



MIDWESTERN UNIVERSITY
Tomorrow's Healthcare Team

DOWNERS GROVE, IL
GLENDALE, AZ
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VITAL SIGNS

The news beat of Midwestern University

SPRING 2021

Midwestern University's Vaccination Centers Offer Hope to the Community

As the nationwide COVID-19 vaccination effort continues, Midwestern University's Multispecialty Clinics in Illinois and Arizona have successfully distributed thousands of COVID-19 vaccines to grateful patients, students, faculty, and staff.

The University received approval from both Maricopa County and DuPage County to become a Point of Distribution (POD) for the vaccine and quickly launched Operation Hope, a strategic plan to marshal the efforts of Midwestern University volunteers to open and run COVID-19 vaccine centers on both campuses.

"We could not operate these Vaccination Centers without the support and dedication of our students, faculty, and staff," said Kathleen H. Goepfinger, Ph.D., President and Chief Executive Officer of Midwestern University. "Their willingness to step up to help others is appreciated and essential to the success of the Vaccination Centers," she added.

In order to continue to provide this vital public health service, the University is calling on students, faculty, and staff to serve in various volunteer positions at the Vaccination Centers. The University is offering training for volunteers who wish to learn to be medical scribes or administer the vaccine, and other volunteers are needed to be greeters, runners, or post-vaccination observers. Students interested in volunteering should reach out to their Dean's office or refer to the email announcement regarding volunteer opportunities. Staff from the University's service departments are being

asked to fill volunteer slots on a weekly basis and can consult their supervisors for scheduling information. And, faculty are encouraged to be in contact with their Dean's office about volunteer opportunities.

"Operation Hope is making a difference in the lives of so many. These successful Vaccination Centers represent our commitment to helping our own community and the thousands of patients we serve each year to be healthier and protected from COVID-19," Dr. Goepfinger said. "Those who come to our Vaccination Centers have shared their stories of how incredibly difficult the past year has been for them. We have been blessed to experience their tears of joy for this opportunity to receive the vaccine."



University's Five Step Plan for Diversity and Inclusion Making Significant Progress

Last year, Kathleen H. Goepfinger, Ph.D., President and Chief Executive Officer, announced and began implementation of the Midwestern University Call to Action Program and Five Step Plan for Diversity and Inclusion, which is designed to bring greater awareness and education on the impact of racial inequity within society and in healthcare education.

As we approach the first-year milestone, the Midwestern community has responded enthusiastically to this initiative. A brief summary of some of the University's actions follows:

Call to Action - Step One: Listening

All Midwestern Colleges and departments have conducted dialogue and listening sessions with their faculty, staff and students. Feedback from these meetings has been shared with the entire University Response Team, and the University has established an online Bias, Discrimination, or Harassment Incident/Concern Reporting System on the University website that allows for the reporting of incidents or concerns relating, but not limited to, equal opportunity, discrimination, harassment, campus climate and bias, human resources issues, and student conduct issues. *(Continued on page 3)*

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Kathleen H. Goepfinger, Ph.D.
*President and
Chief Executive Officer,
Midwestern University*

Dear Faculty, Staff, and Students:

This Spring 2021 edition of Vital Signs highlights recent faculty, students and staff research and activities, including appointments, awards, grants, presentations and community service activities, all dedicated to enhancing Midwestern University's reputation for excellence in teaching, research, and service. This edition also contains information about our master's and doctoral programs in new healthcare specialties, the first recipients of the Diversity Scholarship, the 2020-2021 ORSP One Health Research Grants, and the newly established "Improving Healthcare Delivery and Reducing Healthcare Disparities in Underserved Minority Communities" research grant program.

Please enjoy reading about our many program, research and clinic news, as well as our campus events and student activities; even though most of them have had to take place virtually due to the ongoing global pandemic, our community has found meaningful ways to inspire future healthcare professionals, adapt to a 'new normal', and maintain outreach initiatives and raise awareness about many worthy causes.

I continue to be very proud of our academic family. Together, we embody the University's historic values of academic excellence and exemplary community service and outreach. Whether it is serving on a University Committee, or by volunteering in the community, service always has a positive and lasting impact. I have witnessed the dedication and excitement of our healthcare community coming together to provide vaccinations to faculty, staff, students, and many of our clinic patients and community partners benefiting from *Operation Hope*. Our very grateful patients have expressed their appreciation for the excellent care they have received from all of you, our dedicated volunteers at both of our Midwestern University Vaccination Centers in Glendale, AZ and Downers Grove, IL. I thank all of you for making our Vaccination Centers a reality.

My sincere and heartfelt appreciation to each and every one of you for your resilience, adaptability, indomitable spirit, and ongoing commitment to the Midwestern University's mission.

Dr. G.

Kathleen H. Goepfinger, Ph.D.

(Continued from front cover)

Call to Action - Step Two: Colleges and Departmental Task Forces and Committees

Colleges and departments have been encouraged to brainstorm different ideas and goals via shared documents. In addition to the small discussions groups amongst their faculty, staff, and students, each College and department have a larger goal to host more formal department training and discussion opportunities for all to enhance knowledge and understanding of cultural awareness, social justice, American history, race and immigration, intergroup anxiety, effectively discussing race, macroaggressions, and other topics.

Colleges and departments are also strengthening their focus on community service and volunteering and will look for opportunities for employees and students to be involved (individually and as a group) with organizations that could benefit from volunteers' time and active support.

Call to Action - Step Three: Research Grants

The University established a new Research Grant program called "Improving Healthcare Delivery and Reducing Healthcare Disparities in Underserved Minority Communities", which will provide up to \$10,000 per award. The first of these awards have been dispersed (see page 6 for more information) and are designed to support projects led by University faculty and student researchers. These funds are not reducing intramural funding for any college. The purpose of this program is to:

- Foster new and emerging creative research ideas centered around improving healthcare delivery for underserved minorities and/or eliminating healthcare disparities among racial and ethnic minority populations.
- Encourage proposals that impact healthcare disparities as a long-term goal by enhancing representation of minorities in the healthcare provider community, and/or changes to healthcare educational programs as a short-term target will be considered under this mechanism; and
- Lay the groundwork for intellectually innovative research into health of minority populations beyond current educational programs and screenings.

Call to Action - Step Four: Policy Review

Midwestern University has established a Diversity and Inclusion Policy Review Task Force to review and recommend updates for

all our policies and procedures to assure continued equal treatment of all faculty, staff, and students regardless of their gender, national origin, race, religion, or sexual orientation. This Task Force is chaired by the Vice President of Human Resources and Administration, and its members include the co-chairs of the University Committee on Diversity and Inclusion on both campuses, faculty, and staff. The University Policy Review Task Force has identified means to link their efforts with the University Cultural Diversity and Inclusion Committee; they will seek opportunities to improve cross collaboration between the Office of the President, the Office of Student Services, the Colleges, and the Diversity and Inclusion Committee. They are also exploring ways to increase programming of speakers and activities between all the colleges and departments on campus.

University policies are being reviewed carefully by this Task Force to ensure unbiased, inclusive language and fairness in all statements, documents, and communication. Policies that are being reviewed include Patient Rights, Code of Conduct, Anti-harassment and Non-Discrimination. In conjunction with the Faculty Diversity and Inclusion Committee, a new section of the Midwestern University website was launched along with new educational programs focused on awareness, diversity, and cultural competence workshops.

Call to Action - Step Five: Scholarship Fund

All thirty-seven members of the Midwestern University Response Team, as well as University faculty, staff and students have come together and contributed \$80,000.00 thus far to create a new scholarship fund in clear demonstration of unwavering support to all underrepresented minority students. Strengthening and promoting diversity in the healthcare workforce is a critical component of Midwestern University's mission to educate the twenty-first century healthcare team to meet the needs of all members of our society.

This new Midwestern University Diversity Scholarship Fund will be used to provide need-based scholarships for qualified students on both the Downers Grove and Glendale Campuses. Two \$5,000 awards have been given at each campus beginning with the 2020/2021 academic year (for more



information on this year's scholarship recipients, see page 6).

Other implementation steps in progress include, but are not limited to:

- AZCOM and CDMI Bridges Programs linking students in Biomedical Sciences programs to medical and dental school
- New Humanity in Medicine Course required for first-year AZCOM students
- CCOM virtual Mini Medical School introducing underrepresented minority students to healthcare careers
- New Hispanic Dental Association chapter at CDMA
- Public Health Program initiative to educate campus community on healthcare disparities, social determinants of health, and recognition of early life experiences and health
- CHS Research Grant for proposals focusing on admissions, curriculum, clinical rotations, and diversity-related resources
- Lectures, discussion groups, invited speakers, and presentations on diversity topics
- Recognition of cultural holidays and diversity events
- Student club fundraising for minority scholarships

"Midwestern University has a long and proud history as a healthcare teaching institution, founded in respect, inclusion, and equity," said Dr. Goepfinger. "We will continue to work together to ensure that our campuses, our clinics, and the healthcare community reflect these important values." More information about the University's commitment can be found at <http://www.midwestern.edu/about/diversity-equity-and-inclusion.xml>.

APPOINTMENTS, AWARDS, AND GRANTS

Regina Arellano, Pharm.D.(CCP), Assistant Professor, Pharmacy Practice, was appointed Vice Chair of the 2021 American College of Clinical Pharmacy (ACCP) Credentials: Membership Committee.

Kyle Carroll (CHS-Glendale PT 2021) received a \$2,500 Therapy Scholarship from The Round Table International.

Angelica Chan (CCOM 2023) received first place in the Golden Stethoscope Award from the Indian American Medical Association of Illinois for the project "Using a Cell-to-Cell Fusion Model to Investigate New Interventions in the Prevention of SARS-CoV-2 Spread." Ms. Chan developed the project under the guidance of her faculty mentor **Vaibhav Tiwari, Ph.D. (CCOM)**, Associate Professor, Microbiology and Immunology.

Anderson da Cunha, D.V.M., DACVAA (CVM), Professor, was named a Zoetis Distinguished Veterinary Teacher for 2020 by the Journal of the American Veterinary Medicine Association (JAVMA). Dr. da Cunha also presented at the virtual AVMA annual conference on ensuring safe outcomes in veterinary anesthesia.

Beatriz de Diego-Lázaro, Ph.D., Ed.D., CCC-SLP (CHS-Glendale), Assistant Professor, Speech-Language Pathology, was recently awarded external grant funding from the Society for Research in Child Development for her research "Spaced-Word Retrieval as a Vocabulary Teaching Strategy for Children with Hearing Loss."

Marissa Dupont (CCOM 2023) was selected for the Schweitzer Fellowship, a program for graduate students who aspire to become lifelong leaders in community service. Ms. Dupont project is to create and direct an organization of middle school students called

Community Health Ambassadors Team, or CHAT, informing and empowering student leaders to better care for themselves and influence the care of their community.

Pablo De Gracia, M.Sc., Ph.D., FAAO (CCO), Assistant Professor, was among the recipients of a grant from European Young Eye (EYE) to help design optical solutions for presbyopia in conjunction with the Universidad Complutense de Madrid and private company Mark Ennovy.

Christina Esposito, O.D. (AZCOPT), Clinical Care Coordinator, was awarded Young Optometrist of the Year by the Arizona Optometric Association.

Nafisa Jadavji, Ph.D. (CGS-Glendale), Assistant Professor, Biomedical Sciences, was named Chair of the Reproducibility for Everyone Advisory Board.

Rachna Karumuri (CCOM 2023) received first place at the Illinois Osteopathic Medical Society's 2020 Annual Meeting and Winter Scientific Seminar for the poster "Evaluation of Cornulin and DJ-1 as Novel Prognostic Biomarkers for Cutaneous Squamous Cell Carcinoma."

Jay Olson (AZCOM 2021) received the Distinguished Student Service Award from the Arizona Osteopathic Medical Association.

Ileana Ratiu, Ph.D., CCC-SLP (CHS-Glendale), Assistant Professor, Speech-Language Pathology, was awarded the New Investigator's Research Grant from the American Speech Language Hearing Association for her research "The Impact of Auditory Distraction on Executive Function and Reading Comprehension in Individuals with and without Mild Traumatic Brain Injury."

Laura Sambrookes-McQuade, M.A., CCC-SLP (CHS-Downers Grove), Clinical Assistant Professor, was appointed to the Evidence Based Practice; Public Information Membership and Marketing; and Communications committees for the Illinois Speech Language Hearing Association (ISHA).

Jacqueline J. Spiegel, M.S., PA-C, DFAAPA, CHSE (CHS), Director of Clinical Skills and Simulation, was named President of the PA Foundation of the American Academy of Physician Assistants.

K.E. Beth Townsend, Ph.D. (CGS-Glendale), Professor, Anatomy, was awarded a National Science Foundation grant and is the Lead Principal Investigator for this multi-institutional award of \$763,909 for the proposal entitled "Collaborative Research: After the Bridgerian Crash: An Integrated Analysis of Mammalian Paleocommunities and Paleocologies During the Middle Eocene."

Laura Wolford, Ph.D., CCC-SLP (CHS-Glendale), Assistant Professor, Speech-Language Pathology, was appointed to the American Speech-Language-Hearing Association Scientific and Professional Education Board.

Katherine Worden, D.O., FAAO (AZCOM), Clinical Professor, became a Fellow of the American Academy of Osteopathy.

PRESENTATIONS, SPEECHES, AND COMMUNITY SERVICE

Sally Arif, Pharm.D., BCPS (CPDG), Associate Professor, Pharmacy Practice, presented "Uncovering and Mitigating Our Implicit Biases to Combat Health Inequities" at the 13th Annual Multidisciplinary Health Equity and Social Justice Conference, hosted virtually by DePaul University and the Center for Community Health Equity.

John Ahlert (AZCOM 2023) and **Maxwell Rubin (AZCOM 2023)** presented their summer research findings in an oral presentation entitled “Elimination of Western Diet, or Dietary Genistein and/or Exercise Offer Varied Benefits to Body Weight, Hyperglycemia, Inflammation, Senescence and Intestinal Function in an Obese Diabetic Model” at the Arizona Physiological Society Annual Meeting in November.

Hilal Arnouk, M.D., Ph.D. (CGS, CCOM), Assistant Professor, Pathology, presented a CME-accredited keynote address on the “Identification of Novel Cancer Biomarkers in the Era of Precision Medicine” at the Cancer Science and Therapeutics 2020 webinar in October.

Layla Al-Nakkash, Ph.D. (CGS-Glendale), Chair, Physiology, presented “Balancing One’s Academic Needs: A Love of Teaching, Student Mentoring, Genistein, and Guts” as the Arizona Distinguished Lecture at the 2020 Arizona Physiological Society Annual Meeting in November.

Amber Bray, Kayla Donnell, and Laura Saiki, (CHS-Downers Grove PT 2021) presented the research poster, Whole Body Vibration Therapy for Children with Non-Progressive Neuromuscular Disorders: A Systematic Review, at the national American Physical Therapy Association Pediatrics Virtual Conference, with their faculty adviser, **Deborah Anderson, PT, Ed.D., PCS (CHS-Downers Grove)**, Program Director, Physical Therapy.

Anderson da Cunha, D.V.M., DACVAA (CVM), Professor, Anesthesiology, presented “How to Reduce Anesthesia-Related Morbidity and Mortality” at the AVMA Virtual Convention 2020.

Kristy Luciano, M.S., PA-C (CHS-Downers Grove), Assistant Professor, Director of Didactic Education, Physician Assistant Program; **Lorna London, Ph.D. (CHS-Downers Grove)**, Assistant Professor, Behavioral Medicine Program; **Sandhya Noronha, M.D. (CHS-Downers Grove)**, Professor, Physician Assistant Program, presented the workshop “Cultural Competency Training in Physician Assistant Education – A Hands On Approach” at the Physician Assistant Education Association 2020 Education Forum, which was held virtually.

Marsha Pierce, Ph.D. (CGS-Downers Grove), Assistant Professor, Pharmacology, participated in the Rally for Medical Research Hill Day in September, where she met virtually with U.S. Rep. Sean Casten, U.S. Rep. Danny Davis, and members of the office of U.S. Rep. Lauren Underwood, U.S. Sen. Tammy Duckworth and U.S. Sen. Dick Durbin to encourage support for National Institutes of Health (NIH) funding.

Volkmar Weissig, Sc.D., Ph.D. (CPG), Professor and Chair, Pharmaceutical Sciences, President of the World Mitochondria Society, hosted the virtual 11th World Conference on Targeting Mitochondria of the World Mitochondria Society held in Berlin, Germany, in October.

As part of the MWU Community Health Lecture Series, the following Glendale faculty have presented virtually for the Glendale Library-Foothills Branch:

Celeste Delap, PT, D.P.T. (CHS-Glendale), Clinical Assistant Professor, Physical Therapy, “Pandemic Got You Down? Physical Therapy as a Key to Coping.”

Penny Stuart Zaddack, Psy.D. (CHS-Glendale), Clinical Assistant Professor, Clinical Psychology, “Resilience and COVID-19: Protecting Your Mental and Emotional Health.”

Elizabeth Escobedo, O.D., FAAO, FSLs (AZCOPT), Assistant Professor, “Eye Strain-19.”

Ruchi Bhargava, Ph.D. (CHS-Glendale), Associate Professor, Clinical Psychology, “Caring for Yourself While Caring for Others.”

STUDENT GROUPS AND UNIVERSITY AWARDS

The Arizona College of Optometry was one of the recipients of the Healthy Eyes Healthy Children (HEHC) Community Grant. The \$5,000 grant, sponsored by Optometry Cares – The AOA Foundation and Essilor Vision Foundation, is awarded to programs focusing on improving community access to vision services, particularly underserved children in the United States. AZCOPT has partnered with The Neighborhood Christian Clinic (TNCC), a local clinic that provides complete medical care to uninsured people in the Phoenix area, to provide free comprehensive eye examinations to the pediatric patients at the clinic.

The Arizona College of Osteopathic Medicine chapter of the Association of Women Surgeons (AWS) was named the AWS Medical Student Chapter of the Year.

The Chicago College of Osteopathic Medicine’s Emergency Medicine Club for 2019-20 won the Great Plains Region’s Emergency Medicine Interest Group (EMIG) of the Year award from the national American College of Emergency Physicians/Emergency Medicine Residents’ Association (ACEP-EMRA). The award was created to highlight the outstanding achievements of the most productive EMIGs on a regional and national scale.

Diversity Scholarship Recipients Announced



The MWU Diversity Scholarship recipients are (left to right): Nakia Dean, Joshua Jones, Courtney Marsh, and Dajamen Mitchell.

Midwestern University is pleased to announce the first recipients of the new Diversity Scholarship that provides need-based scholarships for qualified students on both the Downers Grove, Illinois, and Glendale, Arizona campuses. "Through the generosity of the Response Team and members of the faculty and staff of Midwestern University, we raised more than \$80,000 to begin the Midwestern University Diversity Scholarship," said Kathleen H. Goepfinger, Ph.D., President and Chief Executive Officer of Midwestern University. "Many wonderful, qualified, and worthy students applied for the new scholarships and we are honored to help support their academic goals."

The scholarship recipients from the Downers Grove Campus are:

- Courtney Marsh, (CCO 2022);
- Joshua Jones, (CHS - Clin Psych 2025);

The scholarship recipients from the Glendale Campus are:

- Dajamen Mitchell, (AZCOM 2024),
- Nakia Dean, (CHS - CVSP 2022).

In her application, Ms. Marsh recalls her early experience working with her family to advocate for early childhood vision screenings. As part of this outreach effort, she helped provide the community with information about the important link between good visual health and educational success. Ms. Marsh is pleased to be able to continue her commitment to service as a student at CCO where she is serving as president of her optometry class, president of the Optometry Private Practice Club, president and founder of the Downers Grove Campus chapter of the National Optometric Student Association (NOSA), student ambassador, and member of the Diversity and Inclusion Task Force. "This scholarship represents hope for change. I have chosen a field where I am not usually surrounded by people that look like me," Ms. Marsh said. "I believe opportunities like this will increase applications within the minority community. I hope to one day be an example to others."

Mr. Jones also spoke of how he hopes to inspire future generations of healthcare professionals. "I am exceptionally thankful for the opportunity to be selected to receive the diversity scholarship. Growing up I have always said I want to become a doctor to help others. Within the field of clinical psychology, only 4 percent are African Americans. Receiving this diversity scholarship means more than receiving financial assistance for me. As an African American male, it is opening that door for me to spark a difference in the healthcare world, through breaking barriers, stigmas, and reducing the disparities," he said. Prior to attending Midwestern University, Mr. Jones worked in an inpatient care psychiatric hospital as a mental health technician where he witnessed first-hand some

of the healthcare disparities patients from minority or underserved backgrounds can face while seeking treatment. "As a future pediatric clinical psychologist, I will advocate for children and families in underserved communities facing mental health issues," he stated.

Mr. Mitchell has a long history of supporting and launching campus organizations that address diversity and healthcare disparities. As an undergraduate student, he was active in his school's NAACP chapter, and as a graduate student at Midwestern University, he was a founding member of the Black Student Alliance (BSA) on the Downers Grove Campus and served as the organization's president. Now, as a first-year medical school student on the Glendale Campus, he has helped to establish a chapter of the Student National Medical Association (SNMA-AZCOM), an organization dedicated to increasing minority representation in medicine and creating socially competent physicians. "Receiving this scholarship not only helps me on my journey to complete medical school, but it is a message that diversifying the medical field is important, and there is help for people like me to pursue their dreams," he stated. "It is also comforting to know that Midwestern University is committed to aiding minority students in any way possible to accomplish our goals."

Increasing diversity and inclusion for minority or low-income youth and young adults has been an important part of Ms. Dean's academic journey, which she is continuing as a student in the Cardiovascular Science Program. She has partnered with programs such as HOPE, a non-profit organization committed to eradicating the high school attrition crisis in Chicago Public Schools, and Deneb STARS, a group that helps students who are the first in their family to attend college or from under-resourced socioeconomic backgrounds succeed in college and beyond. In addition, she has conducted field research to determine the challenges minority students in Chicago's south side community face when preparing for college. "I am committed to transforming healthcare through expanding access to high-quality care, helping increase the diversity of health professionals, and promoting more aggressive health professional education," Ms. Dean said. "I'm very grateful and honored to have received the diversity scholarship. It means a lot that Midwestern University encourages and supports advocates of diversity and inclusion in the medical field," she added.

Students from all Colleges and Programs at Midwestern University are eligible to apply for the scholarships that will be awarded annually. The MWU Diversity Scholarship is part of the University's Five-Step Plan for Greater Diversity and Inclusion and an addition to the already robust scholarship opportunities available to Midwestern University students.

Midwestern University Introduces the Arizona College of Podiatric Medicine

Kathleen H. Goeppinger, Ph.D., President and Chief Executive Officer of Midwestern University, is pleased to announce that the Podiatric Medicine Program at the University's Glendale Campus is now the Midwestern University Arizona College of Podiatric Medicine.

Midwestern's Podiatric Medicine Program was originally founded in 2004 within the University's College of Health Sciences. With its new status, the College becomes Midwestern University's fourteenth college across two campuses. The College offers the four-year Doctor of Podiatric Medicine (D.P.M.) degree and its faculty and students provide complete family podiatric care at the Midwestern University Multispecialty Clinic's Foot and Ankle Institute.

Jeffrey L. Jensen, D.P.M., FACFAS, has been appointed as the Interim Dean of the College. Melanie Violand, D.P.M., FACFAS, assumed the role of Associate Dean.



Dr. Jeffrey Jensen is the Interim Dean of the Arizona College of Podiatric Medicine.



MWU Expands Healthcare Career Choices

Midwestern University is offering master's degree and doctoral programs in new healthcare specialties. The additions began at the start of the fall 2021 quarter. The new programs are targeted toward specialties with particular relevance to current healthcare trends.

The Midwestern University College of Graduate Studies has added a Master of Arts in Precision Medicine degree to the College's offerings. Precision medicine is an emerging approach for personalizing disease treatment and prevention strategies that takes into account individual variability in genes, environment, and lifestyle for each person.

The College of Health Sciences on the Glendale Campus also received approval from the Arizona State Board of Private Post-Secondary Education (AZBPPE) to implement four new graduate nursing programs.

The University now offers a Master of Science in Nursing (M.S.N.) program and a Post-Master's Certificate track with an Adult-Gerontology Primary Care Nurse Practitioner concentration;

a Master of Science in Nursing (M.S.N.) with a concentration in Nurse Leadership in Global Health; and a Doctor of Nursing Practice (D.N.P.) program with two specialty tracks. The first track is designated for actively working Adult-Gerontology Primary Care nurse practitioners electing to complete a doctoral degree in their area of specialty, and the second track is designed for master's-prepared nursing leaders aspiring to become doctoral-prepared nurse executives. All graduate nursing programs are scheduled to matriculate in fall 2021 except for the Post-Master's Certificate, which is scheduled to matriculate in summer 2022.

In addition, Midwestern University has begun offering a new Master of Public Health (M.P.H.) online program that offers interprofessional opportunities to join healthcare teams that link human, animal, and ecosystems health management and employ One Health principles. The program is currently offered as a dual-degree option for the University's osteopathic medicine, dental medicine, optometry, and veterinary medicine students; a standalone degree option will be available starting in 2022.

Student Researchers Receive One Health Grants

Midwestern University's Office of Research and Sponsored Programs (ORSP) supports a variety of opportunities for students to participate in a wide range of research projects on campus. The University's One Health Research Grants are designed to promote research partnerships across disciplines and to provide additional opportunities for students to benefit from working with faculty mentors on meaningful research projects.

For the 2020-2021 academic year, ORSP presented two Student One Health Research Grants.



*Mourad Kerdjoudj
(CCOM 2023)*

Mourad Kerdjoudj (CCOM 2023) received a Student One Health Research Grant to work on establishing the utility of two newly-discovered proteins, Cornulin and DJ-1, as diagnostic and prognostic biomarkers for oral squamous cell carcinoma. Tumor progression occurs via multiple steps involving

genetic alterations in tumor cells that confer growth and survival advantages over normal cells. The most consequential genetic mutations affect the growth-inhibiting tumor suppressor genes and the growth-promoting proto-oncogenes, such as Cornulin and DJ-1, respectively. Mr. Kerdjoudj, under the guidance of his faculty mentor Hilal Arnouk, M.D., Ph.D., Assistant Professor of Pathology, is currently measuring Cornulin and DJ-1 expression levels in cell lines representing the successive tumor progression stages of oral squamous cell carcinoma.

"The takeaway from this project will hopefully be a novel method of using these two biomarkers as prognostic indicators of oral cancer and thus, facilitating earlier diagnosis and treatment," Mr. Kerdjoudj said. "With this project being a part of One Health and its focus on the parallels between oral cancers in humans and pets, specifically cats and dogs, it has served to remind me how interconnected the world around us is and how our health needs as humans can manifest in a similar manner in our pets."

M. Griffin Logue (CVM 2023), received the Student One Health Research Grant for the 2020-2021 academic year to work on a continuing research project investigating the unique transmission of Rocky Mountain Spotted Fever (RMSF) by brown dog ticks in Arizona and the surrounding region.



*M. Griffin Logue
(CVM 2023)*

RMSF is one of the worst tick-borne diseases in humans and animals. It is a disease whose initial symptoms are fairly generic – fever, headache, nausea, and vomiting – but can quickly become deadly. RMSF affects the cells in the lining of blood vessels and can eventually cause serious internal organ damage, particularly to the kidneys, as well as death in as little as eight days from the manifestation of symptoms if not immediately treated. There have been over 400 human cases of RMSF reported in Arizona since a 2003 outbreak, where previously it had been rarely reported.

"Participating in research at Midwestern has shown me how valuable it is for different disciplines to come together and take a One Health approach to solve a problem," Ms. Logue says. "If this research was being done in separate silos of healthcare, we would not understand how each factor combines to contribute to the spread of this disease."



MWU Names Diversity Research Grants Recipients

Midwestern University announced the recipients of the newly established research grant program “Improving Healthcare Delivery and Reducing Healthcare Disparities in Underserved Minority Communities.” Faculty researchers from both campuses were encouraged to develop grant proposals to improve healthcare delivery for underserved minorities, enhance representation of minorities in the healthcare provider community, and develop innovative research into the health of minority populations beyond current educational programs and screenings. Approved proposals were eligible for up to \$10,000 in funding.

“Midwestern University has a long and proud history as a healthcare teaching institution, founded in respect, inclusion, and equity. Our commitment to research reflects our mission to serve others while advancing scientific knowledge and enhancing the healthcare profession for future generations,” said Kathleen H. Goepfinger, Ph.D., President and Chief Executive Officer of Midwestern University. “I am pleased to report that Midwestern University received several excellent research grant applications and based on the quality of the grants submitted and following a review by cross-campus faculty committees, we have increased the total number of grants awarded from two per campus to three per campus, with a total of \$60,000 in grant funding provided to our outstanding researchers,” she added.



The funded grants from the Glendale Campus include:

- *The Effects of a Language Intervention for Bilingual Children with Hearing Loss: Clinical and Educational Outcomes.* Researchers: Beatriz de Diego-Lázaro, Ph.D., CCC-SLP, Assistant Professor, Speech Language-Pathology; Laura Wolford, Ph.D., CCC-SLP, Assistant Professor, Speech Language-Pathology; Lúcia Smith, M.S., CCC-SLP, Clinical Assistant Professor, Speech Language-Pathology; George Wolford, Ph.D., M.S., CCC-SLP, Clinical Assistant Professor, Speech Language-Pathology.
- *Analysis of Factors Predicting Clinical Outcomes of COVID-19 Diagnosis among Rural Minority Populations.* Researchers: Pamela Potter, Ph.D., Chair, Pharmacology; John Ashurst, D.O., M.Sc., Clinical Assistant Professor; Anthony Santarelli, Ph.D., Clinical Research Administrator, Graduate Medical Education, Kingman Regional Medical Center.
- *Disparities in Disease Risk on the Frontlines: Do N95 Respirator Masks Protect Our Diverse Healthcare Workforce and their Home Communities?* Researchers: Gina Marie Agostini, Ph.D., Clinical Research Coordinator, College of Dental Medicine – Arizona; Alexandra Pierre-Bez, D.M.D., Assistant Professor, College of Dental Medicine – Arizona.



The funded grants from the Downers Grove Campus include:

- *Abnormal Visual Markers and Barriers in Eye Care Among African American Children.* Researchers: Arijit Chakraborty, Ph.D., M. Phil, Assistant Professor, Chicago College of Optometry; Melissa Suckow, O.D., FAAO, Dean, Chicago College of Optometry.
- *Nurturing Oral Health Awareness among Black Children Living in Food Deserts.* Researcher: Marcela Rocha de Oliveira Carrilho, D.D.S., Ph.D., Associate Professor, College of Dental Medicine – Illinois.
- *Assessing the Relationship Between Health Literacy and Hospital Readmission in High Risk Patients.* Researchers: Milena M. Murray, Pharm.D., M.S., Associate Professor, Pharmacy Practice; Lourdes (Lulu) M. Vega, Pharm.D., PGY-2 Ambulatory Care Pharmacy Resident, Northwestern Medicine Specialty Pharmacy; Spencer E. Harpe, Pharm.D., Ph.D., M.P.H., Professor, Pharmacy Practice; Suraj Marwaha, (CCOM 2023); Pooja Shah, (CPDG 2021).

The research grants are part of a larger University mission designed to bring greater awareness and education about the impact of racial inequity within our society and in healthcare education.

Midwestern University Therapy Institute Offers Expert Care in Many Specialty Areas in Glendale



The CAREN is a specialized rehabilitation environment in use at the Midwestern University Therapy Institute.

Midwestern University's newest community clinic in Glendale, AZ, the Midwestern University Therapy Institute, is a state-of-the-art 74,000 square foot facility that features expert care in specialty areas including Clinical Psychology, Low Vision Rehabilitation, Occupational Therapy, Physical Therapy, Speech-Language Pathology, Sports Vision Performance Training, and Vision Therapy.

Patients at the Therapy Institute also have a unique new partner to help in their rehabilitation assessment and training: CAREN. One of less than 20 in the U.S. and only 50 worldwide, the CAREN (Computer Assisted Rehabilitation Environment) system is an immersive virtual reality environment for advanced clinical evaluation, analysis, and rehabilitation for a variety of neuro-physical conditions that may affect vision, balance, and physical abilities. The CAREN, with its motion capture system, is considered to be the most advanced biomechanics lab to research, train, and assess all aspects of human movement, balance, and locomotion.

This highly interactive system consists of a moving platform with an embedded, dual-belt instrumented treadmill, wrap-around projection screens, integrated motion capture system, and electromyography, which measures electrical activity in skeletal muscle to help diagnose neuromuscular disorders or provide biofeedback. These specialized features create controlled virtual environments, from walking down a forest path to steering a speedboat on a lake or navigating objects on a road, in which patients can interact safely and healthcare providers can obtain important kinetic and kinematic data. The CAREN is customizable for individual patient needs, and the system is utilized at Midwestern University especially for assessment and rehabilitation of patients with Parkinson's disease, strokes, brain injuries, physical injuries, visual skills training, and more. It also offers balance and gait assessment programs, falls assessment, and manual propulsion for patients in wheelchairs.

Health Careers Institute Goes Virtual, but Stays Hands-on

The annual Summer Health Careers Institute for High School Students on the Glendale Campus is an interactive, hands-on opportunity for young people interested in a future in healthcare to sample medical careers.



High school student Rebekah Kimme practices suturing under the virtual supervision of Northwestern University faculty and students during the Health Careers Institute.

The event, presented by Northwestern and the BHHS Legacy Foundation and open to high school juniors and seniors, routinely draws over 100 applications for a limited number of available slots from some of Arizona's brightest young students. Over the course of the HCI, participants learn about career opportunities in healthcare from Northwestern University's faculty experts and student volunteers via lectures, hands-on workshops, and mentoring sessions.

Due to the COVID-19 pandemic, this past year's Health Careers Institute format was modified to a five-day online seminar where students joined over 50 University presenters and mentors via WebEx and Zoom teleconferencing. Northwestern sent each of the 34 participants a "care package" full of books, kits, and other items that the students employed under the presenters' and mentors' direction to allow them to practice medical techniques and participate interactively with each other.

Among the many hands-on workshops available during the event, student participants had the opportunity to try their hand at suturing, taking their own vital signs, testing



CDMA faculty host a video presentation on dental procedures using virtual conferencing tools for Health Careers Institute attendees.

the efficacy of toothbrushes versus miswak sticks, exploring interactive models of the human heart and skeleton, and analyzing the mental and emotional elements in student-created paintings. Faculty and student mentors instructed and guided the attendees in real time through the online conferencing software.

"I had a wonderful week mentoring the high school students," said Kali Tom (CVM 2023), one of the Northwestern University student volunteers for the program. "Despite not being able to run the workshops in person, everyone did a phenomenal job picking something interesting about their field to talk about online. I was very impressed by the presenters, and especially with the high school students who are already thinking so far ahead."

Eye Institute Offers Innovative Treatment for Dry Eyes

The time we spend looking at screens and electronic devices affects our eyes and has contributed to an increase in dry eye disease. Currently, more than 16 million people in the United States are dealing with dry eyes. While dry eye is a common problem for adults, more and more children are being affected because of the constant use of digital devices.

Clinicians at the Eye Institute at the Downers Grove Multispecialty Clinic are also seeing an increasing number of patients suffering from dry eyes. Fortunately, the Eye Institute has two instruments to help combat dry eye. The Intense Pulsed Light (IPL) treatment for dry eye uses light pulses to melt and release hardened oils that have clogged the glands in the eyelids, while the LipiFlow treatment combines heat with physical eyelid massage to melt and express the glands' contents to help restore the ocular surface.

These noninvasive treatments can be quickly administered at the clinic and are important additions to the expert eye care services we offer. Clinicians at the Eye Institute are excited to be among the first clinics in the Chicago area to offer both treatment options to patients.

"We all experience dry eye. Anyone who sits at a computer all day is a candidate for it," said Jessica Jose, O.D., FAAO, Assistant Professor, CCO. "Due to the comprehensive nature of our clinic, we can offer these treatments to a wider range of people."



Vakishan Nadarajah, O.D., FAAO, FSLs, Assistant Professor, Chicago College of Optometry, administering dry eye treatment.

Virtual Learning Inspires Future Healthcare Professionals



High school students attend the Summer Eye Experience.

Midwestern University has continued to find ways to serve the community and inspire the next generation of healthcare professionals during these unprecedented times. Faculty, staff, and students from the Downers Grove Campus modified their summer outreach programs to present the content over virtual platforms.

High school sophomores and juniors enjoyed the Virtual PharmAcademy hosted by the College of Pharmacy, Downers Grove in summer 2020. The program offered a fun and comprehensive learning experience about the diverse career paths in pharmacy and explored patient care in a variety of pharmacy practice environments.

Students spent five half-days learning and engaging with Midwestern University faculty, practicing pharmacists, alumni, and current pharmacy students. Activities in pharmacy practice included pediatric medication administration, blood pressure assessment, IV admixture, compounding, infectious diseases, veterinary medicine, pharmacy research, and many more. Students also had the opportunity to build communication skills, learn team building exercises, and hear about public health.

Also last summer, the Chicago College of Optometry virtually hosted their second Annual Summer Eye Experience (SEE). As part of this three-day program, 17 undergraduate students immersed themselves into the Doctor of Optometry program. Sessions were offered to help prepare the student's application portfolio for admission, and virtual classes provided a glimpse into the day of an optometry student. Students also attended hands-on laboratories where they learned basic optometric skills.

CCOM Students Focus on Professional Development

Students from the Chicago College of Osteopathic Medicine (CCOM) are working to develop programs to enhance their networking and professional skills. The Student Osteopathic Medical Association's (SOMA) Professional Development Committee on the Downers Grove Campus is offering a variety of virtual events to encourage first- and second-year medical students to develop in areas that extend beyond academia.

During the Fall of 2020, the group hosted a CV/Resume Workshop co-hosted by Tricia Krohmer, M.S., M.B.A., Director of the Costin Institute, who provided insight on the key professional elements medical students should focus on and why it's important to start thinking strategically about their resumes. In December, the group hosted a "1x Book Club at 2x Speed" virtual discussion where students shared ideas from books that made an impact on them as students and helped them grow. This allowed the participants to broaden their perspectives and learn about great ideas from a variety of sources that they might not have time to read while studying.

The committee's events are part of a larger project called the Personal Development (PD) Series, which will culminate with a professional development certification for students and a networking event with faculty.



PT Students Participate in "Sock it to 'Em" Initiative



By Shannon Miller (College of Health Sciences-Illinois PT 2022)

The month of October is National Physical Therapy Month. During this time, the Physical Therapy profession puts forth extra effort to give back, raise awareness, and promote the various benefits of physical therapy.

This year, the Midwestern University Physical Therapy Program and the Student Physical Therapy Organization (SPTO) participated in the Illinois Physical Therapy Association's student special interest group initiative: Sock it to 'Em. Socks and underwear are some of the most requested but under-donated clothing items in the homeless community. Students, staff, and faculty advertised, ordered, purchased, and donated money to provide socks and underwear for those in need.

After two weeks of collection, the program was able to donate 1,008 pairs of underwear and socks as well as more than \$200 to Catholic Charities of DuPage County. During a time of so much change and uncertainty, it feels exceptionally rewarding to find a way to help others in our community achieve basic health needs that we often take for granted.

PT students, faculty, and staff donated essential items to those in need during National Physical Therapy Month.

AZCOM Students Adapted to “New Normal” for Osteopathic Manual Medicine Training

By Tim Bailes (AZCOM 2022), OMM Scholar

The reality of the COVID-19 pandemic impacted every student and faculty member on Midwestern's Glendale and Downers Grove Campuses across our wide array of healthcare departments. While it does not take much effort to dwell upon what the pandemic has taken from the traditional educational environment, what the virus has brought forth is a new understanding of the true resiliency of faculty and students to adapt to change. Every department has had to innovate to protect students' ability to meaningfully access their curriculum, and the osteopathic Family and Community Medicine Department at AZCOM exemplifies this spirit.

In order to preserve the capability to conduct in-person laboratory sessions of Osteopathic Manual Medicine (OMM), the hallmark of a D.O. education, several accommodations were made in 2020. First, both students and faculty embraced a new requirement to wear surgical masks and eye protection at all times throughout the lab, and students received an assigned lab partner and lab station throughout the quarter to enable contact tracing if required. Additionally, manipulation tables were sanitized in between sessions, and tables that had been used in a previous session were not utilized in a subsequent session. Finally, in order to allow for socially-distanced lab spacing, lab sessions were split from two two-hour sessions for first- and second-year AZCOM students to three 70-minute sessions per class so that only 50% of lab tables were employed in a given session. To facilitate this spatial requirement, AZCOM utilized Microsoft Teams to live-stream lab teaching sessions to a cohort of students in the newly unveiled Dr. Arthur G. Dobbelaere Science Hall in the fall quarter.

However, the challenges that students face adapting to the first year of medical school in the COVID era are far from purely physical barriers. In an environment where classes are only offered online, many students have found it increasingly difficult to connect with their peers and establish relationships for social and study groups. One positive of retaining individual partners for the duration of a quarter in OMM lab is that has offered a stable source of connection for students, an essential rapport for wellness and mental health in the first year of medical school.

Indeed, the courage and resiliency of students to continue to pursue the benefit of manipulative training under such unique and trying conditions is praiseworthy, as well as the sacrificial efforts of the faculty to uphold safety guidelines and empower students to become the next generation of compassionate healthcare professionals to serve in this new world, however it changes.



First-year AZCOM students practice OMM techniques while overseen by Gary Gailius, D.O., Clinical Associate Professor, OMM.

Glendale PT Students Volunteer for Local Organizations

By Eric Quiroz (CHS-Glendale PT 2022)

Students from the Physical Therapy Program's Classes of 2022 and 2023 on the Midwestern University Glendale Campus volunteered their time and efforts at two recent events.

The Up North Adventure is a yearly trip in Overgaard, Arizona, where volunteers join survivors and their families for a day of kayaking at Willow Springs Lake. The event supports We're Moving Forward, a non-profit organization that focuses on organizing social

and active events for the survivors of traumatic brain injuries (TBI) as well as their immediate families.

PT students also volunteered their time at Box 4 Bucks, an event supporting 17 Branches, a non-profit organization that focuses on community outreach for Parkinson's patients as well as fund-raising, with all proceeds from events going to the Michael J. Fox Foundation. The Box 4 Bucks event was a multi-city collaborative/synchronous event, in which patients participated in broadcasted aerobic activities and boxing-based physical training.



Students from the Physical Therapy Classes of 2022 and 2023 volunteer at Box 4 Bucks to support Parkinson's research.

VITAL SIGNS

The news beat of Midwestern University is published and distributed free to faculty, students, and staff.

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PHOTO GALLERY: Glendale Campus



Arizona students masked up and got festive for the Safe Halloween event held on the Glendale Campus.

Acacia Akiona (CPG 2022) prepares vaccine doses at the Arizona State Fairgrounds COVID-19 vaccine Point of Distribution (POD).



PHOTO GALLERY: Downers Grove Campus



Dental medicine students from the Northwestern University chapter of the American Student Dental Association (ADSA) partnered with the DuPage County Division of Transportation to help clean up the community through the Adopt a Highway program. Volunteers collected trash and recyclables along 31st Street near the entrance to the Downers Grove Campus.



Midwestern University hosted a Halloween Drive-Thru Trick-or-Treat event in October. Student and staff volunteers dressed up in costume to welcome more than 250 children from the community for the event. Children and families remained in their cars while individually wrapped treats were distributed throughout the Downers Grove Campus by the volunteers in masks and gloves. A canned food donation was requested to benefit the People's Resource Center.



The American Pharmacists Association-Academy of Student Pharmacists (APhA-ASP) Chapter Executive Board attended a Downers Grove Village Hall meeting to proclaim October as National Pharmacists Month in the community. During the meeting, the mayor, commissioners, and residents learned about the important services that pharmacists can provide to the community. In addition, chapter members provided a brief history of pharmacy at Northwestern University, highlighted the chapter's focus on community service, and shared the transitions they have made to adapt patient care during a pandemic.