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WESTERN MICHIGAN UNIVERSITY

College of *Arts and Sciences*

e-News Issue 27: July 2015

Upcoming CAS events



Stay in touch!



Update your information



Journalism alumnus,
Eric Woodyard '10
is the creator of the
Flint Made Me
Scholarship and
inspires youth in
his home town



CAS News

- ▶ WMU's SOGA Japan Center is recipient of 2015 Champs award from Communities in Schools of Kalamazoo

FACULTY Story

- ▶ Psychology professor, Dr. Lisa Baker wins \$416,000 NIH grant to research the behavioral pharmacology of novel stimulant drugs

ALUMNI Profile

- ▶ Psychology alumnus Dr. Ray Miltenberger '81, '85 appears on NBC Dateline series "My Kid Would Never do That"
- ▶ Mathematics alumnus, Jeff Bergman '05 promoted to director of risk management at Blue Cross and Blue Shield of Kansas
- ▶ Alyssa Gapske, public relations '13 becomes local business Professional



WESTERN MICHIGAN
UNIVERSITY



From Wartime Despair to Postwar Hope and Recovery: Japanese film series

The Soga Japan Center is hosting two Japanese movie screenings in October that are open to the public free of charge.

Both screenings are planned for **6 p.m. in Room 3508 Knauss Hall** on WMU's main campus.

- **Thursday, Oct. 22:** Tomoko Fujiwara's—[The Gift from Beate \(2004\)](#)
- **Thursday, Oct. 29:** Takashi Yamaguchi's—[Always: Sunset on Third Street \(2005\)](#)

Prof wins \$416,385 NIH grant to involve students in research



BY MARK SCHWERIN
JUNE 9, 2015 | WMU NEWS

KALAMAZOO, Mich.—A veteran Western Michigan University psychology professor has landed a three-year, \$416,385 grant from the National Institutes of Health to conduct research along with her students on the behavioral pharmacology of novel stimulant drugs, commonly known as "bath salts."

Dr. Lisa Baker, professor of psychology, will implement animal models of substance abuse to evaluate the abuse potential of various chemical constituents of drugs known on the street as "bath salts." She will conduct her study with the assistance of several undergraduate and graduate students, who will gain valuable research experience.

RECREATIONAL DESIGNER DRUGS

Drugs known as "bath salts" have nothing in common with products on the market that are added to bath water. They encompass a variety of recreational designer drugs that were called "bath salts" to get around laws banning their importation and were disguised as true bath salts and were labeled as "not for human consumption."

The drugs are synthetic cathinones derived from a plant in Africa and the Middle East whose leaves people chewed for a boost of energy, similar to cocoa leaves, which are used to make

cocaine. They were first synthesized in the 1920s, but remained obscure until they were rediscovered by underground chemists in the first decade of the 21st century and began to be used in designer drugs. Legal in many jurisdictions, the drugs began to appear in Europe and subsequently in the United States. In 2011, synthetic cathinones were classified as schedule I substances in the United States, meaning they have no accepted medical use and they have high abuse potential.

These designer drugs were frequently purchased from dealers on the Internet. Prior to 2011, they were often sold in small independent stores and head shops in the United States. Bath salts have been sold online in small packets under such brand names as "Purple Wave," "Zoom" and "Cloud Nine."

ABOUT THE GRANT

Baker's grant is through the Academic Research Enhancement Award—AREA—program sponsored by the NIH. The program supports research projects at educational institutions that provide baccalaureate or advanced degrees for a significant number of the nation's research scientists, but that have not been major recipients of NIH support, excluding big-name schools like Harvard or Yale from applying. The awards are intended to support meritorious research, expose students to research and strengthen the research environment of the institution.

"The AREA grant is meant to encourage faculty research," Baker says, "but, more importantly, to engage students in that research. A major goal of Baker's project is to involve students in research and discovery. "Students will participate in the design and implementation of experimental methodology, data analysis, manuscript preparation and conference preparations. Involving students in these research activities will also strengthen and enhance the University's research environment."

Baker's project is titled "Preclinical Abuse Liability of Designer Psychostimulant Mixtures" and will examine the effects of synthetic cathinones in combination with other commonly abused stimulants, like cocaine, MDMA, commonly known as Ecstasy, and methamphetamine.

"People who abuse drugs are likely to engage in polysubstance abuse, using various drugs in combination," Baker says. "We know that concurrent use of multiple stimulants poses a greater risk for toxicities to the brain and cardiovascular system. A major aim of our research is to determine, using animal models, if the abuse liability of psychostimulants is enhanced by concurrent use with synthetic cathinones. For example, if someone were to consume synthetic cathinones concurrently with the prescription stimulant, Adderall, would this person have a greater risk of abusing these drugs?"

To address this question, Baker's laboratory will utilize three different behavioral tests with rodents that are predictive of abuse liability.

VALUABLE RESEARCH EXPERIENCE

The outcomes of Baker's and her students' research will expand on current knowledge regarding the behavioral and pharmacological effects of synthetic cathinones and could potentially impact future developments in substance abuse treatment. A more immediate outcome—Baker's students are sure to gain valuable research experience that will help them as they explore future educational and employment opportunities.

"This type of experience will be very beneficial if they want to go to graduate school in a neuroscience-related field," Baker says. "Graduate schools look very favorably on research experience of student applicants. Beyond exceptional course grades and GRE test scores, research experience during undergraduate training can be a deciding factor for admission to a competitive graduate school."

Alumni news

Jeff Bergman '05 B.S. in mathematics recently was promoted to director of risk management for Blue Cross and Blue Shield of Kansas. He previously served eight years in the company's actuarial research department as an actuarial analyst, senior actuarial analyst and associate actuary. In his new position, Bergman is responsible for liability insurance and risk management programs, member and group contract administration, group underwriting, and industrial and management engineering services. Bergman also has a master's degree in mathematics from Kansas State University.