

Stanford



Brent Tan

Clinical Professor, Pathology

CLINICAL OFFICE (PRIMARY)

- Department of Pathology

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Bio

BIO

Dr. Brent Tan received a B.S. from University of California, Los Angeles, in biochemistry, an M.D. from the University of California, Los Angeles, and a PhD in molecular biology from the University of California, Los Angeles. He trained as a resident in anatomic pathology and fellow in hematopathology at Stanford, followed by postdoctoral research in the laboratory of Dr. Irving Weissman at Stanford studying cancer stem cells. His current interests include myeloid neoplasms, T cell lymphomas, molecular hematopathology, digital pathology, and laboratory information systems. He is boarded in anatomic pathology, hematopathology, and clinical informatics.

CLINICAL FOCUS

- Hematopathology
- Anatomic and Clinical Pathology

ACADEMIC APPOINTMENTS

- Clinical Professor, Pathology

ADMINISTRATIVE APPOINTMENTS

- Medical Director, Clinical Laboratory Informatics, (2009- present)
- Medical Director, Stanford Health Care Point of Care testing, (2015- present)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, College of American Pathologists Informatics Committee (2016 - 2023)

PROFESSIONAL EDUCATION

- Medical Education: UCLA David Geffen School Of Medicine (2001) CA
- Fellowship: Stanford University Hematopathology Fellowship (2005) CA
- Residency: Stanford University Pathology Residency (2004) CA

- American Board of Pathology, Clinical Informatics (2014)
- Board Certification: Hematology, American Board of Pathology (2005)
- Board Certification: Anatomic Pathology, American Board of Pathology (2004)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research interest is in the use of molecular methods to understand and characterize hematological neoplasms. My current investigations focus on the use of standard karyotyping, FISH studies, flow cytometry studies, and gene sequencing for diagnostic and prognostic evaluation of hematological neoplasms.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Hematopathology (Fellowship Program)

Publications

PUBLICATIONS

- **Clinicopathologic and Molecular Characteristics of Merkel Cell Polyomavirus Positive T-Cell Lymphoproliferative Disorders.** *The American journal of surgical pathology*
Bulterys, P., Zhou, C. W., Gong, S., Gars, E., Zhang, J., Younes, S., Stone, A., Hirt, C., Marks, L., Su, C., Stehr, H., Lawrence, L., Tan, et al
2026; 50 (5): 481-500
- **Morphologic findings and mutational profiles of myelodysplastic neoplasms with normal versus abnormal karyotype.** *Journal of hematopathology*
Kumar, J., Jensen, A., Lu, R., Khanna, V., Stehr, H., Spinner, M., Fernandez-Pol, S., Greenberg, P. L., Tan, B.
2026; 19 (1)
- **Molecular taxonomy of MDS/CMML patients influences responses to hypomethylating agents and clinical outcomes.** *Leukemia research*
Molina, A., Khanna, V., Jensen, A., Stehr, H., Tan, B., Yatsenko, S., Greenberg, P. L.
2025; 156: 107736
- **Implementation of beaker CP for flow cytometry: Workflow optimization and integration at Stanford Health Care.** *Cytometry. Part B, Clinical cytometry*
Oak, J., Gitana, G., Wei, S., Parry, M., Tan, B.
2025
- **Molecular Taxonomic Features of MDS/CMML Patients Influence Response to Hypomethylating Agent Therapy and Clinical Outcomes**
Molina, A., Khanna, V., Lu, R., Stehr, H., Tan, B., Greenberg, P. L.
ELSEVIER.2024: 4588-4589
- **Epstein-Barr virus-associated post-transplant lymphoproliferative disorders in pediatric transplantation: A prospective multicenter study in the United States.** *Pediatric transplantation*
Tajima, T., Martinez, O. M., Bernstein, D., Boyd, S. D., Gratzinger, D., Lum, G., Sasaki, K., Tan, B., Twist, C. J., Weinberg, K., Armstrong, B., Desai, D. M., Mazariegos, et al
2024; 28 (4): e14763
- **Circulating lobular breast carcinoma cells.** *International journal of laboratory hematology*
Tan, B., Oak, J.
2024
- **p53 immunohistochemistry as an ancillary tool for rapid assessment of residual disease in TP53-mutated acute myeloid leukemia and myelodysplastic syndromes.** *American journal of clinical pathology*
Brar, N., Lawrence, L., Fung, E., Zehnder, J. L., Greenberg, P. L., Mannis, G. N., Zhang, T. Y., Gratzinger, D., Oak, J., Silva, O., Kurzer, J., Tan, B., Menke, et al

2024

- **CD38 and BCL2 expression guides treatment with daratumumab and venetoclax in tagraxofusp-refractory blastic plasmacytoid dendritic cell neoplasm (BPDCN) featuring dynamic loss of CD123.** *Leukemia research*
Hu, X., Ediriwickrema, A., Saleem, A., Tan, B., Pemmaraju, N., Mannis, G. N.
2024; 139: 107479
- **Identification of T-cell Acute Lymphoblastic Lymphoma/Leukemia Using TRBC1 Expression by Immunohistochemical Methods**
De Lancy, S., Herring, M., Fernandez-Pol, S., Tan, B.
ELSEVIER SCIENCE INC.2024: S1388
- **The clinical, molecular, and prognostic features of the 2022 WHO and ICC classification systems for myelodysplastic neoplasms.** *Leukemia research*
Khanna, V., Lu, R., Kumar, J., Molina, A., Stehr, H., Spiteri, E., Spinner, M., Silva, O., Fernandez-Pol, S., Tan, B., Greenberg, P. L.
2023; 136: 107433
- **Lupus erythematosus cells in a bone marrow aspirate.** *Journal of hematopathology*
Zhang, J., Tan, B., Fernandez-Pol, S.
2023; 16 (4): 247-248
- **Lupus erythematosus cells in a bone marrow aspirate** *JOURNAL OF HEMATOPATHOLOGY*
Zhang, J., Tan, B., Fernandez-Pol, S.
2023
- **311.2: Risk factors for Epstein-Barr virus DNAemia in pediatric transplantation: A multicenter study in the United States.** *Transplantation*
Tajima, T., Bernstein, D., Boyd, S. D., Gratzinger, D., Lum, G., Sasaki, K., Tan, B., Weinberg, K., Armstrong, B., Brown, M., Chin, C., Desai, D., Fishbein, et al
2023; 107 (10S1): 71-72
- **Rapid Deployment of Whole Slide Imaging for Primary Diagnosis in Surgical Pathology at Stanford Medicine Responding to Challenges of the COVID-19 Pandemic** *ARCHIVES OF PATHOLOGY & LABORATORY MEDICINE*
Rojansky, R., Jhun, I., Dussaq, A. M., Chirieleison, S. M., Nirschl, J. J., Born, D., Fralick, J., Hetherington, W., Kerr, A. M., Lavezo, J., Lawrence, D. B., Lummus, S., Macasaet, et al
2023; 147 (3): 359-367
- **Epstein-Barr virus-associated post-transplant lymphoproliferative disorders in pediatric transplantation: A prospective multicenter study in the United States**
Tajima, T., Bernstein, D., Boyd, S. D., Gratzinger, D., Lum, G., Sasaki, K., Tan, B., Twist, C. J., Weinberg, K., Robien, M. A., Brown, M., Armstrong, B., Desai, et al
WILEY.2023
- **Mutations In Latent Membrane Protein 1 of Epstein-Barr Virus are Associated with Increased Risk for Post-Transplant Lymphoproliferative Disorder in Children.** *American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons*
Martinez, O. M., Krams, S. M., Robien, M. A., Lapasaran, M. G., Arvedson, M. P., Reitsma, A., Balachandran, Y., Harris-Arnold, A., Weinberg, K., Boyd, S. D., Armstrong, B., Trickey, A., Twist, et al
2023
- **LymphoML: An interpretable artificial intelligence-based method identifies morphologic features that correlate with lymphoma subtype**
Shankar, V., Yang, X., Krishna, V., Tan, B., Silva, O., Rojansky, R., Ng, A., Valvert, F., Briercheck, E., Weinstock, D., Natkunam, Y., Fernandez-Pol, S., Rajpurkar, et al
edited by Hegselmann, S., Parziale, A., Shanmugam, D., Tang, S., Asiedu, M. N., Chang, S., Hartvigsen, T., Singh, H.
JMLR-JOURNAL MACHINE LEARNING RESEARCH.2023: 528-558
- **Correlation of Mutational Profiles and Cytogenetics with Morphologic Dysplasia in Myelodysplastic Syndromes**
Kumar, J., Khanna, V., Lu, R., Stehr, H., Spinner, M. A., Silva, O., Fernandez-Pol, S., Oak, J. S., Greenberg, P. L., Tan, B.
AMER SOC HEMATOLOGY.2022: 4053-4055
- **Characterization of Clinical, Molecular, and Prognostic Features of the WHO 2022 Classification System for Myelodysplastic Neoplasms (MDS)**
Khanna, V., Lu, R., Kumar, J., Stehr, H., Spinner, M. A., Silva, O., Fernandez-Pol, S., Oak, J. S., Tan, B., Greenberg, P. L.

AMER SOC HEMATOLOGY.2022: 6955-6957

- **Histiocytic Sarcoma With CCND1 Gene Rearrangement Clonally Related and Transdifferentiated From Mantle Cell Lymphoma.** *American journal of clinical pathology*
Kumar, J., Al-Kawaaz, M., Martin, B. A., Hegazi, M. M., Tan, B., Gratzinger, D.
2022
- **Rapid Deployment of Whole Slide Imaging for Primary Diagnosis in Surgical Pathology at Stanford Medicine.** *Archives of pathology & laboratory medicine*
Rojansky, R., Jhun, I., Dussaq, A. M., Chirieleison, S. M., Nirschl, J. J., Born, D., Fralick, J., Hetherington, W., Kerr, A. M., Lavezo, J., Lawrence, D. B., Lummus, S., Macasaet, et al
2022
- **Mutations in latent membrane protein 1 of Epstein Barr virus are associated with increased risk of post-transplant lymphoproliferative disorder**
Martinez, O. M., Krams, S. M., Robien, M., Lapasaran, M. M., Arvedson, M., Reitsma, A., Weinberg, K., Boyd, S., Armstrong, B., Twist, C., Gratzinger, D., Tan, B., Trickey, et al
WILEY.2022
- **Gelatinous transformation of the bone marrow in a previously healthy male presenting with pancytopenia.** *British journal of haematology*
Zhang, J., Tan, B.
2022
- **Host microRNAs are decreased in pediatric solid-organ transplant recipients during EBV+ Post-transplant Lymphoproliferative Disorder.** *Frontiers in immunology*
Sen, A., Enriquez, J., Rao, M., Glass, M., Balachandran, Y., Syed, S., Twist, C. J., Weinberg, K., Boyd, S. D., Bernstein, D., Trickey, A. W., Gratzinger, D., Tan, et al
2022; 13: 994552
- **Angioimmunoblastic T-cell lymphoma diagnosed from pleural fluid by integration of morphologic, immunophenotypic, and molecular findings.** *Diagnostic cytopathology*
Tan, B., Martin, B., Fernandez-Pol, S.
2021
- **Human Germinal Center-associated Lymphoma (HGAL) Is a Reliable Marker of Normal and Neoplastic Follicular Helper T Cells Including Angioimmunoblastic T-Cell Lymphoma.** *The American journal of surgical pathology*
Koo, M., Zhang, J., Tan, B., Kurzer, J., Gratzinger, D., Zhao, S., Suarez, C., Lossos, I. S., Warnke, R. A., Natkunam, Y.
2021
- **Reactive Eosinophil Proliferations in Tissue and the Lymphocytic Variant of Hypereosinophilic Syndrome.** *American journal of clinical pathology*
King, R. L., Tan, B., Craig, F. E., George, T. I., Horny, H., Kelemen, K., Orazi, A., Reichard, K. K., Rimsza, L. M., Wang, S. A., Zamo, A., Quintanilla-Martinez, L.
2020
- **B-lymphoblastic leukemia arising in a patient with chronic neutrophilic leukemia.** *Blood advances*
Boddy, C. S., Tan, B. T., Aoki, J.
2020; 4 (21): 5389–92
- **Acute myeloid leukemia with NPM1 and FLT3 ITD mimicking acute promyelocytic leukemia.** *Blood*
Pepper, M. n., Tan, B. n.
2020; 136 (12): 1467
- **Myeloid Cell Nuclear Differentiation Antigen (MNDA) Positivity in Primary Follicles: Potential Pitfall in the Differential Diagnosis With Marginal Zone Lymphoma.** *Applied immunohistochemistry & molecular morphology : AIMM*
Manohar, V., Peerani, R., Tan, B., Gratzinger, D., Natkunam, Y.
2019
- **Prospective Analysis of EBV plus PTLN in a Multi-Center Study of Pediatric Transplant Recipients**
Martinez, O. M., Krams, S. M., Lapasaran, M., Boyd, S. D., Bernstein, D., Twist, C., Weinberg, K., Gratzinger, D., Tan, B., Armstrong, B., Ikle, D., Brown, M., Robien, et al
LIPPINCOTT WILLIAMS & WILKINS.2018: S319

- **Implementation of Epic Beaker Clinical Pathology at Stanford University Medical Center** *AMERICAN JOURNAL OF CLINICAL PATHOLOGY*
Tan, B. T., Fralick, J., Flores, W., Schrandt, C., Davis, V., Bruynell, T., Wilson, L., Christopher, J., Weber, S., Shah, N.
2017; 147 (3): 261-272
- **Primary lymphoma of bone in the pediatric and young adult population.** *Human pathology*
Chisholm, K. M., Ohgami, R. S., Tan, B., Hasserjian, R. P., Weinberg, O. K.
2017; 60: 1-10
- **Hemophagocytic lymphohistiocytosis as a paraneoplastic syndrome associated with ovarian dysgerminoma.** *Gynecologic oncology reports*
Nosratian-Baskovic, M., Tan, B., Folkins, A., Chisholm, K. M., Dorigo, O.
2016; 17: 38-41
- **Validation of Digital Whole Slide Imaging System for Breast Sentinel Lymph Node Touch Prep Analysis: A Single Institution Experience**
Hoffmann, J., McGinnis, L., Mafnas, C. T., Ziskin, J., Folkins, A. K., Allison, K., West, R. B., Higgins, J. P., Kambham, N., Long, S. R., Tan, B.
NATURE PUBLISHING GROUP.2016: 496A
- **Initial Validation of Whole Slide Imaging (WSI) for Use in Frozen Section Consultation at Stanford University**
Fernandez-Pol, S., Carneal, E., Rumery, M., Samghabadi, P., Tan, B.
NATURE PUBLISHING GROUP.2016: 494A
- **Initial Validation of Whole Slide Imaging (WSI) for Use in Frozen Section Consultation at Stanford University**
Fernandez-Pol, S., Carneal, E., Rumery, M., Samghabadi, P., Tan, B.
NATURE PUBLISHING GROUP.2016: 494A
- **Validation of Digital Whole Slide Imaging System for Intraoperative Breast Sentinel Lymph Node Touch Prep Analysis: A Single Institution Experience**
Hoffmann, J., McGinnis, L., Mafnas, C. T., Ziskin, J., Folkins, A. K., Allison, K., West, R. B., Higgins, J. P., Kambham, N., Long, S. R., Tan, B.
NATURE PUBLISHING GROUP.2016: 496A
- **Cellular morphology of BRAF V600E-positive Langerhans cell histiocytosis** *BLOOD*
Satpathy, A. T., Tan, B. T.
2015; 126 (15): 1857-1857
- **Angioimmunoblastic T Cell Lymphoma: An Unusual Presentation of Posttransplant Lymphoproliferative Disorder in a Pediatric Patient** *ACTA HAEMATOLOGICA*
Kraus, T. S., Twist, C. J., Tan, B. T.
2014; 131 (2): 95-101
- **Evaluation of the Beckman Coulter UniCel DxH 800, Beckman Coulter LH 780, and Abbott Diagnostics Cell-Dyn Sapphire Hematology Analyzers on Adult Specimens in a Tertiary Care Hospital** *AMERICAN JOURNAL OF CLINICAL PATHOLOGY*
Tan, B. T., Nava, A. J., George, T. I.
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- **Evaluation of the Beckman Coulter UniCel DxH 800 and Abbott Diagnostics Cell-Dyn Sapphire Hematology Analyzers on Pediatric and Neonatal Specimens in a Tertiary Care Hospital** *AMERICAN JOURNAL OF CLINICAL PATHOLOGY*
Tan, B. T., Nava, A. J., George, T. I.
2011; 135 (6): 929-938
- **Anti-CD47 Antibody Synergizes with Rituximab to Promote Phagocytosis and Eradicate Non-Hodgkin Lymphoma** *CELL*
Chao, M. P., Alizadeh, A. A., Tang, C., Myklebust, J. H., Varghese, B., Gill, S., Jan, M., Cha, A. C., Chan, C. K., Tan, B. T., Park, C. Y., Zhao, F., Kohrt, et al
2010; 142 (5): 699-713
- **The Frequency of Immunoglobulin Heavy Chain Gene and T-Cell Receptor gamma-Chain Gene Rearrangements and Epstein-Barr Virus in ALK(+) and ALK(-) Anaplastic Large Cell Lymphoma and Other Peripheral T-Cell Lymphomas** *JOURNAL OF MOLECULAR DIAGNOSTICS*
Tan, B. T., Seo, K., Warnke, R. A., Arber, D. A.
2008; 10 (6): 502-512
- **The Wilms' tumor gene WT1-GFP knock-in mouse reveals the dynamic regulation of WT1 expression in normal and leukemic hematopoiesis** *LEUKEMIA*
Hosen, N., Shirakata, T., Nishida, S., Yanagihara, M., Tsuboi, A., Kawakami, M., Oji, Y., Oka, Y., Okabe, M., Tan, B., Sugiyama, H., Weissman, I. L.

2007; 21 (8): 1783-1791

- **The cancer stem cell hypothesis: a work in progress** *LABORATORY INVESTIGATION*

Tan, B. T., Park, C. Y., Ailles, L. E., Weissman, I. L.

2006; 86 (12): 1203-1207

- **The frequency of B- and T-cell gene Rearrangements and Epstein-Barr virus in T-cell lymphomas - A comparison between angioimmunoblastic T-cell lymphoma and peripheral T-cell lymphoma, unspecified with and without associated B-cell proliferations** *JOURNAL OF MOLECULAR DIAGNOSTICS*

Tan, B. T., Warnke, R. A., Arber, D. A.

2006; 8 (4): 466-475