

CURRICULUM VITAE

Galina S. Bogatkevich, M.D., Ph.D.

NATIONALITY: USA

BUSINESS ADDRESS: Medical University of South Carolina
Division of Rheumatology & Immunology
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EDUCATION:

	Degree	Year	Field of Study
College of Medicine, Minsk, Belarus	B.S.	1985	Medicine
Minsk State Medical Institute, Minsk, Belarus	M.D.	1991	Internal Medicine
Minsk State Medical Institute, Minsk, Belarus	Ph.D.	1994	Pharmacology

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PROFESSIONAL EXPERIENCE:

10/94 – 10/96 Research Fellow, Institute of Pharmacology
Essen University, Germany
Mentor: Professor Karl H.Jakobs

9/96 – 9/97 Assistant Professor of Pharmacology,
Department of Pharmacology

Minsk Medical Institute, Belarus

10/97 – 9/2000 Postdoctoral Fellow, Department of Pharmacology
Medical University of South Carolina
Mentor: Dr. Stephen M. Lanier

10/2000 – 12/2003 Postdoctoral Fellow, Division of Rheumatology
Medical University of South Carolina
Mentor: Dr. Richard M. Silver

1/2004 – present Assistant Professor, Division of Rheumatology
Medical University of South Carolina

HONORS AND AWARDS:

1988 Award for Excellence in Research,
International Congress of Young Scientists from Baltic
Countries, Minsk, Belarus

1989 Award for Outstanding Research, 43th Annual Meeting of
Minsk Medical Institute, Minsk, Belarus

1992 Individual Award for Outstanding Research,
Minsk Medical Institute, Belarus

1994 - 1995 DAAD Fellowship, Essen University, Germany

1995 -1996 Grant of Heinrich Hertz Foundation,
Ministry of Science and Education of Nordrhein-Westfalen,
Essen University, Germany

2002 - 2003 National Institutes of Health (NHLBI)
Ruth L. Kirschstein NRSA F32
Medical University of South Carolina

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2005 - present National Institutes of Health (NIAMS)
Career Development Award K01AR051052

2007 Travel Award from the Scleroderma Clinical Trials Consortium
(Carwile LeRoy Memorial International Workshop on
Scleroderma, Tokyo, Japan)

LECTURES AND PRESENTATION

Tissue Repair, Contraction and the Myofibroblast, European Tissue Repair Society Focus Meeting, Nyon, Switzerland, 18-20 November 2004, Invited Speaker

MEMBERSHIPS OF PROFESSIONAL SCIENTIFIC ASSOCIATIONS:

The American Physiological Society

Research Support

PKC Signaling in Thrombin-Activated Lung Fibroblasts

Principal Investigator: Galina S. Bogatkevich

Agency: NIH/NHLBI Type: NRSA F32 HL69689 Period: 1/1/02-12/31/03

Comparative Proteomic Analysis of Bronchoalveolar Lavage Fluid and Plasma among African American and Caucasian Scleroderma Patients.

Principal Investigator: Galina S. Bogatkevich

Agency: MUSC Office of the Provost Type: Pilot Funding Period: 1/1/04-12/31/04

Functional Proteomics of CTGF-induced Scleroderma Lung Fibroblasts

Principal Investigator: Galina S. Bogatkevich

Agency: National Scleroderma Foundation Type: New Investigator Grant
Period: 2/1/05-3/31/08

CTGF-interacting Proteins in Scleroderma Lung Fibrosis

Principal Investigator: Galina S. Bogatkevich

Agency: NIH/NIAMS Type: K01 AR051052 Period: 5/1/05-4/31/10

Mutational analysis of the HGF receptor gene among African American and Caucasian Scleroderma Patients: A Pilot Study

Principal Investigator: Galina S. Bogatkevich

Agency: MUSC GCRC Type: Pilot Funding Period: 4/1/08-12/31/08

Inhibition of thrombin and thrombin-induced signaling molecules in pulmonary fibrosis by dabigatran. Principal Investigator: Galina S. Bogatkevich

Agency: Boehringer Ingelheim Period: 1/1/09-12/31/09

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PUBLICATIONS:

1. **Bogatkevich GS**, Ushkevich EV, Belugin SN: The effects of lithium phytate on bioelectrical activity of rabbit cerebral cortex and some subcortex structures. In collected papers: Pharmacological Properties of New Chemical Combination and Some Drugs. Minsk, 1994, 48 – 50

2. Zacharevsky AS, **Bogatkevich GS**, Ushkevich EV, Chionidi EA: Acute toxicity and neurotropic activity of lithium phytate. In collected papers: Pharmacological Properties of New Chemical Combination and Some Drugs. Minsk, 1994, 55 – 59
3. **Bogatkevich GS**: Comparative study of the effects of lithium phytate and lithium carbonate on conditional reflexes in rat. Collected works of Minsk Medical State Institute, 1995, Vol. 3. 516 - 518
4. Shamsutdinova TA, Nanovskaja TN, **Bogatkevich GS**: Acute toxicity of some derivatives of inositolhexaphosphoric acid. Collected works of Minsk Medical State Institute, 1995, Vol.3. 530 -531
5. Loos U, Hagner S, Bonr UR, **Bogatkevich GS**, Jakobs KH, van Koppen CJ: Enhanced cAMP accumulation by the human thyrotropine receptor variant with the Pro 52 Thr substitution in the extracellular domain. Eur. J. Biochem., 1995, 232, 62 –65
6. **Bogatkevich GS**, Lenz W, Jakobs KH and van Koppen CJ: Receptor internalization delays M4 muscarinic acetylcholine receptor resensitization at the plasma membrane. Mol. Pharmacol., 1996, 50, 424 – 429
7. Vogler O, **Bogatkevich GS**, Wriske C, Krummenerl, Jakobs KH and van Koppen CJ: Receptor subtype-specific regulation of muscarinic acetylcholine receptor sequestration by Dynamin. Distinct sequestration of m2 receptors. J. Biol. Chem. 1998, 273, 12155 – 12160
8. Wu G, **Bogatkevich GS**, Mukhin YV, Benovic JL, Hildebrandt JD and Lanier SM: Identification of Gbetagamma binding sites in the third intracellular loop of the M3-muscarinic receptor and their role in receptor regulation. J.Biol.Chem. 2000, 275, 9026-9034
9. **Bogatkevich GS**, Tourkina E, Silver RM and Ludwicka-Bradley A: Thrombin Differentiates Normal Lung Fibroblast to a Myofibroblast Phenotype via Proteolytically Activated Receptor-1 and Protein Kinase C-dependent pathway. J. Biol. Chem. 2001, 276, 45184-45192
10. **Bogatkevich GS**, Tourkina E, Abrams CS, Harley RA, Silver RM and Ludwicka-Bradley A: Contractile Activity and Smooth Muscle- α Actin Organization in Thrombin-induced Human Lung Fibroblasts. Am. J. Physiol. Lung Cell Mol Physiol. 2003, 285, L334-L343
11. **Bogatkevich GS**, Gustilo E, Oates J, Feghali-Bostwick C, Harley RA, Silver RM, Ludwicka-Bradley A: Distinct PKC Isoforms Mediate Cell Survival and DNA Synthesis in Thrombin-Induced Myofibroblasts. Am J Physiol: Lung Cell Mol Physiol. 2005, 288, L190-L201
12. **Bogatkevich GS**, Ludwicka-Bradley A, Highland KB, Hant F, Nietert PJ, Feghali-Bostwick CA, Singleton CB, Silver RM. Impaired antifibrotic effect of hepatocyte growth factor in lung fibroblasts from African Americans: Possible role in systemic sclerosis. Arthritis Rheum 2007, 56(7):2432-42. PMID: 17599773
13. **Bogatkevich GS**, Ludwicka-Bradley A, Highland KB, Hant F, Nietert PJ, Singleton CB, Silver RM: Down-regulation of collagen and connective tissue growth factor
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expression with hepatocyte growth factor in lung fibroblasts from white scleroderma patients via two signaling pathways. Arthritis Rheum. 2007, 56(10):3468-77. PMID: 17907155
14. **Bogatkevich GS**, Ludwicka-Bradley A, Singleton CB, Bethard JR, Silver RM. Proteomic analysis of CTGF-activated lung fibroblasts: identification of IQGAP1 as a key

player in lung fibroblast migration. *Am J Physiol Lung Cell Mol Physiol*. 2008;295(4): L603-11. PMID: 18676875

15. **Bogatkevich GS** and Silver RM. Dabigatran, a direct thrombin inhibitor, blocks differentiation of normal fibroblasts to a myofibroblast phenotype and demonstrates anti-fibrotic effects on scleroderma lung fibroblasts. *Arthritis Rheum*, under revision.

REVIEW:

1. Ludwicka-Bradley A, **Bogatkevich GS**, Silver RM: Thrombin-mediated Cellular Events in Pulmonary Fibrosis Associated with Systemic Sclerosis (Scleroderma). *Clin. Exp. Rheumatol*. 2004, 22 (3), S38-S46

BOOK CHAPTER

1. **Bogatkevich GS**, Ludwicka-Bradley A, Paul J. Nietert, Silver RM: Scleroderma Lung Fibroblasts: Contractility and Connective Tissue Growth Factor. In *Tissue Repair, Contraction and the Myofibroblast* (Gabbiani G, Chaponnier C, Desmouliere A, eds), Landes Bioscience, Georgetown, TX, 2006, 25-31

ABSTRACTS:

Olipa GS, Melentovich LA, Chachovsky AI: Neurotropic properties of lithium phytate and some derivatives of benzazocine. Abstracts of the International Meeting: Experimental Pharmacology, Vinniza – Kiev, 1992, 59-60

2. Zacharevsky AS, **Bogatkevich GS**, Gavrilenko TA, Urban AS, Butjko LV: Pharmacological study of derivatives of inositolhexaphosphoric acid. Abstracts of the International Symposium of the Baltic Countries, Kaunass, 1993, 48 – 49

3. **Bogatkevich GS**, Jakobs KH, van Koppen CJ: Analysis of the role of receptor internalization and recycling in muscarinic acetylcholine receptor desensitization and resensitization. 1996, *Arch. Pharmacol. Suppl.* 353: Abstr. 71

4. Vogler O, **Bogatkevich GS**, Wriske W, Mack K, Krummenerl P, Damke H, Jakobs KH, van Koppen CJ: Regulation of muscarinic acetylcholine receptor internalization by GTPase Dynamin, 1997, *Arch. Pharmacol. Suppl.* 355: Abstr. 56.

5. Ludwicka-Bradley A, **Bogatkevich GS**, Tourkina E, Byeon MK, Harley RA, Wessels A, Silver RM: Thrombin Induces Myofibroblast Phenotype by Activating PKC ϵ in Lung Fibroblasts. *Vascular Medicine and Thrombin 2001*, June 9-14,2001, Whitefish, Montana

6. Ludwicka-Bradley A, **Bogatkevich GS**, Tourkina E, Silver RM: Thrombin Induces Myofibroblasts by Activating PAR-1 and PKC ϵ in Normal Lung Fibroblasts, a Phenotype that is Resistant to Apoptosis. 2001, *Mol. Biol. Cell* 12: 300a, Abstr. 1645.

7. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley and Richard M. Silver: Diversity in Signaling Pathways by Human Lung Fibroblasts following Activation by Thrombin. 2002, *FASEB J.*, 16, A1151, Abstr. 864.6

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8. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley, and Richard M. Silver: Multiple Signaling Pathways of Protease-Activated Receptor-1 in Normal and Scleroderma Lung Fibroblasts. 2002, *Arthritis & Rheum.* 46: S383, Abstr. 991.

9. **G.S. Bogatkevich**, E. Tourkina, C.S. Abrams, R.A. Harley, R.M. Silver, A. Ludwicka-Bradley: Thrombin-induced Contractile Activity of Human Lung Fibroblasts. 2002, Mol. Biol. Cell 13:478a, Abstr. 2692.
10. E.V. Tourkina, **G.S. Bogatkevich**, R.M. Silver, S. Hoffman: Differential PKC ϵ Localization and Signaling in Normal and Scleroderma Lung Fibroblasts. 2002, Mol. Biol. Cell 13:231a, Abstr. 1298.
11. **Galina S. Bogatkevich**, Elena Tourkina, Richard M. Silver, and Anna Ludwicka-Bradley: Protein Kinase C Signaling in Thrombin-Activated Lung Fibroblasts. 2003, FASEB J., 17, A90, Abstr. 86.2.
12. **G. S. Bogatkevich**, E.Gustillo, J. Oates, C. Feghalli-Bostwick, R.A. Harley, R. M. Silver, A. Ludwicka-Bradley: Distinct PKC Isoforms Mediate DNA Synthesis and Cell Survival in Thrombin-Induced Myofibroblasts. 2004, FASEB J., 18 (5), A1049-A1050, Abstr. 685.3.
13. **Bogatkevich GS**, Ludwicka-Bradley A, Silver RM: Contractile Activity of Scleroderma Lung Myofibroblasts Involves VWC Domain of CTGF. 2005, FASEB J., 19, Abstr. 6228
14. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley, Kristin B. Highland, C. Beth Singleton, Paul J. Nietert, Stephanie R. Shaftman, Richard M. Silver: Differences in Cytokine Composition in Bronchoalveolar Lavage Fluid among African-American and Caucasian Populations: Implications for Scleroderma Lung Disease. 2005, Arthritis Rheum. 52: S368, Abstr.938.
15. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley, C. Beth Singleton, Richard M. Silver: Antifibrotic effect of hepatocyte growth factor is impaired in lung fibroblasts isolated from African-Americans. 2006, FASEB J., 20, Abstr. 767.9. See also <http://www.the-aps.org/press/conference/eb06/17.htm>
16. Highland KB, Gilkeson G, **Bogatkevich G**, Silver RM. Peroxisome proliferator-activated receptor gamma expression in scleroderma interstitial lung disease. E. Carwile LeRoy Memorial International Workshop on Scleroderma, May, 2007, Tokyo
17. **Bogatkevich GS**, Ludwicka-Bradley A, Highland KB, Hant F, Nietert PJ, Singleton CB, Feghali-Bostwick C, Silver RM: Hepatocyte growth factor down regulates expression of CTGF in Caucasian but not in African-American scleroderma lung fibroblasts via two distinct signaling pathways. E. Carwile LeRoy Memorial International Workshop on Scleroderma May, 2007, Tokyo
18. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley, C. Beth Singleton, Richard M. Silver: HGF reduces accumulation of collagen I in lung fibroblasts isolated from Caucasian scleroderma patients via Grb2/Ras/MAPK/MMP-1-dependent pathway. 2007, FASEB J., 21, Abstr. 6176
19. **Galina S. Bogatkevich**, Anna Ludwicka-Bradley, C. Beth Singleton, Richard M. Silver: Proteomic analysis of connective tissue growth factor activation in normal and scleroderma lung fibroblasts. 2008, FASEB J., 22, 929.3