

BIOGRAPHICAL SKETCH

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NAME Alexander B. Niculescu III, MD, PhD		POSITION TITLE Associate Professor of Psychiatry and Medical Neuroscience; Attending Psvchiatrist. Indianapolis VAMC	
eRA COMMONS USER NAME aniculescu			
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
University of Bucharest Carol Davila School of Medicine, Bucharest, Romania	M.D.	1991	Medicine
University of Geneva Medical School, Geneva, Switzerland	M.Sc.	1992	Medical Biology
The Scripps Research Institute Kellog School of Science and Technology, La Jolla, CA, The Scripps Research Institute, La Jolla CA	Ph.D.	1997	Molecular Biology
University of California San Diego, La Jolla, CA	Postdoctoral Residency	1997-1998 1998-2002	Neurobiology Psychiatry
University of California San Diego, La Jolla, CA	Fellowship	2001-2003	Biological Psychiatry and Neuroscience
American Board of Psychiatry and Neurology	Board Certification	2005	Psychiatry

CA Medical license: A72565 (active)

A. Personal Statement

I am fortunate to have a broad background in medicine and science, with specific training and expertise in key clinical and research areas, specifically psychopharmacology and genomics. I have had various leadership roles and am a strong believer in collaborative approaches and motivating team members to take pride in their work. I am also convinced the time has come to apply knowledge from translational research to deliver better personalized care for our patients and to guide new drug development.

B. Positions and Honors

1991-1992 Research Fellow, Department of Pathology, University of Geneva Medical School, Geneva, Switzerland

1992-1997 Graduate Student, Program in Macromolecular and Cellular Structure and Chemistry, The Scripps Research Institute Kellog School of Science and Technology, La Jolla, CA, Laboratory of Dr. Steven I. Reed.

1997-1998 Postdoctoral Fellow, Department Of Neurobiology, The Scripps Research Institute, La Jolla, CA, Laboratory of Dr. Gerald M. Edelman.

1998- 1999 Internship, UCSD School of Medicine, La Jolla, CA

1999- 2001 Resident, Department of Psychiatry, UCSD School of Medicine, La Jolla, CA

2001- 2002 Chief Resident, Department of Psychiatry, UCSD School of Medicine, La Jolla, CA

2001- 2003 Fellow in Biological Psychiatry and Neuroscience, Department of Psychiatry, UCSD School of Medicine, La Jolla, CA

2003-2004 Assistant Clinical Professor, Department of Psychiatry, UCSD School of Medicine, La Jolla, CA

2002–2004 Staff Psychiatrist, VA San Diego Healthcare System; Chief, Cognitive Disorders Clinic; Associate Medical Director, Alcohol and Drug Treatment Program; Director, Laboratory of Neurophenomics, Department of Psychiatry, UCSD School of Medicine, La Jolla, CA.

2004- Assistant Professor of Psychiatry and Medical Neuroscience, Indiana University School of Medicine, Indianapolis, IN; Director, INBRAIN and Laboratory of Neurophenomics, Institute of Psychiatric Research; Staff Psychiatrist, VA Medical Center Indianapolis; Director, Clozapine Clinic

2010 - Associate Professor of Psychiatry with Tenure

Other Experience and Professional Memberships (selected):

1999- Member, International Society for Psychiatric Genetics
2005- Reviewer, NIH and VA Extramural Programs. Most recently: Chair, ZRG1 BBBP S(03) 2010-; Member, Mental Health and Behavioral Sciences – B (MHBB) 2010-.
2005- Member, Institutional Review Board (IRB), Indiana University School of Medicine.
2006- Assistant Editor, Psychiatric Genetics
2007- Editorial Board, American Journal of Medical Genetics, Part B:Neuropsychiatric Genetics
2009- Member, International Scientific Advisory Committee, Winter Workshop in Psychoses
2009- Member, New York Academy of Sciences
2011- Founding Member, Editorial Board, Translational Psychiatry (Nature Publishing Group)
Reviewer for other leading international journals: Molecular Psychiatry, Archives of General Psychiatry, American Journal of Psychiatry, Biological Psychiatry, Neuropsychopharmacology, and others.

Honors (selected):

2000 National Institute of Mental Health Outstanding Resident of the Year Award
2000 Eli Lilly US Resident of the Year Award, US Psychiatric & Mental Health Congress, San Diego, CA.
2002 Lewis L. Judd Chairman's Research Award, Department of Psychiatry, UC San Diego
2002-2005 Pfizer Fellow in Biological Psychiatry
2002-2004 National Alliance for Research in Schizophrenia and Depression (NARSAD) Young Investigator
2004 Department of Veterans Affairs Superior Performance Award, July 2004.
2005 American Psychiatric Association/ AstraZeneca Young Minds in Psychiatry International Award
2005-2007 National Alliance for Research in Schizophrenia and Depression (NARSAD) Mogens Schou Young Investigator
2007 Theodore Reich Award from the International Society for Psychiatric Genetics
2010 America's Top Psychiatrists, Consumers' Research Council of America
2010 NIH Directors' New Innovator Award

C. Selected peer-reviewed publications (in chronological order) (* corresponding author)

Niculescu AB, Chen X, Smeets M, Hengst L, Prives C, Reed SI. Effects of p21 Cip1/Waf1 at both the G1/S and G2/M cell cycle transitions: pRb is a critical determinant in blocking DNA replication and preventing endoreduplication. *Molecular and Cellular Biology*. 1998; 18: 629-643.

***Niculescu AB**. Prophylactic antidepressant treatment before patients are admitted *Lancet* 2000; 355: 406-7.

Niculescu AB. Will to live, suicide and euthanasia. *Archives of Internal Medicine* 2000; 160:1706.

***Niculescu AB**, Segal D, Kuczenski R, Barrett T, Hauger R, Kelsoe JR. Identifying a series of candidate genes for mania and psychosis: a convergent functional genomics approach. *Physiological Genomics* 2000; 4: 83-91.

***Niculescu AB**, Kelsoe JR. Convergent functional genomics: application to bipolar disorder. *Annals of Medicine* 2001; 33:263-271.

***Niculescu AB**, Akiskal HS. Proposed endophenotypes of dysthymia: evolutionary, clinical and pharmacogenomic considerations. *Molecular Psychiatry* 2001; 6: 363-366.

***Niculescu AB**, Kelsoe JR. The Human Genome: Genetic Testing and Animal Models. *American Journal of Psychiatry* 2001; 158:1587

***Niculescu AB**, Akiskal HS. Sex hormones, Darwinism and depression. *Archives of General Psychiatry* 2001; 58:1083-1084.

***Niculescu AB**, Kelsoe JR. Finding Genes for Bipolar Disorder in the Functional Genomics Era: From Convergent Functional Genomics to Phenomics and Back. *CNS Spectrums* 2002; 7: 215-226.

Lohr JB, Kuczenski R, **Niculescu AB**. Oxidative Mechanisms and Tardive Dyskinesia. *CNS Drugs* 2003; 17:47-62.

Ogden CA, Rich ME, Schork NJ, Paulus MP, Geyer MA, Lohr JB, Kuczenski R, ***Niculescu AB**. Candidate genes, pathways and mechanisms for bipolar (manic-depressive) and related disorders: an expanded convergent functional genomics approach. *Molecular Psychiatry* 2004; 9(11):1007-1029.

***Niculescu AB**. Genomic studies of mood disorders: the brain as a muscle? *Genome Biology*. 2005. 6(4):215. Epub 2005 Mar 24.

Bertsch B, Ogden CA, Sidhu K, Le-Niculescu H, Kuczenski R, ***Niculescu AB**. Convergent functional genomics: a Bayesian candidate gene identification approach for complex disorders. *Methods* 2005; 37(3):274-279.

Caligiuri MP, Brown GG, Meloy MJ, Ebersson S, **Niculescu AB**, Lohr JB. Striatopallidal regulation of affect in bipolar disorder. *The Journal of Affective Disorders* 2006; 91(2-3):235-42.

***Niculescu AB**, Lulow L, Ogden CA, Le-Niculescu H, Salomon DR, Schork NJ, Caligiuri MP, Lohr JB. PhenoChipping of psychotic disorders: a novel approach for deconstructing and quantitating psychiatric phenotypes. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2006. 141(6):653-662.

Rodd ZA, Bertsch B, Strother WN, Le-Niculescu H, Jerome RE, Lumeng L, Nurnberger JI Jr., Edenberg HJ, McBride WJ, and ***Niculescu AB**. Candidate genes, pathways and mechanisms for alcoholism and related disorders: an expanded convergent functional genomics approach. *The Pharmacogenomics Journal* 2007;7(4):222-56.

***Niculescu AB**. Polypharmacy in oligopopulations: what psychiatric genetics can teach biological psychiatry. *Psychiatric Genetics*. 2006. 16(6):241-244.

Le-Niculescu H, Balaraman Y, Patel S, Tan J, Sidhu K, Jerome RE, Kuczenski R, Geyer MA, Edenberg HJ, Nurnberger JI, Faraone SV, Tsuang MT and ***Niculescu AB**. Towards understanding the schizophrenia code: an expanded convergent functional genomics approach. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2007; 144B (2):129-158.

Le-Niculescu H, McFarland MJ, Mamidipalli S, Ogden CA, Kuczenski R, Kurian SM, Salomon DR, Tsuang MT, Nurnberger Jr JI, ***Niculescu AB**. Convergent Functional Genomics of bipolar disorder: From animal model pharmacogenomics to human genetics and biomarkers. *Neurosci Biobehav Rev*. 2007 31(6):897-903.

Le-Niculescu H, McFarland MJ, Ogden CA, Balaraman Y, Tan J, Patel S, Rich ME, Paulus M, Edenberg HJ, Nurnberger JI, Rodd ZA, Geyer M, Glatt SJ, Faraone SV, Kuczenski R, Tsuang MT and ***Niculescu AB**. Phenomic, convergent functional genomic and biomarker studies in a stress-reactive genetic animal model of bipolar disorder and co-morbid alcoholism. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2008 Mar 5;147(2):134-66.

Liu L, Foroud T, Xuei X, Berrettini W, Byerley W, Coryell W, El-Mallakh R, Gershon E, Kelsoe J, Lawson W, MacKinnon D, McInnis M, McMahon F, Murphy D, Rice J, Scheftner W, **Niculescu AB**, Meyer ET, Edenberg HJ, Nurnberger Jr. JI. Evidence of association between brain-derived neurotrophic factor (*BDNF*) gene and bipolar disorder. *Psychiatric Genetics*. 2008;18(6):267-74.

Le-Niculescu H, Kurian SM, Yehyawi N, Dike C, Patel SD, Edenberg HJ, Tsuang MT, Salomon DR, Nurnberger Jr JI, ***Niculescu AB**. Identifying Blood Biomarkers For Mood Disorders Using Convergent Functional Genomics. *Molecular Psychiatry* 2009; 14(2):156-74. Epub 2008 Feb 26.

Le-Niculescu H, Patel SD, Bhat M, Kuczenski R, Faraone SV, Tsuang MT, McMahon F, Schork NJ, Nurnberger Jr. JI, ***Niculescu AB**. Convergent Functional Genomics of Genome-Wide Association Data for Bipolar Disorder: Comprehensive Identification of Candidate Genes, Pathways and Mechanisms. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2009 150B(2):155-181. Epub 2008 Nov21.

Caligiuri MP, Teulings HL, Dean CE, **Niculescu AB**, Lohr J. Handwriting movement analyses for monitoring drug-induced motor side effects in schizophrenia patients treated with risperidone. *Hum Mov Sci*. 2009 28(5):633-42. Epub 2009 Aug 18

***Niculescu AB**, Schork NJ, Salomon DR. Mindscape: a convergent perspective on life, mind, consciousness and happiness. *Journal of Affective Disorders* 2010 123(1-3):1-8. Epub 2009 July10.

McGrath CL, Glatt SJ, Sklar P, Le-Niculescu H, Kuczenski R, Doyle EA, Biederman J, Mick E, Faraone SV, ***Niculescu AB**, Tsuang MT. Evidence for Genetic Association of RORB with Bipolar Disorder. *BMC Psychiatry* 2009. Nov 12;9:70.

Caligiuri MP, Teulings HL, Dean CE, **Niculescu AB 3rd**, Lohr JB. Handwriting movement kinematics for quantifying extrapyramidal side effects in patients treated with atypical antipsychotics. *Psychiatry Res*. 2010 May 15;177(1-2):77-83.

***Niculescu AB**, Le-Niculescu H. Convergent Functional Genomics: What we have learned and can learn about genes, pathways and mechanisms. *Neuropsychopharmacology* 2010. 35(1):355-6.

***Niculescu AB**, Hulvershorn L. Toward Early, Personalized, Rational Polypharmacy In Psychiatry: A Tri-Dimensional Approach. *Psychopharm Review* 2010. 45(2): 9-16.

***Niculescu AB**, Le-Niculescu H. The P-Value Illusion: How to Improve (Psychiatric) Genetic Studies. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2010. Jun 5;153B(4):847-9.

Patel SD, Le-Niculescu H, Koller DL, Green SD, Lahiri DK, McMahon F, Nurnberger JI, ***Niculescu AB**. Coming to Grips With Complex Disorders: Genetic Risk Prediction in Bipolar Disorder Using Panels of Genes Identified Through Convergent Functional Genomics. *American Journal of Medical Genetics Part B (Neuropsychiatric Genetics)*. 2010. Jun 5;153B(4):850-77. Epub April 9.

Le-Niculescu H, Patel SD, ***Niculescu AB**. Convergent integration of animal model and human studies of bipolar disorder (manic-depressive illness). *Current Opinion in Pharmacology*.2010. 10(5):594-600. Epub September 1.

Kurian SM, Le-Niculescu H, Patel S, Bertram D, Davis J, Dike C, Yehyawi N, Lysaker P, Dustin J, Caligiuri M, Lohr J, Lahiri DK, Nurnberger JI, Faraone SV, Geyer MA, Tsuang MT, Schork NJ, Salomon DR, ***Niculescu AB**. Identification of Blood Biomarkers For Psychosis Using Convergent Functional Genomics. *Molecular Psychiatry* 2011;16(1):37-58. Epub 2009 November 24.

Le-Niculescu H, Case NJ, Hulvershorn L, Patel SD, Bowker D, Gupta J, Bell R, Edenberg HJ, Tsuang MT, Kuczenski R, Geyer MA, Rodd Z, ***Niculescu AB**. Convergent Functional Genomic Studies of Omega-3 Fatty Acids in Stress Reactivity, Bipolar Disorder and Alcoholism. *Translational Psychiatry*. 2011. Epub April 26.

Le-Niculescu H, Balaraman Y, Patel SD, Ayalew M, Gupta J, Kuczenski R, Shekhar A, Schork N, Geyer MA, ***Niculescu AB**. Convergent Functional Genomics of Anxiety Disorders: Translational Identification of Genes, Biomarkers, Pathways and Mechanisms. *Translational Psychiatry*. 2011. Epub May 24.

D. Research Support

Active:

2009-2012 "Mood State Blood Biomarkers: A Discovery Based Approach."

VA 1101CX000139

VA Merit Award (Niculescu – P.I.)

Goals: To discover biomarkers through blood gene expression studies in bipolar disorder.

2010-2015 "Developing Blood Tests for Mood Disorders"

NIH 1DP2OD007363

R01 NIH Director New Innovator Award (Niculescu - P.I.)

Goals: To develop blood tests for mood disorders.

Completed (in the last 3 years):

2004-2008 "Translational studies of cycling in bipolar disorders."

R01 MH071912-01 (Tsuang- PI)

Goals: To integrate gene expression studies in animal models with candidate gene studies in bipolar families.

My role: Co- Investigator/site P.I.

2006-2008 "Handwriting Quantification for Screening in Schizophrenia"

NIMH SBIR grant (Teulings -PI)

Goals: To assess and develop new motor endophenotypes.

My role: Co-Investigator

2006-2008 "INBRAIN- Indiana Center for Biomarker Research In Neuropsychiatry"

Eli Lilly

Goals: To identify candidate biomarkers for neuropsychiatric disorders.

My role: P.I

2005-2007 "Convergent functional genomics studies in mice lacking the clock gene DBP: a possible animal model of bipolar depression"

NARSAD Mogens Schou Young Investigator Award.

Goals: Convergent functional genomics studies of a mouse model of bipolar disorder.

My role: P.I.

E. Patent applications (in the last 3 years):

U.S. Patent Application No. 12/594,378 "Blood biomarkers for mood disorders".

U.S. Patent Application No. 12/599,763 "Blood biomarkers for psychosis".

U.S. Patent Application No. 12/681,154 "Candidate genes and blood biomarkers for bipolar mood disorder, alcoholism, and stress disorder".

PCT patent application No. US2009/58003 "Genes and single nucleotide polymorphisms for genetic testing in bipolar disorder".