

[Employee teams form to respond to community needs](#)[1]

We've all heard the phrase "It takes a village" in relationship to rearing a child. That concept can be applied to how a community embraces a wide spectrum of needs among its members. In the spirit of the University of Colorado Denver's "Giving Back Campaign," a number of teams have formed to answer the call throughout the metro area.

This campaign offers the opportunity for employees to request up to four hours of their regularly scheduled work time to volunteer with a community service effort of their choice. Some are seeing this as an opportunity to combine community service and team building.

A prime example is the plan by a team from UC Denver's human resources department to provide volunteer hours at [Warren Village](#). [2] which helps motivated, low-income, single parents move from public assistance to self-sufficiency through subsidized housing, on-site childcare, counseling, and education or job training. The Warren Village property often is in need of repair, maintenance or yard work. So the HR team will be spending time helping with that work.

While our greater community generously responds to appeals during the holiday season, we all know that needs persist throughout the year.

Among the agencies answering the call in our community is [Food Bank of the Rockies](#) [3]. It provides food supplies to more than 1,000 hunger-relief programs across northern Colorado and Wyoming. In January, a group from UC Denver's integrated university communications will help unpack bulk cartons and load food boxes along an assembly line in preparation for distribution.

Another team from the Anschutz Medical Campus library checked out a need they closely identify with — offering their volunteer hours to help colleagues at Aurora Public libraries.

All UC Denver faculty and staff are encouraged to connect with a community need that is meaningful for them. After you make your selection for volunteering, remember to log in your project so your effort will be recorded as part of the overall Giving Back Campaign.

[Five Questions for John Jackson](#)[4]

[5]

Wavelengths and atoms, Albert Einstein's theories and the space-time continuum occupy a majority of John Jackson's daily thoughts. He spreads his enthusiasm for science to the students in his modern physics class at the University of Colorado at Colorado Springs, where he is an honorarium instructor. Previously, he was a faculty member at the Air Force Academy. He earned his doctorate in physics from the U.S. Naval Postgraduate School and was a scientist at the Air Force Weapons Laboratory in Albuquerque, N.M.

But much of his renown has come from his research on the Shroud of Turin, a linen cloth bearing a negative image of a crucified man. Many believe the shroud is the burial fabric of Jesus. Jackson and his wife, Rebecca, direct the [Shroud of Turin Center](#) [6], a nonprofit dedicated to research and education.

In 1978, Jackson led a team of more than 30 scientists who conducted a series of tests on the cloth. The team found the image was not painted, dyed or stained, and that bloodstains on the cloth were real. But in 1988, radiocarbon tests dated the shroud to the 14th century, not the first. Jackson, however, believes those tests were inaccurate. He continues his research: "Shroud of Turin," an hourlong documentary that premiered in March 2008, details new efforts by Jackson and others. For more information on this film and another made in 1978, visit [www.silentwitness2.com](http://www.silentwitness2.com). [7]

**1. You've devoted much of your life to researching the Shroud of Turin. Are there upcoming publications in the**

## **works?**

There are plans for a variety of papers. All of them are consistent with the burial cloth hypothesis.

Where I'm at with the shroud and radiocarbon dating is best expressed by the "Shroud of Turin" documentary, filmed by the BBC and in part at UCCS, which showed for the first time how the historical research, much of it developed using data we collected in 1978, contrasts with radiocarbon dating. I think the case can be made that there is a genuine disconnect between the shroud authenticity and radiocarbon dating. The work to be published shows the shroud existed in Constantinople and calls into question the dating. My hypothesis is that enriched carbon monoxide might have contaminated the shroud enough to move the date more than a millennium.

### **2. Last year, you approached Oxford University about testing your hypothesis concerning contamination. Where does the testing stand?**

Professor Christopher Ramsey, the head of Oxford's radiocarbon accelerator unit, is interested in testing the hypothesis. (The lab was one of three that conducted the 1988 tests.) We still have a ways to go because we need to raise the necessary funding. It's difficult to do in this environment with the economy the way it is. And the perception (that followed) radiocarbon dating (that the shroud was an artistic forgery) doesn't help. We think we have credible approaches to the problem. We've got the road map and the car to get there; we just need the gasoline to go from point A to point B in our research.

### **3. Italian scientists say they have reproduced the shroud using red ochre and acid. Have you seen the scientists' methodology and do you have opinions on the work, which was funded by the Italian Committee for Checking Claims on the Paranormal and an organization of atheists and agnostics?**

As far as we can determine, this hypothesis was released in the popular press, and hasn't undergone what I would consider serious peer review. Because it's not available in archival literature, we're limited as to how we can test this idea. While I'm not in the position to divert precious resources to try to test this, we can look at whether discoloring cloth with acid would be a possibility. We tested red ochre pigment and sulfuric acid. The ochre is there to guide the artist in applying the acid, which is what produces the image. But on the shroud, the blood images came first and the body image came afterward, according to our tests in 1978. It's just the opposite of what the Italians said. The body image in the Italian tests also doesn't have the same intensity as the one on the shroud. The shroud is a three-dimensional relief, while the Italian study produced only a binary image.

### **4. The Shroud of Turin will be displayed in April and May next year. It underwent some conservation in 2002. Does that concern you?**

It's one thing to conserve the object; it's another thing to conserve the scientific information that was compromised by the conservation. It's gone from the shroud. Thankfully, we have some of that documented through our 1978 work; otherwise, the information would not be available for others.

The 2002 renovation did give us the ability to see the back side of the shroud. When we examined the shroud (for six days in 1978), I didn't want to authorize our team to do that because we hadn't thought through that process and I didn't want to damage the cloth. So the entire backing (that was sewn onto the shroud in 1534 after it was damaged by a fire) was taken off for the first time in 450 years. The back was photographed. I have the pictures right here in front of me.

### **5. Over the years, has your belief ever wavered that the Shroud of Turin was the cloth that covered Jesus in his tomb? What would it take for you to acknowledge the linen is not connected to Christ? Conversely, what would it take to prove beyond a doubt that the image shows Christ?**

I am a devout Christian and my faith is very important to me. But I am also a scientist who spends most of my time trying to disprove hypotheses my colleagues and I think up, rather than find things that prove them. The last thing any scientist wants to do is publish something that is refuted.

I think we are looking at the actual burial cloth of Jesus. It's the only hypothesis that makes sense. It is not a work of the hand of man or a creation using some physical technique. But I have to hold up the possibility that something could change that hypothesis. I don't think science is ever going to be able to prove that it is the burial cloth. Science isn't wired that way. You have multiple hypotheses that stand up to competing hypotheses. (The theories) stand up as long as they stand up to testing. If you do this long enough, you end up with only one hypothesis. But how do you know when you've exhausted all possibilities?

[University of Colorado Cancer Center names new director](#)[8]

Dan Theodorescu, M.D., Ph.D.

Cancer researcher and urologic surgeon Dan Theodorescu, M.D., Ph.D., has been named director of the [University of Colorado Cancer Center](#)[10] (UCCC), the Rocky Mountain region's only National Cancer Institute-designated comprehensive cancer center.

He will officially begin work July 1, and is scheduled to be in the state for the University of Colorado Cancer Center scientific retreat March 19.

Theodorescu is leaving his post as director of the Mellon Urologic Cancer Institute at the University of Virginia in Charlottesville after six years.

He will lead the efforts of the center consortium's 432 members in basic, translational and clinical research, clinical cancer care for people and companion animals, cancer prevention and control, and cancer survivorship. He also will coordinate the center's research funding portfolio, which increased by 25 percent in 2009 to \$138.9 million. He will hold the \$2 million Paul Bunn Chair in Cancer Research, named after the lung cancer pioneer who founded UCCC in 1988.

The cancer center, headquartered on the Anschutz Medical Campus in Aurora, is a national leader in personalized cancer medicine and cancer biotechnology, said Richard Krugman, M.D., School of Medicine dean and vice chancellor for medical affairs at the University of Colorado Denver.

"Dan's vision for the growth of our cancer center, his passion for everything he does and his collaborative nature make him a great choice to be UCCC director," Krugman said.

Theodorescu follows interim director Tim Byers, M.D., M.P.H., associate dean of the Colorado School of Public Health.Â

"Dan is a truly outstanding translational scientist," Byers said. "He has the ability to take novel ideas from the laboratory into patient care, and to take novel questions emerging from patient care back into the laboratory for development. We are excited to soon have Dan as a colleague and as a leader here at the University of Colorado Cancer Center."

As a prostate and bladder cancer expert, Theodorescu's research has focused on looking for biomarkers that can lead to customized, targeted treatments for patients. Among his accomplishments:

- Identifying a new metastasis suppressor gene for human cancer (RhoGD12), which can indicate survival prognosis in bladder cancer and is now being developed into a therapy to prevent metastasis
- Discovering a novel way to combine bioinformatics and cancer biology into a tool to personalize therapy called COXENÂ
- Identifying biomarkers expressed in the urine from bladder cancer patients that may predict whether they will respond to treatment
- Studying how prostate brachytherapy techniques affect a patient's quality of life
- Creating a new modification of a bladder replacement technique following bladder removal and new approaches for minimally invasive robotic techniques for bladder cancer surgery
- Receiving several awards, including the Sydney Kimmel Scholar Award, the Society for Basic Urologic

Research Young Investigator Award and the New York Academy of Medicine's Edwin Beer Award Serving as an elected member of the American Society for Clinical Investigation and the American Association of Genitourinary Surgeons

"The University of Colorado Cancer Center offers a unique collaborative environment where science and medicine can blend to provide new personalized therapies for our patients — truly 21st century medicine," Theodorescu said. "I was impressed with the visionary leadership of the school, hospital and university and the outstanding facilities that allow translational medicine to excel. It's a place that makes you feel you can overcome any obstacle in the quest to help our patients."

Originally from Romania, Theodorescu trained as a urologic oncologist at Memorial-Sloan Kettering Cancer Center in New York. He received his doctorate in molecular and cell biology from the University of Toronto under the mentorship of renowned cancer biologist Robert Kerbel, M.D.

### [Plan for hotels near Anschutz Medical Campus moves forward](#)[11]

A pair of hotel projects near the Anschutz Medical Campus took a step forward recently when the Colorado Commission on Higher Education (CCHHE) approved recovery zone facility bond financing for the ventures.

While CU will have no role in the hotels' development or operations, the university lent its support to the projects to help developers secure low-interest bonds, which are available under the American Reinvestment and Recovery Act.

Recovery zone facility bond stipulations require that applicants demonstrate the benefit of the projects to an educational institution. The CCHHE has authorization authority over the bonds. The Fitzsimons Redevelopment Authority, which works closely with CU, was the conduit for the bond proposal. In a recent presentation to the CCHHE, CU officials affirmed that having hotel conference facilities and patient lodging nearby would benefit the university.

"There's certainly a need for the hotels near the Anschutz Medical Campus as it continues its development as a major national and international health-care destination," said CU President Bruce Benson. "We need space for patient stays, as well as conference facilities, and these projects should help meet those needs."

There are three hotels proposed for the area, but only two sought the recovery zone bonds, one at Fitzsimons Village (south of East Colfax Avenue) and the other at the Colorado Science + Technology Park (East Montview Boulevard and Ursula Court). Each aims to serve a different market segment.

The first, a full-service conference center and 200-room hotel, would be completed by Corporex, which has developed and managed hotels for 45 years. Construction is scheduled to begin in February.

The second would be Hyatt Place, a limited-service, 163-room hotel to be completed by Gateway Hospitality Group, a national hotel developer.

A construction schedule for the two projects has not been set.

The third proposed project, Springhill Suites by Marriott, would be a 153-room hotel on the south side of East Colfax Avenue.

[University's new expense system continues to roll](#)[12]

The University of Colorado's new expense system continues to expand as part of a rolling launch that began in April. By the end of February, the entire university will be using it.

The Colorado Springs campus and system administration already have switched completely to the system, which is 92 percent in place at the Boulder campus and 70 percent at the downtown Denver and Anschutz Medical campuses.

Soon, the expense system will offer a systemwide online source for completing such processes as:  
creating travel authorization requests  
creating requests for cash advances for trips  
requesting reimbursement for employee business travel  
requesting reimbursement for non-travel goods purchased by employees  
reallocating procurement card transactions  
preparing procurement card monthly statements

The new system replaces the travel authorization program, travel vouchers and payment vouchers for employees and the ACARD system. The more efficient, modern interface enables the university to reduce use and storage of paper and receipts, expedite processing of reimbursements and help ensure better documentation for expenses.

For details on the remaining transition period, see the implementation schedule at the [Expense System microsite](#)[13]. The site also includes information on training classes, learning resources and frequently asked questions.

The Procurement Service Center (PSC) and the Office of University Controller (OUC) have been working to coordinate communication, training and implementation efforts for the rollout, and are seeking input from users of the new system. Links to an [online survey](#)[14] are posted at the [PSC](#)[15] and [OUC](#)[16] Web sites, as well as within the expense system.

[President's Task Force on Efficiency seeks more suggestions](#)[17]

The [President's Task Force on Efficiency](#)[18] is beginning its next phase of reviewing suggestions from faculty and staff and discussing potential ways to streamline or eliminate unnecessary policies, processes and paperwork in system administration.

In March, the task force issued a 57-page [report](#)[19], which included a list of top 10 aggravators for university employees. It also outlined 36 recommendations designed to address many of these aggravators.

Senior Vice President and Chief of Staff Leonard Dinegar, chair of the task force, says staff will revisit the hundreds of comments and suggestions received prior to issuing its report in March, as well as study feedback received since the report was issued. He encourages faculty and staff to continue to submit ideas, suggestions, concerns and complaints for consideration in the upcoming review.

"Our goal is to find a few more key solutions to things that frustrate or bog us down — much like the changes we made to the dollar-amount thresholds for official functions, saving thousands of forms a year for our faculty and staff," Dinegar said.

To participate in the continuing effort:

Submit feedback at <https://www.cu.edu/content/provideyourfeedback>[20] Submit feedback directly to the Office of Policy and Efficiency at [ope@cu.edu](mailto:ope@cu.edu)[21] Contact your campus representative on the Task Force on Efficiency. [Click here](#)[22] for a list of members.

[Procurement Service Center launches redesigned Web site](#)[23]

The [Procurement Service Center](#)[15] has redesigned its Web site, a response to user suggestions gathered earlier this year. Navigation and structure have been streamlined and new elements including breadcrumbs (links to pages previously navigated by the user) and tabs make it easier to find resources quickly.

Among the other changes:

A new Google-powered search engine has been integrated into the site. Page download times are faster thanks to updated coding methods. A calendar offers listings of events such as vendor orientations, supplier showcases and campus forums. Subscribers to the calendar will be notified when events are added.

To offer feedback about the redesigned site or the center in general, [click here](#)[24].

### [Sustainable practices program adds management certificate](#)[25]

As public interest in sustainable practices grows, so does demand for professional development in the area. The latest expansion of the sustainable practices program at the University of Colorado at Boulder's division of continuing education and professional studies is a [sustainability management certificate](#)[26].

Beginning with the spring semester, the interdisciplinary program will investigate critical interactions among people, profit and planet — a triple bottom line for business. Students are expected to come from diverse professional backgrounds and will be interested in organizational sustainability. They may be studying on behalf of their current employer, for personal professional development or to gain new skills to be used as sustainability consultants. Workers in business, nonprofits, local government agencies, educational institutions, hospitals and other organizations will find the program useful.

Classes may be taken individually or toward completion of the certificate, either in person at CU-Boulder or online. Sustainability management courses are taught by sustainability experts from related academic disciplines, as well as proven "green leaders" who have successfully implemented cutting-edge practices in their lives and organizations.

Five full scholarships are available for the new certificate. Nominations for eligible organizations and/or individuals are due Dec. 22; scholarships will be announced before the end of January.

Scholarships include full tuition for classes taken for completion of the certificate. All course work must be completed in one year or less. For more details and a nomination form, [click here](#)[27].

Business and sustainability also are in focus at an upcoming panel discussion. The event, titled "[Defining Sustainability: People, Planet and Profit](#)"[28], will be from 5:30 to 7 p.m. Jan. 14 at 1505 University Ave., Room 140, Boulder. Panelists include Kai Abelkis, Boulder Community Hospital sustainability coordinator; Dave Newport, director of the CU Environmental Center; Lauren Coyne, co-owner and education and outreach manager of Namaste Solar; and Cindy Carillo, founder and former CEO of Work Options Group. Geoffrey Rubinstein, director of the sustainable practices program, hosts the event, which is free and open to the public. Please RSVP to [sustainable@colorado.edu](mailto:sustainable@colorado.edu) [29].

### [Conference to examine 'Islam and the Media'](#)[30]

"[Islam and the Media](#)"[31] is the title of the international conference being hosted by the University of Colorado at Boulder's Center for Media, Religion and Culture. Set for Jan. 7-10 in Eaton Humanities, the event will bring together

more than 100 scholars on Islam and contemporary media, media professionals, activists and others to examine the place of Islam within global, regional, national and local media.

Papers and panels will address such topics as:

Journalism and Islam Images of Islam in Western entertainment media Muslim voices in Western media Media and the "clash of civilizations" The proliferation of Islamic Web sites and Islamic discourse on the Internet The role of women in shaping the teachings of new Islam

Plenary sessions are free and open to the public. Registration is required for attendance at panel sessions. For details, including speakers and a schedule, [click here](#)[32]. For other questions, contact the Center for Media, Religion and Culture, 303-492-1357.

### [Researcher wins Stand Up to Cancer grant](#)[33]

Yin (Photo by Glenn. J. Asakawa)

**Hang "Hubert" Yin** has won a \$750,000 grant for a project with the potential of changing cancer science.

The researcher at the University of Colorado at Boulder and University of Colorado Cancer Center was awarded one of 13 Stand Up to Cancer Innovative Research Grants. He competed against more than 400 U.S. scientists.

The assistant professor of chemistry and biochemistry at CU-Boulder will receive the money over the next three years while attempting to build a new tool to probe proteins in Epstein-Bar virus. The virus benignly infects about 90 percent of all people, but also is involved in various types of lymphomas.

"If we are successful, we are going to have a very powerful tool that researchers could use to study the 25 to 30 percent of human proteins that are not accessible currently, where you could name any protein, and we can provide a specific tool with which you can study it," he said. "We can then think about new methods of treatment and prevention for lymphoma and other diseases. ...Science can move slowly, then take giant leaps ahead. This tool could be the giant leap ahead."

Proteins play pivotal roles in many biological processes, including cancer development, making them excellent targets for drugs.

"We asked our best and brightest young researchers to step outside their comfort zones and strive to make big differences with bold initiatives," said Richard D. Kolodner, Ph.D., chairman of the Stand Up to Cancer grants review committee. "If these projects come to fruition, some of the ideas could be game-changers in cancer research."

Yin is a member of the Colorado Initiative in Molecular Biotechnology directed by Nobel laureate Thomas Cech at CU-Boulder; he also is part of the developmental therapeutics team led by Gail Eckhardt, M.D., at the University of Colorado Cancer Center.

When the probe is designed, Yin said, he will collaborate with other scientists at the cancer center to test it in cell and animal models, and eventually bring it to market, either as a tool to develop a drug that targets the EBV-initiated lymphomas or a treatment in itself.

The Innovative Research Grants Program's funding comes from Stand Up to Cancer, a collaboration of the American Association for Cancer Research and the Entertainment Industry Foundation that raises money to hasten the pace of groundbreaking translational research that can get new therapies to patients quickly and save lives. Learn more about the Stand Up to Cancer initiative at <http://www.su2c.org>[35].

[Song, smiles trademarks of UCCS Employee of the Quarter](#)[36]

Friloux

**Mike Friloux** of facilities services at the University of Colorado at Colorado Springs earned Employee of the Quarter honors this term.

His qualifications include singing while cleaning bathrooms, encountering cantankerous wildlife and taming a flaming vacuum cleaner, according to his nomination form. But while these activities are "above and beyond the call of duty," the custodial crew member does his job in Dwire Hall with a spirit and commitment noticed by personnel in the School of Public Affairs. Mary Lou Kartis, assistant to the dean, and Terry Schwartz, associate dean, submitted his nomination.

"Mike takes the time to share a friendly greeting and smile with everyone he meets," Kartis said. "Regardless of what's on his list of things to do each day, Mike tackles each assignment with efficiency and quality. He has a deep understanding of what quality work means; Mike's simply the best. These ideas and thoughts aren't from one single person here in SPA; the entire School of Public Affairs feels this way about Mike."

Friloux has served as a custodian at UCCS for several years, since retiring from the military. "It's not uncommon to see Mike helping students find classrooms in Dwire Hall or a particular faculty or staff member's office," the tribute says. "He doesn't just point the way; he personally escorts students to our office and makes introductions before he leaves."

Friloux has been chased by raccoons and spotted a growling bear when emptying trash early one morning. He laughed off flames when a defective vacuum cleaner shorted out, repairing it and resuming work the next day.

Photo by UCCS on newsletter

[Nursing professor wins leadership award](#)[38]

[39]

**Diane Skiba**, a professor at the University of Colorado Denver's College of Nursing, recently was honored with the Virginia K. Saba Nursing Informatics Leadership Award. Presented by the Honor Society of Nursing, [Sigma Theta Tau International](#)[40], the award is given to an informatics expert whose contributions have the capacity and scope to enhance quality, safety, outcomes and decision making in health and nursing care from a national or international perspective.

Skiba works nationally and internationally to ensure all nurses have the necessary knowledge and skills to practice in a technology-rich health care environment. She has been appointed by the Secretary of the U.S. Department of Health and Human Services to the National Advisory Council on Nursing Education and Practice; is an honorary member of Sigma Theta Tau International, the Honor Society of Nursing; and is a member of the local Alpha Kappa-at-Large Chapter. Skiba also is an honorary fellow of the American Academy of Nursing and is an elected fellow of the American College of Medical Informatics.

"I am most honored to be receiving this award, as Virginia K. Saba in 1981 took me under her wings and guided me throughout my career," Skiba said. "She is a mentor and an inspiration who has always been there to nudge me



forward and to provide me with opportunities that have shaped my career."

The award was established in 2005 by Saba, Ph.D., with a planned gift to Sigma Theta Tau International Foundation for Nursing. Skiba is the third recipient of the Virginia K. Saba Nursing Informatics Leadership Award.

[Adjunct faculty member to lead learning program](#)[41]

Hartman

**Andrew Hartman** has been named coordinator of the University of Colorado at Boulder Law School's new [Schaden Experiential Learning Program](#)[43]. Hartman has spent nearly 20 years in private practice and 10 years as a Colorado Law adjunct faculty member.

"We are thrilled to have Andy as the first program coordinator. Our Experiential Learning Program is now officially under way," said Dean David H. Getches. "This program is building linkages with faculty involved in experiential education and those doing traditional classroom teaching. In addition to giving greater coherence to our practical curriculum, the program instills the legal profession's ideal of service to society and meeting the needs of underserved people."

Hartman has helped clients in various intellectual property, litigation and transactional matters in Colorado and around the nation, including Facebook, eBay, IZZE Beverage and Coach leather goods. He was a partner at Cooley Godward Kronish LLP, a leading technology and emerging company law practice. Previously, he was an associate and partner at Reed Smith/Sachnoff & Weaver in Chicago. He has taught trademark, unfair competition (false advertising) and copyright law classes at Colorado Law since 2001.

Hartman has provided pro bono legal assistance to the Boulder Community Foundation, Moving to End Sexual Assault, the University of Colorado, the Dairy Center for the Performing Arts and the Frank Lloyd Wright Home and Studio Foundation.

[Kudos for mapping expert's publication](#)[44]

The Geoscience Information Society's Best Paper Award for 2009 was given to **Kathryn Lage's** "Zoom! Remote Sensing Imagery in the Geosciences."

Lage is map librarian at the University of Colorado at Boulder's Jerry Crail Johnson Earth Sciences and Map Library. In presenting the award, society committee chair Carol La Russa praised Lage's work as "a very useful, general overview of an important topic, with helpful links to resources." The paper will appear in volume 38 of Proceedings of the [Geoscience Information Society](#)[45].

The society gave out three awards for excellence in geoscience publishing at its recent annual meeting in Portland, Oregon.

[Chancellor: University must grow to avoid financial 'cliff'](#)[46]

Faced with the potential for a steeper than expected financial "cliff effect," University of Colorado at Colorado Springs Chancellor Pam Shockley-Zalabak last week told a standing-room-only crowd at the University Center Theater that enrolling and retaining students is vital to the university's ability to withstand its current financial crisis.

Shockley-Zalabak pointed to a 6.7 percent increase in student credit hours this fall as an example of the kind of efforts that will help UCCS avoid a looming financial crisis created by the withdrawal of federal stimulus funds following the 2010-11 fiscal year. Each faculty and staff member can assist the university in achieving student enrollment and retention goals, she said.

"I'm talking about a university with high standards but with high scaffolds that help people get where they need to be," Shockley-Zalabak said.

In a series of charts and graphs updated from a September presentation, Shockley-Zalabak outlined worsening state fiscal conditions, including UCCS' share of a federal stimulus shortfall estimated at \$1.5 million for 2010-11.

"Stimulus funds are not going to be enough," Shockley-Zalabak said. "Earlier, I said we were working on a 20-month timeline. I think it's now closer to six (months)."

Shockley-Zalabak outlined plans by Gov. Bill Ritter that include freezing state employee salaries and requiring state employees to make an additional 2.5 percent contribution to their Public Employees Retirement Association accounts. She emphasized the Dec. 18 state revenue forecast as pivotal to future funding decisions.

State funding for UCCS may decline from a high of \$22.9 million in 2008 to perhaps \$10 million at the end of 2011.

Unemployment remains high and, as a result, sales and income tax collections — primary sources of income for state government — are down. As a result, UCCS must increase revenues by an estimated \$12 million, Shockley-Zalabak said, by increasing enrollment, improving efficiency and effectiveness, and generating revenues from sources such as conferences and extended studies.

"We do have choices," Shockley-Zalabak said. "They are not easy choices and in many cases they are not obvious choices. But, nevertheless, they are choices."

Additional forums are planned through the spring semester as new information about the university's state-supported budget becomes available.

[License agreement gives Viral Genetics Inc. right to develop cancer therapies](#)[47]

Biotechnology company Viral Genetics (VRAL.PK) has entered into an exclusive license agreement with the University of Colorado to develop cancer therapies based on the work of M. Karen Newell, Ph.D., a professor of biology at the University of Colorado at Colorado Springs. This new line of research will be pursued by scientists at MetaCytolytics Inc., a wholly owned subsidiary of Viral Genetics.

Newell has discovered a process called "metabolic disruption technology" (MDT), which blocks invasive cells' ability to generate energy from sugars or fatty acids. In essence, MDT "starves" cancer cells, causing them to die. As proof of principle, Newell's team at CU has performed more than 400 metabolic disruption technology experiments in vitro and

in animal models.

"The team at Viral Genetics has the knowledge and experience to develop these technologies into products that may ultimately change the way we understand and develop drugs and processes for a variety of human related applications," said David Allen, CU associate vice president for technology transfer. The licensed intellectual property portfolio includes related technology developed by Newell at the University of Vermont.

"This agreement enables us to pursue new lines of research with Dr. Newell," said Viral Genetics CEO Haig Keledjian. "Her latest discoveries have tremendous potential to help patients with drug-resistant tumors, the leading cause of death due to cancer." According to Newell, MDT is expected to be combined with traditional chemotherapy and radiation treatments.

Newell believes that the same process may also be used to create more effective biofuels by increasing polyunsaturated fats in plant cells.

#### [Study highlights lack of knowledge regarding hospital medications](#)<sup>[48]</sup>

In a new study to assess patient awareness of medications prescribed during a hospital visit, 44 percent of patients believed they were receiving a medication they were not, and 96 percent were unable to recall the name of at least one medication they had been prescribed. These findings are published in the Journal of Hospital Medicine.

"Overall, patients in the study were able to name fewer than half of their hospital medications," said lead researcher Ethan Cumbler, M.D., assistant professor of medicine and director of the University of Colorado Hospital's Acute Care for the Elderly Service. "Our findings are particularly striking in that we found significant deficits in patient understanding of hospital medications even among patients who believed they knew, or desired to know, what is being prescribed to them in the hospital."

The study involved 50 participants, ages 21 to 89, who all self-identified as knowing their outpatient medications, spoke English and were from the community around the University of Colorado Hospital. Nursing home residents and patients with a history of dementia were excluded.

Patients younger than 65 were unable to name 60 percent of medications they could take as needed, whereas patients older than 65 were unable to name 88 percent of these medications. This difference remained even after adjustment for number of medications. For scheduled medications, which need to be taken at specific times, there was no difference in recall according to age.

Antibiotics were the most commonly omitted scheduled medication with 17 percent of all omitted drugs being from this medication group, followed by cardiovascular medications (16 percent) and antithrombotics (15 percent). Among medications that could be taken as needed, analgesics (33 percent) and gastrointestinal medications (29 percent) were commonly omitted by patient recall.

"Our study suggests that adult medicine inpatients believe learning about their hospital medications would increase their satisfaction and has potential to promote medication safety," added Cumbler. "I believe the findings of this research raise very interesting questions about the role and responsibilities of patients in the hospital with respect to their medication safety."

Inpatient medication errors represent an important patient safety issue, with one review finding error in almost one in every five medication doses. The patient, as the last link in the medication administration chain, represents the final individual capable of preventing an incorrect medication administration.

[Expert: State's economy to stabilize but still lose jobs in 2010](#)[49]

Colorado's economy will return to stability but not growth in 2010, according to economist Richard Wobbekind of the University of Colorado at Boulder's Leeds School of Business.

Wobbekind's announcement was part of the 45th annual Colorado Business Economic Outlook Forum hosted Dec. 7 by the Leeds School of Business and BBVA Compass bank.

"We still have some serious kinks to work through, but we see 2010 as a stabilizing year that will put the state economy in a position for more sustained growth in 2011 and 2012," he said.

Overall, the forecast calls for a loss of 3,200 jobs in 2010, compared with the 100,000 jobs the state lost in 2009. Job losses will continue through the first quarter, before leveling off in the second quarter and moving into positive growth in the third and fourth quarters, according Wobbekind.

"I think people will be disappointed to hear that we think there will be continued job loss in 2010, but in relative terms, it will seem like we're in recovery because the job loss is very small compared to what has happened in 2009," Wobbekind said.

And it's just not one or two years of poor job creation that are dragging the state down, he said. From an employment perspective, the decade beginning in 2000 can best be described as the lost decade for jobs in the state, with only 117,900 jobs added while Colorado's population increased by 870,000 people.

"Over the last decade we really haven't generated the number of jobs that we need for the growing population of this state," he said. "Our recent job growth is very low compared to the past three decades."

Wobbekind said the current recession has hit rural areas of the state harder than the urban areas, which wasn't true during the 2002-03 recession in which urban centers were hit harder.

"This economic downturn has had a big impact on tourism, which is a major part of the economy in many rural areas of the state," he said. "In addition, it's hurt the energy industry which is concentrated on the eastern plains and the Western Slope. The combination of those two sectors along with a slowdown in agriculture means many rural jobs lost."

Colorado's unemployment rate for 2010 is expected to increase from 7.3 percent at the end of 2009 to 8.1 percent, compared with a projected national unemployment rate of 9.8 percent.

Compiled by the Leeds School's business research division, the comprehensive Colorado Business Economic Outlook for 2010 features forecasts and trends for 13 business sectors prepared by more than 90 key business, government and industry professionals.

To view the entire economic outlook for Colorado in 2010, including an overview of each of the state's major economic sectors, visit <http://leeds.colorado.edu>[50] and click on The Economy: 2010 Forecast.

To view the Leeds School's Business Research Division blog, visit <http://www.cuboulderblogs.com/brd/>[51].

To view a short video of Wobbekind discussing the economic outlook for Colorado in 2010, visit <http://www.colorado.edu/news/>[52].

