

## BIOGRAPHICAL SKETCH

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NAME <b>Zvartau Edwin Eduardovich</b>	POSITION TITLE <b>M.D., Ph.D., D.Med.Sci., Professor          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</b>		
eRA COMMONS USER NAME <b>Zvartauedwin</b>			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing,</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	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

### A. Personal Statement

I am a pharmacologist with the major background in pharmacology of pain and addiction. I have a research experience as PI and PD in doing preclinical and clinical trials of new medications for alcoholism and addictions and behavioral interventions to reduce HIV risky behavior.

### B. Positions and Honors

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-Present	Coordinating Director, St.Petersburg Regional Center for Research in Addiction and Psychopharmacology affiliated with St. Petersburg Pavlov State Medical University.
1999-Present	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-present	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

Born April 1941, 1941, in Leningrad, USSR. Citizen of Russian Federation. Reside in St. Petersburg (former Leningrad), Russia since 1941.

### Other appointments

**Reviewer:** Eur. J. Pharmacology, Eur. Neuropsychopharmacology, CNS Neuroscience and Therapeutics..

**Member:** College on Problems of Drug Dependence, European Association for the Study of Pain, European College of Neuropsychopharmacology (membership committee), Russian Society of Pharmacology (Member of the Board).

### Honors and Awards

N.P.Kravkov medal for outstanding contribution to pharmacology (1976); Oswald Schmiedeberg medal (1990); Medal in honor of W. Clarke Wescoe (Sterling Drug Visiting Professor award - 1991), Likhachev memorial medal (1999), N.P.Kravkov award for the best scientific work-2004, NIDA International Program Award "Excellence in Collaboration Award" (with G.Woody), 2006; Honorary Member of Latvian Society of Pharmacology, 2012

### C. Selected peer-reviewed publications

1. Krupitsky E.M., Masalov D.V., Didenko T.Y., Burakov A.M., Romanova T.N., Zvartau E.E., Woody G. (2001) Prevention of suicide by naltrexone in a recently detoxified heroin addict. *European Addiction Research* **PMID 11455175**.
2. Krupitsky E.M., Masalov D.V., Burakov A.M., Didenko T.Y., Romanova T.N., Beshpalov A.Y., Neznanova O.N., Grinenko N.I., Grinenko A.Y., Slavina T.Y., Tcheremissine O.V., Zvartau E.E. (2002) A pilot study of memantine effects on protracted withdrawal (syndrome of anhedonia) in heroin addicts. *Addictive Disorders and Their Treatment* 1(4): 143-146.
3. Krupitsky E., Zvartau E., Karandashova G., Horton N.J., Schoolwerth K.R., Bryant K., Samet J.H. (2004) The onset of HIV infection in the Leningrad region of Russia: a focus on drug and alcohol dependence. *HIV Medicine* **PMID 14731167**.
4. Krupitsky E.M., Zvartau E.E., Masalov D.V., Tsoi M.V., Burakov A.M., Egorova V.Y., Didenko T.Y., Romanova T.N., Ivanova E.B., Beshpalov A.Y., Verbitskaya E.V., Neznanov N.G., Grinenko A.Y., O'Brien C.P., Woody G.E. (2004) Naltrexone for heroin dependence treatment in St. Petersburg, Russia. *Journal of Substance Abuse Treatment* **PMID 15182893**.
5. Krupitsky E.M., Horton N. J., Williams E.C., Lioznov D.A., Kuznetsova M., Zvartau E.E., Samet J.H. (2005) Alcohol use and HIV risk behaviors among HIV-infected hospitalized patients in St. Petersburg, Russia. *Drug and Alcohol Dependence* **PMID 16002034**.
6. Krupitsky, E.M., Zvartau, E.E., Lioznov, D.A., Tsoy, M.V., Egorova, V.Y., Belyaeva, T.V., Antonova, T.V., Brazhenko, N.A., Zagdyn, Z.M., Verbitskaya, E.V., Zorina, Y.A., Karandashova, G.F., Slavina, T.Y., Grinenko, A.Y., Samet, J.H., Woody, G.E. (2006) Co-morbidity of infectious and addictive diseases in St. Petersburg and the Leningrad Region, Russia. *European Addiction Research* **PMID 16352898**.
7. Krupitsky E.M., Zvartau E.E., Masalov D.V., Tsoy M.V., Burakov A.M., Egorova V.Y., Didenko T.Y., Romanova T.N., Ivanova E.B., Beshpalov A.Y., Verbitskaya E.V., Neznanov N.G., Grinenko A.Y., O'Brien C.P., Woody G.E. (2006) Naltrexone with or without fluoxetine for preventing relapse to heroin addiction in St. Petersburg, Russia. *Journal of Substance Abuse Treatment* **PMID 17084785**.
8. E. M. Krupitsky, A. M. Burakov, M. V. Tsoy, V. Y. Egorova, T. Y. Slavina, A. Y. Grinenko, E. E. Zvartau, G. E. Woody. Overcoming opioid blockade from depot naltrexone (Prodetoxon®) (2007) *Addiction* **PMID 17498182**.
9. Kahkonen S, Bondarenko B, Zvartau E. Nitric oxide mediates cardiovascular symptoms in alcohol withdrawal. *Progress in Neuropsychopharmacology and Biological Psychiatry* 2007, 31, 761-765
10. Kahkonen S., Bondarenko B., Lipsanen J., Zvartau E.. Cardiovascular effect of propranolol in patients with alcohol dependence during withdrawal. *Int. J. Psychophysiology*, 2007, 66, 225-230
11. Krupitsky E.M., Neznanova O., Masalov D., Burakov A.M., Didenko T., Tsoy M., Beshpalov A., Slavina T.Y., Grinenko A.A., Petrakis I.L., Pittman B., Gueorguieva R., Zvartau E.E., Krystal J.H. (2007) Effect of memantine on cue-induced alcohol craving in recovering alcohol-dependent patients. *American Journal of Psychiatry* **PMID 17329479**.
12. Krupitsky E. M., Rudenko A. A., Burakov A. M., Slavina T. Y., Grinenko A. A., Pittman B., Gueorguieva R., Petrakis I. L., Zvartau E. E., Krystal J. H. (2007) Antiglutamatergic Strategies for Ethanol Detoxification: Comparison With Placebo and Diazepam. *Alcohol Clin Exp Res* **PMID 17374039**.
13. Walley, A.Y., Krupitsky, E.M., Cheng, D.M., Raj, A., Edwards, E.M., Bridgen, C., Egorova, V.Y., Zvartau, E.E., Woody, G.E., Samet, J.H., 2008. Implications of cannabis use and heavy alcohol use on HIV drug risk behaviors in Russian heroin users. *AIDS Behav.* **PMC 2480514**.

14. Kähkönen S., Bondarenko B.B., Lipsanen J., Zvartau E.E. Effects of Verapamil, an Antagonist of L-Type Calcium Channels, on Cardiovascular Symptoms in Alcohol Withdrawal. *Neuropsychobiology* 2008;58:123-127
15. . Krupitsky E, Zvartau E, Woody G. Use of Naltrexone to Treat Opioid Addiction in a Country Where Methadone and Buprenorphine Are Not Available. *Curr. Psych. Reports*. In press 2010.
16. Kahkonen S., Zvartau E., Lipsanen J., Bondarenko B. Effects of alcohol withdrawal on cardiovascular system. *Progress in Neuro-Psychopharmacology & Biological Psychiatry*, 2011, 35, 550-553
17. Krupitsky E., Zvartau E., Woody G. Use of naltrexone to treat opioid addiction in a country in which methadone and buprenorphine are not available. *Current Psychiatry Reports* 2010, 12(5), 448 – 453. DOI 10.1007/s11920-010-0135-5. Online since July 17, 2010.
18. Krupitsky E, Woody GE, Zvartau E, O'Brien CP. Addiction treatment in Russia. *Lancet*. 2010 Oct 2; 376(9747):1145. Comment on: *Lancet*. 2010 Jul 3; 376(9734):13-14.
19. Wechsberg WM, Krupitsky E, Romanova T, Zvartau E, Kline TL, Browne FA, Ellerson RM, Bobashev G, Zule WA, Jones HE. Double jeopardy--drug and sex risks among Russian women who inject drugs: Initial feasibility and efficacy results of a small randomized controlled trial. *Subst Abuse Treat Prev Policy*. 2012 Jan 10;7(1):1. [Epub ahead of print] PubMed PMID: 22233728.
20. Ponizovsky AM, Pchelintsev MV, Marom E, Zvartau EE. Differences in the consumption rates and regulatory barriers to the accessibility of strong opioid analgesics in Israel and St. Petersburg. *Eur J Clin Pharmacol*. 2012 Jan;68(1):89-95. Epub 2011 Jul 27. PubMed PMID: 21792563.
21. Ponizovsky AM, Pchelintsev MV, Marom E, Zvartau EE. Differences in the consumption rates and regulatory barriers to the accessibility of strong opioid analgesics in Israel and St. Petersburg. *Eur J Clin Pharmacol*. 2012 Jan;68(1):89-95. Epub 2011 Jul 27. PubMed PMID: 21792563. Journal Impact Factor 2.845
22. Tiihonen J., Krupitsky E., Verbitskaya E., Blokhina E., Mamontova O., Fohr J., Tuomola P., Kuoppasalmi K., Kiviniemi V., Zvartau E. Naltrexone Implant for the Treatment of Polydrug Dependence: A Randomized Controlled Trial. *Am.J.Psychiatry*, 2012, 169:5, 531-536. Journal Impact Factor 12.759
23. 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 G.E. 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 (9): 973-981

## C. Research Support.

### CURRENT

#### **Project Title: Adherence to HIV Therapy in Heroin Addicts: Oral vs. Extended Release Naltrexone**

R01DA026336-01 (Woody) 7/1/09-6/30/13 NIDA

This project aims to test whether an implantable formulation that slowly releases naltrexone and blocks opioid effects for 3 months (IN) is more effective than 50 mg/day oral naltrexone (ON) for improving ART adherence and treatment outcome in opioid addicted patients who are beginning their first episode of ART. We received the NOGA for this study and preparations to begin it will be completed shortly after training of study staff has been completed in St. Petersburg in 6/10.

#### **Project Title: Naltrexone and Behavioral Drug and HIV Risk Reduction Counseling in Russia**

(RO1 DA 027405-01A1 M. Chawarsky) NIH/NIDA (01.08.2010 – 31.07.2015). The major goal of this project is to evaluate effectiveness of the Behavioral Drug and Risk Reduction Counseling combined with oral or extended release injectable naltrexone for opiate dependence.

R01DA032082 (Samet) 7/15/11 – 4/30/16 3 CM NIDA

#### **Linking Russian Narcology & HIV Care to Enhance Treatment, Retention, & Outcomes (LINC)**

The study's goal is to improve upon current *seek, test, treat, and retain* efforts for HIV-infected Russian and Eastern European IDUs in narcology care, a group routinely tested for HIV. LINC is a behavioral and structural intervention designed to support and motivate HIV-infected narcology heroin dependent patients (i.e., IDUs) to engage (i.e., initiate and retain) in HIV medical care and ultimately improve their HIV outcomes.

U01AA020780 (Samet) 09/20/11-08/31/16 1.8 CM NIAAA

#### **Alcohol and Zinc Impact on Inflammatory Markers in HIV Disease - Russia ARCH Cohort**

The central goal of the URBAN ARCH Consortium is to examine the consequences of alcohol on HIV disease and to mitigate its harmful effects. In the Russia ARCH Cohort we will examine a cohort of HIV-infected heavy drinkers to determine alcohol's impact on biomarkers reflecting microbial translocation.

**Project Title: Zinc for HIV Disease among Alcohol Users – An RCT in the Russia ARCH Cohort**

U01AA021989 (Samet/Freiberg)

09/01/12-08/31/17

XX CM

NIAAA

\$540,868

This double-blinded randomized controlled trial will assess the efficacy of zinc supplementation vs. placebo among 250 HIV-infected Russians, who are ART-naïve at enrollment and have a recent history of heavy drinking.

COMPLETED:

**Project Title: Maximizing Opportunity – HIV Prevention in Hospitalized Russian Drinkers** (R01-AA016059 J. Samet, PI) NIH/NIAAA (09/30/06 – 08/31/11). The objective of this grant, HERMITAGE (HIV's Evolution in Russia – Mitigating Infection Transmission and Alcoholism in a Growing Epidemic) is to test in a randomized controlled trial the effectiveness of a modified US HIV secondary prevention program, Healthy Relationships Intervention in risky Russian drinkers.

Role: Project Director

**Project Title: Clinical Impact of Drug Use in HIV-Infected Persons: A Pilot Study** (R21 DA025435 J Samet, PI) NIDA (09/01/08 – 08/31/09) The goal of this pilot study, Drug Use IMPACT (Investigating and Measuring Progression to AIDS in a Cohort Trial), is to begin to investigate the relationship between drug abuse and HIV disease progression by utilizing a current cohort of HIV-infected adults in Russia.

Role: Project Director

PI: Wendee Wechsberg. R01 DA11609

Project period: 09/01/2007 – 06/30/2008

Prime Award: National Institute of Drug Abuse Grant

**Project title: Woman-Focused HIV Prevention in Russia**

Role: Project director

PI: Diana Fishbein. 1 R01 DA15528-01A1 (CRDF GAP: RBO-1428-ST-03)

Project period: 01/01/2004 – 04/30/2006

NIH/NIDA

**Project title: Neurocognitive Function in Russian Heroin Addicts**

The project is aimed to: identify specific neurocognitive differences between Russian drug addicts in treatment who use heroin or alcohol in comparison with nondrug-using control subjects.

Role: Project director

PI: Jeffrey Samet. 1 R21 AA014821-01 (J.Samet)

Project period: 02/01/2004 – 08/31/2007

NIH/NIAAA

**Project title: HIV Prevention Partnership in Russian Alcohol Treatment (Russian PREVENT)**

The goal is to adapt and implement in Russian substance abuse treatment settings, state of the art HIV primary and secondary prevention interventions.

Role: Project director