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Letter from the Editor

With a forthcoming feature, Hidden Gems, we want to share hints and tips about special places and people on the CU campuses. Maybe you've come across an inspirational spot for an outdoor lunch break, or an intriguing exhibit you wouldn't have known about if you hadn't stumbled upon it. Maybe it's advice on the best time of day to find a parking spot, or the name of an unsung barista who makes getting a cup of coffee truly entertaining. It can be anything or anyone that you think makes your campus special.

If you have suggestions to share, please send them to: <u>Jay.Dedrick@cu.edu</u>.

CONVERSATION STARTERS: We always welcome your letters to the editor on topics of interest to current and retired CU faculty and staff. Please send submissions to <u>newsletter@cu.edu</u>. And if you have a news item or story idea you'd like to share, please send it to <u>Jay.Dedrick@cu.edu</u>.

- Jay Dedrick

Forums next step as SJMC begins evolution process

Faculty will be charged with developing plan for new information technology program

By Cynthia Pasquale

The formal process of program discontinuation for the University of Colorado's School of Journalism and Mass Communication (SJMC) begins today, but it is still uncertain what the result might be for the school and its faculty and staff.

Last week, university officials announced that the institution is considering closing the traditional journalism school and forming an exploratory committee to weigh the possibilities of a new interdisciplinary program of information and communication technology.

In a <u>letter</u> dated Aug. 24, Chancellor Philip P. DiStefano said the process of discontinuance is necessary "in order to strategically realign our academic strengths and resources" in a way that will "meet the needs of our students, the labor market, and our rapidly changing global society." He added that changes to any academic program that included tenured faculty could not be undertaken without following the policy of program discontinuance.

The Academic Review and Planning Advisory Committee (ARPAC) is in charge of the discontinuance process. Members will host forums Tuesday, Sept. 7, and Wednesday, Sept. 8, with faculty and staff to answer questions about the process, which must be completed within 60 days. Interim Provost Russell Moore will then review the report and make recommendations to the chancellor within 30 days. A final determination on whether to close the school could come as soon as spring of 2011.

At the same time, a committee of faculty members will develop a plan for a new school or college of information and communication technology.

Discussions about revamping the school aren't new. Proposals have popped up several times in the past 15 years, although they never gained much traction. But a year ago, former Interim Provost Stein Sture appointed SJMC Dean Paul Voakes and John Bennett, director of the Alliance for Technology, Learning and Society Institute (ATLAS), as co-chairs of a College of Information Task Force to consider options concerning the school.

"That's when the idea of creating something very new and different for a space that involves digital media and new communication technologies and information started to take hold," Voakes said. "We talked to 30-some institutions around the country to see what other people had done in this area and started to craft ... how that might work on the CU-Boulder campus. The idea is not coming like a bolt out of the blue." OPEN FORUMS SET FOR NEXT WEEK

The Academic Review and Planning Advisory Committee (ARPAC) will begin the process of program discontinuance today. Two meetings to allow university faculty and staff to participate in the discussion of the process have been scheduled for noon-1:30 p.m. Tuesday, Sept. 7, and Wednesday, Sept. 8, in the University Memorial Center, Room 235. Separate meetings have been scheduled for students.

The task force delivered its <u>report</u> April 15. Because "information is ... ubiquitous," the report said, "the challenge to today's students is not the acquisition of information, rather how to select, evaluate, integrate and synthesize information into usable knowledge." The report noted that while "universities have historically existed to impart special knowledge and skills ... that role is changing."

At the same time, DiStefano received a letter from the external Advisory Committee of SJMC suggesting that change was needed and that the school be closed. Doug Looney, a CU alumnus and chairman of the committee,

called the school and its faculty and staff "dysfunctional" and, essentially, out of date. He also has criticized the school for decisions concerning the student-run news website, the CU Independent, and other faculty issues.

Although faculty members accept that change is inevitable, even exciting, some say the decision to begin the process that could potentially close the school was sudden and opaque and the criticism leveled at them unfair.

Over the years, the school has added courses and programs that allow students to learn more about technology and the processes of disseminating information in the Internet age.

"Ironically, we had just completed a comprehensive curriculum reform that was going to be implemented this fall that included a lot more digital media," said Rick Stevens, an assistant professor whose specialty is new media.

One of his classes, Digital Newsroom, teaches students multimedia methods of storytelling. Though not a required course, the class fills up every semester, and it, along with other new media courses, became part of the core curriculum under the recent reform.

"It takes a long time to make changes in an academic environment," said Stevens, who came to the university in 2008. "Most of the courses were put there because of strategic and political reasons. You can't just throw them out without examining each one and determining ... what you want to change and the personnel ramifications. And we had just completed an extremely long and thorough process, but it might not have been as public a process as it might have been."

Stevens and others say the school had taken major steps to balance new media forms with traditional journalism values.

"Every journalism program in the country is struggling with this issue and has been for several years. The program here has taken significant strides," he said. The school has several digital-only courses, and has produced one of the first, student-run, online-only news products in the country along with other entities, including the Resolving Door – an interactive crowd-source form of journalism – and an innovation lab called the Digital Media Test Kitchen where iPhone apps and other services are produced.

"I'm not sure all of our critics have put all the pieces together," he said.

While the discontinuation process might provide a speedier path to change, including collaboration with other programs around campus, some worry that the focus on technology doesn't leave much room for traditional journalism education.

"The open question is whether this process is going to be used to kill journalism education or strengthen it," said Len Ackland, associate professor and co-director of the Center for Environmental Journalism. "I'm very concerned that the statements from the chancellor and the provost don't mention journalism other than giving lip service to the importance of journalism in a democracy. When they talk about the program, they're only talking about information and communication technology. Journalism is about gathering and verifying information as well as presenting it."

A democracy rests on an informed public, Ackland said, and given the turmoil in print media, good journalism has never been more important. Likewise, the importance of good journalism schools and a good journalism education also has increased.

"I think our efforts should be aimed at making sure that journalism has the prominent role in the new entity as created, not that it be given the back seat or marginalized the way it was in the task force report or marginalized by the CU administration in terms of their statements," said Ackland, who joined the faculty in 1991. In 1992,

he was founding director of the Center for Environmental Journalism, the first such program in the country and one that is nationally and internationally recognized.

Ackland and others say they are concerned that the committee charged with considering the formation of a new program for information and communication technology (ICT) doesn't included anyone with a significant journalism background.

Voakes, in a <u>letter</u> dated Aug. 26, said the media landscape is changing fast, requiring the need "to redefine journalism, advertising and media education to reflect those changes."

Those changes, he said, have exposed the inertia that happens at universities, and the discontinuance process will allow the university to break that inertia and break down the barriers among disciplines.

"We live in silos right now and it's hurting our students to not be able to take as much business or applied technology as they need. There are so many things that go into the skill set of journalists now. In (SJMC) now, you are pretty much limited in curricular offerings. We can do the best we can to integrate technology in the courses we teach, but you would be so much more empowering to the students if they have coursework in those parts of computer science that make sense for media people, for example.

"If you want a media education in the 21st Century, the traditional journalism/mass communication curriculum isn't going to give you everything you need as a young person," he said.

Voakes said the best advice he received from the schools around the country was that integration of previously separate units is key. "It's a lot more difficult than just smashing together departments and giving it a new name. It's creating courses, some that might even be team-taught ... and research partnerships. That's the integration that will start to make a difference."

It's no secret that budget has been a big issue at the university, and faculty at the school are concerned about what reorganization might mean for their jobs. There are 28 full-time faculty members and 30 instructors, along with 13 staff members, and faculty salaries make up the school's No. 1 expense.

Although DiStefano's letter said "discontinuance" is based upon strategic and budgetary criteria, Dean Voakes said in discussions with faculty and staff, Moore has stressed the strategic implications of the realignment.

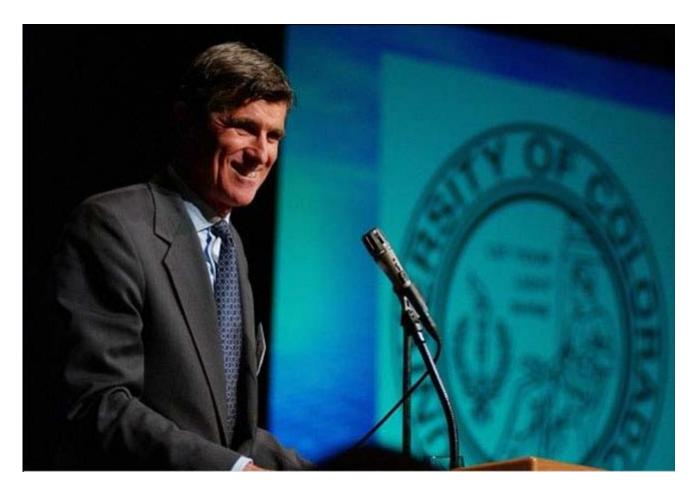
Tenured faculty members are guaranteed a position, but nontenured faculty receives no such promise.

"Every one of our current crop of assistant professors was hired because he or she has an interest in teaching in one of these new areas of digital media," Voakes said. "The most likely scenario is that when part or all of us will be moved into the new entity, even those untenured assistant professors will be snapped up for the new entity and offered the opportunity to go up for tenure in the new entity."

If there is not a match, or if a person would rather go up for tenure in another department on campus, that could be arranged by mutual agreement, he said.

CU-Boulder law school dean to step down next year

Getches has announced intention to resign to faculty



David Getches, dean of the Law School at the University of Colorado at Boulder, has announced that he intends to resign as dean effective June 2011.

Getches, who will stay at CU-Boulder as a law professor, said he is "eager to return to teaching and research." Now in his eighth year as dean of CU-Boulder's law school, Getches announced his resignation to the faculty Aug. 20.

"I have reached this decision with confidence that the Law School is on a solid footing," Getches said. "With the support of alumni, faculty, staff, students and donors, we have many achievements that distinguish Colorado Law among the nation's best law schools."

Interim Provost Russell Moore will appoint a search committee for the position by the end of September.

"Dean Getches forever left his mark by guiding the Law School into a new era and into the state-of-the-art Wolf Law Building," Moore said. "I am very pleased we will be able to retain his vast expertise in water, natural resources and Indian law as a continuing member of our faculty."

Under Getches' leadership, the academic offerings at the law school have been greatly expanded. New programs include an endowed Experiential Learning Program, three master's degrees, three legal clinics, three certificates and eight dual degrees.

An active fundraiser, Getches has helped raise \$28.5 million in donations, increasing the law school's endowment 80 percent since 2003. The increase in fundraising allowed Getches to fulfill one of his primary initiatives, to significantly increase the number and amounts of law student scholarships to attract the most promising students, regardless of financial capacity.

Getches, a faculty member since 1979, is the Raphael J. Moses Professor of Natural Resources Law. He teaches and writes on water law, public land law, environmental law and American Indian law.

Getches is a nationally renowned expert in natural resources and Indian law issues. A prolific writer, he has published several books on water law and has written many articles and book chapters on water, natural resources and Indian rights issues that have appeared in diverse scholarly and popular publications.

In 1970, he became the founding executive director for the Boulder-based Native American Rights Fund, a national, nonprofit Indian-interest law firm. From 1983 to 1987, he was executive director of the Colorado Department of Natural Resources under Gov. Richard D. Lamm. The department is responsible for the operation of 10 divisions of state government that deal with parks, wildlife, land, water and minerals. In 1996, he served as special consultant to the secretary of the U.S. Department of the Interior.

Getches earned his undergraduate degree from Occidental College in California and his law degree from the University of Southern California School of Law.

Faculty Council begins year with eye on big picture

Budget, ramifications of potential school discontinuance among discussion points

By Jay Dedrick

The University of Colorado Faculty Council's first meeting of the academic year featured members in new roles setting the table for big-picture issues that loom.

On Thursday, Aug. 26, at 1800 Grant St., last year's chair, John McDowell, passed the gavel to this year's chair, Mark Malone, who previously had the post in 2002-2004 (read his answers to <u>Five Questions here</u>).

Malone touched on several topics he expects to be dealing with, including the role of shared governance at the university and diminished state funding's impact on budgets. He said he'd like to reinstate a retreat for Faculty Council members because it would provide a casual setting for brainstorming ideas that might not otherwise arise. "The idea for a tuition waiver came out of a faculty retreat," he said.

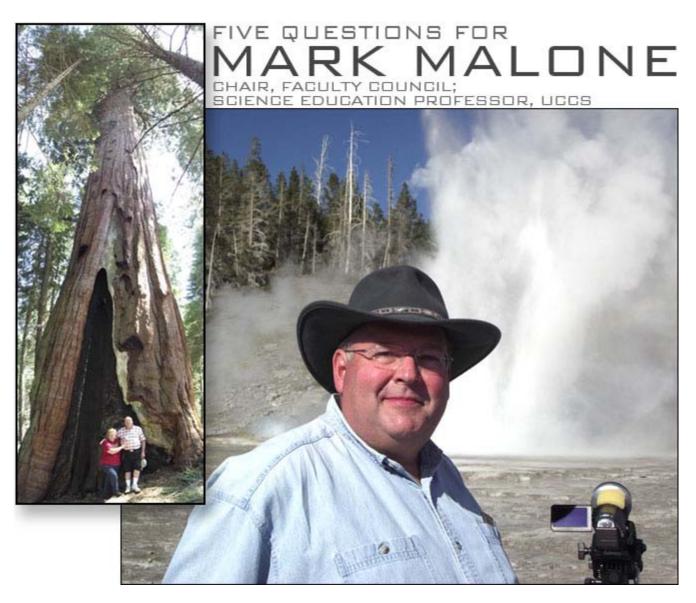
Malone's campus, the University of Colorado at Colorado Springs, is concluding a two-year pilot program that allowed faculty and staff to transfer their tuition waiver benefit to an immediate family member. E. Jill Pollock, senior associate vice president and chief human resource officer, told the council that a review of comparable university systems nationally is under way to study how similar programs work elsewhere. The results of those findings would help administrators determine whether the UCCS pilot program might be expanded throughout the university.

Also at last week's meeting:

Malone said the announcement of a committee forming to study the discontinuance of the School of Journalism and Mass Communication at CU-Boulder provides "a good time to look at the rules for program discontinuance. I think we've got a pretty solid set of rules for what happens, but it's certainly never pleasant."

Clayton Leiws, chair of the Privilege and Tenure Committee, said that "any discontinuance process is fraught with all kinds of potential conflicts. We'll have to make sure the process is done in the best and fairest way. There's certainly the potential for (Privilege and Tenure) cases to arise from that." (For the latest on the SJMC, <u>click here</u>.)

Lewis said the Privilege and Tenure committee will be restructured now that most recent chair Weldon Lodwick has stepped down from the post. Though Lewis will chair the Faculty Council's committee, he will be aided by four campus chairs. "They will be the initial points of contact on the campuses," he said.



Mark Malone's involvement in faculty government at the University of Colorado took root shortly after he arrived at the University of Colorado at Colorado Springs in 1987.

"On our campus, we have excellent relationships between faculty and administration. People see that and they want to be part of it," he said. "I became chair of our campus EPUS (**Educational Policy and University Standards**) committee while I was still an assistant professor, and probably had no business doing it."

Clearly, he did, because he's now beginning his second stint as chair of the systemwide Faculty Council, a sequel to his 2002-2004 term. It's his latest role in the CU system, which he first joined when earning his Ph.D. at CU-Boulder. He puts it to use as a professor of science education at UCCS.

— Jay Dedrick

1. What will you take from your first experience as Faculty Council chair into your new term?

When I entered this position eight years ago, nobody knew who Ward Churchill was, nobody had heard much about the football crisis. We were in post-9/11 budget decline. I couldn't have predicted any of those big things. I'm coming into this knowing that most of what I'm going to be dealing with in the next two years, I have no idea what it'll be – other than the budget. The budget has been ongoing, it's a serious issue, it affects people's lives and their families.

I've chaired EPUS on my campus, I've chaired the system budget committee and others. From all those things, you learn you've got to stay flexible and responsive.

2. You mentioned the budget climate. With state funding on the decline, what role do you and the Faculty Council play in coping with such a challenging economic environment?

It's going to be a lot of what we do. It has to be. The budget picture is certainly a little bleak. We're going to have to make choices, and there will have to be trade-offs. In the course of doing that, you try to minimize the problems. You try to make sure that if you cut something that you're not cutting where it does serious damage – and that you have lots of input from everyone involved.

When we went through the post-9/11 budget downturn – which was not as bad as this, but felt bad at the time – we changed retirement policy to increase options for faculty. ... We changed the rules for program discontinuance so that we could avoid laying off the people who wanted to keep working, and provide other opportunities for people who were near the end of their careers.

The Faculty Council's real strength is that we have eight committees, so you can break down what's happening – a proposal to cut something, for example – in ways that get input from everybody involved.

3. You teach science education. Based on your interaction with potential educators, what's your take on how they'll approach the work of teaching in the future?

My general feeling about education is that the most important things are hard or impossible to measure. The least important things are easy to measure. In the last 25 years, nothing much has changed – you're getting easy measures of low-level content.

The teachers that I have contact with know that, yes, you have to steer toward things that can be measured, but don't spend your whole day doing that. Save time for the human factors of rational thought, problem-solving, looking at the world based on what you can interpret, making decisions in the face of ambiguity. How you measure that on a CSAP test, I don't know.

4. You received your Ph.D. from CU-Boulder before going on to become a faculty member at UCCS. What do you like best about both those campuses?

The best thing about our campus is small class size. We've designed our campus and buildings around smaller class sizes, which is a plus. My son is a sophomore at Boulder, and the bulk of his classes freshman year were in 200-student auditoriums. When I started here, the average student age was 35 and now it's close to early 20s. The character of the campus changed almost overnight when we started building dorms.

Boulder is the big university research campus. Both my sons (Emmett, 27, and Cullen, 19) went there. Nothing against the Springs campus; I think teenage boys need a place where they can go and be 100 miles away from Dad. People sometimes complain about ... the progressive attitudes in the Boulder area. After my sons had been living in Colorado Springs for 18 years, they needed some contrast in their life, and I wanted to be sure they had it.

5. How do you enjoy spending your leisure time?

During summers, my wife, Sue, and I try to spend as many weeks as we can in national parks, camping. This summer was Yosemite, Sequoia and Yellowstone. Spring break was in Zion. I used to have a motor home that was 17,500 pounds; now I have a Trail Manor camper that's only 2,900 pounds. I have an HD video camera, and one of my ongoing activities in the summer is filming various features in Yellowstone and other national parks. A lot of these things are family activities – my boys still go camping with me.

The other thing we all share is movies. I survived small-town life in Pennsylvania as a boy by escaping to the movies twice a week. I've got a whole shelf full of my favorite movies, but some of them are "Joe Vs. the Volcano," "Made in Heaven," "Defending Your Life," "It's a Wonderful Life" and "Stranger Than Fiction."

Want to suggest a faculty or staff member for Five Questions? Please e-mail <u>Jay.Dedrick@cu.edu</u>

It's back to school for Mini Med students

Free program returns to provide boost in body knowledge

The 21st annual Mini Med School, which offers an introduction to the science that forms the basis of modern medicine for everyone from kids to grandparents, begins Wednesday, Sept. 15.

The free, eight-week course will be conducted this year for the first time at the Anschutz Medical Campus. The course was created in 1989 by J.J. Cohen, M.D., Ph.D., professor of immunology and medicine at the University of Colorado School of Medicine.

The course involves no tests, fees or credit hours, but those who attend six of the eight sessions will receive an unofficial "diploma." The purpose is simply to enlighten participants and help them understand the human body, enabling them to take charge of their health. The program is now copied in more than 100 cities worldwide.

Lectures offered by medical-school faculty and other experts include anatomy and physiology, cell biology, microbiology, immunology, pharmacology and cancer biology. Classes start at 7 p.m. with an hour-long lecture, followed by roughly a half-hour of questions and answers. Participants receive a binder of lecture notes, as well as audio-visual displays.

Mini Med teachers work to make complex material understandable to those who lack technical backgrounds and vocabulary. But Cohen remains proudest of the fact that his lecturers don't "dumb it down."

In its 20 seasons, the Mini Med School has hosted some 17,000 students. Among them this year will be students from Aurora LIGHTS, a partnership between the University of Colorado's Anschutz Medical Campus and the

Aurora Public Schools. The program is designed to attract high school students to careers in medicine and science. Medical students will attend each session to work with the teenagers and to answer questions.

The Mini Med School will be fed by satellite to locations around Colorado. Participants must register. Registration links and more information are available at <u>http://medschool.ucdenver.edu/minimed</u>.

If your location of choice is full, you will be placed on a waiting list. If you don't have web access, please call 303-724-0348.

Nominations sought for Excellence in Leadership Award

Winning program graduate will be honored this fall

The Office of Employee Learning and Development requests nominations for the second annual Excellence in Leadership Award, which will be presented at the Excellence in Leadership Program (ELP) lecture and luncheon Nov. 5.

The award recognizes a graduate of the ELP who has shown exemplary leadership at the University of Colorado. Nominations should demonstrate leadership in one or more of the following areas:

- Organization, departments or teams
- Projects, programs or research
- Fiscal management or fundraising
- Student instruction

All ELP graduates who currently work at CU are eligible to be nominated for the award. Self-nominations will not be accepted.

For a list of all program graduates and details about the award, go to

<u>https://www.cu.edu/content/leadershipprograms</u>. A nominator must be a CU employee who has worked with the nominee. The selection committee consists of representatives from each campus and system administration.

Nominations must include a completed nomination form (posted at the website); the form and any supporting material must be sent to the Employee Learning and Development office by e-mail to <u>Erin.Russell@cu.edu</u>. Nominations are due Oct. 1.

To read about last year's winner of the award, Barbara A. Gaddis, Ph.D., click here.

Grants available for retired CU faculty

Association to consider requests to aid new and continuing research

The University of Colorado Retired Faculty Association (CURFA) is accepting applications for five \$500 grants to aid in new and continuing research projects being carried out by officially retired CU faculty.

CURFA's executive board announced the grant program at its meeting Friday, Aug. 27. The President's Office provided funding to launch the program, which recognizes the value of work done by CU retirees, as it benefits their fields and the reputation of the university community. The awards are open to retired faculty whether members of CURFA or not.

An evaluation committee composed of representatives from all four CU campuses will consider the originality, significance and feasibility of the research, and award the grants for any use – except for an applicant's salary – in support of the research.

Applications must include:

- A cover page with name, former and current university affiliation, date of retirement, e-mail and other addresses and phone number(s).
- An abstract limited to 150 words describing the major objectives of the work.
- A description of the work to be done, not to exceed two pages.
- A budget indicating intended uses of the award.
- A CV of not more than two pages.

Applicants should submit electronic applications to the chair of the evaluations committee, Tom Duncan (<u>TDuncan@colorado.edu</u>), or four hard copies to CURFA, Box 80, Regent Hall, University of Colorado at Boulder, Boulder, CO 80309.

Applications will be accepted up to March 1, 2011; grants will be announced by May 1, 2011.

People

High-rise kilt climb nets cancer funding



More than 100 people rappelled down a 28-story building in downtown Denver Aug. 27 and 28 as a fundraiser for cancer research, but only **Andrew Thorburn** did it in a skirt, or more precisely, a kilt.

The Scottish-born deputy director of the University of Colorado Cancer Center promised he would descend from the building in a most unconventional way if he raised at least \$2,000.

To have the privilege of participating in the Over the Edge event, each person had to raise at least \$1,000 for the Cancer League of Colorado. Thorburn's final tally was \$2,300.

The Cancer League supports work in Thorburn's lab and provides funding for other scientists studying cancer, including start-up funding for new research ideas. All donations go directly to cancer research and cancer patient services; since 1985, the league has donated more than \$8 million in grants to those efforts.

Watch a video about Thorburn's stunt by clicking here.

Ophthalmology director honored for leadership in medical management



Enzenauer

The American College of Physician Executives recently awarded Fellowship to **Robert Enzenauer**, M.D., professor in the University of Colorado School of Medicine department of ophthalmology and chief of the pediatric ophthalmology division at The Children's Hospital in Aurora.

ACPE's Board of Directors honored Enzenauer as a Fellow for demonstrating significant and enduring contributions to the advancement of medical management.

"Fellowship is among the highest honors that can be bestowed on a physician. It shows that Dr. Enzenauer has attained regional and national stature while also demonstrating a mastery of clinical medicine and outstanding leadership skills," said Alan S. Kaplan, M.D., M.M.M., C.P.E., F.A.C.H.E., F.A.C.P.E., president of ACPE's Board of Directors.

Enzenauer has served as ophthalmology program director and department chair in the Army, at old Fitzsimons Army Medical Center, and in civilian academic medical centers in Chattanooga, Memphis and now The Children's Hospital in Aurora. He is board-certified in three specialties: ophthalmology, aerospace medicine and pediatrics.

On July 10, Enzenauer was promoted to Brigadier General in the Colorado Army National Guard, assuming the duties as the assistant adjutant general for space and missile defense, one of three brigadier general positions in the Colorado Army National Guard.

UCCS administrator to lead international push



Hill

Amy Hill, director of the Chancellor's Leadership Class, will lead efforts to improve global education at the University of Colorado at Colorado Springs by increasing opportunities for students, faculty and staff to study outside of the United States or participate in international field courses. The assignment is in addition to Hill's current duties.

Hill will work closely with a global education advisory board that includes **Kyla Hammond**, executive director, Enrollment Operations and Extended Studies, College of Education; **John Harner**, associate professor, Geography and Environmental Studies; **Kim Hennessy**, director, Human Resource Compliance; **Donna Moraco**, director, Language Technology Center; **Anthony Shull**, international coordinator, College of

Education; **Robert Wonnett**, director, Student Leadership; **Sarah Morehead**, administrative assistant, Admissions Services; and **Joanne McDevitt**, sexual harassment

officer, Sexual Harassment and Discrimination Office.

During the next few months, Hill will collaborate with campus departments to explore:

- Creation of a Center for Global Education to provide UCCS students, including international students, a place where they can inquire about opportunities and receive support.
- Support and promote two-week international field courses and connect students to semester study abroad programs.
- Train and support faculty and staff interested in leading international field courses.
- Create policies and guidelines to ensure the safety of students, faculty and staff traveling abroad.
- Prepare a long-term vision for global education at UCCS.

Communication professor publishes book on medical controversy

Lisa Keränen, associate professor of communication at the University of Colorado Denver, wrote a book published this summer by the <u>University of Alabama Press</u>: "*Scientific Characters: Rhetoric, Politics and Trust in Breast Cancer Research." It* chronicles the contests over character, knowledge, trust and truth in a politically charged scientific controversy that erupted after a 1994 Chicago Tribune headline, "Fraud in breast cancer research: Doctor lied on data for decade."

Moving back and forth between news coverage, medical journals, letters to the editor, and oncology pamphlets, Keränen draws insights from rhetoric, literary studies, sociology and science studies to analyze the roles of character in shaping the outcomes of the controversy. It's a study of what happens when scientists, patients and advocates are called to defend themselves in public concerning complex technical matters.

This fall, Keränen will give several talks related to the book at Anschutz Medical Campus, as well as Pittsburgh and San Diegol, and soon unveil a website about the book with teaching tools and discussion questions related to medical ethics, science and the public good.

Pine problem detailed at international conference

Diana Tomback, acting chair and professor of integrative biology at the University of Colorado Denver, was one of the primary organizers of a U.S.-Canadian conference, "High-Five Symposium: The future of highelevation five-needle white pines in western North America," June 28-30 at the University of Montana.

The five-needle white pines are threatened by invasive disease, pine beetle outbreaks, fire suppression and climate change. The conference, attended by more than 150 scientists and managers, received funding support from several federal agencies and nongovernment offices, including the U.S. Forest Service and National Park Service, and the Natural Resource Defense Council. Tomback presented the overview plenary talk, "The magnificent high-elevation five-needle white pines: ecological roles and future outlook."

Education professor receives early career grant



Erin Furtak, assistant professor of education at the University of Colorado at Boulder, recently received an early career grant from the National Science Foundation.

The grant supports a research study that "focuses on a learning progression for student understanding of natural selection designed to be educative." The goal is to produce an "existence proof" of how an educative learning progression designed for high school biology teachers and their students can be used to improve instruction and improve student outcomes.

Furtak

Furtak will partner with 12 biology teachers in two high schools to conduct the five-year research project.

Dropping names ...

Four University of Colorado at Colorado Springs faculty members recently published books in their respective fields: Heather Albanesi, assistant professor, sociology, "Gender and Sexual Agency: How Young People Make Choices About Sex" (Lexington Books, Lanham, Md.): Elissa Auther, assistant professor, visual and performing arts, "String, Felt, Thread: the Hierarchy of Art and Craft in American Art" (University of Minnesota Press). Raphael Sassower, professor of philosophy, and Louis Cicotello, visual and performing arts professor, "War Images: Fabricating Reality" (Lexington Books). ... Computer Science and Engineering Associate Professor Bogdan Chlebus, computer science and engineering associate professor at the University of Colorado Denver, has received a three-year grant of \$199,727 from the National Science Foundation to work on the project "Principles of Robust Cooperative Computing in Dynamic Distributed Systems." ... Kendall Hunter, assistant professor in the department of bioengineering at the University of Colorado Denver, has received a five-year Mentored Quantitative Research Career Development Award (K25) for career and research development from the National Heart, Lung and Blood Institute. The award encourages translational interdisciplinary collaboration in clinical and engineering research.

Want to suggest a colleague — or yourself — for People? Please e-mail information to <u>Jay.Dedrick@cu.edu</u>



Chlebus



Hunter

News from the CU system - CU-Boulder

New study: Some asteroids live in own 'little worlds'

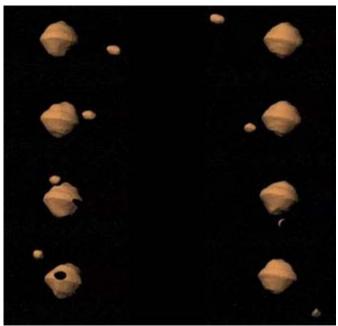


Image courtesy JPL/NASA

While the common perception of asteroids is that they are giant rocks lumbering about in orbit, a new study shows they actually are constantly changing "little worlds" that can give birth to smaller asteroids that split off to start their own lives as they circle around the sun. A new study indicates that some binary asteroids, like the pair depicted in orbit around each other in this visualization, have the ability to escape from each other shortly after they are formed.

Astronomers have known that small asteroids get "spun up" to fast rotation rates by sunlight falling on them, much like propellers in the wind. The new results show when asteroids spin fast enough, they can undergo "rotational fission," splitting into two pieces which then begin orbiting each other. Such "binary asteroids" are fairly common in the solar system.

The new study, led by Petr Pravec of the Astronomical Institute in the Czech Republic and involving the University of Colorado at Boulder and 15 other institutions around the world, shows that many of these binary asteroids do not remain bound to each other but escape, forming two asteroids in orbit around the sun when there previously was just one. The study appears in the Aug. 26 issue of *Nature*.

The researchers studied 35 so-called "asteroid pairs," separate asteroids in orbit around the sun that have come close to each other at some point in the past million years – usually within a few miles, or kilometers – at very low relative speeds. They measured the relative brightness of each asteroid pair, which correlates to its size, and determined the spin rates of the asteroid pairs using a technique known as photometry.

"It was clear to us then that just computing orbits of the paired asteroids was not sufficient to understand their origin," Pravec said. "We had to study the properties of the bodies. We used photometric techniques that allowed us to determine their rotation rates and study their relative sizes."

The research team showed that all of the asteroid pairs in the study had a specific relationship between the larger and smaller members, with the smallest one always less than 60 percent of the size of its companion asteroid. The measurement fits precisely with a theory developed in 2007 by study co-author and CU-Boulder aerospace engineering sciences Professor Daniel Scheeres.

Scheeres' theory predicts that if a binary asteroid forms by rotational fission, the two can only escape from each other if the smaller one is less than 60 percent of the size of the larger asteroid. When one of the asteroids in the pair is small enough, it can "make a break for it" and escape the orbital dance, essentially moving away to start its own "asteroid family," he said. During rotational fission, the asteroids separate gently from each other at relatively low velocities.

"This is perhaps the clearest observational evidence that asteroids aren't just large rocks in orbit about the sun that keep the same shape over time," Scheeres said. "Instead, they are little worlds that may be constantly changing as they grow older, sometimes giving birth to smaller asteroids that then start their own life in orbit around the sun."

While asteroid pairs were first discovered in 2008 by paper co-author David Vokrouhlicky of Charles University in Prague, their formation process remained a mystery prior to the new Nature study.

When the binary asteroid forms, the orbit of the two asteroids around each other is initially chaotic, Scheeres said.

"The smaller guy steals rotational energy from the bigger guy, causing the bigger guy to rotate more slowly and the size of the orbit of the two bodies to expand. If the second asteroid is small enough, there is enough excess energy for the pair to escape from each other and go into their own orbits around the sun."

Several telescopes around the world were used for the study, with the most thorough observations made with the 1-meter telescope at Wise Observatory in the Negev Desert in Israel and the Danish 1.54-meter telescope at

La Silla, Chile.

"This study makes the clear connection between asteroids spinning up and breaking into pieces, showing that asteroids are not static, monolithic bodies," Vokrouhlicky said.

The asteroids that populate the solar system are primarily concentrated in the main asteroid belt between Mars and Jupiter some 200 million miles from the sun, but extend all the way down into the inner solar system, which are known as the near-Earth asteroids. There are likely about a million asteroids larger than 0.6 mile, or 1 kilometer, in diameter orbiting the sun. Last month, NASA's WISE spacecraft spotted 25,000 never-before-seen asteroids in just six months.

Astronomers believe most asteroids are not solid chunks of rock, but rather piles of debris that come in shapes ranging from snowmen and dog bones to potatoes and bananas, with each asteroid essentially glued together by gravitational forces.

"Sunlight striking an asteroid less than 10 kilometers across can change its rotation over millions of years, a slow motion version of how a windmill reacts to the wind," said Scheeres, who has studied asteroids for the past decade. "This causes the smaller asteroid to rotate more rapidly until it can undergo rotational fission. It's not hard for these asteroid pairs to be pushed over the edge."

CU-Boulder doctoral student Seth Jacobson of CU-Boulder's astrophysical and planetary sciences department, a co-author on the *Nature* paper, said the most surprising part of the study was showing that sunlight played the key role in "birthing" asteroids.

"There was a time when most astronomers referred to asteroids as vermin," Jacobson said. "But the more we learn about them, the more exciting they are. They are not just big chunks of rock, but have the dynamic ability to evolve."

The asteroids in the study ranged from about 1 kilometer to about 10 kilometers or about 0.6 mile to 6 miles in diameter, said Jacobson, who added that one of the biggest questions is what lies beneath the surfaces of asteroids. "This is something we just don't know yet."

Asteroids have become a hot topic, Scheeres said. The Japanese spacecraft Hayabusa made two landings on the asteroid Itokawa in 2005 before its recent return to Earth – the first spacecraft ever to visit an asteroid and return to the planet. Scientists are hopeful the spacecraft recovered at least some particles from the asteroid, which may give them more information about the origin and evolution of the solar system roughly 4.6 billion years ago.

Other co-authors of the study are from institutions in North Carolina, California, Massachusetts, Chile, Israel, Slovakia, the Ukraine, Spain and France.

UCCS

Demand leads to new offering of biochemistry degrees

With the Aug. 6 approval from the Colorado Department of Higher Education, the University of Colorado at Colorado Springs now offers bachelor's of arts and sciences degrees in biochemistry.

Students now may select the degree as a course of study and replace a biochemistry option within the bachelor's degree in chemistry, said Tom Christensen, dean of the College of Letters, Arts and Sciences.

"This degree responds to a developing national trend toward a stand-alone major in biochemistry," Christensen said. "There is also demand from students in our current biochemistry option in chemistry and from students working on double majors in biology and chemistry."

Christensen said the new degree will help UCCS in recruiting and retaining students and also allow them to be placed in high-demand biochemistry jobs following graduation. The new degree has been planned for several years and was supported by chemistry and biology faculty. A biochemistry lab was included in the renovation of Centennial Hall.

Offering bachelor's degrees in both arts and sciences provides student flexibility without added cost, Christensen said.

With the approval of the degree, the chemistry department will now be renamed the department of chemistry and biochemistry.

UCCS now offers 36 bachelor's degrees, 19 master's degrees and five doctoral degrees.

UC Denver

Teacher training transformed via new approach

University of Colorado Denver's School of Education and Human Development's home in the heart of Denver uniquely positions undergraduate and graduate students to learn and lead in the dynamic world of urban education. As the largest graduate school of education in the state of Colorado, the School offers 12 programs that prepare educators and mental health professionals to have a profound impact in the lives of youth from diverse communities in the metro area and the state. The launch of a new program, Urban Community Teacher Education, will answer the call from districts across the Denver metro area for new teachers who have the knowledge, skills and experience essential to ensuring K-12 student success in increasingly diverse classrooms.

Initial teacher education at the <u>UC Denver School of Education and Human Development</u> takes place in a citywide learning laboratory in which faculty and teacher candidates partner with professional development schools, community agencies, educational organizations and policymakers to address the challenges and build on the assets of community knowledge in and around urban Denver.

"Teachers need to be prepared for the increasing diversity of our communities and public schools," said Cindy Gutierrez, director of teacher education. "The Urban Community Teacher Education program was established to recruit and develop exceptional educators who have a strong desire to influence educational outcomes among children and adolescents from culturally and economically diverse urban backgrounds. Whether graduate or undergraduate students, we prepare all new teachers to act as passionate agents of productive change in our schools."

UC Denver's School of Education and Human Development's Urban Community Teacher Education program is unique in its strong focus on community. The goal is to produce a new kind of teacher who is a scholar of the urban environment and who understands the importance of engaging with the community. UC Denver teacher candidates look beyond the classroom to understand community resources, needs and assets so that they may better serve schools and communities that educate an increasingly diverse population.

"Research shows that children learn more effectively if their teachers are aware of, respect, and use the community's cultural and intellectual resources," Gutierrez said. "UC Denver's innovative Urban Community Teacher Education views teacher education as inseparable from community engagement."

The Urban Community Teacher Education program partners closely with six Denver Metro Area school districts (Denver Public Schools, Adams District 12, Adams District 14, Aurora Public Schools, Jefferson County Schools and Mapleton Public Schools) to boost urban schools with the greatest needs and collaboratively transform the concept of "effective teachers" in urban schools. Each of the six partner districts supports professional development schools that work closely with the university to prepare teachers; these district partnerships allow aspiring educators to gain deep, real-world experience mentored by practicing teachers while concurrently taking courses. The schools and their districts provide job offers to many UC Denver teacher candidates after successful completion of the licensure program. No matter which district the program graduates choose to teach in, they quickly emerge as leaders for educational equity and opportunity.

"Our work in the schools and the community is a practice-oriented, integrated educational experience," Gutierrez said. "We collaborate with current teachers, learning from them as they engage in their day-to-day experiences. And we become partners in their learning, exposing them to various ways of thinking and reflecting about their work. Together, we make an impact, inspiring positive change in education for urban youth."

Anschutz Medical Campus

Campaign aims to educate parents in signs of type 1 diabetes

The Barbara Davis Center for Childhood Diabetes, at the University of Colorado, along with the Juvenile Diabetes Research Foundation (JDRF) wants every Denver parent to be "T1D Aware" and recognize the telltale signs of type 1 diabetes in order to prevent a potentially deadly complication that often occurs as a result of a delayed diagnosis. JDRF is launching the new educational campaign called "T1D Aware" to raise awareness of the key signs of type 1 diabetes.

"The symptoms of type 1 diabetes are often mistaken for other conditions like a bladder infection," said Georgeanna Klingensmith, M.D., director of the pediatric clinic at the Barbara Davis Center for Childhood Diabetes. "The longer we wait to diagnose type 1 diabetes, the more dangerous it can be. That's why it's so important to be 'T1D Aware' and to equate frequent urination and excessive thirst as potential signs of type 1 diabetes."

In addition to frequent urination and excessive thirst, lower than normal energy, tiredness and weight loss are all telltale signs of type 1 diabetes. Other symptoms include: increased appetite, sudden vision changes, fruity odor on the breath, vomiting, heavy or labored breathing and/or stupor or unconsciousness. If parents, teachers, school nurses, coaches and even teenagers notice these signs, they should talk to a doctor immediately.

According to the National Diabetes Education Program, between 25 and 40 percent of the children who are diagnosed with type 1 diabetes have a life-threatening condition called diabetic ketoacidosis or DKA. In Colorado, the rate of DKA at diagnosis has increased from 25 to 30 percent in 2006 to 40 percent in 2009. DKA occurs when the body breaks down fat for energy instead of sugar. When this happens, the body produces an acid called a ketone. High levels of ketones are very dangerous and can lead to vomiting, dehydration, coma and even death, especially in young children. DKA is the leading cause of death and disability in children with type 1 diabetes.

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