

CURRICULUM VITAE

CheMyong Jay Ko, PhD

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Research Interests: Reproductive endocrinology, development, toxicology and technology

1. PERSONAL HISTORY AND PROFESSIONAL EXPERIENCE

A. Educational Background

1986 BS Biology, Seoul National University, Seoul, Korea
 1994 MS Developmental Biology, Seoul National University, Seoul, Korea
 1998 PhD Developmental Biology, Seoul National University, Seoul, Korea
 Dissertation Topic: Body axis formation in *Xenopus Laevis*
 1998-2000 Postdoctoral Scholar, Department of Physiology, University of Kentucky, Lexington, KY.
 Research Topic: Progesterone receptor mediated pathway to ovulation
 2000-2002 Postdoctoral Scholar, Department of Chemistry, University of Kentucky, Lexington, KY.
 Research Topic: Regulation of folliculogenesis by FSH-receptor

B. List of Academic Positions since Final Degree

2002-2006 Assistant Professor, Dept. of Clinical Sciences and Dept. of Biology, University of Kentucky
 2006-2011 Associate (Endowed) Professor, Department of Clinical Sciences, University of Kentucky
 2011- present Associate and Full Professor, Comparative Biosciences, College of Veterinary Medicine, University of Illinois Urbana-Champaign

C. Other Professional Employment

1986-1989 Commanding Officer (First Lieutenant) of the 3rd ROKAF Chemical Defense Unit, Korean Air Forces (ROKAF), South Korea
 1989-1993 Science Teacher, Gong-Hang Middle School, Seoul, Korea
 2016- Founder & CEO, Epivara (<https://www.epivara.com>). *Develops non-surgical methods of sterilizing pet and production animals.*

D. Honors, Recognitions, and Outstanding Achievements

1983-1984 Alumni Fellowship, Seoul National University
 1990 The Best Research Teacher Award, Education Council, Seoul City, Korea
 1995-1996 Seoul National University Alumni Fellowship
 1998 The Best Dissertation Award (PhD), Seoul National University
 1998-2000 Postdoctoral Fellowship, Korea Science & Engineering Foundation
 1999 The Best Poster Award, 18th Univ. of Kentucky Symposium in Repro. Sciences
 2000 The Best Poster Award, 19th Univ. of Kentucky Symposium in Repro. Sciences
 2001 The Best Poster Award, 20th Univ. of Kentucky Symposium in Repro. Sciences
 2006 Excellence in Research Award, College of Health Sciences, University of Kentucky
 2007 Washington Research Award, University of Kentucky
 2008 Director of 27th University of Kentucky Symposium in Reproductive Sciences

2008	Wethington Research Award, University of Kentucky
2009	Wethington Research Award, University of Kentucky
2010	Wethington Research Award, University of Kentucky
2013	International Scientific Advisory Committee, International Conference on Endothelin
2015	Dr. Gordon and Mrs. Helen Kruger Research Excellence Award, University of Illinois at Urbana-Champaign
2017	Zoetis Award for Veterinary Research Excellence, University of Illinois at Urbana-Champaign
2020	Panel member, Roundtable for Menopause by the Society for Women's Health Research (https://swhr.org/science/roundtables/)

E. Offices Held in Professional Societies

2006 - 2012	Membership Committee, Society for the Study of Reproduction
2013 - Current	External Research Advisory Board, International Endothelin Conference
2020 - Current	Development Committee, Society for the Study of Reproduction

F. Journal Editorships

2011	<i>Life Sciences</i> (Guest editor)
2011-present	<i>Clinical and Experimental Reproductive Medicine</i>
2011-present	<i>Endocrinology and Metabolism</i>
2017-present	<i>Environmental Research</i>
2019-present	<i>International Journal of Environmental Research & Public Health</i>
2023-present	<i>Scientific Reports</i>

G. Review Panels

2009	NIH CMIR Study Section, Ad-hoc member
2011-	Qatar Foundation, Qatar
2012-2015	CVM internal grant reviewer, University of Illinois at Urbana-Champaign
2012-2017	US-Israel Binational Science Foundation, Israel
2013-2015	Kentucky State Research Foundation
2012-2014	Maryland State Research Foundation
2015-2016	Agence Nationale de la Recherche, France
2017	NIH ZRG1 F06 Study Section, Ad-hoc member
2017	NIH ICER Study Section, Ad-hoc member
2018	UIUC Graduate College Fellowship Board
2019	NIH ZRG1 EMNR-F Study Section, Ad-hoc member
2020-	NIH CHHD-R Study Section, Standing member

2. PUBLICATIONS

A. Doctoral thesis title

“Molecular studies on the *Xhoxc8*, *Xcba-1* and *Xap2* and the development of lymph heart in *Xenopus laevis*”

B. Chapters in Books (in print or accepted)

1. Barakat, R., Park, C. J., Perez, P. A., Chiu, K., & Ko, C. (2018). Female Antiestrogens. In M. K. Skinner (Ed.), Encyclopedia of Reproduction. vol. 2, pp. 740–747. Academic Press: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-801238-3.64414-8>
2. Barakat, R., & Ko, C. J. (2018). Female Antiandrogens. In M. K. Skinner (Ed.), Encyclopedia of Reproduction. vol. 2, pp. 748–752. Academic Press: Elsevier. <http://dx.doi.org/10.1016/B978-0-12-801238-3.64415-X>

C. Articles in Journals (*, corresponding author)

1. Kim TK, **Ko C**, Nahm S, Chung HM. Partial cloning of Xhoxc3.1 gene in *Xenopus laevis*. *Korean Journal of Genetics* 18: 111-116, 1996.
2. **Ko C**, Chung HM. Spatio-temporal pattern formation of abdominal muscle in *Xenopus laevis*. *Korean Journal of Biological Sciences* 1: 329-335, 1997.
3. Kim H, **Ko C**, Chung HM, Kim W, Nahm S. Partial cloning and expression pattern analysis of fibroblast growth factor-like cDNA in *Xenopus* oocytes. *Korean Journal of Genetics* 18: 51-54, 1997.
4. **Ko C**, In Y, Park-Sarge OK. Role of progesterone receptor activation in pituitary adenylate cyclase activating polypeptide gene expression in rat ovary. *Endocrinology* 140(11): 5185-5194, 1999.
5. **Ko C**, Park-Sarge OK. Progesterone receptor activation mediates LH-induced type-I pituitary adenylate cyclase-activating polypeptide receptor (PAC1) gene expression in rat granulosa cells. *Biochemical Biophysical Research Communications* 277: 270-279, 2000.
6. Graham KM, **Ko C**, Park KS, Sarge K, Park-Sarge OK. Expression of an intracisternal A-particle-like element in rat ovary. *Biochemical Biophysical Research Communications* 278(1): 48-57, 2000.
7. Choi I, **Ko C**, Park-Sarge OK, Zhou Q, Hess R, Graves C, Katzenellenbogen BS. Human estrogen receptor beta-specific antibodies: Characterization and use in studies of estrogen receptor beta protein expression in reproductive tissues. *Molecular and Cellular Endocrinology* 181(1-2):1 39-150, 2001.
8. **Ko C**, Grieshaber NA, Ji I, Ji TH. Follicle-stimulating hormone suppresses cytosolic 3,5,3'-triiodothyronine-binding protein messenger ribonucleic acid expression in rat granulosa cells. *Endocrinology* 144: 2360-2367, 2003.
9. **Ko C**, Chung HM. *Xenopus hoxc8* during early development. *Biochemical Biophysical Research Communications* 12: 300(1): 9-15, 2003.
10. Grieshaber NA, **Ko C**, Grieshaber SS, Ji I, Ji TH. FSH-responsive cytoskeletal genes in rat granulosa cells; class I beta-tubulin, tropomyosin-4 and kinesin heavy chain. *Endocrinology* 144(1): 29-39, 2003.
11. Jo M, Gieske MC, Payne CE, Gieske JB, Vijay I, Wheeler SE, Curry Jr. TE, **Ko C***. Development and application of a rat ovarian gene expression database (rOGED). *Endocrinology* 145(11): 5384-5396, 2004.
12. Gieske MC, Na G, Jo M, Koo K, Curry Jr. TE, **Ko C***. Decay-Accelerating Factor DAF in the periovulatory rat ovary. *Journal of Endocrinology* 186: 303-313, 2005.
13. Gieske MC, Payne CE, Gieske JB, **Ko C***. rOGED: NAR Molecular biology database collection entry number 739. *Nucleic Acids Research (NAR)* 33: D5-D24, 2005.
14. **Ko C***, Gieske MC, Al-Alem L, Hahn YK, Su W, Gong MC, Koo YB, Iglarz M. Endothelin-2 in Ovarian Follicle Rupture. *Endocrinology* 147(4): 1770-1779, 2006.
15. **Ko C***, Hudgins-Spivey S, Lee S, Bridges P, Gieske MC. Estrogen in female reproductive axis: Positive estrogen feedback to pituitary. *Korean Journal of Reproductive Medicine* 34(4): 1-11, 2007.
16. Kim HJ, Gieske MC, Hudgins S, Kim BG, Krust A, Chambon P, **Ko C***. Estrogen receptor alpha-induced cholecystokinin type A receptor expression in the female mouse pituitary. *Journal of Endocrinology* 195: 393-405, 2007.
17. Al-Alem L, Bridges P, Gieske MC, Su W, Gong MC, Iglarz M, **Ko C***. Endothelin-2 in oocyte transport in the oviduct. *Journal of Endocrinology* 193(3): 383-391, 2007.
18. Bridges PJ, Koo YB, Kang DW, Hudgins-Spivey S, Lan ZJ, Xu X, DeMayo F, Cooney A, **Ko C***. Generation of Cyp17iCre transgenic mice and their application to conditionally delete estrogen receptor alpha (Esr1) from the ovary and testis. *Genesis* 46: 499-505, 2008.
19. Na G, Bridges PJ, Koo YB, **Ko C***. Role of hypoxia in the regulation of periovulatory endothelin-2 (EDN2) expression in the mouse. *Canadian Journal of Physiology and Pharmacology (CJPP)* 86(6):310-319, 2008 (Invited manuscript for a special edition for endothelins).

20. Gieske MC, Kim HJ, Legan S, Koo YB, Krust A, Chambon P, **Ko C***. Pituitary gonadotroph estrogen receptor-alpha is necessary for fertility in females. *Endocrinology* 149(1): 20-27, 2008.
21. Lee S, Kang DW, Hudgins-Spivey S, Krust A, Lee EY, Koo YB, Cheon Y, Gye MC, Chambon P, **Ko C***. Theca-specific Esr1 knockout mice lose fertility prematurely. *Endocrinology* 150(8): 3855-62, 2009.
22. Hong SG, Kim MK, Jang G, Oh HJ, Park JE, Kang JT, Koo OJ, Kim T, Kwon MS, Koo BC, Ra JC, Kim DY, Ko C, Lee BC. Generation of RFP transgenic dogs. *Genesis* 47(5): 314-22, 2009. **(Cover of the issue)**
23. Kim BG, Lindeman M, Bridges P, **Ko C***. Gene expression profiler for DNA microarray data. *Revista Colombiana Ciencias Pecuaris* 22: 12-18, 2009.
24. Oakley OR, Kim HY, El-Amouri I, Lin PC, Cho J, Bani-Ahmad M, **Ko C***. Preovulatory leukocyte infiltration in the rat ovary. *Endocrinology* 151(9): 4551-9, 2010. **(News and Views of the Issue of the Endocrinology)**
25. Bridges PJ, Jo M, Al-Alem L, Na G, Su W, Gong MC, Jeoung M, **Ko C***. Production and binding of endothelin-2 (EDN2) in the rat ovary: Endothelin receptor subtype A (EDNRA) mediated contraction. *Reproduction, Fertility and Development* 22: 780-787, 2010.
26. El-Amouri I, Ahmad M, Tang-Feldman Y, Lin F, **Ko C**, Pomeroy C, Oakley O. Increased morbidity & mortality in MCMV infected mice following allogeneic bone marrow transplant is associated with reduced surface DAF expression. *Clinical and Experimental Immunology* 126: 379-391, 2010.
27. Jeoung M, Lee S, Hwang HK, Cheon YP, Jeong YK, Gye MC, Iglarz M, **Ko C**, Bridges PJ. Identification of a novel role for endothelins within the oviduct. *Endocrinology* 151(6): 2858-67, 2010.
28. Joseph A, Shur BD, **Ko C**, Chambon P, Hess R. Epididymal hypo-osmolality induces abnormal sperm morphology and function in the estrogen receptor alpha knockout mouse. *Biology of Reproduction* 82(5): 958-67, 2010.
29. Joseph A, Hess R, Schaeffer DJ, **Ko C**, Hudgins-Spivey S, Chambon P, Shur BD. Absence of estrogen receptor alpha Leads to physiological alterations in the mouse epididymis and consequent defects in sperm function. *Biology of Reproduction* 82(5): 948-57, 2010.
30. Kang DW, Ihm CH, Baek JH, Park MY, Kim JH, Son HJ, Lee HK, Park MJ, **Ko C***. Histo-Physiologic characteristics of oocyte-specific ER α knockout mouse ovary. *Bumsuk Journal* 13: 13-23, 2010.
31. Kang DW, Son HJ, Kim JH, Lee HK, Park MJ, **Ko C***. Pathologic characteristics of ovarian hemorrhagic polycyst in estrogen receptor-alpha (ER α) knockout mice and roles of ER α in hemorrhagic polycyst. *Korean Journal of Pathology* 44: 376-83, 2010.
32. Kim HJ, Gieske MC, Trudgen K, Kim BG, Jeoung J, Hudgins-Spivey S, Krust A, Chambon P, **Ko C***. Identification of estradiol/ER α -regulated genes in the pituitary. *Journal of Endocrinology* 210(3): 309-21, 2011.
33. Baek TH, Kim JH, Park MJ, Lee HK, Son HJ, Soon KH, Kim CN, **Ko C**, Kang DW. Stromal overexpression of decay accelerating factor (Daf/CD55) correlates with poor clinical outcome in colorectal cancer patients. *Korean Journal of Pathology* 45: 445-454, 2011.
34. Oakley O, Lin PC, Bridges P, **Ko C***. Animal models for the study of polycystic ovarian syndrome (PCOS). *Endocrinology and Metabolism* 26(3): 193-202, 2011. **(Invited review)**
35. Oakley O, Frazer M, **Ko C***. Pituitary-ovary-splenic axis in ovulation. *Trends in Endocrinology & Metabolism (TEM)* 22(9): 345-52, 2011. **(Invited review)**
36. Choi DH, Kim EK, Kim KH, Lee KA, Kim HY, Bridges P, **Ko C***. Expression pattern of endothelin system components and localization of smooth muscle cells in the human pre-ovulatory follicle. *Human Reproduction* 26(5): 1171-1180, 2011.
37. Bridges PJ, Cho J, **Ko C***. Endothelins in regulating ovarian and oviductal function. *Frontiers in Bioscience* S3: 145-155, 2011. **(Invited review)**
38. Bridges P, Jeoung M, Kim H, Kim JH, Lee D, **Ko C***, Baker D. Methodology matters: In-Vitro fertilization versus intracytoplasmic sperm injection and embryonic gene expression. *Reproductive Biomedicine Online* 23(2): 234-44, 2011.

39. Bani-Ahmad M, El-Amouri I, **Ko C**, Lin F, Tang-Feldman Y, Oakley O. The role of decay accelerating factor in the immunopathogenesis of cytomegalovirus infection. *Clinical and Experimental Immunology* 163(2): 199-2016, 2011.
40. Yamashita S, Tai P, Charron J, **Ko C**, Ascoli M. The Leydig cell MEK/ERK pathway is essential for maintaining a functional population of adult Leydig cells and for male fertility. *Molecular Endocrinology* 25(7): 1211-22, 2011.
41. Kim MJ, Oh HJ, Park JE, Kim JE, Hong SG, Jang G, Kwon MS, Koo BC, Kim TA, Kang SK, **Ko C**, Lee BC. Generation of transgenic dogs that conditionally express green fluorescent protein. *Genesis* 49: 472-478, 2011. (Cover of the issue. I had interviews with major media including New York Times.)
42. **Ko C***, Meidan R, Bridges P. Why two endothelins and two receptors for ovulation and luteal regulation? *Life Science*. 91: 501-6, 2012. (Invited review)
43. Lee SY, Park E, Kim SC, Ahn RS, **Ko C**, Lee K. ER α /E2 signaling suppresses the expression of steroidogenic enzyme genes via cross-talk with orphan nuclear receptor Nur77 in the testes. *Molecular and Cellular Endocrinology*. 362 (1-2): 91-103, 2012.
44. Sánchez-Criado JE, Trudgen K, Millán Y, Blanco A, Garrido-Gracia JC, Aguilar R, Monterde J, Martín de las Mulas J, **Ko C***. Estrogen receptor (ESR) 2 partially offsets the absence of ESR1 in gonadotrophes of pituitary-specific ESR1 knockout female mice. *Reproduction* 143(4): 549-58, 2012.
45. Cho J, Kim H, Kang DW, Yanagisawa M, **Ko C***. Endothelin B receptor is not required but necessary for finite regulation of ovulation. *Life Science* 91(13-14): 613-7, 2012.
46. Bridges PJ, Jeoung M, Shim S, Park JY, Lee JE, Sapsford LA, Trudgen K, **Ko C**, Gye MC, Jo M. Hematopoietic prostaglandin D synthase: an ESR1-dependent oviductal epithelial cell synthase. *Endocrinology* 153(4): 1925-35, 2012.
47. Na G, Wolfe A, **Ko C**, Youn H, Lee YM, Byun SJ, Jeon I, Koo YB. A low-copy-number plasmid for retrieval of toxic genes from BACs and generation of conditional targeting constructs. *Molecular Biotechnology* 54(2): 504-14, 2013.
48. Sanz E, Evanoff R, Quintana A, Evans E, Miller JA, **Ko C**, Amieux PS, Griswold MD, McKnight GS. RiboTag analysis of actively translated mRNAs in Sertoli and Leydig Cells in vivo. *PLoS One* 8(6): e66179, 2013.
49. Cacioppo J, Oh SW, Kim HY, Cho J, Lin PC, Yanagisawa M, **Ko C***. Loss of function of endothelin-2 leads to reduced ovulation and CL formation. *PLoS One* 24;9(4): e96115, 2014.
50. Gawriluk T, **Ko C**, Hong X, Christenson L, Rucker III E. Beclin-1 deficiency in the murine ovary results in the reduction of progesterone production to promote preterm labor. *Proceedings of the National Academy of Science (PNAS)* 111(40): E4194-203, 2014.
51. Gal A, Lin PC, Barger A, MacNeill A, **Ko C***. Vaginal fold histology reduces the variability introduced by vaginal exfoliative cytology in the classification of mouse estrous cycle stages. *Toxicological Pathology* 42(8):1212-20, 2014.
52. Park E, Song CH, Park JI, Ahn RS, Choi HS, **Ko C**, Lee K. Transforming growth factor- β 1 signaling represses testicular steroidogenesis through cross-talk with orphan nuclear receptor Nur77. *PLoS One* 9(8): e104812, 2014.
53. Novaira HJ, Sonko ML, Hoffman G, Koo Y, **Ko C**, Wolfe A, Radovick S. Disrupted kisspeptin signaling in GnRH neurons leads to hypogonadotropic hypogonadism. *Molecular Endocrinology* 28(2): 225-238, 2014.
54. Wu S, DiVall S, Nwaopara A, Radovick S, Wondisford F, **Ko C**, Wolfe A. Obesity induced infertility and hyperandrogenism are corrected by deletion of the insulin receptor in the ovarian theca cell. *Diabetes* 63(4): 1270-82, 2014.
55. Lin J, Zhu J, Li X, Lan Z, **Ko C**, Lei Z. Expression of genomic functional estrogen receptor 1 in mouse Sertoli cells. *Reproductive Science* 21(11): 1411-22, 2014.
56. Cacioppo J, Koo YB, Gal A, **Ko C***. Generation and characterization of an Endothelin-2 iCre mouse. *Genesis* 53(2): 245-256, 2015. (Cover of the issue)

57. Zhao Y, Gong P, Chen Y, Nwachukwu JC, Srinivasan S, **Ko C**, Bagchi MK, Taylor RN, Korach KS, Nettles KW, Katzenellenbogen JA, Katzenellenbogen BS. Dual Suppression of estrogenic and inflammatory activities for targeting of endometriosis. *Science Translational Medicine* 7(271): 271ra9, 2015.
58. Cacioppo J, Koo YB, Gal A, **Ko C***. Generation and characterization of an estrogen receptor beta-iCre mouse. *Genesis* 54(1): 38-52, 2016.
59. Mereness AL, Murphy ZC, Forrestel AC, Richards JS., **Ko C**. Sellix M. Conditional deletion of *Bmall* in ovarian theca cells disrupts ovulation in female mice. *Endocrinology* 157(2): 913-27, 2016.
60. Cerny KL, Ribeiro RA, Jeoung M, **Ko C**, Bridges PJ. Estrogen receptor alpha (ESR1)-dependent regulation of the mouse oviductal transcriptome. *PLoS One* 11(1): e0147685, 2016.
61. Gal A, Lin P, Cacioppo J, Hannon PR, Mahoney MM, Wolfe A, Fernandez-Valdivia R, Lydon JP, Elias CF, and **Ko C***. Loss of fertility in the absence of *Pgr* expression in kisspeptin neurons. *PLoS One* 11(7): e0159534, 2016.
62. Barakat R, Oakley O, Kim H, Jin J, **Ko C***. Extra-gonadal sites of estrogen biosynthesis and function. *BMB Reports* 49(9): 488-96, 2016. (Invited review)
63. Ma Y, Andrisse S, Chen Y, Childress S, Xue P, Wang Z, Jones D, **Ko C**, Divall S, Wu S. Androgen Receptor in the Ovary Theca Cells Plays a Critical Role in Androgen-Induced Reproductive Dysfunction. *Endocrinology* 158 (1): 98-108, 2016.
64. Min E, Kandel M, **Ko C**, Popescu G, Jung W, and Best C. Label-free, multi-scale imaging of ex-vivo mouse brain using spatial light interference microscopy. *Scientific Reports* 6: 39667, 2016.
65. Han KA, Seol W, Seo H, Shin WH, Jung S, **Ko C** and Chung K. Leucine-rich repeat kinase 2 exacerbates neuronal cytotoxicity through phosphorylation of histone deacetylase3 and histone deacetylation. *Human Molecular Genetics*. pii: ddw363, 2016.
66. Oakley O, Kim KJ, Lin P, Cacioppo JA, Barakat R, **Ko C***. Estradiol synthesis in gut-associated lymphoid tissue: leukocyte regulation by a sexually monomorphic system. *Endocrinology* 157(12): 4579-4587, 2016.
67. Barakat R, Lin P, Rattan S, Brehm ES, Canisso IF, Abosalum ME, Flaws J, Hess R, **Ko C**. Prenatal exposure to DEHP induces premature reproductive senescence in male mice. *Toxicological Sciences* 156 (1): 96-108, 2017.
68. Lan ZJ, Krause MS, Redding SD, Li X, Wu GZ, Zhou HX, Bohler HC, **Ko C**, Cooney AJ, Zhou J, Lei ZM. Selective deletion of *Pten* in theca-interstitial cells leads to androgen excess and ovarian dysfunction in mice. *Molecular and Cellular Endocrinology* 15: 444:26-37, 2017.
69. Cooke PS, Nanjappa MK, **Ko C**, Prins GS, Hess RA. Estrogen in male Physiology. *Physiological Reviews*, 97(3): 995-1043, 2017. (Invited review)
70. Sarah C. Baumgarten, Marah Armouti, **Ko C**, Stocco C. IGF1R Expression in Ovarian Granulosa Cells is Essential for Steroidogenesis, Follicle Survival, and Fertility in Female Mice. *Endocrinology* 158(7): 2309-2318, 2017. (News and Views of the Issue of the Endocrinology)
71. Cacioppo J, Lin P, Hannon P, McDougle D, Gal A, **Ko C***. Granulosa cell endothelin-2 expression is fundamental for ovulatory follicle rupture. *Scientific Reports* 7(1): 817, 2017.
72. Kim MJ, Oh HJ, Kim GA, Setyawan EM, Choi YB, Lee SH, Petersen-Jones SM, **Ko C**, Lee BC. Birth of clones of the first cloned dogs. *Scientific Reports*. 7(1):15235, 2017
73. Chan Jin Park, Guanglin Chen, Youngbum Koo, Po-Ching Lin, Haley Prohaska, **Ko C***. Generation and characterization of estrogen receptor alpha-iCre knock-in mouse. *Genesis*. Nov 8 doi: 10.1002/dvg.23084. 2017
74. Lee-Thacker S, Choi Y, Taniuchi I, Takahara T, **Ko C**, Jo M. Core Binding Factor β expression in ovarian granulosa cells is essential for female fertility. *Endocrinology*. 159(5):2094-2109. 2018.
75. Park CJ, Kim H, Jin J. Barakat R, Lin PC, Choi JM, **Ko C***. Porcine intestinal lymphoid tissues synthesize estradiol. *Journal of Veterinary Science* 19(4):477-482, 2018.
76. Barakat R, Lin P, Park CJ, Popescu G, Bakery HH, Abosalum ME, Abdelaleem NM, Flaws J, **Ko C***. Prenatal Exposure to DEHP Induces Neuronal Degeneration and Neurobehavioral Abnormalities in Adult Male Mice. *Toxicological Sciences* 164 (2):439-452, 2018.

77. Duffy DM*, Ko C*, Jo M*, Brannstrom M*, Curry TE Jr*. Ovulation: Parallels with inflammatory Processes. *Endocrine Reviews* 40(2):369-416. 2019 (*, contributed equally) (Cover of the issue)
78. Park CJ, Barakat R, Lin PC, Ulanov A, Li Z, Lin PC, Chiu K, Zhou S, Perez P, Lee J, Flaws J, Ko C*. Sanitary pads and diapers contain higher phthalate contents than those in common commercial plastic products. *Reproductive Toxicology* 84: 114-121. 2019
79. Barakat R, Seymore T, Lin PC, Park CJ, Ko C*. Prenatal exposure to an environmentally relevant phthalate mixture disrupts testicular steroidogenesis in adult male mice. *Environmental Research* 172:194-201. 2019.
80. Kim DH, Park HJ, Park HS, Lee JU, Ko C, Gye MC, Choi JM. Estrogen receptor alpha in T cells suppresses follicular helper T cell responses and prevent autoimmunity. *Exp. Mo. Med.* 51(4): 41. 2019.
81. Park CJ, Lin PC, Zhou S, Barakat R, Bashir S, Choi JM, Cacioppo JA, Oakley OR, Duffy DM, Lydon JP, Ko C*. Progesterone receptor serves the ovary as a trigger of ovulation and a terminator of inflammation. *Cell Reports* 14;31(2):107496. 2020.
82. Barakat R, Lin PC, Park CJ, Zeineldin M, Zhou S, Rattan S, Brehm E, Flaws JA, Ko C*. Germline-dependent transmission of male reproductive traits induced by an endocrine disruptor, di-2-ethylhexyl phthalate, in future generations. *Scientific Reports* 10(1):5705. 2020.
83. Lee-Thacker S, Jeon H, Choi Y, Taniuchi I, Takahara T, Yoneda Y, Ko C, Jo M. Core Binding Factors Are Essential for Ovulation, Luteinization, and Female Fertility in Mice. *Scientific Reports* 10(1):9921. 2020.
84. Joachim E, Barakat R, Lew B, Kim KK, Ko C*, Choi H. Single Intranasal Administration of 17 β -estradiol Loaded Gelatin Nanoparticles Confers Neuroprotection in the Post-Ischemic Brain. *Nanomedicine* 29:102246. 2020.
85. Hiremath DS, Priviero FBM, Webb RC, Ko C, Narayan P. Constitutive LH receptor activity impairs NO mediated penile smooth muscle relaxation. *Reproduction* 161(1): 31-41. 2021.
86. Cheon YP, Ko C, Lee KH. Assessment of Adipocyte Differentiation and Maturation-related Gene Expression in the Epididymal Fat of Estrogen Receptor α Knockout (ER α KO) Mouse during Postnatal Development Period. *Dev Reprod* 24(4):287-296. 2021.
87. Secchi C, Belli M, Harrison TH, Swift S, Ko C, Duleba AJ, Stupack D, Chang JR, Shimasaki S. Effect of the Spatial-Temporal specific Theca Cell Cyp17 overexpression on the reproductive phenotype of the novel TC17 mouse. *J Trans Med* 19(1):428. 2021
88. Lee Y, Rattan S, Barakat R, Inman Z, De La Torre KM, Meling DD, Monaco MH, Irudayaraj JM, Cann IK, Ko C, Donovan SM, Flaws JA, Warner GR. Early postnata exposure to DEHP causes sex-specific disruption of gonadal development in pigs. *Reproductive Toxicology* 105:53-61. 2021.
89. Soraya AL, Suzuki Y, Morimoto M, Ko C, Ikeda K, Hirata KI, Emoto N. Protective effect of endothelin-2 in epithelial cells on Bleomycin-induced pulmonary fibrosis in mice. *Kobe J Med Sci* 67(2):E61-E70. 2021
90. Ko C*, Cho Y, Ham E, Cacioppo JA, Park C. Endothelin 2 – a key player in ovulation and fertility. *Reproduction* 163(4): R71-R80. 2022.
91. Park C, Oh JE, Feng J, Cho Y, Qiao H, Ko C*. Lifetime change of oocyte pool: contributing factors focusing on ovulatory inflammation. *Clinical & Experimental Reproductive Medicine* 49(1): 16-25. 2022.
92. Sun P, Wang H, Liu L, Guo K, Li X, Cao Y, Ko C, Lan ZJ, Lei Z. Aberrant activation of KRAS in mouse theca-interstitial cells results in female infertility. *Frontiers in Physiology* 13:991719. 2022.
93. Khaw YM, Anwar S, Zhou J, Kawano T, Lin P, Otero A, Barakat R, Drnevich J, Takahashi T, Ko C*, and Inoue M*. Estrogen receptor alpha signaling in dendritic cells modulates autoimmune disease phenotype in mice. *EMBO Reports*. 24(3):e54228. 2023
94. Park CJ, Minabe S, Hess RA, Lin PP, Zhou S, Bashir ST, Barakat R, Gal A, Ko C*. Single neonatal estrogen implant sterilizes female animals by decreasing hypothalamic KISS1 expression. *Scientific Reports* 13(1):9627. 2023.
95. Barakat R, Po-Ching Lin PC, Mary Bunnell M, Ji-Eun Oh JE, Cyrus Arnieri C, Sanya Rattan S, B Marzbanabbasabadi, Flaws JA, and Ko C*. Additive effects of prenatal DEHP exposure and maternal high-fat diet on gonadal dysfunction in male mice. *Biology of Reproduction*. 1-23. 2024