

Human Trafficking Flow Map—Oliver Kaplan (JKSIS)
humantraffickingcenter.org/blog

DU Research Helps Victims throughout Colorado

Anne DePrince's work on interpersonal violence is a great example of how basic research can both have an impact in the region and position Denver (as a city) in the spot light nationally. Focusing on interpersonal violence (e.g., domestic violence, sexual assault, child abuse, older adult abuse), Anne's research examines consequences (e.g., mental health symptoms, attention/cognitive problems) and resulting service needs as well as tests different kinds of interventions to ameliorate the impact of violence. Her studies have facilitated concrete changes in our local community. For example, the Denver Police Academy uses her team's findings in their victim-focused approach to training law enforcement officers. Her team's research results have informed the development of the Rose Amond Center, a multidisciplinary justice center that will serve victims and survivors in the aftermath of intimate violence, due to open this fall.

Denver has drawn national attention for such victim-focused responses to crime, including a visit from Vice President Biden last September. More recently, her research on the legal needs of crime victims is being used by the Rocky Mountain Victim Law Center and a steering committee of community-based and criminal justice agencies to develop an innovative approach to wrap-around legal services for crime victims living in poverty. With Anne and her research team on board, Denver was one of six original sites awarded funds to develop a model legal service wraparound program for crime victims.

FOR MORE INFORMATION

Traumatic Stress Studies (TSS) Group

Mailing Address:
 Psychology Department
 2155 S Race St.
 Denver, CO 80208

WEB ADDRESS: http://www.du.edu/tssgroup/meet_tss_group.html

UNIVERSITY of DENVER

RESEARCH & SCHOLARSHIP MATTERS

Fall 2015

Publication of the Associate Provost for Research, Corinne Lengsfeld

IN THE NEWS

July 1—Quick Questions: Catherine Smith of the Sturm College of Law on the Supreme Court decision on same-sex marriage

<http://magazine.du.edu/campus-community/quick-questions-catherine-smith-of-the-sturm-college-of-law-on-the-supreme-court-decision-on-same-sex-marriage/>

June 28—Disaster to Courage: DU Psychology Students Help Communities Recover—GSPP

<http://kdvr.com/2015/06/28/disaster-to-courage-du-psychology-students-help-communities-recover/>

June 21—DU Grad Nickolas Dawkins: Raising the Bar in DPS After Raising Himself—Morgridge

<http://kdvr.com/2015/06/21/du-graduate-to-improve-quality-of-education-for-other-local-students/>

June 14—DU's Bridge Project Making a Difference—GSSW

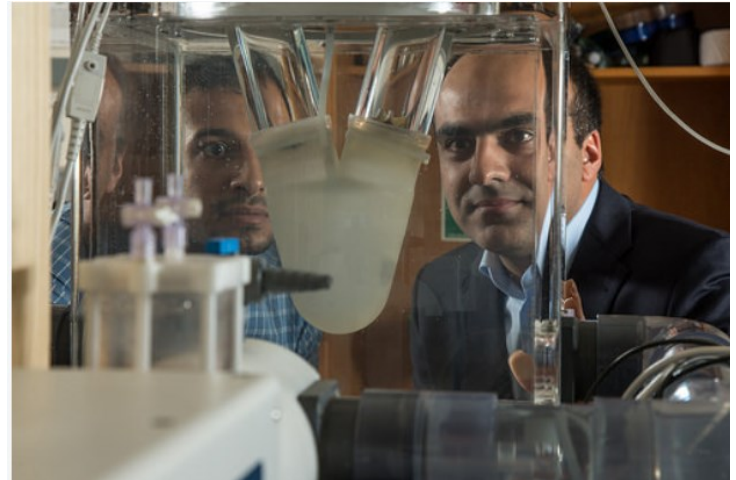
<http://kdvr.com/2015/06/15/dus-bridge-project-making-a-difference/>

June 7—Robot Helps Children with Autism by Teaching Them Social Skills—

Engineering and Computer Science
<http://kdvr.com/2015/06/07/robot-helps-children-with-autism-by-teaching-them-social-skills/>

A DU Research Team Can Watch a Heart Beat

The research goal of the Cardiac Biomechanic Lab, directed by assistant professor Ali Azadani, is to understand the role of biomechanics in the development and remodeling of the cardiovascular system for the purpose of informing treatment and prevention. Dr. Azadani spent the last two years building one of the most state-of-the-art labs in the country to improve the understanding, treatment, and prevention of cardiovascular diseases. Work currently funded by a PROF award is aimed at improving the long-term durability of transcatheter aortic valves. These valves can be installed through a minimally invasive surgical procedure, but application is limited to older patients due to device lifetime issues. His hope is that his research will help enable the extension of this procedure to younger populations. The cardiovascular lab is also voyaging into tissue engineering by utilizing 3D printing technology to manufacture alternative aortic valves.



Isolated ex-vivo beating heart platform unique among the nation

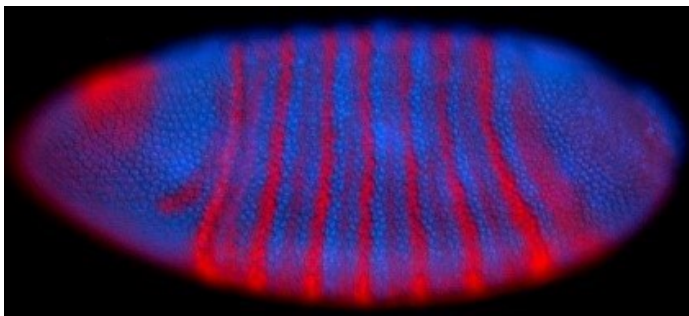
FOR MORE INFORMATION

DU Center for Orthopaedic Biomechanics
Cardiac Biomechanics Laboratory

Mailing Address:

Department of Mechanical and Materials Engineering,
2390 S. York Street, Denver, CO 80210

WEB ADDRESS: <http://mysite.du.edu/~anejatba/>



An early Drosophila or fruit fly embryo. Individual nuclei, marked in blue and red, represent different developmentally-competent regions. From each of these regions select organs and tissues will become specified to make the structures of a mature larvae.

FOR MORE INFORMATION

Todd Blankenship, Assoc. Professor

Mailing Address:

Seeley G. Mudd Building, room 301
2101 E. Wesley Ave, Denver CO 80208

WEB ADDRESS: http://www.du.edu/nsm/departments/biologicalsciences/facultyandstaff/blankenship_todd_j.html

Cell Renewal

Associate Professor Todd Blankenship is currently examining the functioning and renewal ability of epithelial tissues. These tissues, found in places such as the skin, provide a barrier protecting our body and organs from external environments by maintaining a defined polarity at cell surfaces. Cellular polarity and adhesion are essential to the growth and shaping of organs and tissue, but loss of polarity at cell surfaces can result in drastic defects characteristic of many epithelial cancers. The Blankenship lab is utilizing state of the art cell imaging techniques to observe and examine the function and renewal of epithelial tissues as cells develop and divide. This work has attracted a \$1.4 million grant from the National Institutes of Health and has benefitted from the University's support of the new Program in Molecular and Cellular Biophysics. A program which brings together top DU researchers in the biological sciences, biochemistry, and physics.

FAST FACTS



43%

The percentage of PROF grants funded during FY15



65%

The percentage of FRF grants funded over the last 6 years



82%

The percentage of Internationalization grants funded over the last two years, FY14 and FY15

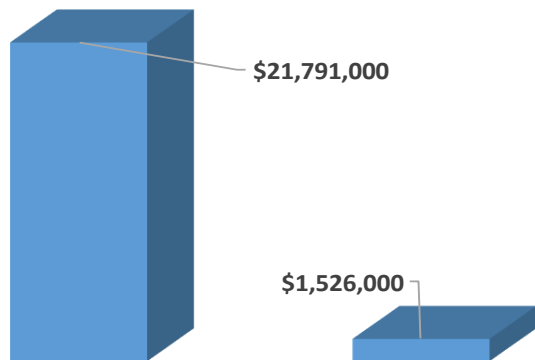


38%

The percentage of Public Good grants funded during FY15

DID YOU KNOW?

DU annual research expenditures were ~\$22 M in FY2015 with an additional University investment to support research and scholarship activities of more than \$1.5 M. The University investment comes from the Associate Provost for Research in the form of seed funding, cost share and indirect cost waivers.



FY2015 Research Expenditures

Seed Funding, Cost Share & IDC Waivers

Results from the Virtual Jury

Associate Professor Bernard Chao and Assistant Professor John Campbell (SCoL) are testing conventional litigation wisdom using virtual juries. They are convening mock juries through online venues and condense a trial into 30 minutes. The variable is the closing arguments which constitutes 10 to 30 seconds of the entire material. Then they observe or measure the juror’s reaction. Utilizing an online environment allows for the recruitment of 800 or more participants for a fraction of the cost associated with jury consultants. Through this research they hope to detect much smaller effects on jury decisions and still obtain statistical significance. The results of their most recent study has been picked up by *The Recorder*.



FOR MORE INFORMATION

Bernard Chao, Co-Director of Denver Empirical Justice Institute and Assoc. Professor
 John Campbell, Assistant Professor of the Practice

Mailing Address:

Sturm College of Law
 2255 E. Evans Avenue, Denver, CO 80208-0640
 WEB ADDRESS: <http://www.law.du.edu/index.php/profile/bernard-chao>
<http://www.law.du.edu/index.php/profile/john-campbell>

Fostering Healthy Futures

Professor Heather Taussig (GSSW) has worked throughout her career to develop an effective mentoring and skills group program for 9-11-year-old maltreated children in foster care. The program called Fostering Healthy Futures® (FHF) provides one-on-one mentoring to the children by engaging graduate students in social work and psychology. Children also attend weekly therapeutic skills groups, and the mentors work with children to generalize these skills to the “real world.” FHF has been tested in two randomized controlled trials funded by the National Institutes of Health, and is now recognized by multiple evidence-based registries. After trademarking the name, FHF is now being implemented by community-based agencies in Aurora, CO and Chicago, IL. A feasibility study is also being conducted in Wales, UK. Finally, in order to extend the reach of the program, the FHF team is piloting an adaptation of the mentoring program for teens entering 9th grade who have open child welfare cases.



FOR MORE INFORMATION

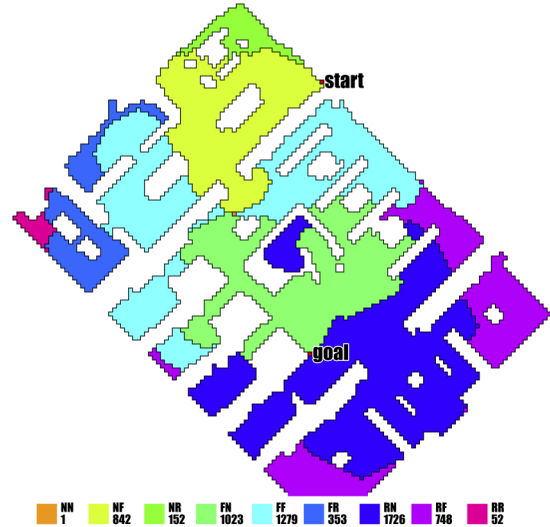
Heather Taussig, Professor & Assoc. Dean

Mailing Address:

Craig Hall, Room 476
2148 S. High St., Denver, CO 80208

WEB ADDRESS: <http://www.du.edu/socialwork/facultyandstaff/facultydirectory/appointed/taussig.html>

Chinese Checkers Inspiration for Computer Research



Color coded region classification in a bidirectional search

Associate Professor Nathan Sturtevant (Computer Science) recently received his first NSF grant to efficiently utilize external memory resources when finding optimal paths using bidirectional search. This work provides the first theoretical foundation for classifying regions encountered during a bidirectional search. The research was originally developed by applying similar techniques to the game Chinese checkers, but is now being applied to real-world applications such as movement planning and planning logistics. Nathan’s innovative ideas to problem solving set him apart, but he credits his utilization of the proposal critic services offered by Hanover Research in helping take a great idea and making the proposal competitive enough to gain funding.

FOR MORE INFORMATION

Nathan Sturtevant, Assoc. Professor

Mailing Address:

Daniel F. Ritchie School of Engineering & Computer Science
Aspen Hall 200a, Denver, CO 80208

WEB ADDRESS: <http://www.cs.du.edu/~sturtevant/>

NOTABLE ACCOMPLISHMENTS

Associate Professor David Ciepley (Political Science) is in residence at Princeton University's Institute for Advanced Study as a Frederick Burkhardt Residential Fellow for 2015-2016

Assistant Professor Jared Del Rosso (Sociology & Criminology), *Talking About Torture: How Political Discourse Shapes the Debate* (Columbia University Press)

Professor Carl A. Raschke (Religious Studies), *Force of God: Political Theology and the Crisis of Liberal Democracy* (Columbia University Press)

Professor Ingrid Tague (History), *Animal Companions: Pets and Social Change in Eighteenth-Century Britain* (Penn State University Press)

Professor Donald Bergh (Management) gave a distinguished lecture, Erasmus Management Lecture, at the Rotterdam School of Management, Erasmus University, Rotterdam, Netherlands

Associate Professor Vi Narapareddy (Management) received Conference Best Case (Silver) award from North American Case Research Association

Professor Paul Olk (Management) received a 3-year NFS grant to investigate "Open R&D Consortia: Open Innovation Alliances in the Pharmaceutical Industry"

ABOUT THE PUBLICATION

Research and Scholarship Matters is a quarterly newsletter produced on behalf of the faculty of the University by the Associate Provost for Research.

Faculty with notable accomplishments or images suitable to the front panel of the next issue are encouraged to send them to Corinne Lengsfeld, Associate Provost for Research. Not all submissions can be included, but every attempt will be made to be inclusive of all high quality research, scholarship and creative works.

For back issues see access:

www.du.edu/research-scholarship/

RECENT MAJOR GRANTS AWARDED

Douglas Clements & Julie Sarama (MCE) - \$3.4M
Evaluating the Efficacy of Early Math Learning Trajectories, funded by the Institute of Education Science

Douglas Clements & Julie Sarama (MCE) - 1.5M
National Center on Early Childhood Development, Teaching and Learning, funded by the Office of Head Start

Anne Comstock (GSSW) - \$718k
Colorado Child Welfare Worker Training, funded by the Kemp Children's Foundation

Timothy Sisk (JKSIS) - \$1M
International Norms, Local Dynamics: Rights-based Peacebuilding Innovation in Conflict-affected Countries, jointly funded by the Carnegie Corporations and Norway Ministry of Foreign Affairs

Cedric Asensio (NSM) - \$430k
Cellular Mechanism Controlling the Formation of Larger Dense Core Vesicles, funded by the National Institutes of Health

Galena Rhoades (AHSS) - \$4.2M
Prenatal Hospital-based Healthy Relationship Education, funded by Office of Family Assistance

WANT MORE INFORMATION

Want to receive emails regarding resources, celebrations, opportunities, and upcoming deadlines related to research and scholarship? Join the DU-Research list serve by clicking <https://listserv.du.edu/mailman/listinfo/du-research> and subscribing.