

Stanford



Brice Gaudilliere

Associate Professor of Anesthesiology, Perioperative and Pain Medicine (Adult-MSD) and, by courtesy, of Pediatrics (Neonatology)

CLINICAL OFFICES

- **Anesthesia Department**

300 Pasteur Dr Rm S238

Grant Bldg

Stanford, CA 94305

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Bio

BIO

Born in France, Dr. Gaudilliere studied Engineering at Ecole Polytechnique before completing an MD-PhD degree from the Harvard-MIT Health Sciences and Technology program and a postdoctoral fellowship at Stanford University (Dr. Garry Nolan laboratory). Research in the Gaudilliere lab combines high parameter mass cytometry (suspension and imaging mass cytometry) with other proteomics approaches to study how the human immune system responds and adapts to physiological or pathological stressors. Ongoing studies focus on several clinical scenarios including, 1) immune mechanisms of surgical recovery and complications (NIGMSR35), 2) pregnancy and preterm birth (NICHDP01, DDCF, BMGF, ITI, MOD), 3) immune dysfunction and outcomes prediction in patients with COVID19 (Fast Grant, CEND award).

Dr. Gaudilliere is a Board-Certified Anesthesiologist and works clinically in the operating room 25% of his time.

CLINICAL FOCUS

- Anesthesia

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Anesthesiology, Perioperative and Pain Medicine
- Associate Professor - University Medical Line (By courtesy), Pediatrics - Neonatal and Developmental Medicine
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Promise in biomedical research, Doris Duke Charitable Foundation (2017)
- Kozaka research award, International Anesthesia Research Society (2013)
- Stanford Society for Physician Scholar's award, SSPS (2011, 2012)
- Albert J. Ryan Fellowship, Harvard Medical School (2004)

- Carnot Foundation Scholarship, Ecole Polytechnique, Paris, France (2000)
- George Lurcy's Fellowship, Harvard University (2000)

PROFESSIONAL EDUCATION

- BS, Ecole Polytechnique , Engineering (2000)
- PhD, Harvard Medical School , Neurobiology (2005)
- Medical Education: Harvard Medical School (2009) MA
- Residency: Stanford University Anesthesiology Residency (2013) CA
- Board Certification: Anesthesia, American Board of Anesthesiology (2014)

PATENTS

- Brice Gaudilliere, Gabriela Fragiadakis, Martin Angst, Garry Nolan. "United States Patent S13-373 Flow cytometry methods for the diagnosis of prolonged convalescence after traumatic injury", Leland Stanford Junior University
- Azad Bonni, Aryaman Shalizi, Brice Gaudilliere. "United States Methods and compositions for modulating synapse formation", Harvard University

LINKS

- Gaudilliere Lab: <https://gaudillierelab.stanford.edu/>
- CyTOF at the bedside (4 minute video): <https://www.fluidigm.com/articles/immune-signatures-predict-surgery-recovery>
- ChildX2016 - An immune clock of pregnancy: <http://childx.stanford.edu/video/2016-conference/brice-gaudilliere-development-term>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

The advent of high dimensional flow cytometry has revolutionized our ability to study and visualize the human immune system. Our group combines high parameter mass cytometry (a.k.a Cytometry by Time of Flight Mass Spectrometry, CyTOF), with advanced bio-computational methods to study how the human immune system responds and adapts to acute physiological perturbations. The laboratory currently focuses on two clinical scenarios: surgical trauma and pregnancy.

Deep immune profiling of patients undergoing and recovering from surgery: Using high dimensional mass cytometry, we have recently shown that the signaling behavior of specific innate immune cells measured before surgery in patients blood was strongly associated with surgical recovery. Prospective validation of reported immune correlates of surgical recovery are underway. Ongoing work in humans and animal models focuses on the mechanisms by which pre-operative habilitation interventions may alter a patient's immune state to improve recovery after surgery.

Deep Immune profiling of normal and preterm pregnancy: Our group is an integral component of a multi-disciplinary effort aiming at understanding the mechanisms of preterm birth, and identifying predictive factors of premature delivery. We have now developed a pipeline and the analytical framework to integrate the single-cell analysis of immune signaling networks by mass cytometry and proteomic profiling of secreted serum factors with the precise phenotyping of pregnancy-related clinical outcomes. In a pilot cross-sectional study of non-pregnant women, we identified candidate immune signatures that differentiated women with a history of preterm or term pregnancies. Longitudinal studies in pregnant patients are ongoing to validate these findings.

CLINICAL TRIALS

- Detection of Immune Changes as a Result of Surgical Trauma in Human Subject, Recruiting
- Immune Modulation by Enhanced vs Standard Prehabilitation Program Before Major Surgery, Recruiting
- Immune-modulation Effects of an Arginine Rich Nutritional Supplement in Surgical Patients, Not Recruiting

Teaching

STANFORD ADVISEES

Postdoctoral Faculty Sponsor

Amelie Cambriel, Jakob Einhaus, Dorien Feyaerts, Masaki Sato

Postdoctoral Research Mentor

Dorien Feyaerts

Publications

PUBLICATIONS

- **Early prediction and longitudinal modeling of preeclampsia from multiomics.** *Patterns (New York, N.Y.)*
Maric, I., Contrepois, K., Moufarrej, M. N., Stelzer, I. A., Feyaerts, D., Han, X., Tang, A., Stanley, N., Wong, R. J., Traber, G. M., Ellenberger, M., Chang, A. L., Fallahzadeh, et al
2022; 3 (12): 100655
- **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
- **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., Feyaerts, 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)
- **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., McIlwain, D. R., Fallahzadeh, R., Tanada, A., Nassar, H., Espinosa, C., Xenochristou, M., Ganio, E., Peterson, et al
2020
- **Preferential inhibition of adaptive immune system dynamics by glucocorticoids in patients after acute surgical trauma.** *Nature communications*
Ganio, E. A., Stanley, N. n., Lindberg-Larsen, V. n., Einhaus, J. n., Tsai, A. S., Verdonk, F. n., Culos, A. n., Gahemi, S. n., Rumer, K. K., Stelzer, I. A., Gaudilliere, D. n., Tsai, E. n., Fallahzadeh, et al
2020; 11 (1): 3737
- **An immune clock of human pregnancy.** *Science immunology*
Aghaeepour, N. n., Ganio, E. A., Mcilwain, D. n., Tsai, A. S., Tingle, M. n., Van Gassen, S. n., Gaudilliere, D. K., Baca, Q. n., McNeil, L. n., Okada, R. n., Ghaemi, M. S., Furman, D. n., Wong, et al
2017; 2 (15)
- **Clinical recovery from surgery correlates with single-cell immune signatures.** *Science translational medicine*
Gaudilliere, B., Fragiadakis, G. K., Bruggner, R. V., Nicolau, M., Finck, R., Tingle, M., Silva, J., Ganio, E. A., Yeh, C. G., Maloney, W. J., Huddleston, J. I., Goodman, S. B., Davis, et al
2014; 6 (255): 255ra131-?
- **Multimic signals associated with maternal epidemiological factors contributing to preterm birth in low- and middle-income countries.** *Science advances*
Espinosa, C. A., Khan, W., Khanam, R., Das, S., Khalid, J., Pervin, J., Kasaro, M. P., Contrepois, K., Chang, A. L., Phongpreecha, T., Michael, B., Ellenberger, M., Mehmood, et al
2023; 9 (21): eade7692
- **Large-scale correlation network construction for unraveling the coordination of complex biological systems** *NATURE COMPUTATIONAL SCIENCE*
Becker, M., Nassar, H., Espinosa, C., Stelzer, I. A., Feyaerts, D., Berson, E., Bidoki, N. H., Chang, A. L., Saarunya, G., Culos, A., De Francesco, D., Fallahzadeh, R., Liu, et al
2023
- **Data-driven longitudinal characterization of neonatal health and morbidity.** *Science translational medicine*

- De Francesco, D., Reiss, J. D., Roger, J., Tang, A. S., Chang, A. L., Becker, M., Phongpreecha, T., Espinosa, C., Morin, S., Berson, E., Thuraiappah, M., Le, B. L., Ravindra, et al
2023; 15 (683): eadc9854
- **Towards multiomic analysis of oral mucosal pathologies.** *Seminars in immunopathology*
Einhaus, J., Han, X., Feyaerts, D., Sunwoo, J., Gaudilliere, B., Ahmad, S. H., Aghaeepour, N., Bruckman, K., Ojcius, D., Schurch, C. M., Gaudilliere, D. K.
2023
 - **Neuroimaging is the new "spatial omic": multi-omic approaches to neuro-inflammation and immuno-thrombosis in acute ischemic stroke.** *Seminars in immunopathology*
Maier, B., Tsai, A. S., Einhaus, J. F., Desilles, J., Ho-Tin-Noe, B., Gory, B., Sirota, M., Leigh, R., Lemmens, R., Albers, G., Olivot, J., Mazighi, M., Gaudilliere, et al
2023
 - **High-multiplex tissue imaging in routine pathology-are we there yet?** *Virchows Archiv : an international journal of pathology*
Einhaus, J., Rochwarger, A., Mattern, S., Gaudilliere, B., Schürch, C. M.
2023
 - **Harnessing the n+1 dimensions of single-cell omics data for the prediction and prevention of human diseases.** *Seminars in immunopathology*
Gaudilliere, D., Gaudilliere, B.
2023; 45 (1): 1-2
 - **In-Silico Generation of High-Dimensional Immune Response Data in Patients using a Deep Neural Network.** *Cytometry. Part A : the journal of the International Society for Analytical Cytology*
Fallahzadeh, R., Bidoki, N. H., Stelzer, I. A., Becker, M., Mari#, I., Chang, A. L., Culos, A., Phongpreecha, T., Xenochristou, M., De Francesco, D., Espinosa, C., Berson, E., Verdonk, et al
2022
 - **Differential dynamics of bone graft transplantation and mesenchymal stem cell therapy during bone defect healing in a murine critical size defect.** *Journal of orthopaedic translation*
Huang, E. E., Zhang, N., Ganio, E. A., Shen, H., Li, X., Ueno, M., Utsunomiya, T., Maruyama, M., Gao, Q., Su, N., Yao, Z., Yang, F., Gaudilliere, et al
2022; 36: 64-74
 - **Correction to: Establishment of tissue-resident immune populations in the fetus.** *Seminars in immunopathology*
Feayaerts, D., Urbschat, C., Gaudilliere, B., Stelzer, I. A.
2022
 - **Upcoming and urgent challenges in critical care research based on COVID-19 pandemic experience.** *Anaesthesia, critical care & pain medicine*
Verdonk, F., Feayaerts, D., Badenes, R., Bastarache, J. A., Bougle, A., Ely, W., Gaudilliere, B., Howard, C., Kotfis, K., Lautrette, A., Le Dorze, M., Mankidy, B. J., Matthey, et al
2022: 101121
 - **Integrated plasma proteomic and single-cell immune signaling network signatures demarcate mild, moderate, and severe COVID-19.** *Cell reports. Medicine*
Feayaerts, 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
 - **Signature for Pain Recovery IN Teens (SPRINT): protocol for a multisite prospective signature study in chronic musculoskeletal pain.** *BMJ open*
Simons, L., Moayedi, M., Coghill, R. C., Stinson, J., Angst, M. S., Aghaeepour, N., Gaudilliere, B., King, C. D., López-Solà, M., Hoeppli, M. E., Biggs, E., Ganio, E., Williams, et al
2022; 12 (6): e061548
 - **A data-driven health index for neonatal morbidities.** *iScience*
De Francesco, D., Blumenfeld, Y. J., Maric, I., Mayo, J. A., Chang, A. L., Fallahzadeh, R., Phongpreecha, T., Butwick, A. J., Xenochristou, M., Phibbs, C. S., Bidoki, N. H., Becker, M., Culos, et al
2022; 25 (4): 104143
 - **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

- **Perinatal infection, inflammation, preterm birth, and brain injury: A review with proposals for future investigations.** *Experimental neurology*
Reiss, J. D., Peterson, L. S., Nesamoney, S. N., Chang, A. L., Pasca, A. M., Mari#, I., Shaw, G. M., Gaudilliere, B., Wong, R. J., Sylvester, K. G., Bonifacio, S. L., Aghaeepour, N., Gibbs, et al
2022: 113988
- **Revealing the impact of lifestyle stressors on the risk of adverse pregnancy outcomes with multitask machine learning.** *Frontiers in pediatrics*
Becker, M., Dai, J., Chang, A. L., Feyaerts, D., Stelzer, I. A., Zhang, M., Berson, E., Saaranya, G., De Francesco, D., Espinosa, C., Kim, Y., Maric, I., Mataraso, et al
2022; 10: 933266
- **Maternal stress and its consequences - biological strain.** *American journal of perinatology*
Stevenson, D. K., Gotlib, I. H., Buthmann, J. L., Maric, I., Aghaeepour, N., Gaudilliere, B., Angst, M. S., Darmstadt, G. L., Druzin, M. L., Wong, R. J., Shaw, G. M., Katz, M.
2022
- **From Mass to Flow: Emerging Sepsis Diagnostics Based on Flow Cytometry Analysis of Neutrophils.** *American journal of respiratory and critical care medicine*
Verdonk, F., Hsu, J. L., Gaudilliere, B.
2021
- **Harnessing the Potential of Multiomics Studies for Precision Medicine in Infectious Disease.** *Open forum infectious diseases*
Ward, R. A., Aghaeepour, N., Bhattacharyya, R. P., Clish, C. B., Gaudilliere, B., Hacoheh, N., Mansour, M. K., Mudd, P. A., Pasupneti, S., Presti, R. M., Rhee, E. P., Sen, P., Spec, et al
2021; 8 (11): ofab483
- **Understanding how biologic and social determinants affect disparities in preterm birth and outcomes of preterm infants in the NICU.** *Seminars in perinatology*
Stevenson, D. K., Aghaeepour, N., Maric, I., Angst, M. S., Darmstadt, G. L., Druzin, M. L., Gaudilliere, B., Ling, X. B., Moufarrej, M. N., Peterson, L. S., Quake, S. R., Relman, D. A., Snyder, et al
2021: 151408
- **Data-Driven Modeling of Pregnancy-Related Complications.** *Trends in molecular medicine*
Espinosa, C. n., Becker, M. n., Mari#, I. n., Wong, R. J., Shaw, G. M., Gaudilliere, B. n., Aghaeepour, N. n., Stevenson, D. K.
2021
- **Objective Activity Parameters Track Patient-Specific Physical Recovery Trajectories After Surgery and Link With Individual Preoperative Immune States.** *Annals of surgery*
Fallahzadeh, R., Verdonk, F., Ganio, E., Culos, A., Stanley, N., Mari#, I., Chang, A. L., Becker, M., Phongpreecha, T., Xenochristou, M., De Francesco, D., Espinosa, C., Gao, et al
2021
- **Human influenza virus challenge identifies cellular correlates of protection for oral vaccination.** *Cell host & microbe*
McIlwain, D. R., Chen, H., Rahil, Z., Bidoki, N. H., Jiang, S., Bjornson, Z., Kolhatkar, N. S., Martinez, C. J., Gaudilliere, B., Hedou, J., Mukherjee, N., Schürch, C. M., Trejo, et al
2021
- **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., Mari#, I., Wong, R. J., Angst, M. S., Aghaeepour, et al
2021; 12: 725989
- **Measuring the human immune response to surgery: multiomics for the prediction of postoperative outcomes.** *Current opinion in critical care*
Verdonk, F., Einhaus, J., Tsai, A. S., Hedou, J., Choisy, B., Gaudilliere, D., Kin, C., Aghaeepour, N., Angst, M. S., Gaudilliere, B.
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
- **Human immune system adaptations to simulated microgravity revealed by single-cell mass cytometry.** *Scientific reports*

- Spatz, J. M., Fulford, M. H., Tsai, A., Gaudilliere, D., Hedou, J., Ganio, E., Angst, M., Aghaeepour, N., Gaudilliere, B.
2021; 11 (1): 11872
- **Deleterious and Protective Psychosocial and Stress-Related Factors Predict Risk of Spontaneous Preterm Birth.** *American journal of perinatology*
Becker, M. n., Mayo, J. A., Phogat, N. K., Quaintance, C. C., Laborde, A. n., King, L. n., Gotlib, I. H., Gaudilliere, B. n., Angst, M. S., Shaw, G. M., Stevenson, D. K., Aghaeepour, N. n., Dhabhar, et al
2021
 - **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
 - **Single-cell peripheral immunoprofiling of Alzheimer's and Parkinson's diseases.** *Science advances*
Phongpreecha, T., Fernandez, R., Mrdjen, D., Culos, A., Gajera, C. R., Wawro, A. M., Stanley, N., Gaudilliere, B., Poston, K. L., Aghaeepour, N., Montine, T. J.
2020; 6 (48)
 - **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., McIlwain, D. R., Fallahzadeh, R., Tanada, A., Nassar, H., Espinosa, C., Xenochristou, M., Ganio, E., Peterson, et al
2020; 2 (10): 619-628
 - **Towards personalized medicine in maternal and child health: integrating biologic and social determinants.** *Pediatric research*
Stevenson, D. K., Wong, R. J., Aghaeepour, N., Maric, I., Angst, M. S., Contrepois, K., Darmstadt, G. L., Druzin, M. L., Eisenberg, M. L., Gaudilliere, B., Gibbs, R. S., Gotlib, I. H., Gould, et al
2020
 - **Multimic 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., Contrepois, K. n., Moufarrej, M. N., Quake, S. n., Relman, D. A., Snyder, et al
2020
 - **Multimics 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
 - **Landscape of coordinated immune responses to H1N1 challenge in humans.** *The Journal of clinical investigation*
Rahil, Z. n., Leylek, R. n., Schürch, C. M., Chen, H. n., Bjornson-Hooper, Z. n., Christensen, S. R., Gherardini, P. F., Bhate, S. S., Spitzer, M. H., Fragiadakis, G. K., Mukherjee, N. n., Kim, N. n., Jiang, et al
2020
 - **Hypothalamic circuitry underlying stress-induced insomnia and peripheral immunosuppression** *Science Advances*
Li, S. B., Borniger, J. C., Yamaguchi, H., Hédou, J., Gaudilliere, B., de Lecea, L.
2020; 6 (37)
 - **Systematic Immunophenotyping Reveals Sex-Specific Responses After Painful Injury in Mice.** *Frontiers in immunology*
Tawfik, V. L., Huck, N. A., Baca, Q. J., Ganio, E. A., Haight, E. S., Culos, A. n., Ghaemi, S. n., Phongpreecha, T. n., Angst, M. S., Clark, J. D., Aghaeepour, N. n., Gaudilliere, B. n.
2020; 11: 1652
 - **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
 - **Discovery and validation of biomarkers to aid the development of safe and effective pain therapeutics: challenges and opportunities.** *Nature reviews. Neurology*
Davis, K. D., Aghaeepour, N. n., Ahn, A. H., Angst, M. S., Borsook, D. n., Brenton, A. n., Burczynski, M. E., Crean, C. n., Edwards, R. n., Gaudilliere, B. n., Hergenroeder, G. W., Iadarola, M. J., Iyengar, et al

2020

- **Changes in pregnancy-related serum biomarkers early in gestation are associated with later development of preeclampsia.** *PLoS one*
Hao, S. n., You, J. n., Chen, L. n., Zhao, H. n., Huang, Y. n., Zheng, L. n., Tian, L. n., Maric, I. n., Liu, X. n., Li, T. n., Bianco, Y. K., Winn, V. D., Aghaeepour, et al
2020; 15 (3): e0230000
- **Cyt-Geist: Current and Future Challenges in Cytometry: Reports of the CYTO 2019 Conference Workshops.** *Cytometry. Part A : the journal of the International Society for Analytical Cytology*
Czechowska, K., Lannigan, J., Aghaeepour, N., Back, J. B., Begum, J., Behbehani, G., Bispo, C., Bitoun, D., Fernandez, A. B., Boova, S. T., Brinkman, R. R., Ciccolella, C. O., Coteleur, et al
2019; 95 (12): 1236–74
- **CytoNorm: A Normalization Algorithm for Cytometry Data.** *Cytometry. Part A : the journal of the International Society for Analytical Cytology*
Van Gassen, S., Gaudilliere, B., Angst, M. S., Saeys, Y., Aghaeepour, N.
2019
- **Guidelines for the use of flow cytometry and cell sorting in immunological studies (second edition).** *European journal of immunology*
Cossarizza, A., Chang, H., Radbruch, A., Acs, A., Adam, D., Adam-Klages, S., Agace, W. W., Aghaeepour, N., Akdis, M., Allez, M., Almeida, L. N., Alvisi, G., Anderson, et al
2019; 49 (10): 1457–1973
- **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
- **A pilot study showing a stronger H1N1 influenza vaccination response during pregnancy in women who subsequently deliver preterm** *JOURNAL OF REPRODUCTIVE IMMUNOLOGY*
Andorf, S., Bhattacharya, S., Gaudilliere, B., Shaw, G. M., Stevenson, D. K., Butte, A. J., Sirota, M.
2019; 132: 16–20
- **How Clinical Flow Cytometry Rebooted Sepsis Immunology** *CYTOMETRY PART A*
Monneret, G., Gossez, M., Aghaeepour, N., Gaudilliere, B., Venet, F.
2019; 95A (4): 431–41
- **A year-long immune profile of the systemic response in acute stroke survivors.** *Brain : a journal of neurology*
Tsai, A. S., Berry, K., Beneyto, M. M., Gaudilliere, D., Ganio, E. A., Culos, A., Ghaemi, M. S., Choisy, B., Djebali, K., Einhaus, J. F., Bertrand, B., Tanada, A., Stanley, et al
2019
- **Differential Dynamics of the Maternal Immune System in Healthy Pregnancy and Preeclampsia.**
Han, X., Ghaemi, M. S., Ando, K., Peterson, L., Ganio, E. A., Tsai, A. S., Gaudilliere, D., Einhaus, J., Tsai, E. S., Stanley, N. M., Culos, A., Tanada, A. H., Fallahzadeh, et al
SAGE PUBLICATIONS INC.2019: 271A
- **Multimomics modeling of the immunome, transcriptome, microbiome, proteome and metabolome adaptations during human pregnancy** *BIOINFORMATICS*
Ghaemi, M., DiGiulio, D. B., Contrepois, K., Callahan, B., Ngo, T. M., 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
- **Predicting Acute Pain After Surgery: A Multivariate Analysis.** *Annals of surgery*
Baca, Q. n., Marti, F. n., Poblete, B. n., Gaudilliere, B. n., Aghaeepour, N. n., Angst, M. S.
2019
- **Understanding health disparities.** *Journal of perinatology : official journal of the California Perinatal Association*
Stevenson, D. K., Wong, R. J., Aghaeepour, N., Angst, M. S., Darmstadt, G. L., DiGiulio, D. B., Druzin, M. L., Gaudilliere, B., Gibbs, R. S., B Gould, J., Katz, M., Li, J., Moufarrej, et al
2018
- **GateFinder: Projection-based Gating Strategy Optimization for Flow and Mass Cytometry.** *Bioinformatics (Oxford, England)*

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