



Debarun Patra

Postdoctoral Scholar, Cardiovascular Institute

Bio

BIO

Debarun Patra is a postdoctoral researcher at Stanford Medicine, with a background in inflammation research. His research focuses on metabolic disease modeling and identifying novel therapeutic targets. His current work integrates inflammatory and metabolic diseases (IBD, MASH, and diabetes), using patient-derived iPS cells and primary cells, and employs advanced multi-omics.

INSTITUTE AFFILIATIONS

- Member, Stanford Medicine Children's Health Center for IBD and Celiac Disease

HONORS AND AWARDS

- Postdoctoral Award, Maternal & Child Health Research Institute, Stanford University (Jan-2026)
- Postdoctoral Award, American Heart Association
- Lead Postdoc, ADVANCE, Center for Asian Health Research and Education, Stanford University (Jan-2025)
- Institute Medal for Best Thesis Award, Indian Institute of Technology Ropar (July-2024)
- Future of Science Fund Scholarship Award, Keystone Symposia Hypoxia Conference, Ireland (May-2023)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Heart Association (2024 - present)

PROFESSIONAL EDUCATION

- Ph.D., Indian Institute of Technology Ropar , Biomedical Engineering (2024)
- M.Sc., Tezpur University , Molecular Biology and Biotechnology (2017)
- B.Sc., Midnapore College , Zoology, Human Physiology and Botany (2015)

STANFORD ADVISORS

- Joseph Wu, Postdoctoral Faculty Sponsor

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=F-gIEqYAAAAJ&hl=en>
- Researchgate: <https://www.researchgate.net/profile/Debarun-Patra-3>
- LinkedIn: <https://www.linkedin.com/in/debarun-patra-544327132/>

Research & Scholarship

LAB AFFILIATIONS

- Joseph Wu (5/1/2024)

Publications

PUBLICATIONS

- **Integrating Human Intestinal Organoids into FDA'S New Approach Methodologies for Drug Discovery.** *Advanced science (Weinheim, Baden-Wuerttemberg, Germany)*
Patra, D., Sayed, I. M., Mukherjee, S., Piplani, H., Habtezion, A., Rosen, M. J., Wu, J. C.
2026: e22276
- **Hyperglycemia-induced P300/CBP acetyltransferase drives ZEB2-mediated pro-inflammatory macrophages and delays wound healing.** *JCI insight*
Roy, S., Patra, D., Ramprasad, P., Sharma, S., Katiyar, P., Bawa, A., Singh, K., Tikoo, K., Dasgupta, S., Sen, C. K., Pal, D.
2026
- **Adipose tissue macrophage-derived microRNA-210-3p disrupts systemic insulin sensitivity by silencing GLUT4 in obesity.** *The Journal of biological chemistry*
Patra, D., Ramprasad, P., Sharma, S., Dey, U., Kumar, V., Singh, S., Dasgupta, S., Kumar, A., Tikoo, K., Pal, D.
2024: 107328
- **Pharmacological inhibition of DNMT1 restores macrophage autophagy and M2 polarization in Western diet-induced nonalcoholic fatty liver disease.** *The Journal of biological chemistry*
Pant, R., Kabeer, S. W., Sharma, S., Kumar, V., Patra, D., Pal, D., Tikoo, K.
2023; 299 (6): 104779
- **A small molecule potent IRAK4 inhibitor abrogates lipopolysaccharide-induced macrophage inflammation in-vitro and in-vivo.** *European journal of pharmacology*
Choudhary, S. A., Patra, D., Sinha, A., Mazumder, S., Pant, R., Chouhan, R., Jha, A. N., Prusty, B. M., Manna, D., Das, S. K., Tikoo, K., Pal, D., Dasgupta, et al
2023; 944: 175593
- **miR-210-3p Promotes Obesity-Induced Adipose Tissue Inflammation and Insulin Resistance by Targeting SOCS1-Mediated NF-κB Pathway.** *Diabetes*
Patra, D., Roy, S., Arora, L., Kabeer, S. W., Singh, S., Dey, U., Banerjee, D., Sinha, A., Dasgupta, S., Tikoo, K., Kumar, A., Pal, D.
2023; 72 (3): 375-388
- **Lipid-induced monokine cyclophilin-A promotes adipose tissue dysfunction implementing insulin resistance and type 2 diabetes in zebrafish and mice models of obesity.** *Cellular and molecular life sciences : CMLS*
Banerjee, D., Patra, D., Sinha, A., Roy, S., Pant, R., Sarmah, R., Dutta, R., Kanta Bhagabati, S., Tikoo, K., Pal, D., Dasgupta, S.
2022; 79 (5): 282
- **Macrophage foam cell-derived mediator promotes spontaneous fat lipolysis in atherosclerosis models.** *Journal of leukocyte biology*
Banerjee, D., Patra, D., Sinha, A., Chakrabarty, D., Patra, A., Sarmah, R., Dey, U., Dutta, R., Bhagabati, S. K., Mukherjee, A. K., Kumar, A., Pal, D., Dasgupta, et al
2025; 117 (3)
- **Hypoxia-induced miR-210-3p expression in lung adenocarcinoma potentiates tumor development by regulating CCL2 mediated monocyte infiltration.** *Molecular oncology*
Arora, L., Patra, D., Roy, S., Nanda, S., Singh, N., Verma, A. K., Chakraborti, A., Dasgupta, S., Pal, D.
2024; 18 (5): 1278-1300
- **Recent insights of obesity-induced gut and adipose tissue dysbiosis in type 2 diabetes.** *Frontiers in molecular biosciences*
Patra, D., Banerjee, D., Ramprasad, P., Roy, S., Pal, D., Dasgupta, S.
2023; 10: 1224982