

BIOGRAPHICAL SKETCH

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NAME: Alexander Bystritsky

eRA COMMONS USER NAME (credential, e.g., agency login): brainsonix

POSITION TITLE: CEO Brainsonix, Professor Emeritus UCLA

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	Completion Date MM/YYYY	FIELD OF STUDY
Pavlov Medical Institution, Leningrad, USSR	M.D.	1977	Medicine
Pavlov Medical Institution, Leningrad, USSR	Ph.D.	1979	Pharmacology (incompl)
St. Petersburg Medical University, Russia	Ph.D.	2006	Psychopharmacology and Clinical Psychiatry
NYU School of Medicine, New York	Internship	1981-82	Medicine/Neurology
NYU School of Medicine, New York	Residency	1982-84	Psychiatry

A. Personal Statement

Currently, as the CEO of Brainsonix and Executive Director of Tiny Blue Dot Foundation my goal facilitate creation and bring to public new and most advanced instruments to study the brain from translational adaptation to the early stage prototyping and finally to full commercialization. I am focused on software and hardware that will help us to target neuronal circuits non-invasively in conjunction with modern imaging techniques. We hope to use this software and devices for better diagnosis and treatment of psychiatric and neurological conditions. We also will use these techniques to increase our understanding how brain works and how it creates and modifies consciousness.

- a. Bystritsky, A, **Korb, AS**. (2015). A Review of Low-Intensity Transcranial Focused Ultrasound for Clinical Applications. *Curr Behav Neurosci Rep* 2, 60-66.
- b. **Korb AS**, Shellock FG, Cohen MS, Bystritsky A (2014). Low-intensity focused ultrasound pulsation device used during magnetic resonance imaging: evaluation of magnetic resonance imaging-related heating at 3 Tesla/128 MHz. *Neuromodulation*, 17(3): 236-41;
- c. Bystritsky A, **Korb AS**, Douglas PK, Cohen MS, Melega WP, Mulgaonkar AP, Desalles A, Min BK, Yoo SS (2011) A review of low-intensity focused ultrasound pulsation. *Brain Stimul* 4:125-136.
- d. Monti MM, Schnakers C, **Korb AS**, Bystritsky A, Vespa PM. (2016). Non-Invasive Ultrasonic Thalamic Stimulation in Disorders of Consciousness after Severe Brain Injury: A First-in-Man Report. *Brain Stimul.* Jul 22;

B. Positions and Honors

Honors and Awards:

1975	Best Student Research Paper Leningrad.
1976	Gold Medal for Best Student Research Paper in U.S.S.R.
1977	Maria Petrova Award - The Most Outstanding Young Scientist
1985	Robert Wood Johnson Clinical Scholar
1994	Bristol Myers Distinguished Faculty
1994	Janssen Clinical Scholar
1998-	Best Doctors in America
1999-	Who is Who in the World
2001-	Distinguished Life Fellow of APA
2005-	OC Foundation Research Award
2009-	Brain and Behavior Foundation Distinguished Investigator Award
2014-	Life Fellow of ASCP

Employment:

1980 – 1981	Assistant Research Scientist, New York University Medical Center, New York, NY
1985 – 1987	Robert Wood Johnson Clinical Scholar, University of California, Los Angeles, Los Angeles, CA
1991 – 2007	Director, Partial Hospitalization Program for the Treatment Resistant Anxiety Disorder, UCLA Neuropsychiatric Institute and Hospital, Los Angeles, CA
1990 – Present	Attending Physician, UCLA Resnick Neuropsychiatric Hospital, Los Angeles, CA
1987 – Present	Director, Anxiety Disorders Program, UCLA, Semel Institute for Neuroscience and Human Behavior, Resnick Neuropsychiatric Hospital, Los Angeles, CA
1999 – Present	Professor of Psychiatry and Biobehavioral Sciences, UCLA, Semel Institute for Neuroscience and Human Behavior, Resnick Neuropsychiatric Hospital, Los Angeles, CA
2007 - Present	Director, Brainstimulation Laboratory and Deep Brain Stimulation Program, Semel Institute for Neuroscience and Human Behavior, UCLA School of Medicine
2006 – Present	Founder, President and CEO, Brainsonix Corporation, Los Angeles, CA
2007 – Present	Saban Anxiety Treatment Evaluation Program, Semel Institute for Neuroscience and Human Behavior, UCLA School of Medicine
2008 -- 2011	Visiting Professor (at Full Professor Level) Neuroscience and Radiology, Brigham and Women's Hospital, Harvard School of Medicine, Boston, Mass
2015 --	Co-Founder and Executive Director of Tiny Blue Dot Foundation, Los Angeles, California

C. Contributions to Science

- a. I participated in one of the largest collaborative effort in the US supported by NIMH on improvement of treatment of Anxiety using Collaborative Care model.
We developed techniques, methods, treatment techniques and instruments together with University of Washington, Rand Corporation and UCSD. These techniques and instruments are widely used in clinical practice and research on Anxiety.

Roy-Byrne PP, Craske MG, Stein MB, Sullivan G, **Bystritsky A**, Katon W, Golinelli D, Sherbourne CD. A randomized effectiveness trial of cognitive-behavioral therapy and medication for primary care panic disorder. Arch Gen Psychiatry. 2005 Mar;62(3):290-8.

Bystritsky A, Wagner AW, Russo JE, Stein MB, Sherbourne CD, Craske MG, Roy-Byrne PP. Assessment of beliefs about psychotropic medication and psychotherapy: development of a measure for patients with anxiety disorders. Gen Hosp Psychiatry. 2005 Sep-Oct;27(5):313-8.

- b. I helped to develop computational theory of Anxiety. That is a departure usual categorical diagnosis into the field of computational dynamical approaches. On the basis of this research I developed ABC theory of anxiety that is currently used to study and treat anxiety.

Rabinovich MI, Muezzinoglu MK, Strigo I, **Bystritsky A**. Dynamical principles of emotion-cognition interaction: mathematical images of mental disorders. PLoS One.2010 Sep 21;5(9):e12547.

Bystritsky A, Nierenberg AA, Feusner JD, Rabinovich M. Computational non-linear dynamical psychiatry: a new methodological paradigm for diagnosis and course of illness. J Psychiatr Res. 2012 Apr;46(4):428-35. Epub 2012 Jan 18.

- c. I first conducted experiments in fMRI guided targeted rTMS treatment of Anxiety.

Bystritsky A, Pontillo D, Powers M, Sabb FW, Craske MG, Bookheimer SY. Functional MRI changes during panic anticipation and imagery exposure. Neuroreport. 2001 Dec 21;12(18):3953-7.

Bystritsky A, Kaplan JT, Feusner JD, Kerwin LE, Wadekar M, Burock M, Wu AD, Iacoboni M. A preliminary study of fMRI-guided rTMS in the treatment of generalized anxiety disorder. J Clin Psychiatry. 2008 Jul;69(7):1092-8.

- d. In 2001 I invented and patented the use of Low Intensity Focused Pulse which is currently grew into a field of non-invasive neuromodulation using Focused Ultrasound. I co-authored key publication that moved the field ahead.

Yoo SS, **Bystritsky A**, Lee JH, Zhang Y, Fischer K, Min BK, McDannold NJ, Pascual-Leone A, Jolesz FA. (2011) Focused Ultrasound Modulates Region-specific Brain Activity. Neuroimage. 2011 Jun 1;56(3):1267-75. Epub 2011 Feb 24.

Bystritsky A, Korb AS, Douglas PK, Cohen MS, Melega WP, Mulgaonkar AP, DeSalles A, Min BK, Yoo SS. A review of low-intensity focused ultrasound pulsation. Brain Stimul. 2011 Jul;4(3):125-36. Epub 2011 Apr 1.

D. Additional Information: Research Support and/or Scholastic Performance

Over my career I co-authored over 200 publication (book chapters and peer reviewed articles) and 8 patents. Over my career I received numerous awards and grants from NIMH, Foundations and Industry. I have been PI and co-PI on over 40 grants and contracts.

I have salary support from Tiny Blue Dot Foundation, West Side Neuro-Therapeutics, CalNeuro Research Group and Brainsonix Corporation.