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Position Description

CHAIR, DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY

THE PENNSYLVANIA STATE COLLEGE OF MEDICINE HERSHEY, PENNSYLVANIA

PENN STATE COLLEGE OF MEDICINE

The Pennsylvania State University was founded in 1855 as The Agricultural College of Pennsylvania. Following the Land Grant Act of 1862, it became a Land Grant School, and subsequently was renamed Pennsylvania State College. It has received State appropriations regularly since 1882, and in 1953 became Pennsylvania State University, commonly called Penn State. Led by President Graham Spanier, the University includes 24 campuses throughout Pennsylvania, with the administrative hub at University Park in State College, PA. At University Park there are 16 Colleges with 3,000 full-time faculty and over 8,000 additional employees. Research strengths include engineering, materials science, psychology, sociology, space science, earth sciences, business, and biological sciences. Collaborative and interdisciplinary research is strongly emphasized and incentivized.

The Pennsylvania State University College of Medicine and Penn State Milton S. Hershey Medical Center were founded in 1963 with a gift from the Milton S. Hershey Trust. The first Dean of the College of Medicine was appointed in 1964. Planning occurred during the next two years and ground was broken in 1966 for “the Crescent,” as the original and architecturally distinctive buildings of the Medical Center complex are known. The first class of 40 students was enrolled in 1967 and received the MD degree in 1971. Today, the College of Medicine has an enrollment of 583 medical students and 206 students in biomedical graduate degree programs. The full-time faculty has grown to 919 members—729 faculty in clinical departments and 190 in basic science departments. The annual budget in 2009 for the College of Medicine and the Medical Center was \$1.3 billion. Total funding for sponsored programs at the Medical Center in fiscal year 2009-2010 was over \$100 million, of which NIH funded 70%. The campus is led by Harold L. Paz, MD, MS, who in April 2006 became the fifth Dean of the College of Medicine, Senior Vice President for Health Affairs for the University, and Chief Executive Officer of the Medical Center. The administrative structure of the Dean’s office includes a Vice Dean for Research and Graduate Studies, Vice Dean for Educational Affairs, and Vice Dean for Clinical Affairs. The vision of the College and Medical Center is to foster excellence in its research, education, clinical, and community service missions. As the only academic medical center in the region, with a population of 4.5 million people, the Medical Center is well positioned to advance the health of central Pennsylvania through excellence in basic and clinical research.

The Penn State College of Medicine and Milton S. Hershey Medical Center are both located on the 550-acre Penn State Hershey campus and serve the research, education, clinical and community service missions of the medical school. The College of Medicine has over 342,000 square feet of assignable research laboratory space in addition to classrooms, offices and meeting rooms. The Medical Center is a tertiary care academic center with approximately 500 inpatient hospital beds and numerous outpatient clinics that provide a broad and comprehensive spectrum of adult and pediatric medical and surgical subspecialty care. Under the auspices of the Penn State Hershey Medical

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Group, the multi-specialty faculty group practice, additional outpatient clinics in other locations serve communities throughout central Pennsylvania, and refer patients to the Medical Center for inpatient and specialized outpatient care. The free-standing but contiguous Penn State Hershey Cancer Institute was recently completed to provide expanded cancer care for patients in our region, and construction on a new five-story 263,000 square foot free-standing Penn State Hershey Children's Hospital is currently underway. Other recently completed additions include an outpatient surgical center, a new ambulatory care facility, a new rehabilitation hospital, and a new administrative support building. The Hershey Center for Applied Research, which opened in 2007, lies across from the medical center campus and is home to the Department of Pharmacology, Office of Technology Transfer, and the Penn State Hershey Center for Sleep Research and Treatment.

THE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY AT PENN STATE COLLEGE OF MEDICINE

The Department of Microbiology and Immunology is a successful and growing department in the College of Medicine. It has been chaired by Dr. Richard Courtney since August 1991, when it was composed of 10 faculty members. The department currently includes 15 tenured or tenure-track and 2 fixed-term faculty who are innovative, productive scientists. Areas of strength within the department include virology, immunology, and cancer research, and there is extensive, productive collaboration with other College faculty in the Penn State Hershey Cancer Institute and in other basic science and clinical departments. The department has an excellent record of publications and extramural support for research. The department currently has \$6,781,738 in extramural funding (41 separate awards), of which \$5,353,198 (79%) is NIH-funded. Faculty in the department currently occupy 23,633 square feet of wet lab space and 3,209 square feet in offices and 1,069 square feet in conference rooms, for a total of 27,910 square feet.

The atmosphere in the Department is highly collegial and collaborative, with sharing of expertise and equipment by colleagues and trainees, and active participation in graduate school, medical school, and post-doctoral education. Joint appointees with primary appointments in other departments also contribute to the teaching and research goals of Department of Microbiology and Immunology. Several faculty members hold concurrent appointments in the Huck Institutes of the Life Sciences, University-wide institutes dedicated to interdisciplinary research..

Shared Research Resources

The College of Medicine benefits from outstanding research support facilities. The Animal Resource Facility includes the Central Animal Quarters in the Medical Sciences Building and an Animal Research Farm, complete with a large dairy barn, pastures and corrals which are operated as a division of the Department of Comparative Medicine. The Animal Research Farm has designated space for quarantine, holding, and breeding of a wide variety of species ranging from small laboratory animals through nonhuman primates. The department also operates the Transgenic Mouse and Rederivation Services. National Institutes of Health matching grants funded a expansion and renovation of the Animal Research Facility in 2002. The 10,000 square foot expansion of the Animal Research Facility was a \$2 million project that added a 15 animal room barrier facility for housing of genetically-engineered mice.

Research Resources offers shared instruments and services through a variety of core laboratories: the Macromolecular Core (oligonucleotide and peptide synthesis, protein sequencing and gel analysis); the Cell Science/Flow Cytometry Core (up to 13-color analysis and 8-parameter flow sorting); the Molecular Genetics Core (DNA sequencing); the Functional Genomics Core (DNA Microarray Facility, quantitative PCR, DNA methylation, SNP Analysis and Genotyping); the Proteomics-Mass Spectrometry Core (quantitative proteomics, small molecule, lipidomics); the Molecular Modeling Core; the Structural Biology Core (solution-phase NMR and X-ray Crystallography); the Morphologic and Molecular Pathology Core Research Laboratory and Tumor

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Bank, and the Clinical Pathology Core Research Laboratory. The Microscopy Imaging Core includes a Leica confocal microscope equipped with eight laser lines and live-cell capacity, a fluorescence microscope with high-speed CCD camera and Huygens deconvolution capability, and a new JEOL electron microscope. The Center for NMR Research (within the Department of Radiology) has several instruments including a 3 Tesla magnet and a 7.0 Tesla animal MRI system for whole body imaging of small animals, supported by a staff of physicists, and radiologists. Additional imaging modalities (bioluminescence, near infrared, fluorescent tomography) are available in the Penn State Hershey Cancer Institute's Optical Imaging Facility, and the Penn State Hershey Cancer Institute's Organic Synthesis Core provides complete Medicinal Chemistry services. The College has just initiated a Bioinformatics Core, providing support to investigators whose work involves large, complex datasets, and the Department of Public Health Sciences provides extensive resources for support and research collaboration in statistical genetics. Extensive archives maintained by the Department of Pathology offer a wide array of formalin-fixed paraffin-embedded tissues which can be used for research. Currently, surgical pathology accessions exceed 40,000 cases per year, and cytology and autopsy tissues are also archived and available for research. An up-to-date Cancer Registry database can be accessed by investigators with IRB-approved studies.

At the University Park campus of Penn State University, state-of-the-art shared instrumentation for sequencing (<http://www.huck.psu.edu/>) and computational analysis (<http://www.ics.psu.edu/>) is available as well as BL3 facilities. Penn State has achieved great successes in the field of genomics and bioinformatics with an impressive collection of publications and analysis software, including Galaxy (<http://galaxy.psu.edu/>), a universal platform that can continuously adapt and gain new capabilities to serve the needs of experimental and computational scientists.

Graduate Education

Penn State College of Medicine, in conjunction with Penn State's Graduate School, currently hosts over 200 graduate students working towards the PhD or MD/PhD in anatomy, biochemistry and molecular biology, bioengineering, bioinformatics and genomics, cell and molecular biology, chemical biology, genetics, immunology and infectious diseases, integrative biosciences, microbiology and immunology, molecular medicine, molecular toxicology, neuroscience, pharmacology, and physiology. The College of Medicine also offers Master of Science degrees in anatomy, laboratory animal medicine, public health sciences, homeland security, neuroscience, and physiology. In 2010-11, 353 students sought entry into Penn State College of Medicine graduate programs, and 44 matriculated.

The College of Medicine offers a PhD program in Microbiology and Immunology, and individual departmental faculty members also participate in some of the seven inter-college graduate programs offered in conjunction with colleagues at the University Park Campus. Thirty-four graduate students are currently studying for the Ph.D. degree within the Department of Microbiology and Immunology. These students are in an environment that encourages excellence and fosters real interactions with members of the faculty, postdoctoral fellows and research staff members. The graduate student training program is supported in part by a training grant entitled "Viruses and Cancer" from the National Cancer Institute of the National Institutes of Health. Additionally, MD-PhD candidates in the College of Medicine may choose a focus in microbiology and immunology.

Beginning with the 2011-12 academic year, the College of Medicine expects to launch an integrated biomedical sciences graduate program including an option in virology and immunology, as well as a Masters in Public Health.

More information about graduate education at the College of Medicine can be found at <http://med.psu.edu/GradEd>.

PLANNED GROWTH OF SYSTEMS AND COMPUTATIONAL GENOMICS AT PENN STATE UNIVERSITY

A comprehensive and transformative investment in systems genomics, complex traits and biological variation is underway at Penn State University. This cross-college endeavor coordinates multiple tenure-track faculty recruitments currently in progress at the College of Medicine and University Park campus, and team-building efforts, to address critical problems in the life sciences affecting agriculture, energy production and healthcare. Development of computational and informatics systems for the analysis of genomic data is an integral part of the strategic plan. The PSU Genomics Initiative is a concerted effort to bring predictive power to our understanding of biological systems and realize the potential of biology-based tools. Faculty with interests in analyzing genomic data, undertaking systems and functional genomics and in applying these results to a broad range of biological problems are sought. These include Computer and Information Scientists, Social Scientists, Life Scientists, Physicists, Mathematicians, Statisticians and Biomedical researchers. Faculty can receive joint appointments in one of our centers of excellence in genomics, such as the Center for Comparative Genomics and Bioinformatics (<http://www.bx.psu.edu/>); Center for Medical Genomics (<http://www.huck.psu.edu/institutes-andcenters/medical-genomics>); Center for Statistical Genetics (<http://www.psu.edu/dept/statgen>); Penn State Hershey Cancer Institute (<http://www.pennstatehershey.org/web/cancer/home>); Penn State Neuroscience Institute (<http://www.pennstatehershey.org/web/neuroscience/home>); or, Clinical Translational Research Institute (<http://pennstatehershey.org/sites/ctsi/>).

THE OPPORTUNITY

The new Chair of Microbiology and Immunology will have the vision, energy, and experience to meld and nurture the existing resources and talents of the faculty and to help develop, promote and administer a department that is well-positioned to be a national leader in microbiology and immunology. The Chair will have the opportunity to build an expanded group of research faculty who will head this effort and collaborate with other researchers working in related areas, including faculty in the Penn State Institute of Infectious Disease program of the Huck Institutes. The new Chair will serve as a key link to the international virology and immunology community and advance the position of the department in national and international scientific circles. The new Chair will embrace the education of our medical and graduate students, and postdoctoral and resident trainees, and enthusiastically contribute to enhancing the success of our established educational programs. The new Chair will work cooperatively with other departments to obtain Training Grants, P01-type grants, and participate in building other large-scale institutional grant programs.

DEPARTMENTAL RESPONSIBILITIES

The successful candidate will be expected to provide leadership for the Department to promote the development of a collegial atmosphere among faculty who are committed to the pursuit of excellence in research, teaching, and other scholarly activities and will:

- Identify, recruit, develop, and retain faculty who, like the Chair of Microbiology and Immunology, have a passion for biomedical research and the ability to maintain NIH-funded research programs of national and international prominence;
- Provide vision and leadership in strategic planning for the Department in alignment with the goals, priorities, and plans of the College of Medicine, the Milton S. Hershey Medical Center, and the University;
- Provide advice, mentoring, advocacy, and support to faculty members in the Department to help them achieve their professional goals;
- Support and encourage the active participation of Department faculty in teaching medical and graduate school courses related to microbiology, virology, immunology, microbial genetics, and other areas of special expertise; and

- Ensure that the financial and physical resources of the Department are utilized and managed effectively, efficiently, and responsibly.

INSTITUTIONAL RESPONSIBILITIES

The successful candidate will be directly responsible to the Senior Vice President for Health Affairs and Dean, College of Medicine, Penn State University, and will:

- Embrace and promote the campus core values including a commitment to open communication, fairness, trust, respect, integrity, diversity, and teamwork;
- Be aware of emerging scientific opportunities and the potential contributions that can be made to improve health and prevent and cure disease through research in microbiology, immunology, and virology;
- Promote collaborative, interdisciplinary, and translational research involving basic scientists and clinical investigators throughout the College of Medicine and the University.

PROFESSIONAL QUALIFICATIONS

It is anticipated that the successful candidate will possess:

- Internationally recognized success in scholarship and research, with a primary focus in microbiology and immunology;
- An active research program;
- The administrative and social skills needed encourage and foster interdisciplinary research throughout the University;
- A history of successful leadership in an academic setting; and
- The ability to recruit, mentor and develop the careers of faculty members and trainees.

PERSONAL CHARACTERISTICS

It is anticipated that the successful candidate will demonstrate:

- Commitment to the scientific enterprise, scholarship and education;
- Excellent interpersonal skills: a consensus builder, collaborator, team leader and team player
- Integrity and a strong sense of fairness;
- Excellent communication skills and ability to be an effective advocate for individual faculty, the department, and the college;
- A longstanding appreciation for the value of diversity; and
- Energy, direction, and consistency in purpose.

HOW TO APPLY

Review of applications will begin immediately and continue until the position is filled. Nominations, applications and curriculum vitae may be submitted in confidence via e-mail to jdunkinson@hmc.psu.edu or mailed to:

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