African Americans, allies confront racism, health disparities[1]

University of Colorado a global leader in patents for inventions, innovations[2]
[3]

The University of Colorado jumped from No. 53 to No. 20 in a recent global ranking of the top 100 universities granted U.S. utility patents for an array of inventions and innovations that can have far-reaching and positive impacts on society.

The National Academy of Inventors[4] (NAI) and the Intellectual Property Owners Association[5] (IPO) this week announced the 2019 rankings. All four campuses contributed to CU's total 100 patents.

"This is yet another demonstration of the innovative, entrepreneurial spirit of faculty across the CU system," said CU President Mark Kennedy. "Our faculty improve lives, save lives and make our state and world a better place. I'm pleased and proud that CU faculty are so adept at securing patents that turn their ideas and research into practical applications that advance a variety of fields."

Here are the highest-impact patents from 2019 and their associated university spinoffs:
Inscripta[6] — After raising $260M[7] in investment capital, Inscripta brought the breakthrough digital engineering platform Onyx to market. Inscripta was founded on an exclusive license to a portfolio of CU patents, including US 10,266,849 "CRISPR enabled multiplexed genome engineering" invented by CU Boulder chemical and biological engineering associate professor Ryan Gill[8]. The innovation developed in the Gill lab, known as "CREATE," enables rapid, multiplexed editing at multiple locations across the genome. **Kahook Dual Blade**[9] - US 10,327,947 "Modified Dual-Blade Cutting System," was created by Malik Kahook[10], M.D., CU School of Medicine professor in ophthalmology at the CU Anschutz Medical Campus. The Kahook Dual Blade, launched in 2015 by New World Medical, is a novel surgical blade created to produce a more complete removal of trabecular meshwork, which is the eye tissue associated with the development of glaucoma. Glaucoma is a leading cause of irreversible blindness around the globe. Surgery with the Kahook Dual Blade is minimally invasive and can be effectively performed with equal efficacy in modern operating rooms as well as in low-resource areas around the world. It is now one of the most commonly performed glaucoma procedures and backed by extensive evidence-based medicine. **Stateless**[11] — Stateless, a company reinventing network connectivity, is the exclusive licensee of US 10,245,348 "Stateless Network Functions." This technology enables new levels of automation, greatly simplifies how businesses access remote IT services and uses computing resources more than five times more cost-effectively than traditional approaches. Lead inventors Eric Keller[12], a CU Boulder associate professor in electrical, computer and energy engineering, and Murad Kablan (PhDCompSci'17) co-founded Stateless after completing CU Boulder's New Venture Challenge[13] and Catalyze CU[14] accelerator. **Q32 Bio**[15] — US 10,233,235 "Modulating the Alternative Complement Pathway" application pertains to methods and compositions for modulating, e.g., stimulating or inhibiting, activity of the alternative complement pathway. This therapeutic approach is important because it provides targeted regulation of complement directly in diseased tissues while minimizing the risk of serious infections and other complications associated with systemic complement pathway modulation. The patent is licensed to Q32 Bio, a biotechnology company developing treatments for patients with severe autoimmune and inflammatory diseases. Q32 Bio was seeded and incubated by Atlas Venture with foundational science from renowned researchers in immunology Michael Holers [16], M.D., and Joshua Thurman[17], M.D., from the CU School of Medicine at the CU Anschutz Medical Campus. The company raised $46 million in Series A funding and expects to enter into a Phase I trial in 2021. **Longpath Technologies**[18] —US 10,240,998 "Determining a Location and Size of a Gas Source with a Spectrometer Gas Monitor" was created by lead inventor and Longpath co-founder Greg Rieker[19], a CU Boulder associate professor in mechanical engineering. Rieker, in collaboration with colleagues at CU Boulder and NIST, applied Nobel Prize-winning research on optical frequency combs to detect trace gases with extraordinary sensitivity. LongPath is commercializing cost-effective, continuous gas leak detection and preparing for commercial deployments starting in summer 2020. Rieker also placed first in the 2017 Lab Venture Challenge[20].
"While patents are a critical part of commercialization, our strategy also heavily emphasizes entrepreneurial training, mentorship and startup resources," said Brynmor Rees, assistant vice chancellor for Research & Innovation at CU

Boulder and managing director of Venture Partners at CU Boulder[21].[21] “This jump in our ranking shows that our engine of new innovations powers our holistic approach of bringing ideas to market.”

“The University of Colorado’s focus on innovation is yielding impressive results, and we continue to see forward momentum,” said Donald M. Elliman Jr., chancellor of the University of Colorado Anschutz Medical Campus. “At CU Anschutz, our CU Innovations team embodies our collaborative spirit by connecting industry partners with our physicians and researchers in partnerships that lead to diverse projects spanning biomedical technology, novel therapeutics and medical devices. That creative collaboration had led to an increase in patent applications, and growing recognition of our campus as a dynamic hub for commercial innovations that are transforming health care and saving lives.”

The report uses data obtained from the U.S. Patent and Trademark Office[22] (USPTO) and highlights the vital role patents play in university research and innovation.

Published annually since 2013, the report ranks the top 100 universities named as first assignee on utility patents granted by the USPTO in the 2019 calendar year.

“The institutions included in this year’s report are leading innovation worldwide through their encouragement of academic discovery and invention,” said Paul R. Sanberg, NAI president. “We are proud to collaborate with the IPO for the eighth consecutive year to highlight universities that have made critical contributions to society.”

There are 57 member institutions of the NAI represented this year in the Top 100. They hold an aggregate total of 4,685 patents spanning a wide variety of fields, such as medicine, technology and engineering. The IPO Top 300 Patent Owners List, published annually since 1985, ranks organizations worldwide that received the most U.S. utility patents during the previous calendar year.

This year’s report on 2019 patents, published May 18, lists the total number of patents for 2019’s Top 100 universities (including U.S. and international universities) to be 7,873, an increase of 1,046 patents over the previous year.

“University patents ignite a culture of growth and innovation which in turn stimulates the economy,” said Jessica Landacre, IPO executive director. “The Top 100 Worldwide Universities Granted U.S. Utility Patents demonstrates which institutions excel in this arena.”

Read the full report[23].[23]

President Kennedy appoints working group to study CU relationship with Colorado Correctional Industries[24] [25]

CU President Mark Kennedy has appointed a working group to examine the university’s relationship with Colorado Correctional Industries (CCI) after students and faculty raised concerns about the state entity that provides furniture and other manufactured goods to state agencies across Colorado.

Kennedy asked that the working group engage with campus chief financial officers, chief diversity officers and representatives of shared governance groups in the effort. It will eventually present findings and recommendations to Kennedy and campus chancellors.

Colorado Correctional Industries is a division of the Colorado Department of Corrections. While serving time in Colorado Correctional Facilities, some inmates are given the opportunity to learn occupational skills that can help them as they re-enter society. The organization makes and installs furniture (its primary relationship with CU), trains dogs and farms fish, among others.

CU’s primary relationship with CCI involves furniture purchases. State statute previously required the university and

other state agencies to use CCI as an exclusive supplier. The statute was revised to make CCI a required bidder, but not exclusive provider. However, CU continued with CCI as an exclusive supplier, even after the statute revision. Late last year, the university determined to proceed with a competitive RFP for furniture, potentially expanding the supplier base and providing competition for furniture contracts.

Some faculty and students have expressed concerns about inmates' wages, working conditions and opportunities for rehabilitation.

The working group, which had its initial meeting this week, includes Vice President for Budget and Finance and Chief Financial Officer Todd Saliman, Vice President for Administration Kathy Nesbitt (who served on the CCI board previously when she was the state's human resources lead in former Gov. John Hickenlooper's cabinet), system Chief Diversity Officer Theodosia Cook, Chief Procurement Officer Ed Mills, Vice President for Communication Ken McConnellogue, Associate Vice President for Business Operations Geoff Barsch and Assistant Vice President of State Relations Heather Retzko.

Letter to CU community from Faculty Council Committee for Racial and Ethnic Equity[26]

Dear CU System and University Leadership and Campus Communities,

We, the Faculty Council Committee for Racial and Ethnic Equity (CREE[27]), are outraged and grieving over the recent killings of George Floyd, Breonna Taylor and Tony McDade. These Black people have all been killed by police in recent weeks. Although these wounds are fresh, particularly for Black people in our community, we recognize that they are but the most recent killings of Black Americans at the hands of police.

As letters go out from various CU groups and leaders, we offer the following suggestions and delineations for consideration in these communiques to inspire healing instead of further wounding:

Please do not follow any condolence statements with a condemnation of, or warning to, protestors who are violent or destructive to property. This rhetorical move erases any sympathy expressed to grieving Black people. It also engages and promotes falsehoods that Black Lives Matter demonstrators are violent. This is particularly troubling given the racist stereotype that Black people are violent (Wilson, 2005).

We consider this association of protestors with violence to be a falsehood in part because there are several investigations, nationally, into white supremacist groups inciting violence at BLM protests, as well as investigations into heavily militarized police inciting violence. For example, one DPD officer was recently fired because he posted a picture with two other officers in SWAT gear under the headline, "Let's start a riot!"[28] Furthermore, expressions over the concern of destruction of property is dismissive in the way that it elevates concern for property over the Black lives that continue to be taken.

We, as CREE, are concerned about systemic racism in the criminal justice system (Alexander, 2012), as well as that within higher education (Ahmed, 2012; Nishi, 2020). We, along with our students and communities of color, are grieving. As such, we recommend that leaders make concrete investments in racial justice and equity by disinvesting and breaking ties with city police as well as training faculty and staff (including campus police) on race, racism and anti-blackness (Dumas, 2016) and how it works in higher education. In this way, we support CU Boulder's Black Student Alliance in its demands.

As former Vice Chancellor of Diversity and Inclusion for the CU Denver and Anschutz Medical Campuses, Professor Emerita, and renowned community equity leader, Brenda J. Allen has recommended[29] now is the time for the CU community and particularly leadership to commit themselves to understanding issues of racial justice by educating themselves. It is also the time to double down our efforts to recruit and retain faculty of color throughout the CU system. We stand ready to support these efforts, and we invite system and campus leaders to commit to working with us immediately to implement proven practices.

In closing, we send out our support to the Black community and say Black Lives Matter!

Sincerely,

The Faculty Council Committee on Racial and Ethnic Equity (CREE)

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Wilson, D. (2005). Inventing black-on-black violence: Discourse, space, and representation. Syracuse: Syracuse University Press.

How to be an ally to the Black community and communities of color [30]

'Return to UCCS' plan outlines in-person, on-campus classes for fall 2020[31]

Chancellor Don Elliman: Our commitment to action[32]

Bradley named vice chancellor for student affairs [33]

Buckman new director of Office of Veteran and Military Student Affairs[34]

In memoriam: Peter deLeon[35]

Register for Friday's Social Justice Teach-in: Anti-Black Violence [36]

Links
[1] https://connections.cu.edu/spotlights/african-americans-allies-confront-racism-health-disparities[2] https://connections.cu.edu/stories/university-colorado-global-leader-patents-inventions-innovations[3] https://connections.cu.edu/sites/default/files/invention_top.jpg[4] https://c212.net/c/link/?t=0&l=en&o=2818328-1&h=254011541&u=https%3A%2F%2Facademyofinventors.org%2F&a=National+Academy+of+Inventors[5] https://c212.net/c/link/?t=0&l=en&o=2818328-1&h=654024212&u=https%3A%2F%2Fipo.org%2F&a=Intellectual+Property+Owners+Association[6] https://www.inscripta.com/[7] https://www.forbes.com/sites/amyfeldman/2019/12/10/serial-biotech-entrepreneur-kevin-ness-has-raised-260-million-to-get-his-genome-editing-device-into-the-hands-of-every-scientist-who-wants-one/#5a8109131f3f[8] https://www.colorado.edu/rasei/ryan-gill[9] https://www.newworldmedical.com/kahook-dual-blade/[10] https://som.ucdenver.edu/Profiles/Faculty/Profile/8237[11] https://www.stateless.net/[12] https://eric-keller.github.io/[13] https://www.colorado.edu/nvc/[14] https://www.colorado.edu/catalyzecu/[15] https://www.q32bio.com/[16] https://medschool.cuanschutz.edu/rheumatology/faculty2/v-michael-holers-md[17] https://som.ucdenver.edu/Profiles/Faculty/Profile/2734[18] https://www.longpathtech.com/home[19] https://www.colorado.edu/mechanical/greg-rieker[20] https://www.colorado.edu/venturepartners/innovators/lab-venture-challenge[21] https://www.colorado.edu/venturepartners/[22] https://c212.net/c/link/?t=0&l=en&o=2818328-1&h=714056245&u=http%3A%2F%2Fwww.uspto.gov%2F&a=U.S.+Patent+and+Trademark+Office[23] https://academyofinventors.org/wp-content/uploads/2020/05/2020-2019-top-100.pdf[24] https://connections.cu.edu/stories/president-kennedy-appoints-working-group-study-cu-relationship-colorado-correctional[25] https://connections.cu.edu/sites/default/files/cci_top.jpg[26] https://connections.cu.edu/stories/letter-cu-community-faculty-council-committee-racial-and-ethnic-equity[27] https://www.cu.edu/faculty-council/committees/committee-on-racial-and-ethnic-equity%20[28] https://www.denverpost.com/2020/06/02/denver-police-officer-fired-lets-start-a-riot-george-floyd-protest/[29] https://www.linkedin.com/pulse/message-higher-education-leaders-from-former-chief-allen-phd/[30] https://connections.cu.edu/stories/how-be-ally-black-community-and-communities-color[31] https://connections.cu.edu/stories/return-uccs-plan-outlines-person-campus-classes-fall-2020[32] https://connections.cu.edu/stories/chancellor-don-elliman-our-commitment-action[33] https://connections.cu.edu/people/bradley-named-vice-chancellor-student-affairs[34] https://connections.cu.edu/people/buckman-new-director-office-veteran-and-military-student-affairs[35] https://connections.cu.edu/people/memoriam-peter-deleon[36] https://connections.cu.edu/stories/register-friday-s-social-justice-teach-anti-black-violence