

Miyuki Harada

Miyuki Harada, M.D., Ph.D., is Professor of the Department of Obstetrics and Gynecology, Graduate School of Medicine, at the University of Tokyo. She is a board-certified specialist in Obstetrics/Gynecology, Reproductive Science, Women's Health, Laparoscopic Surgery, Robotic Surgery, and Anti-aging Medicine. Dr. Harada received her degrees, M.D. and Ph.D. from the University of Tokyo. Her postdoctoral training included a fellowship at Prof. KMJ Menon Lab in ObGyn/Biochemistry, Medical School, at University of Michigan in Ann Arbor, USA.

Her research goal is to overcome ovarian dysfunction caused by various environmental and/or chronological insults and to provide preconception care targeting ovarian function to women who may desire child-bearing in future. Dr. Harada has published 207 articles in leading medical journals, as of Aug. 2026. She serves as an Associate Editor of Journal of Ovarian Research and Reproductive Medicine and Biology, and an Editorial Board member of Journal of Clinical Medicine. Her research has focused on follicular microenvironment regulating ovarian pathophysiology including PMOS (polyendocrine metabolic ovarian syndrome), which was renamed from PCOS, chemotoxicity, and ovarian aging. Her recent research has also focused on gut microbiota in the pathophysiology of PMOS, given that intervention to intestinal environment is well-acceptable for women who want to conceive. Furthermore, her recent research also includes prediction of ovarian reserve using machine learning.

Dr. Harada has contributed a lot to various international and national societies. Internationally, she serves as REI SIG member of ASPIRE, Founding Board member and Secretary General of Asian PCOS Society, and REI committee member of AOFOG (The Asia & Oceania Federation of Obstetrics & Gynaecology), Board member of ISIVF (International Society for In Vitro Fertilization). She contributes numerous national societies as a board member; notably, she serves as Vice President of JSFP (Japan Society for Fertility Preservation).

Publications

205 articles in PubMed. Among them, 20 major publications are listed below. Corresponding author of these listed publications are myself.

1. Harada M, Osuga Y, Hirata T, Hirota Y, Koga K, Yoshino O, Morimoto C, Fujiwara T, Momoeda M, Yano T, Tsutsumi O, Taketani Y. Concentration of osteoprotegerin (OPG) in peritoneal fluid is increased in women with endometriosis. *Hum Reprod.* 19: 2188-2191, 2004.
2. Harada M, Osuga Y, Hirota Y, Koga K, Morimoto C, Hirata T, Yoshino O, Tsutsumi O, Yano T, Taketani Y. Mechanical stretch stimulates interleukin-8 production in endometrial stromal cells: possible implications in endometrium-related events. *J Clin Endocrinol Metab.* 90: 1144-1148, 2005
3. Harada M, Osuga Y, Takemura Y, Yoshino O, Koga K, Hirota Y, Hirata T, Morimoto C, Yano T, Taketani Y. Mechanical stretch upregulates IGFBP-1 secretion from decidualized endometrial stromal cells. *Am J Physiol Endocrinol Metab.* 290: E268-272, 2006.
4. Harada M, Peegel H, Menon KM. Expression of vascular endothelial growth factor A during ligand-induced down-regulation of luteinizing hormone receptor in the ovary. *Mol Cell Endocrinol.* 328: 28-33, 2010.
5. Takahashi N, Harada M *, Hirota Y, Zhao L, Yoshino O, Urata Y, Izumi G, Takamura M, Hirata T, Koga K, Wada-Hiraike O, Fujii T, Osuga Y. A potential role of endoplasmic reticulum stress in development of ovarian hyperstimulation syndrome. *Mol Cell Endocrinol.* 428: 161-169, 2016.
6. Takahashi N, Harada M *, Hirota Y, Zhao L, Azhary JM, Yoshino O, Izumi G, Hirata T,

Koga K, Wada-Hiraike O, Fujii T, Osuga Y. A Potential Role for Endoplasmic Reticulum Stress in Progesterone Deficiency in Obese Women. *Endocrinology*. 158: 84-97, 2017.

7. Takahashi N, Harada M *, Hirota Y, Nose E, Azhary JM, Koike H, Kunitomi C, Yoshino O, Izumi G, Hirata T, Koga K, Wada-Hiraike O, Chang RJ, Shimasaki S, Fujii T, Osuga Y. Activation of Endoplasmic Reticulum Stress in Granulosa Cells from Patients with Polycystic Ovary Syndrome Contributes to Ovarian Fibrosis. *Sci Rep*. 7: 10824, 2017.

8. Azhary JMK, Harada M *, Takahashi N, Nose E, Kunitomi C, Koike H, Hirata T, Hirota Y, Koga K, Wada-Hiraike O, Fujii T, Osuga Y. Endoplasmic Reticulum Stress Activated by Androgen Enhances Apoptosis of Granulosa Cells via Induction of Death Receptor 5 in PCOS. *Endocrinology*. 160: 119-132, 2019.

9. Harada M, Osuga Y. Fertility preservation for female cancer patients. *Int J Clin Oncol*. 24:28-33, 2019.

10. Takahashi N, Harada M *, Azhary JMK, Kunitomi C, Nose E, Terao H, Koike H, Wada-Hiraike O, Hirata T, Hirota Y, Koga K, Fujii T, Osuga Y. Accumulation of advanced glycation end products in follicles is associated with poor oocyte developmental competence. *Mol Hum Reprod*. 25: 684-694, 2019.

11. Kunitomi C, Harada M *, Takahashi N, Azhary JMK, Kusamoto A, Nose E, Oi N, Takeuchi A, Wada-Hiraike O, Hirata T, Hirota Y, Koga K, Fujii T, Osuga Y. Activation of endoplasmic reticulum stress mediates oxidative stress-induced apoptosis of granulosa cells in ovaries affected by endometrioma. *Mol Hum Reprod*. 26: 40-52, 2020.

12. Azhary JMK, Harada M *, Kunitomi C, Kusamoto A, Takahashi N, Nose E, Oi N, Wada-Hiraike O, Urata Y, Hirata T, Hirota Y, Koga K, Fujii T, Osuga Y. Androgens Increase Accumulation of Advanced Glycation End Products in Granulosa Cells by Activating ER Stress in PCOS. *Endocrinology*. 161: bqaa015, 2020.

13. Kunitomi C, Harada M *, Kusamoto A, Azhary JM, Nose E, Koike H, Xu Z, Urata Y, Takahashi N, Wada-Hiraike O, Hirota Y, Koga K, Fujii T, Osuga Y. Induction of aryl hydrocarbon receptor in granulosa cells by endoplasmic reticulum stress contributes to pathology of polycystic ovary syndrome. *Mol Hum Reprod*. 27: gaab003, 2021.

14. Harada M *, Takahashi N, Azhary JM, Kunitomi C, Fujii T, Osuga Y. Endoplasmic reticulum stress: a key regulator of the follicular microenvironment in the ovary. *Mol Hum Reprod*. 27: gaaa088, 2021.

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16. Kunitomi C, Harada M *, Sanada Y, Kusamoto A, Takai Y, Furui T, Kitagawa Y, Yamada M, Watanabe C, Tsugawa K, Nishiyama H, Hosoi H, Miyachi M, Sugiyama K, Maeda Y, Kawai A, Hamatani T, Fujio K, Suzuki N, Osuga Y. The possible effects of the Japan Society of Clinical Oncology Clinical Practice Guidelines 2017 on the practice of fertility preservation in female cancer patients in Japan. *Reprod Med Biol*. 21: e12453, 2022.

17. Harada M *. Pathophysiology of polycystic ovary syndrome revisited: Current understanding and perspectives regarding future research. *Reprod Med Biol.* 21: e12487, 2022.
18. Kusamoto A, Harada M*, Minemura A, Matsumoto A, Oka K, Takahashi M, Sakaguchi N, Azhary JMK, Koike H, Xu Z, Tanaka T, Urata Y, Kunitomi C, Takahashi N, Wada-Hiraike O, Hirota Y, Osuga Y. Effects of the prenatal and postnatal nurturing environment on the phenotype and gut microbiota of mice with polycystic ovary syndrome induced by prenatal androgen exposure: a cross-fostering study. *Front Cell Dev Biol.* 12 :1365624, 2024.
19. Harada M *. Cellular senescence in the pathogenesis of ovarian dysfunction. *J Obstet Gynaecol Res.* 50: 800-808, 2024.
20. Tanaka T, Urata Y, Harada M*, Kunitomi C, Kusamoto A, Koike H, Xu Z, Sakaguchi N, Tsuchida C, Komura A, Teshima A, Takahashi N, Wada-Hiraike O, Hirota Y, Osuga Y. Cellular senescence of granulosa cells in the pathogenesis of polycystic ovary syndrome. *Mol Hum Reprod.* 30: gaae015, 2024.
平成30年高橋望、令和2年Jerilee MK Azhary、令和4年國富千智、令和5年草本朱里、令和6年小池洋、Zixin Xu、令和7年田中つるぎ