Stanford



Dolly B. Tyan, PhD

Professor of Pathology at the Stanford University Medical Center, Emerita

Pathology Clinical

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty-Med Ctr Line, Pathology Clinical

HONORS AND AWARDS

- Paul I. Terasaki Clinical Science Award, American Society for Histocompatibility & Immunogenetics (9/30/15)

PROFESSIONAL EDUCATION

- AB, San Francisco State University , Biology (1965)
- MA, San Francisco State University , Embryology (1973)
- PhD, University of California, Los Angeles , Microbiology & Immunology (1995)

Publications

PUBLICATIONS

- **Class II HLA Serotype Associations with End-Stage Renal Disease due to Membranous Nephropathy among Caucasians in the United States**
  Charu, V., Tyan, D., Troxell, M., Kambham, N.
  NATURE PUBLISHING GROUP.2020: 1569–71
- **Class II HLA Serotype Associations with End-Stage Renal Disease due to Membranous Nephropathy among Caucasians in the United States**
  Charu, V., Tyan, D., Troxell, M., Kambham, N.
  NATURE PUBLISHING GROUP.2020: 1569–71
- **ABCALLER SOFTWARE PROVIDES INSTANT ANALYSIS OF ANTIBODIES, CUMULATIVES, AND DSA WITH CUSTOMIZABLE RULES AND 100% ACCURACY**
  Tyan, D. B., Chang, C.
  ELSEVIER SCIENCE INC.2019: 121
- **A reverse-engineering strategy utilizing the integration of single antigen beads and NGS HLA genotypes to detect potential antibody inducing epitopes**
  Chang, C., Yamamoto, F., Tyan, D. B.
  ELSEVIER SCIENCE INC.2019: 661–67
- **THE RISK OF DE NOVO ANTI-HLA ANTIBODY FORMATION ASSOCIATED WITH SEASONAL INFLUENZA VACCINATION IN HEMODIALYSIS-TREATED PATIENTS ON THE KIDNEY TRANSPLANT WAITING LIST**
  Liu, H., Chen, G., Lin, L., Tyan, D. B., Lenihan, C.
  ELSEVIER SCIENCE INC.2019: 177–78

- **DSA-FXM: Accelerated donor specific flow crossmatch discriminating class I and II antibody specifically and only to donor HLA for determining true incompatibility.** *Transplantation*
  Chen, G., Lin, L., Tyan, D. B.
  2019

- **Mapping and definition of HLA class I and II serologic epitopes using an unbiased reverse engineering strategy.** *Human immunology*
  Yamamoto, F., Wang, L., Chang, C., Tyan, D. B.
  2019

- **A reverse-engineering strategy utilizing the integration of single antigen beads and NGS HLA genotypes to detect potential antibody inducing epitopes.** *Human immunology*
  Chang, C., Yamamoto, F., Tyan, D. B.
  2019

- **Sensitization in Heart Transplantation: Emerging Knowledge A Scientific Statement From the American Heart Association** *CIRCULATION*
  Colvin, M. M., Cook, J. L., Chang, P. P., Hsu, D. T., Kiernan, M. S., Kobashigawa, J. A., Lindenfeld, J., Masri, S., Miller, D. V., Rodriguez, E., Tyan, D. B., Zeevi, A., Amer Heart Assoc, et al
  2019; 139 (12): E553–E578

- **INTEGRATIVE ANALYSIS OF HLA NGS GENOTYPING DATA AND SINGLE ANTIGEN BEAD ASSAYS FOR MAPPING SEROLOGIC EPITOPES**
  Chang, C., Tyan, D. B.
  ELSEVIER SCIENCE INC.2018: 45

- **A NOVEL METHOD FOR HLA ANTIGEN SPECIFIC B CELL DETECTION**
  Chen, G., Liu, H., Tyan, D. B.
  ELSEVIER SCIENCE INC.2018: 38–39

- **A NOVEL MIXED LYMPHOCYTE CULTURE METHOD TO EVALUATE DONOR HLA SPECIFIC IMMUNITY IN DIFFERENT HLA TYPE MISMATCHED DONORS AND RECIPIENTS**
  Liu, H., Tyan, D. B., Chen, G.
  ELSEVIER SCIENCE INC.2018: 41

- **NOVEL METHOD USING REVERSE ENGINEERING TO DEFINE HLA EPITOPE ANTIBODY TARGETS**
  Yamamoto, F. F., Wang, L., Chang, C., Tyan, D. B.
  ELSEVIER SCIENCE INC.2018: 43

- **A NOVEL FLOW CYTOMETRY BASED CELLULAR CROSSNATCH (FLOW-CXM) PREDICTS GRAFT FAILURE AND GHVD POST BONE MARROW TRANSPLANTATION**
  Liu, H., Tyan, D. B., Chen, G.
  ELSEVIER SCIENCE INC.2018: 77–78

- **Human leukocyte antigens antibodies after lung transplantation: Primary results of the HALT study** *AMERICAN JOURNAL OF TRANSPLANTATION*
  Hachem, R. R., Kamoun, M., Budev, M. M., Askar, M., Ahya, V. N., Lee, J. C., Levine, D. J., Pollack, M. S., Dhillon, G. S., Weill, D., Schechtman, K. B., Leard, L. E., Golden, et al
  2018; 18 (9): 2285–94

- **Complement-activating donor-specific anti-HLA antibodies and solid organ transplant survival: A systematic review and meta-analysis** *PLOS MEDICINE*
  Bouquegneau, A., Loheac, C., Aubert, O., Bouatou, Y., Viglietti, D., Empana, J., Ulloa, C., Murad, M., Legendre, C., Glotz, D., Jackson, A. M., Zeevi, A., Schaub, et al
  2018; 15 (5): e1002572

- **The management of antibodies in heart transplantation: An ISHLT consensus document** *JOURNAL OF HEART AND LUNG TRANSPLANTATION*
  Kobashigawa, J., Colvin, M., Potena, L., Dragun, D., Crespo-Leiro, M. G., Delgado, J. F., Olymbios, M., Parameshwar, J., Patel, J., Reed, E., Reinsmoen, N., Rodriguez, E., Ross, et al
  2018; 37 (5): 537–47

- **Application, technical issues, and interpretation of C1q for graft outcome.** *Current opinion in organ transplantation*
  Tyan, D. B.

2017; 22 (5): 505-510

- **Immunological Effect of Skin Allograft in Burn Treatment: Impact on Future Vascularized Composite Allotransplantation** *JOURNAL OF BURN CARE & RESEARCH*
  Garza, R. M., Press, B. H., Tyan, D. B., Karanas, Y. L., Lee, G. K.
  2017; 38 (3): 169-173

- **CPRA for allocation of kidneys in the US: More candidates >= 98% CPRA, lower positive crossmatch rates and improved transplant rates for sensitized patients** *HUMAN IMMUNOLOGY*
  Baxter-Lowe, L. A., Kucheryavaya, A., Tyan, D., Reinsmoen, N.
  2016; 77 (5): 395-402

- **Antibody-mediated rejection of the lung: A consensus report of the International Society for Heart and Lung Transplantation.** *journal of heart and lung transplantation*
  Levine, D. J., Glanville, A. R., Aboyoun, C., Belperio, J., Benden, C., Berry, G. J., Hachem, R., Hayes, D., Neil, D., Reinsmoen, N. L., Snyder, L. D., Sweet, S., Tyan, et al
  2016; 35 (4): 397-406

- **Very high resolution single pass HLA genotyping using amplicon sequencing on the 454 next generation DNA sequencers: Comparison with Sanger sequencing** *HUMAN IMMUNOLOGY*
  Yamamoto, F., Hoeglund, B., Fernandez-Vina, M., Tyan, D., Rastrou, M., Williams, T., Moonsamy, P., Goodridge, D., Anderson, M., Erlich, H. A., Holcomb, C. L.
  2015; 76 (12): 910-916

- **Limited Variation in BK Virus T-Cell Epitopes Revealed by Next-Generation Sequencing.** *Journal of clinical microbiology*
  Sahoo, M. K., Tan, S. K., Chen, S. F., Kapusinszky, B., Concepcion, K. R., Kjelson, L., Mallempati, K., Farina, H. M., Fernández-Viña, M., Tyan, D., Grimm, P. C., Anderson, M. W., Concepcion, et al
  2015; 53 (10): 3226-3233

- **Antibody-mediated rejection despite inhibition of terminal complement** *TRANSPLANT INTERNATIONAL*
  Bentall, A., Tyan, D. B., Sequeira, F., Everly, M. J., Gandhi, M. J., Cornell, L. D., Li, H., Henderson, N. A., Raghavaiah, S., Winters, J. L., Dean, P. G., Stegall, M. D.
  2014; 27 (12): 1235-1243

- **HLA desensitization with bortezomib in a highly sensitized pediatric patient.** *Pediatric transplantation*
  May, L. J., Yeh, J., Maeda, K., Tyan, D. B., Chen, S., Kaufman, B. D., Bernstein, D., Rosenthal, D. N., Hollander, S. A.
  2014; 18 (8): E280-2

- **HLA desensitization with bortezomib in a highly sensitized pediatric patient** *PEDIATRIC TRANSPLANTATION*
  May, L. J., Yeh, J., Maeda, K., Tyan, D. B., Chen, S., Kaufman, B. D., Bernstein, D., Rosenthal, D. N., Hollander, S. A.
  2014; 18 (8): E280-E282

- **Sensitization from transfusion in patients awaiting primary kidney transplant.** *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association*
  Yabu, J. M., Anderson, M. W., Kim, D., Bradbury, B. D., Lou, C. D., Petersen, J., Rossert, J., Chertow, G. M., Tyan, D. B.
  2013; 28 (11): 2908-2918

- **Consensus Guidelines on the Testing and Clinical Management Issues Associated With HLA and Non-HLA Antibodies in Transplantation** *TRANSPLANTATION*
  Tait, B. D., Suesal, C., Gebel, H. M., Nickerson, P. W., Zachary, A. A., Claas, F. H., Reed, E. F., Bray, R. A., Campbell, P., Chapman, J. R., Coates, P. T., Colvin, R. B., Cozzi, et al
  2013; 95 (1): 19-47

- **C1q Assay for the Detection of Complement Fixing Antibody to HLA Antigens.** *Methods in molecular biology (Clifton, N.J.)*
  Chen, G., Tyan, D. B.
  2013; 1034: 305-311

- **New approaches for detecting complement-fixing antibodies** *CURRENT OPINION IN ORGAN TRANSPLANTATION*
  Tyan, D. B.
  2012; 17 (4): 409-415

- **Complement-fixing donor-specific antibodies identified by a novel C1q assay are associated with allograft loss** *PEDIATRIC TRANSPLANTATION*
  Sutherland, S. M., Chen, G., Sequeira, F. A., Lou, C. D., Alexander, S. R., Tyan, D. B.
  2012; 16 (1): 12-17

- **Complement (C1q) fixing solid-phase screening for HLA antibodies increases the availability of compatible platelet components for refractory patients** *TRANSFUSION*
  Fontaine, M. J., Kuo, J., Chen, G., Galel, S. A., Miller, E., Sequeira, F., Viele, M., Goodnough, L. T., Tyan, D. B.
  2011; 51 (12): 2611-2618

- **Novel C1q assay reveals a clinically relevant subset of human leukocyte antigen antibodies independent of immunoglobulin G strength on single antigen beads** *HUMAN IMMUNOLOGY*
  Chen, G., Sequeira, F., Tyan, D. B.
  2011; 72 (10): 849-858

- **A multi-site study using high-resolution HLA genotyping by next generation sequencing** *TISSUE ANTIGENS*
  HOLCOMB, C. L., Hoeglund, B., ANDERSON, M. W., BLAKE, L. A., Boehme, I., Egholm, M., Ferriola, D., Gabriel, C., Gelber, S. E., Goodridge, D., Hawbecker, S., Klein, R., Ladner, et al
  2011; 77 (3): 206-217

- **C1q-Fixing Human Leukocyte Antigen Antibodies Are Specific for Predicting Transplant Glomerulopathy and Late Graft Failure After Kidney Transplantation** *TRANSPLANTATION*
  Yabu, J. M., Higgins, J. P., Chen, G., Sequeira, F., Busque, S., Tyan, D. B.
  2011; 91 (3): 342-347

- **Clinical usefulness of a novel C1q assay to detect immunoglobulin G antibodies capable of fixing complement in sensitized pediatric heart transplant patients** *JOURNAL OF HEART AND LUNG TRANSPLANTATION*
  Chin, C., Chen, G., Sequeria, F., Berry, G., Siehr, S., Bernstein, D., Rosenthal, D., Reinhartz, O., Tyan, D.
  2011; 30 (2): 158-163

- **Complete donor T-cell engraftment 30 days after allogeneic transplantation predicts molecular remission in high-risk chronic lymphocytic leukaemia** *BRITISH JOURNAL OF HAEMATOLOGY*
  Jones, C. D., Arai, S., Lowsky, R., Tyan, D. B., Zehnder, J. L., Miklos, D. B.
  2010; 150 (5): 637-639

- **Review of Heart-Lung Transplantation at Stanford** *ANNALS OF THORACIC SURGERY*
  Deuse, T., Sista, R., Weill, D., Tyan, D., Haddad, F., Dhillon, G., Robbins, R. C., Reitz, B. A.
  2010; 90 (1): 329-337

- **Meiotic recombination generates rich diversity in NK cell receptor genes, alleles, and haplotypes** *GENOME RESEARCH*
  Norman, P. J., Abi-Rached, L., Gendzekhadze, K., Hammond, J. A., Moesta, A. K., Sharma, D., Graef, T., McQueen, K. L., Guethlein, L. A., Carrington, C. V., Chandanayingyong, D., Chang, Y., Crespi, et al
  2009; 19 (5): 757-769

- **Unusual selection on the KIR3DL1/S1 natural killer cell receptor in Africans** *NATURE GENETICS*
  Norman, P. J., Abi-Rached, L., Gendzekhadze, K., Korbel, D., Gleimer, M., Rowley, D., Bruno, D., Carrington, C. V., Chandanayingyong, D., Chang, Y., Crespi, C., Saruhan-Direskeneli, G., Fraser, et al
  2007; 39 (9): 1092-1099

- **Genetic control of human NK cell repertoire** *JOURNAL OF IMMUNOLOGY*
  Shilling, H. G., Young, N., Guethlein, L. A., Cheng, N. W., Gardiner, C. M., Tyan, D., Parham, P.
  2002; 169 (1): 239-247

- **Allelic polymorphism synergizes with variable gene content to individualize human KIR genotype** *JOURNAL OF IMMUNOLOGY*
  Shilling, H. G., Guethlein, L. A., Cheng, N. W., Gardiner, C. M., Rodriguez, R., Tyan, D., Parham, P.
  2002; 168 (5): 2307-2315

- **Human diversity in killer cell inhibitory receptor genes** *IMMUNITY*
  Uhrberg, M., Valiante, N. M., Shum, B. P., Shilling, H. G., Lienert-Weidenbach, K., Corliss, B., Tyan, D., Lanier, L. L., Parham, P.
  1997; 7 (6): 753-763

- **Cw*1701 defines a divergent African HLA-C allelic lineage** *IMMUNOGENETICS*
  WELLS, R. S., Seielstad, M. T., Bunce, M., Tyan, D. B., Bekele, E., Parham, P.
  1997; 46 (3): 173-180

- **Heterogeneous phenotypes of expression of the NKB1 natural killer cell class I receptor among individuals of different human histocompatibility leukocyte antigens types appear genetically regulated, but not linked to major histocompatibility complex haplotype** *JOURNAL OF EXPERIMENTAL MEDICINE*
  Gumperz, J. E., Valiante, N. M., Parham, P., Lanier, L. L., Tyan, D.
  1996; 183 (4): 1817-1827

- **HLA-B16 ANTIGENS - SEQUENCE OF THE ST-16 ANTIGEN, FURTHER DEFINITION OF 2 B38 SUBTYPES AND EVIDENCE FOR CONVERGENT EVOLUTION OF B-ASTERISK-3902** *TISSUE ANTIGENS*
  Adams, E. J., MARTINEZNAVES, E., Arnett, K. L., Little, A. M., Tyan, D. B., Parham, P.
  1995; 45 (1): 18-26

- **USE OF RECA PROTEIN TO ENRICH FOR HOMOLOGOUS GENES IN A GENOMIC LIBRARY** *NUCLEIC ACIDS RESEARCH*
  TAIDILASKOWSKI, B., Tyan, D., Honigberg, S. M., RADDING, C. R., GRUMET, F. C.
  1988; 16 (16): 8157-8169