

## **CFAS 2019 65th Annual Meeting – Agenda**

*Total number credit hours: 13.5*

*Overall Learning Objectives:*

- 1) Employ multidisciplinary team integration to achieve best results in providing ART care*
- 2) Integrate collaboration with scientists within the clinic to enhance scientific research in a clinical ART setting*
- 3) Compare new cutting-edge advances and ways to enhance quality of care in the multiple disciplines of ART*
- 4) Develop ways to increase access to ART for people in remote areas of Canada*

**Thursday September 19<sup>th</sup>, 2019**

### **Opening Ceremony - Symposium I**

**1:30pm to 4:45pm – with 20 min break in between**

**Keynote Address: Reproductive Medicine for Endangered Species**

**Thomas Hildebrandt**

Thursday September 19<sup>th</sup>, 2019

Time: 1:30pm to 2:30pm

**Learning Objectives:**

1. Distinguish the vast diversity of different reproduction strategies in the animal kingdom created by evolution
2. Recognize evolution as an impressive library which provides surprising traits such as cancer resistance if we can read its books
3. Indicate the necessity of behaviour changes to address how irresponsible humankind is regarding the planetary resources which leads to an accelerated global extinction process the: Six Mass Extinction

**Global Access to Infertility Treatment: Building Reproductive Networks – Experience from Africa**

**Silke Dyer**

Thursday September 19<sup>th</sup>, 2019

Time: 2:30pm to 3:05pm

**Learning Objectives:**

1. Assess the consequences of lack of access to infertility care

2. Summarize the diverse components of access to health care
3. Appraise and debate opportunities for reproductive networks to influence infertility-related health care locally, nationally and regionally

### ***Break***

#### **Lecture on Interdisciplinary Team Optimization, Communication, Personalized Care, Customer Service, and Administration**

**Robert Kiltz**

Thursday September 19<sup>th</sup>, 2019

Time: 3:35pm to 4:10pm

##### **Learning Objectives:**

Understand the most important behavioral and lifestyle changes that can be made to improve male and female fertility.

#### **Integrating Researchers into a Busy Fertility Center to Produce Impactful Research**

**Richard Scott**

Thursday September 19<sup>th</sup>, 2019

Time: 4:10 to 4:45pm

##### **Learning Objectives:**

The participant will be able to describe straightforward ways to build a productive research program.

The participant will be able to describe the best ways to build relationships to allow collaborative research.

The participant will be able to describe some of the challenges to maintaining an effective research program.

**Friday September 20<sup>th</sup>, 2019**

## **Symposium II**

**8:00am to 10:30am**

**Van Campenhout Lecture: The Personal Genome Project Canada: Discovery of Disease Susceptibility**

**Genes**

**Stephen Scherer**

Friday September 20<sup>th</sup>, 2019

Time: 8:00am to 8:45am

**Learning Objectives:**

**Genome editing in mammalian embryos and beyond: Current state of the art and future potential**

**Ben Davies**

Friday September 20<sup>th</sup>, 2019

Time: 8:45am to 9:20am

**Learning Objectives:**

1. Describe how CRISPR/Cas9 genome engineering tools works
2. Review the application of genome engineering tools within the early embryo
3. Summarize the problems associated with CRISPR/Cas9 genome engineering tools and thus the risks associated with their use

**New Insights on Clinical Aspects of PGT-A**

**Richard Scott**

Friday September 20<sup>th</sup>, 2019

Time: 9:20am to 9:55am

**Learning Objectives:**

The participant will be able to describe contemporary protocols for clinical application of PGT-A.

The participant will be able to describe the cost effectiveness of applying clinical PGT-A.

The participant will be able to discuss the limits of PGT-a results.

**Imaging the Causes of Aneuploidy at the Beginning of Life**

**Greg Fitzharris**

Friday September 20<sup>th</sup>, 2019

Time: 9:55am to 10:30am

**Learning Objectives:**

1. Evaluate the utility of live fluorescence video-microscopy in understanding the aetiology of chromosomal defects in early embryos
2. Assess how the failure of cell cycle checkpoints gives rise to aneuploid cells in the early mammalian embryo
3. Illustrate that chromosome segregation errors may relate to morphological aspects of early embryo development such as micronucleation and binucleation

**Concurrent Sessions**

**1:30pm to 3:30pm**

**Concurrent Session A: Andrology**

**Robotic selection of a single sperm with high DNA integrity for ICSI**

**Yu Sun**

Friday September 20<sup>th</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Validate non-invasive, comprehensive measurement of single sperm's motility and morphology parameters
2. Contrast qualitative and quantitative selection of single sperm for ICSI
3. Employ data-driven selection of a single sperm with high DNA integrity

**Effects of (Endo)cannabinoids on Male Reproduction**

**Mauro Maccarrone**

Friday September 20<sup>th</sup>, 2019

Time: 2:10 to 2:50pm

**Learning Objectives:**

1. Differentiate between phytocannabinoids and endocannabinoids
2. Analyze the complexity of the endocannabinoid system
3. Recognize endocannabinoid signaling as a biomarker and therapeutic target for male human reproductive disfunctions

**Male infertility as a window to health**

**Michael Eisenberg**

Friday September 20<sup>th</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives:**

1. Describe associations between a man's overall and reproductive health
2. Interpret the relationship between male fertility and incident comorbidities include cancer and cardiovascular disease
3. Associate between male fertility and premature mortality

**Concurrent Session B: Clinical**

**Is it Possible to Personalize Luteal Phase Support in ART?**

**Homan Fatemi**

Friday September 20<sup>th</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Recognize the individualised pattern of Luteolysis
2. Predict when to initiate the hCG administration based on the Luteolysis pattern
3. Extrapolate the required hCG amounts for administration

**Challenges in the effective provision of Fertility Preservation for girls and young women**

**Richard Anderson**

Friday September 20<sup>th</sup>, 2019

Time: 2:10pm to 2:50pm

**Learning Objectives:**

1. Summarize the varying risks to fertility by different cancer diagnoses, and the impact of age
2. Describe the current status of the use of ovarian biomarkers to predict and assess ovarian damage from chemotherapy
3. Distinguish current success rates from the various forms of female fertility preservation

**Management Strategies for the Treatment of Poor Responders**

**Owen Davis**

Friday September 20<sup>th</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives:**

1. Identify patients at risk for low response to controlled ovarian stimulation
2. Contrast stimulation strategies for treating the older, low-response patient
3. Appraise the potential benefits of cleavage-stage embryo transfer in older patients with few available embryos

**Concurrent Session C: Counselling, Ethics, and Law****Is it Time to Reconsider the Ban on Non-Therapeutic Sex Selection?****Donrich Thaldar**

Friday September 20<sup>th</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Criticize the arguments for and against the legal ban on non-therapeutic preimplantation sex selection.
2. Distinguish the nuances between how preimplantation sex selection is legally regulated in Canada vis-a-vis South Africa.
3. Develop an opinion on the legal and ethical tenability of the ban on non-therapeutic preimplantation sex selection.

**Random Families: Genetic Strangers, Sperm Donor Siblings and the Creation of New Kin****Rosanna Hertz**

Friday September 20<sup>th</sup>, 2019

Time: 2:10pm to 2:50pm

**Learning Objectives:**

1. Assess the meaning of genetics and the cultural ways in which they are being used
2. Examine and expand the meaning of families to include donor siblings and perhaps donors to form networks
3. Assess how donor conceived children understand terms like "donor" (not parent at different developmental ages and donor siblings (half siblings) with whom they share a donor

**Legal Principles and Seminal Legal Cases in Oocyte Donation****Susan Crockin**

Friday September 20<sup>th</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives:**

1. Recognize legal principles applicable to egg donation, including parentage/non-parentage; informed consent; anonymity; compensation; genetic screening; mix-ups; & malpractice
2. Identify unique legal aspects of donor screening & health providers' obligations to disseminate genetic information
3. Inspect the novel, emerging legal issues raised by frozen oocytes & egg banks

**Concurrent Session D: Reproductive Surgery and Imaging**

**Hysteroscopy and Infertility**

**Atilio Di Spiezio Sardo**

Friday September 20<sup>th</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives: to be completed**

**Joint Session: Advancing Endometriosis Diagnosis Through Ultrasound**

**Sony Singh and Vincent della Zazzera**

Friday September 20<sup>th</sup>, 2019

Time: 2:10pm to 3:30pm

**Learning Objectives:**

1. Tabulate the current challenges with diagnosing endometriosis
2. Describe the contemporary approach to diagnosis of endometriosis including history, exam, and imaging
3. Demonstrate an approach to basic and advanced ultrasound imaging for endometriosis

**State of the Art Lecture: Creating Embryos – Where Science May Lead Us in the Future**

**Gerald Schatten**

Friday September 20<sup>th</sup>, 2019

Time: 4:00pm to 4:45pm

**Learning Objectives:**

1. Contrast the choreography of conception between Nature and ART;
2. Evaluate the inheritance of zygotic and embryonic components between Nature and ART;

3. Analyze critically sophisticated strategies for ART improvements and optimization

**Saturday September 21<sup>st</sup>, 2019**

### **Symposium III**

**8:00am to 10:30am**

**John Collins Lecture: Evolving from 4 Decades of Subjective Embryo Selection to Objective AI to Maximize Live Birth**

**Simon Fishel**

Saturday September 21<sup>st</sup>, 2019

Time: 8:00am to 8:45am

**Learning Objectives:**

1. Describe the tools that have been available to embryologists for embryo selection in IVF practice, and why the need for embryo selection is so important
2. Analyze the pros and cons of embryo selection technology leading up the current use of time-lapse imaging
3. Compare different time-lapse imaging options, and some of the advantages or disadvantages of a particular approach; the various algorithms, the potential for machine-learned embryo selection and determine whether there is yet robust data to consider time-lapse imaging algorithms for embryo selection, and whether these can be universally applied.

**The Oocyte Strikes Back - Small RNAs in Embryo Genome Defence (and what it means for ART)**

**Jonathan LaMarre**

Saturday September 21<sup>st</sup>, 2019

Time: 8:45am to 9:20am

**Learning Objectives:**

1. Identify Transposable Elements and explain how they may impact or influence early embryo development
2. Review reprogramming during early embryo development and explain why it is important for development

3. Deduce how the PIWI/piRNA pathway helps suppress TE expression during reprogramming in gamete and embryo development.

**The incubator function of the uterus: oxygen, temperature and pH dynamics in the female reproductive tract**

**Ying Cheong**

Saturday September 21<sup>st</sup>, 2019

Time: 9:20am to 9:55am

**Learning Objectives:**

1. Recite the changing physical chemical environment of the female reproductive tract
2. Relate how the changing environment of the female reproductive tract can influence implantation
3. Appraise the various novel interventions underway relevant to the physical chemical environment of the female reproductive tract

**What Exactly is Endometrial Receptivity?**

**Bruce Arthur Lessey**

Saturday September 21<sup>st</sup>, 2019

Time: 9:55am to 10:30am

**Learning Objectives:**

- 1) Appreciate the historical perspectives in our understanding of the window of implantation
- 2) Discuss the potential causes of endometrial receptivity defects
- 3) Review the methods currently being considered to treat recurrent implantation failure and defective endometrial receptivity

**Concurrent Sessions**

**1:30pm to 3:30pm**

**Concurrent Session A: IVF Laboratory**

**Safety in the IVF Lab**

**Rebecca Holmes**

Saturday September 21<sup>st</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Understand safe staffing levels in the IVF lab and the effects that this has on gamete/embryo/patient safety
2. Understand the role equipment plays in gamete/embryo/patient safety in the IVF lab
3. Review safe practices of storage of gametes/embryos in liquid nitrogen.

**Artificial Intelligence and automation to optimize outcomes in the IVF lab****Cristina Hickman**

Saturday September 21<sup>st</sup>, 2019

Time: 2:10pm to 2:50pm

**Learning Objectives:**

1. Assess basic AI concepts and recognize different platforms of AI applications in ART
2. Evaluate the potential and risks of AI applications in ART
3. Classify the novel concepts and future development of AI application in ART.

**Development of New Technologies for Preimplantation Genetic Testing****Svetlana Madjunkova**

Saturday September 21<sup>st</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives:**

1. Identify the advantages and challenges of the preimplantation genetic testing of embryos
2. Recognize the potential and limitations of the non-invasive testing of embryos
3. Explore the current and up-coming approaches for invasive and non-invasive PGT-A and PGT-M
4. Appraise the application of non-invasive PGT-A and PGT-M in clinical practice.

**Concurrent Session B: Physicians/Nursing /Administration****Professional Development and Competency****Zubin Austin**

Saturday September 21<sup>st</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Describe characteristics of effective team functioning

2. Identify social psychological principles influencing team dynamics
3. Revise your own psychological barriers and facilitators to more effective collaboration

### **Assume Not: Providing High Quality Care for Transgender and Gender Nonconforming Individuals**

#### **Molly Moravek**

Saturday September 21<sup>st</sup>, 2019

Time: 2:10pm to 2:50pm

#### **Learning Objectives:**

1. Integrate proper terminology relating to transgender patients into your vocabulary
2. Describe what is known (and not known) about the effect of gender-affirming hormones on future reproductive capacity in transgender men and women
3. Review special considerations for ART protocols and procedures in transgender men

### **The Role of Social Media and the Internet in Fertility Practice**

#### **Ron Harman King**

Saturday September 21<sup>st</sup>, 2019

Time: 2:50pm to 3:30pm

#### **Learning Objectives:**

1. Demystify the almighty search engine: Through interpretation of data from Google and other independent sources, this presentation will provide attendees with a comprehensive understanding of how fertility patients search the internet today, evaluate the websites they find on the principles of trust and usefulness, and ultimately make healthcare choices guided by their digital discoveries
2. Evaluate which digital platforms exert the greatest influence on patients and how providers of reproductive healthcare can better utilize their own existing websites, social media accounts and other digital assets to reach and educate more prospective and current patients with a minimum investment of resources
3. Examine the "Four Es" of internet-powered patients (inspired in part by "The Three A's of Medicine") will offer audience members insights into the newest 21st-century methods of meeting AND shaping universal patient expectations

## **Concurrent Session C: Basic Science**

### **Y Chromosome contribution to spermatogenesis**

**Monica Ward (SSR exchange speaker)**

Saturday September 21<sup>st</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Learn about mouse Y chromosome gene function
2. Learn about mouse Y chromosome gene function
3. Learn about role of assisted reproduction technologies to overcome male infertility due to Y chromosome deficiencies

**Environmental effects on reproductive health**

**Patricia Hunt**

Saturday September 21<sup>st</sup>, 2019

Time: 2:10pm to 2:50pm

**Learning Objectives:**

1. Identify common environmental contaminants that have the potential to affect gametogenesis and fetal development.
2. Describe sex-specific differences in windows of germline vulnerability to endocrine disrupting chemicals
3. Describe sex-specific differences in effects of endocrine disrupting chemicals on the germline.

**Making Human Oocytes from Stem Cells**

**Evelyn Telfer**

Saturday September 21<sup>st</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives:**

1. Describe the process of human oocyte development from the earliest stages
2. Differentiate between different cell types within the adult human ovary and how to analyse cells to determine their potential to make new oocytes under in vitro and/or in vivo conditions
3. Examine the potential of stem cells to be applied to fertility preservation

**Concurrent Session D: Third-Party Reproduction**

**Legal Aspects of Third-Party Reproduction in Canada – My Personal Experience'**

**Doreen Brown**

Saturday September 21<sup>st</sup>, 2019

Time: 1:30pm to 2:10pm

**Learning Objectives:**

1. Review legal aspects of human reproduction across Canada.
2. Evaluate which provinces are more surrogate friendly
3. Analyze court judgements to will facilitate understanding of how the courts apply when faced with different situations

**Parenthood Through ART: Should There Be An Upper Age Limit?**

**Julia Woodward**

Saturday September 21<sup>st</sup>, 2019

Time: 2:10pm to 2:50pm

**Learning Objectives:**

1. Describe factors underlying the growth in first-time parenting at an advanced age
2. Examine medical and psychosocial implications of delayed parenting on parents and their children
3. Identify strategies to minimize delayed parenting

**Bringing a legal challenge: Why the prohibition on paid gamete donation and surrogacy is probably unconstitutional**

**Amir Attaran**

Saturday September 21<sup>st</sup>, 2019

Time: 2:50pm to 3:30pm

**Learning Objectives: to be completed**

**Debate**

**3:30pm to 4:30pm**

**Topic: *'Should we use only 'evidence based' therapies in our ART practice or should we ever offer the use of 'unproven' therapies when requested by patients, or as part of our practice'***

**Speakers:** Dr. William Buckett, Dr. Cliff Librach

Saturday September 21<sup>st</sup>, 2019

Time: 3:30pm to 4:30pm

**Learning Objectives: to be completed**

