 The Greatest Show on Earth - Ringling Bros. and Barnum & Baliey Circus

General Information

Meeting Room Directory

Main Conference Sessions	Grand Sierra F, G, H, I Ballroom
Exhibits	Grand Sierra A, B, C, D, E Ballroom
Poster Displays	Grand Sierra A, B, C, D, E Ballroom

Registration Desk Hours

Grand Sierra Registration North

Pick up of pre-registration packets only

Friday, January 6 16:00 - 19:00

Onsite Registration Open

Saturday, January 7 7:00 - 17:00

Sunday, January 8 7:00 - 18:00

Monday, January 9 8:00 - 16:00

Tuesday, January 10 11:00 - 15:00

Register for the IETS Annual Conference, the pre-conference Satellite Symposia and/or the post-conference Satellite Symposium at the Registration Desk. Also, sale items such as the 3rd edition of the IETS Manual, educational slide sets and videotapes will be available for purchase.

Exhibit Information

Grand Sierra A, B, C, D, E Ballroom

Set-Up: Saturday, January 7, 2006 14:00 – 18:00

Exhibits Open: Sunday, January 8, 2006 9:00 – 17:00

Monday, January 9, 2006 8:00 – 18:00

Tuesday, January 10, 2006 8:00 – 14:30

Teardown: Tuesday, January 10, 2006 14:30 – 17:00

Details on the exhibitors will be available in the Guide to Exhibits that will be included with the conference materials.

Badges

As a security requirement, we request that participants wear their Conference name badges to all sessions and social functions

Carparking

Parking is available at the Caribe Royale Resort & Convention center for those staying at the hotel and attending the conference.

Currency

The US Dollar is the legal tender in the United States.

Message Board

Any messages received for conference delegates will be posted on the message board located near the Registration Desk.

Refreshments

Morning coffee and afternoon refreshments are included in your registration fee and are provided during the scheduled breaks in the Exhibition area (Grand Sierra A, B, C, D, E Ballroom).

Meals

For those that purchased lunch tickets, your lunch may be picked up LOCATION. Tickets are not available for onsite purchase.

The Caribe Royale also offers three restaurants and a lounge onsite. For your dining pleasure, you can choose Montego's for exquisite continental cuisine, Cafe Largo Pizzeria and Deli, or Calypso's for casual food in the pool area.

Section Editors and Manuscript and Abstract Reviewers

Section Editors

Ken Bondioli, Student Competition
Barry Bavister, Artificial insemination
Irina Polejaeva, Cloning/NT
Stan Leibo , Cryopreservation
Charles Long, Developmental Biology
Peter Farin, Early Pregnancy
Rebecca Krisher, Embryo Culture
Eric Walters, Embryo Manipulation
Richard Fayrer-Hosken, Embryo Transfer
Jose Cibelli, Embryonic stem cells
Anthony Wrathall, Epidemiology/Diseases
Barbara Durrant, Exotic Species
Rabindranath De la Fuente, Folliculogenesis/Oogenesis
Jorge Piedrahita, Gene Expression
Richard Fayrer-Hosken, IVF/IVP
John Parks, Male Physiology
Allan King, Microstructural analysis
Silvia Beford-Guaus, Oocyte activation
John Dobrinsky, Oocyte maturation
Detlef Rath, Sexing
Katrin Hinrichs, Sperm injection
Gabriel Bo, Superovulation
Matt Wheeler, Tissue Culture
Carol Keefer, Transgenesis
Gregg Adams, Ultrasound

Manuscript and Abstract Reviewers

Gregg Adams	Gabriel Bo	John Dobrinsky
Gary Anderson	Maurice Boland	Tanja Dominko
Birthe Avery	Ken Bondioli	Dan Dumesic
Hernan Baldassare	Daniel Bousquet	Jens Ehmcke
Barry Ball	Gottfried Brem	Gareth Evans
Ciro Barros	Ryan Cabot	Char Farin
Claudia Baumann	Keith Campbell	Peter Farin
Barry Bavister	Elaine Carnevale	Richard Fayrer-Hosken
Fuller Bazer	Vicki Chrostowski	Meri Firpo
Sylvia Bedford-Guaus	Elizabeth Crichton	Rafael Fissore
Esmail Behboodi	Bill Day	Erik Forsberg
Kurt Bernischke	Nanke Den Daas	Joanne Fortune
Marcelo Bertolini	Richard Denniston	Hiroaki Funahashi
Dean Betts	Paul DeSousa	Cesare Galli
Zeki Beyhan	Brad Didion	David Gardner
Andrzej Bielanski	Andras Dinnyes	John Gibbons

Bob Godke
Michael Golding
Karen Goodrowe
James Graham
Jason Herrick
Yvan Heyman
Katrín Hinrichs
Yuji Hirao
Bill Holt
Lawrence Johnson
Carol Keefer
Kazuhiro Kikuchi
Alan King
Tomohiro Kono
Duane Kraemer
Rebecca Krisher
Rebecca Krisher
Manabu Kurokawa
Michael Kyba
Carlisle Landel
Michelle Lane
Ann Lindberg
Charles Long
Naida Loskutoff
Milton Macedo
Zoltan Machaty
Chris Malcuit
Reuben Mapletoft
Mike Martin
Chis Maxwell
John McLaughlin
Marco Mello
Pascal Mermillod
Jeremy Miles
Shoukhrat Mitalipov

Rick Monson
Karen Moore
Takashi Nagai
Hiroshi Nagashima
Heiner Niemann
Koji Niwa
Mark Nottle
Andre Palasz
John Parks
Ian Parsonson
Charity Penfield
Tony Perry
Jorge Piedrahita
Earle Pope
Randall Prather
Vern Pursel
Rahul Rathi
Renee Reijo Pera
Jean Paul Renard
Caird Rexroad
Don Rieger
Claude Robert
Jim Robl
Jose Luiz Rodrigues
Charles Rosenkrans
Becky Sartini
Eimei Sato
Jacob Scherzer
Stefan Schlatt
George Seidel
Jill Shaw
Jeremy Smyth
Thomas Spencer
Ed Squires

Steve Stice
Miodrag Stojkovic
David Stringfellow
Brad Stroud
Brad Stroud
Koji Sugiura
Osamu Suzuki
Jorge Sztejn
Rob Taft
Evelyn Telfer
Bill Thatcher
Jeremy Thompson
Cindy Tian
Alex Travis
Gabor Vajta
Ann Van Soom
Dickson Varner
Paul Verma
Maria Viveiros
Teruhiko Wakayama
Shawn Walker
Robert Wall
Eric Walters
Andrew Watson
David Wells
Kevin Wells
Mark Westhusin
Matt Wheeler
Ken White
Quinton Winger
Christine Wrenzczycki
Tim Xiang
Jerry Yang
Kurt Zuelke

Main Scientific Program

Gametes to Fertilization – Impact of New Technology on Embryo Production

Sunday, January 8

10:30 Opening Comments and Welcome to the 32nd Annual Conference of the IETS.

Session I: New approaches to gamete preservation

Session Chair: Matt Wheeler, University of Illinois, USA

Session Co-Chair: Hannah Galatino-Homer, University of Pennsylvania, USA

- 10:45 Freeze-Drying of Sperm, Applications in Primates and Domestic Animals.
Stuart A. Meyers, DVM, PhD, Dip. ACT, University of California, Davis.
- 11:25 Preservation of Gonadal Tissue
Stefan Schlatt, PhD, School of Medicine, University of Pittsburgh, PA.
- 12:05 Porcine Blastocysts Derived From *In Vitro*-Matured Oocytes Injected Intracytoplasmically With Sperm From Testicular Tissue Xenografted Into Nude Mice.
K. Kikuchi*, M. Nakai, N. Kashiwazaki, M. Ozawa, N. Maedomari, J. Noguchi, K. Ohnuma, and H. Kaneko. (Abstract #280)
- 12:20 Blastocyst Development From Domestic Cat Oocytes Injected With Dehydrated Spermatozoa.
A. Moisan*, S. Leibo, J. Lynn, M. Gómez, C. Pope, K. Bondioli, B. Dresser, and R. Godke. (Abstract #356)
- 12:35 Vitrification Of Porcine Oocytes - A New Approach To Gamete Cryopreservation.
M. K. Gupta*, H. Y. Lee, S. J. Uhm, and H. T. Lee. (Abstract #96)
- 12:50 – 14:00 Lunch Break

IETS Foundation Student Competition

Session Chair: Ken Bondioli, Louisiana State University, USA

- 14:00 Aberrant DNA Methylation In Porcine *In Vitro*-, Parthenogenetic-, And Nuclear Transfer-Produced Blastocysts.
A. Bonk*, M. Samuel, L. Lai, Y. Hao, R. Li, Z. Liu, C. Murphy, E. Antoniou, and R. Prather. (Abstract #1)
- 14:15 Identification Of Genes Induced By The Conceptus In The Bovine Endometrium During The Pre-Implantation Period.
C. Klein*, S. Bauersachs, B. S. Ulbrich, H. Meyer, S. Schmidt, H. Reichenbach, M. Vermehren, H. Blum, F. Sinowatz, and E. Wolf. (Abstract #2)
- 14:30 Nuclear Reprogramming Of Porcine Fibroblast Cells By *Xenopus* Egg Extracts.
K. Miyamoto*, Y. Nagao, N. Minami, M. Yamada, K. Ohsumi, and H. Imai. (Abstract #3)
- 14:45 Gene Expression In Cultures Of Inner Cell Masses Isolated From *In Vitro*-Produced And *In Vivo*-Derived Bovine Blastocysts.
D. Pant* and C. Keefer. (Abstract #4)
- 15:00 Assessment Of HSP70.1 Transcription Levels In Bovine Embryos After Cumulus Removal By Different Techniques.
A. Reeder*, V. Schutzkus, J. Wiebelhaus-Finger, H. Khatib, R. L. Monson, M. B. Wheeler, D. Beebe, and J. Rutledge. (Abstract #5)

15:15 Expression Profiling Of Single Bovine Embryos Reveals Significant Effects Of In Vitro Maturation, Fertilization And Culture.
S. L. Smith*, L.-Y. Sung, R. Page, B. Henderson, F. Du, R. E. Everts, T. Nedambale, S. Rodriguez-Zas, J.-P. Renard, H. A. Lewin, X. Yang, and X. C. Tian. (Abstract #6)

15:30 – 16:00 Coffee Break / Exhibition

Session II: Manipulation of the male germ line

Session Chair: Esmail Behboodi, PharmAthene, Canada

Session Co-Chair: Rahul Rathi, University of Pennsylvania, USA

16:00 Male Germ Cell Transplantation in Livestock
Jon Hill, DVM, PhD, Dip. ACT, CSIRO Livestock Industries F.D. McMaster Laboratory, Australia.

16:40 Sperm-Mediated Gene Transfer
Marialuisa Lavitrano, PhD, University of Milano-Bicocca, Monza, Milano, Italy.

17:20 Comparative Time-Lapse Studies On Porcine Embryos Fertilized In Vitro With Flow Cytometrically Sex Sorted Spermatozoa.
D. Rath* and S. Schulze, Institute for Animal Breeding, Mariensee, Neustadt, Germany, LS. (Abstract #350)

17:35 Microinsemination Using Male Germ Cells From Epididymides And Testes Stored In Freezers Without Cryoprotectant.
N. Ogonuki*, K. Mochida, A. Shinmen, M. Ohkawa, H. Miki, K. Inoue, M. Fray, K. Moriwaki, Y. Obata, and A. Ogura. (Abstract #358)

17:50 *In Vitro* Culture Of Cd9-Expressing Cells Enriched By Magnetic Cell Sorting From Testes Of Cryptorchid Adult And Pup In Mice.
T. Mitani*, Y. Tanaka, Y. Ozaki, K. Saeki, K. Kato, K. Matsumoto, Y. Hosoi, and A. Iritani. (Abstract #138)

19:00 – 21:00 Poster session I (Student competition finalists and authors of odd numbered abstracts)

Monday, January 9

Session III: Sperm, eggs and fertilization

Session Chair: Rebecca Krisher, Purdue University, USA

Session Co-Chair: Jakob Scherzer, University of Georgia, USA

8:30 Moving to the Beat: A Review of Mammalian Sperm Motility Regulation
Regina Turner, VMD, PhD, Dip. ACT, University of Pennsylvania, Kennett Square.

9:10 ICSI, Calcium Release, Egg Activation – Applications in new Reproductive Technologies
Rafael Fissore, DVM, PhD, University of Massachusetts, Amherst.

9:50 Regulation of Sperm-Egg Interactions During Fertilization
Janice Evans, PhD, Johns Hopkins University School Public Health, Baltimore, MD.

10:30 Detection Of Caspase-3 And -7 In Normal And Slow Developing Bovine In Vitro Embryos.
L. Vandaele*, B. Mateusen, D. Maes, and A. Van Soom. (Abstract #180)

10:45 Poor Embryo Development After Icsi With Domestic Cat Testicular Sperm Is Overcome By Centrosome And Midpiece Replacement.
P. Comizzoli*, D. Wildt, and B. Pukazhenth. (Abstract #354)

- 11:00 – 11:30 Coffee Break / Exhibition
- 11:30 – 13:30 Poster session II (Authors of even numbered abstracts)
- 13:30 – 14:30 Lunch Break

Session IV: Epigenetics and placental function

Session Chair: John McLaughlin, University of Pennsylvania, USA

Session Co-Chair: Carol Keefer, University of Maryland, USA

- 14:30 Gamete Imprinting: Setting Epigenetic Patterns for the Next Generation
Jacquetta Trasler, MD, PhD, McGill University, Montreal, Quebec, Canada.
- 15:10 Placental Function in Development and Disease
James (Jay) Cross, DVM, PhD, University of Calgary Faculty of Medicine, Canada.
- 15:50 Demethylation Of Mammalian Somatic Dna By Xenopus Egg And Oocyte Extracts.
Y. Bian*, R. Alberio, A. Johnson, and K. Campbell. (Abstract #121)
- 16:05 Gene Expression Comparisons Between Bovine In Vivo And Cloned Embryos Produced By Three Different Methods.
N. Ruddock*, K. Wilson, M. Cooney, R. Tecirlioglu, V. Hall, A. French, and M. Holland. (Abstract #68)
- 16:20 Use Of Porcine Parthenotes And Gene Expression Profiling Using Microarrays For Identification Of Imprinted Genes.
J. Piedrahita*, S. Bischoff, J. Estrada, B. Freking, D. Nonneman, A. Martin, B. Mir, G. Rohrer, and S. Tsai. (Abstract #263)
- 16:35 – 17:00 Coffee Break/Exhibition
- 17:00 – 17:30 IETS-Pioneer Award Presentation
- 17:30 – 18:15 IETS Annual Business meeting
- 18:30 – 23:00 Dance at The Groove at Universal Orlando City Walk
- 19:00 – 21:00 Health And Safety Advisory Committee (HASAC) Open Meeting

Tuesday, January 10

Session V: Advances in biotechnology and species conservation

Session Chair: Richard Fayrer-Hosken, University of Georgia, USA

Session Co-Chair: Mats Troedsson, University of Florida, USA

- 8:30 Emerging Technologies for Species Conservation
Budhan S. Pukazhenth, DVM, PhD, Smithsonian's National Zoological Park, Washington, DC.
- 9:10 Equine Cloning: Applications and Outcomes
Dirk K. Vanderwall, DVM, PhD, Dipl. ACT, University of Idaho, Moscow .
- 9:50 Birth Of A Foal Cloned By Adult Somatic Cell Nuclear Transfer With Roscovitine-Treated Donor Cells.
Y. H. Choi*, Y. G. Chung, D. D. Varner, and K. Hinrichs. (Abstract #29)

- 10:05 Use Of Virus Isolation And Quantitative Polymerase Chain-Reaction Techniques To Detect Bovine Viral Diarrhea Virus (BVDV) In Single Or Small Groups Of Pre-Implantation Bovine Embryos.
J. Waldrop*, M. Givens, K. Riddell, P. Galik, and D. Stringfellow. (Abstract #214)
- 10:20 Production Of In Vitro- And In Vivo-Derived Cat Blastocysts For The Establishment Of Feline Embryonic Stem Cells.
J. Kehler*, M. Roelke-Parker, B. Pukazhenthil, W. Swanson, C. Ware, I. Dobrinski, and S. O'Brien. (Abstract #197)
- 10:35 – 11:00 Coffee Break / Exhibition
- 11:00 – 12:30 **Practitioner Forum: The influence of sperm quality on *in vivo* and *in vitro* embryo production**
Moderators: Gabriel Bo, Argentina and Reuben Mapletoft, Canada
Panel Speakers:
 Jacob Thundathil, Canada
 Heriberto Rodriguez Martinez, Sweden
 Brad Stroud, USA
- 12:30 – 13:30 Lunch Break
- 13:30 – 14:00 IETS-Distinguished Service Award Presentation
- 14:00 – 14:45 IETS-Foundation Student Competition awards, CANDES & HASAC Updates
- Session VI: Keynote address**
Session Chair: Ina Dobrinski, University of Pennsylvania, USA
- 14:45 Mammalian Diversity: Gametes, Embryos and Reproduction
Richard Behringer, PhD, MD Anderson Cancer Center, Houston, TX.
- 15:30 Closing Remarks and invitation to 2007 Annual Conference
- 16:30 4th IETS Annual Running Competition

Poster Sessions

Grand Sierra A, B, C, D & E Ballroom

Posters are identified by the number corresponding to their abstract number in Reproduction, Fertility and Development 2006; 18(1,2). Numbering begins at 1 and ends at 382.

Setup:

Saturday, January 7, 2006 from 16:00 to 18:00

Sunday, January 8, 2006 from 8:00 to 12:00

Poster Session I:

Presentation by authors of 'odd' numbered abstracts in Reproduction, Fertility and Development 2006; 18(1,2) and the Student Competition finalist poster presentations

Presentation:

Sunday, January 8, 2006 from 19:00 to 21:00

Poster Session II:

Presentation by authors of 'even' numbered abstracts in Reproduction, Fertility and Development 2006; 18(1,2)

Presentation:

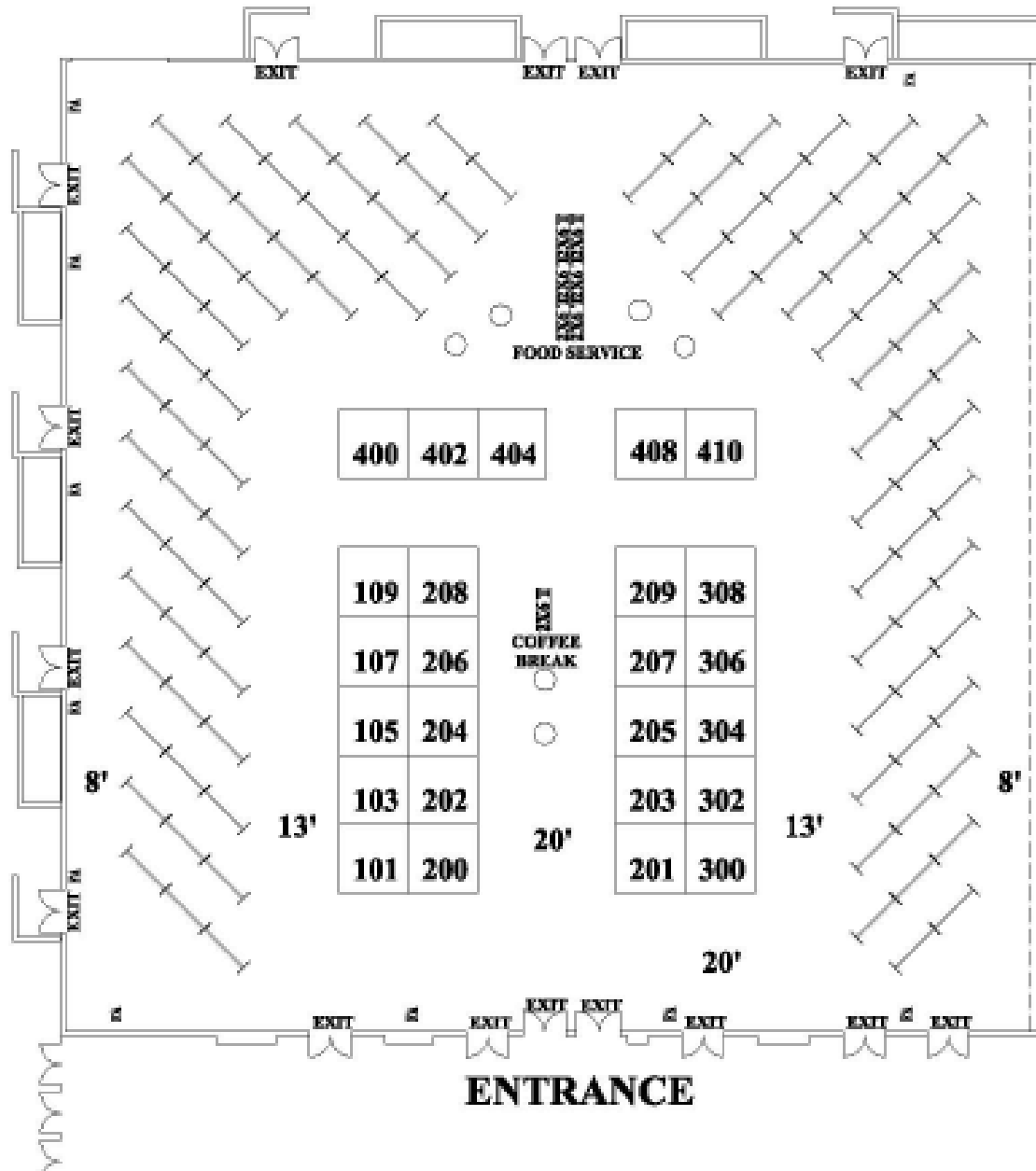
Monday, January 9, 2006 from 11:30 to 13:30

Teardown:

Tuesday, January 10, 2006 from 14:30 to 17:00

Authors of posters that are not put up during their designated time will be reported to the IETS President for possible disciplinary action. The posters must remain up for the duration of the meeting. Posters not removed by the designated time will be removed by the IETS Staff and may be destroyed.

Poster and Exhibit Room Layout



Grand Sierra A, B, C, D, E Ballroom

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- 2 IDENTIFICATION OF GENES INDUCED BY THE CONCEPTUS IN THE BOVINE ENDOMETRIUM DURING THE PRE-IMPLANTATION PERIOD.
C. Klein, S. Bauersachs, S. Ulbrich, H. Meyer, S. Schmidt, H. Reichenbach, M. Vermehren, H. Blum, F. Sinowatz, and E. Wolf.
- 3 NUCLEAR REPROGRAMMING OF PORCINE FIBROBLAST CELLS BY *XENOPUS* EGG EXTRACTS.
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- 4 GENE EXPRESSION IN CULTURES OF INNER CELL MASSES ISOLATED FROM *IN VITRO*-PRODUCED AND *IN VIVO*-DERIVED BOVINE BLASTOCYSTS.
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- 5 ASSESSMENT OF HSP70.1 TRANSCRIPTION LEVELS IN BOVINE EMBRYOS AFTER CUMULUS REMOVAL BY DIFFERENT TECHNIQUES.
A. Reeder, V. Schutzkus, J. Wiebelhaus-Finger, H. Khatib, R. L. Monson, M. B. Wheeler, D. Beebe, and J. Rutledge.
- 6 EXPRESSION PROFILING OF SINGLE BOVINE EMBRYOS REVEALS SIGNIFICANT EFFECTS OF *IN VITRO* MATURATION, FERTILIZATION AND CULTURE.
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- 8 EFFECT OF DURATION OF TREATMENT WITH PROGESTERONE VAGINAL DEVICES ON PREGNANCY RATES IN CROSS-BRED ZEBU CATTLE ARTIFICIALLY INSEMINATED AT A FIXED TIME.
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Victor M. Shille

Award Presentation: Tuesday, January 10 at 13:30

Victor Michael Shille was born on February 8, 1933, in Belgrade, Yugoslavia. In 1950, Victor and his parents applied for immigration to the US and were accepted in April 1950. Arriving in New York on the 1st of May 1950 they eventually settled in Los Angeles, CA where Victor attended LA High School graduating in 1951. He applied and was accepted into the pre-veterinary program at University of California at Davis (UCD). Two years later he was accepted into the UCD School of Veterinary Medicine. He graduated in 1958 and joined the small animal practice of Dr. Neil Halpin in Santa Ana, CA. One year later, Dr. Halpin suffered a heart attack leaving the young graduate to fend for himself. It was a tough time, but Victor persevered and managed to find time to meet and successfully court a tall willowy maiden who became his bride. Becoming bored with spays and anal glands, he applied to the UCD graduate school and was awarded a NIH fellowship to study reproductive pathology, physiology and endocrinology of the domestic cat. By this time he was married and had three boys. His studies were interrupted by an assignment to an USDA team to negotiate with the Soviet Department of Agriculture a cooperative US/USSR study of Foot and Mouth disease. After completing his PhD research, he spent one year of post-doctoral studies at the Agricultural University in Uppsala Sweden where he worked on effects of prostaglandin in pigs. Upon return to the US in 1978 he interviewed at the University of Florida for the position of reproductive clinician for dogs and cats. He was appointed to the College of Veterinary Medicine. As associate professor in 1980, John Kendrick, the editor of *Theriogenology*, an international journal of animal reproduction, died, leaving Victor as editor. Victor saw the potential of the journal and instituted several rules designed to encourage submission of manuscripts without sacrificing quality. "We do not reject manuscripts for language problems rather we assist authors as long as it takes to produce a legible paper." "We do not allow sarcastic reviews." His efforts were rewarded. Today the journal thrives beautifully. Meanwhile Victor was progressing and branching out in his assigned duties. Starting with dogs and cats he soon advanced to wolves and tigers through the encouragement of Professor Elliott Jacobsen. Upon retirement from clinical and research duties in 1996, Victor devoted 100% of his time to the journal. He finally completely retired in 2000, but still reviews an occasional troublesome manuscript. He received the Norden Distinguished Teacher award, the Bartlet Award, and the Distinguished Service Award from the College of Veterinary Medicine. His guiding words are: The light of love to live by, The wine of friendship for sharing, The bread of peace to nourish heart and soul, For these I give thanks each day.

Special Events

Fourth Annual IETS Race

All participants of the IETS 2006 are cordially invited to participate in the IETS foot race, to be held on January 10, 2006 at 4:30 PM. We will gather outside the main entrance of the Caribe Royale Hotel. A map of the route is included with this message.

This is the 4th race held in conjunction with IETS – previous occasions were at the meetings at Auckland, Portland, and Copenhagen. According to our knowledge, the IETS is the only international scientific society with a foot race included into the official program of the annual meeting. We are very proud of this special achievement and want to continue the noble tradition.

After the icy roads of Portland and the dark park of Copenhagen (where one registered participant was lost and we still do not know about his fate...) we may have a much more inviting race course in Orlando around the hotel. The distance will be slightly shorter than usual, consisting of two rounds of 1.9 km, so please adjust your training plans accordingly.

Due to the increasing number of lady participants, we will provide separate gold, silver and bronze medals for women. The medals are provided through the generosity of Minitube of America. We certainly suppose that the previous Danish domination among men (Poul Maddox-Hyttel and twice Peter M. Kragh as winners) will be challenged this year by the Americans who will enjoy the benefits of the domestic atmosphere. We also hope that the (so far steady) increase of number of participant will increase and this year we will approach or maybe surpass the 50, surrounded by enthusiastic spectators as has happened always before.

We look forward to see you behind (or at least around) the startline in Orlando!"

Gabor Vajta
IETS Race Coordinator

Jogging Route



1 Lap = 1.2 Miles

Special Events, cont.



Dance at The Groove Universal Orlando City Walk

Sponsored by Monsanto Corp

Monday, January 9, 2006

18:30 – 23:00



Come party in the hottest dance club with the latest in sound systems and special effects, plus three themed VIP lounges. Dance to the best in 70's, 80's, dance hits and Alternative Rock. Each night is a different experience!

The main social event for the meeting will be a dance on the evening of January 9 at Universal Studios City Walk. The dance itself will be held in the Groove, a hip dance club with the latest sound systems and special effects, plus three themed VIP lounges. There will also be time to explore City Walk, which is an exciting nighttime destination in Orlando with many interesting shops, restaurants, and entertainment venues. See <http://themeparks.universalstudios.com/orlando/citywalk/index.html> for an overview of City Walk.

Buses between the Caribe Royale Hotel and Universal City Walk will run continuously between 6:30 PM and 12:30 AM. The IETS has exclusive use of the Groove from 9:00 PM - 11:00 PM with a cash bar and with buffet stations available. Party passes to all the venues in Universal City Walk will also be provided. Dinner at the Universal City Walk is on your own. Tickets are \$50.

***The Local Organizing Committee Will Be Waiting for You At
The Groove!***

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**Disney's
ANIMAL PROGRAMS**



**Backstage Tour of Animal
Kingdom Veterinary Facilities
Wednesday, January 11, 2006
1:30-3:30 PM**

Disney's Animal Kingdom has generously agreed to host a visit by IETS conference attendees to the veterinary hospital supporting Disney's Animal Programs. Visitors will be given a tour of the Veterinary hospital, Animal Nutrition Center and the Wildlife Tracking Center and meet with Veterinarians for a description of Disney's animal care procedures and wildlife research activities.

Attendees will leave by bus from the hotel main entrance at 12:30 PM and return to the hotel by bus at 4:00 PM. Note that the tour does not include admission to the park. Per Disney rules, no one under 16 years of age is allowed on the tour.

Attendance is limited to 100 persons with priority given to those who register first. Tickets, the proceeds of which are used for transportation, can be purchased for \$20.00 as part of the registration process for the meeting.

Preconference Satellite Symposium

CHALLENGES AND OPPORTUNITIES FOR IN VIVO EMBRYO PRODUCTION IN CATTLE

Caribe Royale Hotel, Orlando, Florida

Saturday, January 7, 2006

Bonaire 2/3/4

Sponsored by Bioniche Animal Health

Scientific Program

- | | |
|----------|---|
| 8:00 AM | Opening remarks – Martin Warmelink, Bioniche Animal Health |
| 8:15 AM | Introductory comments - Dr. George Seidel, Moderator, Colorado State University |
| 8:30 AM | The Holstein cow in embryo transfer today as compared to 20 years ago
Dr. John Hasler, Bioniche Animal Health USA, Inc. |
| 9:15 AM | Changes in reproductive physiology of lactating dairy cows due to elevated steroid metabolism
Dr. Milo Wiltbank, University of Wisconsin, Madison |
| 10:00 AM | Coffee break |
| 10:30 AM | Strategies for improving fertility in the modern dairy cow
Dr. Bill Thatcher, University of Florida, Gainesville |
| 11:15 AM | Manipulation and control of the estrous cycle in pasture-based dairy cows
Dr. John Cavaleri, Australia |
| 12:00 PM | Lunch |
| 1:30 PM | Dissecting why superovulation and embryo transfer usually work on some farms and not others
Dr. Brad Stroud, Stroud Veterinary Embryo Service, Weatherford, TX |
| 2:15 PM | Coffee Break |
| 2:45 PM | The timing of ovulation, and insemination schedules in superstimulated cattle
Dr. Gabriel Bo, IRAC, Cordoba, Argentina |
| 3:30 PM | Superovulation and embryo transfer in Bos indicus cattle
Dr. Pietro Baruselli, University of Sao Paulo, Brazil |
| 4:15 PM | Effects of hormonal stimulation on bovine follicular response and oocyte developmental competence in a commercial operation
Dr. Jean Durocher, Boviteq, Quebec |
| 5:00 PM | General discussion |
| 6:00 PM | Cocktail and snacks |

Included in the registration fee is an issue of Theriogenology with the published proceedings of both this pre-conference and the post-conference symposium. Also included in registration are a coffee break mid morning and a coffee break in the afternoon.

Preconference Satellite Symposium
Primate ART to ES Cells
Caribe Royale Hotel, Orlando, Florida
Saturday, January 7, 2006
Curacao 2/3/4

Program

8:30am	Opening Remarks and Welcome Don Wolf, Oregon National Primate Research Center, Beaverton, OR
8:45 - 09:30am	The PREGER resource for analysis of primate stem cells Keith Latham, Temple University, Philadelphia, PA
9:30 – 10:15am	Genomic imprinting in non-human primate ES cells Shoukhrat Mitalipov, OHSU/ONPRC, Beaverton, OR
10:15 – 10:35am	Break
10:35 – 11:20am	Microarray analysis of gene expression in monkey ES cells Robert Norgren, University of Nebraska, Omaha
11:20 – 12:05pm	Parthenogenetic stem cells for treatment of neurological diseases Jose Cibelli, Advanced Cell Technology, Worcester, MA
12:05 – 12:20pm	General discussion
12:20 – 1:30pm	Lunch
1:30 – 2:15pm	Toward feeder cell and serum free ES cell culture Outi Hovatta, Karolinska Institute, Stockholm, Sweden
2:15 – 3:00pm	The mitochondrial contribution to stem cell biology Barry Bavister, University of New Orleans, LA
3:00 – 3:20pm	Break
3:20 – 4:05pm	Opportunities and challenges in human embryonic stem cell research Steve Stice, University of Georgia, Athens
4:05 – 4:50pm	Prospects for nuclear transfer production of stem cells for replacement therapies Keith Campbell, University of Nottingham, Loughborough, United Kingdom
4:50 – 5:30pm	Summary and General Discussion Don Wolf

Included in the registration fee are a coffee break mid morning, lunch and a coffee break in the afternoon.

Preconference Writer's Workshop

Workshop for Authors Publishing Scientific Papers in English

Caribe Royale Hotel, Orlando, Florida
Saturday, January 7 and Sunday, January 8
Bonaire 5

Presented by
John P. Kastelic, DVM, PhD, Co-Editor-in-Chief, Theriogenology
Rose M. Kastelic, BA (French), MA

Many manuscripts are delayed or rejected due to poor experimental design, analysis and presentation of data, and writing. This workshop is an overview of how to plan and conduct research, analyze and present your data, write a paper, and interact with editors and reviewers. In addition to presentations of principles and common errors, there will be exercises and interactive discussions.

This workshop is primarily designed for those for whom English is a second language. Therefore, English syntax, grammar and punctuation will be reviewed. However, this workshop will also be valuable for those for whom English is their native language, especially students and young scientists.

This is a Pre-Conference workshop (in association with the 2006 IETS conference). The workshop will be held in the Caribe Royale (IETS conference hotel) in Orlando Florida on Saturday, 7 January (8:00 to 17:00) and Sunday, 8 January (8:00 to 12:00).

Class size is limited to the first 20 participants. Registration fees are payable to IETS via the registration form. The On-Site registration fee is US\$150 for IETS members and US\$250 for non-members (if space is available). Student registration is US\$75, pre-paid or at the door. The registration fee does not include meals.



Post Conference Satellite Symposium

Realizing the Promise of IVF in Cattle: Optimizing Embryonic and Fetal Survival

January 11, 2006

Caribe Royale Hotel, Orlando, Florida
Grand Sierra B

AGENDA

8:30 - 8:45 AM P.J. Hansen, University of Florida.
Welcome and overview of the situation.

Transferring a Better Embryo

Masashi Takahashi, National Agric. Research
Center for Kyushu Okinawa Region, Chair

8:45 - 9:15 AM Mark André Sirard, Laval Univ.
Contribution of the oocyte to embryo quality.

9:15 - 9:45 AM Patrick E. Lonergan, University
College Dublin. Effect of culture environment on
gene expression and developmental characteristics in
IVF-derived embryos.

9:45-10:15 AM P. Maddox-Hytell, Royal Vet. Agric
Univ. Copenhagen. Post-hatching development of the
porcine and bovine Embryo – defining criteria for
expected development *in vivo* and *in vitro*.

10:15 - 10:45 AM BREAK

Errors in Embryonic and Fetal Development Contributing to Pregnancy Loss

Alan D. Ealy, University of Florida, Chair

10:45 - 11:15 AM W.A. King, Univ. of Guelph.
Impact of chromosomal alterations on embryo
development.

11:15 - 11:45 AM Peter Farin, North Carolina State
University. Errors in fetal development.

Managing the Recipient to Increase Pregnancy Rate Following Transfer

Gabriel Bó, Instituto de Reproducción Animal
Córdoba, Chair

1:15 - 1:45 PM J. Vasconcelos, Univ. Estadual de
Sao Paulo, Botucatu. Factors potentially affecting
fertility of recipient dairy cows.

1:45 PM - 2:15 PM Charles Looney, Ovagenix.
Improving fertility of recipient beef cows.

2:15- 2:30 PM BREAK

The Importance of the Spermatozoan

Amir Niasari-Naslaji, University of Tehran, Chair

2:30 - 3:00 PM C.M. Barros. Univ. Estadual de Sao
Paulo, Botucatu. Importance of sperm genotype
(*indicus* vs *taurus*) for fertility and embryonic devel-
opment at elevated temperatures.

3:00 - 3:30 PM Matthew B. Wheeler, University of
Illinois. Application of sexed semen technology to *in vitro*
embryo production in cattle.

3:45 - 4:00 PM BREAK

Cryopreservation

Andras Dinnyes, Hungarian Acad. of Sciences,
Chair

4:00 - 4:30 PM George Seidel, Colorado State Univ.
Modifying oocytes and embryos destined for cryo-
preservation.

4:30 - 5:00 PM Gabor Vajta, Danish Inst. Agric. Sci.
Improving cryopreservation systems.

Panel - Where Do We Go From Here

5:00 - 5:45 PM - Don Bennink, North Florida Holst-
eins; Luis Ferre, Transova Genetics, Ricardo Mattos,
Monsanto Corp.

Sponsor



Included in the registration fee is an issue of
Theriogenology with the published proceedings of both
this post-conference and the pre-conference symposium.

Post Conference Tour/Ticket Opportunities



Tour of The Center for Elephant Conservation

10:00 AM, Wednesday, January 11, 2006

Ringling Bros. And Barnum & Bailey has graciously agreed to host a tour of its Center for Elephant Conservation for a limited number of IETS attendees (see <http://www.ringling.com/cec/>).

To help preserve the Indian Elephant for future generations, Ringling Bros. and Barnum & Bailey® established in 1995 the 200-acre Center for Elephant Conservation (CEC) in central Florida. The \$5-million state-of-the-art breeding and retirement facility is dedicated to the conservation, breeding, and study of the Asian elephant. As a global focal point for the worldwide study of the Asian elephant, the CEC is committed to share its knowledge with the rest of the scientific community.

Attendees will leave by van or car from the hotel main entrance at 10:00 AM and return to the hotel in the afternoon.

Attendance is limited to 20 persons. Priority will be given to those with interests in zoo animal reproduction. To make arrangements to attend, please contact Pete Hansen at Hansen@animal.ufl.edu.



See The Greatest Show on Earth®!

7:30 PM, Thursday, January 12, 2006

Ringling Bros. and Barnum & Bailey® has graciously agreed to provide up to 50 free tickets for IETS attendees to opening night of 136th Edition of the Ringling Bros. Circus at the Orlando Centroplex.

Packed full of surprises, this all-new Ringling Bros. breaks circus tradition with high-speed action, cutting-edge technology, and an interactive adventure that is sure to keep you talking for generations.

See <http://www.ringling.com/schedule/schedule.aspx?id=94515> for more details.

The number of tickets available is 50. Attendees will be responsible for their own transportation. To order tickets, please contact Pete Hansen at Hansen@animal.ufl.edu.



SAVE THE DATES

IETS 2007

JANUARY 6-10, 2007

KYOTO, JAPAN



Notes