Stanford



Sergiu P. Pasca

Kenneth T. Norris, Jr. Professor of Psychiatry and Behavioral Sciences and Bonnie Uytengsu and Family Director of the Stanford Brain Organogenesis Program and Senior Fellow, by courtesy, at the Hoover Institution

Psychiatry and Behavioral Sciences - Sleep Medicine

CONTACT INFORMATION

- **Administrative Contact**

  Jhaleh Oliaei - Administrative Assistant

  Email jhaleh@stanford.edu

Bio

ACADEMIC APPOINTMENTS

- Professor, Psychiatry and Behavioral Sciences - Sleep Medicine
- Hoover Senior Fellow (By courtesy), Hoover Institution
- Member, Bio-X
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)
- Faculty Fellow, Sarafan ChEM-H
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Uytengsu Family Director of the Stanford Brain Organogenesis Program, Wu Tsai Neurosciences Institute, (2019- present)
- Associate Division Chief for Advancing Science, Stanford University School of Medicind, (2020- present)
- Director, Physician-Scientist Advanced Mentorship Program, (2018- present)
- Director, Stanford Neuroscience Stem Cell Core, Wu Tsai Neuroscience Institute, (2015- present)

HONORS AND AWARDS

- Member, National Academy of Medicine (NAM) (2006)
- Sir Wilfrid Le Gros Clark Prize, Oxford University (2026)
- NIH MERIT Award, National Institute of Mental Health (2025)
- Eva King Killam Research Award, American College of Neuropsychopharmacology (ACNP) (2024)
- Schaller Award in Translational Neuroscience, FENS (2024)
- ISSCR Momentum Award, International Society for Stem Cell Research (2024)
- Doctor Honoris Causa (D.H.C.), Hatieganu Medical School (2023)
- Sumitomo/Sunovion Prize, International College of Neuropsychopharmacology (2023)
- Knight of the Order of Merit, The Chancery of Orders (2023)

- Blavatnik Award Finalist, Blavatnik Foundation (2023)
- Innovation & Science Award, Radio Romania (2023)
- CZ Biohub Investigator, BioHub (2022-2027)
- Blavatnik Award Finalist, Blavatnik Foundation (2022)
- IBRO-Kemali International Prize in Neuroscience, International Brain Research Organization (2022)
- Inverse Breakthrough Award 2022, Inverse (2022)
- TED Speaker, TED Vancouver (2022)
- Top 10 Scientific Breakthroughs of 2022, NewsWeek (2022)
- Quanta Top 6 Discoveries in Biology, Quanta (2022)
- Advancing Science Award, Stanford Medicine, Psychiatry (2021)
- Highly Cited Researcher, Clarivate (2021)
- Joseph Altman Award in Developmental Neuroscience, Japanese Neuroscience Society (2021)
- Judson Daland Prize, American Society of Philosophy (2021)
- Schizophrenia Basic Research Award, Schizophrenia International Research Society (2021)
- Theodore Reich Award, International Society for Psychiatric Genetics (2021)
- C.J. Herrick Award in Neuroanatomy, American Association of Anatomy (AAA) (2020)
- Falling Walls Breakthrough in Life Sciences Prize, Berlin, Germany (2020)
- Ben Barres Investigator, Chan-Zuckerberg Initiative (CZI) (2019)
- Nature Medicine’s Featured Physician-Scientists, Nature Medicine (2019)
- Scientist to Watch, The Scientist (2019)
- A.E. Bennett Award, Society of Biological Psychiatry (2018)
- Daniel H. Efron Award, American College of Neuropsychopharmacology (ACNP) (2018)
- Günter Blobel Award, American Society of Cell Biology (2018)
- New York Times Visionaries in Science and Medicine, New York (2018)
- Vilcek Award for Creative Biomedical Promise, Vilcek Foundation (2018)
- Jordi Folch-Pi Award for Neurochemistry, American Society for Neurochemistry (2017)
- NARSAD Independent Investigator Award, Brain & Behavior Research Foundation (2017)
- NIH Top Research Highlights of 2017, National Institute of Health (NIH) (2017)
- NYSCF Robertson Stem Cell Investigator, New York Stem Cell Foundation (2017)
- Top Breakthroughs of 2017, Brain and Behavior Research Foundation (BBRF/NARSAD) (2017)
- Baxter Faculty Scholar Award, Baxter Foundation (2015)
- NIMH Director's BRAINS Award, National Institute of Mental Health (2015)
- MQ Fellow Award for Transforming Mental Health, MQ Foundation, London (2014)
- Alumni Excellence Research Award, Medicalis (2013)
- Grand Prize Best Romanian Student Abroad, LRSA (2013)
- NARSAD Young Investigator Award, Brain & Behavior Research Foundation (2013)
- Best Postdoctoral Research Award, Stanford University (2012)
- Sammy Kuo Award, Best Postdoctoral publication in Neuroscience at Stanford University (2012)
- Tashia & John Morgridge Endowed Fellow, Child Health Research Institute (CHRI) (2010-2012)

- IBRO Outstanding Research Fellow, International Research Organization (IBRO) (2009)
- Medical Student of the Year, VIP Foundation (2006)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Advisory Board, MedFUTURE Biomedical Research Institute, Cluj, Romania (2026 - present)
- Board of Scientific Advisors, Jane Coffin Childs Foundation (2025 - present)
- Scientific Advisory Board, Cajal Neuroscience Center, Spain (2025 - present)
- Advisory Board, Lieber Institute, Johns Hopkins University (2023 - present)
- Board review of Editors, Science (2023 - present)
- Editorial Board, Trends in Molecular Medicine (2023 - present)
- NIH Director Advisory Board on Novel Alternative Methods, NIH (2022 - 2023)

PROFESSIONAL EDUCATION

- Postdoctoral, Stanford University School of Medicine , Neuroscience (2013)
- Medical Doctor, Hatieganu School of Medicine, Romania , Medicine (2007)

COMMUNITY AND INTERNATIONAL WORK

- Stanford Brain Organogenesis Hands-On Course
- Co-Organizer of the FENS/SfN Summer School on Neural Stem Cells and Organoids
- Co-Organizer of the Inaugural Cold Spring Harbor Meeting on Human Brain Development and 3D Modeling
- Co-Director of the Cold Spring Harbor Course in Autism Spectrum Disorders
- Working group: Translating Mechanisms to Treatments in Autism Spectrum Disorders

PATENTS

- Sergiu Pasca, Jimena Andersen, Fikri Birey. "United States Patent 10,676,715 Assembly of functionally integrated human forebrain spheroids and methods of use thereof", Stanford University, Jun 9, 2020
- Sergiu Pasca, Steven Sloan, Ben Barres, Anca Pasca. "United States Patent 10,494,602 Functional astrocytes and cortical neurons from induced pluripotent stem cells and methods of use thereof", Stanford University, Dec 3, 2019

LINKS

- Pasca Lab website: http://www.pascalab.org/
- Vilcek Award: https://youtu.be/fbkhvjUKork
- Minds Wide Open documentary: https://youtu.be/MumBwrO3PAQ
- Falling Walls Breakthrough in Life Sciences: https://youtu.be/elU52JKvAKw
- TED 2022: https://www.ted.com/talks/sergiu_p_pasca_how_we_re_reverse_engineering_the_human_brain_in_the_lab?language=en
- Stanford Brain Organogenesis Center: https://med.stanford.edu/brainorganogenesis.html
- Assembloids: https://youtu.be/89mlSgw4Db4

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

A critical challenge in understanding the intricate programs underlying development, assembly and dysfunction of the human brain is the lack of direct access to intact, functioning human brain tissue for detailed investigation by imaging, recording, and stimulation.

To address this, we are developing bottom-up approaches to generate and assemble, from multi-cellular components, human neural circuits in vitro and in vivo.

We introduced the use of instructive signals for deriving from human pluripotent stem cells self-organizing 3D cellular structures named brain region-specific spheroids/organoids. We demonstrated that these cultures, such as the ones resembling the cerebral cortex, can be reliably derived across many lines and experiments, contain synaptically connected neurons and non-reactive astrocytes, and can be used to gain mechanistic insights into genetic and environmental brain disorders. Moreover, when maintained as long-term cultures, they recapitulate an intrinsic program of maturation that progresses towards postnatal stages.

We also pioneered a modular system to integrate 3D brain region-specific organoids and study human neuronal migration and neural circuit formation in functional preparations that we named assembloids. We have actively applied these models in combination with studies in long-term ex vivo brain preparations to acquire a deeper understanding of human physiology, evolution and disease mechanisms.

We have carved a unique research program that combines rigorous in vivo and in vitro neuroscience, stem cell and molecular biology approaches to construct and deconstruct previously inaccessible stages of human brain development and function in health and disease.

We believe science is a community effort, and accordingly, we have been advancing the field by broadly and openly sharing our technologies with numerous laboratories around the world and organizing the primary research conference and the training courses in the area of cellular models of the human brain.

Teaching

COURSES

2024-25

- Neurosciences Development Core: NEPR 202 (Win)

2023-24

- Neurosciences Development Core: NEPR 202 (Win)

STANFORD ADVISEES

Doctoral Dissertation Reader (AC)

Theo Ruffins

Postdoctoral Faculty Sponsor

Merve Avar, Emelie Braun, Yoshitaka Furuta, Kent Imaizumi, Seongbin KIM, Konstantin Kaganovsky, Josh Melander, Veronika Petrova

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Bioengineering (PhD Program)
- Biology (School of Humanities and Sciences) (PhD Program)
- Chemical and Systems Biology (PhD Program)
- Developmental Biology (PhD Program)
- Genetics (PhD Program)
- Molecular and Cellular Physiology (PhD Program)
- Neurosciences (PhD Program)
- Stem Cell Biology and Regenerative Medicine (PhD Program)

Publications

PUBLICATIONS

- **Developmental xenocortication using human-derived organoids in mice.** *Nature*

Kaganovsky, K., Kelley, K. W., Gschwind, T., Harary, P. M., Kochalka, J., White, A. D., Lerma-Usabiaga, G., Chen, X., Revah, O., Gore, F., Aoyama, A., Shadrach, J. L., Yoon, et al
2026

- **From Organoids to Assembloids: Experimental Approaches to Study Human Neuropsychiatric Disorders.** *Annual review of neuroscience*
  Levy, R. J., Paşca, S. P.
  2025

- **Human assembloid model of the ascending neural sensory pathway.** *Nature*
  Kim, J. I., Imaizumi, K., Jurjuț, O., Kelley, K. W., Wang, D., Thete, M. V., Hudacova, Z., Amin, N. D., Levy, R. J., Scherrer, G., Pașca, S. P.
  2025

- **A framework for neural organoids, assembloids and transplantation studies.** *Nature*
  Pașca, S. P., Arlotta, P., Bateup, H. S., Camp, J. G., Cappello, S., Gage, F. H., Knoblich, J. A., Kriegstein, A. R., Lancaster, M. A., Ming, G. L., Novarino, G., Okano, H., Parmar, et al
  2024

- **Antisense oligonucleotide therapeutic approach for Timothy syndrome.** *Nature*
  Chen, X., Birey, F., Li, M. Y., Revah, O., Levy, R., Thete, M. V., Reis, N., Kaganovsky, K., Onesto, M., Sakai, N., Hudacova, Z., Hao, J., Meng, et al
  2024; 628 (8009): 818-825

- **Kirigami electronics for long-term electrophysiological recording of human neural organoids and assembloids.** *Nature biotechnology*
  Yang, X., Forro, C., Li, T. L., Miura, Y., Zaluska, T. J., Tsai, C., Kanton, S., McQueen, J. P., Chen, X., Mollo, V., Santoro, F., Pașca, S. P., Cui, et al
  2024

- **Constructing human neural circuits in living systems by transplantation.** *Cell*
  Pașca, S. P.
  2024; 187 (1): 8-13

- **Assembloid CRISPR screens reveal impact of disease genes in human neurodevelopment.** *Nature*
  Meng, X., Yao, D., Imaizumi, K., Chen, X., Kelley, K. W., Reis, N., Thete, M. V., Arjun McKinney, A., Kulkarni, S., Panagiotakos, G., Bassik, M. C., Pașca, S. P.
  2023

- **Maturation and circuit integration of transplanted human cortical organoids.** *Nature*
  Revah, O., Gore, F., Kelley, K. W., Andersen, J., Sakai, N., Chen, X., Li, M. Y., Birey, F., Yang, X., Saw, N. L., Baker, S. W., Amin, N. D., Kulkarni, et al
  2022; 610 (7931): 319-326

- **A nomenclature consensus for nervous system organoids and assembloids.** *Nature*
  Pașca, S. P., Arlotta, P., Bateup, H. S., Camp, J. G., Cappello, S., Gage, F. H., Knoblich, J. A., Kriegstein, A. R., Lancaster, M. A., Ming, G. L., Muotri, A. R., Park, I. H., Reiner, et al
  2022; 609 (7929): 907-910

- **Human brain organogenesis: Toward a cellular understanding of development and disease.** *Cell*
  Kelley, K. W., Pașca, S. P.
  2021

- **Chromatin accessibility dynamics in a model of human forebrain development.** *Science (New York, N.Y.)*
  Trevino, A. E., Sinnott-Armstrong, N. n., Andersen, J. n., Yoon, S. J., Huber, N. n., Pritchard, J. K., Chang, H. Y., Greenleaf, W. J., Pașca, S. P.
  2020; 367 (6476)

- **Generation of human striatal organoids and cortico-striatal assembloids from human pluripotent stem cells.** *Nature biotechnology*
  Miura, Y. n., Li, M. Y., Birey, F. n., Ikeda, K. n., Revah, O. n., Thete, M. V., Park, J. Y., Puno, A. n., Lee, S. H., Porteus, M. H., Pașca, S. P.
  2020; 38 (12): 1421–30

- **Generation of Functional Human 3D Cortico-Motor Assembloids.** *Cell*
  Andersen, J. n., Revah, O. n., Miura, Y. n., Thom, N. n., Amin, N. D., Kelley, K. W., Singh, M. n., Chen, X. n., Thete, M. V., Walczak, E. M., Vogel, H. n., Fan, H. C., Paşca, et al
  2020

- **Neuronal defects in a human cellular model of 22q11.2 deletion syndrome.** *Nature medicine*

Khan, T. A., Revah, O. n., Gordon, A. n., Yoon, S. J., Krawisz, A. K., Goold, C. n., Sun, Y. n., Kim, C. H., Tian, Y. n., Li, M. Y., Schaepe, J. M., Ikeda, K. n., Amin, et al
2020

- **Assembling human brain organoids.** *Science (New York, N.Y.)*
  Pasca, S. P.
  2019; 363 (6423): 126–27
- **Human 3D cellular model of hypoxic brain injury of prematurity.** *Nature medicine*
  Pașca, A. M., Park, J. Y., Shin, H. W., Qi, Q. n., Revah, O. n., Krasnoff, R. n., O'Hara, R. n., Willsey, A. J., Palmer, T. D., Pașca, S. P.
  2019
- **Reliability of human cortical organoid generation.** *Nature methods*
  Yoon, S. J., Elahi, L. S., Pașca, A. M., Marton, R. M., Gordon, A. n., Revah, O. n., Miura, Y. n., Walczak, E. M., Holdgate, G. M., Fan, H. C., Huguenard, J. R., Geschwind, D. H., Pașca, et al
  2019; 16 (1): 75–78
- **Generation and assembly of human brain region-specific three-dimensional cultures.** *Nature protocols*
  Sloan, S. A., Andersen, J., Pașca, A. M., Birey, F., Pașca, S. P.
  2018
- **The rise of three-dimensional human brain cultures.** *Nature*
  Pașca, S. P.
  2018; 553 (7689): 437-445
- **Building Models of Brain Disorders with Three-Dimensional Organoids.** *Neuron*
  Amin, N. D., Paşca, S. P.
  2018; 100 (2): 389–405
- **Assembly of functionally integrated human forebrain spheroids** *NATURE*
  Birey, F., Andersen, J., Makinson, C. D., Islam, S., Wei, W., Huber, N., Fan, H. C., Metzler, K. R., Panagiotakos, G., Thom, N., O'Rourke, N. A., Steinmetz, L. M., Bernstein, et al
  2017; 545 (7652): 54-?
- **Human Astrocyte Maturation Captured in 3D Cerebral Cortical Spheroids Derived from Pluripotent Stem Cells.** *Neuron*
  Sloan, S. A., Darmanis, S. n., Huber, N. n., Khan, T. A., Birey, F. n., Caneda, C. n., Reimer, R. n., Quake, S. R., Barres, B. A., Paşca, S. P.
  2017; 95 (4): 779–90.e6
- **Functional cortical neurons and astrocytes from human pluripotent stem cells in 3D culture.** *Nature methods*
  Pasca, A. M., Sloan, S. A., Clarke, L. E., Tian, Y., Makinson, C. D., Huber, N., Kim, C. H., Park, J., O'Rourke, N. A., Nguyen, K. D., Smith, S. J., Huguenard, J. R., Geschwind, et al
  2015; 12 (7): 671-678
- **Human stem cell neuroscience.** *Neuron*
  Pașca, S. P.
  2026; 114 (21): 3919-3923
- **Human neuromodulatory assembloids to study serotonin signaling and disease.** *bioRxiv : the preprint server for biology*
  Kanton, S., Meng, X., Dong, C., Birey, F., Wang, D., Reis, N., Yoon, S. J., Kim, J. I., McQueen, J. P., Sakai, N., Nishino, S., Huguenard, J. R., Paşca, et al
  2026
- **Developmental convergence and divergence in human stem cell models of autism.** *Nature*
  Gordon, A., Yoon, S. J., Bicks, L. K., Martín, J. M., Pintacuda, G., Arteaga, S., Wamsley, B., Guo, Q., Elahi, L., Dolmetsch, R. E., Bernstein, J. A., O'Hara, R., Hallmayer, et al
  2026
- **CRISPR screens in human neural organoids and assembloids.** *Nature protocols*
  Meng, X., Reis, N., Bassik, M. C., Pașca, S. P.
  2025

- **Human Assembloid Model of Emergent Neurotropic Enteroviruses.** *bioRxiv : the preprint server for biology*
  Peters, C. E., Andersen, J., Li, M. Y., Varanese, L., Thete, M. V., Yoon, S. J., Pio, T., Thom, N., Chen, X., Qiao, W., Carette, J. E., Pașca, S. P.
  2025
- **The need for a global effort to attend to human neural organoid and assembloid research.** *Science (New York, N.Y.)*
  Pașca, S. P., Arlotta, P., Campbell, P., Charo, A., Evans, J. H., Farahany, N., Gage, F. H., Godfrey-Smith, P., Hyun, I., Kriegstein, A. R., Melloni, L., Ming, G. L., Moreno, et al
  2025; 390 (6773): 574-577
- **Nano-bio interfaces for electrical and biochemical signal transduction** *NATURE REVIEWS BIOENGINEERING*
  Yang, X., Tsai, C., Yang, Y., Zhang, W., You, H., Forro, C., Pasca, S. P., Cui, B.
  2025
- **Timing matters: Genetic regulation of neuronal maturation in the primate brain.** *Neuron*
  Imaizumi, K., Paşca, S. P.
  2025; 113 (15): 2375-2377
- **Midline assembloids reveal regulators of human axon guidance.** *Science (New York, N.Y.)*
  Onesto, M. M., Amin, N. D., Pan, C., Chen, X., Kim, J. I., Reis, N., Kanton, S., Valencia, A. M., Hudacova, Z., McQueen, J. P., Tessier-Lavigne, M., Pașca, S. P.
  2025; 389 (6757): 282-289
- **Scalable production of human cortical organoids using a biocompatible polymer.** *Nature biomedical engineering*
  Narazaki, G., Miura, Y., Pavlov, S. D., Thete, M. V., Roth, J. G., Avar, M., Shin, S., Kim, J. I., Hudacova, Z., Heilshorn, S. C., Pașca, S. P.
  2025
- **Generating human neural diversity with a multiplexed morphogen screen in organoids.** *Cell stem cell*
  Amin, N. D., Kelley, K. W., Kaganovsky, K., Onesto, M., Hao, J., Miura, Y., McQueen, J. P., Reis, N., Narazaki, G., Li, T., Kulkarni, S., Pavlov, S., Pașca, et al
  2024; 31 (12): 1831-1846.e9
- **An integrated transcriptomic cell atlas of human neural organoids.** *Nature*
  He, Z., Dony, L., Fleck, J. S., Szałata, A., Li, K. X., Slišković, I., Lin, H. C., Santel, M., Atamian, A., Quadrato, G., Sun, J., Pașca, S. P., Camp, et al
  2024; 635 (8039): 690-698
- **Assembloid models of cell-cell interaction to study tissue and disease biology.** *Cell stem cell*
  Onesto, M. M., Kim, J. I., Pasca, S. P.
  2024
- **Human assembloids reveal the consequences of CACNA1G gene variants in the thalamocortical pathway.** *Neuron*
  Kim, J. I., Miura, Y., Li, M. Y., Revah, O., Selvaraj, S., Birey, F., Meng, X., Thete, M. V., Pavlov, S. D., Andersen, J., Pașca, A. M., Porteus, M. H., Huguenard, et al
  2024
- **Host circuit engagement of human cortical organoids transplanted in rodents.** *Nature protocols*
  Kelley, K. W., Revah, O., Gore, F., Kaganovsky, K., Chen, X., Deisseroth, K., Pașca, S. P.
  2024
- **Roadmap for developing biologically inspired therapeutics for genetic brain disorders.** *Trends in molecular medicine*
  Imaizumi, K., Paşca, S. P.
  2023
- **Spatially controlled construction of assembloids using bioprinting.** *Nature communications*
  Roth, J. G., Brunel, L. G., Huang, M. S., Liu, Y., Cai, B., Sinha, S., Yang, F., Pașca, S. P., Shin, S., Heilshorn, S. C.
  2023; 14 (1): 4346
- **Magnetized 3D Bioprinting To Construct Multi-Organoid Assembloids**
  Cai, B., Roth, J. G., Brunel, L. G., Huang, M. S., Liu, Y., Pasca, S., Shin, S., Heilshorn, S.
  MARY ANN LIEBERT, INC.2023

- **A Cross-Sectional Study of the Neuropsychiatric Phenotype of CACNA1C-Related Disorder**
  Levy, R., Timothy, K., Underwood, J., Hall, J., Bernstein, J., Pasca, S.
  LIPPINCOTT WILLIAMS & WILKINS.2023

- **Single-cell transcriptomic landscape of the developing human spinal cord.** *Nature neuroscience*
  Andersen, J., Thom, N., Shadrach, J. L., Chen, X., Onesto, M. M., Amin, N. D., Yoon, S. J., Li, L., Greenleaf, W. J., Müller, F., Pașca, A. M., Kaltschmidt, J. A., Pașca, et al
  2023

- **Selection of rAAV vectors that cross the human blood-brain barrier and target the central nervous system using a transwell model** *MOLECULAR THERAPY-METHODS & CLINICAL DEVELOPMENT*
  Song, R., Pekrun, K., Khan, T. A., Zhang, F., Pasca, S. P., Kay, M. A.
  2022; 27: 73-88

- **What Have Organoids and Assembloids Taught Us About the Pathophysiology of Neuropsychiatric Disorders?** *Biological psychiatry*
  Levy, R. J., Paşca, S. P.
  2022

- **A Cross-Sectional Study of the Neuropsychiatric Phenotype of CACNA1C-Related Disorder.** *Pediatric neurology*
  Levy, R. J., Timothy, K. W., Underwood, J. F., Hall, J., Bernstein, J. A., Pașca, S. P.
  2022; 138: 101-106

- **Stretchable mesh microelectronics for the biointegration and stimulation of human neural organoids.** *Biomaterials*
  Li, T. L., Liu, Y., Forro, C., Yang, X., Beker, L., Bao, Z., Cui, B., Pașca, S. P.
  2022; 290: 121825

- **How collaboration between bioethicists and neuroscientists can advance research.** *Nature neuroscience*
  Hyun, I., Scharf-Deering, J. C., Sullivan, S., Aach, J. D., Arlotta, P., Baum, M. L., Church, G. M., Goldenberg, A., Greely, H. T., Khoshakhlagh, P., Kohman, R. E., Lopes, M., Lowenthal, et al
  2022

- **Human assembloids.** *Development (Cambridge, England)*
  Kanton, S., Pasca, S. P.
  2022; 149 (20)

- **Modulating miR-218 in Human Motor Neurons Using Assembloids**
  Amin, N., Kulkarni, S., Pasca, S.
  WILEY.2022: S168

- **Mouse embryo models built from stem cells take shape in a dish.** *Nature*
  Amin, N. D., Pașca, S. P.
  2022; 610 (7930): 39-40

- **Imaging neuronal migration and network activity in human forebrain assembloids.** *STAR protocols*
  Birey, F., Pașca, S. P.
  2022; 3 (3): 101478

- **A tissue-like neurotransmitter sensor for the brain and gut.** *Nature*
  Li, J., Liu, Y., Yuan, L., Zhang, B., Bishop, E. S., Wang, K., Tang, J., Zheng, Y., Xu, W., Niu, S., Beker, L., Li, T. L., Chen, et al
  2022; 606 (7912): 94-101

- **Mesh electrode arrays for integration with electrogenic organoids**
  Forro, C., Li, T., Yang, X., Tsai, C., Cui, B., Pasca, S.
  CELL PRESS.2022: 16

- **Engineering brain assembloids to interrogate human neural circuits.** *Nature protocols*
  Miura, Y., Li, M. Y., Revah, O., Yoon, S. J., Narazaki, G., Pașca, S. P.
  2022

- **A CROSS-SECTIONAL STUDY OF THE NEUROPSYCHIATRIC PHENOTYPE OF CACNA1C-RELATED DISORDER**

Levy, R. J., Timothy, K., Bernstein, J., Pasca, S.
BMJ PUBLISHING GROUP.2022: 287-288

- **Nanotechnology Enables Novel Modalities for Neuromodulation.** *Advanced materials (Deerfield Beach, Fla.)*
  Yang, X., McGlynn, E., Das, R., Pasca, S. P., Cui, B., Heidari, H.
  2021: e2103208
- **Chromatin dynamics in human brain development and disease.** *Trends in cell biology*
  Valencia, A. M., Pașca, S. P.
  2021
- **Advancing models of neural development with biomaterials.** *Nature reviews. Neuroscience*
  Roth, J. G., Huang, M. S., Li, T. L., Feig, V. R., Jiang, Y., Cui, B., Greely, H. T., Bao, Z., Pasca, S. P., Heilshorn, S. C.
  2021
- **Scrutinizing disease states and regulation in human microglia.** *Nature genetics*
  Kelley, K. W., Pașca, S. P.
  2021
- **Breaking Thru the Human Blood Brain Barrier: Discovering AAV Vectors Targeting the Central Nervous System Using a Transwell Model**
  Song, R., Pekrun, K., Khan, T. A., Zhang, F., Pasca, S., Kay, M. A.
  CELL PRESS.2021: 26-27
- **Long-term maturation of human cortical organoids matches key early postnatal transitions.** *Nature neuroscience*
  Gordon, A. n., Yoon, S. J., Tran, S. S., Makinson, C. D., Park, J. Y., Andersen, J. n., Valencia, A. M., Horvath, S. n., Xiao, X. n., Huguenard, J. R., Pașca, S. P., Geschwind, D. H.
  2021
- **Mapping human brain organoids on a spatial atlas.** *Cell stem cell*
  Miura, Y., Pașca, S. P.
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PRESENTATIONS

- Assembling Three-Dimensional Models of the Human Brain to Study Development and Disease - Child-X
- Vilcek Award Presentation - Vilcek Foundation
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