Dear Friends of the CVC,

As we approach the end of 2018, I hope you take this time to connect with family and friends, share stories, and enjoy each other’s company. I also like to use this time of year to look ahead to the start of a new year.

It is an exciting time in the CVC, as well as across MCW. We’re forging and galvanizing partnerships with current and new investigators and clinicians to work toward our common goal of advancing the science and discoveries to improve the cardiovascular health of our patients and their families here in Wisconsin and beyond!

—Ivor J. Benjamin, MD
Director of the CVC

Dr. Curt Sigmund Named Cardiovascular Center Associate Director

The Cardiovascular Center (CVC) is pleased to announce the appointment of Curt D. Sigmund, PhD, as an Associate Director of the CVC. Dr. Sigmund is the incoming Professor and Chair of the Department of Physiology at the Medical College of Wisconsin, effective early 2019. Dr. Sigmund currently serves as Professor and Roy J. Carver Chair in Hypertension Research; Director, Chair and Department Executive Officer, Department of Pharmacology; UIHC Center for Hypertension Research at the Roy J. and Lucille A. Carver College of Medicine at the University of Iowa.

Dr. Sigmund’s major areas of research focus on central nervous system and vascular mechanisms of blood pressure regulation by the renin-angiotensin system, the transcription factor PPAR-gamma, and its downstream effectors Cullin-3/RhoBTB1, investigating these using a combination of molecular biological, genetic and physiological approaches including the generation of unique transgenic and knockout models.

He has published over 250 papers, chapters, and reviews and has trained over 50 PhD students and postdoctoral fellows many of whom hold research and faculty positions nationally and international-ly. In addition, Dr. Sigmund has held numerous leadership roles in prominent societies. He recently was elected to serve a two-year term as the new Chair-Elect of the American Heart Association Council on Hypertension and is currently the Chair of the Publications Committee of the American Physiological Society (APS) acting as Associate Editor and Editor-in-Chief for several APS journals in recent years. For the Cardiovascular Center, he served on the External Scientific Review Board from 2016-2017.

Bringing a wealth of expertise in NIH program project and center grants, Dr. Sigmund has served as a regular member of the NHLBI Project Grant (PPG) Review Committee, has directed multiple PPG’s over the last two decades, and is the current director of a PPG studying the genetic and signal-ing mechanisms in the central regulation of blood pressure and obesity. As an Associate Director, Dr. Sigmund will focus on enhancing the synergies within similar CVC programmatic initiatives.

Dr. Sigmund’s laboratory will be located within the Cardiovascular Center in the Health Research Center building. The Cardiovascular Center wishes to express our excitement as we embark on this new journey to advance the greater impact of cardiovascular science and research at the Medical College of Wisconsin.

The CVC Celebrates a Day of Impactful Science at the 2018 Research Retreat

The Cardiovascular Center held its 4th annual Research Retreat on Friday, Oct. 19 at the Harley Davidson Museum. This pinnacle event featured nationally-recognized physician-scientist and keynote speaker, Joseph Hill, MD, PhD, who spoke on “Heart Failure: Two Inflammatory Tales.” Dr. Hill is the Editor-in-Chief of Circulation and Professor of Internal Medicine and Molecular Biology, Chief of Cardiology at UT Southwestern Medical Center.

The theme of this year’s retreat was “Inspiring Impactful Science,” focusing on the significant impact of CVC investigators and their research on cardiovascular science, patient care, and health disparities in our community.
CVC Hosts “Morning of Team Science” and Scientific Visioning Session during Annual ESAB Visit

On Sept. 24 and 25, the CVC’s External Scientific Advisory Board (ESAB) made their annual visit to the MCW campus. During their time at MCW, they provided oversight of the ongoing CVC team science awards to support Pre-PPGs and Multi-PI R01 grants during the CVC’s “Morning of Team Science.” The board also gave continued advisement of ongoing recommendations for the CVC provided by the ESAB in past years.

As a “Green Center,” the CVC relies on the external oversight of the ESAB, a group of distinguished leaders from across the country who are experts in their respective fields.

New to their visit this year, the CVC held a Scientific Visioning Session, in which members of the ESAB and ISAB lent their expertise and perspectives on elevating the CVC to a Comprehensive Cardiovascular Center of Excellence with a focus on broadening translational research and further integrating clinical care.

Select leaders from Froedtert & the Medical College of Wisconsin were invited to this strategic session including Jorge Saucedo, MD, MBA, director of Froedtert Heart & Vascular Services, Paul Pearson, MD, PhD, chief of cardiothoracic surgery, and Leonard Egede, MD, MS, director of the Center for Advancing Population Science (CAPS).

ESAB chair, Donna Arnett, PhD, MSPH, stated “We are delighted with the amazing progress in the past year, and the addition of key leadership in Cardiology and CV Surgery. The MCW CVC is well-positioned to accelerate its progress in the upcoming year with critical support from MCW’s leadership. The CVC is truly a gem for MCW.”
The CVC Welcomes Three New Investigators

The Cardiovascular Center is now home to three new investigators. We would like to welcome Benjamin Gantner, PhD, Michaela Patterson, PhD, and Ravi Singh, PhD, to MCW and the Cardiovascular Center!

Benjamin Gantner, PhD, is joining MCW as an assistant professor of medicine in the division of endocrinology. Dr. Gantner received his doctorate in Immunology from the University of Washington at Seattle and completed his postdoctoral training both at the University of Chicago and the University of Illinois Chicago. Dr. Gantner’s lab focuses on inflammatory polarization in innate immune cells, including neutrophils and macrophages. Among other techniques, he uses intravital imaging in challenging organs, such as ventilating lungs, to directly observe these cells. He will be working closely with fellow CVC investigator, Dr. Marcelo Bonini.

Michaela Patterson, PhD, assistant professor, was recruited in a joint effort between the CVC and the Department of Cell Biology, Neurobiology & Anatomy. Dr. Patterson received her PhD from the University of California, Los Angeles, and her postdoctoral training under Henry Sucuo at the University of Southern California. Her current research focuses on the genetic and cellular aspects of heart regeneration with the hopes of stimulating a more robust clinical response to injury across all patients.

Ravi Singh, PhD, assistant professor, recently joined the department of pathology. He received his PhD in Molecular Cell and Developmental Biology from The Ohio State University and completed his postdoctoral training in the lab of Thomas Cooper, MD, at Baylor College of Medicine. His research works to understand how alternative splicing, a process where pre-mRNA from a single gene selects different sets of exons to generate multiple mRNAs, is regulated and integrates with other cellular processes to affect cardiac and skeletal muscle function in development, disease, and aging.

CVC Member Benefits from 2018 Small Equipment Investment from MCW Office of Research & Dean’s Office

MCW News, Oct 31—For the second year in a row, MCW investigators had the opportunity to submit requests for small equipment or software needed for a research project in their lab for fiscal year 2018. The Office of Research and the Dean’s Office collectively awarded $135K in small equipment to 14 different faculty researchers. Having these items up and running for several months, awardees are pleased to report how the investment is advancing their research and benefiting their teams.

The Program in Chemical Biology (PCB) brings structure-based drug design and synthetic/medicinal chemistry to MCW, serving faculty across MCW departments and beyond. The two most time-consuming challenges in synthetic chemistry are: (1) determining what molecules are produced in a reaction and (2) purification of the desired molecule from a reaction. To address both challenges, the PCB purchased a small molecule purification system that combined automated chromatography with mass-directed fractionation. Since obtaining this instrument, however, the team found that ~40% of molecules are undetectable using the original atmospheric-pressure chemical ionization source and therefore unamenable to mass-directed purification. PCB Associate Director Brian Smith, PhD, was awarded an Electrospray Ionization (ESI) Source and ASAP Capillary Source upgrade for their existing BioTage Dalton system. This upgrade increased successful mass detection to >90% of molecules, thereby accelerating discovery of new chemical entities. The Dalton is also used for quality control of purchased compounds for structural biology and high-throughput screening studies. The ESI and ASAP capillary sources will enable analysis of peptides/proteins and thin-layer chromatography plates, which were incompatible with the Dalton as original configured. This upgrade has broadened utility and increased throughput of molecule characterization and purification for projects supported by the PCB, including an R01 award from NIDDK to Dr. Smith, an R35 award from NIGMS to Dr. Smith, and an R01 award from NIGMS to Dr. Brian Volkman.
Recent Collaborative Member Publications

**Kriegel, AJ:** Terhune, SS; **Greene, AS:** Noon, KR; Pereckas, MS; **Liang, MY.** Isomer-specific effect of microRNA miR-29b on nuclear morphology. *JOURNAL OF BIOLOGICAL CHEMISTRY*, 293 (36); 14080-14088; [10.1074/jbc.RA117.001705] SEP 7 2018.

**Liu, Y; Usa, K; Wang, F; Liu, PY; Geurts, AM; Li, JH; Williams, AM; Regner, KR; Kong, YW; Liu, H; Nie, J; Liang, MY.** MicroRNA-214-3p in the Kidney Contributes to the Development of Hypertension. *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*, 29 (10); 2518-2528; [10.1681/ASN.2018020117] OCT 2018.

**Miller, BS; Bluementhanl, SR; Shalygin, A; Wright, KD; Staruschenko, A; Imig, JD; Sorokin, A.** Inactivation of p66Shc Decreases Afferent Arteriolar K-ATP Channel Activity and Decreases Renal Damage in Diabetic Dahl SS Rats. *DIABETES*, 67 (11); 2206-2212; [10.2337/db18-0308] NOV 2018.

**Pant, T; Dhanasekaran, A; Fang, J; Bai, XW; Bosnjak, ZJ; Liang, MY; Ge, ZD.** Current status and strategies of long noncoding RNA research for diabetic cardiomyopathy. *BMC CARDIOVASCULAR DISORDERS*, 18; [10.1186/s12872-018-0939-5] OCT 2018.

**Spires, D; Ilatovskaya, DV; Levchenko, V; North, PE; Geurts, AM; Palygin, O; Staruschenko, A.** Protective Role of Trpc6 knockout in the progression of diabetic kidney disease. *AMERICAN JOURNAL OF PHYSIOLOGY-RENAL PHYSIOLOGY*, 315 (4); F1091-F1097; [10.1152/ajprenal.00155.2018] OCT 2018.

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Human Population Health Symposium to be Held May 20, 2019 at MCW

Mark your calendars for Monday, May 20, 2019! Together, along with the MCW School of Pharmacy and the Center for Advancing Population Science (CAPS), the Cardiovascular Center is proud to announce a Human Population Health Symposium, scheduled for Monday, May 20, 2019 in the Alumni Center at MCW. This half-day symposium will feature keynote speaker, Michelle Albert, MD, MPH, professor of medicine at the University of California at San Francisco (UCSF) and director of the Center for the Study of Adverse Events and CardiovascUlaR DiseaseE (NURTURE Research Center). Watch for more information coming soon and save the date!
Community Engagement

As I reflect on this year, we have so many accomplishments to be proud of in the CVC! But first I want to honor and remember our friends and fellow CVC Board members, Jack McKeithan, Jr. and Nick Wilson. It was both their passions to serve on this board, and they will be greatly missed.

2018 was MCW’s 125th anniversary year, and I am honored to be the new chair for the CVC Board. I am personally passionate about supporting cardiovascular health and awareness, and I look forward to learning more and being a community advocate for our research, education, community outreach, and clinical care at the Medical College of Wisconsin CVC.

There are some outstanding people in the CVC I’d like to personally recognize for their accomplishments this year:

- Dr. Benjamin was named President of the National Board of Directors for the American Heart Association.
- Christine Klemens, PhD, Jennifer Stancill, PhD, and Moua Yang, PhD were named postdoctoral trainees on the CVC’s National Institutes of Health T32 postdoctoral training grant. Complementary support for trainees is provided by a grant given to the CVC by the A. O. Smith Foundation for the A. O. Smith Fellowship Scholars Program.
- Carmen Bergom MD, PhD was named the 2018 Michael H. Keelan, Jr. MD Scholar.
- Dr. Jorge Saucedo, MD, MBA was named Chief of the Division of Cardiovascular Medicine and the Director of the Froedtert & MCW Heart and Vascular Service Line, and was appointed to the CVC’s ISAB.
- Kristen Beyer, PhD was awarded the second Community Engaged Research Seed Grant.
- Dr. Allen Cowley received the 2018 Hector F. DeLuca Scientific Achievement Award for his contributions to Wisconsin’s biohealth industry.
- Julie Freed, PhD was named the 4th annual Steve Cullen Healthy Heart Scholar.

In addition, we had a great year with our fundraising events! In February, CVC Board member Gael Cullen honored her late husband, Steve Cullen, by organizing the 22nd Annual Steve Cullen Healthy Heart Cullen Run/Walk. Gael and all 500+ participants raised over $35,000 for cardiovascular research. In June, we held the 10th Annual Have a Heart Motorcycle Ride. Thanks to board members Danny Muchin, Phil Georges, and Bill Mielke for helping organize the Ride, and thanks to Gruber Law for their presenting sponsorship. The event raised over $20,000! Finally, we launch a brand new, sold out event in July named Heart of the Matter Food & Wine Event. About 220 guests were treated to a wonderful sit-down meal paired with award-winning wines. Thanks to Medtronic for their presenting sponsorship. The event raised over $94,000.

As our year comes to a close, I wish all the staff, faculty, patients and partners of the CVC a very happy holiday season and blessed new year. I look forward to new goals in 2019.

—Lynnea Katz-Petted

Panel of African-American Medical Leaders Discuss Importance of Equity in Health Care at 2018 Scientific Sessions

Nov 12, AHA News—Making sure underserved people can access quality, affordable health care was the focus of a unique panel discussion at this year’s 2018 Scientific Sessions, featuring five African-American doctors, including the CVC’s own director, Dr. Ivor Benjamin.

"As a cardiologist, I recognize that only 20 percent of what I do can be impacted by my training," American Heart Association President Dr. Ivor Benjamin said Sunday during the panel at the AHA’s Scientific Sessions meeting in Chicago. "Many of the solutions are in our communities. We just have to find them."

The panel also included:

- Dr. John M. Fontaine, president of the Association of Black Cardiologists
- Dr. Gary H. Gibbons, director of the National Heart, Lung, and Blood Institute
- Dr. Patrice A. Harris, president-elect of the American Medical Association
- Dr. Niva Lubin-Johnson, president of the National Medical Association

Their discussion covered the importance of helping people overcome barriers to appropriate care.

A Message From the CVC Board Chair
New 2018 AHA/ACC Cholesterol Guidelines Encourage Earlier Risk Assessment

Nov 13, 2018 — New cholesterol guidelines from the American Heart Association (AHA) and the American College of Cardiology (ACC) highlight more personalized risk assessments and new cholesterol-lowering drugs for people at the highest risk for cardiovascular disease (CVD).

The guidelines were presented at the AHA 2018 Scientific Sessions, Nov. 10-12 in Chicago. The guidelines were simultaneously published in the American Heart Association journal, Circulation and the Journal of the American College of Cardiology.

“The updated guidelines reinforce the importance of healthy living, lifestyle modification and prevention. They build on the major shift we made in our 2013 cholesterol recommendations to focus on identifying and addressing lifetime risks for cardiovascular disease,” said Ivor Benjamin, MD, FAHA, president of the American Heart Association. “Having high cholesterol at any age increases that risk significantly. That’s why it’s so important that even at a young age, people follow a heart-healthy lifestyle and understand and maintain healthy cholesterol levels.”

Nearly one of every three American adults have high levels of low-density lipoprotein cholesterol (LDL-C), considered the “bad” cholesterol because it contributes to fatty plaque buildups and narrowing of the arteries. About 94.6 million, or 39.7 percent, of American adults have total cholesterol of 200 mg/dL or higher, while research shows that people with LDL-C levels of 100 mg/dL or lower tend to have lower rates of heart disease and stroke, supporting a “lower is better” philosophy.

When cholesterol levels are high, a person is at greater risk for heart disease and stroke. New 2018 AHA/ACC Cholesterol Guidelines Encourage Earlier Risk Assessment. In some cases, treatment may begin as early as age 40, while others may begin treatment at age 50.

“The updated guidelines encourage earlier risk assessment,” said Michael Valentine, M.D., FACC, president of the American College of Cardiology. “Over the past five years, we’ve learned even more about new treatment options and which patients may benefit from them. By providing a treatment roadmap for clinicians, we are giving them the tools to help their patients understand and manage their risk and live longer, healthier lives.

The risk calculator introduced in the 2013 guidelines remains an essential tool to help healthcare providers identify a patient’s 10-year risk for CVD. Because the calculator uses population-based formulas, the guidelines now urge doctors to talk with patients about “risk-enhancing factors” that can provide a more personalized perspective of a person’s risk, in addition to traditional risk factors such as smoking, high blood pressure and high blood sugar to address under- or over-estimated risk in some individuals.

The guidelines offer more specific recommendations for certain age and ethnic groups, as well as for people with diabetes, all important for the comprehensive and individualized provider-patient discussion. For more information, visit: www.onlinejacc.org or www.ahajournals.org/journal/circ.

-Source: Diagnostic and Interventional Cardiology Magazine

Medical Device Company Embarks on Pivotal Clinical Study with Medical College of Wisconsin

LEXINGTON BIOSCIENCES NEWS, Aug 2018 - Lexington Biosciences, Inc., a development-stage medical device company, is pleased to announce the Medical College of Wisconsin as the first site in its multicenter clinical study for the HeartSentry portable cardiovascular health monitor. CVC faculty member, Dr. Michael Widlansky, associate professor, department of medicine, is the lead investigator on this clinical trial.

HeartSentry was designed as a diagnostic device offering a new approach to non-invasive measurement and monitoring of cardiovascular health by assessing the function of a patient’s vascular endothelium, the vital innermost lining of the cardiovascular system. The Company designed HeartSentry to be accurate, quick, and cost-effective, with the intent to position it to become the standard of care for cardiologists, general practitioners, and ultimately for patients as a first-line evaluation of cardiovascular health.

“Our initial trials provided us an extensive data set regarding functional efficacy and safety,” states Company CEO, Eric Willis. “Now we move into the next phase of our clinical study with a much larger demographic alongside diagnosis-specific data points to meet the requirements for FDA submission. The team in Wisconsin have been very helpful and we selected them due to their expertise in the field of endothelial function and cardiovascular medicine along with their proven ability to run clinical trials quickly, efficiently, and with a commitment to data integrity. We plan on announcing our other clinical trial centers shortly and are very pleased with the quality of the broader clinical research team.”

As a research center, the Medical College of Wisconsin is the second largest research institution in the state with $234M invested in research, teaching, training and related purposes in FY 2017, which ultimately leads to improved patient care and health outcomes. Its faculty conducted more than 2,800 research studies, including clinical trials last fiscal year, and overall it is the largest research center in the Milwaukee metropolitan area.
Team CVC Represented at 2018 Greater Milwaukee Heart and Stroke Walk

Sept. 29 – On a beautiful, sunny Saturday morning, 504 MCW participants, including more than 40 CVC members and their families (Team CVC) joined the Greater Milwaukee community at Veteran’s Park to help raise funds to further scientific research in the hopes of improving cardiovascular health around the world. Team CVC raised $1,060, while MCW as an institution was able to raise nearly $10,000!

CVC director and 2018-2019 American Heart Association President, Dr. Ivor Benjamin, kicked off the walk challenging the community to be a “relentless force” in the fight against cardiovascular disease in Southeastern Wisconsin, allowing everyone to have access to healthy & affordable food and the ability to receive quality healthcare. The AHA is broadening its focus to include equitable health and overall well-being.

Save the date for the 2019 Heart Walk, taking place on Saturday, Sept. 21.

Save the Date for the 23rd Annual Steve Cullen Healthy Heart Club Run/Walk and Support Cardiovascular Research at the CVC!

Get your running/walking gear ready and start training now, the 2019 Steve Cullen Healthy Heart Club Run/Walk is quickly approaching. This annual event is celebrating its 23rd year on Saturday, Feb. 9, 2019, sponsored by the Cullen family and the Badgerland Striders. The Run/Walk includes an 8K scored run or 2-mile family-fun run/walk following a scenic path along Underwood Parkway in Wauwatosa, beginning at the Wil-O-Way Underwood Recreation Center. Easily accessible from I-94, Highway 45 and Highway 100, the course takes participants through one of Milwaukee County’s prettiest parks. Homemade chili, snacks and refreshments are included after the event.

The Cullen Run/Walk was established in memory of former Milwaukee Alderman, Steve Cullen who died from a sudden heart attack at age 40. Proceeds will benefit the MCW Cardiovascular Center by helping researchers further their understanding of how the cardiovascular system functions and advance promising new treatments and potential cures for cardiovascular disease. To date, this event has raised more than $400,000 to heart disease research and education.

CVC member, Julie Freed, MD, PhD, assistant professor of anesthesiology, is the current recipient of the 2018 Steve Cullen Healthy Heart Scholar Award to fund her research on the treatment of life-threatening low blood pressure. A total of $50,000 is funding her project testing vitamin B12 in treating dangerously low blood pressure caused by blood infections, with $25,000 coming from the funds raised by last year’s Steve Cullen Healthy Heart Club Run/Walk.

The Cullen Run has also recently supported two 2018 summer students through the Diversity Summer Health-Related Research Education Program (DSHREP) and the Research Opportunity for Academic Development in Science (ROADS), tying into the CVC’s mission of training the next generation of cardiovascular scientists.

Registration coming soon for the 2019 Cullen Run, visit: cullenrun.com. We look forward to seeing you there!
Born to Discover: CVC-Mentored High School Student Among Nation’s Top Young Investigative Minds

MCW News - Nabeel Quryshi, 18, was always the type of person who wanted to examine how things work. One of his first curiosities as a child was to learn how construction machinery—from bulldozers and cranes to excavators—functioned. As he grew, so did his investigative nature.

“Research and discovery is my passion. It has the power to enact change on a global scale and allows us to better understand the world around us,” says Quryshi, who will attend Harvard University in the fall, where he plans to study cellular and molecular biology, statistics and the emerging field of bioinformatics. The young scholar’s interest in research led him as a 14-year-old to reach out to investigators at the Medical College of Wisconsin (MCW). His first response came from Andreas Beyer, PhD, associate professor of medicine at MCW, whose lab focuses on cardiovascular research.

It just so happened that he and his collaborator, David Gutterman, MD, principal investigator and Northwestern Mutual Professor of Medicine at MCW, were looking for someone to do computational analysis and other work in the lab. “He did his homework and asked the right questions,” Dr. Beyer says of Quryshi’s initial work in the lab. Realizing that computational analysis was just the beginning, the investigators also allowed him to participate in more lab-based projects. The lab project Dr. Gutterman, Dr. Beyer and Quryshi have been working on has evolved into an award-winning research on the protein telomerase, which the investigators found has the ability to restore vascular function and combat coronary disease. The challenge with telomerase, according to Quryshi, is that it also has been found to damage cells during chemotherapy treatments.

That led the team, who conducts research using human tissue and blood vessels, to focus on developing methods to mitigate and manipulate the effect of telomerase on certain cells, which could lead to new methods of delivering the protein and fight cancer while limiting damage to the cardiovascular system, Quryshi explains.

Quryshi is also working with Ranjan K. Dash, PhD, associate professor of biomedical engineering at MCW, to translate some of his findings from Dr. Beyer’s and Dr. Gutterman’s labs and also create computational models that will allow for simulation testing of telomerase and other proteins. Quryshi’s work will help bridge the gap between the two areas, Dr. Beyer says.

Quryshi has earned several major accolades for his work and presentations, perhaps the grandest being the Dudley R. Herschbach SIYSS Award at the International Science and Engineering Fair (ISEF) in Los Angeles, which includes an all-expenses-paid trip to attend and present a portion of the study at the Nobel Prize Award Ceremony in Stockholm, Sweden, this December. For the past two years in a row, he won the prestigious First Award in Biomedical and Health Sciences at ISEF — for which he received $3,000 and had a minor planet named after him by MIT’s Lincoln Laboratory — and in May 2018 was named a U.S. Presidential Scholar. Quryshi also won the Best of Category Award in the Biomedical and Health Sciences Category at ISEF in 2018.

Quryshi says that although he is deeply grateful and humbled by the awards and recognition, perhaps the greatest benefit is the opportunity to meet other young scholars. “The recognition allows me the opportunity to begin forming a network with other like-minded student-scientists. These young scholars and innovators could be future partners and collaborators in performing cutting-edge research in order to make a positive difference in the world,” he says. “Getting awards is icing on the cake.”

Although Quryshi might not be wowed, Dr. Beyer certainly is. “Going to Stockholm for the ceremony and to present some of his work is a once-in-a-lifetime opportunity,” he notes. “It’s about as close as I will get to having anything to do with the Nobel Prize!”

Being able to connect with other researchers in Sweden and other locations ties in well with a lesser-known goal of Quryshi’s. He has begun working to create a social network for researchers with the idea of creating an algorithm that helps connect those working on projects that could become collaborations.

“It can bridge the gaps between a lot of different departments, especially for undergraduate and graduate students who might feel overwhelmed and are not well-versed enough in the field to realize there are similar projects going on around the world in which the researchers could work together or share their findings on,” he says.

Whatever Quryshi, who plans to continue his research at MCW while at Harvard, decides to do, he will no doubt be successful, says Dr. Beyer. “The thing that makes Nabeel stand out is his drive and motivation. With his curious mind and incredible intelligence, he will continue to drive discovery and will make an outstanding scientist,” he says.
Trainees Shine at 4th Annual CVC Research Retreat

Oct. 19, 2018—This year’s CVC Research Retreat was filled with impactful science coming from trainees within the CVC’s labs. One trainee from each CVC Signature Program, as well as a clinical fellow, were selected for a 10-minute oral presentation. The speakers were selected by the “CVC Research Retreat Trainee Selection Committee”. By taking part in this committee, it allowed CVC trainees the opportunity to gain scientific session planning experience. The selected speakers were: Justine Abais-Battad, PhD (Mattson Lab), Samantha Paddock, (O’Meara Lab), Ankush Korishettar, MS (Zhang Lab), Linda Berg Luecke (Gundry Lab), and Venakta Puppala, MD, PhD (Widlansky Lab).

This year’s poster session was also filled with not only graduate students, medical students, postdoctoral fellows, and clinical fellows, but faculty and research support staff as well, allowing for the opportunity to receive valuable feedback and hone their presentation skills. Prizes were awarded in the form of $300 and $100 Amazon gift cards.

Congratulations to our winners:

Medical Student:
1st – Sai-Suma Samudrala
2nd – James Reneau

Graduate Student:
1st – Sarah Proudfoot
2nd – Michael Flinn

Postdoctoral Fellow:
1st – Xiaqing Pan, PhD
2nd – Rachel Jones Lipinski, PhD

Clinical Fellow/Resident:
1st – Michael Thomas Cain, MD
2nd – Mark Kaeppler, MD

Research Support Staff:
1st – Mary Schulz
2nd – Min-Su Kim

The CVC also wishes to extend a thank you to the members of the “CVC Research Retreat Trainee Selection Committee”: Melanie Gartz, Sarah Logan, Maribel Marquez, Mark Paterson, Andrew Spearman, and Jennifer Stancill.

Women in Science Series Honors Medical College of Wisconsin Researchers

MCW NEWS, Oct. 25, 2018—Three Medical College of Wisconsin (MCW) female researchers and three MCW female students were honored at the annual Women in Science Awards Luncheon on October 25. The luncheon, held at MCW, was the final event in the 12th annual Women in Science series, which gives the public an opportunity to meet and support local female scientists and physicians and to hear about their research.

The $10,000 Pioneer in Research award recipient was Judy E. Kim, MD, professor of ophthalmology, and the recipient of the $5,000 Rising Pioneer award—new this year—was Michelle A. Battle, PhD, associate professor of cell biology, neurobiology and anatomy.

The recipient of this year’s $1,000 Edward J. Lennon, MD, Award for Outstanding Women Postdoctoral researchers was Megan Slaker, PhD, a postdoctoral fellow in the Department of Pharmacology and Toxicology.

Finally, three $500 student prizes were awarded to CVC trainees, medical student Courtney Goulet, graduate student Melanie Gartz, MS, MSH, as well as pharmacy student Heather Dalton.
Welcome New Cardiovascular Center
Internal Scientific Advisory Board Members

The CVC is proud to add these distinguished faculty members to its internal scientific advisory board (ISAB), local leaders who provide guidance and feedback on the CVC’s current and future initiatives and strategy.

Congratulations to David Gutterman, MD, senior associate director of the Cardiovascular Center and Northwestern Mutual Professor of Medicine, who will succeed MCW’s own Curt Sigmund, PhD, chair and professor of Physiology as Publications Committee chair for a four-year term that begins Jan. 1, 2020. Dr. Gutterman will begin his term as Publication Committee chair-elect as of Jan. 1, 2019, overlapping with Dr. Sigmund’s last year.

This new position was established by APS Council to provide an introduction to the complex responsibilities carried out by the Publications Committee chair. Dr. Gutterman has played an active role in the editorial leadership and governance of APS and currently serves as an associate editor of AJP—Heart and Circulatory Physiology and an APS councilor.

Dr. David Gutterman, Named APS Publications Committee Chair-Elect

Four CVC Women Faculty Promoted to Full Professor in 2018

MCW News, Sept 24—During MCW’s 2018 Convocation ceremony, which marks the traditional opening of the academic year, the launch program ended with the senior women faculty pin ceremony, which honored the following women promoted to full professor at MCW, including four CVC Members (noted in bold): Ravit Boger, MD; Amy Drendel, DO, MS; Karin Hoffmeister, MD; Olga Kaslow, MD, PhD; Beth Krippendorf, PhD; CVC member Debra Newman, PhD; CVC member Sandra Pfister, PhD; Christina Runge, PhD; CVC member Daisy Sahoo, PhD; Qizhen Shi, MD, PhD; Cecille Sulman, MD; Julie-An Talano, MD; Tracy Want, MD, MPH; and CVC member Dorothee Weihrauch, DVM, PhD.

Congratulations to these dedicated and well-deserving women!
CVC Members Honored as New Members of the Society for Research Excellence

The Society for Research Excellence recently announced the 2018 inductees, naming four CVC members, including the CVC’s own Senior Associate Director. Congratulations to CVC members David Gutterman, MD (Medicine: Cardiology), John Corbett, PhD (Biochemistry), Elizabeth Jacobs, MD (Medicine: Pulmonary), and John Imig, PhD (Pharmacology & Toxicology).

The Society for Research Excellence is a collective of select MCW faculty with a demonstrated commitment to discovery, mentorship, leadership and advancement in research. The mission of the Society is to foster, promote and recognize excellence across MCWS in all types of research and discovery. New members are selected annually through a nomination process. The new members were recognized at the 2018 Convocation Ceremony on Monday, Sept. 24.

Former CVC Director, Dr. Allen W. Cowley, Jr. Receives 2018 Hector F. DeLuca Scientific Achievement Award from BioForward

Oct. 23, 2018 MCW News - Longtime MCW pioneer Allen W. Cowley, Jr., PhD, professor and chair of physiology, Harry & Gertrude Hack Term Professor in Physiology, and James J. Smith & Catherine Welsch Smith Professor in Physiology, was honored by BioForward with the 2018 Hector F. DeLuca Scientific Achievement Award for his contributions to Wisconsin’s biohealth industry. Many distinguished scientists were nominated for the DeLuca Award, an honor that recognizes individuals who have furthered Wisconsin’s biohealth industry and drawn attention to the state as a leader in biomedical research and development.

Dr. Cowley accepted the award in Madison on Oct. 9 at BioForward’s Biohealth Summit, a gathering for Wisconsin’s biohealth community to celebrate successes and collaborate on what’s next for the industry. Associate Provost for Research Ann Nattinger, MD, MPH, presented Dr. Cowley with the award, highlighting his important hypertension work and success in incorporating physiology with modern disciplines such as genomics, bioinformatics and computational biology. Throughout his decades-long career, Dr. Cowley has been an international leader in cardiovascular research and made seminal observations to advance discoveries and address questions of clinical importance.

“It’s nice to be recognized in your own backyard from an important organization that represents the state’s biohealth industry,” Dr. Cowley said. “I haven’t made any device or medication – my work is fundamental science research – so I was surprised and delighted to learn I had been chosen. It is a recognition of the great importance of basic research in advancing the biohealth industry.”

Kalpa Vithalani, PhD, assistant director of the Office of Technology Development at MCW and a BioForward executive board member, helped nominate Dr. Cowley for the award.

“This prestigious award is a testament not only to Dr. Cowley’s pioneering leadership, but also to his extraordinary, profound and sustained contributions to MCW, Wisconsin and beyond,” Dr. Vithalani said. “So often when Madison is seen as Wisconsin’s hub for biohealth, recognition of Dr. Cowley’s scientific achievements through this award has rightfully helped shine a bright light on the exceptional research that is being conducted at MCW and in Milwaukee.”
Cardiovascular Center Seminars and Events

December 5  Katherine Yutzey, PhD  
Cincinnati Children’s Hospital—CVC Seminar Series

January 16  Amy Harley, PhD, MPH, RD  
University of Wisconsin-Milwaukee—CVC Seminar Series

January 23  John T. Wilkins, MD  
Northwestern Medicine—CVC Seminar Series

January 25  Herma Heart Institute/Cardiovascular Center Mini-Retreat on Adult Congenital Heart Disease  
Miller Park, Milwaukee

January 30  Alexy Glukhov, PhD  
University of Wisconsin—Madison—CVC Seminar Series

February 9  23rd Annual Steve Cullen Healthy Heart Run & Walk

CVC Featured Staff Profile:  
Mary Lenhart, Senior Administrative Assistant

Mary Lenhart (Orlopp) joined the CVC in September supporting Drs. Ivor Benjamin and David Gutterman. Mary started at MCW in September 2011 in the Department of Medicine supporting Department Chair, Dr. Roy Silverstein. Prior to coming to MCW, she was employed at ProHealth Care in Waukesha for twelve years, the last four supporting the CEO and CMO of the organization.

Mary enjoys being outdoors, cooking, entertaining, has a passion for old movies and is an avid trivia buff. Mary and her husband, Mike, were married just two months ago and are currently in the midst of remodeling their condo and planning a winter getaway to Punta Cana. Mary is a mother of one son, a bonus mom to three, and a very devoted grandmother to Elena, Tommy, and Sarah.

To contact Mary: Phone: (414) 955-6716 • Email: mlenhart@mcw.edu

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## Welcome!

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<th>Lyle Joyce, MD, PhD</th>
<th>Kirsten Beyer, PhD, MPH, MS</th>
<th>Michaela Patterson, PhD</th>
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<tr>
<td>professor, department of surgery, division of cardiothoracic surgery</td>
<td>assistant professor, Institute for Health &amp; Equity, division of epidemiology</td>
<td>assistant professor, department of cell biology, neurobiology and anatomy</td>
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### Lyle Joyce, MD, PhD
Dr. Joyce has dedicated his life to the pursuit of improved mechanical circulatory support devices which will someday be totally implantable and provide a quality of life even superior to heart transplantation. He also has a keen interest in teaching young surgical residents both here in the U.S. and overseas.

### Kirsten Beyer, PhD, MPH, MS
Dr. Beyer’s research focuses on identifying spatial patterns of disease and undertaking community engaged, geospatial, and epidemiologic research to identify causes and intervene to reduce disparities. Primarily, she is interested in the relationships between neighborhood characteristics, such as racial residential segregation and environmental green space, and chronic disease disparities.

### Michaela Patterson, PhD
Dr. Patterson’s recent work challenges the paradigm that the adult mammalian heart cannot regenerate following injury. She argues that heart regeneration is a variable trait and moving forward, her lab will explore the genetic and cellular components that contribute to this observed variation with the hopes of stimulating a more robust clinical response across all patients.

### Jamila Kwarteng, PhD, MS
instructor and fellow Institute for Health & Equity, division of epidemiology

Dr. Kwarteng is interested in racial health disparities in obesity in the United States and how it contributes to higher rates of cardiovascular disease.

### Brandon Tefft, PhD
assistant professor department of biomedical engineering

Dr. Tefft’s research focuses on cardiovascular regenerative engineering. He seeks to leverage emerging nanotechnologies to develop next-generation implantable cardiovascular devices including patches, grafts, and valves.

### Melinda Dwinell, PhD
associate professor department of physiology, division of genetics

Dr. Dwinell is interested primarily on developing resources to facilitate translation of laboratory research to clinical relevance. The development and characterization of rodent models of disease, primarily for pulmonary and cardiovascular diseases, has increased the understanding of mechanisms involved in complex disease.
Vision
The Cardiovascular Center at the Medical College of Wisconsin aims to become the premier integrated basic and translational academic organization in the United States.

Mission
To improve cardiovascular health in Southeast Wisconsin and beyond through cutting-edge research, cost-efficient and high-quality healthcare delivery, rigorous training of the next generation of cardiovascular scientists, and engaging the community to eliminate disparities in health outcomes.

Credits

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For questions or additional information please contact the CVC at cvc@mcw.edu

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