

BIOGRAPHICAL SKETCH

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NAME Dmitry N. Grigoryev		POSITION TITLE	
eRA COMMONS USER NAME DGRIGOR1		Instructor in Medicine	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Petergoff Medical College, Russia	B.S.	1984-1987	Medical Informatics
State Pavlov St. Petersburg University, Russia	M.D.	1988-1993	Medicine
Johns Hopkins University, Baltimore	Part-time student	1993-1995	Molecular Biology
University of Maryland, Baltimore	Ph.D.	1995-1999	Pharmacology
VA Medical Center, Baltimore	Postdoctoral	1999-2000	Vascular Biology
University of Maryland, Baltimore County	Part-time student	2000	Computer Science
NIH, NCI, Bethesda	Fellowship	2000-2002	Bioinformatics
Johns Hopkins University, Baltimore	Fellowship	2002-2005	Translational Research

A. Positions and Honors.**Positions and Employment**

1993-1995	Clinical Research Associate, Dept. of Cardiology, Johns Hopkins University, Baltimore, MD
1995-1999	Graduate Research Assistant, Dept. of Pharmacology and Experimental Therapeutics, University of Maryland, Baltimore, MD
1999-2000	Post-Doctoral Fellow, Dept. of Infectious Diseases, VA Medical Center, Baltimore, MD
2000-2002	CRTA Fellow, Molecular Modeling and Bioinformatics Section, NIH, NCI, Bethesda, MD
2002-2005	NRSA Fellow, Center for Translational Respiratory Medicine, Johns Hopkins University, Baltimore, MD
2005-present	Instructor in Medicine, Genomic Project Director, Div. of Allergy and Clinical Immunology, Bayview Genetics Research Facility, Johns Hopkins University, Baltimore, MD

Professional Memberships

1990-1993	The St. Petersburg Cystic Fibrosis Association
1997-2001	The American Association for Cancer Research
2003-present	The American Thoracic Society
2005-present	The National Kidney Foundation
2006-present	The American Academy of Allergy Asthma and Immunology

Honors

1998	Young Investigator Travel Award to attend International Conference on Biology of Prostate Growth
2000	The American Lung Association Research Training Fellowship in Pulmonary Vascular Biology
2001	Cancer Research Training Award Fellowship in Bioinformatics
2003	The National Research Service Award Fellowship in Translational Research
2005	Symposium Award (3rd Annual Symposium on Functional Genomics of Critical Illness and Injury) in recognition of outstanding research in the field of Functional Genomics
2006	Midwest Trainee Travel Award to attend Central Society for Clinical Research meeting

Applicant Name (Last, first, middle):

- 2007 Oral Poster Award for outstanding scientific research, Fifth Symposium on Functional Genomics of Critical Illness and Injury
- 2007 Travel Award to speak at the Fifth Symposium on Functional Genomics of Critical Illness and Injury
- 2008 Midwest Junior Faculty Travel Award to present current research at the Central Society for Clinical Research

B. Peer-reviewed publications (in chronological order).

1. Furman M.I., **Grigoryev D.N.**, Bray P.F., Dise K.R., and Goldschmidt-Clermont P.J. (1994) Platelet tyrosine kinase and fibrinogen receptor activation. *Circulation Research* 75, 172-180.
2. Addo J.B., Bray P.F., Faraday N., **Grigoryev D.N.**, and Goldschmidt-Clermont P.J. (1995) Translocation, but not engagement, of integrin $\alpha 2\text{b}-\beta 3$ (GPIIb-IIIa) requires a functional actin cytoskeleton. *Atherosclerosis, Thrombosis, and Vascular Biology* 15(9), 1466-1473.
3. Weiss E.J., Goldschmidt-Clermont P.J., **Grigoryev D.N.**, Jin Y., Kickler T.S., and Bray P.F. (1995) A monoclonal antibody specific for platelet GPIIIa (SZ21) distinguishes PLA1 from PLA2. *Tissue Antigen* 46,374-381.
4. Goldschmidt-Clermont P.J., Schulman S.P., Bray P.F., Chandra N.C., **Grigoryev D.N.**, Dise K.R., Sagar M., Fox R.J., Coleman L.D., Richardson C., Dorsey F.C., duMee C., Kitt M.M., Ouyang P., Baughman K.L., and Gerstenblith G. (1996) Refining the treatment of women with unstable angina-A randomized, double blind, comparative safety and efficacy evaluation of Integrin™ versus Aspirin in the management of unstable angina. *Clinical Cardiology* 19,869-874.
5. Long B.J., Tilghman S.L., Yue W., Thiantanawat A., **Grigoryev D.N.**, and Brodie A.M.H. (1998). The steroidal antiestrogen ICI 182,780 is an inhibitor of cellular aromatase activity. *J. Steroid Biochem. Molec. Biol.*, 67, 293-304.
6. Njar V.C.O., Kato K., Nnane I.P., **Grigoryev D.N.**, Long B.J., and Brodie A.M.H. (1998). Novel 17-azolyl steroids; potent inhibitors of human cytochrome 17 -hydroxylase-C17,20-lyase (P45017): potential agents for the treatment of prostate cancer. *J. Med. Chem.*, 41, 902-912.
7. **Grigoryev D.N.**, Long B.J., Njar V.C.O., Liu Y., Nnane I.P., and Brodie A.M.H. (1999). Effects of new 17 α -hydroxylase/C17,20-lyase inhibitors on the growth of LNCaP prostate cancer cells in vitro and in vivo. *Br. J. Cancer*, 81, 622-630.
8. **Grigoryev D.N.**, Kato K., Njar V.C.O., Long B.J., Ling Y-Z., Wang X., Mohler J, and Brodie A.M.H. (1999). Cytochrome P450c17-expressing Escherichia coli as a first-step screening system for P450 17 α -hydroxylase-C17,20-lyase inhibitors. *Analytical Biochemistry*, 267, 319-330.
9. Lu Q., Liu Y., Long B.J., **Grigoryev D.N.**, Gimbel M., and Brodie A.M.H. (1999). The effect of combining aromatase inhibitors with antiestrogens on tumor growth in a nude mouse model for breast cancer. *Breast Cancer Res. Treat*, 57, 183-192.
10. **Grigoryev D.N.**, Long, B.J., Njar, V.C.O., and Brodie, A.M.H. (2000). Pregnenolone stimulates LNCaP prostate cancer cell growth via the mutated androgen receptor: implications for the treatment of prostate cancer. *J. Steroid Biochem. Molec. Biol.* 75(1), 1-10
11. Long B.J., **Grigoryev D.N.**, Nnane I.P., Liu Y., Ling Y-Z., and Brodie A.M.H. (2000). Antiandrogenic effects of novel androgen synthesis inhibitors on hormone dependent cancer. *Cancer Res.* 60(23):6630-40
12. Nnane I.P., Long B.J., Ling Y-Z., **Grigoryev D.N.**, and Brodie A.M.H. (2000). Anti-tumour effects and pharmacokinetic profile of 17-(5'-isoxazolyl)androsta-4,16-dien-3-one in mice: an inhibitor of androgen synthesis. *British J. Cancer*, 83, 74-82.
13. Maitra R.*, **Grigoryev D.N.***, Bera T.K., Pastan I.H., and Lee B. (2003) Cloning, molecular characterization, and expression analysis of Copine 8. *Biochem Biophys Res Commun.* 303(3):842-7. *co-first authors
14. Jacobson J.R., Dudek S.M., Birukov K.G., Ye S.Q., **Grigoryev D.N.**, Girgis R.E., Garcia J.G.N. (2004) Cytoskeletal activation and altered gene expression in endothelial barrier regulation by simvastatin. *Am. J. Respir. Cell Mol. Biol.* 30(5):662-70.
15. **Grigoryev D.N.**, Finigan J.H., Hassoun P.M., and Garcia J.G.N. Searching for gene candidates in acute lung injury. (2004) *Critical Care Med.* 8(6):440-7.
16. **Grigoryev D.N.**, Ma S-F., Ye S.Q., Irizarry R.A., Quackenbush J., and Garcia J.G.N. (2004) Orthologous gene expression profiling in multi-species models: search for candidate genes. *Genome Biology* 5(5):R34

17. Jacobson J.R., Barnard J.W., **Grigoryev D.N.**, Ma S-F., Tuder R.M., and Garcia J.G.N. (2005) Simvastatin attenuates vascular leak and inflammation in murine inflammatory lung injury. *Am. J. Physiol. Lung Cell Mol. Physiol.* 288(6):L1026-32.
18. **Grigoryev D.N.**, Ma S-F., Ye S.Q., Simon B., and Garcia J.G.N. (2005) In vitro identification and in silico utilization of interspecies sequence similarities using GeneChip technology. *BMC Genomics*, 6(1):62.
19. Ye S.Q., Ma S-F., **Grigoryev D.N.**, Parigi M., Shao W.L. Chapter 157: Gene expression profiling of human endothelial cells by DNA microarray and SAGE. In *Microvascular Research: Biology and Pathology*, Vol.2, pp1069-1079, eds Shepro D, Elsevier Academic Press, San Diego, CA, USA, 2006.
20. Ma S-F.*, **Grigoryev D.N.***, Taylor A.D., Nonas S., Sammani S., Ye S.Q., Garcia J.G.N. (2005) Bioinformatic identification of novel early stress response genes in rodent models of lung injury. *Am. J. Physiol. Lung Cell Mol. Physiol.*, 289(3):L468-77. *co-first authors
21. Li J., **Grigoryev D.N.**, Ye S.Q., Thorne L., Schwartz A.R., Smith P.L., O'donnell C.P., Polotsky V.Y. (2005) Chronic intermittent hypoxia up-regulates genes of lipid biosynthesis in obese mice. *J Appl Physiol.* 99(5):1643-8.
22. Guo Y., Ma S-F., **Grigoryev D.N.**, Van Eyk J., and Garcia J.G.N. (2005) 1-DE MS and 2-D LC-MS analysis of the mouse bronchoalveolar lavage proteome. *Proteomics*. 5(17):4608-24.
23. Girgis R.E., Ma S-F., Ye S., **Grigoryev D.N.**, Li D., Hassoun P.M., Tuder R.M., Johns R.A., Garcia J.G. (2005) Differential gene expression in chronic hypoxic pulmonary hypertension: effect of simvastatin treatment. *Chest*. 128(6 Suppl):579S.
24. Simon B.A., Easley R.B., **Grigoryev D.N.**, Ma S-F., Ye S.Q., Lavoie T., Tuder R.M., Garcia J.G. (2006) Microarray analysis of regional cellular responses to local mechanical stress in acute lung injury. *Am J Physiol Lung Cell Mol Physiol.* 291(5):L851-61
25. Angelini D.J., Hyun SW., **Grigoryev D.N.**, Garg P., Gong P., Singh I.S., Passaniti A., Hasday J.D., and Goldblum S.E. (2006) TNF α increases tyrosine phosphorylation of vascular endothelial-cadherin and opens paracellular pathway through fyn activation in human lung endothelia. *Am J Physiol Lung Cell Mol Physiol.* 291(6):L1232-45
26. **Grigoryev D.N.**, Liu M., Cheadle C., Barnes K.C., and Rabb H. (2006) Genomic profiling of kidney ischemia reperfusion reveals expression of specific alloimmunity-associated genes: linking "immune" and "non-immune" injury events. *Transplantation Proc.* 38(10):3333-6
27. Hassoun H.T., **Grigoryev D.N.**, Lie M.L., Liu M., Cheadle C., Tuder R.M., and Rabb H. (2007) Ischemic acute kidney injury induces a distant organ functional and genomic response distinguishable from bilateral nephrectomy. *Am J Physiol Renal Physiol.* 293(1):F30-40.
28. **Grigoryev D.N.**, Ma S-F., Shimoda L.A., Johns R.A., Lee B., and Garcia J.G.N. (2007) Exon-based mapping of microarray probes: Recovering differential gene expression signal in underpowered hypoxia experiment. *Mol and Cell Probes* 21(2):134-9
29. Nonas S.A., Moreno Vinasco L., Ma S-F., Jacobson J.R., Desai A.A., Dudek S., Flores C., Hassoun P.M., Sam L., Ye S.Q., Moitra J., Barnard J., **Grigoryev D.N.**, Lussier Y.A., Garcia J.G. (2007) Use of consomic rats for genomic insights into ventilator-associated lung injury. *Am J Physiol Lung Cell Mol Physiol.* 293(2):L292-302
30. Gao L., Grant A.V., Rafaels N., Stockton-Porter M., Watkins T., Gao P., Chi P., Muñoz M., Watson H., Dunston G., Toghias A., Hansel N., Sevransky J., Maloney J.P., Moss M., Shanholtz C., Brower R., Garcia J.G.N., **Grigoryev D.N.**, Cheadle C., Beaty T.H., Mathias R.A., Barnes K.C. (2007) Polymorphisms in the myosin light chain kinase gene that confer risk of severe sepsis are associated with a lower risk of asthma. *J Allergy Clin Immunol.* 119 (5), 1111-1118
31. Papaiahgari S., Yerrapureddy A., Reddy S.R., Reddy N.M., Dodd-O J.M., Crow M.T., **Grigoryev D.N.**, Barnes K., Tuder R.M., Yamamoto M., Kensler T.W., Biswal S., Mitzner W., Hassoun P.M., Reddy S.P. (2007) Genetic and Pharmacologic Evidence Links Oxidative Stress to Ventilator-Induced Lung Injury in Mice. *Am J Respir Crit Care Med.* 176(12):1222-35.
32. Gao L., Tsai Y.J., **Grigoryev D.N.**, Barnes K.C. (2007) Host defense genes in asthma and sepsis and the role of the environment. *Curr Opin Allergy Clin Immunol.* 7(6):459-67.
33. **Grigoryev D.N.**, Liu M., Hassoun H.T., Cheadle C., Barnes K.C., Rabb H. (2008) The local and systemic inflammatory transcriptome after acute kidney injury. *J Am Soc Nephrol.* 2008 Jan 30 [Epub ahead of print]
33. **Grigoryev D.N.**, Mathai S.C., Fisher M.R., Girgis R.E., Zaiman A.L., Houston-Harris T., Cheadle C., Gao L., Hummers L.K., Champion H.C., Garcia J.G.N., Wigley M.F., Tuder R.M., Barnes K.C., and

Applicant Name (Last, first, middle):

Hassoun P.M. Identification of candidate genes in scleroderma-related pulmonary arterial hypertension.
Transl Res (*In Press*)

C. Research Support

Ongoing Research Support

Young Investigator Award 08/01/06-07/31/08

National Kidney Foundation.

Genomic Basis of Acute Renal Failure Induced Lung Injury

This project is focused on genomics acute renal failure (ARF) and its relation to ensuing lung injury. The program will examine the genomic changes in kidney tissues during the development of ARF and identify potential links of renal transcriptional changes to onset of lung injury.

Role: Principal Investigator (14% effort)

P50 HL073994-01 (PI Brower) 09/30/03 - 06/30/08

NIH

Molecular Approaches to Ventilator Associated Lung Injury

CORE E (PI Barnes)

Genomics and Genotyping.

This project is focused on understanding the complex interplay between mechanical ventilation & increased morbidity & mortality associated with acute lung injury. The program will examine the genetic basis of the development of ventilator-associated lung injury, evaluate new therapies & identify new molecular targets for ventilator-associated lung injury.

Role: Co-Investigator (50% effort)

HHSN266200400029C (PI Beck) 4/01/04 - 3/31/09

NIH/NHLBI

Atopic Dermatitis and Vaccinia Network-Clinical Studies Consortium

The overall objective of the Atopic Dermatitis and Vaccinia Immunization Network (ADVNI): Clinical Studies Consortium is to develop and implement a research plan to reduce the risk of eczema vaccinatum, a potentially life-threatening complication of smallpox (vaccinia virus) vaccine immunization that occurs almost exclusively in patients with atopic dermatitis (AD).

Role: Co-investigator (20% effort)

P30 AR 053503 (PI Rosen) 9/01/06 - 7/30/11

NIH

Core Center - Core C

Oversee the design, performance and analysis of genetic association studies in well-defined human rheumatic phenotypes.

Role: Co-investigator (16% effort)

Completed Research Support

1F32 HL 074590-01A1 7/01/04 – 7/31/05

NIH/NHLBI

Gene expression profiling of ventilator induced acute lung injury.

The goal of this study was to study mechanisms through which mechanical ventilation triggers ALI.

Role: Principal Investigator