

CURRICULUM VITAE



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Present Academic & Hospital Appointments:

Professor, Samsung Medical Center, Sungkyunkwan University

Education

1987-1993 Chonnam National University, School of Medicine, Gwangju, Korea

1994-1996 Master degree from Chonnam National University, Graduate School, Gwangju, Korea

1998-2003 Ph.D. degree from Chonnam National University, Graduate School, Gwangju, Korea

Career

1993-1998 Internship and Residency in Chonnam National University Hospital

2003-2007 Assistant Professor of Laboratory Medicine, Chonnam National University Hospital

2007-2009 Post- Doc Research Associate, Dr. Campana's lab. Department of Oncology, St. Jude Children's Research Hospital, Memphis, TN, USA

2010.5-2015.2 Associate Professor of Laboratory Medicine, Chonnam National University Medical School

2015.3-2016.2 Professor of Laboratory Medicine & Genetics, Samsung Medical Center

2015.3-Present Professor of Laboratory Medicine & Genetics, Samsung Medical Center, Sungkyunkwan University

Membership

The Korean Society of Blood Transfusion

The International Society Blood Transfusion (ISBT)

The Society for Natural Immunity

The Korean Society of Laboratory Medicine

The Korean Society of Hematology

Honors and Awards

- 2003 Mirr Award of The Korean Society of Blood Transfusion (AABB2003 Travel Award)
- *The frequency of cis-AB blood type of blood donors in Honam Area*
- 2005 SYSMEX Award of The Korean Society of Laboratory Medicine
- *The serological and genetic basis of the cis-AB blood group in Korea.*
- 2006 The best paper award of KOFST (The Korean Federation of Science and Technology Societies).
The genetic and phenotypic basis of blood group A subtypes in Koreans.
- 2016 대한적십자사총재상
- 2017 질병관리본부장상
- 2018 보건복지부장관상
- 2020 Best researcher Award of The Korean Society of Laboratory Medicine
- *Expansion of Human NK Cells Using K562 Cells Expressing OX40 Ligand and Short Exposure to IL-21.*

Clinical Trial Experience: None

Publications; * Corresponding author

2021

1. Thangaraj JL, Phan MT, Kweon S, Kim J, Lee JM, Hwang I, Park J, Doh J, Lee SH, Vo MC, Chu TH, Song GY, Ahn SY, Jung SH, Kim HJ, **Cho D***, **Lee JJ***. Expansion of cytotoxic natural killer cells in multiple myeloma patients using K562 cells expressing OX40 ligand and membrane-bound IL-18 and IL-21. *Cancer Immunol Immunother.* 2021 Jul 20
2. Thangaraj JL, Ahn SY, Jung SH, Vo MC, Chu TH, Thi Phan MT, Kwon M, Lee KH, Kim M, Song GY, Yang DH, Ahn JS, Kim HJ, **Cho D***, **Lee JJ***. Expanded **natural killer cells** augment anti-myeloma effect of daratumumab, bortezomib, and dexamethasone in a mouse model. *Cell Mol Immunol.* 2021 May 12. doi: 10.1038/s41423-021-00686-9.
3. Park J, Shin Y, Kim JM, Kweon S, Song AY, Baek Y, Kim J, **Cho D***, **Kim HS***, **Doh J***. Multifunctional Microparticles with Stimulation and Sensing Capabilities for Facile **NK Cell** Activity Assay. *ACS Sens.* 2021 Mar 26;6(3):693-697
4. Lee B, Lim DJ, Heo WY, Yoon SE, Kim HY, Kim HJ, Kim SH, **Cho D***. Aberrant Loss of Surface CD3 and TCR $\gamma\delta$ Expression in Relapsed Hepatosplenic T-cell Lymphoma. *Ann Lab Med.* 2021 Nov 1;41(6):598-600.
5. Choi S*, Hyun J, Yu H, **Cho D***. ABO-Incompatible Transfusion Events Reported in Written Judgments and in the Korean Hemovigilance System. *Ann Lab Med.* 2021 Sep 1;41(5):493-498
6. Kim TY, Yu H, **Cho D***. The intronic variant RHD:c.149-29G>C designated as RHD*01EL.32

- does not cause a DEL phenotype. *Transfusion*. 2021 Mar;61(3):986-987.
7. Kim JE, Chun S, Sinn DH*, Kim NJ, Kim S, Kang W, Kim JM, Choi GS, Joh JW, **Cho D***. Initial experience with high-volume plasma exchange in patients with acute liver failure. *J Clin Apher*. 2021 Jun;36(3):379-389
 8. Kim HY, Bang SH, **Cho D**, Kim HJ, Kim SH. Performance evaluation of platelet counting of Abbott Alinity hq and Sysmex XN-9000 automated hematology analyzer compared with international reference method. *Int J Lab Hematol*. 2021 Jun;43(3):387-394

2020

1. Kim TY, Yu H, Chung YN, Jang JH, **Cho D***. The novel missense variant c.350G>T on the ABO*B.01 allele associated with a Bel phenotype. *Transfusion*. 2020 Sep 22
2. Kim J, Phan MT, Kweon S, Yu H, Park J, Kim KH, Hwang I, Han S, **Kwon MJ***, **Cho D***. A Flow Cytometry-Based Whole Blood Natural Killer Cell Cytotoxicity Assay Using Overnight Cytokine Activation. *Front Immunol*. 2020 Aug 14;11:1851.
3. Chun S, Lee HJ, **Cho D***. A new RHD variant allele (RHD Gly339Val) shows weakened D expression compared to RHD Gly339Glu and Gly339Arg mutants. *Transfusion*. 2020 Jun 8. doi: 10.1111/trf.15908. Online ahead of print.
4. Yoon SE, Eun Y, Huh K, Chung CR, Yoo IY, Cho J, **Cho D**, Ko YH, Park S, Kim WS, Kim SJ. A comprehensive analysis of adult patients with secondary hemophagocytic lymphohistiocytosis: a prospective cohort study. *Ann Hematol*. 2020 May 21. doi: 10.1007/s00277-020-04083-6.
5. Chun S, Kim H, Yun JW, Yu H, Seo JY, **Cho D***. *RHD* Genotyping Is Recommended for All Patients With Serological weak-D Phenotypes in Asian Populations - Cases With Coexistence of weak-D and Asia Type DEL Alleles Results in Complete Expression of D-antigen. *Transfus Apher Sci*. 2020 May 11:102807. doi: 10.1016/j.transci.2020.102807
6. Yoo IY, Bang SH, Lim DJ, Kim SJ, Kim K, Kim HJ, Kim SH, **Cho D***. Prevalence and Immunophenotypic Characteristics of Monoclonal B-Cell Lymphocytosis in Healthy Korean Individuals With Lymphocytosis. *Ann Lab Med*. 2020 Sep;40(5):409-413.
7. Kwon JH, Han S, Jang JS, Lee KW, Ahn JH, Kim K, Jeon S, Gwak MS, Ko JS, Kim GS, Joh JW, **Cho D**. Decrease in the Risk of Post-Transplant Hepatocellular Carcinoma Recurrence After the Conversion to Prestorage Leukoreduction for Transfused Red Blood Cells. *Transplantation*. 2020 Apr 6. doi: 10.1097
8. Chun S, Phan MT, Hong S, Yang J, Yoon Y, Han S, Kang J, Yazer MH, **Kim J***, **Cho D***. Double-filtered leukoreduction as a method for risk reduction of transfusion-associated graft-versus-host disease. *PLoS One*. 2020 Mar 26;15(3):e0229724
9. Yazer MH, Jackson B, Pagano M, Rahimi-Levene N, Peer V, Bueno JL, Jackson RP, Shan H, Amorim-Filho L, Lopes ME, Boquimpani C, Sprogøe U, Bruun MT, Titlestad K, Rushford K, Wood EM, McQuilten ZK, de Angelis V, Delle Donne M, Murphy M, Staves J, **Cho D**, Nakamura F, Hangaishi A, Callum J, Lin Y, Mogaddam M, Gharehbaghian A, Lozano M. *Vox Sanguinis*

- International Forum on Hospital Transfusion Services' Response to COVID-19. Vox Sang. 2020 May 8;10.1111/vox.12943
10. Choi S, Yu H, **Cho D***. First Korean Case of Partial D DBS-1. Ann Lab Med. 2020 Jul;40(4):337-340.
 11. Choi CH, Choi HJ, Lee JW, Kang ES, **Cho D**, Park BK, Kim YM, Kim DY, Seo H, Park M, Kim W, Choi KY, Oh T, Kang CY, Kim BG. Phase I Study of a B Cell-Based and Monocyte-Based Immunotherapeutic Vaccine, BVAC-C in Human Papillomavirus Type 16- or 18-Positive Recurrent Cervical Cancer. J Clin Med. 2020 Jan 5;9(1):147
 12. Ryu KJ, Lee JY, Park C, **Cho D**, Kim SJ. Isolation of Small Extracellular Vesicles From Human Serum Using a Combination of Ultracentrifugation With Polymer-Based Precipitation. Ann Lab Med. 2020 May;40(3):253-258.
 13. Kim HY, Chung YN, **Cho D***. Extended Red Blood Cell Phenotype Matching Is Dependent on Ethnicity and Specificity of RBC Alloantibodies. Ann Lab Med. 2020 Mar;40(2):190-192
 14. Kim KW, Jeong JU, Lee KH, Uong TNT, Rhee JH, Ahn SJ, Kim SK, **Cho D**, Quang Nguyen HP, Pham CT, Yoon MS. Combined NK Cell Therapy and Radiation Therapy Exhibit Long-Term Therapeutic and Antimetastatic Effects in a Human Triple Negative Breast Cancer Model. Int J Radiat Oncol Biol Phys. 2019 Oct 10:S0360-3016(19)33868-4
 15. Yoon KW, **Cho D**, Lee DS, Gil E, Yoo K, Choi KJ, Park CM. Clinical impact of massive transfusion protocol implementation in non-traumatic patients. Transfus Apher Sci. 2020 Feb;59(1):102631.
 16. Kim HY, Bang SH, **Cho D**, Kim HJ, Kim SH. Performance evaluation of platelet counting of Abbott Alinity hq and Sysmex XN-9000 automated hematology analyzer compared with international reference method. Int J Lab Hematol. 2020 Nov 20.
 17. Chung YN, Kim TY, Yu H, Bae JC, **Cho D***. Molecular basis of serological weak D phenotypes and RhD typing discrepancies identified in the Korean population. Blood Transfus. 2020 Oct 9.
 18. Kim SJ, Lim JQ, Laurensia Y, Cho J, Yoon SE, Lee JY, Ryu KJ, Ko YH, Koh Y, **Cho D**, Lim ST, Beck Enemark M, D'amore F, Bjerre M, Ong CK, Kim WS. Avelumab for the treatment of relapsed or refractory extranodal NK/T-cell lymphoma: an open-label phase 2 study. Blood. 2020 Aug 7
 19. Lee B, Chung YN, Yu H, Kim TY, Choi KM, **Cho D***. Weak D Type 102 Found in a Family Study: The First Case in Korea. Korean J Blood Transfus. 2020 Aug;31(2):151-158
 20. Kim KH, Kim J, **Cho D***. Current Status of Our Journal, The Korean Journal of Blood Transfusion. Korean J Blood Transfus. 2020 Dec;31(3):193-200.
 21. Kim B, Choi SJ, **Cho D**, Kim S, Kim HO. Anti-PP1P(k) (Tj(a)) Antibody in a Korean Female Patient with p Phenotype Confirmed by Genotyping. Lab Med Online. 2020 Jan;10(1):84-87

2019

1. Kweon S, Phan MT, Chun S, Yu H, Kim J, Kim S, Lee J, Ali AK, Lee SH, Kim SK, **Doh J***, **Cho D***. Expansion of Human NK Cells Using K562 Cells Expressing OX40 Ligand and Short Exposure to IL-21. *Front Immunol*. 2019 Apr 24;10:879
2. Lee J, Kang TH, Yoo W, Choi H, Jo S, Kong K, Lee SR, Kim SU, Kim JS, **Cho D**, Kim J, Kim JY, Kwon ES, Kim S. An Antibody Designed to Improve Adoptive NK-Cell Therapy Inhibits Pancreatic Cancer Progression in a Murine Model. *Cancer Immunol Res*. 2019;7(2):219-229.
3. Vo MC, Lakshmi TJ, Jung SH, **Cho D**, Park HS, Chu TH, Lee HJ, Kim HJ, Kim SK, Lee JJ. Cellular immunotherapy in multiple myeloma. *Korean J Intern Med*. 2019 Feb 15.
4. Park MS, Yoo IY, Kim HJ, Kim SH, **Kim SJ***, **Cho D***. Flow Cytometric Analysis of T Cells in Hemophagocytic Lymphohistiocytosis. *Ann Lab Med*. 2019;39(5):430-437.
5. Ha C, Choi S, Yu H, Chun S, Kim KH, **Lee JH***, Han IW, **Cho D***. First Case in Korea of a Patient With Anti-PP1Pk Antibodies: Successful Blood Management via Acute Normovolemic Hemodilution. *Ann Lab Med*. 2019 Nov;39(6):602-605.
6. Kim HY, Cho EJ, Chun S, Kim KH, **Cho D***. Red Blood Cell Alloimmunization in Korean Patients With Myelodysplastic Syndrome and Liver Cirrhosis. *Ann Lab Med*. 2019;39(2):218-222.
7. Chun S, Choi S, Yu H, **Cho D***. Cis-AB, the Blood Group of Many Faces, Is a Conundrum to the Novice Eye. *Ann Lab Med*. 2019;39(2):115-120.
8. Choi S, Chun S, Seo JY, Yang JH, **Cho D***. Planned Transfusion of D-Positive Blood Components in an Asia Type DEL Patient: Proposed Modification of the Korean National Guidelines for Blood Transfusion. *Ann Lab Med*. 2019;39(1):102-104.
9. Shin SH, Kim YJ, Lee D, **Cho D**, Ko YH, Cho J, Park WY, Park D, Kim SJ, Kim WS. Analysis of circulating tumor DNA by targeted ultra-deep sequencing across various non-Hodgkin lymphoma subtypes. *Leuk Lymphoma*. 2019:1-10.
10. Park GE, Peck KR, Kim JM, Kwon CHD, Joh JW, **Cho D**, Sinn DH. Infectious Complications in Patients Who Received High-Volume Plasma Exchange Prior to Liver Transplant: A Case Report. *Exp Clin Transplant*. 2019 Jan 29.
11. Park Y, Kim DS, Jeon MJ, Lee BH, Yu ES, Kang KW, Lee SR, Sung HJ, Nam MH, Yoon SY, Choi CW, Kang ES, Cho D, Kim K, Kim BS, Kim DW, Kim SJ. Single-dose etoposide is an effective and safe protocol for stem cell mobilization in patients with multiple myeloma. *J Clin Apher*. 2019 Jul 8.
12. Kim BR, Chun S, **Cho D***, **Kim KH***. Association of neutrophil-to-lymphocyte ratio and natural killer cell activity revealed by measurement of interferon-gamma levels in a healthy population. *J Clin Lab Anal*. 2019 Jan;33(1):e22640
13. Choi S, Shin HB, **Cho D**. Cases of Medical Identity Theft Recognized by Historical ABO Discrepancies. *Korean J Blood Transfus*. 2019;30(1):71-73
14. Yu H, Park JE, **Park G***, **Cho D***. Weak D type 33 Found in a Patient with a Weak D Phenotype: The First Case in Korea. *Korean J Blood Transfus*. 2019;30(1):65-70.
15. Cho EH, Yoo IY, Ryu MR, Shin HY, Kim SH, **Cho D***. A Case of Mature B-cell Neoplasm with Light

Chain Clonality Confirmed by Cytoplasmic Light Chain Expression Using Flow Cytometry.
Lab Med Online. 2019;9(2):99-102.

2018

1. Kwon JH, Han S, **Cho D**, Spahn DR, Ko JS, Kim DY, Jun JH, Gwak MS, Kim GS. Longer storage of red blood cells does not affect mortality in transfused liver transplant recipients. *Transfusion*. 2018;58(11):2529-2537
2. Kim GH, Dang HN, Phan MT, Kweon SH, Chun S, **Cho D***. X-ray as Irradiation Alternative for K562 Feeder Cell Inactivation in Human Natural Killer Cell Expansion. *Anticancer Res*. 2018;38(10):5767-5772.
3. Choi S, Chun S, Lee HT, Yu H, Seo JY, **Cho D***. Weak D Testing is not Required for D- Patients With C-E- Phenotype. *Ann Lab Med*. 2018;38(6):585-590.
4. Ko JH, Seok H, Cho SY, Ha YE, Baek JY, Kim SH, Kim YJ, Park JK, Chung CR, Kang ES, **Cho D**, Müller MA, Drosten C, Kang CI, Chung DR, Song JH, Peck KR. Challenges of convalescent plasma infusion therapy in Middle East respiratory coronavirus infection: a single centre experience. *Antivir Ther*. 2018; 23(7):617-622
5. Chung YN, Chun S, Phan MT, Nam MH, Choi BM, **Cho D**, Choi JS. The first case of congenital blood chimerism in two of the triplets in Korea. *J Clin Lab Anal*. 2018;32(8):e22580
6. Lee SH, Shin DJ, Kim Y, Kim CJ, Lee JJ, Yoon MS, Uong TNT, Yu D, Jung JY, **Cho D**, Jung BG, Kim SK, Suh GH. Comparison of Phenotypic and Functional Characteristics Between Canine Non-B, Non-T Natural Killer Lymphocytes and CD3+CD5dimCD21- Cytotoxic Large Granular Lymphocytes. *Front Immunol*. 2018; 9:841. doi: 10.3389/fimmu.2018.00841
7. Chun S, Ryu MR, Cha SY, Seo JY, **Cho D***. ABO Mistyping of cis-AB Blood Group by the Automated Microplate Technique. *Transfus Med Hemother*. 2018 Jan;45(1):5-10. doi: 10.1159/000475506
8. Jeong JU, Uong TNT, Chung WK, Nam TK, Ahn SJ, Song JY, Kim SK, Shin DJ, Cho E, Kim KW, **Cho D**, Yoon MS. Effect of irradiation-induced intercellular adhesion molecule-1 expression on natural killer cell-mediated cytotoxicity toward human cancer cells. *Cytotherapy*. 2018;20(5):715-727.
9. Chun S, Yun JW, **Park G***, **Cho D***. The synonymous nucleotide substitution RHD 1056C>G alters mRNA splicing associated with serologically weak D phenotype. *J Clin Lab Anal*. 2018;32(4):e22330
10. Han S, Kwon JH, Jung SH, Seo JY, Jo YJ, Jang JS, Yeon SM, Jung SH, Ko JS, Gwak MS, **Cho D**, Son HJ, Kim GS. Perioperative Fresh Red Blood Cell Transfusion May Negatively Affect Recipient Survival After Liver Transplantation. *Ann Surg*. 2018;267(2):346-351
11. Choi S, Shin S, Seo JY, Yu H, Chun S, **Cho D***. An Experience of Various Pretransfusion Test Protocols in a Tertiary Referral Hospital. *Korean J Blood Transfus*. 2018;29(2):130-139

2017

1. Pham DH, Kim JS, Kim SK, Shin DJ, Uong NT, Hyun H, Yoon MS, Kang SJ, Ryu YJ, Cho JS, Yoon JH,

- Lee JS, **Cho D**, Lee SH, Park MH. Effects of ADAM10 and ADAM17 Inhibitors on Natural Killer Cell Expansion and Antibody-dependent Cellular Cytotoxicity Against Breast Cancer Cells In Vitro. *Anticancer Res.* 2017 Oct;37(10):5507-5513.
2. Oh SJ, Yang JI, Kim O, Ahn EJ, Kang WD, Lee JH, **Moon KS***, **Lee KH***, **Cho D***. Human U87 glioblastoma cells with stemness features display enhanced sensitivity to natural killer cell cytotoxicity through altered expression of NKG2D ligand. *Cancer Cell Int.* 2017 Feb 10;17:22
3. Chun S, Yun JW, **Park G***, **Cho D***. The synonymous nucleotide substitution RHD 1056C>G alters mRNA splicing associated with serologically weak D phenotype. *J Clin Lab Anal.* 2017; 32(4):e22330.
4. Chun S, Kim EY, Cha SY, Seo JY, Koo HH, **Cho D***. Application of a portable microscopic cell counter for the counting of residual leukocytes in leukoreduced apheresis platelet concentrates in a hospital blood bank. *Transfus Apher Sci.* 2017 Jun;56(3):427-430
5. Chun S, Phan MT, Kim HY, Shin DJ, Seo JY, **Kim KH***, **Cho D***. The A312 Allele (c.280A>T) Is Responsible for the Weak A Phenotype. *Ann Clin Lab Sci.* 2017 Jan;47(1):99-102
6. Phan MT, Chun S, Kim SH, Ali AK, Lee SH, Kim S, **Kim SH***, **Cho D***. Natural killer cell subsets and receptor expression in peripheral blood mononuclear cells of a healthy Korean population: Reference range, influence of age and sex, and correlation between NK cell receptors and cytotoxicity. *Hum Immunol. Hum Immunol.* 2017;78(2):103-112
7. Choi S, Yoon SJ, Seo JY, Chun S, Oh SY, **Cho D***. Identification of Anti-G in Pregnant Women with RhD Negative Blood: The First Case in Korea. *Korean J Blood Transfus.* 2017 Dec;28(3):304-310.
8. Shin S, Cho EH, Seo JY, Kim EY, Choi S, Chun S, **Cho D***. Interference of Unexpected Antibody Detection Test in Patients Administering Daratumumab. *Korean J Blood Transfus.* 2017 Aug;28(2):183-186.
9. Yang HS, Chun S, Lee SA, Kwon JR, Choi YS, Kim JN, **Cho D***. Transfusion Strategy of RhD-negative/variant Patients in the Korean Population. *Lab Med Online.* 2017 Jul;7(3):89-93
10. Shin S, Seo JY, Choi S, Chun S, **Cho D***. Anti-LW Showing Anti-D Mimicking Specificity: A Case Report. *Korean J Blood Transfus.* 2017 Apr;28(1):77-81.

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