



CAPS PROFILE: PETER MILEV, M.D., PH.D.

Variables that may predict outcomes in schizophrenia, a heterogeneous disorder with both behavioral and cognitive phenotypes, are the focus of the work of Peter Milev, M.D., Ph.D., with structural and functional imaging, and magnetic resonance spectroscopy. Milev hypothesizes that people with a particular subtype of disorganized schizophrenia may have regional changes in the concentrations of GABA, glutamate, and glutamine in their brains. Changes in these important neurotransmitters may also be related to deficits in perceptual organization; concentrations of these molecules may have a prognostic value, and people with disorganized schizophrenia may respond better to medications affecting GABA and glutamate in the brain.

A CAPS scholar and psychiatrist, Milev is interested in learning more about the pathogenesis of schizophrenia and whether new agents that affect the glutamatergic system and GABA may have benefit in the treatment of the disorder. "I have been interested in neuroscience since I did my Ph.D., moving from medicine to studies at the molecular/cellular level, and then to brain imaging," says Milev. "CAPS now gives me an opportunity to integrate all of these while working with great mentors and advanced imaging hardware and software."

Milev plans to continue his efforts in clinical schizophrenia research while developing as an expert in the assessment and treatment of people with psychotic disorders. He looks forward in particular to research on tasks of visual perception which will be carried out at the University's Center for Magnetic Resonance Research (CMRR) with mentor Kelvin Lim, M.D.

Following a research fellowship in an NIH-sponsored Clinical Research Center at the University of Iowa, Milev joined the Department of Psychiatry at the University of Minnesota as assistant professor. He earned his M.D. and a Ph.D. in Molecular and Cellular Genetics in Bulgaria and will complete a master's degree in clinical research as part of his CAPS program. He credits Lim, one of the leading experts in the use of MRI in psychiatric illness, and the expertise and support for schizophrenia research of Charles Schulz, M.D., head of the Department of Psychiatry, as major factors in his coming to Minnesota. Milev hopes that advanced mechanistic research will lead to improved understanding and treatment of schizophrenia in general.

As a CAPS scholar, Milev is allocated 75 percent protected time for research. He works closely with his three research mentors, Kelvin Lim, M.D., professor and vice chair for research, Department of Psychiatry; Angus MacDonald III, Ph.D., assistant professor, Department of Psychology; and Susanne Lee, Ph.D., assistant professor, Department of Psychiatry.

UPCOMING EVENTS

Distinguished Visiting Scholars Series in Health Disparities

Feb. 16, 12-1 p.m.

1-450G Moos Tower

Loretta Jemmott, Ph.D., R.N.,
F.A.A.N., Director, Center for
Health Disparities Research
University of Pennsylvania, School
of Nursing

***"Recruitment of ethnic minorities
into clinical trials"***

Clinical Research Conference

**8 - 9 a.m., 2-101 Nils Hasselmo
Hall**

Mar. 5, Peter Milev, M.D., Ph.D.,
assistant professor of psychiatry,
Medical School

***"Studies of visual perceptual
organization and thought disorder
in schizophrenia: functional
MRI and magnetic resonance
spectroscopy of glutamate and
GABA"***

Mar. 19, Michael Kotlyar,
Pharm.D., associate professor,
College of Pharmacy

***"Nicotine addiction and stress
response"***

**To subscribe or unsubscribe,
email us at ahcocr@umn.edu**