BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors. Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

NAME: Zvartau Edwin Eduardovich

POSITION TITLE: Director, Valdman Institute of Pharmacology, Head, Department of Pharmacology, First Pavlov State Medical University

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	FIELD OF STUDY
First Pavlov Medical Institute, Leningrad, USSR	M.D.	1964	General Medicine
First Pavlov Medical Institute, Leningrad, USSR	Ph.D.	1967	Pharmacology
First Pavlov Medical Institute, Leningrad, USSR	D.Med.Sci.	1979	Pharmacology
Bekhterev Psychoneurology Institute	Certificate (license)	2018	Psychiatry-Narcology
First St. Petersburg Pavlov State Medical University	Certificate (license)	2018	Clinical Pharmacology

A. Personal Statement

I am a pharmacologist with a strong background in pharmacology of pain and addiction. I have research experience as a PI and PD in conducting preclinical and clinical trials of new medications for alcohol and other substance use disorders and behavioral interventions to reduce HIV risky behavior. I am also the leading PI and supervisor for FTIH and bioequivalence trials at First St. Petersburg Pavlov State Medical University. Since 1998 I have worked with Dr. Evgeny Krupitsky as PI and PD in collaborative projects with NIH Institutes (NIDA, NIAAA, NIAID, NIA) and US Universities (UPenn, Yale, Boston University School of Medicine, Baylor College of Medicine). I have served as PI for several phase II-III clinical trials of medications for acute and chronic pain syndrome. My many professional relationships with faculty and staff at First St. Petersburg Pavlov State Medical University will be an asset to the implementation of new clinical research projects.

- a. Krupitsky E, Zvartau E, Blokhina E, Verbitskaya E, Wahlgren V, Tsoy-Podosenin V, Bushara N, Burakov A, Masalov D, Romanova T, Tyurina A, Palatkin V, Slavina T, Pecoraro A, Woody GE. Randomized trial of long-acting sustained-release naltrexone implant vs oral naltrexone or placebo for preventing relapse to opioid dependence. *Arch Gen Psychiatry*. 2012;69:973-81. PMCID: PMC3614358.
- b. Edelman EJ, Cheng DM, Krupitsky EM, Bridden C, Quinn EK, Walley AY, Lioznov DA, Blokhina E, Zvartau E, Samet JH. Heroin use and HIV disease progression: results from a pilot study of a Russian cohort. *AIDS Behav*. 2015;19:1089-97. PMCID: PMC4440848.
- c. Samet JH, Raj A, Cheng DM, Blokhina E, Bridden C, Chaisson CE, Walley AY, Palfai TP, Quinn EK, Zvartau E, Lioznov D, Krupitsky E. HERMITAGE - a randomized controlled trial to reduce sexually transmitted infections and HIV risk behaviors among HIV-infected Russian drinkers. *Addiction*. 2015;110:80-90. PMCID: PMC4270840.
- d. Krupitsky E, Blokhina E, Zvartau E, Verbitskaya E, Lioznov D, Yaroslavtseva T, Palatkin V, Vetrova M, Bushara N, Burakov A, Masalov D, Mamontova O, Langleben D, Poole S, Gross R, Woody G. Slow release naltrexone implant versus oral naltrexone for improving treatment outcomes in people with HIV who are addicted to opioids: a double-blind, placebo-controlled, randomised trial. *Lancet HIV*. 2019;6(4):e221-e229.

B. Positions and Honors

Positions and Employment

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1967-1972	Assistant professor, Department of Pharmacology, Pavlov Medical Institute, Leningrad, USSR
1972-1982	Associate Professor, Department of Pharmacology, Pavlov Medical Institute, Leningrad, USSR
1982-1988	Professor, Department of Pharmacology, Pavlov Medical Institute, Leningrad, USSR
1988-1995	Professor, Department of Pharmacology, Head, Laboratory of Pharmacology of Narcotics, Pavlov Medical Institute, Leningrad, USSR (since 1991 - Pavlov Medical University, St. Petersburg, Russia)
1995-2001	Research Director, Valdman Institute of Pharmacology, Pavlov Medical University; Head, Department of Psychopharmacology, Valdman Institute of Pharmacology
1999-	Coordinating Director, St. Petersburg Regional Center for Research in Addiction and Psychopharmacology affiliated with St. Petersburg Pavlov State Medical University
1999-	Professor, Department of Narcology, St. Petersburg Medical Academy for Postgraduate Medical Education, St. Petersburg, Russia
2001-2008	Vice-Rector for Science, Pavlov State Medical University; Head, Department of Psychopharmacology, Valdman Institute of Pharmacology
2007-present	Adjunct Professor of Psychiatry in the Associated Faculty, University of Pennsylvania, School of Medicine
2008- 2011	Head, Department of Clinical Pharmacology and Evidence-Based Medicine, Research Director and Head of the Department of Psychopharmacology, Valdman Institute of Pharmacology, Pavlov State Medical University
2011-2013	Vice-Rector for Science, Pavlov State Medical University; Head, Department of Clinical Pharmacology and Evidence-Based Medicine, Research Director and Head of the Department of Psychopharmacology, Valdman Institute of Pharmacology, Pavlov State Medical University
2013 - present	Rector's Advisor on Science; Head, Department of Pharmacology; Director, Valdman Institute of Pharmacology, First Pavlov State Medical University

Other Experience and Professional Memberships

- 1993- Membership: College on Problems of Drug Dependence, European Association for the Study of Pain, European College of Neuropsychopharmacology (fellow), Russian Society of Pharmacology (Member of the Board & Vice President).
- 1995- Editorial Board Membership: Good Clinical Practice (in Russian), Narcology (in Russian), Proceedings of Pavlov Medical University (deputy editor), Voprosy Narkologii (Problems of Addictions, in Russian, member of Editorial Board).
- 1996- Reviewer: Eur. J. Pharmacology, Eur. Neuropsychopharmacology, CNS Neuroscience and Therapeutics, Physiological Journal (in Russian).
- 2019 Vice-President of the Russian Scientific Society of Pharmacologists
- 2019 Member of the Public Council of the Ministry of Health of Russian Federation

<u>Honors</u>

- 1976 N.P. Kravkov medal for outstanding contribution to pharmacology
- 1990 Oswald Schmiedeberg Medal

- 1991 Sterling Drug Visiting Professor Award (Medal in honor of W. Clarke Wescoe)
- 1999 Likhachev Memorial Medal
- 2004 N.P. Kravkov Award for the Best Scientific Work
- 2006 NIDA International Program Award "Excellence in Collaboration Award" (with G. Woody)
- 2012 Election as Honorary Member of the Latvian Society of Pharmacology
- 2013 Election as ECNP (European College of Neuropsychopharmacology) Fellow
- 2013 "Docendo Discimus" Annual Award of the Ministry of Health of Russian Federation for the best academic publication (reading book for under- and postgraduate students "Behavioral Pharmacology")
- 2016 Prix Galien Russia Special Award for the research on the prevalence of HIV in special subpopulations and vulnerable groups in Russia
- 2016 Doctor honoris causa of the First Pavlov State Medical University
- 2017 Government of St. Petersburg Award for Outstanding Contribution to Higher Education

C. Contributions to Science

1. Planning, coordinating, conducting and managing studies on experimental pharmacology of drugs of abuse and experimental pharmacotherapy in models of drug addiction and neurological disorders.

- a. Belozertseva IV, Dravolina OA, Tur MA, Semina MG, **Zvartau EE**, Bespalov AY. Morphine-induced Straub tail reaction in mice treated with serotonergic compounds. *Eur. J.Pharmacolol.* 2016;791:1-7.
- b. Bespalov A, Mus K, Zvartau E. Preclinical models of muscle spasticity: valuable tools in the development of novel treatment for neurological diseases and conditions. *Naunyn-Schmiedeberg's Arch. Pharmacol.* 2016;389:457-466.
- c. Dravolina OA, Zvartau E, Danysz W, Bespalov AY. mGlu1 receptor as a drug target for treatment of substance use disorders: time to gather stones together? *Psychopharmacology (Berl)*. 2017;234(9-10):1333-1345.
- d. Vengeliene V, Takahashi TT, Dravolina OA, Belozertseva I, **Zvartau E**, Bespalov A. Efficacy and side effects of baclofen and the novel GABAB receptor positive allosteric modulator CMPPE in animal models for alcohol and cocaine addiction. *Psychopharmacology (Berl).* 2018;235(7):1955-1965.

2. Studies on clinical pharmacology, pharmacoepidemiology and regulatory affairs of opioid use for painrelieving treatment

- a. Zhurkovich IK, Rudenko AO, Chelovechkova VV, Merkusheva IA, Lugovkina NV, Kovrov NG, Pchelintsev MV, Verbitskaya EV, Zvartau EE. Determination of buprenorphine and naloxone in patient blood plasma using HPLC-MS. *Pharm Chem J*. 2015;48:692-7.
- b. Tsui JI, Cheng DM, Coleman SM, Blokhina E, Gnatienko N, Bryant K, Krupitsky E, Zvartau E, Samet JH. Pain and risk behaviors among HIV-infected persons in St. Petersburg, Russia. *AIDS and Behav.* 2017;21(6):1775-1781. PMCID: PMC5408303.
- c. Decrosiers A, Blokhina E, Krupitsky E, **Zvartau E**, Schottenfeld R, Chawarski M. Psychiatric symptoms, quality of life, and HIV status among people using opioids in Saint Petersburg, Russia. *Drug Alcohol Depend.* 2017;172: 60-65. PMCID: PMC5408353.
- d. Kruptisky E, Blokhina E, **Zvartau E**, Verbitskaya E, Lioznov D, Yaroslavtseva R, Palatkin V, Vetrova M, Bushara N, Burakov A, Masalov D, Mamontova O, Langleben D, Poole S, Gross R, Woody G. Slow-release naltrexone implant versus oral naltrexone for improving treatment outcomes in people with HIV who are addicted to opioids: a double-blind, placebo-controlled, randomised trial. *Lancet HIV*. 2019;6(4):e221-e229. PMCID: PMC6529232.

3. Planning, coordinating, conducting, and managing studies on clinical pharmacology of addictions with special reference to opioid antagonist formulations for relapse prevention in populations with risky behaviors and HIV.

a. Samet JH, Krupitsky EM, Cheng DM, Raj A, Egorova VY, Levenson S, Meli S, Bridden C, Verbitskaya EV, Kamb ML, **Zvartau E**. Mitigating risky sexual behaviors among Russian narcology hospital

patients: the PREVENT (Partnership to Reduce the Epidemic via Engagement in Narcology Treatment) randomized controlled trial. *Addiction*. 2008;103:1474-83. PMCID: PMC2588416.

- Krupitsky E, Zvartau E, Woody G. Use of Different Drug Formulations of Opioid Antagonist (Naltrexone) to Treat Opioid Dependence in Russia. In: El-Guebaly N, Carrà G, Galanter M, eds. *Textbook of Addiction Treatment: International Perspectives*. Springer-Verlag; 2015:521-30.
- c. Woody GE, Krupitsky E, **Zvartau E**. Antagonist models for relapse prevention and reducing HIV risk. *J Neuroimmune Pharmacol.* 2016;11:401-7.
- d. Krupitsky E, **Zvartau E**, Blokhina E, Verbitskaya E, Wahlgren V, Tsoy-Podosenin M, Bushara N, Burakov A, Masalov D, Romanova T, Tyurina A, Palatkin V, Yaroslavtseva T, Pecoraro A, Woody G. Anhedonia, depression, anxiety, and craving in opiate dependent patients stabilized on oral naltrexone or an extended release naltrexone implant. *Am J Drug Alcohol Abuse*. 2016;42:614-20. PMCID: PMC5156574.
- e. Krupitsky E., Blokhina E., Zvartau E., Woody G. Antagonist Treatment for Opioid Dependence: Promise and Hurdles. Current Treatment Options in Psychiatry (2017) pp: 1-10. DOI: 10.1007/s40501-017-0110-4
- f. Krupitsky E., Blokhina E., Zvartau E., Woody G. Antagonist Treatment for Opioid Dependence: Promise and Hurdles. Current Treatment Options in Psychiatry 2017, 4 (2), 221-230. DOI: 10.1007/s40501-017-0110-4

Complete List of Published Work in My Bibliography: http://www.ncbi.nlm.nih.gov/pubmed/?term=Zvartau+E.