

CURRICULUM VITAE

NAME Edwin A. Smith, M.D.

WORK ADDRESS Medical University of S.C.
Division of Rheumatology and Immunology
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PRIMARY EDUCATION

1967-1971 Northern Cambria High School
Barnesboro, Pennsylvania

1971-1975 Washington and Jefferson College
Washington, Pennsylvania

MEDICAL TRAINING

1975-1979 University of Pittsburgh
School of Medicine
Pittsburgh, Pennsylvania

1979-1982 Residency (Internal Medicine)
North Carolina Memorial Hospital
Chapel Hill, North Carolina

7/1/82-6/30/84 Fellowship (Rheumatology)
Medical University of South Carolina
Department of Medicine
Charleston, South Carolina

POSITIONS HELD

7/1/84-6/30/91 Assistant Professor of Medicine
Medical University of S.C.
Division of Rheumatology
Charleston, South Carolina

7/1/91-6/30/00 Associate Professor of Medicine
Medical University of S.C.

Division of Rheumatology
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7/1/00-present

Professor of Medicine
Medical Univerisity of S.C.
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CERTIFICATION

1980 National Board of Medical Examiners
1981 State of North Carolina (No. 25656)
1982 State of South Carolina (No. 11040)
1982 American Board of Internal Medicine (No.86264)
1984 American Board of Internal Medicine
(Rheumatology)

HONORS AND AWARDS

Phi Beta Kappa
Summa cum laude
Washington and Jefferson College

Alpha Omega Alpha
Cum laude
University of Pittsburgh

ASSOCIATIONS

American College of Rheumatology -
Founding Fellow
American Federation for Clinical Research
American Association for the Advancement of
Science
American College of Physicians-Fellow
Southern Medical Association
Charleston County Medical Association
Epworth United Methodist Church

PUBLICATIONS

(Journals and Text)

Peer Reviewed

1. Smith, E., Harper, F.E. and LeRoy, E.C. Raynaud phenomenon of a single digit following local intradermal bleomycin sulfate injection. *Arthritis Rheum* 28(4):459-461, 1985.
2. Mohrland, J.S., Porter, J.M., Smith, E.A., Belch, J. and Simms, M. A multiclinic, placebo-controlled, double-blind study of prostaglandin E1 in Raynaud's syndrome. *Ann Rheum Dis* 44:754-760, 1985.
3. Smith, E.A., Kahaleh, M.B. and LeRoy, E.C. The acute phase response in scleroderma. Differing responses to intravenous PGE1. *Clin Exp Rheumatol* 4:341-345, 1986.
4. Kahaleh, M.B., Sultany, G.L., Smith, E.A., Huffstutter, J.E., Loadholt, C.B. and LeRoy, E.C. A modified scleroderma skin scoring method. *Clin Exp Rheumatol* 4:367-369, 1986.
5. Kahaleh, M.B., Smith, E.A., Soma, Y. and LeRoy, E.C. Effect of lymphotoxin and tumor necrosis factor on endothelial and connective tissue cell growth and function. *Clin Immunol Immunopathol* 49:261-272, 1988.
6. Kinsella, M.B., Smith, E.A., Miller, K.S., LeRoy, E.C., and Silver, R.M. Spontaneous production of fibronectin by scleroderma alveolar macrophages. *Arthritis Rheum* 32:577-583, 1989.
7. Maricq, H.R., Weinrich, M.C., Keil, J.E., Smith, E.A., Harper, F.E., Nussbaum, A.I., LeRoy, E.C., McGregor, A.R., Diat, F., and Rosal, E.J. Prevalence of scleroderma spectrum disorders in the general population of South Carolina. *Arthritis Rheum* 32:998-1006, 1989.
8. Maricq, H.R., McGregor, A.R., Diat, F., Smith, E.A., Maxwell, D.B., LeRoy, E.C., and Weinrich, M.C. Major clinical diagnosis found among patients with Raynaud phenomenon from the general population. *J Rheum* 17:1171-1176, 1990.
9. Miller, K.S., Smith, E.A., Kinsella, M., Schabel, S.I., and Silver, R.M. Lung disease associated with progressive systemic sclerosis. Assessment of interlobar variation by bronchoalveolar lavage and comparison with noninvasive evaluation of disease activity. *Am Rev Respir Dis* 141:301-306, 1990.

10. Silver, R.M., Miller, K.S., Kinsella, M.B., Smith, E.A., and Schabel, S.I. Evaluation and management of scleroderma lung disease using bronchoalveolar lavage. *Am J Med* 88:470-476, 1990.
11. Xu, W., LeRoy, E.C., Smith, E.A. Fibronectin reelease by systemic sclerosis and normal dermal fibrosis in response to TGF- β . *J Rheum* 18:241-246, 1991.
12. LeRoy, E.C., Trojanowska, M., and Smith, E.A. The pathogenesis of scleroderma (systemic sclerosis, SSc). *Clin Exp Rheumatol* 9:173-177, 1991.
13. Yamakage, A., Kikuchi, K., Smith, E.A., LeRoy, E.C., and Trojanowska, M. Upregulation of PDGF α receptors by TGF- β in scleroderma fibroblasts. *J. Exp. Med.* 175:1227-1234, 1992.
14. Kikuchi, K., Yamakage, A., Smith, E.A., LeRoy, E.C., Trojanowska, M. Differential modulation of bFGF receptors by TGF- β in adult skin, scleroderma skin, and newborn foreskin fibroblasts. *J. Invest. Derm.* 99(2):201-205, 1992.
15. Kikuchi, K., Hartl, C.W., Smith, E.A., LeRoy, E.C., Trojanowska, M. Direct demonstration of transcriptional activation of collagen gene expression in systemic sclerosis fibroblasts: insensitivity to TGF β 1 stimulation. *BBRC* 187:145-50, 1992.
16. Ludwicka A, Trojanowska M, Smith EA, Baumann M, Strange C, Korn J, Piela T, LeRoy EC, and Silver RM. Growth and characterization of fibroblasts obtained from bronchoalveolar lavage of scleroderma patients. *J. Rheumatol* 19:1716-1723, 1992.
17. Silver, R.M., McKinley, K., Smith, E.A., Quearry, B., Harati, Y., Sternberg, E.M., and Heyes, M.P. Tryptophan metabolism via the kynurenine pathway in patients with the eosinophilia-myalgia syndrome. *Arthritis Rheum* 35:1097-1105, 1992.
18. Feldman SR, Trojanowska M, Smith EA, and LeRoy EC. Differential responses of human papillary and reticular fibroblasts to platelet-derived growth factor. *Am J Med Sci* 305:203-207,1993.
19. Lubinus, M., Meier, K.E., Smith, E.A., Gause, K.C., LeRoy, E.C., and Trojanowska, M. Independent effects of platelet-derived growth factor isoforms on mitogen-activated protein kinase activation and mitogenesis in human dermal fibroblasts. *J Biol Chem* 269:9822-9825, 1994.

20. Ichiki, Y., Smith, E.A., LeRoy, E.C., Trojanowska, M. Different effects of basic fibroblast growth factor and transforming growth factor- β on the two platelet-derived growth factor receptors' expression in scleroderma and healthy human dermal fibroblasts. *J Invest Dermatol* 104:124-127, 1995
21. Ludwicka, A., Ohba, T., Trojanowska, M., Yamakage, A., Strange, C., Smith, E.A., LeRoy, E.C., Sutherland, S., Silver, R.M. Elevated levels of platelet derived growth factor and transforming growth factor- β 1 in bronchoalveolar lavage fluid from patients with scleroderma. *J. Rheumatol.* 22:1876-1883, 1995.
22. An YH, Friedman RJ, Craughn RA, Smith EA, Nicholson JH, John JF. Rapid quantification of staphylococci adhered to titanium surfaces using image analyzed epifluorescence microscopy. *J Microbiological Methods* 24:29-40, 1995.
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24. Arnett FC, Reveille JD, Goldstein R, Pollard KM, Leaird K, Smith EA, LeRoy EC, Fritzler. Autoantibodies to fibrillar in systemic sclerosis (scleroderma): an immunogenetic, serological, and clinical analysis. *Arthritis Rheum.* 39(7):1151-1160, 1996.
25. Makhluf HA Stepniakowska Hoffman S, Smith E, LeRoy EC, Trojanowska M. IL-4 upregulates tenascin-c synthesis in systemic sclerosis and healthy skin fibroblasts. *J Invest Derm* 107:856-859,1996.
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27. Ward M, Curé J, Schabel S, Smith EA, Schumacher HR, Silver RM. Symptomatic spinal calcinosis in systemic sclerosis (scleroderma). *Arthritis Rheum* 40(10):1892-1895, 1997
28. Kawakami T, Ihn H, Xu W, Smith E, LeRoy C, Trojanowska M. Increased expression of TGF- β receptors by scleroderma fibroblasts: evidence for contribution of autocrine TGF- β

- signaling to scleroderma phenotype. *J Invest Derm* 110(1):47-51, 1998.
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 31. Raynaud's Treatment Study Investigators. Comparison of sustained-release nifedipine and temperature biofeedback for treatment of primary Raynaud phenomenon: Results from a randomized clinical trial with 1-year followup. *Arch Internal Med* 160:1101-1108, 2000.
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 33. Czuwara-Ladykowska J, Makiela B, Smith EA, Trojanowska M, Rudnicka L. The inhibitory effects of camptothecin, a topoisomerase I inhibitor, on collagen synthesis in fibroblasts from patients with systemic sclerosis. *Arthritis Res* 3(5):311-318, 2001.
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42. Pannu J, Gardner H, Shearstone JR, Smith E, Trojanowska M. Increased levels of transforming growth factor β receptor type I and up-regulation of matrix gene program. A model of scleroderma. *Arthritis Rheum* 54: 3011-3021, 2006.
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44. Pannu J, Nakerakanti S, Smith E, ten Dijke P, and Trojanowska M. TGF- β receptor type I dependent fibrogenic program is mediated via activation of Smad1 and ERK1/2 pathways, *J Biol Chem* 2007 Apr;282(14):10405-13. PMID: 1731765
45. Hughes LB, Morrison D, Kelley JM, Padilla MA, Vaughan LK, Westfall AO, Dwivedi H, Mikuls TR, Holers VM, Parrish LA, Alarcón GS, Conn DL, Jonas BL, Callahan LF, Smith EA, Gilkeson GS, Howard G, Moreland LW, Patterson N, Reich D, Bridges SL, Jr. The HLA-DRB1 shared epitope is associated with susceptibility to rheumatoid arthritis in African Americans through European genetic admixture *Arthritis Rheum*. 2008 Feb; 58 (2): 349-358).
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47. Kelley JM, Hughes L, Faggard JD, Danila MI, Crawford MH, Yuanqing E, Padilla MA, Hemant KT, Westfall AO, Alarco' GS, Conn DL, Jonas BL, Callahan LF, Smith EA, Brasington, Jr. RD, Allison DB, Kimberly RP, Moreland LW, Edberg JC, Bridges, Jr. SL. An African Ancestry-Specific Allele of CTLA4 Confers Protection against Rheumatoid Arthritis in African Americans PLoS 2009 March; 5 (3): 1-8 | e1000424
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Invited

1. Smith, E.A. and LeRoy, E.C. Polymyalgia rheumatica and giant cell arteritis. In: Conn's Current Therapy (37th ed.), R.E. Rakel (ed.), W.B. Saunders, Philadelphia, p811, 1985.
2. Smith, E.A. and LeRoy, E.C. Therapy of connective tissue disease. Comp Ther 12:24-29, 1986.
3. Smith, E.A. and LeRoy, E.C. Scleroderma (systemic sclerosis). In: Internal Medicine (2nd ed.), J. Stein (ed.), Little, Brown, Boston, pp. 1289-1294, 1987.
4. LeRoy EC, Smith EA, Kahaleh MB, Trojanowska M, Silver RM. A strategy for scleroderma (systemic sclerosis): Is transforming growth factor beta the answer? Arthritis Rheum 32:817-825, 1989.
5. LeRoy, E.C., Trojanowska, M., and Smith, E.A. Cytokines and human fibrosis. Eur Cytokine Net 1(4):215-219, 1990.
6. Smith, E.A. and LeRoy, E.C. A possible role for TGF- β in systemic sclerosis. J Invest Derm 95(Suppl):1255-1275, 1990.
7. Smith, E.A. Connective tissue disorders: lupus erythematosus, dermatomyositis, and scleroderma. In: Conn's Current Therapy, Rakel, R.E. (ed.), Saunders, Philadelphia, pp. 727-731, 1992.
8. Smith, E.A. and LeRoy, E.C. The cellular and molecular basis of fibrosis in scleroderma. In: Polli EE, eds. Proceedings of the International Meeting on Molecular Bases of Human Diseases. Milan, Italy. 1993:59-66.
9. Smith, E.A. and LeRoy E.C. Systemic sclerosis--etiology and pathogenesis. In:Rheumatology, Klippel, J.H. and Dieppe P.A. (eds.), Mosby, St. Louis, pp. 6.9.1-10, 1994
10. Legerton, C.W., Smith, E.A., Silver, R.M. Systemic sclerosis (scleroderma):Clinical Management of its major complications. Rheum Dis Clin North America 21:203-216, 1995

11. Legerton, C.W. and Smith E.A. Diagnosis and Management of Raynaud's Phenomenon. *Bull Rheum Dis* 45(7):6-8, 1996.
12. Smith, E.A. and LeRoy, E.C. Scleroderma (systemic sclerosis) and morphea. In: Principles of Molecular Medicine, Jameson J.L. (ed.), Humana Press, Totawa, NJ, pp. 829-838, 1998.
13. Smith, E.A. and LeRoy, E.C. Systemic sclerosis-etiology and pathogenesis. In: Rheumatology (Second Edition), Klippel J.H. and Dieppe P.A. (eds), Mosby, St. Louis, pp. 6(9.1)-6(9.10).
14. Smith, E.A. Polymyalgia rheumatica and giant cell arteritis. In: Conn's Current Therapy (51st ed.), Rakel R.E. (ed.), W.B. Saunders, Philadelphia 1999
15. Smith E.A. Systemic sclerosis-etiology and pathogenesis. In: Rheumatology (Third Edition), Hochberg M.C., Silman A.J., Smolen J.S., Weinblatt M.E., Weisman M.H.(eds), Mosby, New York, pp.1481-1492.
16. Smith E.A. Several entries. In: Rheumatology and Immunology Therapy—A to Z Essentials, Moreland L.W. (ed.) Springer, New York, 2004.
17. Smith, E.A. Connective tissue disorders: lupus erythematosus, dermatomyositis, and scleroderma. In: Conn's Current Therapy, Rakel, R.E. (ed.), Saunders, Philadelphia, 2005
18. Smith E.A. and Kahaley M.B. Systemic sclerosis-etiology and pathogenesis. In: Rheumatology (Fourth Edition), Hochberg M.C., Silman A.J., Smolen J.S., Weinblatt M.E., Weisman M.H.(eds), Mosby, New York.
- 19.

Books

1. Silver, R.M. and Smith, E.A. Rheumatology Pearls (Sahn, S.A. and Heffner, J.E, Series eds.) Hanley and Belfus. Philadelphia, 1997.