

Board Meeting  
January 15, 2009

## APPOINT ASSOCIATES TO THE CENTER FOR ADVANCED STUDY, URBANA

**Action:** Approve Appointments of Associates to the Center for Advanced Study for the Academic Year 2009-10, Urbana

**Funding:** Private Gift Funds from the Beckman Endowment and State Appropriated Funds

Each year the Center for Advanced Study awards appointments as

Associates in the Center, providing one semester of release time for creative work.

Associates are selected in an annual competition from the faculty of all departments and colleges to carry out self-initiated programs of scholarly research or professional activity.

The Chancellor at Urbana recommends the following list of Associates selected for the 2009-10 academic year, and offers a brief description of their projects:

**Douglas Beck, Professor, Physics, *Search for a Neutron Electric Dipole Moment***

A new experiment is being developed to search for the electric analog of the magnetic moment of the neutron. If found, this electric dipole moment would indicate a new type of violation of a particle/anti-particle symmetry which is predicted by some modern theories of particle physics.

**Elabbas Benmamoun, Professor, Linguistics, *A Comparative Syntactic Description of Five Arabic Varieties***

Interest in research on the Arabic language and the demand for learning it by non-native speakers is steadily increasing but the resources, particularly with regard to the spoken Arabic dialects, lags behind. The focus of this project is to produce a parallel reference syntax of five varieties of Arabic, including Standard Arabic. No such detailed

parallel syntactic descriptions exist, though there is a critical need for them. Following established models of language description, a parallel syntactic description will be developed that illustrates and analyzes a large number of syntactic and morphosyntactic patterns and constructions for each of the five varieties. These will become a resource for comparative Arabic syntax, syntactic research within different frameworks, computational linguistics, historical linguistic, linguistic change, dialectology, first and second language acquisition, and heritage language maintenance and loss.

**Clare Haru Crowston, Associate Professor, History, *Accounting for Rose Bertin: Credit, Fashion and Gender in Eighteenth-Century France***

*Accounting for Rose Bertin* combines a cultural history of credit, fashion, and gender with a detailed reconstruction of credit systems in the female-dominated fashion industries of eighteenth-century France. Named for the celebrated fashion merchant of Marie Antoinette, the book demonstrates the ties that bound culture, society, and the economy and the particular role women played in intertwined networks of cultural, social, and economic capital.

**Milton Feng, Professor, Electrical and Computer Engineering, *Theory and Technology Realization of Transistor Laser***

Integrated optoelectronics for the ultra-high bandwidth is limited by the lack of a transistor-equivalent which (via its invention in 1947 by Bardeen and Brattain) acted as the pivotal element in ushering the age of modern electronics. During the Center appointment, the focus of this project is to develop the fundamental theoretical model and technology realization of three-terminal transistor laser and three-port operations for the complexity reduction of multifold high-speed signal processing capabilities towards the new paradigm of fully integrated optoelectronics.

**George Dana Gollin, Professor, Physics, *Hijacking Liberia: How American Criminals Seized the Ministry of Education***

This book recounts the nine-year trajectory and spectacular immolation of the highly illegal St. Regis University, and the resulting increase in international attention to the problem of diploma mills. Its owners ran St. Regis from Spokane but pretended to be based in Liberia, as they sold thousands of degrees in health care, engineering, and education, all the while bribing senior Liberian officials to obtain protection.

**Frederick Hoxie, Professor, History, *Insistent Indians: Chapters From the Native Struggle to Find a Home in America***

A history of the American Indian encounter with American government, law, and politics from the American Revolution to the modern era, this book's narrative emerges from the stories of a remarkable group of Native people who challenged the U.S. government's efforts to ignore their presence within the borders of America and who insisted that their communities' rights be recognized and protected.

**Alexandr Kostochka, Professor, Mathematics, *Packing Problems for Graphs and Hypergraphs***

A great opportunity to speed up and enhance the research will be the Program–Combinatorics: Methods and Applications in Mathematics and Computer Science–by the Institute for Pure and Applied Mathematics (IPAM) at UCLA to be held from September 8, 2009, to December 11, 2009. The aim of the project is to study several extremal problems on packing of (hyper)graphs involving degrees of vertices during the Fall semester 2009 participating in the above Program of IPAM.

**Martin Fajardo Manalansan, Associate Professor, Anthropology, *Engineered Scintiments: Smell Technologies and the Modern American City***

This project focuses on how experiences, practices, and meanings around smell and smell-based commodities are established, regulated, technologically created, marketed, and consumed. Manalansan will look at how smell in political, scientific, business, and everyday contexts sheds a crucial light on contemporary urban life in America by functioning as a register of social difference, moral standing, and aesthetic value.

**Deana McDonagh, Associate Professor, School of Art and Design, *The Role of Empathic Design in Integrating People with Disabilities into Industrial Design***

The products that surround us have a significant impact on our well-being and personal perception of our independence. The increase in number of U.S. citizens with disabilities due to longer life expectancies and advancements in healthcare is an alert for designers to adopt more empathic design approaches to ensure that products address user needs both functionally and emotionally (also known as supra-functionally).

**Gary Edward McPherson, Professor, School of Music, *Music in Our Lives: Rethinking Musical Development, Ability and Identity***

*Music in Our Lives* is the final writing stage of a 12-year longitudinal study that has followed the musical journeys of more than 160 young people from initial, common learning experiences through to early adulthood. Based on a re-thinking of some of the basic tenets of developmental music theory, a new framework for conceptualizing musical development, ability, and identity will be proposed that challenges many of the previous linear and staged-models of human musical development.

**Joseph Pleck, Professor, Human and Community Development, *The Relationship Contexts of Residential and Non-Residential Father Involvement***

Using new national survey data that Pleck and colleagues at Johns Hopkins University are currently collecting, Pleck will analyze how a father's involvement with his child, increasingly recognized as a critical influence on child and adolescent development, is influenced by relationship contexts: the father's relationship with the child's mother and, increasingly frequently, his relationships with the mothers of his children from prior or concurrent relationships, and his relationships with those other children. This project will advance our understanding of how these contextual factors affect father involvement.

**David Price, Professor, Religion, *Impermissibly Favorably to Jews? Johannes Reuchlin and the Renaissance Campaign Against Judaism***

This is a reconstruction and analysis of both the most significant anti-Jewish campaign in the Holy Roman Empire during the early modern period and the polarizing heresy trial of Johannes Reuchlin (1455-1522) that resulted from his defense of Jewish scholarship and Jewish legal rights. The fierce controversies created new Christian perspectives on Judaism and had a profound impact on Christian-Jewish relations in early modern Europe.

**Philip Rodkin, Associate Professor, Educational Psychology, *Children's Social Networks, Teacher Practices, and Youth Outcomes***

The focus of this project is to complete a project on children's social relationships, aggression, and achievement, and teacher practices in six low-income elementary schools across central Illinois. This project has been funded by the William T. Grant and Spencer Foundations under a call to develop and improve how educators measure quality classroom environments.

**Sandra Rodriguez-Zas, Associate Professor, Animal Sciences, *Integrated Genomic and Epigenomic Analysis of Brain Cancer***

Vast amounts of genomic (e.g., mRNA expression, gene copy number, sequence variants) and epigenomic (e.g., DNA methylation and histone modifications) information are becoming rapidly available to researchers in the biological sciences. The focus of this project is to develop tools that support the integrated analysis of complementary genomic and epigenomic indicators and improve the understanding of the biological mechanisms underlying brain cancer and other complex phenotypes.

**Jay Rosenstein, Associate Professor, Journalism, *The Lord Is Not on Trial Here Today: A Documentary Film***

*The Lord is Not on Trial Here Today* is a one-hour television documentary that tells the personal story behind one of the most important and landmark First

Amendment cases in U.S. Supreme Court history, the case that set the foundation for the separation of church and state in public schools.

**Stephen Taylor, Associate Professor, School of Music, *Paradises Lost: An Opera of Science and Religion***

*Paradises Lost*, an opera based on a novella by Ursula K. Le Guin, will premier in Spring 2010 at the University of Illinois, in collaboration with Institute for Advanced Computing Applications and Technologies to make a technologically cutting-edge production. The opera is about the conflict of science and religion during a 200-year voyage to colonize a new planet.

The Board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes*, *The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The President of the University concurs.