

Lab Alumni Affiliations

The Alcohol Lab at TCNJ has produced many successful students in the fields of psychology, biology and chemistry. These students have gone on to careers and graduate schools all over the country. Some of the institutions our alumni are currently affiliated with and the programs which they have been accepted to are:

Bristol-Myers Squibb (Lab Technician)

The College of New Jersey (M.A. in Counseling)

CUNY, Queens College (Ph.D. in Learning Processes)

George Washington University (M.P.H.-Masters of Public Health Program)

Michigan State University (D.V.M. Program)

Monmouth University (M.A. in Counseling)

New York College of Osteopathic Medicine

Nova Southeastern University (Ph.D. in Clinical Neuropsychology)

Rutgers University (Ph.D. in Biopsychology and Behavioral Neuroscience)

Rutgers University, Camden Law School

Springfield College (M.A. in Sports Psychology)

Temple University (Ph.D. in Psychology, Behavior Analysis Specialization)

UMDNJ, New Jersey Medical School

UMDNJ, Robert Wood Johnson

United States Peace Corps

University of California, Davis (Ph.D. in Neuroscience)

University of Maryland (M.P.H.-Masters of Public Health Program)

University of North Carolina (Ph.D. in Biopsychology)

Yale University (Research Assistant)

Information for Prospective Students

Working in the Alcohol Lab is an excellent opportunity to learn about animal models of alcohol abuse and build laboratory research skills. Each student spends approximately 12 hours in the laboratory per week (including weekends and breaks). Students are engaged in data collection and analysis, the health and maintenance of laboratory rats, and laboratory and animal facility cleanliness. Students will also engage in reading, writing, and discussion to advance their knowledge of animal models of alcohol abuse and dependence. Please note that there are GPA and course prerequisites for applying to the lab (see the TCNJ Psychology webpage for specifics). The following academic opportunities are available in the lab:

PSY 390 (Lab Learning) All entering students to the Alcohol Lab will enroll in the course PSY 390. Included in this course will be all the regular lab responsibilities, leading one lab meeting discussion, engaging in written work to synthesize the articles discussed in the weekly lab meetings, and creating a "laboratory project" that contributes towards the further development of the Alcohol Lab.

PSY 492 (Senior Lab Learning) If a student wishes to continue his/her Alcohol Lab experience beyond one semester, then there is the option of enrolling in PSY 492. Enrollment in this course includes all the responsibilities required for PSY 390 in addition to a writing-intensive experience (multiple drafts of a 15-20 page paper). Students enrolled in PSY 492 typically assume a greater level of responsibility in the lab and help train new members of the lab team. The number of students who can participate in PSY 492 is limited within a given semester.

PSY 396/496 (Honors Thesis I and II) Advanced students who have revealed strong dedication to the lab team and interest in pursuing a project relevant to the work of the lab may be selected to complete a Senior Honors Thesis in the Alcohol Lab. These students are expected to fulfill all the responsibilities of PSY 390, but also design an experiment, write an IACUC protocol, develop protocols for data collection, supervise data collection, describe the data through graphic and statistical methods, and write up the experiment in a full-length APA-style manuscript. The product of the thesis project may result in a peer-reviewed publication. Completion of a Senior Honors Thesis also results in departmental honors in psychology.

S.T.A.R. System

As a student gains particular levels of experience and achievement within the Alcohol Lab, he/she may move up the ranks within the Alcohol Lab's S.T.A.R. hierarchy, with the following distinctions:

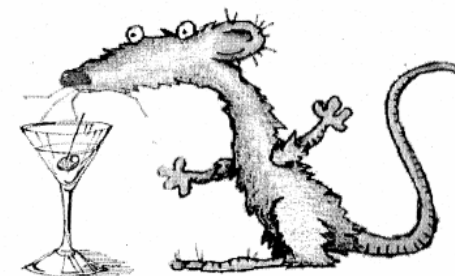
(S) Student – An entering PSY 390 student who is new to the lab and still learning all the basic skills required to complete their laboratory training.

(T) Trainer – Student has successfully completed all the necessary training on the laboratory training checklist and takes on increased responsibility for training new students.

(A) Associate – Student demonstrates a high level of devotion to the lab through satisfactory completion of responsibilities, assignments, supervising, and projects. Student demonstrates an increased interest in the Alcohol Lab in addition to enrolling and successfully completing PSY 492.

(R) Researcher – Student demonstrates a full commitment toward the Alcohol Lab. This student may complete a Senior Honors Thesis project of their own, but "Researcher" status can be achieved without this criterion. Student devotes excessive amounts of time and effort towards ensuring that the Alcohol Lab successfully completes the experiment. A student with the distinction of "Researcher" has gained a considerable level of achievement

The Alcohol Lab at The College of New Jersey



ALCOHOL LAB

Faculty Advisor: Margaret P. Martinetti, Ph.D.

Department of Psychology

The College of New Jersey

P.O. Box 7718

Ewing, NJ 08628-0718

martinet@tcnj.edu

609-771-2640

Website: www.tcnj.edu/~alcolab/

The Alcohol Lab at The College of New Jersey

The Alcohol Lab at TCNJ is a multidisciplinary research lab that studies animal models of alcohol abuse. Past research projects have applied quantitative models of choice (such as Herrnstein's matching law and behavioral economics) to alcohol consumption in alcohol-preferring (P), non-preferring (NP), and randomly bred rats. In many of these experiments, animals are trained to press a lever to receive access to an alcohol solution, thereby providing a model of "working" to earn alcohol access. All of the research is conducted by undergraduate students at TCNJ, in collaboration with Dr. Margaret P. Martinetti, who is a member of the psychology department at TCNJ. The purpose of this publication is to better acquaint you with the history of the lab, the achievements of lab alumni, and some of the skills students acquire during their time in the Alcohol Lab.



Lab History

The Alcohol Lab at TCNJ was established in 2003. To date, over 30 students have participated in the work of the lab. All of these students have contributed to poster presentations and several have earned authorship on peer-reviewed publications. In addition, students' experiences in the lab have helped them gain admittance to graduate school, professional programs, and employment in industry and research settings. A summary of the products of the lab and the accomplishments of lab alumni are listed below.

Recent Publications

Martinetti, M. P., Khan, Z., & Lewis, M. J. (2007). Matching law analyses of ethanol and sucrose consumption in alcohol-preferring (P), non-preferring (NP), and Sprague-Dawley (SD) rats. *Alcoholism: Clinical and Experimental Research*, 31(8), 1-11.

Martinetti, M. P., Lowery, E. G., Vona, S. R., Wichnick, A. M., Adler, R. A., & Finch, D. G. (2006). Limited-access consumption of ascending ethanol concentrations in alcohol preferring (P), non-preferring (NP), and Sprague-Dawley (SD) rats. *Alcoholism: Clinical and Experimental Research*, 30, 836-843.

Recent Presentations

Holster, J. L., et al. (2007, April). Concurrent ethanol and sucrose consumption in Long-Evans rats: a behavioral economic analysis. *Annual TCNJ Celebration for Student Achievement*. Ewing, NJ.

Martinetti, M. P. (2007, April). Matching law analyses of ethanol and sucrose consumption. Invited colloquium presentation at Hunter College, CUNY Graduate Center. New York, NY.

Lowery, E. G., Holster, J. E., Fleming, J. E., Weglarz, J. C., Bisen-Hersh, E. B., & Martinetti, M. P. (2006). "Shaping" the unsweetened ethanol consumption of Sprague-Dawley rats in a two-bottle choice procedure. *Research Society on Alcoholism* annual meeting, Baltimore, MD (June). *Alcoholism: Clinical and Experimental Research*, 30(6), Suppl., 23A.

Lowery, E., McBride, B., Weglarz, J., Bisen-Hersh, E., Fleming, J., Holster, J., Ross, L., Decker, J., Lee, A., Tierney, K., & Wilk, E. (2006, April). "Shaping" the unsweetened ethanol consumption of Sprague-Dawley rats in a two-bottle choice procedure. *Annual TCNJ Celebration for Student Achievement*. Ewing, NJ.

Lee, A., Rass, O., & Martinetti, M. P. (2006). Alcohol and the individual: an overview. Presentation at the *Alcohol Summit at TCNJ* (Jan.).

Martinetti, M. P., Vona, S., Wichnick, A., & Andrzejewski, M. E. (2005, May). Matching law analyses of ethanol and sucrose consumption in alcohol-preferring (P), non-preferring (NP), and randomly bred rats. *Association for Behavior Analysis* annual meeting. Chicago, IL.

Vona, S., Wichnick, A., Lowery, E., Ciani, G., Willard, C., Khan, Z., & McBride, B. (2005, April). A matching law choice analysis of sweetened ethanol consumption in alcohol-preferring (P), non-preferring (NP), and Wistar (W) rats. *Annual TCNJ Celebration for Student Achievement*. Ewing, NJ.

Wichnick, A., Vona, S., Lowery, E., Ciani, G., Willard, C., Bowne, M., & Bladzinski, J. (2005, April). A matching law choice analysis of sucrose consumption in alcohol-preferring (P), non-preferring (NP), and Wistar (W) rats. *Annual TCNJ Celebration for Student Achievement*. Ewing, NJ.

Martinetti, M. P., Adler, R., Wichnick, A., Vona, S., Bladzinski, J., Cichon, B., & Finch, D. (2005, March). Consumption of ascending concentrations of ethanol in alcohol-preferring (P), non-preferring (NP), and Sprague-Dawley (SD) rats. *Eastern Psychological Association* annual meeting. Boston, MA.

Addante, R., Adler, R., Bladzinski, J., Cichon, B., Finch, D., Vona, S., & Wichnick, A. (2004, April). Alcohol preference thresholds in alcohol-preferring (P), non-preferring (NP), and Sprague-Dawley (SD) rats. *Annual TCNJ Celebration of Student Achievement*. Ewing, NJ.

Awards and Distinctions

Phi Kappa Phi Student-Faculty Research Award (2005, 2006, 2007)

Numerous inductees to Phi Beta Kappa, Phi Kappa Phi, Psi Chi, and Beta Beta Beta honor societies

Summer Undergraduate Research Program (SURP) (2005 and 2006)