



Kazuo Ando

Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine

CLINICAL OFFICE (PRIMARY)

- **Dept of Anesthesia**

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Bio

BIO

Born and raised in Japan, Dr. Ando received an MD-PhD degree from the Aichi Medical University. After anesthesia training, Dr. Ando came to Stanford to pursue clinical and basic research experience. During his postdoctoral fellowship in Dr. Gaudilliere's laboratory, Dr. Ando worked on publication of "A next-generation single-cell technology (mass cytometry) to study the fetomaternal immune system," a project designed to evaluate the immune response associated with preterm birth. In addition, Dr. Ando performs research in Obstetric Anesthesia, such as respiratory monitoring after cesarean sections and labor satisfaction, to obtain clinical research experience and to understand the key differences in medicine between the United States and Japan.

After his postdoctoral fellowship, Dr. Ando has maintained his status as a researcher in Dr. Gaudilliere's laboratory, continuing work relating to pregnancy and preterm birth.

Dr. Ando divides his efforts between laboratory research and the clinic.

CLINICAL FOCUS

- OB Anesthesia
- Anesthesia

ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine

HONORS AND AWARDS

- Best Research Paper, 58th Annual Society for Obstetric Anesthesia and Perinatology (May 2026)
- Frederick P. Zuspan Award, 53th Annual Society for Obstetric Anesthesia and Perinatology (May 2021)
- Best Paper Finalist, 52th Annual Society for Obstetric Anesthesia and Perinatology (Sep 2020)
- Best Paper Finalist, 50th Annual Society for Obstetric Anesthesia and Perinatology (May 2018)
- 2nd Best Paper, 49th Annual Society for Obstetric Anesthesia and Perinatology (May 2017)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Society of Anesthesiologists (2012 - present)
- Member, Society for Obstetric Anesthesia and Perinatology (2016 - present)
- Board Certified Anesthesiologist, Japanese Society of Anesthesiologists (2017 - present)

PROFESSIONAL EDUCATION

- Board Certification: Anesthesia, Japanese Society of Anesthesiologists
- Medical Education: Aichi Medical University (2009) Japan
- Internship: Tushima City Hospital (2011) Japan
- PhD, Aichi Medical University Graduate School of Medicine , Anesthesiology and Pharmacology (2015)
- Residency: Aichi Medical University Hospital (2016) Japan
- Postdoctoral Fellow, Stanford University School of Medicine , Anesthesiology (2018)

Publications

PUBLICATIONS

- **Unexpected Residual Gastric Contents in a Patient After Holding Semaglutide After Standard Fasting Guidelines: A Case Report. *A&A practice***
Ando, K., Takenoshita, M., Wei, M. T.
2026; 20 (2): e02161
- **MULTIOMIC APPROACH TO STUDY THE IMMUNOLOGIC PROFILE PRECEDING PRETERM BIRTH**
Urbschat, C., Stelzer, I., Gillard, J., Thiele, K., Feyearts, D., Pagenkemper, M., Tallarek, A., Hollwitz, B., Sato, M., Ganio, E., Diop, M., Ando, K., Einhaus, et al
W B SAUNDERS CO LTD.2025
- **Single-cell-level digital twins for preterm birth prevention strategies. *bioRxiv : the preprint server for biology***
Einhaus, J., Neidlinger, P., Fondeur, O., Sato, M., Anronikov, A., Miyazaki, K., Amar, J. N., Ando, K., Badea, V., Gaudilliere, D. K., Sabayev, M., Feyaerts, D., Diop, et al
2025
- **Immune Profiling of Post-COVID Condition in Adults Living in Mexico: A Longitudinal Analysis of Immune and Proteomic Markers**
Anronikov, S., Meikle, C., Saavedra, S., Gallegos, A., Islas, L., Nunez, I., Chen, H., Feyaerts, D., Gillard, J., Tsai, A., Bonham, T., Genic, E., Nolan, et al
LIPPINCOTT WILLIAMS & WILKINS.2025: 230-231
- **Intraoperative fentanyl in endoscopic procedures and their impact on PACU time and costs. *Perioperative medicine (London, England)***
Akabane, M., Kukuruzza, K., Angelotti, T., Banerjee, S., Ando, K.
2025; 14 (1): 33
- **Intraoperative Opioids in Endoscopic Procedures and their Impact on PACU Time and Costs**
Ando, K., Akabane, M., Kukuruzza, K., Banerjee, S., Angelotti, T.
LIPPINCOTT WILLIAMS & WILKINS.2024: 807-808
- **An immune signature of postoperative cognitive decline: A prospective cohort study. *International journal of surgery (London, England)***
Verdonk, F., Cambriel, A., Hedou, J., Ganio, E., Bellan, G., Gaudilliere, D., Einhaus, J., Sabayev, M., Stelzer, I. A., Feyaerts, D., Bonham, A. T., Ando, K., Choisy, et al
2024
- **A comparative study of English and Japanese ChatGPT responses to anaesthesia-related medical questions. *BJA open***
Ando, K., Sato, M., Wakatsuki, S., Nagai, R., Chino, K., Kai, H., Sasaki, T., Kato, R., Nguyen, T. P., Guo, N., Sultan, P.
2024; 10: 100296

- **Postpartum recovery of nulliparous women following scheduled cesarean delivery and spontaneous vaginal delivery: a prospective observational study.** *AJOG global reports*
Mazda, Y., Ando, K., Kato, A., Noguchi, S., Sugiyama, T., Hizuka, K., Nagai, A., Ikeda, Y., Sakamaki, D., Guo, N., Carvalho, B., Sultan, P.
2023; 3 (3): 100226
- **A systematic review of patient-reported outcome measures used in maternal postpartum anxiety.** *American journal of obstetrics & gynecology MFM*
O'Carroll, J., Ando, K., Yun, R., Panelli, D., Nicklin, A., Kennedy, N., Carvalho, B., Blake, L., Coker, J., Kaysen, D., Sultan, P.
2023: 101076
- **An immune signature of postoperative cognitive dysfunction (POCD), a prospective cohort study**
Verdonk, F., Hedou, J., Bellan, G., Ganio, E., Stelzer, I., Feysaerts, D., Sato, M., Bonham, A., Ando, K., Gaudilliere, D., Gaillard, R., Molliex, S., Sharshar, et al
LIPPINCOTT WILLIAMS & WILKINS.2023: 466-467
- **Integrated plasma proteomic and single-cell immune signaling network signatures demarcate mild, moderate, and severe COVID-19.** *Cell reports. Medicine*
Feysaerts, D., Hédou, J., Gillard, J., Chen, H., Tsai, E. S., Peterson, L. S., Ando, K., Manohar, M., Do, E., Dhondalay, G. K., Fitzpatrick, J., Artandi, M., Chang, et al
2022: 100680
- **Assessment of Patient-Reported Outcome Measures for Maternal Postpartum Depression Using the Consensus-Based Standards for the Selection of Health Measurement Instruments Guideline: A Systematic Review.** *JAMA network open*
Sultan, P., Ando, K., Elkhateb, R., George, R. B., Lim, G., Carvalho, B., Chitneni, A., Kawai, R., Tulipan, T., Blake, L., Coker, J., O'Carroll, J.
2022; 5 (6): e2214885
- **An immune signature of postoperative cognitive dysfunction (POCD)**
Verdonk, F., Tsai, A. S., Hedou, J., Heifets, B. D., Gaudilliere, D., Bellan, G., Sharshar, T., Gaillard, R., Molliex, S., Feysaerts, D., Stelzer, I., Ganio, E. A., Sato, et al
LIPPINCOTT WILLIAMS & WILKINS.2022: 577-578
- **Multimodal, coached telehealth prehabilitation has high compliance and improves exercise and cognitive capacity prior to surgery: a pilot study**
Choisy, B., Hedou, J., Verdonk, F., Gaudilliere, D., Tsai, A. S., Shankar, K., Sato, M., Einhaus, J., Ganio, E. A., Bonham, A., Warrington, B., Ahmad, S., Tingle, et al
LIPPINCOTT WILLIAMS & WILKINS.2022: 415
- **Association of Prehabilitation With Postoperative Opioid Use in Colorectal Surgery: An Observational Cohort Study.** *The Journal of surgical research*
Lee, A., Shelton, E., Bidwell, S., Shankar, K., Ando, K., Gaudilliere, B., Shelton, A., Kin, C.
1800; 273: 226-232
- **Integrated Single-Cell and Plasma Proteomic Modeling to Predict Surgical Site Complications: A Prospective Cohort Study.** *Annals of surgery*
Rumer, K. K., Hedou, J., Tsai, A., Einhaus, J., Verdonk, F., Stanley, N., Choisy, B., Ganio, E., Bonham, A., Jacobsen, D., Warrington, B., Gao, X., Tingle, et al
1800
- **Multi-Omic, Longitudinal Profile of Third-Trimester Pregnancies Identifies a Molecular Switch That Predicts the Onset of Labor.**
Stelzer, I., Ghaemi, M., Han, X., Ando, K., Hedou, J., Feysaerts, D., Peterson, L., Ganio, E., Tsai, A., Tsai, E., Rumer, K., Stanley, N., Fallazadeh, et al
SPRINGER HEIDELBERG.2021: 233A-234A
- **Integrated trajectories of the maternal metabolome, proteome, and immunome predict labor onset.** *Science translational medicine*
Stelzer, I. A., Ghaemi, M. S., Han, X., Ando, K., Hedou, J. J., Feysaerts, D., Peterson, L. S., Rumer, K. K., Tsai, E. S., Ganio, E. A., Gaudilliere, D. K., Tsai, A. S., Choisy, et al
2021; 13 (592)
- **Proteomic signatures predict preeclampsia in individual cohorts but not across cohorts - implications for clinical biomarker studies.** *The journal of maternal-fetal & neonatal medicine : the official journal of the European Association of Perinatal Medicine, the Federation of Asia and Oceania Perinatal Societies, the International Society of Perinatal Obstetricians*
Ghaemi, M. S., Tarca, A. L., Romero, R. n., Stanley, N. n., Fallahzadeh, R. n., Tanada, A. n., Culos, A. n., Ando, K. n., Han, X. n., Blumenfeld, Y. J., Druzin, M. L., El-Sayed, Y. Y., Gibbs, et al

2021: 1–8

- **A systematic review of patient-reported outcome measures used to assess sleep in postpartum women using Consensus Based Standards for the Selection of Health Measurement Instruments (COSMIN) guidelines.** *Sleep*
Sultan, P. n., Ando, K. n., Sultan, E. n., Hawkins, J. n., Blake, L. n., Barwick, F. n., Kawai, M. n., Carvalho, B. n.
2021
- **Use of Patient-Reported Outcome Measures to Assess Outpatient Postpartum Recovery: A Systematic Review.** *JAMA network open*
Sultan, P., Sharawi, N., Blake, L., Ando, K., Sultan, E., Aghaeepour, N., Carvalho, B., Sadana, N.
2021; 4 (5): e2111600
- **A systematic review of patient-reported outcome measures used to assess postpartum pain using Consensus Based Standards for the Selection of Health Measurement Instruments (COSMIN) guidelines.** *British journal of anaesthesia*
Sultan, P. n., Ando, K. n., Sultan, E. n., Hawkins, J. E., Chitneni, A. n., Sharawi, N. n., Sadana, N. n., Blake, L. E., Singh, P. M., Flood, P. n., Carvalho, B. n.
2021
- **Single-Cell Analysis of the Neonatal Immune System Across the Gestational Age Continuum.** *Frontiers in immunology*
Peterson, L. S., Hedou, J., Ganio, E. A., Stelzer, I. A., Feyaerts, D., Harbert, E., Adusumelli, Y., Ando, K., Tsai, E. S., Tsai, A. S., Han, X., Ringle, M., Houghteling, et al
2021; 12: 714090
- **A Peripheral Immune Signature of Labor Induction.** *Frontiers in immunology*
Ando, K., Hédou, J. J., Feyaerts, D., Han, X., Ganio, E. A., Tsai, E. S., Peterson, L. S., Verdonk, F., Tsai, A. S., Marić, I., Wong, R. J., Angst, M. S., Aghaeepour, et al
2021; 12: 725989
- **Integration of mechanistic immunological knowledge into a machine learning pipeline improves predictions** *NATURE MACHINE INTELLIGENCE*
Culos, A., Tsai, A. S., Stanley, N., Becker, M., Ghaemi, M. S., Mcllwain, D. R., Fallahzadeh, R., Tanada, A., Nassar, H., Espinosa, C., Xenochristou, M., Ganio, E., Peterson, et al
2020
- **Integration of mechanistic immunological knowledge into a machine learning pipeline improves predictions.** *Nature machine intelligence*
Culos, A., Tsai, A. S., Stanley, N., Becker, M., Ghaemi, M. S., Mcllwain, D. R., Fallahzadeh, R., Tanada, A., Nassar, H., Espinosa, C., Xenochristou, M., Ganio, E., Peterson, et al
2020; 2 (10): 619-628
- **IMMUNE PROFILING TO PREDICT RECOVERY OUTCOMES AFTER SURGERY**
Tsai, E. S., Rumer, K., Wong, K., Warrington, B., Shelton, E., Ganio, E., Verdonk, F., Ando, K., Tingle, M., Folk-Tolbert, M., Shankar, K., Shelton, A., Morris, et al
LIPPINCOTT WILLIAMS & WILKINS.2020: 66–67
- **Multi-Omic, Longitudinal Profile of Third-Trimester Pregnancies Identifies a Molecular Switch That Predicts the Onset of Labor.**
Stelzer, I., Ghaemi, M., Han, X., Ando, K., Peterson, L., Contrepolis, K., Ganio, E., Tsai, A., Tsai, E., Rumer, K., Stanley, N., Fallazadeh, R., Becker, et al
SPRINGER HEIDELBERG.2020: 89A
- **Factors associated with persistent pain after childbirth: a narrative review.** *British journal of anaesthesia*
Komatsu, R., Ando, K., Flood, P. D.
2020
- **Multiomic immune clockworks of pregnancy.** *Seminars in immunopathology*
Peterson, L. S., Stelzer, I. A., Tsai, A. S., Ghaemi, M. S., Han, X. n., Ando, K. n., Winn, V. D., Martinez, N. R., Contrepolis, K. n., Moufarrej, M. N., Quake, S. n., Relman, D. A., Snyder, et al
2020
- **Multiomics Characterization of Preterm Birth in Low- and Middle-Income Countries.** *JAMA network open*
Jehan, F. n., Sazawal, S. n., Baqui, A. H., Nisar, M. I., Dhingra, U. n., Khanam, R. n., Ilyas, M. n., Dutta, A. n., Mitra, D. K., Mehmood, U. n., Deb, S. n., Mahmud, A. n., Hotwani, et al
2020; 3 (12): e2029655

- **VoPo leverages cellular heterogeneity for predictive modeling of single-cell data.** *Nature communications*
Stanley, N. n., Stelzer, I. A., Tsai, A. S., Fallahzadeh, R. n., Ganio, E. n., Becker, M. n., Phongpreecha, T. n., Nassar, H. n., Ghaemi, S. n., Maric, I. n., Culos, A. n., Chang, A. L., Xenochristou, et al
2020; 11 (1): 3738
- **Society for Obstetric Anesthesia and Perinatology Consensus Statement: Monitoring Recommendations for Prevention and Detection of Respiratory Depression Associated With Administration of Neuraxial Morphine for Cesarean Delivery Analgesia** *ANESTHESIA AND ANALGESIA*
Bauchat, J. R., Weiniger, C. F., Sultan, P., Habib, A. S., Ando, K., Kowalczyk, J. J., Kato, R., George, R. B., Palmer, C. M., Carvalho, B.
2019; 129 (2): 458–74
- **Determinants of women's dissatisfaction with anaesthesia care in labour and delivery.** *Anaesthesia*
Yurashevich, M., Carvalho, B., Butwick, A. J., Ando, K., Flood, P. D.
2019
- **Postpartum chronic pelvic pain and pelvic girdle pain.** *Minerva anesthesiologica*
Komatsu, R., Ando, K., Flood, P. D.
2019
- **Differential Dynamics of the Maternal Immune System in Healthy Pregnancy and Preeclampsia** *FRONTIERS IN IMMUNOLOGY*
Han, X., Ghaemi, M. S., Ando, K., Peterson, L. S., Ganio, E. A., Tsai, A. S., Gaudilliere, D. K., Stelzer, I. A., Einhaus, J., Bertrand, B., Stanley, N., Culos, A., Tanada, et al
2019; 10
- **Systemic Immunologic Consequences of Chronic Periodontitis.** *Journal of dental research*
Gaudilliere, D. K., Culos, A. n., Djebali, K. n., Tsai, A. S., Ganio, E. A., Choi, W. M., Han, X. n., Maghaireh, A. n., Choisy, B. n., Baca, Q. n., Einhaus, J. F., Hedou, J. J., Bertrand, et al
2019: 22034519857714
- **Multiomics modeling of the immunome, transcriptome, microbiome, proteome and metabolome adaptations during human pregnancy.** *Bioinformatics (Oxford, England)*
Ghaemi, M. S., DiGiulio, D. B., Contrepolis, K., Callahan, B., Ngo, T. T., Lee-McMullen, B., Lehallier, B., Robaczewska, A., Mcilwain, D., Rosenberg-Hasson, Y., Wong, R. J., Quaintance, C., Culos, et al
2019; 35 (1): 95–103
- **ASSESSMENT OF MATERNAL PERIPHERAL IMMUNE SYSTEM BY MASS CYTOMETRY TO PREDICT THE ONSET OF LABOR**
Ando, K., Han, X., Ghaemi, S., Angst, M., Carvalho, B., Aghaeepour, N., Gaudilliere, B.
LIPPINCOTT WILLIAMS & WILKINS.2018: 403
- **Mass Cytometry and Proteomic Based Prediction of the Onset of Labor.**
Ando, K., Han, X., Ghaemi, S., Tsai, A., Ganio, E., Gaudilliere, D., Culos, T., Shaw, G., Wong, R., Stevenson, D., Carvalho, B., Tingle, M., Angst, et al
SAGE PUBLICATIONS INC.2018: 153A
- **Centrally administered isoproterenol induces sympathetic outflow via brain prostaglandin E-2-mediated mechanisms in rats** *AUTONOMIC NEUROSCIENCE-BASIC & CLINICAL*
Ando, K., Kondo, F., Yamaguchi, N., Tachi, M., Fukayama, M., Yoshikawa, K., Goshō, M., Fujiwara, Y., Okada, S.
2015; 189: 1–7
- **Particulate matter in bicarbonate Ringer's solution** *Experimental and clinical cardiology.*
Ando, K., Akahori, T., Nakamura, E., Fujiwara, Y., Kinoshita, H.
2014: 139-142
- **Right ventricular perforation due to a stabilizing bar installed for the Nuss procedure** *MINERVA ANESTESIOLOGICA*
Sakakibara, K., Kinoshita, H., Ando, K., Yasuda, Y., Mori, Y., Fujiwara, Y.
2013; 79 (7): 820–21
- **Role of naofen in apoptosis of hepatocytes induced by lipopolysaccharide through mitochondrial signaling in rats** *HEPATOLOGY RESEARCH*
Fan, J., Feng, G., Huang, L., Tsunekawa, K., Honda, T., Katano, Y., Hirooka, Y., Goto, H., Kandatsu, N., Ando, K., Fujiwara, Y., Koide, T., Okada, et al
2012; 42 (7): 696–705