



## Anil K. Panigrahi

- Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine
- Clinical Associate Professor (By courtesy), Pathology

### CLINICAL OFFICE (PRIMARY)

- **Anesthesia Department**

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### Bio

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#### BIO

Anil K. Panigrahi, M.D., Ph.D. is a Clinical Associate Professor in the Departments of Anesthesiology and Pathology (by courtesy) at Stanford University. Board-certified in Anesthesiology and Transfusion Medicine, Dr. Panigrahi works clinically in both specialties.

Dr. Panigrahi currently leads Patient Blood Management initiatives throughout Stanford Medicine and serves as Stanford Anesthesiology Director of Patient Blood Management, Co-Chair of the Stanford Health Care Transfusion Committee, Medical Director of Stanford Anesthesiology's Perioperative Anemia Management Clinic, and an Assistant Medical Director of the Stanford Health Care Transfusion Service.

Dr. Panigrahi is a contributor to leading academic textbooks of Anesthesiology and Transfusion Medicine, including Miller's Anesthesia and the Association for the Advancement of Blood & Biotherapies (AABB) Technical Manual. He regularly lectures at national conferences and has presented at annual meetings for the American Society of Anesthesiologists (ASA), AABB, and the Society for the Advancement of Patient Blood Management (SABM). He is an active member of the ASA, serving on the ASA's Committee on Patient Blood Management since 2018, and is also a member of the AABB, SABM, and the California Society of Anesthesiologists (CSA), where he has served as a District Delegate.

Dr. Panigrahi is a Phi Beta Kappa graduate of Duke University and received his M.D. and Ph.D. degrees from the University of Pennsylvania School of Medicine, where he was awarded the John G. Clark Prize for meritorious research. He completed residency training in Anesthesiology at Stanford University and completed fellowship in Blood Banking/Transfusion Medicine in the Department of Pathology also at Stanford.

#### CLINICAL FOCUS

- Anesthesia
- Transfusion Medicine

#### ACADEMIC APPOINTMENTS

- Clinical Associate Professor, Anesthesiology, Perioperative and Pain Medicine

- Clinical Associate Professor (By courtesy), Pathology

### ADMINISTRATIVE APPOINTMENTS

- Director, Stanford Anesthesiology Patient Blood Management, (2023- present)
- Co-Chair, Stanford Health Care Transfusion Committee, (2022- present)
- Medical Director, Stanford Anesthesiology Perioperative Anemia Management Clinic, (2018- present)

### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Clinical Transfusion Medicine Committee, Association for the Advancement of Blood & Biotherapies (2023 - present)
- Member, Perioperative Standards Committee, Association for the Advancement of Blood & Biotherapies (2023 - present)
- Delegate, District 3, California Society of Anesthesiologists (2021 - 2024)
- ASA Representative, Perioperative Standards Committee, Association for the Advancement of Blood & Biotherapies (2021 - 2022)
- Member, Committee on Patient Blood Management, American Society of Anesthesiologists (2018 - present)

### PROFESSIONAL EDUCATION

- Medical Education: University of Pennsylvania School of Medicine (2011) PA
- Board Certification: Blood Banking/Transfusion Medicine, American Board of Pathology (2017)
- Board Certification: Anesthesia, American Board of Anesthesiology (2017)
- Fellowship, Stanford University Medical Center, CA , Transfusion Medicine (2016)
- Residency, Stanford University Medical Center, CA , Anesthesiology (2015)
- Internship, University of Pennsylvania Health System , PA (2012)
- MD, University of Pennsylvania School of Medicine , PA (2011)
- PhD, University of Pennsylvania School of Medicine , PA (2009)

### PATENTS

- Anil K. Panigrahi, Eline T. Luning Prak. "United States Patent 9,115,399 Recombination Sequence (RS) Rearrangement Frequency as a Measure of Central B cell Tolerance"

## Research & Scholarship

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### CLINICAL TRIALS

- Study to Evaluate the Efficacy & Safety of the INTERCEPT Blood System for RBCs in Complex Cardiac Surgery Patients, Not Recruiting

## Publications

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### PUBLICATIONS

- **Factor Eight Inhibitor Bypass Activity use in cardiac surgery: A propensity matched analysis of safety outcomes.** *Anesthesiology*  
Nicholas, J. A., Harrison, N., Chakraborty, D., Chang, A. L., Aghaeepour, N., Wirtz, K., Nielson, E., Parsons, C., Jackson, E., Panigrahi, A. K.  
2024
- **Current advances in 2024: A critical review of selected topics by the Association for the Advancement of Blood and Biotherapies (AABB) Clinical Transfusion Medicine Committee.** *Transfusion*  
Poston, J. N., Andrews, J., Arya, S., Chou, S. T., Cohn, C., Covington, M., Crowe, E. P., Goel, R., Gupta, G. K., Haspel, R. L., Hess, A., Ipe, T. S., Jacobson, et al  
2024
- **Addressing Patient Concerns with Blood Transfusion from Donors Vaccinated Against COVID-19: A Clinician Primer.** *Anesthesiology*  
Forkin, K. T., Guinn, N. R., Warner, M. A., Panigrahi, A. K.  
2024

- **Blood transfusion in cardiac surgeries - Toward a personalized protocol.** *American journal of surgery*  
Min, Y., Dalal, A. R., Pedroza, A. J., Pham, T. D., Panigrahi, A. K., Goldstone, A. B., MacArthur, J. W., Woo, Y. J., Baiocchi, M., Fischbein, M. P.  
2023
- **Patient Blood Management** *Technical Manual*  
Frank, S. M., Panigrahi, A. K., Guinn, N. R.  
Association for the Advancement of Blood & Biotherapies.2023; 21
- **Hemostasis** *Miller's Basics of Anesthesia*  
Panigrahi, A. K.  
Elsevier.2022; 8
- **Rapid Blood Transfusion: The Importance of Hemodilution and Needleless Connectors.** *Cureus*  
Burbridge, M. A., Panigrahi, A. K., Stone, S. A., Jaffe, R. A., Brock-Utne, J.  
2021; 13 (3): e13999
- **Blood Component Therapy** *Manual of Clinical Anesthesiology*  
Panigrahi, A. K., Traynor, A. J.  
Wolters Kluwer.2020; 2: 315-20
- **Massive Transfusion and Resuscitation** *Manual of Clinical Anesthesiology*  
Panigrahi, A. K., Traynor, A. J.  
Wolters Kluwer.2020; 2: 327-34
- **Alternatives to Blood Product Replacement** *Manual of Clinical Anesthesiology*  
Panigrahi, A. K., Traynor, A. J.  
Wolters Kluwer.2020; 2: 321-26
- **Reducing Length of Stay and Red Blood Cell Transfusion by Implementing an Anesthesia Anemia Management Clinic**  
Yunce, M., Tho Pham, Panigrahi, A.  
LIPPINCOTT WILLIAMS & WILKINS.2019; 10
- **Patient Blood Management: Coagulation** *Miller's Anesthesia*  
Panigrahi, A. K., Liu, L. L.  
Elsevier.2019; 9: 1579-1601
- **Transfusion Management of Conjoined Twins Undergoing Surgical Separation: A Single Center Experience with Three Sets of Thoraco-Omphalopagus Twins over Ten Years**  
Tsang, H., Kuan, C., Boltz, M., Hartman, G., Joshi, R. P., Panigrahi, A., Andrews, J.  
WILEY.2018: 122A-123A
- **Rapid Blood Administration Via Small Bore Catheters Does Not Increase Potassium Concentration**  
Panigrahi, A., Giustini, A., Miller, C., Walker, M., Bowen, R., Andrews, J., Mendoza, J.  
WILEY.2017: 126A
- **Blood Transfusion Therapy.** *Medical clinics of North America*  
Goodnough, L. T., Panigrahi, A. K.  
2017; 101 (2): 431-447
- **A Standardized Approach for Transfusion Medicine Support in Patients With Morbidly Adherent Placenta.** *Anesthesia and analgesia*  
Panigrahi, A. K., Yeaton-Massey, A. n., Bakhtary, S. n., Andrews, J. n., Lyell, D. J., Butwick, A. J., Goodnough, L. T.  
2017
- **Intraoperative Coagulopathies** *Anesthesiology: Clinical Case Reviews*  
Djalali, A. G., Panigrahi, A. K.  
2017
- **Estimating Blood Loss.** *Anesthesia and analgesia*  
Goodnough, L. T., Panigrahi, A. K.  
2017; 125 (1): 13-14

- **Study to investigate the association between placenta accreta subtype and red blood cell transfusion**  
Bakhtary, S., Yeaton-Massey, A., Panigrahi, A., Lyell, D., Goodnough, L. T., Butwick, A. J.  
MOSBY-ELSEVIER.2016: S380–S381
- **Altered BCR and TLR signals promote enhanced positive selection of autoreactive transitional B cells in Wiskott-Aldrich syndrome** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Kolhatkar, N. S., Brahmandam, A., Thouvenel, C. D., Becker-Herman, S., Jacobs, H. M., Schwartz, M. A., Allenspach, E. J., Khim, S., Panigrahi, A. K., Prak, E. T., Thrasher, A. J., Notarangelo, L. D., Candotti, et al  
2015; 212 (10): 1663-1677
- **Coordination and Processing of DNA Ends During Double-Strand Break Repair: The Role of the Bacteriophage T4 Mre11/Rad50 (MR) Complex** *GENETICS*  
Almond, J. R., Stohr, B. A., Panigrahi, A. K., Albrecht, D. W., Nelson, S. W., Kreuzer, K. N.  
2013; 195 (3): 739-755
- **Altered B Cell Homeostasis Is Associated with Type I Diabetes and Carriers of the PTPN22 Allelic Variant** *JOURNAL OF IMMUNOLOGY*  
Habib, T., Funk, A., Rieck, M., Brahmandam, A., Dai, X., Panigrahi, A. K., Prak, E. T., Meyer-Bahlburg, A., Sanda, S., Greenbaum, C., Rawlings, D. J., Buckner, J. H.  
2012; 188 (1): 487-496
- **Developmental Acquisition of the Lyn-CD22-SHP-1 Inhibitory Pathway Promotes B Cell Tolerance** *JOURNAL OF IMMUNOLOGY*  
Gross, A. J., Lyandres, J. R., Panigrahi, A. K., Prak, E. T., DeFranco, A. L.  
2009; 182 (9): 5382-5392
- **RS rearrangement frequency as a marker of receptor editing in lupus and type 1 diabetes** *JOURNAL OF EXPERIMENTAL MEDICINE*  
Panigrahi, A. K., Goodman, N. G., Eisenberg, R. A., Rickels, M. R., Najj, A., Prak, E. T.  
2008; 205 (13): 2985-2994
- **Editing and escape-from editing in anti-DNA B cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Khan, S. N., Witsch, E. J., Goodman, N. G., Panigrahi, A. K., Chen, C., Jiang, Y., Cline, A. M., Erikson, J., Weigert, M., Prak, E. T., Radic, M.  
2008; 105 (10): 3861-3866