



Bo Yu, MD

Associate Professor of Obstetrics and Gynecology (Reproductive Endocrinology and Infertility)

Obstetrics & Gynecology - Reproductive Endocrinology & Infertility

CLINICAL OFFICE (PRIMARY)

- **Stanford Medicine Fertility and Reproductive Health**

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Bio

CLINICAL FOCUS

- Reproductive Endocrinology and Infertility
- Infertility, Female
- Assisted Reproductive Technologies

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Obstetrics & Gynecology - Reproductive Endocrinology & Infertility
- Member, Bio-X
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute

HONORS AND AWARDS

- Transdisciplinary Initiatives Program Award, Stanford Maternal Child Health Research Institute (2022-2024)
- Akiko Yamazaki and Jerry Yang Faculty Scholar in Pediatric Translational Medicine, Stanford Maternal Child Health Research Institute (2021-2026)
- Top Doctor, Seattle Met (2019)
- Early Career Award, Society of Reproductive Investigation (2017)
- Prize Paper Presentation, American Society of Reproductive Medicine (2016, 2011)
- Young Investigator Achievement Award, Howard and Georgeanna Jones Foundation for Reproductive Medicine (2014)
- Graduation with Distinction in Research, University of Michigan Medical School (2005)
- J. Griswold Ruth, M.D., and Margery Hopkins Ruth Endowed Scholarship, University of Michigan Medical School (2004)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Physician Scientist Interest Group, American Society of Reproductive Medicine (2020 - 2021)
- Research Committee, American Society of Reproductive Medicine (2019 - present)

PROFESSIONAL EDUCATION

- Residency: New York Presbyterian Columbia Campus Dept of Ob and Gynecology (2009) NY
- Board Certification: Reproductive Endocrinology and Infertility, American Board of Obstetrics and Gynecology (2016)
- Board Certification: Obstetrics and Gynecology, American Board of Obstetrics and Gynecology (2012)
- Fellowship: National Institutes of Health - Office of Education (2012) MD
- Medical Education: University of Michigan School of Medicine (2005) MI

LINKS

- Bo Yu Lab: <https://med.stanford.edu/bo-yu.html>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Yu's lab is interested in ovarian physiology and pathology, as well as assisted reproductive technologies (ART). The main goals are to (i) develop non-invasive preimplantation genetic testing, (ii) examine the impact of ART on the long-term health and future generations, (iii) understand the initiating events of ovarian cancer for early detection. Yu lab uses a combination of cellular & molecular biology, genomics, animal model, and molecular imaging technologies to better understand molecular and pathological processes.

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

David Hawke

Publications

PUBLICATIONS

- **Human fallopian tube epithelial organoids with TP53 mutation recapitulate features of serous tubal intraepithelial carcinoma (STIC).** *Gynecologic oncology*
Kraiczky, J., Yu, B.
2025; 203: 198-208
- **Developmental potential of zygotes without pronucleus (0PN) and pregnancy outcomes after single euploid blastocyst transfers.** *Journal of assisted reproduction and genetics*
Moon, J. H., Zhang, J., Yu, B.
2025
- **Identification of fallopian tube microbiota and its association with ovarian cancer.** *eLife*
Yu, B., Liu, C., Proll, S. C., Manhardt, E., Liang, S., Srinivasan, S., Swisher, E., Fredricks, D. N.
2024; 12
- **Vaginal Bacteria Elicit Acute Inflammatory Response in Fallopian Tube Organoids.** *Reproductive sciences (Thousand Oaks, Calif.)*
Yu, B., McCartney, S., Strenk, S., Valint, D. J., Liu, C., Haggerty, C. L., Fredricks, D. N.
2023
- **Single-cell analysis of transcriptome and DNA methylome in human oocyte maturation.** *PloS one*
Yu, B. n., Doni Jayavelu, N. n., Battle, S. L., Mar, J. C., Schimmel, T. n., Cohen, J. n., Hawkins, R. D.
2020; 15 (11): e0241698
- **Superovulation alters global DNA methylation in early mouse embryo development.** *Epigenetics*
Yu, B. n., Smith, T. H., Battle, S. L., Ferrell, S. n., Hawkins, R. D.

2019; 14 (8): 780–90

- **Genome-wide, Single-Cell DNA Methyloomics Reveals Increased Non-CpG Methylation during Human Oocyte Maturation.** *Stem cell reports*
Yu, B., Dong, X., Gravina, S., Kartal, Ö., Schimmel, T., Cohen, J., Tortoriello, D., Zody, R., Hawkins, R. D., Vijg, J.
2017; 9 (1): 397-407
- **DNA methylome and transcriptome sequencing in human ovarian granulosa cells links age-related changes in gene expression to gene body methylation and 3'-end GC density.** *Oncotarget*
Yu, B., Russanova, V. R., Gravina, S., Hartley, S., Mullikin, J. C., Ignezweski, A., Graham, J., Segars, J. H., DeCherney, A. H., Howard, B. H.
2015; 6 (6): 3627-43
- **Changes in markers of ovarian reserve and endocrine function in young women with breast cancer undergoing adjuvant chemotherapy.** *Cancer*
Yu, B., Douglas, N., Ferin, M. J., Nakhuda, G. S., Crew, K., Lobo, R. A., Hershman, D. L.
2010; 116 (9): 2099-105
- **Benchmarking cell type and gene set annotation by large language models with AnnDictionary.** *Nature communications*
Crowley, G., Quake, S. R.
2025; 16 (1): 9511
- **DISCORDANT NON-INVASIVE PGT-A RESULTS AND CLINICAL OUTCOME**
Curnow, E., Ryan, G. L., Yu, B.
ELSEVIER SCIENCE INC.2023: E276
- **Vaginal bacteria elicit acute inflammatory response in fallopian tube organoids: a model for pelvic inflammatory disease.** *Research square*
Yu, B., McCartney, S., Strenk, S., Valint, D., Liu, C., Haggerty, C., Fredricks, D. N.
2023
- **Congenital male genital malformations and paternal health: an analysis of US claims data.** *Andrology*
Yu, B., Zhang, C. A., Chen, T., Mulloy, E., Shaw, G. M., Eisenberg, M. L.
2023
- **Pregnancy outcomes in women with sickle cell disease in California.** *American journal of hematology*
Adesina, O. O., Brunson, A., Fisch, S. C., Yu, B., Mahajan, A., Willen, S. M., Keegan, T. H., Wun, T.
2023
- **The Reproductive Competence of Human Metaphase I Oocytes with Delayed Maturation In Vitro**
Nguyen, E., Moon, J. H., Nel-Themaat, L., Lathi, R., Yu, B.
SPRINGER HEIDELBERG.2023: 43A-44A
- **Establishing Upper Genital Tract Organoids to Model Pathogenesis of Cancers and Infectious Diseases**
Nguyen, E., Fredricks, D., Swisher, E., Yu, B.
SPRINGER HEIDELBERG.2023: 145A-146A
- **Comprehensive Profiling of the Fallopian Tube Microbiome**
Nguyen, E., Liu, C., Proll, S., Srinivasan, S., Yu, B.
SPRINGER HEIDELBERG.2023: 208A
- **The developmental competence of human metaphase I oocytes with delayed maturation in vitro.** *Fertility and sterility*
Moon, J. H., Zhao, Q., Zhang, J., Reddy, V., Han, J., Cheng, Y., Zhang, N., Dasig, J., Nel-Themaat, L., Behr, B., Yu, B.
2022
- **Preconception paternal comorbidities and offspring birth defects: Analysis of a large national data set.** *Birth defects research*
Yu, B., Zhang, C. A., Li, S., Chen, T., Mulloy, E., Shaw, G. M., Eisenberg, M. L.
2022
- **Pregnancy Outcomes in Women with Sickle Cell Disease in California: A Retrospective Cohort Study**
Fisch, S. C., Brunson, A. M., Mahajan, A., Keegan, T., Yu, B., Wun, T., Adesina, O. O.
AMER SOC HEMATOLOGY.2021

- **Severe ovarian hyperstimulation syndrome associated with long-acting GnRH agonist in oncofertility patients.** *Journal of assisted reproduction and genetics*
Christ, J., Herndon, C. N., Yu, B.
2021
- **Dissociation of Pubertal Development Abnormality and Gonadal Dysfunction in Childhood Cancer Survivors** *JOURNAL OF ADOLESCENT AND YOUNG ADULT ONCOLOGY*
Yu, B., Fritz, R., Vega, M., Merino, M.
2020; 9 (4): 490–95
- **Gonadotropin-Releasing Hormone (GnRH) Agonists for Fertility Preservation: Is POEMS the Final Verse?** *Journal of the National Cancer Institute*
Yu, B., Davidson, N. E.
2019; 111 (2): 107-108
- **The impact of using donor sperm in assisted reproductive technology cycles on perinatal outcomes.** *Fertility and sterility*
Yu, B., Fritz, R., Xie, X., Negassa, A., Jindal, S., Vega, M., Buyuk, E.
2018; 110 (7): 1285-1289
- **Comparison of perinatal outcomes following frozen embryo transfer cycles using autologous versus donor oocytes in women 40 to 43 years old: analysis of SART CORS data.** *Journal of assisted reproduction and genetics*
Yu, B., Vega, M., Zaghi, S., Fritz, R., Jindal, S., Buyuk, E.
2018; 35 (11): 2025-2029
- **Single-cell genome-wide bisulfite sequencing uncovers extensive heterogeneity in the mouse liver methylome.** *Genome biology*
Gravina, S., Dong, X., Yu, B., Vijg, J.
2016; 17 (1): 150
- **Cost-effectiveness analysis comparing continuation of assisted reproductive technology with conversion to intrauterine insemination in patients with low follicle numbers.** *Fertility and sterility*
Yu, B., Mumford, S., Royster, G. D., Segars, J., Armstrong, A. Y.
2014; 102 (2): 435-9
- **The prevalence of genuine empty follicle syndrome.** *Fertility and sterility*
Mesen, T. B., Yu, B., Richter, K. S., Widra, E., DeCherney, A. H., Segars, J. H.
2011; 96 (6): 1375-7
- **Subclinical elevations of thyroid-stimulating hormone and assisted reproductive technology outcomes.** *Fertility and sterility*
Michalakis, K. G., Mesen, T. B., Brayboy, L. M., Yu, B., Richter, K. S., Levy, M., Widra, E., Segars, J. H.
2011; 95 (8): 2634-7
- **The role of peripheral gonadotropin-releasing hormone receptors in female reproduction.** *Fertility and sterility*
Yu, B., Ruman, J., Christman, G.
2011; 95 (2): 465-73
- **A systematic, multidisciplinary approach to address the reproductive needs of HIV-seropositive women.** *Reproductive biomedicine online*
Douglas, N. C., Wang, J. G., Yu, B., Gaddipati, S., Guarnaccia, M. M., Sauer, M. V.
2009; 19 (2): 257-63
- **Uterine artery embolization as an adjunctive measure to decrease blood loss prior to evacuating a cervical pregnancy.** *Archives of gynecology and obstetrics*
Yu, B., Douglas, N. C., Guarnaccia, M. M., Sauer, M. V.
2009; 279 (5): 721-4
- **Efficacy of native and hyperglycosylated follicle-stimulating hormone analogs for promoting fertility in female mice.** *Fertility and sterility*
Trousdale, R. K., Yu, B., Pollak, S. V., Husami, N., Vidali, A., Lustbader, J. W.
2009; 91 (1): 265-70
- **Management of chyle fistula utilizing thoracoscopic ligation of the thoracic duct.** *ORL; journal for oto-rhino-laryngology and its related specialties*
Gunnaugsson, C. B., Iannettoni, M. D., Yu, B., Chepeha, D. B., Teknos, T. N.

2004; 66 (3): 148-54

- **Therapeutic effects of tumor reactive CD4+ cells generated from tumor-primed lymph nodes using anti-CD3/anti-CD28 monoclonal antibodies.** *Journal of immunotherapy (Hagerstown, Md. : 1997)*

Li, Q., Yu, B., Grover, A. C., Zeng, X., Chang, A. E.

2002; 25 (4): 304-13