

Curriculum Vitae

Name and Degree(s)

Eun Bong Lee M.D., PhD., MSc.

Medical licensure

Korean medical licensure No 41535

Education and Training

Sep 2010, MSc of Epidemiology, University of London (online)

Sep, 2004-Feb, 2006, Research Postoc fellow, Lowance Center for Human Immunology, Emory University, Atlanta, U.S.A

Feb. 2000, Ph.D. Department of Medical Microbiology, Graduate School of Seoul National University

Feb. 1990, M.D., Seoul National University College of Medicine

Professional Experiences

April 1, 2010-present, Professor, Seoul National University College of Medicine, Seoul, Korea

Sep 1, 2004-March 31, 2010, Associate professor, Seoul National University College of Medicine, Seoul, Korea

Sep 1, 2000-Aug 31, 2004, Assistant professor, Seoul National University College of Medicine, Seoul, Korea

Major Publications

Park JK, Lee YJ, Shin K, Ha YJ, Lee EY, Song YW, Choi Y, Winthrop KL, Lee EB. Impact of temporary methotrexate discontinuation for 2 weeks on immunogenicity of seasonal influenza vaccination in patients with rheumatoid arthritis: a randomised clinical trial. *Ann Rheum Dis*. 2018 Mar 23.[Epub ahead of print]

Park JW, Curtis JR, Moon J, Song YW, Kim S, Lee EB. Prophylactic effect of trimethoprim-sulfamethoxazole for pneumocystis pneumonia in patients with rheumatic diseases exposed to prolonged high-dose glucocorticoids. *Ann Rheum Dis*. 2017 Nov 1. [Epub ahead of print]

Lee EB. A review of sarilumab for the treatment of rheumatoid arthritis. *Immunotherapy*. 2018 Jan;10(1):57-65

Lee EB, Daskalakis N, Xu C, Paccaly A, Miller B, Fleischmann R, Bodrug I, Kivitz A. Disease-Drug Interaction of Sarilumab and Simvastatin in Patients with Rheumatoid Arthritis. *Clin Pharmacokinet*. 2017 Jun;56(6):607-615.

Cohen SB, Tanaka Y, Mariette X, Curtis JR, Lee EB, Nash P, Winthrop KL, Charles-Schoeman C, Thirunavukkarasu K, DeMasi R, Geier J, Kwok K, Wang L, Riese R, Wollenhaupt J. Long-term safety of tofacitinib for the treatment of rheumatoid arthritis up to 8.5 years: integrated analysis of data from the global clinical trials. *Ann Rheum Dis*. 2017 Jul;76(7):1253-1262.

Burmester GR, Lin Y, Patel R, van Adelsberg J, Mangan EK, Graham NM, van Hoogstraten H, Bauer D, Ignacio Vargas J, Lee EB. Efficacy and safety of sarilumab monotherapy versus adalimumab monotherapy for the treatment of patients with active rheumatoid arthritis (MONARCH): a randomised, double-blind, parallel-group phase III trial. *Ann Rheum Dis*. 2017 May;76(5):840-847.

Curtis JR, Lee EB, Kaplan IV, Kwok K, Geier J, Benda B, Soma K, Wang L, Riese R. Tofacitinib, an oral Janus kinase inhibitor: analysis of malignancies across the rheumatoid arthritis clinical development programme. *Ann Rheum Dis*. 2016 May;75(5):831-41.

Winthrop KL, Silverfield J, Racewicz A, Neal J, Lee EB, Hrycaj P, Gomez-Reino J, Soma K, Mebus C, Wilkinson B, Hodge J, Fan H, Wang T, Bingham CO 3rd. The effect of tofacitinib on pneumococcal and influenza vaccine responses in rheumatoid arthritis. *Ann Rheum Dis*. 2016 Apr;75(4):687-95.

Park JK, Lee MA, Lee EY, Song YW, Choi Y, Winthrop KL, Lee EB. Effect of methotrexate discontinuation on efficacy of seasonal influenza vaccination in patients with rheumatoid arthritis: a randomised clinical trial. *Ann Rheum Dis*. 2017 Sep;76(9):1559-1565.

Go DJ, Park JK, Kang EH, Kwon HM, Lee YJ, Song YW, Lee EB. Survival benefit associated with early cyclosporine treatment for dermatomyositis-associated interstitial lung disease. *Rheumatol Int*. 2016 Jan;36(1):125-31.

Kwon HM, Kang EH, Park JK, Go DJ, Lee EY, Song YW, Lee HJ, Lee EB. A decision model for the watch-and-wait strategy in systemic sclerosis-associated interstitial lung disease. *Rheumatology (Oxford)*. 2015 Oct;54(10):1792-6.

Curtis JR, Lee EB, Kaplan IV, Kwok K, Geier J, Benda B, Soma K, Wang L, Riese R. Tofacitinib, an oral Janus kinase inhibitor: analysis of malignancies across the rheumatoid arthritis clinical development programme. *Ann Rheum Dis*. 2016 May;75(5):831-41.

Winthrop KL, Silverfield J, Racewicz A, Neal J, Lee EB, Hrycaj P, Gomez-Reino J,

Soma K, Mebus C, Wilkinson B, Hodge J, Fan H, Wang T, Bingham CO 3rd. The effect of tofacitinib on pneumococcal and influenza vaccine responses in rheumatoid arthritis. *Ann Rheum Dis*. 2016 Apr;75(4):687-95

Chang S, Park J, Lee Y, Yang J, Lee E, Song Y, Lee E. Comparison of cancer incidence among patients with rheumatic disease: a retrospective cohort study. *Arthritis Res Ther*. 2014 Aug 28;16(5):428

Lee EB, Fleischmann R, Hall S, Wilkinson B, Bradley JD, Gruben D, Koncz T, Krishnaswami S, Wallenstein GV, Zang C, Zwillich SH, van Vollenhoven RF; ORAL Start Investigators. Tofacitinib versus methotrexate in rheumatoid arthritis. *N Engl J Med*. 2014 Jun 19;370(25):2377-86.

Park J, Moon S, Lee J, Park J, Lee D, Jung K, Song Y, Lee E. Bone marrow analysis of immune cells and apoptosis in patients with systemic lupus erythematosus. *Lupus*. 2014 Sep;23(10):975-85.

Lee EY, Park JK, Lee W, Kim YK, Park CS, Giles JT, Park JW, Shin K, Lee JS, Song YW, Lee EB. Head-to-head comparison of udenafil vs amlodipine in the treatment of secondary Raynaud's phenomenon: a double-blind, randomized, cross-over study. *Rheumatology (Oxford)*. 2014 Apr;53(4):658-64.

Park JK, Choi IA, Lee EY, Song YW, Lee EB. Incidence of malignancy in Takayasu arteritis in Korea. *Rheumatol Int*. 2014 Apr;34(4):517-21.

Kim HW, Park JK, Yang JA, Yoon YI, Lee EY, Song YW, Kim HR, Lee EB. Comparison of tuberculosis incidence in ankylosing spondylitis and rheumatoid arthritis during tumor necrosis factor inhibitor treatment in an intermediate burden area. *Clin Rheumatol*. 2014 Sep;33(9):1307-12.

Lee YJ, Horie Y, Wallace GR, Choi YS, Park JA, Song R, Kang YM, Kang SW, Baek HJ, Kitaichi N, Meguro A, Mizuki N, Namba K, Ishida S, Kim J, Niemczek E, Lee EY, Song YW, Ohno S, Lee EB. Genome-wide association study identifies GIMAP as a novel susceptibility locus for Behcet's disease. *Ann Rheum Dis*. 2013 Sep. 1; 72(9): 1510-6.

Kim JW, Choi IA, Lee EY, Song YW, Lee EB. Tofacitinib prevents radiographic progression in rheumatoid arthritis. *J Korean Med Sci*. 2013 Aug;28(8):1134-8.

Choi IA, Park JK, Lee EY, Song YW, Lee EB. Random spot urine protein to creatinine ratio is a reliable measure of proteinuria in lupus nephritis in Koreans. *Clin Exp Rheumatol*. 2013 Jul-Aug;31(4):584-8.

Shin K, Kim JW, Moon KW, Yang JA, Lee EY, Song YW, Lee EB. The efficacy of diacerein in hand osteoarthritis: a double-blind, randomized, placebo-controlled study. *Clin Ther*. 2013 Apr;35(4):431-9.

Ryu HJ, Song R, Kim HW, Kim JH, Lee EY, Lee YJ, Song YW, Lee EB. Clinical Risk Factors for Adverse Events in Allopurinol Users. *J Clin Pharmacol*. 2013 Feb;53(2):211-6.

van Vollenhoven RF, Fleischmann R, Cohen S, Lee EB, García Mejjide JA, Wagner S, Forejtova S, Zwillich SH, Gruben D, Koncz T, Wallenstein GV, Krishnaswami S, Bradley JD, Wilkinson B; ORAL Standard Investigators. Tofacitinib or adalimumab versus placebo in rheumatoid arthritis. *N Engl J Med*. 2012 Aug 9;367(6):508-19.

Fleischmann R, Cutolo M, Genovese MC, Lee EB, Kanik KS, Sadis S, Connell CA, Gruben D, Krishnaswami S, Wallenstein G, Wilkinson BE, Zwillich SH. Phase IIb dose-ranging study of the oral JAK inhibitor tofacitinib (CP-690,550) or adalimumab monotherapy versus placebo in patients with active rheumatoid arthritis with an inadequate response to disease-modifying antirheumatic drugs. *Arthritis Rheum*. 2012 Mar;64(3):617-29.

Moon KW, Lee SS, Kim JH, Song R, Lee EY, Song YW, Bellamy N, Lee EB. Cross-cultural adaptation, validation, and responsiveness of the Korean version of the AUSCAN Osteoarthritis Index. *Rheumatol Int*. 2012 Nov;32(11):3551-7

Park JJ, Oh BR, Kim JY, Park JA, Kim C, Lee YJ, Song YW, Armour JA, Lee EB. Copy number variation of β -defensin genes in Behçet's disease. *Clin Exp Rheumatol*. 2011 Jul-Aug;29(4 Suppl 67):S20-3.

Moon KW, Kim J, Kim JH, Song R, Lee EY, Song YW, Lee EB. Risk factors for acute kidney injury by non-steroidal anti-inflammatory drugs in patients with hyperuricaemia. *Rheumatology (Oxford)*. 2011 Dec;50(12):2278-82.

Lee JY, Lee SY, Hahn HJ, Son IJ, Hahn SG, Lee EB. Cultural Adaptation of a Compliance Questionnaire for Patients with Rheumatoid Arthritis to a Korean Version. *Korean J Intern Med*. 2011 Mar;26(1):28-33

Park JA, Pak JJ, Kim J, Lee EY, Lee YJ, Song YW, Lee EB. Adenosine A2A receptor polymorphisms in Korean patients with systemic sclerosis. *Int J Immunopathol Pharmacol*. 2011 Apr-Jun;24(2):505-8.

Mizuki N, Meguro A, Ota M, Ohno S, Shiota T, Kawagoe T, Ito N, Kera J, Okada E, Yatsu K, Song YW, Lee EB, Kitaichi N, Namba K, Horie Y, Takeno M, Sugita S, Mochizuki M, Bahram S, Ishigatsubo Y, Inoko H. Genome-wide association studies identify IL23R-IL12RB2 and IL10 as Behçet's disease susceptibility loci. *Nat Genet*. 2010 Aug;42(8):703-6.

Kim J, Park JA, Lee EY, Lee YJ, Song YW, Lee EB. Imbalance of Th1 to Th1 cells in Behçet's disease. *Clin Exp Rheumatol*, 2010 Jul;4(60) S16-9

Choi KH, Kim AJ, Son IJ, Kim KH, Kim KB, Ahn H, Lee EB. Risk factors of drug interaction between warfarin and nonsteroidal anti-inflammatory drugs in practical setting. *J Korean Med Sci*. 2010 Mar;25(3):337-41.

Kim J, Park SK, Moon KW, Lee EY, Lee YJ, Song YW, Lee EB. The prognostic factors of systemic sclerosis for survival among Koreans. *Clin Rheumatol*. 2010 Mar;29(3):297-302.

Zhou X, Lee JE, Arnett FC, Xiong M, Park MY, Yoo YK, Shin ES, Reveille JD, Mayes MD, Kim JH, Song R, Choi JY, Park JA, Lee YJ, Lee EY, Song YW, Lee EB. HLA-DPB1 and DPB2 are genetic loci for systemic sclerosis: a genome-wide association study in Koreans with replication in North Americans. *Arthritis Rheum*. 2009 Dec;60(12):3807-14.

Kang EH, Lee EY, Lee YJ, Song YW, Lee EB. Clinical features and risk factors of postsurgical gout. *Ann Rheum Dis* 2008;67:1271-5

Lee EB, Zhao J, Kim JY, Xiong M, Song YW. Evidence of potential interaction of chemokine genes in susceptibility to systemic sclerosis. *Arthritis Rheum* 2007;56(7):2443-8.

Lee EB, Kim JY, Zhao J, Park MH, Song YW. Haplotype association of IL-8 gene with Behcet's disease. *Tissue Antigens*. 2007;69(2):128-32.

Lee EB, Lee YJ, Shin DH, Choi YM, Park MH, Pandey JP, Song YW. Immunoglobulin GM and KM genotypes in Korean patients with systemic lupus erythematosus. *Rheumatol Int*. 2007;27(3):219-24.

Kang EH, Lee EB, Shin KC, Im CH, Chung DH, Han SK, Song YW. Interstitial lung disease in patients with polymyositis, dermatomyositis and amyopathic dermatomyositis. *Rheumatology (Oxford)*. 2005;44(10):1282-6.

Lee EB, Kim JY, Lee YJ, Song YW. Glucocorticoid receptor polymorphisms in Korean patients with rheumatoid arthritis. *Ann Rheum Dis*. 2005;64(3):503-4.

Lee EB, Kim JY, Kim EH, Nam JH, Park KS, Song YW. Intercellular adhesion molecule-1 polymorphisms in Korean patients with rheumatoid arthritis. *Tissue Antigens*. 2004 ;64(4):473-7.

Lee EB, Kim JY, Lee YJ, Abdallah A, Lympany P, Song YW. Transforming growth factor-beta1 polymorphisms in Korean patients with systemic sclerosis. *Tissue Antigens*. 2004;63(5):491-5.

Jeoung D, Lim Y, Lee EB, Lee S, Kim HY, Lee H, Song YW. Identification of autoantibody against poly (ADP-ribose) polymerase (PARP) fragment as a serological marker in systemic lupus erythematosus. *J Autoimmun*. 2004;22(1):87-94.

Lee EB, Kwon YJ, Shin KC, Song YW, Park CG, Hwang ES, Cha CY. Decreased serum level of antibody against human cytomegalovirus in patients with Behcet's disease. *Rheumatol Int*. 2005;25(1):33-6.

Lee EB, Kim JY, Lee YJ, Park MH, Song YW. TNF and TNF receptor polymorphisms in Korean Behcet's disease patients. *Hum Immunol*. 2003;64(6):614-20.

Lee EB, Shin KC, Lee YJ, Lee YJ, Cheon GJ, Jeong JM, Son MW, Song YW. 188Re-tin-colloid as a new therapeutic agent for rheumatoid arthritis.

Nucl Med Commun. 2003;24(6):689-96.

Lee EB, Lee YJ, Baek HJ, Kang SW, Chung ES, Shin CH, Hong KM, Tsao BP, Hahn BH, Song YW. Fcγ receptor IIIA polymorphism in Korean patients with systemic lupus erythematosus. *Rheumatol Int*. 2002;21(6):222-6.

Lee EB, Yoo JE, Lee YJ, Choi YJ, Park KS, Song YW. Tumor necrosis factor receptor 2 polymorphism in systemic lupus erythematosus: no association with disease. *Hum Immunol*. 2001;62(10):1148-52.

Experiences as a PI in clinical trials

(SIT) Tofacitinib 11mg MR in RA, phase III, Pfizer, 2017

(SIT) Filgotinib in MTX-naïve RA, phase III, Gilead, 2017

(SIT) Filgotinib in MTX-refractory RA, phase III, Gilead, 2017

(SIT) Filgotinib in bDMARD-refractory RA, phase III, Gilead, 2017

(SIT) LY2439821 in bDMARD naïve non-structural axial SPA, phase III, Lilly, 2016

(SIT) LY2439821 in TNFi-experienced SPA, phase III, Lilly, 2016

(SIT) LY2439321 in bDMARD-naïve SPA, phase III, Lilly, 2016

(SIT) Sarilumab in RA, phase III, Sanofi, 2015

(SIT) BI 695501 (adalimumab biosimilar) vs adalimumab in RA, phase III, Quintiles, 2015

(SIT) PF06410293(adalimumab-biosimilar) vs adalimumab in RA, phase III, Parexel, 2015

(SIT) Sarilumab + simvastatin in RA, phase I, Sanofi, , 2014

(SIT) PF06438179 (infliximab biosimilar) vs infliximab in RA, phase III, Pfizer, 2014

(SIT) JNJ 40346527 vs placebo in DMARD-resistant RA, phase Iia, Johnson & Johnson, 2012.

(SIT) CNTO136 (sirukumab) in RA, phase I, Jansen, 2012.

(SIT) PF 04171327 vs prednisolone vs placebo in MTX-resistant RA, phase II, Pfizer, 2011

(SIT) CP-690,550 vs MTX vs placebo in MTX-naïve RA, phase III, Pfizer, 2010

- (SIT) CP-690,550+ MTX vs adalimumab+ MTX vs MTX in MTX-resistant RA, phase III, Pfizer, 2008
- (SIT) Long term efficacy and safety of CP-690,550, phase IV, Pfizer, 2008
- (SIT) CP-690,550 vs adalimumab vs placebo in MTX- resistant RA, phase IIb, Pfizer, 2007
- (IIT, multicenter) SSc DU cohort, 2016
- (IIT, multicenter) Impact of MTX discontinuation (2 week) on efficacy of influenza vaccination, phase IV, 2016
- (IIT) Impact of MTX discontinuation (4 week) on efficacy of influenza vaccination, phase IV, 2015
- (IIT, multicenter) Shinbaro vs placebo in hand osteoarthritis, Hanmi Pharm, Korea, 2013
- (IIT) Phosphodiesterase-5 inhibitor vs calcium channel blocker in secondary Raynaud phenomenon, Dong-Ah pham, Korea , 2009
- (IIT) Diacerein vs placebo in hand osteoarthritis, Myungmoon Pharm, Korea, 2008