

**The Reproductive Aging Conference**  
Sunday, June 5, 2022 – Thursday, June 9, 2022  
Omni Rancho Las Palmas Resort, Palm Springs, CA

**AGENDA**

**SUNDAY, JUNE 5, 2022**

- 4:00 - 9:00 PM      **REGISTRATION**
- 5:00 - 6:00 PM      **WELCOME RECEPTION & DINNER**
- 6:00 - 6:10 PM      **OPENING REMARKS**
- 6:10 - 7:00 PM      **SESSION 1: INFERTILITY, AGING, AND HEALTH**  
**Chair:** Zhongwei Huang, National University of Singapore  
*Manipulating the downstream targets of mTORC reveals molecular keys to fertility and longevity*
- Emily Jacobs, University of California, Santa Barbara  
*The role of sex hormones and gonadotropins in the aging brain*
- 7:00 - 8:00 PM      **KEYNOTE LECTURE 1: Marcelle Cedars**, University of California, San Francisco  
*Effect of reproductive aging on infertility and health*

**MONDAY, JUNE 6, 2022**

- 7:30 AM - 12:00 PM    **REGISTRATION**
- 8:00 - 9:00 AM      **BREAKFAST**
- 9:00 - 9:10 AM      **WELCOME REMARKS & INFORMATION**
- 9:10 - 10:40 AM      **SESSION 2: MICRO- AND MACRO-ENVIRONMENTS OF OVARIAN AGING**  
**Chair:** Francesca Duncan, Northwestern University  
*The aging ovarian environment – from the gamete and beyond*
- M. Sharon Stack, University of Notre Dame  
*Aging and the ovarian tumor microenvironment*
- Ulrike Luderer, University of California, Irvine  
*Multi- and trans-generational effects of in utero exposure to benzo[a]pyrene on female reproduction*
- Selected late breaking talk from abstracts
- 10:40 - 11:00 AM    **COFFEE BREAK**
- 11:00 AM - 12:15 PM **SESSION 3: CELL BIOLOGY OF OOCYTE AGING**  
**Chair:** Iain Cheeseman, Massachusetts Institute of Technology  
*Rewiring cell division to safeguard oocyte fitness during reproductive aging*

Marco Conti, University of California, San Francisco  
*Maternal aging compromises the oocyte program of mRNA translation*

Mary Herbert, Newcastle University  
*Human oocyte meiosis - what does normal look like?*

**12:15 - 1:00 PM BIOTECH PANEL DISCUSSION: Biomarkers and Interventions on the Horizon**

**Moderator:** Jennifer Garrison, Buck Institute for Research on Aging

**Panelists:** Alicia Jackson, *Evernow*

Nikolina Lauc, *GlycanAge*

Dina Radenkovic, *Gameto*

Daisy Robinton, *Oviva Therapeutics*

**1:00 - 2:00 PM LUNCH (and Meet the Experts 1)**

**2:00 - 3:00 PM FREE TIME**

**3:00 - 4:00 PM GRANTS WORKSHOP WITH Q & A (Optional)**

**Moderator:** Stephanie Pangas, Baylor University

Bitá Nakhai, Chief, Basic and Translational Sciences Section (BTSS) Scientific Review Branch, National Institute on Aging (NIA/NIH)

Susan Taymans, Chief, Fertility and Infertility Branch (FIB), National Institute of Child Health and Human Development (NICHD/NIH)

**4:00 - 5:30 PM SESSION 4: METABOLIC CONTROL AND BEYOND**

**Chair:** Carlos Ribeiro, Champalimaud Foundation

*How nutrients, neuronal circuits, and the microbiome shape nutritional decisions and reproduction*

Lindsay Wu, University of New South Wales

*Rejuvenating oocyte quality and embryo development through supporting cell metabolism: role of NAD<sup>+</sup> and the pentose phosphate pathway*

Chen Lesnik, Princeton University

*Enhanced BCAA metabolism improves age-related reproductive function*

Selected late breaking talk from abstracts

**5:30 - 5:45 PM LIGHTNING POSTER PITCHES**

**6:00 - 7:00 PM GROUP DINNER**

**7:00 - 9:00 PM POSTER SESSION 1**

**8:00 - 11:00 PM NETWORKING SOCIAL**

**TUESDAY, JUNE 7, 2022**

**8:00 - 9:00 AM BREAKFAST**

**9:00 - 10:30 AM SESSION 5: GENETICS OF REPRODUCTIVE AGING**

**Chair:** Yousin Suh, Columbia University  
*The regulatory landscapes of human ovarian aging*

Aleksandar Rajkovic, University of California, San Francisco  
*Developmental origins of reproductive aging*

Karen Schindler, Rutgers University  
*Identifying genetic variants that accelerate age-related egg quality decline*

Selected late breaking talk from abstracts

**10:30 – 10:40 AM OFFICAL GROUP CONFERENCE PHOTO**

**10:40 - 11:00 AM COFFEE BREAK**

**11:00 AM - 12:40 PM SESSION 6: ORIGINS OF OVARIAN RESERVE**

**Chair:** Satoshi Namekawa, University of California, Davis  
*Ovarian reserve formation and maintenance*

Humphrey Yao, National Institute of Environmental Health Sciences (NIEHS/NIH)  
*New insights into the establishment of the ovarian reserve*

Stephanie Pangas, Baylor University  
*TBD*

Christian Kramme, Gameto  
*Multimodal investigation of transcription factor function via in vitro recapitulation of human oogenesis*

**12:40 - 1:40 PM LUNCH (and Meet the Experts 2)**

**1:40 - 3:00 PM FREE TIME**

**3:00 - 4:00 PM EDITORIAL ROUNDTABLE DISCUSSION: REPRODUCTIVE & AGING-FOCUSED JOURNALS**

**Moderator:** Francesca Duncan, Northwestern University

**4:00 – 4:15 PM COFFEE BREAK**

**4:15 - 5:55 PM SESSION 7: NEW FRONTIERS IN REPRODUCTIVE AGING**

**Chair:** Judith Campisi, Buck Institute for Research on Aging  
*Evolutionary trade-offs during somatic and reproductive aging*

Amanda Kallen, Yale University  
*Cellular senescence as a novel driver of female reproductive aging*

B er enice Benayoun, University of Southern California  
*Age-relevant mouse models of menopause*

Ingrid Fetter-Pruneda, National Autonomous University of Mexico  
*Ants as a new model for extended fertility*

**5:55 – 6:05 PM LIGHTNING POSTER PITCHES**

**6:10 - 7:00 PM GROUP DINNER**

7:00 - 9:00 PM POSTER SESSION 2  
8:00 - 11:00 PM NETWORKING SOCIAL

WEDNESDAY, JUNE 8, 2022

8:00 - 9:00 AM BREAKFAST

9:00 - 10:30 AM SESSION 8: CROSS-TISSUE & ENDOCRINE SIGNALING

Chair: Jennifer Garrison, Buck Institute for Research on Aging  
*Deciphering the conversation between the brain and ovary during aging*

T. Rajendra Kumar, University of Colorado  
*FSH glycoforms in female reproductive aging*

Polina Lishko, University of California, Berkeley  
*Bioactive lipid signaling, bioelectricity and aging*

Selected late breaking talk from abstracts

10:30 - 11:00 AM COFFEE BREAK

11:00 AM - 12:00 PM BRAINSTORMING SESSION: MAPPING THE FUTURE OF REPRODUCTIVE LONGEVITY

We invite ALL attendees to join an in-depth discussion about where we want this field to go and lay the foundations for a sustainable, global community for years to come. What does progress look like in the short and long term? What are the key resources needed to support sustainable growth? How do we incentivize collaboration and dialogue between academic scientists, clinicians, and industry/biotech leaders that go beyond traditional models? How can we increase public engagement in supporting the science and scientists to bring much needed attention to this area of research? As we make advances in reproductive aging science, how can we insure that innovations and interventions are available to disadvantaged populations?

12:00 - 1:00 PM LUNCH

1:00 - 4:00 PM FREE TIME AND NETWORKING

4:00 - 5:05 PM SESSION 9: GEROSCIENCE & INTERVENTION STRATEGIES

Chair: Kara Goldman, Northwestern University  
*Targeting mTOR signaling in reproductive aging*

Matt Kaeberlein, University of Washington  
*Toward clinical evaluation of rapamycin to target biological aging*

Selected late breaking talk from abstracts

5:05 - 6:15 PM KEYNOTE LECTURE 2: Juan Carlos Izpisua-Belmonte, Altos Labs  
*Cell programming strategies for aging*

6:30 - 10:00 PM CELEBRATION DINNER & RECEPTION, POSTER & TALK AWARDS

8:00 - 9:00 AM

**BREAKFAST**

9:00 - 10:30 AM

**SESSION 10: MITOCHONDRIAL FUNCTION AND REPRODUCTIVE AGING**

**Chair:** Lynae M. Brayboy, Charité – Universitätsmedizin Berlin

*Dysfunctional MDR-1 disrupts mitochondrial homeostasis in the oocyte — a model for poor oocyte quality associated with diminished ovarian reserve*

Keshav Singh, University of Alabama at Birmingham

*Mitochondria as regulator of ovarian aging*

Rebecca Robker, University of Adelaide

*Targeting mitochondrial function to combat ovarian fibrosis, improve embryo development and extend fertility*

Selected late breaking talk from abstracts

10:30 - 11:00 AM

**COFFEE BREAK**

11:00 - 12:30 PM

**CONFERENCE ROUNDUP / DEBRIEF & WORKING LUNCH (in conference room)**

Trainee-focused working lunch to review concepts covered in the conference. All are welcome to join.

Matt Kaeberlein, University of Washington

Stephanie Pangas, Baylor University

B er enice Benayoun, University of Southern California

Jennifer Garrison, Buck Institute for Research on Aging