



UMass Chan
MEDICAL SCHOOL

**Chief Research Informatics Officer
for Basic Sciences**

Leadership Profile

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The Opportunity

UMass Chan Medical School (UMass Chan) seeks a dynamic, distinguished executive to serve as its next Chief Research Informatics Officer for Basic Sciences (CRIO). This must be an experienced technology and scientific leader who can guide and significantly advance the knowledge base, support, collective development, and use of technologies to move the organization toward the ultimate goal of a world-class computational infrastructure for basic science.

Consistently ranked in the top 10% of medical schools in primary care and one of the fastest growing research institutions in the country, UMass Chan is well known for its leading-edge investigations that take place across basic, clinical, translational, and population research. Today, UMass Chan attracts more than \$322 million in research funding including more than \$204 million from National Institutes of Health (NIH) grants. With more than 700 basic science research labs, UMass Chan is positioned as a leader in both clinical and basic science research realms.

The CRIO will report to Katherine A. Fitzgerald, PhD, Associate Vice Provost for Basic Science Research and will be a visible, active member of leadership across the medical school. As a primary advocate for basic science research faculty, the CRIO will develop the vision and roadmap to implement the technology, tools, and programs in support of basic science faculty, staff, and students. The CRIO will form strong partnerships with the CRIO for clinical science, the Chief Information Officer (CIO), department chairs, and external partners in the development of a common infrastructure and toolset to be utilized by basic science faculty.

An imperative of this leader will be the development of a team that provides the ongoing support, maintenance, and implementation of tools and systems that support basic science researchers. Additionally, the team will provide education on tools and programs that can aid researchers in their experimentation and analysis work.

As the CRIO, this leader will act as a strong advocate for research faculty in identifying solutions to meet the greatest needs of faculty in the most efficient and safe manner. They must be able to provide fiscally responsible management of the resources at their disposal and create financial models that allow sustainability of efforts. At the institutional level, the CRIO must provide a voice to basic science faculty in data governance and technology prioritization efforts.

The successful candidate must demonstrate extraordinary leadership in fostering and supporting access to research computing infrastructure and technology and the use of applied informatics in the research enterprise, including mentoring faculty, fostering research collaboration, and providing effective strategic management that leverages the diverse and rich information assets at UMass Chan for the advancement of the institution's collective mission.

Organization Overview

UMass Chan Medical School (UMass Chan)

UMass Chan was established by the commonwealth in July 1962 as a state-supported public medical school for Massachusetts. UMass Chan is one of five campuses in the University of Massachusetts system. Academic advancement has been a driving force for the faculty of the University of Massachusetts. UMass Chan consistently ranks among the top medical schools in the country for primary care and fosters a uniquely collaborative spirit and culture. Research growth at the institution has been significant. Total research awards exceeded \$320M in FY 2023. UMass Chan, as the Commonwealth of Massachusetts' only public medical school, maintains a strong commitment to public service, including the provision of health services to vulnerable populations.

UMass Chan is led by Michael F. Collins, MD, Chancellor and Senior Vice President for the Health Sciences. Terence R. Flotte, MD, serves as Provost, Executive Deputy Chancellor and Dean of the T.H. Chan School of Medicine. In Sept. 2021, as a result of the [largest philanthropic gift in the history of the University of Massachusetts system](#) to date, UMass Medical School and its three schools were renamed to UMass Chan Medical School. The Worcester campus is home to three graduate schools with 1,400 students; the T.H. Chan School of Medicine, the Morningside Graduate School of Biomedical Sciences and the Tan Chingfen Graduate School of Nursing. Together, Chancellor Collins and Provost Flotte have led numerous important initiatives including redesigning the medical education curriculum and expanding basic, clinical and translational research.



UMass Chan excels at the preparation of students for careers in the primary care disciplines; the T.H. Chan School of Medicine has garnered a national reputation for its primary care program. *U.S. News & World Report* perennially ranks UMass Chan among the top 10 percent of the nation's accredited medical schools for primary care education. UMass Chan's success in training physicians can be attributed in part to an educational philosophy emphasizing early exposure to community practice, beginning with the first year of medical school. The innovative new curriculum aggregates students in learning communities and encourages interdisciplinary collaboration and mentoring. Reinforcing the success and quality of the educational program are the results of the annual Match Day at UMass Chan, with the National Resident Matching Program results showing year after year UMass Chan graduates accepted into some of the most competitive residency programs in the country.



As the Commonwealth's only public medical school, UMass Chan emphasizes building local partnerships and creating opportunities for students and residents to learn in and serve Massachusetts communities through the care of underserved populations. There is a wide range of clinical training in community-based sites including community hospitals, health centers and private physician offices.

Of the more than \$300M in research funding that UMass Chan attracts annually, \$204M comes from the NIH. This has helped to move UMass Chan to the leading edge of medical research in human disease and treatment. UMass Chan is among the nation's leading medical schools in

National Institutes of Health (NIH) funding, according to the latest 2023 Blue Ridge Institute for Medical Research ranking, placing 37th nationally. UMass Chan's success was marked by the 2006 awarding of the Nobel Prize in Physiology and Medicine to Craig Mello, PhD and his collaborator, Andrew Fire, PhD, at Stanford, for their discovery of RNA interference – gene silencing by double-stranded RNA. In addition, UMass Chan's faculty currently includes three Howard Hughes Medical Institute Investigators, eight members of the National Academy of Sciences, one Royal Society member, a 2008 Lasker Awardee, and a 2015 Breakthrough Prize winner.

UMass Chan is a force in basic and clinical research. Among the many areas of concentration are innate immunity, digital medicine, neuroscience, immunology, cancer biology, diabetes, gene function and expression, molecular genetics, systems biology, bioinformatics and computational biology, structural biology and RNA Therapeutics. UMass Chan has been an international leader in the fields of human genomics and epigenomics with exceptional strengths in developing and maintaining public repositories with large-scale genome sequencing and epigenome mapping data produced by international NIH-funded consortia such as the ENCODE project and the 4D Nucleome project. The school has world class expertise in the study of structure and function of genomes. UMass Chan has made significant and strategic investments in developing state-of-the-art infrastructure in the areas of genomics, super resolution and live cell imaging, spatial transcriptomics, and structural biology (CryoEM). A state-of-the-art High Performance Computing Center and Storage Facility supports the research enterprise.

Over the last eight years, Provost Flotte has built a nationally recognized Gene Therapy Center, presently engaged in pre-clinical and clinical trials in many disorders including neurodegenerative diseases (ALS, Huntington's disease) and brain tumors. The main campus boasts the Aaron Lazare Medical Research Building, a 360,000 sq. ft. building, the Albert Sherman Center (ASC), a 512,000 sq. ft. research and education building and Two Biotech, a 75,000 sq. ft. research facility in the Massachusetts Biotechnology Research Park. A new 350,000-square-foot [biomedical education and research building](#) will open in June 2024. An NIH funded Clinical and Translational Science Award (CTSA) created an academic home for clinical and translational science across all five University of Massachusetts campuses. This award continues to support key services, including Career Development Awards for early career faculty. In addition, an Ambulatory Care Center (ACC) is home to four Centers of Excellence: Cancer, Cardiovascular, Diabetes, and Musculoskeletal care and research. The essential element of the ACC, which opened in the summer of 2010, is co-localized clinical care, clinical research, and clinical education in adjacent spaces on each floor to allow physician-investigators and patients to move seamlessly from where they receive treatment to where they may participate in trials of investigative therapies, making "from bench to bedside" a reality for patients.

In 2022 and 2023, The Boston Globe named UMass Chan to its list of the Top Places to Work in Massachusetts. Among 175 organizations representing all industries and sizes, UMass Chan was the only institution of higher education in the commonwealth to be recognized. Further, in 2023, UMass Chan was one of 23 organizations statewide recognized by the Boston Globe for its commitment to diversity, equity and inclusion practices. Additional information can be found at [UMass Chan Medical School named one of Boston Globe's Top Places to Work](#). In 2024, *USA Today* named UMass Chan a Top Workplace.

For additional information, please visit [UMass Chan](#).

Position Summary

Reporting Relationships

- Reporting to Katherine A. Fitzgerald, PhD, Associate Vice Provost for Basic Science Research
- Key partnerships include that with the CRIO for clinical science, Adrian Zai, MD, and Chief Information Officer, Greg Wolf

Responsibilities

The successful Chief Research Informatics Officer candidate will:

- Develop and implement a technology strategy that serves the UMass Chan basic science faculty with the goal of meeting their needs in terms of storage, technology infrastructure and computing capabilities in line with the vision of creating a best-in-class scientific research computing infrastructure
- Develop a service-oriented team to maintain the basic science technology infrastructure
- Create a financial model for the CRIO team that allows for sustainability of basic science technology efforts
- Collaborate with faculty, research staff, and administrative staff to identify, prioritize, and enable the delivery of technology that meet the needs of the broadest set of stakeholders
- Partner with key stakeholders to ensure technology and infrastructure facilitate strategic goals and continuous operations in these areas
- Work closely with the CRIO for clinical science and CIO in ensuring efforts are not duplicated across technology teams and, instead, that the collective measures taken are force multipliers for UMass Chan and research efforts
- Collaborate with the UMass Chan central IT organization on information security initiatives to ensure research faculty have access to necessary tools and data while ensuring it is done in a manner that continues to provide adequate security controls to the organization
- Keep abreast of national trends in research computing, bringing back best practices to the organization that provides a stable, robust, and affordable solution for high-performance computing and data storage
- Provide leadership in data governance efforts that will directly and indirectly affect basic science research faculty
- Participate as a member of the UMass Chan leadership team to translate and advocate basic science technology needs in terms of hardware, software, budget and staff
- Identify storage solutions for petabytes of data in the areas of omics, imaging, biorepository, bioinformatic, computational data, and many others, created by UMass Chan faculty. Solutions explored can include, but are not limited to, cloud, on-premise, and hybrid approaches as is appropriate

Goals and Objectives

The following goals and objectives have been identified as priorities for this position:

- The development of a university-wide vision for basic science research computing and infrastructure that accounts for the breadth and depth of research needs across a variety of departments, labs and faculty
- Develop and implement a proactive and forward-looking vision to ensure the school achieves world leader status in basic science through the creation of a world class compute infrastructure that is prepared for accommodating the future needs in basic science
- Recruit, retain, and continually develop a team focused on providing a high level of service to basic science faculty. Create a culture of inclusivity where individuals constantly strive to grow and develop further in their roles to better serve the institution
- Foster productive relationships with the CIO, CRIO for clinical science, compliance, administration, and hospital partners to ensure alignment of resources, remove potential barriers for researchers, and identify new opportunities for collective effort
- Be seen as a visible partner and advocate for basic science researchers
- Develop and implement an efficient and effective funding model. This may include, but is not limited to, the use of institutional funds, chargebacks for services, or working with research staff to build costs into upcoming grants
- Work with UMass Chan technology partners to ensure that information security policies do not act as a barrier to leading research, communication between faculty, and external partners while simultaneously ensuring that systems and processes provide adequate protection from potential bad actors
- Identify potential data storage solutions that both meet the needs of labs across the enterprise while also providing an ease of access so as not to hinder ongoing and future research initiatives
- Act as a consultative partner for faculty members to identify compute and storage needs in the development of grants and research studies
- Contribute to the reputation of UMass Chan as a collegial, collaborative institution by showcasing those values daily to collaborators

Candidate Qualifications

Education/Certification

- A Master's degree in the areas of computer science, data analytics, information technology, bioinformatics or a biology related field; PhD or equivalent strongly preferred

Knowledge and Work Experience

- 10 years of progressive experience in building and leading technology teams/organizations in the areas of research technology, informatics or bioinformatics
- Experience in collaborative research, especially in interdisciplinary efforts. Relevant research experience includes but is not limited to: bioinformatics, "big data", eScience, research information systems, database research, data integration, data modeling, data mining and statistics, data visualization, imaging, data visualization, evaluation of systems and/or qualitative and field research methodologies and research informatics
- Experience working across academic, research and operational functions of a complex academic organization with a track record of communicating with a wide range of leadership and researchers
- An understanding of both research and the technologies that support those efforts

Leadership Skills and Competencies

- Demonstrated diplomacy and leadership abilities to build effective partnerships and successful collaborations with faculty throughout campus and academia
- Excellent interpersonal and leadership skills to build and maintain relationships with faculty, administration and technical staff
- Excellent written and oral communication skills
- Deep understanding of effective resource and project management
- Demonstrated ability to function effectively and collaboratively in a fast-moving, dynamic environment with multiple stakeholder groups
- Exceptional follow-through
- Proven capacity to represent an organization to external constituents
- Strong, confident leader who is receptive to suggestions, yet able to make decisions and provide direction in a proactive and consultative manner
- Collaborative and a team builder
- Strong negotiation and conflict resolution skills

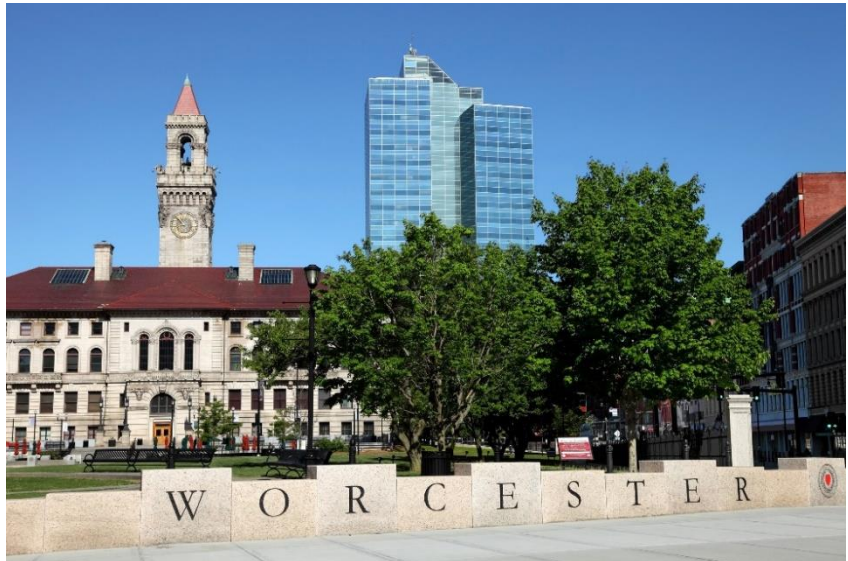
The Community

Worcester, Massachusetts

The second largest city in New England, [Worcester, Massachusetts](#), is located in the heart of the Commonwealth of Massachusetts and New England. A five-time recipient of the All-American City Award, Worcester offers its residents the resources and attractions of a metropolis, balanced with the more intimate, livable scale of a mid-size city and something more.

Worcester, with a population of over 203,000 is home to 10 colleges and universities (a half-dozen more in neighboring communities), including the University of Massachusetts T.H. Chan School of Medicine, Worcester Polytechnic Institute, College of the Holy Cross, Clark University, and the Massachusetts College of Pharmacy and Health Sciences. The city is richly diverse and made up of many communities. According to recent census data, Worcester's population is approximately: 25 percent Hispanic/Latino; 7 percent Asian; 13 percent Black or African American; 12 percent two or more races; 52 percent white; and 23 percent foreign born [some may identify with more than one category].

Over 33 percent of residents ages 25 and up have a bachelor's or post-graduate degree, placing Worcester among the leaders of all New England cities. This concentration of intellectual capital and proximity to excellent medical facilities and teaching hospitals has helped Worcester to become a recognized center for research and development in biotechnology and the life sciences. [The Reactory](#), and the [Bioengineering Institute](#), are centers for biotechnology research in the city. The [Worcester Art Museum](#), [Mechanics Hall](#) (a historic concert hall) and the [Hanover Theatre & Conservatory](#) anchor cultural opportunities within the city. [The DCU Center](#) is home to the [Worcester Railers HC](#), an American Hockey League franchise. Worcester is also home to the [WooSox](#), minor league affiliate of the Boston Red Sox. Worcester is located one hour away from Boston, Providence and Hartford, and less than two hours from Cape Cod, the Berkshires and ski areas in southern Vermont. The Central Massachusetts region includes many cities and towns with suburban and rural neighborhoods. With its affordable housing relative to the Boston market, quality public and private schools, access to diverse arts, sports, restaurants and entertainment, Worcester and the surrounding towns offer residents the best of both large and small city living.



For more information, please visit the following sites: [Life in Worcester](#), and [City of Worcester](#).

Procedure for Candidacy

Inquiries, nominations and applications are invited. Please direct all application materials to Zachary Durst, or Scott Dethloff via the WittKieffer Candidate Portal [here](#). Inquiries and nominations may also be directed to the consultants through the portal or sdethloff@wittkieffer.com.

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UMass Chan Medical School values diversity and is committed to equal opportunity for all persons regardless of age, color, disability, ethnicity, marital status, national origin, race, religion, sex, sexual orientation, veteran status or any other status protected by law.

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