Mary Sue Coleman Director of the Life Sciences Institute at the University of Michigan
Ann Arbor, Michigan

THE SEARCH

The University of Michigan (U-M) seeks a distinguished biomedical scientist and academic leader as its next Mary Sue Coleman Director of the Life Sciences Institute (LSI). Founded in 1999, the LSI is a collaborative, free-standing biomedical research institute located on the University’s Ann Arbor campus. The LSI Director provides leadership and strategic direction to the Institute and is a critical leader for biosciences on campus, reporting functionally to the Provost as well as serving as a key advisor to the President.

The LSI brings together leading scientists from a variety of disciplines, working with a range of experimental models and using an array of cutting-edge research tools to understand fundamental biological mechanisms and produce discoveries that will ultimately improve human health and the treatment of disease. Of the University’s $1.3 billion in research expenditures, more than half is spent on research in the life sciences, and the LSI is a cornerstone of this effort. The LSI is closely linked with the University’s life and biomedical science departments and professional schools, and each of LSI’s laboratory heads holds a tenure-track position in an academic department.

This is an exceptional opportunity to lead an innovative scientific organization with a highly successful track record and take it to ever increasing levels of excellence drawing upon the significant resources of a world-class university. Under the leadership of President Mark Schlissel, a biomedical scientist and physician, the University has engaged its faculty and bioscience community to envision the future of the biomedical enterprise at Michigan and the new LSI Director will play an important role in helping to shape and enact that future. (https://president.umich.edu/about/committees/presidents-advisory-panel-on-the-biosciences/)

The Director will work with the LSI faculty and partner departments to recruit outstanding scientists with existing space and financial resources currently available in the LSI for new members. She or he will be expected to identify important scientific trends and research opportunities, both at the national and international level, and then to develop new resources and programs to further enrich the scientific enterprise at LSI and beyond.

The successful candidate will be a distinguished basic biological or biomedical scientist who may have translational experience and who qualifies for tenure as a full professor in one of the University’s academic units. Successful candidates should have an active research program and proven track record of obtaining and managing externally funded grants. Leadership skills are essential for this position. These can be evidenced through formal administrative positions or through other types of leadership roles within the scientific enterprise.

All inquiries, nominations and applications, should be directed to the University of Michigan LSI Director Search Advisory Committee as indicated at the end of this document.
THE UNIVERSITY OF MICHIGAN

Founded in 1817, the University of Michigan is one of the premier institutions of higher education in the nation and world. It has a total budget of just under $7 billion and an endowment of $9.7 billion. Broad and balanced excellence, a sense of social mission befitting a public institution, and widespread cross-disciplinary interactions distinguish the University. Interdisciplinary research units and initiatives across the social, natural, and life sciences involve faculty from many units on campus in some of the nation’s and world’s most innovative science. The University has world-renowned faculty, rigorous academic programs, and diverse cultural and social opportunities in a stimulating intellectual environment. The various undergraduate, graduate, and professional degree programs on the Ann Arbor campus are offered within a framework of 19 schools and colleges. The schools and colleges operate in a decentralized fashion. Under the University’s budget model, deans and directors are entrusted with revenue and cost authority in order to manage their budgets in ways that best meet the needs of their units.

In its pursuit of excellence in learning and research, the University recognizes the importance of diversity in maintaining and enhancing that excellence. As the University recruits students, faculty, and staff, it seeks people with diverse backgrounds, intellectual perspectives, and life experiences, because it knows that a diverse campus provides a richer learning environment for students, and that diverse groups produces better solutions to the challenging problems that are the focus of the University’s research.

Additional information about the University can be found at http://www.umich.edu/.

Governance

The University is governed by the Regents of the University, consisting of eight members elected at large in the biennial state election, and the President of the University, who serves as an ex officio member. Dr. Mark S. Schlissel became the 14th president of the University in July 2014. The Regents serve without compensation for overlapping terms of eight years. According to the Michigan Constitution of 1963, the Regents have general supervision of the institution and the control and direction of all expenditures from the institution’s funds. The Regents meet once a month in a public session. Additional information about the Regents is at http://www.regents.umich.edu/ The LSI was established by the Regents in 1999 “for the purpose of research, service and teaching in the life sciences and related disciplines.” (Regents By-Law Section 13.15.)

LIFE SCIENCES INSTITUTE

History

In May 1999, the University of Michigan’s Board of Regents approved creation of a new interdisciplinary science unit, the Life Sciences Institute (LSI). The idea for the LSI grew from the report of a commission tasked by then U-M President Lee C. Bollinger to make recommendations for moving Michigan’s status in the life sciences to “a position of leadership
commensurate with its standing in other scholarly areas.” The primary strategic recommendation of the Commission was to intensify interdisciplinary efforts. The report noted “while a molecular approach constitutes an important starting place for biological analysis, it is necessary to complement it with strategies to describe the interactions between the various essential elements (genes, proteins, cells, cell assemblies, or organisms), and to understand how functional properties emerge from these interactions.”

The Institute was established as a non-degree, non-tenure-granting research enterprise, independent from any school or college but working in partnership with all the deans and chairs of relevant academic units to recruit faculty and build programs and resources. The Regents approved the construction of a new $100 million open-design wet lab building and dedicated an additional $150 million for the Institute’s start-up and endowment funding. The original financial model for the Institute was that its ongoing revenues would consist of distributions from the endowment and return of 100% of the indirect cost recovery (overhead) on the research grants of Institute faculty. It was expected that the Institute would be responsible for the cost of operating its building and programs and supporting the salaries and research activities of its faculty, to the extent these were not supported from other funding sources.

Financial Resources

In keeping with the original financial model, the LSI is primarily supported through distributions from unit-held endowments and by the direct and indirect costs from grants and contracts from external funding agencies (primarily NIH, and multiple other government, foundation and for-profit funders). The LSI has typical annual budget sources of approximately $19 million in sponsored research funding (includes directs and indirect research revenue), $8.2 million in endowment distributions, nearing $4 million in University general fund support, and $2 million in other sources (gifts and other miscellaneous sources of support).

Facility

World-renowned architects Denise Scott Brown and Robert Venturi worked together with internal laboratory designers The Smith Group to create an Albert Kahn-inspired open laboratory building. [http://www.lsi.umich.edu/about](http://www.lsi.umich.edu/about) Construction on the Institute began in September 2000 and was completed in September 2003. The Institute building is 354,898 gross square feet of which 120,972 square feet (34%) is net assignable laboratory space. Three floors are generally outfitted for cell biology and one floor (4) is designed and equipped for heavier chemistry use. LSI is located on the Palmer Campus at the juncture of Central Campus and the Medical Center. [http://www.lsi.umich.edu/our-facility](http://www.lsi.umich.edu/our-facility) Palmer Campus also includes: an Undergraduate Science Building containing high-tech science classrooms and offices for programs that support students studying science; and the Palmer Commons, a sophisticated conference and meeting center that also houses the University’s Bioinformatics Program. All three buildings are tied together by a public plaza that forms a pedestrian thoroughfare connecting the Central and Medical campuses, and which will be augmented by a soon-to-be-constructed 300,000 square foot Biological Sciences Building adjacent to the LSI.
Faculty, Staff and Students

Currently, the LSI has 23 tenure-track faculty that each hold joint appointments in various departments within three U-M schools and colleges (Medical School, College of Pharmacy and the College of Literature, Science and the Arts), with an additional 22 non-tenure track research faculty. The regular staff nears 80, with 38 central administrative professional, technical and support staff, and 40 staff members in the faculty-led labs, plus an additional 50 temporary employees in various positions. On average, the LSI has 150 students (including postdocs, graduate students and undergraduates) employed, volunteering or working for credit at any given time. The LSI facility was envisioned to have a capacity for approximately 30 faculty-led labs and associated equipment and office spaces.

Core Services and Centers

**Center for Chemical Genomics** (CCG): A high throughput screening facility is a central component of the CCG. This core facility is designed to assist academic researchers in carrying out high-throughput screens of chemical libraries and identify new tools for biological research. [http://www.lsi.umich.edu/centers/center-for-chemical-genomics](http://www.lsi.umich.edu/centers/center-for-chemical-genomics)

**Center for Structural Biology**: The CSB is a "collaboratory" for X-ray crystallography, crystallization and protein engineering, and is a comprehensive structural biology resource for researchers at the U-M and the surrounding area. The center includes: high-throughput protein laboratory for protein engineering; protein purification facilities for small- and large-scale protein production; macromolecular crystallization and crystallography laboratories for solving crystal structures of biological molecules; on-site X-ray facility; access to high energy synchrotron radiation at Argonne National Laboratory; and a new Cryo-electron microscopy facility. [http://www.lsi.umich.edu/centers/center-for-structural-biology](http://www.lsi.umich.edu/centers/center-for-structural-biology)

**Center for the Discovery of New Medicines** (CDNM): Housed in the LSI, the CDNM coordinates and supports the development of therapeutics from discovery to the market. The strengths of UM’s Medical, Pharmacy, Engineering and Public Health schools combine with departments in chemistry, biology, dentistry and nursing and converge with UM’s offices of Tech Transfer and Business Development. The University’s scientific cores in chemical genomics, medicinal chemistry, animal models and pharmacokinetics provide an array of equipment and expertise to help researchers turn promising compounds into new medicines. [http://cdnm.lsi.umich.edu/content/core-facilities](http://cdnm.lsi.umich.edu/content/core-facilities)

**Center for Stem Cell Biology** (CSCB): The CSCB is a collaborative division of the LSI where stem cells are studied in a cross-disciplinary manner. Questions addressed include fundamental inquiries into tissue development and cell communication. [http://www.lsi.umich.edu/scientific-initiatives/u-m-center-stem-cell-biology](http://www.lsi.umich.edu/scientific-initiatives/u-m-center-stem-cell-biology)

Educational Programs

**Educating Students in the Lab**: LSI is home to approximately 150 postdocs, graduate and undergraduate students who work in the laboratories of LSI faculty members. In the lab, students receive essentially one-on-one instruction in scientific theory, experimental approaches, laboratory techniques, data interpretation and the use of leading edge scientific technology. LSI
faculty members serve as doctoral advisors and see students through their first independent scholarly effort. LSI students are exposed on a daily basis to the multiple fields and perspectives of diverse LSI labs. This day-by-day instruction is the core of LSI’s educational program.

**Chemical Biology Doctoral Program:** The LSI helped to found and continues to be a major sponsor of and home to an interdisciplinary graduate program (IDP) in chemical biology. The chemical biology IDP attracts about 12 students a year to Michigan. These students represent the best of their generation of scholars at the cross-roads of chemistry and biology. After two or three rotations in the first-year, they can choose to work in the labs of faculty in the LSI, the Medical School, the College of Pharmacy or the College of Literature, Science and the Arts.

**Perrigo Undergraduate Fellows Program:** This competitive summer research fellowship for undergraduate students was created in 2004 with a gift from the Perrigo Company of Allegan, Michigan, which manufactures generic prescription and OTC drugs. The competition is open to any student who attends a school or college in Michigan. The program brings in talented undergraduate students with plans to pursue research at the graduate level to spend the summer in an LSI laboratory of their choosing. The goal of the program is to interest more students from across the state in life sciences research within the state.

**Business of Biology Graduate Course:** LSI sponsors an interdisciplinary graduate course on the impact of genomic medicine on business, healthcare and the socio-political landscape. Several members of LSI’s faculty and advisory boards are lecturers in the course. The academic home for the course is in the Ross School of Business and the course is also cross-listed in the Medical School, the School of Public Health and the College of Engineering. This course uniquely offers a graduate curriculum attracting business students interested in the life sciences sector, science students interested in business, genetic counseling and medical students, and public health and law students.

**Symposium:** The LSI Annual Symposium is a cornerstone event and invites leading scientists from different disciplines to converge around a single topic. Past symposia have been designed to explore genetic insights into biology and disease, cancer, stem cell biology, evolutionary biology, autophagy and diseases of the nervous system. Ideas about each year’s symposium are generated by the faculty and discussed collectively before arriving at a consensus decision on topic or theme. Faculty members within the topic sphere then lead the programming, invite keynote and other speakers, and oversee the logistics with support provided by the Director’s Office staff. The speakers hold a lunch talk-and-learn session with LSI postdocs and graduate students and the event is open to the public and broader University community.

**Advisory Boards**

In addition to reporting to both the President and the Provost, the LSI is advised by an Executive Committee consisting of key University leadership in *ex-officio* positions and a rotating roster of deans and faculty from within and outside of the Institute. This committee meets annually in-person for discussion and updates about LSI financials, research productivity, initiatives and other metrics.

The LSI also utilizes two external advisory committees. The first is LSI’s Scientific Advisory Board (SAB), which consists of leading academic and industrial scientists who meet annually in
Ann Arbor and offer advice on LSI’s scientific direction and progress. The annual meeting of the SAB is often held back-to-back with the annual meeting of LSI’s Leadership Council. The second external advisory committee composed of leaders in the life sciences sector as well as committed UM alumni interested in the LSI. The Leadership Council advises LSI about organizational direction and progress, particularly in its relationship to the private sector and in fundraising.

ROLE OF THE LSI DIRECTOR

To understand the role of the Director, it is imperative to have background on the Institute’s mission, formative first decade, and prevailing culture.

The LSI’s mission is to serve as an interdisciplinary hub for collaboration so that biomedical discovery can proceed unimpeded by organizational or disciplinary boundaries. LSI was founded on the notion that progress in our understanding of human health and disease would be accelerated by bringing together researchers to work at the margins and cross-roads of disciplines including biology, chemistry, genetics, physiology, informatics and physics. LSI’s first challenge was to recruit a first-rate team of scientists from these different fields who preferred to work in a setting with scientists from disciplines outside their own. The second, even more daunting challenge, was to create a culture within and outside of the Institute that could facilitate and support deep engagement across the disciplines.

Disciplines are constructed around distinct vocabularies, tools, and approaches to problem solving. Academic units, like schools, colleges and departments are further distinguished by particular policies and traditions. To break down these barriers, LSI created several different forums for building trust and approaching science in a meaningful way. The faculty hold weekly workshops where members take turns presenting different scientific problems they are facing. These meetings are not a standard presentation with question and answers. Instead, faculty members discuss technical and theoretical scientific problems, research plans, grant applications and even challenges they face in lab management and teaching. The Institute holds a monthly Institute-wide colloquium in which different labs present updates on their projects. These presentations are usually given by graduate students or post-doctoral fellows and must be geared to those outside of their fields. The faculty also instigated regular social events to bring together faculty, staff and students in the LSI.

In addition to these more formal approaches, LSI has developed a strong positive culture through its approach to addressing practical issues of operating an open laboratory and an interdisciplinary enterprise. Faculty governance places a high value on consensus and the entire faculty participates in most decisions. On decisions such as hiring and promotion where the faculty are called upon to make critical judgments significantly outside their own fields, deference is given to the opinions of those whose expertise is most relevant. When LSI policies or standards are considered, the different burdens and policies of home departments are taken into account.

Outside of LSI, the Director serves as a leading representative on two levels: to the broader University community and to critical external constituencies on the national and international stage. The Director reports on a functional basis to the Provost and also meets regularly with the President to advise particularly on matters of integration of the biosciences across the campus. As a representative to the broader University of Michigan community, the Director represents the interests of the LSI before leaders in central administration and other academic units and facilitates opportunities for collaboration between LSI and other University constituencies.
Outside of the University, the LSI Director actively engages with external constituencies to raise awareness and recognition of the work being done at LSI and the importance of basic science research.

Given the multifaceted nature of the role, the LSI Director must be:

- A nationally and internationally recognized academic scholar and researcher in the basic sciences, with an externally funded active research program and qualified for a tenured full professor appointment in an academic department, school or college at the University of Michigan.

- Experienced in obtaining and managing externally funded grants for basic science research.

- Skilled at leading an organization which may be evidenced by experience in the higher-level administration of an academic department, school, college, or research institute, or may come from other relevant experiences within or outside the academy.

- Committed to diversity, inclusion and to equal employment opportunity. She or he will champion the inclusion of historically underrepresented groups at all levels of the organization.

- Willing and able to communicate and collaborate effectively with both LSI’s internal membership and external constituencies. This includes taking a leadership role in the basic sciences at the University, working assiduously to strengthen and support connections between LSI and other academic units. It also includes national and internationally presence in a time of both challenges and opportunities.

- An interdisciplinary thinker committed to harnessing and facilitating the potential of collaborative activities within the LSI, as well as across institutional and disciplinary boundaries.

- A consensus-builder with experience in leading from a core set of values, while maintaining the highest standards of quality in scientific research. The LSI director works within a bottoms-up organizational structure that requires persuasion, diplomacy, creativity and skill at consensus building to lead various LSI stakeholders in arriving at important decisions, creating synergies and adding value within and across LSI, the University, and with external collaborators.

- Interested in and able to recognize and promote innovative ideas.

- Deeply curious and enthusiastic about the work of others, as evidenced by a commitment to recognizing the accomplishments of LSI scientists, and both advocating for and showing a genuine interest in their scholarly work and other scientific endeavors.

- Excited about and committed to the entrepreneurial nature of LSI.
APPLICATION, INQUIRY & NOMINATION PROCEDURE

The Life Sciences Institute Director Search Advisory Committee is chaired by Professor David Ginsburg, an LSI faculty member and the James V. Neel Distinguished University Professor of Internal Medicine, Human Genetics and Pediatrics, and an Investigator in the Howard Hughes Medical Institute. Dr. Ginsburg can be reached at ginsburg@umich.edu. Additional information about the search including a full listing of the members of the Search Advisory Committee is at http://myumi.ch/lsi-director.

Nominations, applications and inquiries regarding the position will be treated confidentially and should be submitted electronically to LSI.Director@umich.edu. Review of nominations and applications will begin immediately and continue until the position is filled. For serious consideration, materials should be received by August 15, 2015. Applicants should provide a letter of interest addressed to Dr. David Ginsburg and curriculum vitae. These materials and other correspondence should be sent via e-mail to LSI.Director@umich.edu and addressed as follows:

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