



FALL NEWSLETTER

CMP | Cellular & Molecular
Pathology

2022

Faculty Trainers in the News

CMP Trainer news, from Fall 2021 to Fall 2022, as published in the UW-Madison School of Medicine and Public Health News

Emerging Technologies at UW-Madison Get Boost from State Funds [↗](#)

Posted on May 10, 2022

David Beebe, Tim Kamp, MD, PhD

Emerging technologies developed at UW-Madison will receive funding assistance as the result of an on-campus grant program administered by UW-Madison's Discovery to Product (D2P) and a matching grant of \$300,000 from the Wisconsin Economic Development Corporation (WEDC).

New Study Reveals Changes in Key Pathway in Down Syndrome [↗](#)

Posted on June 21, 2022

Anita Bhattacharyya, PhD, Su-Chun Zhang, PhD

Brain development is an incredibly nuanced and complex process. It is a tightly orchestrated dance involving a wide variety of signals and stimuli. If even one component of that process is altered, brain development can be heavily impacted.

Mouse Study May Help Doctors Choose Treatments for Leukemia Patients [↗](#)

Posted on February 21, 2022

Emery Bresnick, PhD

Some genetic mutations linked to leukemia are less than useful guides to making treatment decisions for patients. A new study from the University of Wisconsin-



Madison suggests a group of clinical signs that can be paired with genetic testing to better inform the timing of more aggressive treatment.

In animal studies, maternal sleep apnea risks 'constellation of deficits' in male offspring [↗](#)

Posted on February 28, 2022

Michael Cahill, PhD, Sathish Kumar, DVM, PhD, Jyoti Watters, PhD

Sleep apnea, a common disorder in which a person repeatedly stops and starts breathing while they sleep — often hundreds of times per night — is a growing problem in pregnancy. Researchers at the University of Wisconsin School of Veterinary Medicine are discovering how low oxygen levels in the blood caused by apnea affect the nervous systems of offspring.

CRISPR-produced CAR T cells could better treat solid tumors [↗](#)

Posted on September 12, 2022

Christian Capitini, MD, Krishanu Saha, PhD

Chimeric antigen receptor (CAR) T cells are biological assassins: white blood cells that are specifically engineered to attack cancer cells. Over the past five years, they've become an established therapeutic option for patients with blood cancer that has withstood standard treatments.

Collaborative study from Pediatrics and Medicine part of Best Abstract Session at TCT Conferences [↗](#)

Posted on April 18, 2022

Christian Capitini, MD

A collaborative study by researchers from the University of Wisconsin Departments of Pediatrics and Medicine will be highlighted in the Best Abstract Session of the upcoming Transplantation and Cellular Therapy (TCT) Conference on Monday, April 25. The study was co-authored by Department of Pediatrics' Division of Hematology, Oncology, and Bone Marrow Transplant members Nicholas Hess, PhD, postdoctoral research associate, and Christian Capitini, MD, associate professor.

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Game-changer: New tech could transform biotechnology [↗](#)

Posted on April 29, 2022

Joshua Coon, PhD

The Joshua Coon Lab has united the power of two major tools in biotechnology. In research published April 27 in Nature Communications, the lab describes a game-changing advance that marries mass spectrometry and electron microscopy (EM).

Technical tour de force: Orphan proteins in mitochondrial disease [↗](#)

Posted on May 25, 2022

Joshua Coon, PhD

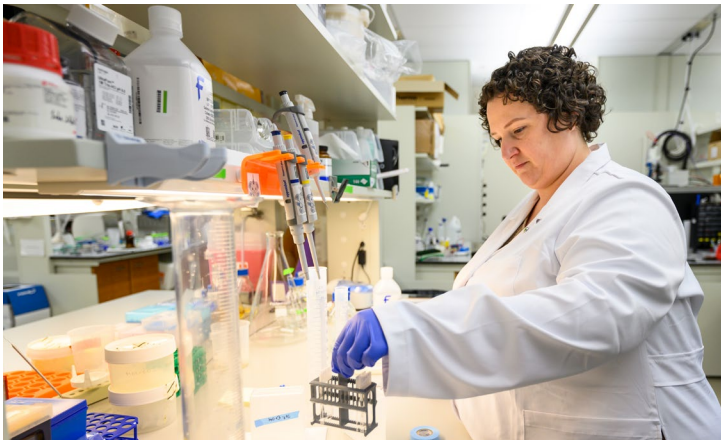
The powerhouse of cells is the mitochondria, an engine that relies on proteins to drive the cell's work. In the past few decades, scientists have been studying proteins in these metabolic epicenters, and have linked these proteins to more than 150 distinct human disorders – often in rare or poorly understood diseases.

Matyas Sandor and Zsuzsa Fabry's Research Featured in Nature Immunology [↗](#)

Posted on May 6, 2022

Zsuzsa Fabry, PhD, Matyas Sandor, PhD

Professors Sandor, Fabry and colleagues have elucidated the lymphatic vasculature mediated regulatory pathways that modulate inflammation of the brain. The study will lead to the next step to designing better therapies for neuroinflammatory diseases. The results were recently



published in Nature Immunology (April, 2022).

Research Cores Initiative helps replace equipment and enhance services [↗](#)

Posted on July 12, 2022

Andreas Friedl, MD, Rich Halberg, PhD, John Svaren, PhD, Xinyu Zhao, PhD

Twelve projects, ranging from keyboard instruments and equipment needed to rescue and preserve deteriorating films to upgraded fluorescent microscopes for high resolution imaging of cells and their surfaces, have been chosen for funding through the second round of the University of Wisconsin-Madison's Research Core Revitalization Program (RCRP).

COVID questions: What's the difference in the tests? [↗](#)

Posted on January 6, 2022

Thomas Friedrich, PhD

This ongoing series answers questions about COVID-19 and the pandemic.

Wild primate virus has pandemic potential should it jump the species barrier, shows study [↗](#)

Posted on October 28, 2022

Thomas Friedrich, PhD, David O'Connor, PhD

In a world still reeling from COVID-19, infectious disease researchers are eager to head off the next pandemic before it has the chance to spill over from animals to humans. But the scientific reality of pandemic prevention isn't straightforward, and researchers have generally avoided making specific predictions about the potential of individual viruses to cause global disease.

UW Study finds photoreceptor cells from retinal organoids can replicate key functions of vision [↗](#)

Posted on February 2, 2022

David Gamm, MD, PhD, Raunak Sinha, PhD

Researchers from the University of Wisconsin School

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of Medicine and Public Health have successfully shown that a retinal cell type derived from human pluripotent stem cells is capable of the complex process of detecting light and converting that signal to electrical waves.

A research partnership brings gene editing promise to eye disease [↗](#)

Posted on August 26, 2022
David Gamm, MD, PhD

In order to tap the tremendous potential of CRISPR gene editing technology for reversing human disease, Wisconsin scientists are working with a star pupil.

Study finds higher asthma rates among Black and Hispanic children regardless of neighborhood income or density [↗](#)

Posted on May 23, 2022
James Gern, MD

A new, large study found that although there is a correlation between childhood asthma and being born into a densely populated or lower-income neighborhood, Black and Hispanic children had consistently higher rates of asthma than white children even in more affluent neighborhoods.

UW enrolling expectant mothers, families for childhood asthma and food allergies studies [↗](#)

Posted on September 16, 2021
James Gern, MD

Researchers at the University of Wisconsin School of Medicine and Public Health are recruiting expectant mothers and families to join two new studies designed to help experts better understand the causes of two of the most common chronic diseases in children: childhood asthma and childhood food allergies.

UW Health treats first patient in U.S. with investigational cell therapy for heart disease [↗](#)

Posted on October 29, 2021
Peiman Hematti, MD

Appleton resident Donald Krause became the first patient in the country last week to undergo an investigational cell therapy for a debilitating heart condition called chronic myocardial ischemia (CMI).

Seizures and memory problems in epilepsy may have a common cause [↗](#)

Posted on December 3, 2021
Matt Jones, PhD

Damage to a part of the brain that regulates hyperactivity can contribute to both memory problems and seizures in the most common form of epilepsy, according to research at the University of Wisconsin-Madison.

Dave O'Connor and colleagues participate in COVID-19 virus variant surveillance [↗](#)

February 10, 2021
David O'Connor, PhD

Pathology Professor Dave O'Connor and colleagues at the AIDS Vaccine Research Laboratory are keeping watch for the arrival of virus variants which may be more adept at infecting people or possibly making vaccines and common treatments less effective. They have sequenced virus from more than 3,200 infections and have posted their surveillance results on line as soon as the sequences are complete. Dr. O'Connor was one of several scientists consulted by Wisconsin Senator Tammy Baldwin prior to her introduction of a bill to fund an expansion of virus genome sequencing in the US.

New study allows researchers to more efficiently form human heart cells from stem cells [↗](#)

Posted on July 1, 2022
Tim Kamp, MD, PhD

Lab-grown human heart cells provide a powerful tool to understand and potentially treat heart disease. However, the methods to produce human heart cells from pluripotent stem cells are not optimal. Fortunately, a new study out of the University of Wisconsin-Madison Stem Cell & Regenerative Medicine Center is providing

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key insight that will aid researchers in growing cardiac cells from stem cells.

Unpacking SARS-CoV-2 [↗](#)

Posted on November 29, 2021

Robert Kirchdoerfer, PhD

Less than a year after he joined the Department of Biochemistry, Robert Kirchdoerfer BS'06 and his nascent coronavirus research program were thrust into the spotlight. The new assistant professor was quickly becoming known around the UW-Madison campus as "the coronavirus guy," a linchpin of efforts at the university to understand the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes COVID-19.

Virus Research Recast [↗](#)

Posted on April 29, 2022

Robert Kirchdoerfer, PhD

As part of the global effort to understand SARS-CoV-2 (the coronavirus that causes COVID-19), CALS scientists have pivoted their existing research projects, launched entirely new studies, and banded together to share knowledge and resources. Experts in the Department of Biochemistry are the linchpins of many of these efforts.

Laura Knoll Assume Role as Associate Dean for Basic Research Training [↗](#)

Posted on June 13, 2022

Laura Knoll, PhD

She will oversee the school's efforts to train and mentor the next generation of scientists investigating the fundamentals of biomedical phenomena. Known as basic research, this work serves as the critical and essential foundation of translational and clinical research and leads to cutting edge innovations in medicine and public health.

UW Health hosts 'Roll & Stroll' for pancreatic cancer research [↗](#)

Posted on July 23, 2022

Jeremy Kratz, MD

UW health experts say pancreatic cancer is one of the three worst cancers and the Carbone Cancer Center is inviting the community to support research efforts for the disease at the ninth annual Roll & Stroll for Pancreas Cancer next month in Middleton.

Varied responses to a low-protein diet in diverse groups of mice highlight need to examine personalized "food as medicine" [↗](#)

Posted on February 2, 2022

Dudley Lamming, PhD

A protein-restricted diet has different metabolic effects in mice with different genetic backgrounds and between male and female mice, highlighting the importance for personalized medicine, as well as personalized "food as medicine."

Non-invasive liquid biopsy tracks cancer treatment success in real time [↗](#)

Posted on May 26, 2022

Joshua Lang, MD, MS

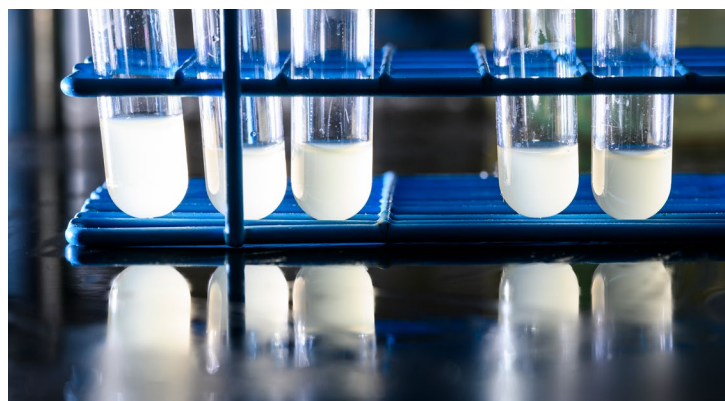
A non-invasive, blood-based biopsy for kidney cancer can tell doctors how a patient's disease is responding to treatment.

Experimental COVID-19 vaccine provides mutation-resistant T cell protection in mice [↗](#)

Posted on May 13, 2022

Suresh Marulasiddappa, DVM, MVSc, PhD

A second line of defense – the immune system's T cells – may offer protection from COVID-19 even when vaccine-induced antibodies no longer can, according to



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new research out of the University of Wisconsin School of Veterinary Medicine.

Canine TV preferences could lead to answers in protecting dogs' eyesight. [↗](#)

Posted on March 23, 2022

Freya Mowat, BVSc, PhD

Television: It's not just for people anymore. These days, programming created specifically for dogs is more frequently popping up on our screens. YouTube offers a nearly endless supply of dog-centered videos, and there's a growing number of television and streaming channels promising 24/7 content to keep pups entertained or even alleviate stress or separation anxiety while owners are away.

Sewer sleuthing, air vacuuming scientists keep tabs on COVID-19 [↗](#)

Posted on November 4, 2022

David O'Connor, PhD, Shelby O'Connor, PhD

David O'Connor believes poop can tell you a lot about yourself and those around you – and there's science to back him up.

New NIH requirement enhances open data sharing [↗](#)

Posted on September 12, 2022

David O'Connor, PhD

Sharing scientific data can accelerate research discovery, enhance research reproducibility and provide accessibility to unique datasets. As the short time to COVID vaccine development showed the world, sharing of scientific data can also expedite the translation of research results into products and procedures to improve human health.

Label-free imaging, plus data science, means better quality control for biomanufacturing stem cells [↗](#)

Posted on April 21, 2022

Krishanu Saha, PhD

By reprogramming cells from a patient to yield induced

pluripotent stem cells, scientists and clinicians can wield a fertile and versatile resource for personalizing patient healthcare via regenerative medicine, cell therapy or disease modeling for drug testing.

The Human Genome is Now Fully Sequence. Here's What That Means [↗](#)

Posted on September 10, 2021

Krishanu Saha, PhD

After two decades, a team of 99 scientists has fully mapped out the human genome. An expert explains what that means for the future of science.

New understanding of 'superantigens' could lead to improved staph infection treatments [↗](#)

Posted on July 21, 2022

Wilmara Salgado-Pabón, PhD

The bacterium *Staphylococcus aureus* has long been known to cause infections in humans, ranging from mild skin infections to pneumonia to more serious infections of the heart. In high-income countries, it's the leading cause of a sometimes-fatal condition known as infective endocarditis, involving inflammation of the heart's valves or lining.

New nanoparticles aid sepsis treatment in mice [↗](#)

Posted on June 6, 2022

John-Demian Sauer, PhD

Sepsis, the body's overreaction to an infection, affects more than 1.5 million people and kills at least 270,000 every year in the U.S. alone. The standard treatment of antibiotics and fluids is not effective for many patients, and those who survive face a higher risk of death.

Researchers Use Biomedical Swine to Solve People Problems [↗](#)

Posted on March 1, 2022

Dhanansayan Shanmuganayagam, PhD

Dhanansayan Shanmuganayagam likens some of the biomedical swine research being conducted at the UW-

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Madison to launching a space shuttle – he says it takes a team effort to get a complex research project off the ground.

Sinha Published in Cell Stem Cell [↗](#)

Posted on February 2, 2022

Raunak Sinha, PhD

Assistant Professor of Neuroscience, Dr. Raunak Sinha and colleagues were recently published in the journal Cell Stem Cell for their work on retinal organoids.

Meat cultivated at UW-Madison offers glimpse into possible food future [↗](#)

Posted on October 24, 2022

Masatoshi Suzuki, DVM, PhD

An unconventional yet burgeoning project looming on the horizon of the grow-your-own movement is the development of cultivated, or cultured meat. It is real animal meat and seafood that is produced by cultivating animal cells, according to the Good Food Institute (GFI). Backers say it reduces the land and water pollution caused by large-scale meat agriculture.

UW-Madison works to protect Wisconsin poultry from avian flu [↗](#)

Adel Talaat, MVSc, PhD

Adel Talaat, MVSc, PhD

It was only a matter of time, Keith Poulsen knew. Poulsen, director of the Wisconsin Veterinary Diagnostic Laboratory, with a team of diagnostic scientists led by Ailam Lim, had been closely tracking the ongoing spread of highly pathogenic avian influenza as migrating wild birds were spreading it across the country this winter and spring.

See-through zebrafish, new imaging method put blood stem cells in high-resolution spotlight [↗](#)

Posted on August 9, 2022

Owen Tamplin, PhD

For the first time, researchers can get a high-resolution view of single blood stem cells thanks to a little help from

microscopy and zebrafish. Researchers at the University of Wisconsin-Madison and the University of California San Diego have developed a method for scientists to track a single blood stem cell in a live organism and then describe the ultrastructure, or architecture, of that same cell using electron microscopy. This new technique will aid researchers as they develop therapies for blood diseases and cancers.

Research Team Develops Extensive Protein Data Set, and App to Share It [↗](#)

Posted on February 7, 2022

Nathan Welham, PhD

You may remember learning in high school science that proteins are the building blocks of life. Now, a University of Wisconsin-Madison research team has created a huge data set on animal tissue proteins that provides building blocks for understanding how medicines work, how wounds heal, how tissue grafts change over time, and more. And they've made this resource available for free, along with a digital app that simplifies its use.

CMP Trainers' Honors and Awards!

Wisconsin Partnership Program Announces 2022 Collaborative Health Sciences Program Grant Recipients [↗](#)

Posted on June 28, 2022

Allan Brasier, MD, Suresh Marulasiddappa, DVM, MVSc, PhD, Nathan Sandbo, MD, PhD, Miriam Shelef, MD, PhD

The Wisconsin Partnership Program at the UW School of Medicine and Public Health has announced three new awards to interdisciplinary research teams through



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its Collaborative Health Sciences Grant Program. The new awards support novel approaches and solutions to complex health challenges including improving care for cancer patients, treating intractable lung diseases and exploring new pathways to treat viral illnesses.

Four pediatrics faculty advisors, students receive Hildale research fellowships The Human Genome is Now Fully Sequence. Here's What That Means [↗](#)

Posted on July 15, 2022

Christian Capitini, MD, Judith Smith, MD, PhD, Paul Sondel, MD, PhD

Congratulations to the following faculty and students who were recently awarded Hildale Faculty/Undergraduate Research Fellowships for the 2022-2023 academic year. The fellowship provides research training and support to undergraduate students, and it provides them the opportunity to undertake their own research project in collaboration with UW-Madison faculty.

Christian Capitini awarded Hyundai Hope Scholar Grant to improve CAR T-cell therapy [↗](#)

Posted on February 8, 2022

Christian Capitini, MD, Krishanu Saha, PhD

Christian Capitini, MD, associate professor, Hematology, Oncology, and Bone Marrow Transplant, along with co-investigator Krishanu Saha, PhD, associate professor, Department of Biomedical Engineering and the Wisconsin Institute for Discovery, were recently awarded a \$300,000 Hyundai Hope Scholar Grant from Hyundai Hope on Wheels.

Christian Capitini and Peiman Hematti awarded new R01 NHLBI grant [↗](#)

Posted on September 15, 2021

Christian Capitini, MD, Peiman Hematti, MD

Congratulations to Principal Investigator Christian Capitini, MD, associate professor, Hematology, Oncology, and Bone Marrow Transplant, along with Co-PI Peiman Hematti, MD, professor, Department of Medicine, who were recently awarded a new NIH R01 grant from the

National Heart, Lung, and Blood Institute (NHLBI) in the amount of \$2.01 million.

Dr. Marina Emborg elected to the American Institute for Medical and Biological Engineering College of Fellows [↗](#)

Posted on February 18, 2022

Marina Emborg, MD, PhD

We are excited to share AIMBE's news release about Marina Emborg, M.D., Ph.D., Professor of Medical Physics and head of the Preclinical Parkinson's Research Program, based at the Wisconsin National Primate Research Center.

Faculty receive WARF Named Professorships, Kellett Fellowships, and Romnes Awards [↗](#)

Posted on May 19, 2022

Thomas Friedrich, PhD, Shannon Kenney, MD

Thirty-two members of the University of Wisconsin-Madison faculty have been awarded fellowships from the Office of the Vice Chancellor for Research and Graduate Education for 2022-23. The awardees span the four divisions on campus: arts and humanities, physical sciences, social sciences, and biological sciences.

Congratulations to Ying! [↗](#)

Posted on September 14, 2021

Ying Ge, PhD

Congratulations to Dr. Ying Ge for winning the HUPO Clinical and Translational Proteomics Award!

The 2021 Power List is Live! [↗](#)

Posted on February 8, 2022

Ying Ge, PhD

Welcome to The Power List – our annual celebration of the world's most influential analytical scientists.

James Gern named 2022 AAAI Distinguished Scientist [↗](#)

Posted on March 10, 2022

James Gern, MD

CMP Trainers' Honors and Awards!

CMP Trainer news, from Fall 2021 to Fall 2022, as published in the UW-Madison School of Medicine and Public Health News

James "Jim" Gern, MD, vice chair of research and professor and division chief of Allergy, Immunology, and Rheumatology, has received the American Academy of Allergy, Asthma and Immunology (AAAAI) 2022 Distinguished Scientist Award. The AAAAI awards honor scientific contributions to Allergy / Immunology that have advanced research, and they recognize leadership contributions to the specialty. Gern's specific award was in recognition of his focus on identifying mechanistic pathways that promote the inception of asthma in children.

2022 Hildale Awards recognize faculty achievements [↗](#)

Posted on March 31, 2022

Anna Huttenlocher, MD, PhD

The secretary of the faculty is honoring four University of Wisconsin-Madison faculty members with the Hildale Award for their contributions to teaching, research and service.

Faculty and donors celebrated at Department of Medicine 2022 Investiture Ceremony [↗](#)

Posted on September 29, 2022

Tim Kamp, MD, PhD

On Friday, September 16, fourteen Department of Medicine faculty were honored with endowed professorships, fellowships, or chairs at the department's 2022 Investiture Ceremony, held on campus in the Health Sciences Learning Center.

Dr. Shannon Kenney receives the Henle Award for major contributions to Epstein-Barr virus research [↗](#)

Posted on May 12, 2022

Shannon Kenney, MD

Shannon C. Kenney, MD, the Wattawa Bascom Professor in Cancer Research and professor of medicine (Infectious Disease) and oncology, received the prestigious Henle Award from the Board of the International Association for Research on Epstein-Barr virus (EBV) and Associated Diseases.

UW School of Medicine and Public Health Faculty Honored with University Awards, Fellowships [↗](#)

Posted on June 22, 2022

Shannon Kenney, MD, Bo Liu, PhD

Nine faculty members in the University of Wisconsin School of Medicine and Public Health received awards, fellowships, and research funding from the university for the 2021-2022 academic year.

Bruce Klein granted second NIH MERIT award, continues investigation of pathological fungus in Wisconsin [↗](#)

Posted on September 15, 2022

Bruce Klein, MD

In 1984, a new infectious disease fellow at the University of Wisconsin Medical School (as it was then called), Bruce Klein, MD, made his first visit to Eagle River, Wisconsin, leading a team of scientists called in to investigate a mysterious respiratory disease that had sickened dozens of Wisconsin school children that year. Now, nearly 40 years later, Klein is chief of the Division of Infectious Diseases in the Department of Pediatrics, with appointments in the Departments of Medical Microbiology and Immunology and Medicine, at the University of Wisconsin School of Medicine and Public Health, and he and the Klein Research Group have followed wide-ranging inquiries into *Blastomyces dermatitidis*, the toxic fungus that causes blastomycosis.

Dr. Laura Knoll Receives ACMCIP William Trager Award! [↗](#)

Laura Knoll, PhD

Laura Knoll, PhD

Congratulations to Dr. Laura Knoll on receiving the American Committee of Molecular, Cellular, and Immunoparasitology (ACMCIP) William Trager Award for Basic Parasitology!

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Dudley Lamming to present at the 9th Aging Research & Drug Discovery Meeting 2022 [↗](#)

Posted on March 24, 2022

Dudley Lamming, PhD

Dudley Lamming to present new research in the biology of aging at the world's largest aging research for drug discovery conference.

Latest round of Research Forward supports cross-campus collaborations and diversity [↗](#)

Posted on June 7, 2022

Bo Liu, PhD, Krishanu Saha, PhD, Mostafa Zamanian, PhD

Sixteen projects have been selected for funding in the second round of Research Forward, a program to stimulate innovative and groundbreaking research at UW-Madison that is collaborative, multidisciplinary and potentially transformative.

Wisconsin Partnership Program Announces 2022 Collaborative Health Sciences Program Grant Recipients [↗](#)

Posted on June 28, 2022

Allan Brasier, MD, Suresh Marulasiddappa, DVM, MVSc, PhD, Nathan Sandbo, MD, PhD, Miriam Shelef, MD, PhD

The Wisconsin Partnership Program at the UW School of Medicine and Public Health has announced three new awards to interdisciplinary research teams through its Collaborative Health Sciences Grant Program. The new awards support novel approaches and solutions to complex health challenges including improving care for cancer patients, treating intractable lung diseases and exploring new pathways to treat viral illnesses.

Inaugural Randie Schlamp Memorial Fund Awarded to Colleen McDowell, PhD [↗](#)

Posted on September 1, 2021

Colleen McDowell, PhD

The inaugural Randie Schlamp Memorial Fund for Pilot Studies in Vision Science Award has been awarded to Colleen McDowell, PhD, for her project entitled The Role of Endocytosis in DAMP-activated TLR4 signaling.

Dr. Zachary Morris and Team Earn 2021 WARF Innovation Award [↗](#)

Zachary Morris, MD, PhD

Dr. Zachary Morris, associate professor in the Department of Human Oncology (DHO), and an interdisciplinary team of researchers earned a 2021 Wisconsin Alumni Research Foundation (WARF) Innovation Award for their project, "Nanoparticle to Render Tumors More Susceptible to Treatment."

Nanocapsule gene editing system earns new NIH funding [↗](#)

Posted on September 19, 2021

Krishanu Saha, PhD

By creating a unique nanocapsule capable of delivering the CRISPR gene editing tool safely to the brain, a team of researchers led by University of Wisconsin-Madison Vilas Distinguished Professor of biomedical engineering and Wisconsin Institute for Discovery faculty member Shaoqin "Sarah" Gong hopes to enable precision treatments for neurodegenerative diseases.

Four Pediatrics faculty receive UW Health Physician Excellence Awards [↗](#)

Posted on December 1, 2021

Christine Seroogy, MD

At an awards ceremony on November 30, four members of the Department of Pediatrics were presented with the 2021 UW Health Physician Excellence Awards. These prestigious peer-nominated awards recognize UW Health's most skilled and dedicated physicians who demonstrate exceptional performance in clinical practice, education, or regional services and a commitment to UW Health's mission, vision, and values.

2022-23 Vilas Associates Competition awardees announced [↗](#)

Posted on February 3, 2022

Raunak Sinha, PhD

The Office of the Vice Chancellor for Research and Graduate Education has announced 26 faculty winners

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of the Vilas Associates Competition. The competition recognizes "new and ongoing research of the highest quality and significance." Tenure-track assistant professors and tenured faculty within 20 years of their tenure date are eligible.

Paul Sondel and team awarded Cancer Research Institute grant [↗](#)

Posted on September 26, 2022

Paul Sondel, MD, PhD

Paul Sondel, MD, PhD, principal investigator and professor, Division of Hematology, Oncology, and Bone Marrow Transplant, and Amy Erbe-Gurel, PhD, co-principal investigator, Department of Human Oncology, and senior scientist in the Sondel Lab, were recently awarded a grant from the Cancer Research Institute as part of the Clinic and Laboratory Integration (CLIP) Program.

Surgery Professor Earns Perfect Score on NIH Grant [↗](#)

Posted on September 10, 2021

Susan Thibeault, PhD

Winning a nearly \$3 million grant from the National Institutes of Health is an accomplishment. Receiving

a perfect score on the application for that grant is nearly unheard of. Susan Thibeault, PhD, professor of otolaryngology in the UW-Madison School of Medicine and Public Health Department of Surgery, recently did both.

2022 SVM Celebration of Excellence Awards [↗](#)

Posted on April 26, 2022

Jyoti Watters, PhD

On Saturday, April 23, students, faculty, staff, and friends gathered in Varsity Hall at Union South to celebrate the end of the academic year and to recognize the efforts of the exceptional people who work and learn at the UW School of Veterinary Medicine.

Zhao and Sousa Awarded SFARI Grant [↗](#)

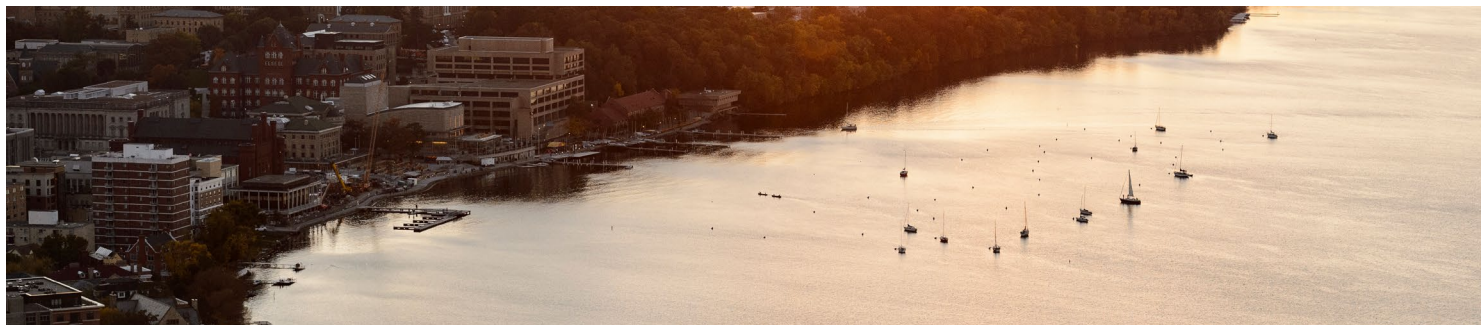
Posted on September 18, 2022

Xinyu Zhao, PhD

The Simons Foundation Autism Research Initiative (SFARI) has selected the project of Drs. Xinyu Zhao (Neuroscience), Qiang Chang (Medical Genetics and Neurology), Daifeng Wang (Biostatistics & Medical Informatics, Computer Sciences), and Andre Sousa (Neuroscience) as recipient of the 2022 SFARI Pilot Award.



CMP Welcomes New Trainers



CMP WELCOMES NEW TRAINERS:

Matt Brown, PhD

Research focus: We are currently investigating the mechanisms underpinning the immune response to autologous and allogeneic PSC-derived cardiovascular cell therapies.

Galen Hess, PhD

Research focus: We use high-throughput screening platforms and next-generation sequencing to perform functional genomics in mammalian cells. We use these technologies to explore how genotypes are related to human health, including disease state and treatment response

Jiaoyang Jiang, PhD

Research focus: We aim to uncover new functions of protein glycosylation in biology and disease by harnessing various interdisciplinary techniques, including chemical biology, biochemistry, molecular biology, structural biology, cell biology, mass spectrometry and imaging that could promote novel understanding and treatments for a range of conditions, including cancer, diabetes and neurodegenerative diseases

Eric Johannsen, MD

Research Focus: Dr. Johannsen's research interests include understanding the mechanisms by which EBV nuclear proteins allow the virus to establish life-long infection and contribute to human disease.

Jeremy Kratz, MD

Research Focus: Over the last several decades, primary liver and pancreatic cancers have conferred significant risk of cancer-related mortality with limited therapeutic development. The Kratz lab is focused on translating findings of patient-derived organoid models of these cancers to characterize clinically significant resistance mechanisms.

Aaron LeBeau, PhD

Research Focus: Development of targeted diagnostics and therapeutics for prostate cancer using novel antibody scaffolds and engineered immune cells.

Muhammed Murtaza, MBBS, PhD

Research Focus: Circulating tumor DNA; Detection, characterization, and management of cancer in dogs

Claire O'Leary, PhD

Research Focus: Inflammation is a hallmark of many human diseases and can lead to pain, organ dysfunction, and irreversible tissue damage. In the gastrointestinal tract, potentially inflammatory and damaging molecules—such as enzymes, acids, and the normal microbiome—are abundant, but these “normal” stressors do not lead to tissue inflammation. The O'Leary lab is studying how gastrointestinal tissues restrain immune activation in the face of harsh environments, while also retaining the capacity for a rapid response to pathogens.

Wilmara Salgado-Pabon, PhD

Research Focus: The pathogenesis of *Staphylococcus aureus* with an emphasis on the contribution of enterotoxins and cytolytins to the pathophysiology of severe disease, including sepsis, pneumonia, and infective endocarditis is the primary research focus. The long-term goal of this research program is to dissect the *S. aureus* mechanisms leading to these life-threatening illnesses at the molecular, cellular and whole system level.

Owen Tamplin, PhD

Research Focus: In the Tamplin lab, we study the basic biology of hematopoietic stem cells (HSC) and their microenvironment. These stem cells are clinically important as a curative treatment for many blood cancers and diseases. A better understanding of HSC and their supportive niche will help us improve these treatments and thereby patient survival.

Ting Fu, PhD

Research Focus: Fu laboratory mainly studies how nuclear receptors sense environmental clues and regulate Gastrointestinal (GI) homeostasis in healthy and disease states. Specifically, I am interested in how dietary and microbial induced bile acids are sensed by Farnesoid X Receptor (FXR) and dynamically affect intestinal development, differentiation, and inflammation, focusing on colorectal cancer (CRC) and intestinal bowel disease (IBD).

CMP Student Awards

CMP STUDENT AWARDS

Josh Brand:

- CMP T32GM135119 Training Grant Award Winner, 2022-23

Beniah Brumbaugh:

- CMP T32GM135119 Training Grant Award Winner, 2022-23

Erazo, Billy:

- Parasitology and Vector Biology (PVB) Training Program through August 31, 2023 (T32 AI007414)
- Selected by UW-Madison to be nominated for the HHMI Gilliam Fellowships for Advanced Studies 2023

Abby Evered:

- CMP T32GM135119 Training Grant Award Winner, 2022-23

Julia Gambardella:

- CMP Travel Award 2022
- Winner of UW-Madison's Cool Science Image Contest 2022



Athena Golfinos:

- 2022 Doreen J. Putrah Cancer Research Foundation Scholar-in-Training Award for early-career scientists in recognition of meritorious abstracts for the American Association for Cancer Research Annual Meeting
- CMP Travel Award, Fall 2021

Olivia Harwood:

- CMP Travel Grant Award Winners, Spring 2022

Marienela Heredia:

- 2022 recipient of the Robert H. and Carol L. Deibel Distinguished Graduate Fellowship in Probiotic Research (awarded May 2022 at FRI Spring Meeting)
- ABRCMS travel award to attend and give oral presentation at ABRCMS 2022 in Anaheim, CA (Nov 9-12)
- Best poster award, 2022 Food Research Institute (FRI) Spring Meeting, May 2022

Margo Heston:

- NIH Blueprint F99/K00 D-SPAN Award: awarded Sept 2022AAIC
- Travel Fellowship: awarded full travel and registration fellowship Apr 2022

Anna Hoefges:

- CMP Travel Award, Spring 2022
- CMP Travel Award, Fall 2022

CMP Student Awards

Anna Marie Hugon:

- Honorable Mention Winner in the 2022 Design Lab Student Media Projects at UW-Madison Feat in Digital Salon 2022 <https://designlab.wisc.edu/digitalsalon/archive/digital-salon-2022/>

Sara Maloney:

- CMP T32GM135119 Training Grant Award Winner, 2022-23

Jenna Nagy:

- Kenzi Valentyn Vision Research Award recipient (November 2021)
- UW Madison Graduate School Office of Diversity, Inclusion, and Funding Research Grant Recipient (June 2022)

Katie Ryan:

- Parasite and Vector Biology (PVB) Training Grant: Awarded for September 2022 – August 2023 (with potential for renewal)
- "Best Poster" Award, Midwest Neglected Tropical Disease (MNID) meeting, August 2022, Notre Dame University

Mason Shipley:

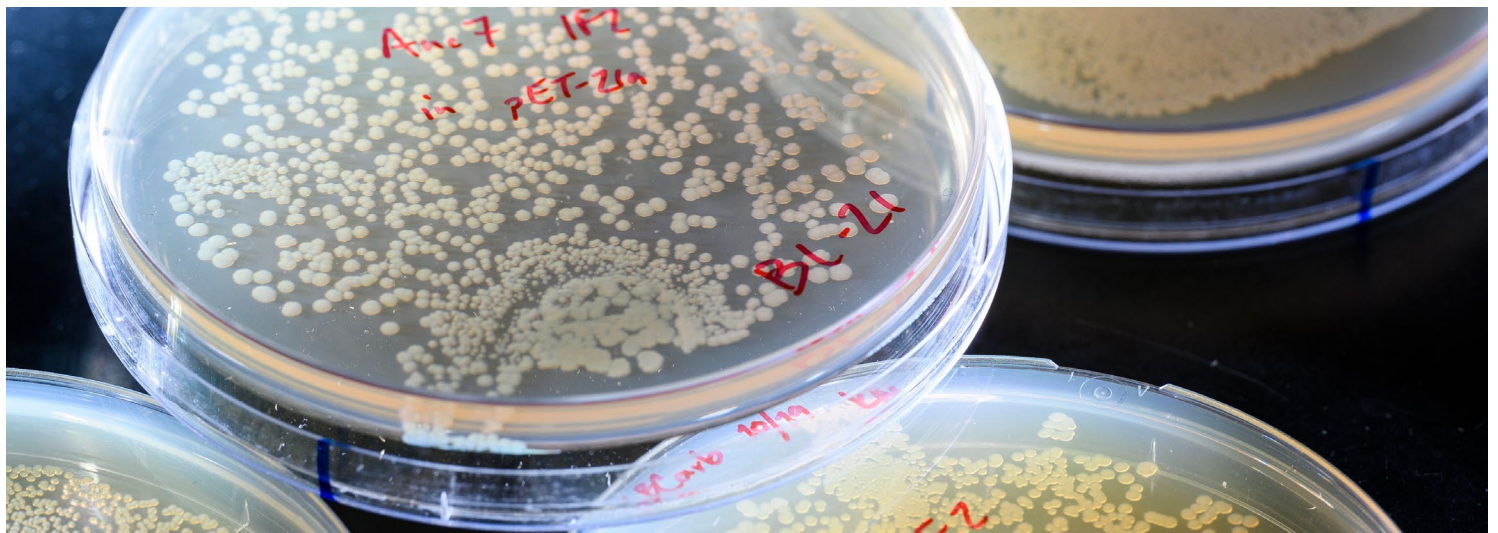
- ICTR TL1 Predoctoral Training Program

Lauren Sarko:

- CMP T32GM135119 Training Grant Award Winner, 2022-23
- Bill and Melinda Gates Conference Award
- Research Forward Grant
- WiCell Award

Melanie Staffenson:

- CMP T32GM135119 Training Grant Award Winner, 2022-23



CMP Students' Conference Attendance & Participation

CMP STUDENTS' CONFERENCE ATTENDANCE & PARTICIPATION:

Jennifer Anderson

- *Attended, the American Association of Immunology, Introductory course in Immunology in Los Angeles on July 12th-14th, 2022*
- *Poster presentation, Wisc e Sota collaborative UMN-UW Training Grant Symposium on Oct 27-28, 2022*

Josh Brand

- *Oral presentation in May 2022 at the annual American Association of Immunologists conference in Portland, Oregon (Immunology 2022). Talk was titled "Single-cell myeloid diversity in human fallopian tube and its implications for early high grade serous ovarian cancer"*

Sam Dettle

- *Poster presentation, Human pluripotent stem cell-derived hematopoiesis Conference hosted by ISCRM in Seattle (Friday, September 23, 2022), presented: scRNAseq analysis of the genetic alterations caused by DLL4 knockout in human hematopoiesis*

Billy Erazo

- *Attended SACNAS, October 2022, San Juan, Puerto Rico*

Julia Gambardella

- *Virtual poster presentation, Society for Neuroscience; November 8-11, 2021*
- *Poster presentation, Society for Neuroscience: November 12-16, 2022; San Diego, CA*

Athena Golfinos

- *Attended American Association for Cancer Research (AACR) Annual Meeting 2022 in New Orleans, LA from April 8-13th, 2022*
- *Poster presentation at the Center for Human Genomics in Precision Medicine symposium in Madison on October 12th, 2022*

Olivia Harwood

- *Poster presentation, "Post-ART cessation immune control of SIV replication in Mauritian cynomolgus macaques (MCM)"Next Generation HIV Vaccines and Therapies Keystone Symposium, March 2022, Banff, AB, Canada*
- *Attended ASV 2022 (American Society for Virology), July 2022, Madison WI*
- *Gave talk: "CD8-mediated post treatment control of SIV in Mauritian cynomolgus macaques", Wisc-e-Sota, October 2022, La Crosse, WI*

Marienela Heredia

- *Poster presentation at the 2022 Food Research Institute (FRI) Spring Meeting (May 17, 2022)*
- *Poster presentation at the 8th Conference on Beneficial Microbes here in Madison, WI (July 11-14)*
- *Attended the 2022 Midwest Neglected Infectious Disease (MNID) conference at the University of Notre Dame (Aug 12-13)*

CMP Students' Conference Attendance & Participation

Margo Heston

- Oral presentation, AD/PD, Mar 19, 2022 in Barcelona, Spain
- Oral presentation, Alzheimer's Association International Conference, Aug 2, 2022 in San Diego, CA
- Poster presentation, Alzheimer's Disease and Related Disorders Research Day, Apr 5, 2022 in Madison, WI

Anna Hoefges

- Virtually attended, SITC 2021, November 10-14th 2021
- Poster presentation, AACR conference in New Orleans April 8-13th 2022
- Attended, Precision Medicine Symposium October 12th 2022 in Madison, WI at HSLC
- Poster presentation, SITC 2022 in Boston November 8-12th 2022

Anna Marie Hugon

- Poster presentation, Midwest Microbial Pathogenesis Conference in Madison WI Sept 30-Oct 1

Andrew Lynch

- Poster presentation, Andrew Lynch, Nick Arp, Amber Zhou, Beth Weaver, Mark Burkard. Quantifying chromosomal instability from karyotype diversity using Bayesian inference. The Consequences of Aneuploidy Conference: Honoring the Contributions of Angelika Amon, September 11-16, 2022, Southbridge, MA

Sara Maloney

- Poster presentation: American Society for Virology (Madison, WI: July 16-20 2022) "Development of tools to investigate EBOV ΔVP30-induced coagulopathy outside of BSL-4"

Ivy McDermott

- Virtually attended Keystone Symposia: Resolution of Inflammation Jun 12-16 2022
- Virtually attended Keystone Symposia: Tissue Fibrosis and Repair: Mechanisms, Human Disease, and Therapies Jun 12-16 2022
- Poster Presentation at DOM Research Day Oct 28 2022

Jenna Nagy

- Talk and poster presentation at Retinal Neurobiology and Visual Processing Conference (FASEB, June 2022 in Southbridge MA)

Katie Ryan

- Poster presentation, Midwest Neglected Tropical Disease (MNID) meeting August 11th-12th, Notre Dame University, South Bend Indiana

Lauren Sarko

- Oral and poster presentation, Advancing Manufacturing of Cell and Gene Therapies VII: "Virus-Free CRISPR (VFC) CAR T Cells Induce Solid Tumor Regression", February 6-10, 2022, San Diego, CA
- Poster presentation, Alzheimer's Disease Research Day: "Genome-edited Chimeric Antigen Receptor (CAR) T Cells to Target Neurodegeneration and Senescence", April 5, 2022, Madison, WI
- Poster and lightning talk presentation, Wisconsin Institute for Discovery Symposium: "Genome-edited Chimeric Antigen Receptor (CAR) T Cells to Target Neurodegeneration and Senescence", July 20, 2022, Madison, WI

CMP Students' Conference Attendance & Participation

- *Poster presentation and "Make Way Alzheimer's: Cognitive Function Coming Through" 3-minute thesis competition, Cell Manufacturing and Technologies (CMaT) Retreat: "Virus-Free CRISPR CAR T Cells to Target Tissue Dysfunction", August 24-26, 2022, Madison, WI*
- *Poster presentation, Pathology Research Day: "Genome-edited Chimeric Antigen Receptor (CAR) T Cells to Target Neurodegeneration and Senescence", August 29, 2022, Madison, WI*
- *Oral presentation, ISSCR/ASCGT Madison International Symposium: "Genome-edited Chimeric Antigen Receptor (CAR) T Cells to Target Senescence", September 21-23, 2022, Madison, WI*

Mason Shipley

- *Poster presentation, American Society for Virology (ASV 2022), July 16-20, 2022 Madison*
- *Poster presentation, Chromatin Control of Viral Infection, September 8-9, 2022. National Institutes of Health*



Congratulations to CMP Graduates

Congratulations to CMP Graduates!

Congratulations to our 2022 Graduates as their predoctoral careers come to a successful conclusion. You will be missed.

Anil Chokkalla, PhD: Clinical chemistry/chemical pathology fellowship at the Department of Pathology and Immunology, Baylor College of Medicine

Phu Duong, PhD: Postdoc at University of Rochester

Hemanth Potluri, PhD: Return to UW-Madison Medical School

Kirstan Gimse PhD: Genomic Sciences Training Program Post-doctoral traineeship under the guidance of Dr. Sushmita Roy, UW-Madison

Sarmi Basnet, PhD: Research Scientist in the biotech industry (Exact Sciences)

Trey Gilpin, PhD: Postdoctoral position in Dan Matson lab

Evan Flietner, PhD: Scientist position at Elephas in Madison

Rebecca Hutcheson, PhD: Scientist position at Addgene in Boston

Steven Mayerl, PhD: Scientist position at Fujifilm cellular dynamics in Madison

Welcome to Our New 2022 Students!

- **Jennifer Anderson:** BS, University of WI-Stevens Point
- **Sasha Celada:** BS, Iowa State University
- **Sam Dettle:** BS, University of WI-Superior
- **Abby Evered:** BS, Oregon State University
- **Xiaoyue Gao:** BS, MS, University of Chinese Academy of Sciences
- **Anqu Gao:** BS Emory University
- **Kyle Jancola:** BS, Azusa Pacific University
- **Paul Kuehnert:** BS, SUNY at Buffalo
- **Margot Miranda-Katz:** BA, Colby College
- **Nat Murren:** BS, University of Washington
- **Adam Pagenkopf:** BS University of Wisconsin-LaCrosse
- **Amanda Schussman:** BS University of Wisconsin-Madison
- **Melanie Staffenson:** BS, University of Portland
- **Qianfan Yang:** BS Hunter College of CUNY



CMP Program News

CMP ORIENTATION

CMP new student orientation was held this year on Thursday, August 25th in the HSLC followed by our (return to normal) CMP new student/current student buddy Terrace event. Luckily, our new recruits had their CMP sweatshirts handy as HSLC lecture hall became fairly chilly as the day progressed!



Department of Pathology and Laboratory Research Day Returned in 2022!

Department of Pathology and Laboratory Research Day Returned in 2022!

On August 29, 2022 we celebrated the return of our Pathology Research Day.

The day began with keynote speaker, Thomas Willnow, PhD, Aarhus University, Max-Delbrueck- Center for Molecular Medicine, followed by Department of Path and Lab Medicine faculty short talks. This year we added Inclusion Training by Naomi Isenberg, RA, Dept. Of Psychology with her session entitled "Engaging in Everyday Inclusion: From Intention to Action". The day ended with a Cellular and Molecular Pathology poster session. Congratulations to Michelle Koenig, Steven Mayerl, Billy Erazo, and Beniah Brumbaugh for their "Best Poster" wins!

Congratulations also goes out to incoming student Nat Murren, for receiving "The Day of The Badger" award!



CMP Program News

APT once again!

For the first time since the fall of 2019 we were able to include a trip to American Players Theatre in our Welcome Week schedule.

The event is a Department of Pathology and Laboratory Medicine sponsored welcome week "Dinner and a Show" event. This year the group enjoyed the APT production of "Love's Labour's Lost" By William Shakespeare, in theatre "Up The Hill Theatre".



CMP Holiday Bowling Event

On Wednesday, November 16th we held our annual CMP Holiday Bowling Event.

Always nice to see our CMP trainees gather with their peers for a fun time!

