**RICHARD ANTHONY COCHRAN Ph.D. HCLD (ABB)**

cochran\_richard@hotmail.com

225-773-6414

Work:

Johns Hopkins University School of Medicine

720 Rutland Ave, Ross Building Room 624

Baltimore, MD 21205

Lab: 410.614.2000

Home:

944 Fern Trail

Crownsville, MD 21032

Cell: 225.774.6414

**ACADEMIC APPOINTMENT:**

**Assistant Professor 2017-2021**

Baylor College of Medicine, Dept of OB/GYN

**Reviewer, American Society for Reproductive Medicine**

 March 2017 – July 2021

**EDUCATION:**

**PhD 2000**

The Effects of Effects of Equine Somatotropin (eST) on Reproductive Function in the Domestic Mare.

<https://repository.lsu.edu/gradschool_disstheses/7255?utm_source=repository.lsu.edu%2Fgradschool_disstheses%2F7255&utm_medium=PDF&utm_campaign=PDFCoverPages>

Reproductive Physiology, Department of Animal Science

Major Professor: Robert Godke, Ph.D.

Louisiana State University, Baton Rouge, Louisiana

**BS 1996**

Animal Science

Research included oocyte collection, *in vitro* fertilization and embryo transfer in bovine and caprine animal models

 Louisiana State University, Baton Rouge, Louisiana

**CERTIFICATIONS:**

HCLD 2003-present American Board of Bioanalysis

Technical Supervisor 2001-present American Board of Bioanalysis

**AFFILIATIONS:**

American Society of Reproductive Medicine

 Pacific Coast Reproductive Society

International Embryo Transfer Society

Phi Kappa Phi

American Association of Bioanalysis

**PROFESSIONAL EXPERIENCE:**

**2022-present Laboratory of Reproductive Research, ART director**

Department of GYN/OB Johns Hopkins University School of Medicine

Established protocols and procedures for IVF laboratory.

Developed or initiated all aspects of *in vitro* fertilization

in the common marmoset including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate records. Vitrification, Embryo Warming. Design and development of new ART facilities for IVF.

**2021-July 2022 Laboratory Director, CCRM of Northern Virginia, Vienna, VA**

All aspects of human *in vitro* fertilization including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate patient records. Vitrification, trophectoderm biopsy, oocyte cryopreservation. Design and development of new ART facilities for andrology and IVF.

Establishment of protocols and procedures for IVF laboratory.

Establishment and maintenance of endocrinology laboratory.

Development, establishment and maintenance of laboratory protocols and procedures for state and federal certification (CLIA, CAP, FDA).

Supervision and management of laboratory personnel.

Development and implementation of research experiments.

**2018 – December 2021 Lab Director, Scott Dept. of Urology, Baylor College of Medicine**

**Houston, TX**

Establishment of protocols and procedures for androloy laboratory.

Establishment and maintenance of endocrinology laboratory.

Development, establishment and maintenance of laboratory protocols and procedures for state and federal certification (CLIA, FDA).

Supervision and management of laboratory personnel.

Development and implementation of research experiments.

**2017 – June 2021 Laboratory Director, Family Fertility Center, Texas Children’s Hospital; Assistant Professor, Baylor College of Medicine, Houston TX**

All aspects of human *in vitro* fertilization including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate patient records. Vitrification, trophectoderm biopsy, oocyte cryopreservation.

Design and development of new ART facilities for andrology and IVF.

Establishment of protocols and procedures for IVF laboratory.

Establishment and maintenance of endocrinology laboratory.

Development, establishment and maintenance of laboratory protocols and procedures for state and federal certification (CLIA, CAP, FDA).

Supervision and management of laboratory personnel.

Development and implementation of research experiments.

**2002 – March 2017 Scientific Director, Woman’s Center for Fertility/A Woman’s Center for**

**Reproductive Medicine/Fertility Answers, Baton Rouge LA**

All aspects of human *in vitro* fertilization including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate patient records.

Vitrification, trophectoderm biopsy, oocyte cryopreservation.

Design and development of new ART facilities for andrology and IVF.

Establishment of protocols and procedures for IVF laboratory.

Establishment and maintenance of endocrinology laboratory.

Development, establishment and maintenance of laboratory protocols and procedures for state and federal certification (CLIA, CAP, COLA).

Supervision and management of laboratory personnel.

Committee appointment to both Research and Development and IRB.

Development and implementation of research experiments.

Responsible person for donor eligibility determination (2005-2017)

**2000-2002 IVF Laboratory Director, Reproductive Medicine and Fertility Center, Orlando**

**FL**

All aspects of human *in vitro* fertilization including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate patient records.

Design and development of new ART facilities for andrology and IVF.

Establishment of protocols and procedures for IVF and andrology laboratories.

Establishment and maintenance of endocrinology laboratory.

Development, establishment and maintenance of laboratory protocols and procedures for state and federal certification (CLIA, CAP, COLA).

Supervision and management of laboratory personnel.

**1999 Assistant Embryologist, Woman’s Center for Fertility, Woman’s Hospital, Baton**

**Rouge LA**

All aspects of human *in vitro* fertilization including: semen analysis; fresh and frozen sperm preparations for intrauterine insemination; collection, insemination and culture of oocytes and embryos; transfer of embryos; sperm and embryo cryopreservation; ICSI; assisted hatching; maintenance of all appropriate patient records.

**1996-1999 Graduate Assistant at the Embryo Biotechnology Laboratory, Louisiana**

**State University, Department of Animal Science**

*In vitro* maturation, fertilization and embryo culture in equine, bovine and caprine

Micromanipulation in equine and bovine

Intracytoplasmic sperm injection (ICSI)

Radioimmunoassay

Ultrasonic oocyte collection in equine, bovine, caprine, bongo and eland

Embryo collection in equine, bovine and caprine

Embryo transfer in equine, bovine and caprine

Superovulation in bovine and caprine

**Other relevant experience**

Experience with various electronic medical systems (Ideas, eIVF, Artisan, Epic)

 Experience with various electronic witnessing platforms (Gidget, Matcher, RI-Witness)

**Research Publications**

*Abstracts*

1. Rydze R, Kaskar K, **Cochran RA**, Sangi-Haghpeykar H, Gibbons WE, Zarutskie PW. Spontaneous miscarriage following transfer of euploid embryos. The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, San Antonio, Texas, October 28- November 1, 2017.
2. Yang L, Peavey M, Kaskar K, Chappell N, Zhu L, Devlin D, Valdes C, Schutt AK, Woodard TL, Zarutskie P, **Cochran R**, Gibbons W. Development of a clinic-specific predictive embryokinetic patient model in an academic center. The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, Denver, Colorado, October 6-10, 2018.
3. Kaskar K, **Cochran R**, Blesson C, Hamilton D, David A, Henkel R, Gibbons W. Insulin and IgF-1 Does Not Alter the Morphokinetics of Mouse Embryo Development. The 66th Annual Scientific Meeting of the Society for Reproductive Investigation, Paris, France, March 12-16, 2019.
4. Kaskar K, **Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Insulin and IgF-1 does not alter the morphokinetics of mouse embryo development. The 23rd Annual College of Reproductive Biology (CRB) Symposium, New Orleans, LA, May 16-18, 2019.
5. Kaskar K, **Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Does culture of embryos in an ultra-low (2%) oxygen environment yield better blastocyst development than 6% oxygen using time-lapse morphokinetics? The 23rd Annual College of Reproductive Biology (CRB) Symposium, New Orleans, LA, May 16-18, 2019.
6. Kaskar K, **Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Finding a better mouse model for quality control and research studies in the IVF laboratory. The 23rd Annual College of Reproductive Biology (CRB) Symposium, New Orleans, LA, May 16-18, 2019.
7. Kaskar K, **Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Increasing the efficacy of mouse embryo assays for quality control in the IVF laboratory. The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, Philadelphia, Pennsylvania, October 12 - 16, 2019.
8. Kaskar K, **Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Does supplementation of media with insulin or insulin-like growth factor 1 (IGF-1) enhance morphokinetics of mouse embryo development? The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, Philadelphia, Pennsylvania, October 12 - 16, 2019.
9. Kaskar K**, Cochran R**, Hamilton D, David A, Henkel R, Gibbons W, Blesson CS: Effect of ultra-low oxygen (2%) environment on mouse embryo morphokinetics and blastocyst development. The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, Philadelphia, Pennsylvania, October 12 - 16, 2019.
10. Yang L, Peavey M, Kaskar K, Chappell N, Zhu L, Devlin D, Valdes C, Woodard TL, Zarutskie P, **Cochran R**, Gibbons W: Predicting clinical pregnancy by machine learning algorithm using noninvasive embryo morphokinetics at an academic center. The American Society for Reproductive Medicine (ASRM) Scientific Congress and Expo, Philadelphia, Pennsylvania, October 12 - 16, 2019.
11. **Cochran, RA,** Kincaid, LA, Leise, BS, Thompson, DL Jr and Godke, RA. (1997a) The effect of equine growth hormone (met-eGH) on circulating plasma hormones in cyclic mares treated during different stages of the estrous cycle. *Proc. 4th Int. Symp. Equine embryo Transfer and Other Advanced Techniques.*
12. **Cochran, RA,** Leonardi-Cattolica, AA, Sullivan, MR, Thompson, DL Jr, and Godle, RA (1997b) The effects of equine somatotropin on follicular development in cycling mares. *Theriogenology* **47**:389
13. **Cochran, R,** Meintjes, M, Reggio, B, Hylan, D, Carter, J, Pinto, C, Paccamonti, D and Godke, RA. (1998) Pregnancies following the transfer of *in vitro*-cultured, ICSI-produced equine embryos. *Proc. 7th Int. Symp Equine Reprod.*
14. Meintjes, M, Graff, KJ, Paccamonti, D, Eilts, BE, **Cochran, R,** Sullivan, M, Fall, H and Godke, RA (1996) *In vitro* development and embryo transfer of sperm-injected oocytes derived from pregnant mares. *Theriogenology* **45**:304
15. Pope, C, Lim, J, Mikota, S, **Cochran, R,** Carter, J, Godke, R and Dresser, B. (1998) Transvaginal oocyte retrieval and *in vitro* maturation, fertilization and culture in bongo antelope (Tragelaphus euryceros). *Proc. Society for the Study of Reproduction.*
16. **Cochran, R,** Pinto, C, Paccamonti, D, Eilts, B, Reggio, B, Hylan, D, Carter, J and Godke, RA (1998) A pregnancy following oviductal transfer of *in vitro*-matured oocytes harvested from nonpreovulatory follicles of cyclic mares. *Society for Theriogenology.*
17. **Cochran, R,** Reggio, B, Carter, J, Hylan, D, Paccamonti, D, Pinto, C, Eilts, B, James, A and Godke, RA. (1999) Twin pregnancies resulting from the transfer of sperm-injected equine oocytes harvested from altrenogest-treated mares. *Theriogenology.*
18. **Cochran, R,** Jutras, M and Jutras, M (2002) Delivery rates in poor responders that decline cycle cancellation. *Fertility and Sterility* vol. 78, S141.
19. Paul, J. B., Seidemann, E. L., Webster, B. W. and **Cochran, R. A.** (2004) Influence of different gradient separation protocols on percent motile spermatozoa recovery. *Fertility and Sterility* vol. 82 S268

*Refereed Manuscripts*

1. **Cochran, RA,** Leonardi-Cattolica, AA, Sullivan, MR, Kincaid, LA, Leise, BS, Thompson, DL Jr, and Godke, RA. (1999) The effects of equine somatotropin (eST) on follicular development and circulating plasma hormone profiles in cyclic mares treated during different stages of the estrous cycle. *Domestic Anim. Endocrinol.* **16**:57-67.
2. **Cochran, R,** Meintjes, M, Reggio, B, Hylan, D, Carter, J, Pinto, C, Paccamonti, D, Graff, KJ and Godke, RA (2000) *In vitro* development and transfer of *in vitro-*derived embryos produced from sperm-injected oocytes harvested from pregnant mares. *Proc. 7th Int. symp. Equine Reprod.*
3. **Cochran, R**, Meintjes, M, Reggio, B, Hylan, D, Carter, J, Pinto, C, Paccamonti, D and Godke, RA (1998) Live foals produced from sperm-injected oocytes derived from pregnant mares. *J. Equine Vet. Sci.* **18**:736-740.

**References**

Dr. Larry Lipschultz

larryl@bcm.edu

713-798-4001

Manuel Lomas

mlomas@bcm.edu

cell - 832-352-3820

Dr. James Segars

jsegars2@jhmi.edu

410-614-2000