

Researcher Alumni Abstracts

Melissa Chapman Broder '10 B.A. Psychology

She is the co-author of the paper Orthodox Ashkenazi Young Adults' Knowledge, Experiences, Attitudes and Beliefs about Genetic Carrier Testing published in the April-June 2001 issue of the American Journal of Bioethics -- Primary Research.

The idea for this research originated when Ms. Broder read an article in a Baltimore newspaper about how a carrier-testing organization was no longer test for Gaucher Disease. She spend a semester exploring this issue, and presented her findings at both the 2009 National Undergraduate Bioethics Conference at Harvard University and UMBC's 2009 URCAD. With encouragement from Professor Kalfoglou, the faculty advisor of the Bioethics Student Association, Ms. Broder decided to apply for the Undergraduate Research Award (URA) to study how consumers in Baltimore felt about carrier testing. She paired her social network and recruitment skills with Professor Kalfoglou's (HAPP) research skills to conduce 8 focus groups with 49 consumers. Before publishing their research findings, Ms. Broder and Dr. Kalfoglou presented their data at URCAD 2010, the American Society for Bioethics and Humanities, and American Public Health Association's 2010 annual meetings. Ms. Broder said, "The Undergraduate Research Award gave me a tremendous opportunity to conduct research on a topic that I was excited about. Professor Kalfoglou helped me define my research question and develop the research protocol. She then walked me through analyzing the data and the presentation and publication process. It was an incredible experience to see it in print." Ms. Broder is currently applying to programs to become a physician's assistant.

Contact Dr. Kalfoglou at akalfogl@umbc.edu for a full copy of the article.

Jen lle Dowling, Biological Sciences

“Field Research on Female Streak-Backed Oriole Behavior: Why Are Females as Brightly Colored as Males?”

Faculty Mentor: Dr. Kevin Omland, Department of Biological Sciences

URA Scholar 2006 - 2007

Graduated: Spring 2007

Over the last few decades, biologists have been intrigued by color variation of birds in different geographic regions. A sharp contrast exists between birds that live in northern latitudes and those living in southern latitudes. In many cases, northern species have bright males and dull females, whereas both sexes of southern species often have bright plumage. One species that exhibits bright coloration in both sexes is the Streak-backed Oriole of Mexico (*Icterus pustulatus*). In the summer of 2006, I will join a project to study the coloration of the Streak-backed Oriole in Mexico, where I will collect behavioral information on this tropical oriole species. The project will focus on testing two prominent hypotheses for the purpose of bright female coloration in tropical species. This project closely parallels the previous behavioral work that I have conducted with two northern oriole species that breed on UMBC’s campus. Completion of this current project will allow me to make temperate/tropical behavior comparisons. Overall, this research will contribute significantly to our understanding of the function of bright female coloration in birds. This project will take place in Morelos, Mexico within the Sierra de Huautla Biosphere Reserve. The research will be conducted over approximately three months between May and August of 2006.

Christie Finn, Music

“Movement and the Singer”

Faculty Mentor: Professor David Smith, Department of Music

Graduated: Spring 2007

URA Scholar, 2006-2007

With the Undergraduate Research Award, I plan to continue conducting my personal investigation in the field of classical (operatic) vocal studies. This time, my research will be centered in the area of movement—the physical relationship and presence of the body of the singer and how this relates to the music and drama produced. I plan to use the Undergraduate Research Award to attend the highly acclaimed summer vocal/movement program at the Wesley Balk Institute in order to study with well-known experts on this topic. Through this research, I will become more educated on the human body and the methods with which to engage oneself entirely in singing and acting, and this concentrated work will ultimately help me become a better singer. Side products of my research will include my senior recital (and perhaps a second recital during my senior year), graduate school auditions, and a performance of Luciano Berio’s “Sequenza III” at URCAD 2007 (a piece which combines movement, acting, and singing and is exceedingly difficult). I also plan to teach other singers at UMBC what I have learned as I work in and with the UMBC Vocal Arts Ensemble.

“The Art of Auditioning”

Faculty Mentor: Professor David Smith, Music Department

URA Scholar, 2005-2006

With the Undergraduate Research Award, I plan to continue conducting my personal investigation in the field of classical (operatic) vocal studies. This time, my project will not only involve the continual learning of my art form, but also geared towards the business side of the career of the opera singer, as I research auditioning: methods, expectations, how to prepare for auditions for an opera company, and other aspects of the art of auditioning. While participating in a different highly-acclaimed program this coming summer, at the International Lyric Academy in Rome, I will receive top-notch instruction from the best vocal instructors and performers in the world, continue to study and grow vocally and in my knowledge of opera (with private lessons and coachings and by participating in full opera performances and solo concerts), and garner as much information as possible about the opera business from that faculty of the school. With the skills and knowledge that I learn, I prepare for and actually audition for apprentice programs at three major American opera companies in the fall (St. Louis, Des Moines, and Opera North), share my knowledge (as well as a song or two) with the UMBC community at URCAD, and use my research to help my career (as well as share my research with other aspiring to the same profession).

“A New Approach to Opera”

Faculty Mentor: Professor David Smith

URA Scholar, 2004-2005

With the Undergraduate Research Award, I plan on conducting my personal investigation in the field of vocal studies, with a focus on classical opera. While participating in a highly-acclaimed program at either the International Institute of Vocal Arts (IIVA) in Chiari, Italy or the Heifetz International Music Institute in Wolfeboro, New Hampshire, I will receive top-notch instruction from the best vocal instructors and performers in the world, stretch and discover my own vocal abilities, study languages, and research opera, bringing new interpretations to an archaic genre of musical theatre. With the skills that I learn, I plan on helping restart the opera workshop program at UMBC and bring back the aesthetic and musical joy of opera to this academic community.

Eric Anthony Grollman, Sociology

“Traditional and Modern Homophobia at UMBC”

Faculty Mentor: Dr. Fred L. Pincus, Department of Sociology, and Dr. Ilsa Lottes, Department of Sociology

URA Scholar 2006 - 2007

Graduated: Spring 2007

Throughout the past century, the world has witnessed the increasing visibility of individuals who are lesbian, gay, bisexual, transgender, and queer (LGBTQ), as well as the emergence of LGBTQ social and political movements. Along with sexism and racism, as well as all other forms of prejudice and discrimination, homophobia - defined as intense fear or hatred of LGBTQ individuals - has, and continues to, plague our world and the lives of LGBTQ people. Within the last few decades, scholars and lay people have declared that homophobia is declining, especially in institutions of higher education. However, much like modern racism and modern sexism, some scholars are saying that it is traditional homophobia that is on the decline, whereas modern homophobia is now on the rise. This study serves to record and analyze the levels of traditional and modern homophobia within the undergraduate student population of UMBC, as well as to explore any relationships that may exist between homophobia and individual attributes, such as gender, race/ethnicity, class, class standing, major, religion, and political affiliation.

Lynna Kiere, Biological Sciences

“Reconstructing Evolution of Cacique Carotenoid Color”

Faculty Mentor: Dr. Kevin Omland, Department of Biological Sciences

URA Scholar 2007 - 2008

Graduated: Fall 2008

This project focuses on the evolution of plumage color in caciques, a group of Central and South American blackbirds. Like many bird species, caciques use carotenoid pigments to create colorful plumage. Unlike orioles which have been similarly studied, caciques do not show a complete continuum of colors from yellow through various oranges to red. Rather, they seem to be divided into a “yellow” group and a “red” group, with no orange intermediates. Over the past year, I have gathered quantitative color data on these birds to determine if the “yellow” and “red” caciques are indeed two discrete groups. I used these data to reconstruct the evolution of cacique carotenoid color to deduce the color of the ancestral cacique and examine color change over evolutionary time. Work in the coming year will focus on the other, and often more time-consuming part of the scientific process, sharing and publishing results. It is critical to learn to communicate effectively to diverse audiences and in many different formats. I will be preparing a manuscript for publication in a peer-review biology journal, presenting this work at one or more scientific meetings, and otherwise working to learn the communication skills necessary in research biology. Much of this time will be spent at the Autonomous University of Mexico in Mexico City, where I will learn not only to communicate about my work across disciplines, but also across culture and language barriers.