SEARCH FOR THE CHAIR OF PHYSIOLOGY
Medical College of Wisconsin
Milwaukee, Wisconsin

“We are a distinguished leader and innovator in the education and development of the next generation of physicians, scientists, pharmacists, and health professionals. We discover and translate new knowledge in the biomedical and health sciences. We provide cutting-edge, collaborative patient care of the highest quality, and we improve the health of the communities we serve.”

– Mission Statement, Medical College of Wisconsin

THE SEARCH

Medical College of Wisconsin (MCW) invites applications and nominations for the role of Chair of the Department of Physiology. This is an exciting opportunity for a distinguished scientist to lead an internationally renowned Physiology Department with a long legacy of innovation and excellence in research. The next Chair will have an opportunity to build upon the Department’s strong foundation and craft a vision that will continue to foster discovery and excellence in basic science, translational research, and education. Reporting to the Dean of the School of Medicine, the Chair will provide broad leadership to strengthen and grow the Department’s research initiatives, programs, and resources.

One of six basic science departments at MCW, the Department of Physiology is home to 21 faculty, 71 staff, 27 graduate students, and 11 postdoctoral fellows. The Department offers a Ph.D. program in Physiology and a Master’s in Medical Physiology in addition to M1 and M2 teaching, postdoctoral education and training, and summer training programs for medical students and undergraduate students. Beyond the scientific and scholarly excellence of the Department, the culture of scientific collaboration, openness, and sharing has endured throughout the years. Current faculty members have published significant work that has contributed to conceptual and technological breakthroughs in several research areas. The faculty are recognized nationally as drivers and leaders. This is a unique opportunity to lead an incredibly accomplished and dedicated faculty whose research interests are broadly based and include a strong focus in cardiovascular physiology, renal physiology, respiratory physiology, physiological genomics, proteomics, bioinformatics, and computational biology. As of December 2017, the Department held 56 extramural grants totaling nearly $7 million annually, including 34 NIH grants totaling nearly $5.8 million per year.

The successful Chair must hold a Ph.D. and/or M.D. as well as meet the requirements for appointment as a full professor. The Chair will need to possess a strong appreciation and respect for team science and programmatic research, organ systems physiology, animal model research, translational research, modern molecular genomics, cellular physiology, and big data.
analytics. In particular, the Chair will be expected to guide the Department to its next level of impact and achievement; strengthen and support the teaching mission of graduate and medical education at MCW; recruit, mentor, and retain an increasingly distinguished and diverse faculty; and further capitalize upon existing relationships as well as build new collaborations across MCW. This individual will serve as the external representative and advocate for the department and provide thought leadership in the field of physiology nationally and internationally.

MCW has retained Isaacson, Miller, a national search firm, to assist the search committee in its efforts. Inquiries, nominations, and applications should be directed in confidence to the search firm as indicated at the end of this document. The search committee will review candidates beginning immediately and continue until the position has been filled.

**THE MEDICAL COLLEGE OF WISCONSIN**

MCW began as the Wisconsin College of Physicians and Surgeons, founded on May 20, 1893. On January 14, 1913, the Wisconsin College of Physicians and Surgeons and the Milwaukee Medical College merged to become the Marquette University School of Medicine. On September 30, 1967, the institution became independent of Marquette University and since then, the school has continued as a private, freestanding institution. The name was changed on October 14, 1970, to the Medical College of Wisconsin. MCW has more than 16,000 living alumni.

MCW has a long-standing reputation of providing outstanding medical and graduate education, conducting cutting-edge biomedical research, providing innovative and compassionate patient care, and improving the health of the communities it serves. MCW is one of only four medical schools in the country to have received the Carnegie Community Engagement Classification for its community outreach activities and Advancing a Healthier Wisconsin initiative. MCW’s providers, physician assistants, nurse practitioners, and psychologists care for more than 530,000 patients, representing more than 2.4 million patient visits annually. MCW is the second largest research institution in Wisconsin, receiving more than $225 million in external support annually for research, education, training, and related purposes. MCW has approximately 5,660 faculty and staff; about 4,700 faculty and staff work on the Milwaukee Regional Medical Center (MRMC) campus, and over 950 work at 40 other health care facilities in Eastern and Central Wisconsin. More than 2,000 physicians from the community serve as volunteer faculty. MCW is the seventh largest private employer in the metro-Milwaukee area.

In recent years, MCW has constructed several major new facilities on the stunning, park-like 240-acre MRMC campus and forged strong partnerships with a growing network of nationally renowned hospitals, clinics, research centers, and community institutions including the Blood Research Institute of Wisconsin. In addition, MCW has clinical trial offices and a human tissue bank. MCW has significantly expanded its research enterprise and continued its commitment to genomics and personalized medicine. More than 530,000 patients each year are treated at its clinical partners. MCW has recently completed construction of a $90 million, 240,000-square-foot state-of-the-art Hub for Medical Innovation, housing 1,500 Medical College faculty, staff and researchers. "The Hub", is designed to facilitate greater connectivity and collaboration and encourage innovation among faculty and staff involved in clinical care, research, and education at MCW.

MCW is financially secure with a sound balance sheet and annual operating margins typically exceeding 3.5%. Total operating revenues were over $1 billion last year, and MCW has $1.9 billion in assets. Extramural awards and gifts to MCW total approximately $160 million, in
addition to $120 million in affiliate support from Froedtert Hospital, Children’s Hospital of Wisconsin (CHW), and other partners.

For more about MCW, please visit www.mcw.edu.

Education

MCW includes six basic science departments, 21 clinical departments, and numerous institutes and centers. As of 2017, there were more than 1,300 students pursuing M.D., Ph.D., M.S., M.P.H., M.M.P., and M.A. degrees and more than 700 physicians and 190 physicians in fellowship training through the Medical College of Wisconsin Affiliated Hospitals. The MCW School of Medicine in Milwaukee and new campuses in Green Bay and Central Wisconsin provide an innovative, rigorous, and immersive curriculum that prepares graduates with a deep understanding of the healthcare needs in their communities. MCW-Green Bay opened in July 2015, and MCW-Central Wisconsin opened in July 2016. In addition, MCW recently launched a new School of Pharmacy in Milwaukee to prepare the next generation of pharmacists to meet the growing healthcare needs of society. The School matriculated its inaugural class in the summer of 2017.

Research

MCW is a major national research center; it is the largest research institution in Eastern Wisconsin and second largest in Wisconsin. In FY2017, $234 million was invested in research, teaching, training and related purposes at MCW including: $89.9 million from the National Institutes of Health (NIH), $20.8 million from other federal agencies, $76 million from other external sponsors and $ 47.3 million from MCW institutional support. MCW is ranked 48th among the nation’s medical schools that receive NIH research funding.

In 2015, MCW was awarded a five-year, $20 million renewal of its Clinical and Translational Science Award from the NIH. This funds the ongoing work of the Clinical and Translational Science Institute of Southeastern Wisconsin (CTSI), a consortium of eight regional organizations whose mission is to advance the health of the community through research and discovery. The CTSI consortium includes the Blood Center of Wisconsin, Children’s Hospital of Wisconsin, Clement J. Zablocki VA Medical Center, Froedtert Hospital, Marquette University, MCW, Milwaukee School of Engineering, and the University of Wisconsin-Milwaukee. The CTSI research portfolio includes more than 185 studies, with more than 47 collaborative research studies underway. The CTSI is a borderless, synergistic biomedical research enterprise that is accelerating the translation of research discoveries into new and improved medical treatments.

Patient Care

Approximately 1,650 physicians and 525 nurse practitioners, physician assistants, and other healthcare practitioners care for more than 530,000 patients through its medical center partners. These partners include Froedtert Hospital, the Children’s Hospital of Wisconsin, Clement J. Zablocki VA Medical Center and many other hospitals and clinics in Eastern and Central Wisconsin, including Community Memorial Hospital in Menomonee Falls and St. Joseph's Hospital in West Bend. MCW is the largest physician group practice in Wisconsin and the 14th largest physician group practice in the U.S. 462 MCW faculty physicians are listed in Best Doctors in America®, more than any other group practice or institution in Wisconsin.
THE DEPARTMENT OF PHYSIOLOGY

The Department of Physiology at MCW is dedicated to quality in research, graduate and postdoctoral training, as well as medical education. The Department enjoys a strong external reputation for excellence in physiology research and consistently ranks in the top physiology programs in the nation for NIH research funding. It has also served internally as the model of a successful basic science department and an important voice in MCW's recent rise and evolution. Currently the Department of Physiology is home to 21 faculty, 71 staff, 27 graduate students, and 11 postdoctoral fellows. The primary laboratory space for four out of the six basic science departments, including Physiology, will be undergoing a significant renovation in the coming years.

Research

The research interests of faculty are broadly based, with strong programs in cardiovascular physiology, renal physiology, respiratory physiology, physiological genomics, proteomics, bioinformatics, and computational biology. Current faculty members are among the drivers and leaders of several research areas nationally including:

- Genome editing and its application in physiology
- Genetically engineered rat models
- Incorporation of big data into physiology (next-gen sequencing, Bayesian statistics, artificial intelligence)
- Renal and vascular mechanisms of blood pressure regulation
- Role of reactive oxygen species, immune mechanisms and cellular intermediary metabolism in salt-sensitive hypertension
- Role of microRNAs in cardiovascular and renal diseases
- Epigenomics of hypertension
- Functional genomics-based precision medicine research
- Paradoxical beneficial effects of angiotensin II
- Regulation of cerebral blood flow

The Department has a strong focus on team science and collaboration and provides a rich environment for faculty and trainees to grow and develop into successful scientists through close mentorship and a collegial culture. Many research programs in the Department are multidisciplinary in nature and have strong associations with researchers of other basic science departments, clinical departments, and centers across campus. This cooperative culture is evident in a large number of collaborative research projects and programs, funded primarily by the NIH. Faculty are engaged in several signature research programs and associated with a few internationally recognized centers including:

- Cardiovascular Center (CVC)
  - The CVC's mission is 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. The CVC is at the forefront of scientific discovery and innovative clinical care and celebrated its 25th anniversary last year.
• **Center of Systems Molecular Medicine (CoSMM)**
  o CoSMM is a research center in the Department of Physiology whose mission is to develop and apply systems molecular approaches to improve the understanding and treatment of human disease. The primary function of the CoSMM is to serve as an intellectual incubator for research and project development. The current areas of focus at the CoSMM are microRNA, epigenomics, and related translational research.

• **Epigenomics of Hypertension**
  o MCW is one of four centers in the nation that form the *American Heart Association’s* Strategically Focused Hypertension Research Network. Each center consists of basic, clinical, and population science projects. The MCW Center is testing the hypothesis that lifestyle factors and gene-environment interactions cause genome-wide changes in DNA methylation, which contribute to the development of hypertension and can be used as predictive or diagnostic markers of hypertension and related diseases.

• **Genomic Sciences and Precision Medicine Center**
  o This Center has its roots in the launch of the Human Genome Project. The center uses state-of-the-art whole genome sequencing technologies to investigate how gene variants impact gene expression, define genetic variants associated with both rare and common disease, embryonic development, and the effects of environmental factors and drugs upon gene expression and disease.

• **Neuroscience Research Center**
  o The goals of the Neuroscience Research Center are to enhance basic and translational neuroscience through the development of a programmatic plan for neuroscience research. There are over 40 faculty members at MCW in 13 different departments who are involved in neuroscience research.

• **Gene Targeted Rat Resource**
  o The goal of this NIH R24 program is to generate a cost effective and powerful collection of rat models for the community that will accelerate discovery and increase the field’s understanding of the mechanisms involved in complex diseases.

• **The Blood Research Institute (BRI)**
  o The BRI was established by the BloodCenter of Wisconsin to house its basic research programs. Interactions among BRI investigators and colleagues in the basic and clinical science programs of MCW contribute to a vibrant campus-wide network of scientific discovery and patient care.

As of December 2017, the Department held 56 extramural grants totaling nearly $7 million annually, which includes 34 NIH grants totaling nearly $5.8 million. Examples of these grants include the NIH R24 grant and the AHA Strategically Focused Hypertension Research Center grant described above, an NIH program project grant, and an NIH pre-doctoral training grant. The NIH program project, entitled *Renal Mechanisms in Blood Pressure Control*, is a highly integrated and collaborative program that was recently refunded.

The Department of Physiology maintains several cores that are essential for supporting research activities across the department. These cores are described below. In addition, the department contributes funding for a Biomedical Engineer who is an employee of the MCW Office of Research.
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- Biochemistry  
  - This core was established over 25 years ago as a resource facility to provide a consolidated, highly specialized, well equipped, and professionally staffed unit capable of performing a variety of immunoassay and other biochemical assays as required by a broad range of research interests by faculty of the Department of Physiology.

- Microscopy  
  - The color imaging station offers three different documentation options including: Macro range using a Leica MZ6 Stereo Scope; Very low power images of full tissue sections on slides with the Nikon Coolscan Slide Scanner; and Standard bright field micrographs though a Nikon E-400 microscope using a SPOT Insight camera. The Microscopy Core also provides access to a Nikon E-600 station, a Nikon TE-2000U inverted microscope, and a Leica SP5 Laser Scanning Confocal Microscope with Multi-Photon capability.

- Computer Core  
  - This Core manages central file servers, email servers, data backup, account security, desktop acquisition and deployment, and software acquisition, deployment, and support.

- Chronic Monitoring Facilities (CMF).  
  - The nationally acclaimed CMF provides the facilities, equipment, computer hardware and software, and service and support necessary for short term or continuous 24-hour-a-day measurement of hemodynamic variables from research animals in their home cages.

**Education**

In the first year of medical school, the Medical Physiology course consists of 88 hours of instruction in all areas of physiology, including basic concepts, endocrinology, membrane physiology and neurophysiology, muscle physiology, cardiovascular physiology, pulmonary physiology, gastrointestinal physiology, renal physiology, and several specialty lectures such as blood clotting, geriatrics, temperature regulation, sleep and exercise, and neonatal physiology. For the M2 Class, the Physiology Department faculty offer a total of 13 hours of instruction. For small group instruction, members of the Physiology department participate in the Bench to Bedside Course, the Pathways Component, and the Physician Scientist Molecular and Cellular Research Pathway. The Department also offers a four week M4 elective on Pathophysiological Problems of the Cardiovascular Regulation.

The Ph.D. program in the Department of Physiology currently has 26 students, in part supported by an NIH T-32 training grant. Over the past 15 years, over 93% of the T-32 trainees who completed their Ph.D. in Physiology continued in a biomedical related field. Also, over the past ten years, 47 graduates of Physiology Ph.D. program have published 240 peer-reviewed manuscripts (mean = 5.1).

The Master’s in Medical Physiology Program (MMP) was developed in 2014 as a one-year program to serve as a bridge to medical school and is closely integrated with the M1 curriculum. The program provides important revenue to the Department. Graduates of the Department of Physiology go on to successful careers as scientists at universities, pharmaceutical companies, and in government. The size of the programs encourages the development of close working relationships between students and faculty. In addition, every effort is made to optimize and
tailor training programs to meet individual student needs in preparation for fruitful careers. The MMP will accept 25-30 students for the 2018-2019 academic year.

Outgoing Chair

Allen W. Cowley, Jr., Ph.D. has been Professor and Chair of the Department of Physiology at MCW since 1980. His world renowned research in hypertension has been continuously funded by the NIH since 1971, during which time he has mentored over 50 fellows and students in his laboratory resulting in over 325 publications in peer-reviewed journals. He has made seminal contributions that include: defining the physiological role of major neuroendocrine controllers of cardiovascular function; the role of the kidney in the long-term control of blood pressure; and understanding the genetic basis of hypertension in both animals and humans. Dr. Cowley will step down as Chair and return to the faculty at the end of the 2017-2018 academic year after an impressive 38 year tenure. He has built the Department of Physiology into an incredibly successful and highly ranked department, widely regarded for its funding success, expertise in cardiovascular and hypertension research, and leadership among the basic science departments at MCW and beyond. He will serve as an important resource and support for the incoming Chair. The next Chair will have the opportunity to build upon Dr. Cowley’s legacy and the strong foundation and faculty body he has built, while continuing the Department’s success and shepherding the Department into a new era of discovery and impact.

THE ROLE OF CHAIR OF THE DEPARTMENT OF PHYSIOLOGY

The Chair of Physiology will provide broad leadership and administrative oversight of the Department’s research initiatives, programs, and revenues. S/he will lead and develop the Department in a way that is aligned with MCW’s strategic plan and build off of the historic strengths of the Department, while simultaneously embracing a new vision for the future of the physiology discipline at MCW. This work will support a basic science department that weaves together teaching and research, working collaboratively with other MCW basic science and clinical departments and external entities. In this role, the Chair will have strong support from the senior leaders of MCW to ensure that this integrative department progresses as a highly dynamic and forward-thinking unit.

The Chair will lead a department of 21 faculty and manage an operational budget of about $10 million. The Chair reports directly to Joseph E. Kerschner, M.D., who serves as the Provost, Executive Vice President and Dean of the School of Medicine at MCW.

OPPORTUNITIES AND CHALLENGES

The Chair will address, but not be limited to, the following key opportunities and challenges:

Articulate a vision to guide the department to its next level of impact and achievement

In coordination with the faculty, the Chair will develop a compelling vision and strategy for the future growth of the Department that capitalizes upon departmental achievements and historic strengths, integrating them as part of a shared mission. An understanding and appreciation of the core of the discipline of physiology, rooted in systems biology and whole animal research, will be essential to success in this role. In addition, the Chair should bring a broad perspective on the field in order to build off the Department’s deep expertise and strong reputation in cardiovascular research, specifically hypertension, in a way that is complementary but also
forward-looking. S/he will be instrumental in shaping the future of the field of physiology and keeping the Department on the cutting edge as the field evolves.

Continue to support the research mission and excellent record of accomplishment in the Department

The Department of Physiology has been highly successful in securing research funding and grants. A scientist and researcher of the first rank, the Chair is expected to lead by example, continue support for the research mission, and help faculty maintain and grow their research productivity. The Chair will emphasize a team science approach, identifying opportunities for faculty collaboration both within the Department and in conjunction with other MCW basic science and clinical departments as well as other institutions. S/he will work closely with center Directors, most notably the Cardiovascular Center and the Genomic Sciences and Precision Medicine Center, to advance the research mission.

Strengthen and support the teaching mission of graduate and medical education at MCW

The Chair has the opportunity to play an integral role in guiding graduate and medical education within MCW's growing mission as a health sciences university. S/he will maintain an interest in pedagogy and encourage and mentor faculty in their teaching. The Department of Physiology houses Master’s, Ph.D., and postdoctoral programs and contributes to teaching first and second year medical students as well as summer research opportunities for undergraduates. The Chair is responsible for advancing the educational mission across the full breadth of student populations to meet their needs, goals, and expectations for twenty-first century teaching and learning.

Recruit, mentor, and retain an increasingly distinguished and diverse faculty

The Chair will be responsible for growing and developing the next generation of faculty, both through recruitment of a diverse faculty and through talent management. Diversity is central to the success of the Department, and special attention is to be paid to the recruitment, retention, and development of a diverse faculty particularly women and underrepresented minorities. The Physiology faculty at MCW are distinguished scientists in their own subfields, and the Chair is expected to support and provide professional development to ensure their continued success and growth. S/he will also encourage mentorship among faculty members; hold them accountable for excellence as team members; and work to inspire, develop, and guide faculty to reach beyond their boundaries. By bringing together faculty across varied strengths, the Chair will also help to build bridges among faculty and expand the focus of the Department.

Further capitalize upon existing relationships and build new connections across MCW

One of MCW’s greatest strengths is its exceptionally collaborative working environment. This ethos, combined with its high-caliber faculty, creates a wealth of opportunities for collaboration across the basic sciences, clinical departments, and campus more broadly. Physiology is a natural bridge for translational research. The Chair will leverage this institutional culture of collaboration by continuing to promote a team science approach and growing partnerships with other department chairs, both basic and clinical, as well as with Centers and Institutes, the new School of Pharmacy, the Graduate School of Biomedical Sciences, senior leadership, and MCW’s hospital partners. A successful Chair will identify the most potentially fruitful connections among these many constituents and develop productive, synergistic, and lasting relationships.
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Represent the Department and MCW externally and provide thought leadership in the field of physiology on the national stage

The Department of Physiology at MCW is widely regarded as a national leader in the field of physiology and is consistently ranked in the country's top programs. The Chair will be expected to advance the Department’s national impact and contribution to the evolution of the field of physiology, representing both the Department and MCW to external audiences. S/he will be active in national and international societies and associations and maintain a deep and diverse network of colleagues across the field. The Chair will have demonstrated contributions in one of the major scientific societies where they present their science. This Chair should be locally and nationally recognized for their accomplishments in the field of physiology. S/he must have a finger on the pulse of the future development of physiology and NIH funding and serve as a true thought leader in their field.

QUALIFICATIONS AND CHARACTERISTICS

The successful candidate will be a creative individual with demonstrated leadership and administrative ability, outstanding personal research accomplishment, cultural proficiency and the intellectual stature and vision to integrate and inspire the research community. The candidate must hold a Ph.D. and/or M.D. and meet the requirements for appointment as a full professor at MCW. Ideally, candidates for this position will possess many, if not all, of the following characteristics:

- Accomplished academic career and an exemplary research record in the field of physiology;
- Deep commitment to the importance of both research and medical education;
- Dedication to the mission and vision of MCW and its strategic priorities;
- The proven capacity to craft and implement a focused strategic vision in a rapidly evolving research environment, with an entrepreneurial spirit and a record of building scholarly excellence by attracting top talent in both faculty and staff;
- A track record of collaboration across departments or divisions in order to unite a broad community of stakeholders around a vision for both basic science as well as translational research;
- Exceptional leadership skills, preferably in a complex, multi-faceted university or academic medical center, with demonstrated strategic and implementation skills;
- A transparent and inclusive management style;
- Demonstrated experience in recruiting, retaining, and developing faculty and/or students;
- Solid business acumen, financial budgeting and resource management skills;
- Demonstrated personal and professional commitment to valuing diversity and promoting inclusion by modeling and fostering diversity and cultural proficiency;
- Excellent interpersonal, written, and oral communication skills;
- Personal qualities that include self-awareness, persuasiveness, flexibility, tenacity, courage, empathy, a sense of humor, and unquestionable integrity.

LOCATION AND COMPENSATION

The position is based in Milwaukee, Wisconsin. Located along the Lake Michigan shoreline, Milwaukee is one of America’s great cities, combining a dynamic urban community with a rich cultural heritage and access to parks, rivers, and other outdoor recreation. Milwaukee is the largest city in Wisconsin and the 23rd largest city in the United States. It is home to corporate
headquarters for industry leaders including Northwestern Mutual, Johnson Controls, Manpower, Harley Davidson, and others. Milwaukee is a popular venue for sailing, windsurfing, kite surfing, ethnic dining, and cultural festivals; the city is recognized for its museums, fine dining and hotels, professional sports, gardens and parks, and the Milwaukee County Zoo and Botanical Gardens. Milwaukee also boasts a vibrant cultural life; it has an opera, a ballet, a symphony, and live theatre, with a range of performances from Broadway musicals, Shakespeare, and the classics to smaller, regional productions. Milwaukee has one of the highest per capita student populations in North America. The population of the City of Milwaukee is approximately 600,000 and is highly diverse, with roughly forty-percent African-American, and fifteen-percent Hispanic/Latino citizens. The Milwaukee region is a diverse home to faith communities of many religions and denominations representing the waves of international immigration and the history of U.S. migration. Approximately 1.8 million people live in the metropolitan area.

For additional information on Milwaukee, please visit:
- http://www.mmac.org
- http://www.visitmilwaukee.org
- https://www.niche.com/places-to-live/search/most-diverse-neighborhoods/m/milwaukee-metro-area

Compensation will be competitive and commensurate with the candidate’s experience.

**TO APPLY**

All correspondence, including applications, nominations, and general inquiries can be submitted in confidence at www.imsearch.com/6484. Applications should include a letter of interest, CV or résumé, and a separate list of references. Electronic correspondence through Isaacson, Miller’s website is strongly encouraged.

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As an equal opportunity and affirmative action employer,  
MCW recognizes the power of a diverse community and encourages applications from individuals with varied experiences, perspectives and backgrounds.