Swasey scholarship reaches halfway mark[1]

Regent committees discuss presidential search process, construction projects[2]

Laws and policies guiding University of Colorado presidential searches and employee ethics, and future construction projects on all four campuses are among the recommended issues the CU Board of Regents will discuss at its regular meeting next month.

The regents' laws and policies and capital construction committees met today in Denver, and agreed to forward several items for the board's full review and discussion during its Feb. 10 meeting at the University of Colorado at Colorado Springs.

Major agenda items from the laws and policies committee included a review of the university's presidential search process; the adoption of nine ethical principles for CU employees; a policy revision that would give the president greater flexibility in delegating nontenure hiring decisions; and an analysis of the impact of providing in-state tuition status to the dependents of honorably discharged military veterans.

During a discussion about the process that guides how CU chooses its top executive and whether changes should be adopted, laws and policies committee members asked for input from governance groups, and decided to send the issue to the full Board of Regents for discussion next month. Governance leaders have been a significant part of the discussion thus far.

In recent years, members of the CU community have challenged the presidential search process, questioning whether the regents should present more than one finalist before making a decision to hire a new president. Each of the options presented to the committee presents a different scenario for the level of regent involvement in the selection of the CU president.

"The regents are expected to stake out some parameters, even if they don't finalize the policy at their next meeting," said Dan Wilkerson, vice president, university counsel and secretary of the Board of Regents.

Laws and policies committee members also discussed at length the regents' guiding principles, which were distributed to governance groups for review, and the university's proposed mission statement. The regents are expected to take a final vote on the mission statement next month, and hope to finalize the guiding principles as well.

Also on the agenda was an overview of the university's nine proposed Principles of Ethical Behavior, which committee members agreed to send to the full board for final adoption at the February meeting. To read a list of the principles, click here[3].

The committee also received an analysis of creating a policy to offer resident tuition to spouses and dependents of persons honorably discharged from the military. CU Chief Financial Officer Kelly Fox guided the committee through an analysis of the financial impact, and the committee asked for some additional analysis that would further refine the policy.

In the capital construction committee meeting, the CU Budget Office provided committee members with an update on recommended state funding from the Office of State Planning and Budgeting, which has been submitted to the legislature for consideration.

CU's projects in fiscal year 2011 will include $13 million to meet annual COP payments at the Anschutz Medical Campus; a portion of the $8.3 million in annual federal mineral lease payments for the COP funding that financed the renovation of the UCCS and UC Denver science buildings; and $1 million for controlled maintenance projects.

Controlled maintenance projects recommended to be completed next fiscal year include an upgrade to the fire sprinkler

system at University Hall at UCCS and fire safety upgrades at CU-Boulder, according to Teresa Osborne, the office's director of capital assets.

Capital construction committee members also received overviews on several construction projects each campus would like to move through the funding process, including a bid to expand the prestigious JILA joint research institute at CU-Boulder; another to retrofit the AMC research towers to attain greater energy savings; and three UCCS projects, including one that would enable nursing students to train in a clinical setting in a building funded by Peak Vista in Colorado Springs.

The capital construction committee voted unanimously to send all of the construction projects to the full Board of Regents for further review and spending authorization.

By Deborah Méndez-Wilson

Health care, STEM education in CU spotlight as U.S. lawmakers convene[4]

As delegates from Colorado and the rest of the country return to Capitol Hill this week, the University of Colorado's Office of Government Relations begins a new year of work aimed at securing federal funding for initiatives at campuses in Boulder, Colorado Springs and Denver.

The office also will closely monitor big-picture topics that hold long-term ramifications for CU, not the least of which is health care reform.

"It impacts everything from work done by our faculty, to student health care plans to health insurance coverage for university employees and reimbursement rates," said David Sprenger, senior director of federal relations.

Noted Lynne Lyons, director of federal relations, an expansion of health care coverage throughout the country would exacerbate already serious shortages of medical professionals. Sen. Michael Bennet on Friday, Jan. 15, hosted a health care jobs forum at the University of Denver, where he invited UC Denver Chancellor Roy M. Wilson to join in a roundtable discussion of work force shortages and the importance of residencies.

The Office of Government Relations also plans to build on momentum generated by President Obama's recent gathering of higher-education leaders distinguished for work on STEM — Science, Technology, Engineering and Mathematics — education. Two CU chancellors — Philip P. DiStefano of Boulder and Pam Shockley-Zalabak of Colorado Springs — earlier this month attended the White House announcement of a major initiative that expands the president's Educate to Innovate campaign, aimed at fast-tracking the nation's focus on STEM education.

"The White House recognizes the leadership that those campuses play in STEM training and increasing the work force," Sprenger said. "We're working closely with Boulder and Colorado Springs to ensure proper resources are available. We'll be watching upcoming higher education legislation and support continued funding of current programs. We also want to work to make funds available to sponsor new, innovative programs aimed at increasing the work force. On those issues, we're working with the appropriate committees, members of the Colorado delegation and the Department of Education."

While specifics on funding requests for the next fiscal year won't be final until next month, CU hopes to build on successful appropriations made during last year's session. Those projects and the money secured are:

CU-Boulder: Smart Grid Communications Security Project, $1 million; Colorado Schools Safety Program, $500,000

UC Denver: Linda Crnic Institute for Down Syndrome, $1.5 million; Physician Pipeline for Rural Colorado, $575,000

UCCS: SupportNet for Frontline Providers of Traumatic Stress at Fort Carson, $2.4 million

Other projects: Colorado Drug, Diagnostic, and Device Development Institute, $300,000; eSpace: Center for Space Entrepreneurship, $1.6 million; I-225/Colfax Interchange, $850,000.

University leads nation in awards from new program for researchers[5]

From left: Arthi Jayaraman, Michael Hermele, Tobin Munsat and Alysia Marino

Four University of Colorado at Boulder professors will receive $750,000 grants under the Department of Energy's new Early Career Research Program — the most awards received by any university in the nation.

The four recipients are Michael Hermele, Alysia Marino and Tobin Munsat of the department of physics and Arthi Jayaraman of the department of chemical and biological engineering.

The four assistant professors were among 69 scientists selected from 1,750 applicants at U.S. universities and DOE national laboratories. They will receive five-year research grants of at least $150,000 per year under the American Recovery and Reinvestment Act. The awards were announced last week by Energy Secretary Stephen Chu and Colorado Gov. Bill Ritter.

CU-Boulder's four awards were the most received by any U.S. university. Nearest to CU's total were the Massachusetts Institute of Technology and Princeton University, which each received three.

"That CU-Boulder would distinguish itself nationally with more early career awards than any other university in the nation is a great tribute to the quality faculty and outstanding programs that bring the best minds to CU-Boulder," said Provost Stein Sture. "We are transforming the definition of research and scholarship, and this award is evidence that our efforts are paying off for a generation of young faculty."

Three of the recipients are in the CU-Boulder department of physics. Hermele conducts research in theoretical condensed matter physics and joined the physics faculty in 2007. Marino does research in experimental high-energy physics and joined the physics faculty in 2009. Munsat does research in experimental plasma physics and joined the physics faculty in 2004.

"This is truly an outstanding accomplishment," said Professor Paul Beale, chair of the physics department. "Early career awards are designed to assist the best young scientists in the nation to make innovative and groundbreaking discoveries. Winning three awards in the department of physics is a sign of the success we have had in recruiting the best young scientists in the world to join our faculty. Nine of our junior faculty members have won early career awards from federal funding agencies since 2000."

The DOE's Office of Science plans to continue the program, choosing new candidates on an annual basis, and supporting them under annual appropriations.

"This new program reflects the administration's strong commitment to creating jobs and new industries through scientific innovation," said Secretary of Energy Steven Chu in his announcement Tuesday, Jan. 19. "Strong support of scientists in the early career years is crucial to renewing America's scientific work force and ensuring U.S. leadership in discovery and innovation for many years to come."

Award winners had to be untenured, tenure-track assistant professors at U.S. academic institutions or employed full

time at a DOE national laboratory and who received a Ph.D. within the past 10 years. Research topics were required to fall within the purview of the department's Office of Science's six major program offices: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics and Nuclear Physics.

Awardees[7] were selected from a pool of 1,750 university- and national laboratory-based applicants. Selection was based on peer review by outside scientific experts.

Three who embody Jeffersonian ideals earn one of CU's highest honors[8]

NOTE: We have learned that when this story first was posted, some nominees for the Thomas Jefferson Award had not yet received the letters sent to inform them of the committee's decisions. While the Newsletter strives for timely delivery of information, it is not our policy to make such announcements before those involved in an award process have been notified. We regret posting the information sooner than was appropriate and will take steps to avoid a future occurrence.

One University of Colorado professor's computer science classes inspire origami and other see-and-touch mathematics. Another has spent the past 20 years teaching in prisons and jails. And a CU political science student helps organize an annual bicycle ride to raise money for women in the developing world.

Those diverse pursuits led to the three men being named winners of the 2010 Thomas Jefferson Award:

Eisenberg

Hartnett

Aloyo

Michael Eisenberg, Ph.D., professor of computer science at CU-Boulder; Stephen Hartnett, Ph.D., associate professor and chair of the communication department in the UC Denver College of Liberal Arts; and Eamon Aloyo, a doctoral candidate in the CU-Boulder political science department.

The award is among the highest conferred at CU, and recognizes a professor, staff member or student who helps advance the ideals of Thomas Jefferson, the nation's third president and a Founding Father acclaimed for his broad interests in the arts, sciences, education and public affairs. CU has been recognizing members of the university community with the award since 1962.

Winners receive an engraved plaque and a $2,000 cash honorarium, and will be recognized by the CU Board of Regents at an April board meeting. Funding for the awards stems from earnings on an endowment provided by the McConnell Foundation and from a bequest by CU alumnus Harrison Blair.

Thomas Jefferson nominees must demonstrate a broad interest in literature, arts and sciences and public affairs, a strong concern for the advancement of higher education, a deeply seated sense of individual civic responsibility, and a profound commitment to the welfare and rights of the individual. Their efforts must combine excellence in the performance of regular academic or work responsibilities with outstanding service to the broader community.

Members of the selection committee included CU alumni, students, faculty and staff members from across the CU system.

Eisenberg, also a CU President's Teaching Scholar, earned his master's and doctoral degrees in computer science at the Massachusetts Institute of Technology. He has won widespread recognition as a scholar, with awards that include the Charles Hutchinson Teaching Award from the CU-Boulder School of Engineering and the Boulder Faculty Assembly Excellence in Teaching Award.

Besides distinguishing himself in the classroom, Eisenberg is a playwright and songwriter who inspires his students to incorporate art into learning, and shares his passion for computer science and math with K-12 students through CU-Boulder's renowned Science Discovery Class Program.

"Mike is one of our best-loved teachers, even though he insists on deep thinking and hard work," wrote computer science Professor Elizabeth Bradley in her nomination letter. "And Mike's teaching extends well beyond the university classroom. His Ph.D. students do wonderfully creative work and move on to build their own research programs in some of the very best universities in the world."

Hartnett is a prolific and nationally recognized scholar and writer who teaches Thomas Jefferson's texts and speaks publicly about the U.S. president's legacy. He participated in a convincing re-enactment[12] of the 1858 senatorial debates between Abraham Lincoln and Stephen A. Douglas at UC Denver in 2008, earning him local and international recognition. Hartnett has received many other accolades for his academic and community work, including the Northwestern Communication Association's 2008 Human Rights Award.

His books include the forthcoming "Executing Democracy, Volume One: Capital Punishment and the Making of America" and 2002's "Sweet Freedom's Song: 'My Country 'Tis of Thee' and Democracy in America." Hartnett also has earned a national reputation as a fervent opponent of the nation's prison system and an experienced and successful prison educator.

"Hartnett thus embodies the Jeffersonian ideals of the public man of letters committed to enhancing the norms of democratic deliberation," wrote Daniel J. Howard, Ph.D., dean of the UC Denver College of Liberal Arts and Sciences in a nomination letter. "Dr. Hartnett is a scholar who strives to embody the democratic ideals, intellectual daring, and artistic creativity that we have come to know and love as the legacy of Thomas Jefferson."

Aloyo is a doctoral candidate in the CU-Boulder political science department who is studying international development and political theory. He also works as a teaching assistant and hopes to become a college professor after he earns his degree. As part of his efforts to broaden his experience of other cultures, he has studied in Spain, Italy and Argentina, and has been involved with humanitarian efforts in the United States and abroad. He has helped organize bicycle fundraisers, including a cross-country event to help alleviate poverty in developing nations.

"I have seldom encountered a graduate student with such a strong social conscience and burning desire to be of help to others," wrote David Mapel, CU-Boulder political science professor, in his nomination letter. "Eamon is determined to use his graduate training to be of practical use in the world."

Disney exec to bring media expertise to telecommunications program[13]

Padden

Preston Padden, executive vice president for government relations for the Walt Disney Co., will join the University of Colorado at Boulder in the fall as an adjunct professor in the Interdisciplinary Telecommunications Program[15] and as a senior fellow at the Silicon Flatirons Center.

Padden, who recently announced plans to retire from Walt Disney, has been a regular speaker at the center's

conferences since 2000, discussing piracy and media regulation. He will participate in a Jan. 31-Feb. 1 Silicon Flatirons Center conference, "The Digital Broadband Migration: Examining the Internet's Ecosystem."

Dale Hatfield, adjunct professor of telecommunications and interim director of the center, said he expects Padden will co-teach a course on new media and cable television in the fall.

"Preston understands the media business probably as well as or better than anyone in the U.S.," Hatfield said. "We've been talking to him for a long time about coming to teach at CU."

Padden joined Walt Disney Co. in 1998 after serving a year as president of the ABC television network. Prior to that, he was president of network distribution for the Fox network and part of the original team that created the fourth broadcast network. He holds a law degree from George Washington University and a bachelor's degree in economics from the University of Maryland. His son, Joseph, lives in Boulder.

"We are pleased that Mr. Padden will be teaching part-time at the University of Colorado," said engineering Dean Robert Davis." To have an individual with his extensive practical experience and record of achievement join our faculty is of tremendous benefit to our students."

The Interdisciplinary Telecommunications Program, which is hosted by the College of Engineering and Applied Science, is the nation's oldest and one of the most prestigious graduate telecommunications programs in the world. For more than 35 years, the program has educated leaders who can bridge the engineering, business, economics, policy and legal fields.

Former NBC producer named director of leadership institute[16]

Grace

Stephen Grace, former general manager of the largest educational cable access channel in the country and a producer for NBC's "Today" show, has been appointed executive director of the Presidents Leadership Institute[18] at the University of Colorado at Boulder.

The institute is home of the nationally recognized Presidents Leadership Class (PLC), a rigorous academic and experiential four-year leadership training program for top CU-Boulder students. Each year, 50 of CU's top-ranked entering freshmen are selected to be PLC Scholars and awarded merit-based scholarships.

Grace has more than 25 years of experience in nonprofit management, broadcast journalism and academia. He served as president of the Los Angeles Cable Television Access Corporation and as general manager of cable access channel LA36. During his tenure, he raised more than $2 million in grants and production fees and built closer ties to the community and local colleges and universities. He won an Emmy Award for local programming and the Carrie Chapman Leadership Award from the League of Women Voters for his efforts to broadcast local election information.

He traveled around the world while producing "Today" show segments and programs for NBC News. He later was a founding partner of Popular Arts Entertainment, one of the largest independent news production groups in the United States. More recently, he was an adjunct faculty member in communications studies at California State University Los Angeles, where he specialized in new media and technology.

UC Denver educator selected for national research award[19]

Strain

Phil Strain, director of the Positive Early Learning Experiences (PELE) Center in the School of Education and Human Development at the University of Colorado Denver, has been selected as the 2010 recipient of the Council for Exceptional Children's Special Education Research Award.

The national award will be presented at the council's annual convention, April 21 in Nashville. Strain is an expert on intervention research specific to young children with autism, young children with early onset problem behavior and children's social/emotional development.

The Council for Exceptional Children is the largest international professional organization dedicated to improving the educational success of individuals with disabilities and/or gifts and talents. CEC advocates for appropriate governmental policies, sets professional standards, provides professional development, advocates for individuals with exceptionalities, and helps professionals obtain conditions and resources necessary for effective professional practice.

University of Colorado Cancer Center awards grants to faculty[21]

Six faculty members have been awarded University of Colorado Cancer Center American Cancer Society Institutional Research Grants. The 2010 recipients each will receive $30,000 to explore a cancer research topic for one year.

The awards are for junior faculty members who have not obtained national funding and are intended to jump-start their independent research programs in order to help them receive more funding, said the center's interim director, Andrew Thorburn, Ph.D.

Grant winners are:
[22]
Gagan Deep, Ph.D.
research instructor, pharmaceutical sciences;
University of Colorado School of Pharmacy [23]
Dohun Pyeon, Ph.D.
assistant professor; microbiology;
University of Colorado Denver [24]
Rebecca Schweppe, Ph.D.
assistant professor; endocrinology/metabolism/diabetes;
University of Colorado School of Medicine [25]
Rajeev Vibhakar, M.D., Ph.D.
assistant professor, pediatrics;
University of Colorado School of Medicine [26]
Xiaoping Yang, Ph.D.
research instructor, medical oncology;
University of Colorado School of Medicine [27]
Rui Yi, Ph.D.
assistant professor, molecular, cellular and developmental biology;
University of Colorado at Boulder

Research efforts cited in Discover's top science stories of the year[28]

Seven research efforts involving the University of Colorado at Boulder were among the top 100 science stories of the year selected by Discover Magazine[29] — ideas and breakthroughs that are reshaping our understanding of the world, according to the publication.

CU-Boulder research was involved in the following top science stories cited by Discover for 2009:
New planet-hunting efforts (No. 8) The MESSENGER mission to Mercury (28) Arctic warming (60) Water vapor jets on Enceladus, a moon of Saturn (67) Early bombardment of Earth by asteroids (77) The Large Hadron Collider (86) The Hubble Space Telescope repair mission (100)
Two of the top stories published in this month's issue were based entirely on CU-Boulder research.

The magazine highlighted work by Mark Serreze, CU-Boulder geography professor, and his team on dwindling Arctic sea ice and its outlook for the future. The research by Serreze, who also is director of CU-Boulder's National Snow and Ice Data Center, ranked as the 60th top science story by Discover for monitoring the loss of Arctic sea ice from 1979 to 2009.

The 77th ranked story featured the research effort by Oleg Abramov, research associate, and Stephen Mojzsis, professor in CU-Boulder's geological sciences department, on the massive bombardment of Earth nearly 4 billion years ago by asteroids as large as Kansas.

Five other top stories featured contributions by CU-Boulder scientists.

The eighth top story in Discover cited new technologies being used to spot planets orbiting other stars. One new tool, NASA's Kepler spacecraft that launched in 2009, is giving a huge boost to planetary scientists by scanning thousands of stars for evidence of periodic dips in starlight signaling transits of orbiting planets moving across star faces.

A team of students and professionals from CU-Boulder's LASP, led by Bill Possel, mission operations and data systems director, are operating the Kepler spacecraft from campus, working with Ball Aerospace and Technologies Corp. of Boulder.

Story No. 28 was a flyby of Mercury last September by NASA's MESSENGER spacecraft that discovered evidence of past volcanism and provided new findings about the planet's tenuous atmosphere. A team led by William McClintock of LASP, who led the development of an $8.7 million CU-Boulder instrument aboard MESSENGER, discovered widespread magnesium and imaged sodium and calcium, which also have been seen from Earth. The team found that atoms are blasted from the planet's surface by solar winds and are constantly replenishing the planet's atmosphere before drifting away into space.

The 67th top story involved three recent studies published in Nature on water vapor jets emanating from Saturn's tiny, icy moon Enceladus; Nicholas Schneider, professor in CU's Laboratory of Atmospheric and Space Physics, led one of those studies.

The Large Hadron Collider, story No. 86, was designed to send protons and charged atoms whizzing around a 17-mile underground loop in Europe at 11,000 times per second in an attempt to re-create the conditions immediately following the Big Bang. Some 15 CU-Boulder researchers are involved with the collider's Compact Muon Solenoid, or CMS, one of two massive particle detectors in the collider.

Rounding out the list of 100 stories: the 2009 Hubble Space Telescope repair mission, including installation of the new Wide Field Camera 3, which has a higher resolution and a more expanded field of view than previous Hubble cameras. A second instrument installed on the orbiting observatory during the mission was the Cosmic Origins Spectrograph, designed by a team led by CU-Boulder's James Green.

College of Business receives $1.25 million grant for business ethics[30]

The University of Colorado at Colorado Springs College of Business on Tuesday, Jan. 19, was awarded a $1.25 million grant to help further instill a high standard of ethics in students attending the university.

Venkat Reddy, dean of the college, announced the grant from Denver-based Daniels Fund.

"The Daniels Fund Ethics Initiative offers us an opportunity to further our vision of building successful futures by enhancing integration of ethics throughout our business curriculum," Reddy said. "With the assistance of our college, campus, community and consortium partners, we look forward to fostering a culture in which ethical behavior is encouraged and expected."

Eight universities across the Rocky Mountain region will collaborate on the initiative to strengthen principle-based business ethics education for students in the partnering schools, explained Linda Childears, president and CEO of the Daniels Fund.

"Corporate scandals involving ethical misconduct have damaged stakeholder confidence and increased pressure for businesses and other organizations to establish clear standards for ethical conduct," Childears said. "This crisis in business ethics is a serious concern for all of us and creates the opportunity to strengthen management education and to elevate the importance of business ethics curricula."

Business school deans from the eight participating universities will form a consortium that will leverage the achievements of the individual schools to further strengthen and expand ethics education in the region.

At UCCS, Tracy Gonzalez-Padron, assistant professor, will direct the Daniels Ethics Initiative. She plans a broad range of efforts within the College of Business, throughout the campus and in the greater Colorado Springs community.

The initiative includes two universities with existing business ethics programs supported by the Daniels Fund: the Daniels College of Business at the University of Denver, and the University of Wyoming College of Business.

The other six universities will share equally in $7.5 million in grant funding for the initiative. Besides UCCS, the universities that will each receive $1.25 million grants, paid over five years, are Colorado State University, the University of Northern Colorado, New Mexico State University, the University of New Mexico and the University of Utah.

The initial grant and ongoing support for the initiative is provided by the Daniels Fund, a private foundation established by cable television pioneer Bill Daniels, who was widely recognized for his ethics and integrity in business.

"Bill Daniels considered achieving a reputation for integrity and being ethical in business as the greatest accomplishments in his life," Childears said. "This initiative honors his commitment to honesty and integrity by advancing principle-based ethics as the standard for doing business in our society."

Daniels established the fund to operate the Daniels Fund Scholarship Program and the Daniels Fund Grants Program in Colorado, New Mexico, Utah and Wyoming. His estate transferred to the Daniels Fund[31] when he died in March 2000, making it one of the largest foundations in the region.

CDPHE issues plan and calls for partnership with School of Public Health[32]

The Colorado Department of Public Health and Environment (CDPHE) recently issued "Colorado's Public Health Improvement Plan — From Act to Action," a statewide public health improvement plan. It will serve as a roadmap for improving Colorado's public health system.

Within five years, Colorado will conduct a comprehensive health assessment, increase capacity for addressing critical health priorities and position state partnership with local agencies in order to develop future improvement plans.

The plan follows months of input, including comments from 350 public health professionals and partners, and was developed in response to the 2008 Public Health Act, a statutory revision of Colorado's public health system.

The plan outlines six system priorities, many of which include direct partnerships with the Colorado School of Public Health Center for Public Health Practice.

Of these priorities, the school will play a strong role in improving public health informatics, addressing work force development, and providing the experience and skills to conduct local health assessments across the state.

"This first plan is about creating a stronger system of public health in Colorado," said Kathleen Matthews, CDPHE director of planning and partnerships. "The Colorado School of Public Health is a critical partner in the system. It is wonderful that we now have a school of public health in the region to build the work force capacity as well as guide the research specific to our needs in the Rocky Mountain West. We are counting on the Center for Public Health Practice to grow into its role of supporting all members of the public health workforce, including environmental health specialists, epidemiologists, health educators, nutritionists and public health nurses."

Matthews was one of several public health professionals who participated in the plan's development, including the following Colorado School of Public Health representatives:
Jessica Bondy, M.S., department of biostatistics and informatics J. Elaine Borton, M.P.H., Center for Public Health Practice Tim Byers, M.D., M.P.H., Center for Public Health Practice Jan Gascoigne, Ph.D., Center for Public Health Practice Cerise Hunt, M.S.W., Center for Public Health Practice
For more information and to read Colorado's Public Health Improvement Plan, visit http://www.cdphe.state.co.us/opp/ [33]

Awards honor teamwork of CU researchers, private-sector business[34]

The University of Colorado Technology Transfer Office tonight honors CU faculty and outside companies collaborating on the development of treatments for infectious diseases, programs to help recovering trauma victims, human eye care, human medical devices and children's literacy.

The University of Colorado Technology Transfer Office will host its annual awards ceremony at 5:30 p.m. at the historic Tivoli Turnhalle on the Auraria Campus in Denver (invite only). A panel discussion about the university's entrepreneurial ecosystem will precede the awards, which recognize five faculty researchers, two companies founded on university research and an Aurora organization helping local bioscience companies start up and grow.

Over the past two decades, CU researchers have developed technologies that have led to the creation of 94 new companies (view PDF[35]). Of these, 77 have operations in Colorado, seven have become publicly traded companies (either through an IPO or via a reverse merger) and 12 have been acquired by public companies. Companies created based on CU technology have attracted more than $4 billion in financing.

"Technology transfer is the process of conveying university research inventions to companies," said David Allen,

associate vice president for technology transfer at CU. "Most of the companies that license CU technology operate in Colorado. This annual event is one way to highlight one often-overlooked aspect of CU's impact on the state's economy and human betterment."

This year's award winners:

Robert T. Batey**[36]; Inventor of the Year, University of Colorado at Boulder.**
Batey, an associate professor of chemistry and biochemistry, works with riboswitches (recently discovered genetic regulatory elements). A large portfolio of riboswitch technologies from Batey's lab have been licensed by BioRelix Inc. [37], which develops novel and highly potent anti-infective compounds against pathogens resistant to currently available drugs.

Robert S. Hodges**[38]; Inventor of the Year, Anschutz Medical Campus.**
Hodges, a professor of biochemistry and molecular genetics, works on understanding protein structure and function through synthetic peptide and antipeptide therapeutic approaches. Antimicrobial peptide technology from Hodges' lab was licensed to BioAMPS International[39] in 2009; he is currently collaborating on a project to develop a universal vaccine against influenza infection.

Mark E. Rentschler**[40]; New Inventor of the Year, CU-Boulder.**
An assistant professor of mechanical engineering, Rentschler's work is focused on biomechanics, medical devices and robotics, particularly actuator and sensor design and development for micro-robotic applications.

Malik Y. Kahook**[41]; New Inventor of the Year, Anschutz Medical Campus.**
An associate professor of ophthalmology, Kahook specializes in the medical and surgical care of glaucoma and cataracts. Kahook recently received sponsored research funds from a pharmaceutical company that may be followed up with an option agreement for one of his inventions, a noninvasive device for lowering intraocular pressure.

Charles C. Benight**[42]; New Inventor of the Year, University of Colorado at Colorado Springs.**
Benight, a professor of psychology, studies human adaptation from trauma; over the past 14 years, he has focused research on recovery from natural disasters, man-made disasters, motor vehicle accident trauma, sexual abuse, domestic violence and bereavement. In 2009, Dr. Benight's trauma recovery programs were licensed by BlueSun Inc. [43]

GlobeImmune Inc.**[44]; Bioscience Company of the Year.**
GlobeImmune, based in Louisville, is a private biopharmaceutical company developing targeted molecular immunogens (Tarmogens) for the treatment of cancer and infectious diseases. GlobeImmune has two products in randomized Phase 2 clinical trials: GI-5005 for chronic hepatitis C infection (HCV) and GI-4000 for pancreas, lung and colorectal cancers caused by mutations in the Ras oncogene. GlobeImmune has raised more than $145 million in venture and alliance funding to date.

Mentor InterActive Inc.**[45]; Physical Sciences/Engineering/IT Company of the Year.**
Mentor InterActive Inc., based in Boulder, publishes and markets interactive software based on the proven Foundations to Literacy reading program developed at CU-Boulder. The first products in the My Virtual Tutor: Reading line debuted in September 2009 at leading retailers throughout the U.S. and Canada. Mentor InterActive recently signed a licensing agreement with Nintendo of America Inc. to develop My Virtual Tutor: Reading for Nintendo DS and Wii video game systems.

Fitzsimons BioBusiness Partners**[46], Michael Artinger, Director; Business Adviser of the Year.**
Fitzsimons BioBusiness Partners (FBBp) is the premier advisory group serving the Colorado bioscience community, nurturing bioscience businesses in order to establish a global position for the industry at the Colorado Science + Technology Park at Fitzsimons. FBBp plays a critical part in helping CU Tech Transfer fulfill its role in spinning out new enterprises and helping those enterprises compete for grants and investment capital and become sustainable and growing companies.

The CU Technology Transfer Office[47] pursues, protects, packages, and licenses to business the intellectual property

generated from research at CU. The TTO provides assistance to faculty, staff, and students, as well as to businesses looking to license or invest in CU technology.

Assembling planet's Tree of Life less daunting thanks to researchers[48]

Showing how all organisms on Earth are related to each other has been a major goal of biologists since the time of Darwin. The "Tree of Life" illustration is critical to understanding when and how key traitsâ€" like the ability to cause or transmit harmful diseasesâ€"evolved. But progress has been slow, because the methods available for analyzing genes are costly, labor intensive and error-prone.

Now researchers at the University of Colorado School of Medicine have shown how assembly of the Tree of Life can be greatly sped up. Writing in the "Proceedings of the National Academy of Sciences of the USA," postdoctoral fellow Chris Todd Hittinger and Professor Mark Johnston and their collaborators at Vanderbilt University report their use of new and very high throughput DNA sequencing technologies to identify hundreds of genes from 10 different species of mosquitoes. By comparing these genes they were able to determine the relationships of these mosquitoes, which are responsible for spreading malaria, yellow fever, and dengue hemorrhagic fever. The researchers describe how application of their approach will bring a complete Tree of Life on our planet within reach.

"There are thousands of mosquito species and more than 2 million species on our planet. Determining how they are all related is a massive undertaking, and we have provided a roadmap for how to achieve the dramatic cost and labor reductions that will be required to reach this important goal," said Mark Johnston, chairman of the department of biochemistry and molecular genetics at the University of Colorado School of Medicine.

"We developed an experimental and computational approach that promises to greatly speed the process. We employed state-of-the-art, next-generation DNA sequencing technology to sample hundreds of genes from 10 mosquito species. This tremendous quantity of data allowed us to accurately determine their evolutionary relationships with unprecedented efficiency and at such a low cost that it will soon bring Darwin's dream of the Tree of Life within reach" added Hittinger.

Five Questions for Shiquan "Michael" Wang[49]

[50]
Shiquan "Michael" Wang understands the vast differences between China and the United States, and he would like nothing more than to bring these two giants together to establish mutual trust across their cultural and social systems.

He's already spent years working toward that goal. In China, he was a press officer at the Information Office of Shanghai Municipal Government and later served as editor-in-chief of the Shanghai Daily newspaper. In both positions, he tried to explain the culture of his beloved China to Americans and Europeans.

Now, as a University of Colorado at Colorado Springs visiting scholar, Wang, 46, continues his endeavors this semester, teaching two classes through the department of communications that focus on culture and Chinese leadership and the media.

Wang says it was 20 years ago that he chose his American name, Michael, by looking through a dictionary. He liked the name for its meaning: "A person like God." He's lived in the United States for only about six months, taking an

American culture immersion class and learning to navigate the nuances of the nation and Colorado, including the snowstorms.

— Cynthia Pasquale

1. What are some things that have surprised you or that you don't understand about America?
I am familiar with American culture, but I can only have the realistic feeling when I experience it myself. Nothing really surprised me here but I just feel strongly motivated to tell Americans that they also need to share some good values and wisdom from other cultures so that their challenges can be faced and solved well. For example, Americans should show more respect to their teachers and especially take more care of their elders, like parents and grandparents and in-laws who are really in need. The transactional feedback and care is great for family members and themselves.

American individualism is good in many cases, but if it is too individual, the society will tend to be cold and people will feel lonely.

I love freedom, but I think America is over-free in some aspects. Guns are legal to have and easy to buy. I can see competition is everywhere, but America also needs more harmony and Christian values. Although some people are called Christians, they seldom or never keep the Christian code of conduct in love, taking care of others or having the necessary self-control in personal life. But generally, America is a very good country.

2. How do Chinese and American students/educational institutions differ?
The major difference is that Chinese education is mainly teaching and giving students knowledge and information. American education is to enlighten students and make students participate during the teaching. I think Chinese education should learn more from American education in the concept and methodology.

3. What is the most important thing you think Americans should understand about China?
The most important thing that Americans should understand is Chinese culture and the special social situation there is based on the feudal society and 4,000 to 5,000 years of history. A lot of misunderstandings are caused by the lack of knowledge and China is often criticized unfairly in some ways. Because of the culture, many good experiences and ways of doing things cannot be applied to Chinese society efficiently. No one can change China into America in a short time. A lot of wise Chinese leaders have tried hard to make China into a modernized society, but some cultural relics and traditional customs are very strong. Therefore, they have to do it step by step with patience.

4. What are some of your favorite ways to spend free time in America, and what do you miss most and least about China?
I like to do some reading in the office and shop in Wal-Mart. Recently, department colleagues collected money to buy a gift card at a recreation center for me. I will visit there soon. I also visited some beautiful places like Garden of Gods and Rocky Mountain National Park. They are fabulously beautiful.

I love the weather here with most sunny days, and I love the people here who are kind and nice. Driving on snow is a challenge, but it is also a special experience. I spent some time in the New Life church, which made me happy and warm by the environment and Chinese community. I have also been invited to several professors' homes and was treated very kindly, and that is an unforgettable experience.

I miss all my family members and my job at the China Executive Leadership Academy Pudong, too, because we are doing something to change our leaders all over the country. In a centralized society, leaders and their leadership are crucial to the country and the nation. I am happy that we are doing something very significant.

For the least, what I miss is the complicated personal relations in China and the very crowded streets and residential areas everywhere. Although we have the same territory area, we have about four times the population of the U.S.

5. What goals and dreams would you like to fulfill?
I wish to have the opportunity to make some contributions to promote comprehensive communications between China and the U.S. These two brothers, who often have some disagreements, should really communicate and understand each other. We both have got our strengths and challenges. I wish our two countries could really complement each

other modestly in different aspects so as to benefit our people and society.

Chase Faculty Community Service Award nominations requested[51]

Nominations for the annual Chase Faculty Community Service Award[52] are being accepted through Feb. 26 to honor a full-time faculty member who has provided exceptional educational, humanitarian, civic or other service to the community outside of University of Colorado duties and without pay.

The $10,000 award is made possible by an endowment from the Chase Corporation through the CU Foundation.

Any university employee or student may submit nominations to the Office of Academic Affairs. Each nomination packet must include:
a nomination letter that speaks specifically to the award criteria as stated above two supporting letters from people within the university community who have direct knowledge of the nature and benefit of the community service two supporting letters from people outside the university who have direct knowledge of the nature and benefit of the community service a copy of the faculty nominee's current curriculum vitae
Nominators may also include other information supporting the nomination and with relevance to the criteria.

Please submit six copies of the complete nomination packet to:

2009-2010 Chase Faculty Community Service Award
Office of Academic Affairs
University of Colorado
1800 Grant St., Suite 800
Denver, CO 80203

A systemwide advisory committee will review nominations and submit a recommendation to President Bruce D. Benson. Previous winners of the award are not eligible.

For more information about the award, contact Linda Starkey, special assistant to the associate vice president and academic affairs officer, at 303-860-5623.

Amgen donates $1 million to CU-Boulder Biotech Building[53]

Amgen, a leading biotechnology company with a Boulder County presence, has committed $1 million toward the Jennie Smoly Caruthers Biotechnology Building, a state-of-the-art research and teaching facility that will greatly enhance science and education research and discovery at the University of Colorado at Boulder.

The first phase of the building, which will comprise 257,000 square feet on the East Campus northwest of Colorado Avenue and Foothills Parkway, is slated for completion in late 2011, and will house the university's Colorado Initiative in Molecular Biotechnology (CIMB), the Department of Chemical and Biological Engineering and the Biochemistry Division of the Department of Chemistry and Biochemistry.

The building has been instrumental in helping CIMB recruit a "dream team" of scientists and engineers led by Thomas Cech, 1989 Nobel Laureate in chemistry, who rejoined CU-Boulder's faculty in spring 2009 to lead the initiative.

"Dr. Cech has not only been a leader in his field, but has advanced opportunities for research for students throughout his career. Amgen's grant demonstrates our confidence in Dr. Cech's vision to further enhance research opportunities for undergraduates and aligns with our company's commitment to advancing science education and biotechnology research," said Dave Bengston, vice president of Colorado site operations at Amgen.

"Amgen's gift comes at a critical time in the construction of CU's new building, and it will allow full fit-out of laboratory space that would otherwise have been shell space," Cech says. "Equally exciting is the fact that this gift strengthens Colorado's already-strong relationship with this premier biotechnology company."

The building's 60 senior faculty, 500 staff, and hundreds of student inhabitants will work toward biotechnology solutions much as Amgen's research scientists have for 30 years. Amgen maintains manufacturing operations in Boulder and Longmont, with more than 900 staff members in Colorado.

With this gift, more than $25 million in private support has been raised for the building including a lead naming gift from CU-Boulder distinguished professor Marvin Caruthers, a member of Amgen's first scientific advisory board. With a $60 million commitment from the university, this comprises more than half the building's $145 million Phase I cost.

AgriHouse completes license for CU water management technology[54]

SG-1000 Leaf Sensor
SG-1000 Leaf Sensor

Colorado agri-biotech company AgriHouse Inc. recently executed an exclusive license with the University of Colorado for intelligent leaf sensor technology enabling more precise control of water use in farming and greenhouses.

AgriHouse, headquartered in Berthoud, is developing leaf sensors to measure and monitor plant moisture demands and other plant physiological sensing applications. The company's first product, the SG-1000 Leaf Sensor and Precision Irrigation Control Software, became commercially available late last year. The SG-1000 Leaf Sensor is being used by researchers working in plant growth, as well as in commercial greenhouses; besides saving water and preventing loss of plants, the leaf sensor allows for direct measurement of plant hydration, replacing current monitoring technologies that direct watering indirectly from indicators such as soil moisture and air temperature.

In a 2008 test at a U.S. Department of Agriculture research farm near Greeley, the company's leaf sensor demonstrated an approximate 25 percent water savings over conventional watering schedules. Colorado farmers currently spend more than $100 million annually for water and energy to irrigate their crops.

Data monitoring captured by the leaf sensor and software also measures plant responses to evaporation, temperature and humidity fluctuations, along with wind gusts, soil moisture levels and natural rainfall. The sensors work in real time, and are functional during the entire growing season for any type of crop.

"Because of its low-profile and non-intrusive features, the sensor can benefit researchers needing to better understand water flow mechanics, nutrient uptake and yield performance," said Richard Stoner, founder and president of AgriHouse. "The SG-1000 Leaf Sensor is another tool in the farmer's toolbox for controlling and lowering the cost of on-the-farm inputs. It is simply smart sense for water management and water and energy conservation."

The sensors work by combining magnetic resistance and radio frequency to enable on-demand watering, providing a localized alternative to current technologies of soil-based moisture monitoring and aerial infrared imaging. The technology was developed in the University of Colorado Department of Aerospace Engineering, and was the subject of

a $150,000 Small Business Technology Transfer grant from the National Science Foundation (NSF) in 2008. The first patent covering the technology was granted late last year.

"AgriHouse has been extremely efficient in converting this technology from lab demonstration to pilot production," said Ted Weverka, a licensing manager at the University of Colorado Technology Transfer Office. "They get the technology in front of the customer, get feedback and launch product without delay."

AgriHouse is currently beta-testing wireless versions of the sensor, which would enable use in home gardeners, greenhouses, farmers and other large-scale operations. Both the current version and the wireless leaf sensor interface seamlessly into precision irrigation control software developed by AgriHouse.

Links
[1] https://connections.cu.edu/stories/swasey-scholarship-reaches-halfway-mark[2] https://connections.cu.edu/stories/regent-committees-discuss-presidential-search-process-construction-projects[3] https://www.cusys.edu/newsletter/2010/01-20/PrinciplesEthical.pdf[4] https://connections.cu.edu/stories/health-care-stem-education-cu-spotlight-us-lawmakers-convene[5] https://connections.cu.edu/stories/university-leads-nation-awards-new-program-researchers[6] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/early-career-1.jpg[7] http://www.er.doe.gov/SC-2/early_career.htm[8] https://connections.cu.edu/stories/three-who-embody-jeffersonian-ideals-earn-one-cus-highest-honors[9] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/Eisenberg.jpg[10] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/Hartnett.jpg[11] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/aloyo.jpg[12] http://www.cudenver.edu/WHO%20AM%20I/NETWORK/TELL/TELL908/Pages/Debatere.aspx[13] https://connections.cu.edu/people/disney-exec-bring-media-expertise-telecommunications-program[14] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Padden-1.jpg[15] http://telecom.colorado.edu/[16] https://connections.cu.edu/people/former-nbc-producer-named-director-leadership-institute[17] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Grace-1.jpg[18] http://www.presidentsleadershipclass.org/[19] https://connections.cu.edu/people/uc-denver-educator-selected-national-research-award[20] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Strain-1.jpg[21] https://connections.cu.edu/people/university-colorado-cancer-center-awards-grants-faculty[22] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_nophoto-1.jpg[23] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Pyeon-1.jpg[24] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Schweppe-1.jpg[25] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Vibhakar-1.jpg[26] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Yang-1.jpg[27] https://connections.cu.edu/sites/default/files/wp-content/uploads/2010/01/people_Yi-1.jpg[28] https://connections.cu.edu/stories/research-efforts-cited-discovers-top-science-stories-year[29] http://discovermagazine.com/columns/top-100-stories-of-2009[30] https://connections.cu.edu/stories/college-business-receives-125-million-grant-business-ethics[31] http://www.danielsfund.org/[32] https://connections.cu.edu/stories/cdphe-issues-plan-and-calls-partnership-school-public-health[33] http://www.cdphe.state.co.us/opp/index.html[34] https://connections.cu.edu/stories/awards-honor-teamwork-cu-researchers-private-sector-business[35] https://www.cu.edu/techtransfer/downloads/CU_companies_2009.pdf[36] http://www.colorado.edu/chem/people/bateyr.html[37] http://www.biorelix.com/[38] http://biomol.uchsc.edu/researchpages/hodgesResearch.html[39] http://www.bioamps.com/[40] http://www.colorado.edu/mechanical/amd/[41] http://www.uchsc.edu/ophthalmology/faculty.htm#Rochester[42] http://www.uccs.edu/~cutrauma/new/Chip.html[43] http://www.bluesunsupport.com/[44] http://www.globeimmune.com/[45] http://www.mentorinteractive.com/[46] http://www.fbbp.org/[47] https://www.cu.edu/techtransfer/[48] https://connections.cu.edu/stories/assembling-planets-tree-life-less-daunting-

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