

ketamine: scientific journey through the united states:

**new connections,
new questions,
new ideas, and
new commitments**

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OUR RUSSIAN RESEARCH TEAM has been working with ketamine psychedelic therapy (KPT) since 1985. We have obtained very positive results in the treatment of alcohol dependence and neuroses. Fully 69.8% of our patients abstained from alcohol for at least a year after KPT, more than twice the number of patients in control groups who take part in routine treatment programs. The next step in the scientific process is for other researchers to try to replicate our results. Therefore, in late 1994, MAPS sponsored my visit to the United States. I met with psychiatrists and researchers to try to inspire them to replicate our positive results with KPT in the treatment of alcohol dependence. (Alcoholism Treatment Quarterly, Vol. 9(1) 1992; MAPS Newsletter, Vol. 3, N 4 1992; Vol. 4, N 4 1994).

I delivered lectures, carried out seminars, and had many interesting discussions in various universities and scientific centers across the United States. These included the Substance Abuse Treatment Center of Cornell University, New York City (Drs. Robert Millman and Ann Beeder); the Center on Addictions, Substance Abuse and Alcoholism (CASAA) at the Department of Psychiatry, University of New Mexico (Drs. William Miller and Rick Strassman); the Heffter Research Institute, New Mexico (Dr. George Greer); the Open Society Institute, New York (Ethan Nadelmann); the Department of Psychiatry, Veterans Administration Hospital in Tampa, Florida (Dr. Eli Kolp); the National Institute on Drug Abuse and National Institute on Alcohol Abuse and Alcoholism; the National Institutes of Health's Office of Alternative Medicine (Dr. Alan Trachtenberg); UCLA (Drs. Charles Grob and Jeff Wilkins); UCSF (Dr. Reese Jones); the Center on Alcoholism and Substance Abuse, Columbia University (Dr. Herb Kleber), and the Department of Psychiatry of Yale University (Dr. John Krystal).

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combining KPT with AA

In San Francisco, I visited Salus International Institute, which is trying to bring Western techniques of alcoholism treatment to Russia, primarily with different variants of Alcoholics Anonymous (AA) treatment such as the Hazelden and Minnesota models. The Salus Institute carries out its mission through its sister branch in Moscow. Three of my lectures on Russian drinking patterns and alcoholism treatment in Russia were videotaped at the Salus Institute.

During discussions with Dr. B. Rosen and his psychiatrist colleagues at the Institute, we noted some similarities between the spiritual issues of psychedelic therapy and AA treatment programs. It is not very well known that AA founder, Bill Wilson, had several very beneficial LSD experiences after he was sober. As a result, he thought that LSD could play an important role in AA. Salus's staff pointed out some problems of bringing AA programs to Russia, where the strong spiritual and religious nature of this approach might sound unusual and strange to Russian alcoholics brought up with atheism. I told the staff that ketamine psychedelic therapy often caused a conversion experience in our alcoholic patients, and afterwards made spiritual and religious knowledge much more understandable to them. Thus, perhaps it is worthwhile to try AA treatment in combination with ketamine therapy, as in this case AA spiritual issues might become more understandable and acceptable for Russian alcoholics.

ketamine psychopharmacology

At the end of my visit I met Dr. Herb Kleber (Columbia) and Dr. John Krystal (Yale). They were quite interested in our ketamine studies. With Dr. Krystal we developed a plan of mutual studies into the human psychopharmacology of ketamine and the similarities in the underlying psychopharmacological mechanisms of action of ketamine and alcohol. To carry out this study we are going to apply for a grant to the Foggerty Foundation Program for Eastern Europe and Former Soviet Union countries.

why has KPT had such positive results?

After my lectures and during seminars and meetings, people often asked me to explain to what our Russian research team attributed the high rate of positive clinical results we obtained after just one ketamine psychotherapy session. It was a very good question. I

usually replied that for many years we have been carrying out special studies of the underlying biochemical, neurophysiological and psychological mechanisms of ketamine psychedelic therapy in order to find an answer to this question. As a result of our biochemical studies, we found that ketamine affects monoaminergic and opioidergic metabolism, i.e. those neurochemical systems of the brain which are involved in the development of alcohol and drug dependence. We hypothesized that this explains a significant portion of its efficacy. According to computer-assisted analysis of EEG "brain maps", we found evidence of the activation of the limbic system during the ketamine session, as well as evidence of the reinforcement of the limbic-cortex interaction. This fact can be considered to a certain extent to be indirect evidence of the strengthening of the interaction between the conscious and subconscious levels of the psyche during the ketamine session. Thus, ketamine psychotherapy influences multiple levels of the psyche, including the deeper ones. This may also contribute to its efficacy.

It is the psychological studies, however, that shed the most light on the underlying mechanisms of KPT. Many psychiatrists consider ketamine-induced states of consciousness to be a form of psychosis, and ketamine itself to be a psychotomimetic. However, the changes in the Minnesota Multifactor Personality Inventory (MMPI) after KPT sessions testified to positive personality changes. Changes in the Color Test of Attitudes (CTA) after KPT testified to a positive transformation of the unconscious emotional attitudes of our alcoholic patients towards themselves, their significant others, and the world. Changes in our Spirituality Scale testified to a significant increase in the level of spiritual development after the ketamine session. As a rule, we observed a positive transformation of our patients' systems of life values, purpose and meaning, and even some world view changes after KPT. Our patients began to see other goals, other values, other pleasures in their lives, and this was quite possibly the main reason for their sobriety.

new research instruments

A question often asked in seminars and meetings was, "How did you measure life values, purpose and meaning?" Primarily, we relied on our clinical impressions after post-session psychotherapeutic work and changes in responses to the Spirituality Scale. However,

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**The study
funded by MAPS
evaluating
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this is not an adequate answer. Clinical impressions and indirect evidence from research instruments do not constitute rigorous scientific proof.

Fortunately, several years ago, two psychological tests that should prove useful in gathering more scientifically sound data were translated into Russian and evaluated in Russia. The first of these is the Questionnaire of Significant Life Values and Purposes (QSLVP), which will allow us to assess quantitatively the significance of different spheres of life values, purposes and goals. The second is the Personal Orientation Inventory (POI) developed in the United States by Shostrom. The POI will allow us to assess our patients' self-actualization, which is an important determinant of the meaning they impart to life.

Now that I have returned to Russia, I am in the midst of an investigation of 30 alcoholic patients using the QSLVP and POI before and after KPT. The goal of the research is to see if we can demonstrate statistically significant changes in life values, purpose and meaning which we have previously observed during post-treatment therapy. To administer this study, our research team needed modest financial support of \$100 per patient, totaling \$3,000 for the entire study. MAPS is sponsoring this study, for which I am deeply grateful.

a collaborative study ahead

My scientific journey was very thought-provoking and useful for me, and I sincerely hope it was so for my American colleagues as well. I carefully elaborated a detailed protocol for a nearly double-blind controlled study of ketamine psychedelic therapy with alcoholics, in hopes that Dr. Eli Kolp, (VA Hospital,

Tampa, Florida) can seek to replicate the Russian findings in the United States. This protocol has been presented to the VA Hospital psychiatric administration in Tampa, where it was positively received. We hope to obtain approval for our study soon, because ketamine is currently not scheduled as severely as other psychedelics as it is already FDA-approved for administration in anesthesiology. In sub-anesthetic doses it produces profound psychedelic and transpersonal experiences. Hopefully, this summer or fall, a ketamine research project can begin in Tampa, and the Psychedelic Renaissance of rigorously scientific psychedelic research begun in recent years can continue to flourish. The study funded by MAPS evaluating the effect of KPT on psychological changes in life values, purpose and meaning is another important step in this renaissance. •

Acknowledgments

I am grateful to MAPS and Rick Doblin, MAPS President, for organizing and sponsoring my visit to the United States and to Scott Kremer, MAPS member, for providing the initial \$2,000 donation for my visit. I very much appreciate the \$3,000 contribution from an anonymous MAPS member which made possible our current investigation of 30 patients. I am also thankful to Michael Gilbert, Dr. Charles Grob, Dr. Ray, Dr. Rick Strassman, Dr. George Greer, Dr. Eli Kolp, Drs. Richard Yensen and Donna Dryer, Dr. Reese Jones, Dr. Gary Bravo and David Presti, Drs. John Krystal and Herb Kleber, and to many other American colleagues and friends whose help and support were so important for me. Thank you very much indeed.



*Scott Kremer and
Dr. Evgeny Krupitsky*