Finding a new strategy for Parkinson's disease[1]
[2]

If you believe the common adage that you are only using 10 percent of your brain, while the other 90 percent remains untapped potential, you are about to be surprised.

It's true that about 10 percent of your nervous system is made up of hard-working neurons, diligently delivering messages back and forth between your senses and your brain. Much of the rest of your nervous system is made up of neuroglia (derived from the Greek word "glue"), a mixture of various cell types that spend much of their time supporting neurons so they can continue to support you.

For example, microglia, a type of specialized immune cells, were originally thought to just connect neurons and hold them together. These cells are found all over the brain and spinal cord, responding to damage in the brain and nervous system. While neurons are constantly taking in information about your environment, microglia are hard at work sampling their own environment, patrolling for anything that looks out of place.

BioFrontiers Institute[3] faculty member Hang Hubert Yin, an associate professor of chemistry and biochemistry, is eager to tap into that other 90 percent of our nervous system that we've been wondering about.

Besides helping protect our brains and nervous system, microglia play an important role in the inflammation that accompanies any damage to your brain. In some cases, though, microglia overreact to perceived damage to the brain and nervous system, introducing inflammation where it should be controlled. Many diseases are associated with these misguided microglia, including Parkinson's disease, Alzheimer's disease and Amyotrophic lateral sclerosis (ALS) or Lou Gehrig's disease.

Yin's focus is on toll-like receptors (TLR), specifically TLR1 and TLR 2, which sit on the surface of each microglia and form a macromolecular complex called a heterodimer. These are pattern-recognition receptors designed to identify danger signals and activate an immune response. Humans have 10 known toll-like receptors in their cells. In some cases, toll-like receptors can be activated to provide a powerful immune response to a disease, harnessing the body's ability to fight off illness. In other cases, the immune response from these receptors needs to be managed, as in the case of many autoimmune diseases, which turn the body's immunity on itself. Yin is seeking ways to control the inflammatory response of microglia through these toll-like receptors.

Yin is looking at the role of toll-like receptors in microglia so that he can find a potential cure for these neurodegenerative diseases. Finding a drug that can stop inflammation in the nervous system is no small feat. The blood-brain barrier is highly effective in keeping out anything foreign, including drugs that might be helpful. There are a few TLR1/2 inhibitors in development as drug candidates including RNAs, polypeptides and antibodies. However, none of these biologic drugs can cross the blood-brain barrier to work in the central nervous system due to their large sizes. Yin's team found a small molecule drug that can penetrate that barrier.

"We used the High-throughput Screening facility at the BioFrontiers Institute to screen 15,000 different compounds to identify a novel chemical entity," Yin said. "Biological drugs for toll-like receptors exist, but can't get past the blood-brain barrier, limiting their applications. Ours is the first small molecule that can be used as a specific inhibitor for TLR1/2 in the nervous system."

In a new paper published in Science Signaling, part of AAAS Science Journals, Yin and his collaborator, Kathy Maguire-Zeiss of Georgetown University Medical Center, describe a new TLR1/2 inhibitor that was used to better understand the cellular processes of Parkinson's disease. The inhibitor, called CU-CPT22, is a potent, "drug-like" small molecule suppressant of the TLR1/2-mediated proinflammation signaling. Developed at CU-Boulder by the Yin team, CU-CPT22 binds with toll-like receptors 1 and 2, preventing them from overreacting and causing protein misfolding in the nervous system. The small molecule blocks the receptors and fine-tunes the system, balancing out the overprotective microglia and keeping inflammation at bay. Preventing this inflammation might be the key to controlling neurological diseases like Parkinson's. CU-CPT22 was recently licensed to Brickell Biotech and commercialized by EMD Millipore, Sigma-Aldrich and Tocris for drug development and research purposes.

“This is exciting for us,” Yin said. “We are suggesting an entirely new strategy for treating Parkinson’s disease – one that we think will be more effective, and one with a potential therapeutic that patients may access in the future.”

The Science Signaling paper is online[4] as is the accompanying podcast[5].

Staff Council calls for anti-bullying policy[6]

A resolution calling for the university to create a policy that addresses bullying and other disturbing behaviors that affect everyone – not just those who fall under the category of protected class – was unanimously passed by the University of Colorado Staff Council.

The vote followed discussion and a presentation by a CU-Boulder ombuds during the council’s May 13 meeting at the Leeds School of Business on the CU-Boulder campus.

The resolution contends that the university’s current policy on discrimination and harassment addresses only those in a “protected class,” defined as race, color, national origin, sex, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. Because “bullying creates hostile work and learning environments and can result in difficulty retaining faculty, staff and students,” the resolution asks the university to develop a policy so that faculty, staff and students would be “free to engage in work and academic pursuits without the fear of verbal abuse, malicious criticism, micro-aggressions, cyberbullying, humiliation, intimidation, retaliation or isolation.”

Before the discussion and vote, council members heard a presentation on bullying by Tom Sebok, director of the Office of Ombuds. Sebok said bullying is more pervasive than sexual harassment and its negative effects can last longer.

One of the biggest issues to drafting a policy, he said, is that everyone has a different understanding of what bullying entails. Also, supervisor responses to identical behaviors can widely vary, and no formal mechanism exists to investigate complaints.

He said bullying affects more than the targeted individual: The behavior also affects the organization; increases the use of vacation, sick leave or disability claims; increases turnover; and increases the chance of retaliation and even violence.

Only one university policy – a CU Denver anti-violence policy – mentions the word bullying, but does not define the term, Sebok said. He also said that only three institutions of higher education that he is aware of have specific policies on bullying: Oregon State University, the University of South Carolina and the University of New Mexico.

The Oregon State policy defines bullying as “conduct of any sort directed at another that is severe, pervasive or persistent, and is of a nature that would cause a reasonable person in the victim’s position substantial emotional distress and undermine his or her ability to work, study or participate in his or her regular life activities or participate in the activities of the University, and actually does cause the victim substantial emotional distress and undermines the victim’s ability to work, study, or participate in the victim’s regular life activities or participate in the activities of the University.”

Sue Theiss, an omsbud at OSU, told Sebok the policy has shown results: “We rolled out an education plan over the last two years that primarily targeted all those in leadership positions in all major units. If we had shared what bullying looks like and how to intervene informally, but didn’t give everyone a policy with teeth that could be used when more formal processes were needed, I think it would’ve just generated more frustration and hopelessness.”

Sebok said the challenges facing a potential policy include: defining workplace bullying, outlining clear procedures, balancing free speech rights with the right to a safe work environment and developing resources needed to investigate

complaints.

“Because workplace bullying is not illegal in the United States,” said Sebok, “the question becomes what will be done about it?”

In other business, the council:

* Formed a committee to research the potential of a university-wide process or policy that would standardize professional development. Council members are concerned that staff development is inconsistent, often depending upon department funding and supervisor whim. In addition, staff may not want to pursue another degree but instead earn a certificate that would augment their education. The council already has compared policies at other universities to see what is offered. At the urging of Kathy Nesbitt, vice president of employee and information services, council members will study positions on campus that require personal certifications, what the cost of those certifications would be, and whether there might be funding available from the university to pay for or help defray costs of development. Once the research is completed, if results are favorable, council will work with Nesbitt to develop a process or draft a policy on personal development for the university.

Council member Joanna Iturbe gave a presentation on an online personal development tool that recently was provided to CU-Boulder campus members free. Lynda.com uses short videos to educate about a wide variety of topics. Generally, the cost to use Lynda.com is $25 per person per year, but the university negotiated a three-year deal with the entity, which recently was purchased by LinkedIn.

Iturbe said since the feature was introduced earlier this year, nearly 3,200 users have spent more than 4,600 hours watching more than 65,600 videos, which are available in many modes and are closed captioned.

* Tabled a vote on Faculty Council’s proposal to create a central “call line” for university community members to access “information about the most appropriate resource(s) at the respective campus when discrimination, harassment and/or unethical behavior occurs. This call line would assure confidentiality, be unaffiliated with any one campus (e.g., third-party agency), adequately inform the person about available resources at the respective campus based on the specific situation, and transfer them to the appropriate campus representatives.” Council members said they wanted more information about costs and procedures, for instance, before they could determine whether to support the proposal.

* Also tabled a vote on whether to support/participate in Faculty Council’s “White Paper: Recognizing and Rewarding Faculty for Participating in Diversity Activities.” Members of the Staff Council want to determine if language concerning staff should be added to the suggested white paper or if it would benefit staff members more if a separate proposal were developed that addressed their unique needs.

* Unanimously approved by vote two university policies, 5014- Sexual Misconduct[7] (formerly Sexual Harassment Policy and Procedures) see Draft[8] here, and 5015-Conflict of Interest in Cases of Amorous Relationships[9] and the Draft[10] here, which are scheduled for approval in the near future.

Two other policies that the council has been reviewing — 5019-Parental Leave for Faculty and University Staff[11] (Draft[12]) and 2006-Retention of University Records[13] (Draft[14]) – are on hold for further review.

* Began the process of nominating officers for the upcoming year. Voting for council chair, vice chair, treasurer and secretary will be conducted at the council’s June meeting.

A Place for You at CU[15]

‘Extreme Weight Loss’ returns to CU Anschutz Health and Wellness Center[16]

The hit ABC series “Extreme Weight Loss” returns for its fifth season on Tuesday, when viewers will again see cast members begin their yearlong transformation journeys at the University of Colorado Anschutz Health and Wellness Center.[17] This is the second year the center will be home to each participant’s three-month boot camp.

“Extreme Weight Loss”[18], a docu-series about weight-loss transformations, documents the journeys of “super obese” people whose lives have become unmanageable because of their weight. This season, 19 cast members will not only set out to transform their bodies – by losing up to half their body weight – but they also will transform who they are as individuals.

Transformation specialists and trainers Chris and Heidi Powell return to the program along with Holly Wyatt, M.D., the show’s medical director. Wyatt is the associate director of the CU Anschutz Health and Wellness Center and is affectionately known as “Dr. Holly” by her patients and the show’s cast members.

“Fans of the TV show will be amazed by the obstacles encountered and overcome by our new cast members,” Wyatt said. “We were thrilled to host boot camp again and see the participants return to the center throughout the year. Assisting with these transformations has been a true inspiration.”

The CU Anschutz Health and Wellness Center offers some of the country’s most advanced research and science-based expertise, focusing on a comprehensive wellness approach including weight loss and management, fitness and nutrition.

Said Executive Producer Matt Assmus, “Our experience working with the CU Anschutz Health and Wellness Center has been absolutely stellar; Holly and the center’s staff provide unrivaled guidance and expertise, and the cast members love the supportive environment. We could not be happier to be back at the center.”

Added Executive Producer JD Roth, “As someone whose work has focused so much on the power of transformation, I am extremely proud of our cast members who have the courage to pursue a better life. This process isn’t an easy one, and they can’t do it alone, which is why having partners like the CU Anschutz Health and Wellness Center plays such a significant role in our participants’ success and their ability to make real, sustainable change.”

For Wyatt, working with the “Extreme Weight Loss” cast members was so impactful that she was inspired to begin the center’s first weight loss destination program. Extreme Weight Loss: Destination Boot Camp[19] starts with an intense, six-day boot camp designed to give participants the tools they need to complete their own successful transformation—without the TV cameras.

“Extreme Weight Loss” is produced by 3 Ball Entertainment. JD Roth, Todd A. Nelson, Matt Assmus and Brant Pinvidic are the executive producers.

Unstoppable Women’s Luncheon at UCCS draws 400[20]
[21]

The journey of Tiffany Sinclair has taken some unexpected turns. She endured the sudden death of her husband of 25 years from toxic shock syndrome, the diagnosis of her 11-year-old daughter with brain cancer, then the death of her mother from liver cancer.

But that was not the main takeaway from Wednesday’s 11th annual Karen Possehl Women’s Endowment (KPWE) luncheon, which attracted 400 attendees to the Gallogly Events Center. The main takeaway was that thanks to generous UCCS donors, Sinclair overcame all that and more to graduate from UCCS this month with a master’s in

counseling and human services.

Receiving the letter years ago that UCCS had accepted her as a KPWE scholar, Sinclair said, “I remember being shocked. I thought, ‘Wow. Somebody heard my story.’ It was really the inspiration for me to keep going.”

Tiffany was one of nine graduating KPWE scholars honored Wednesday at the Unstoppable Women’s Luncheon, UCCS’ largest annual fundraising event. Wednesday’s event raised $26,000 from attendees plus an additional major lead gift from Karen and Jim Possehl.

The KPWE program—established through the efforts and generosity of UCCS faculty, staff and community members, and endowed by a gift by Karen and Jim Possehl—provides scholarships to women with financial need, strong potential and the resilience to overcome personal obstacles to complete their college education.

Other honorees Wednesday included Teresa Gallegos, Courtney James, Jana Pendergraft, Maykla Pittman, Lauren Potereiko, Deandra Sanders, Yves Sturdevant and Lauren Yanez. The event also honored former Colorado Springs city councilwoman Jan Martin as the 2015 Unstoppable Woman, an award given annually to a community leader.

The nine graduating KPWE scholars join 140 other scholars who have been supported since 1996 by this life-changing scholarship program. How life-changing? UCCS Chancellor Pamela Shockley-Zalabak reeled off a few impressive statistics that reinforced this program’s value. For example, KPWE scholars at UCCS have had a 93 percent graduation rate — though similar cohorts of nontraditional students have graduation rates in the 30s.

Beyond tuition support, KPWE scholarship recipients also receive support for child-care expenses and are paired with Colorado Springs-area community mentors that enrich the students’ personal, career and leadership development.

The 2015-16 year will mark the 20th class of KPWE scholars, a presence at UCCS for nearly half of that campus’s history. Scholars have received more than $350,000 in scholarship support and $30,000 in childcare support since inception.

Mary Mashburn, the 2007 Unstoppable Woman honoree, told the audience to close the event, “Every year, I wear the same jacket to this event, and I contribute what I don’t spend on a new jacket for this event as a donation to KPWE.” This is the ninth year Mashburn has worn this jacket since receiving the 2007 award.

Karen Possehl, also a CU Foundation trustee, talked from the podium about something she’d read six months earlier. “I’ve had this little piece of paper with me for six months because it made me think of our scholars,” she said. “It says: Your present circumstances don’t determine where you can go. They merely determine where you start.”

Launching a career in space[22]

17-year-old graduates before earning driver’s license, high school diploma[23]

Medicaid patients prefer ER[24]

Boger to lead Environmental Health and Safety at CU-Boulder[25]

Brandon Boger will serve as the new director of Environmental Health and Safety (EH&S) for the CU-Boulder campus, following the recent retirement of Derrick Watson and a nationwide search.

EH&S provides comprehensive services and support that allow the university to maintain its high standards of health and safety for its many laboratories, work areas and classrooms. EH&S partners with other university faculty, staff and students to maintain a safe work and learning environment, ensure regulatory compliance and recognize and control health and safety hazards in different environments on campus.

Boger has been serving as interim director since July 2014, and has been a CU-Boulder employee with the EH&S department for more than 15 years. After starting as a hazardous materials specialist in 1999, Boger served as the hazardous materials program manager for eight years and then as associate director/environmental compliance and industrial hygiene manager for six years.

“I’m very excited that Brandon will continue leading this department, as he brings a wealth of knowledge of this university as well as an understanding of the role of environmental health and safety as it applies to our campus,” said Vice Chancellor for Administration Steven Thweatt. “I am confident that under Brandon’s leadership, this department will continue to develop into a leading edge group of environmental health and safety professionals.”

Hunter-Byrd honored for academic advising[26]

Karin Hunter-Byrd, director of the Office of Advising and Student Services at the College of Arts and Media at CU Denver, has been selected as an Outstanding Advising Administrator Certificate of Merit recipient from the NACADA The Global Community for Academic Advising as part of the 2015 Annual Awards Program for Academic Advising.

The award is presented to individuals who have demonstrated qualities associated with outstanding academic advising administration. Academic Advising Administrators includes those individuals who may provide direct academic advising services but whose primary responsibility is as an administrator or director of an academic advising program.

Since 1983, NACADA has honored individuals and institutions making significant contributions to the improvement of academic advising. The goal of NACADA is to promote quality academic advising and professional development of its membership to enhance the educational development of students.

NACADA’s membership has grown to more than 10,000 faculty, professional advisers, administrators, counselors and others in academic and student affairs concerned with the intellectual, personal and vocational needs of students. In addition, NACADA is the representative and advocate of academic advising and those providing that service to higher education.

Hunter-Byrd will be honored in Las Vegas during the NACADA Annual Conference this fall.

Dropping names ...[27]

The School of Medicine’s Foundations of Doctoring program and the Office of Community-Based Medical Education held their annual award banquet last week to bestow the Golden Stethoscope awards. The awards help medical students show their gratitude for the time and dedication of their preceptors. The Golden Stethoscope Awardees in 2015 are: **Tracy Cushing**, Emergency Medicine; **Suzanne C. Nash**, Family Medicine; **Christopher Courtney**, Internal

Medicine Preceptor; **Asela Russell**, OB/GYN; **David Burrows**, Patient/Physician Communication Skills; **Margarita Guarin**, Pediatric Preceptor; **Denise Damek**, Physical Exam Skills**; Dennis Lyu**, Role Model; **Patrick Fernandez**, Best Specialty Preceptor; **Steven Lowenstein**, Kris Wenzel Award; and **Ben Honigman,** Foundations of Doctoring Faculty Choice Award.

Regina Richards, director of the Office of Diversity and Inclusion at the School of Medicine, is featured in a "Philanthropy at Work" article[28] posted recently on the CU Foundation website. Richards established a memorial fund to support research at the CU Cancer Center after her husband, Michael, died in 2014.

In memoriam[29]

Names of current and former University of Colorado faculty and staff who have died in recent weeks. List compiled by Employee Services.

CU-Boulder
Adeline M. Casillas, 91, classified staff retiree. April 21, 2015. **Doris E. Dunkelberger,** 99, classified staff retiree. April 4, 2015. **Anthony G. Lozano,** 77, faculty retiree emeritus. April 4, 2015. **Sherman Ralsey Miller,** 64, university staff. April 22, 2015. **Bernadette M. O'Dowd,** 56, classified staff. April 7, 2015.
CU Denver
Richard T. Dillon, 81, faculty retiree. April 26, 2015.
CU Anschutz Medical Campus
Joshua Hunter Cabrera, 35, faculty. May 11, 2015. **Meda A. Poland,** 84, classified staff retiree. April 11, 2015.

Links
[1] https://connections.cu.edu/spotlights/finding-new-strategy-parkinson-s-disease[2] https://connections.cu.edu/sites/default/files/5q-yin_top.jpg[3] http://biofrontiers.colorado.edu/[4] http://stke.sciencemag.org/content/8/376/ra45.abstract[5] http://stke.sciencemag.org/content/suppl/2015/05/08/8.376.pc12.DC1[6] https://connections.cu.edu/stories/staff-council-calls-anti-bullying-policy[7] http://www.cu.edu/ope/aps/5014[8] http://www.cu.edu/sites/default/files/5014Draft.pdf[9] http://www.cu.edu/ope/aps/5015[10] http://www.cu.edu/sites/default/files/5015Draft.pdf[11] http://www.cu.edu/ope/aps/5019[12] http://www.cu.edu/sites/default/files/5019Draft.pdf[13] http://www.cu.edu/ope/aps/2006[14] http://www.cu.edu/sites/default/files/2006Draft.pdf[15] https://connections.cu.edu/stories/place-you-cu[16] https://connections.cu.edu/stories/extreme-weight-loss-returns-cu-anschutz-health-and-wellness-center[17] http://www.anschutzwellness.com/Home[18] http://abc.go.com/shows/extreme-weight-loss[19] http://www.anschutzwellness.com/extreme-weight-loss-destination-boot-camp-form[20] https://connections.cu.edu/stories/unstoppable-women-s-luncheon-uccs-draws-400[21] https://connections.cu.edu/sites/default/files/unstoppable.jpg[22] https://connections.cu.edu/stories/launching-career-space[23] https://connections.cu.edu/stories/17-year-old-graduates-earning-driver-s-license-high-school-diploma[24] https://connections.cu.edu/stories/medicaid-patients-prefer-er[25] https://connections.cu.edu/people/boger-lead-environmental-health-and-safety-cu-boulder[26] https://connections.cu.edu/people/hunter-byrd-honored-academic-advising[27] https://connections.cu.edu/people/dropping-names-178[28] https://www.cufund.org/2015/04/30/philanthropy-at-work-regina-richards/[29] https://connections.cu.edu/people/memoriam-26