

THE VISION, THE SUCCESS, AND THE FUTURE OF IQ
A SUMMARY BY DR. CHRISTOPHER CONTAG

I. BRIEF HISTORY. In 2014 MSU posted a position, with support from the search firm Isaacson and Miller, for the founding director of a new Institute called, Quantitative Health Science and Engineering Institute (QHSEI), in the description it was stated that, “...*the Institute is an inter- and multidisciplinary research center devoted to basic and applied research at the interface of life science, engineering, information science and other physical and mathematical sciences.*” Three colleges at MSU collaborated to create this Institute and intended that it, “...*will serve as a magnet to attract talented researchers and will enhance the growth potential of the University as a whole.*” The stated research areas of interest included, “*Computational genomics, proteomics and other related fields; neuroscience and imaging; and data science related to drug discovery and complex health modeling.*” In addition, it was stated that, “*MSU’s vision for the Institute is a face-paced, collaborative environment where faculty clusters will lead cutting edge research.*” The position of the director was described as someone who, “...*will set a clear and compelling thematic vision for the institute in collaboration with key leaders within the University’s research community.* And further, “*The Founding Director... ..will report to the Vice President of Research and Graduate Studies and will be an important member of the University’s senior leadership team.*” Expectations of the director included, “*a strong Director who can move the enterprise from concept to reality*”; “*the Director will hire and oversee administrative staff, develop a comprehensive budget plan, and establish the foundation guidelines for participation and inclusion in the Institute*”; and “*An immediate fundamental task of the Director is shaping a distinctive vision for the Institute.*”

In response to this job posting, I submitted a proposal describing a “*distinctive vision for the institute*” to MSU. This document was entitled, **The MSU Institute for Quantitative (IQ) Health Science and Engineering: Bioinspired Designs from Bioinspired Scientists**. Note that the name of the Institute changed subtly between the time of the job posting and the job offer to enable the acronym, **IQ**. Since the writing of this proposal, significant efforts have been made to brand the name **IQ**. This proposal was accepted by MSU and has become the foundational document stating, “*Quantitation sciences and engineering lie at the center of nearly all aspects of innovations in biomedicine, and will comprise the source of all new technologies that change the way we create and analyze biological data to improve our understanding of life and living systems.*” A five-year progress report was voluntarily written by IQ faculty and staff, and sent broadly to the MSU leadership entitled, “[Seeing IQ in 2020](#)”, located on the IQ website. In this five-year report, we demonstrated how we’ve met aspirations for the institute. In addition, IQ has presented annual progress reports at IQ Exec Committee meetings. The basic description of the institute in these summaries is, “**A research institute dedicated to integrating engineering principles into biomedicine.**” Building on this description, the stated mission of IQ is to: “**create and advance the tools for quantitative analyses and interrogation of complex biological systems, and use these tools for a greater understanding of life and living systems to improve human health and control disease.**” The initial concept of IQ is captured in the current mission and vision of IQ. The role of IQ is to develop new biomedical knowledge and technologies that can be put in the hands of people who can use it, thus the focus of IQ is “**First ever... ..to first in humans**”.

At the time that MSU was launching its search for an IQ Founding Director, the College of Engineering had launched a new Department of Biomedical Engineering (BME) and was searching for its inaugural chair. The new building that is labeled on the MSU maps as the “Bio Engineering Facility [sic]”, and is home to IQ, was to also be the home of the new BME department. At the time, there were proposals to put BME on the top floor of IQ and the institute on the bottom two floors and to leave the last floor open for new programming. To eliminate obvious potential conflicts, I proposed that BME should be well-integrated into the institute, intermingling engineering faculty with biomedical faculty on all floors, and suggested that the founding director also be the inaugural chair of BME. The University agreed with this strategy and therefore, I applied to, and interviewed for, both positions and was hired in Nov. 2016. Building BME and IQ together fulfilled the concept of integrating engineering into biomedicine, while conserving resources and reducing potential friction.

II. OPERATIONS AND LEADERSHIP. IQ leadership is well-described in the [IQ bylaws](#), available on the [IQ intranet](#). The intranet is accessible to all members of IQ, including the executive committee. The leadership roles include the director, associate director (vacant), assistant director, chief of staff, and division chiefs. Oversight is provided within IQ by a leadership committee comprised of the above and several senior faculty members. The IQ executive committee is comprised of MSU associate deans of relevant colleges and representation by the VPRI and ISPM offices. The executive committee provides advisory oversight to IQ. The roles and responsibilities of all leadership positions are outlined in the bylaws. When the faculty and staff drafted the bylaws, the principles of shared governance were incorporated throughout, ensuring broad representation. As the institute matures and our trainee population grows, it will be necessary to include post-docs and students on IQ committees, and the bylaws will need to be revised to address this gap.

The institute structure is comprised of eight divisions, seven of which have been developed, formation of the eighth division has been delayed by having the MSU COVID surveillance program on the third floor on the south side (3S) for two years. Each division is led by a chief and houses anywhere from 4-7 faculty members and their lab personnel. The divisions were designed to cut across disciplines and build on existing strengths at MSU. The original plan also included a series of research cores, selected to align with the thematic areas. The matrix of divisions, focus areas, technologies and cores were designed to capture emerging areas of biomedical research. The divisions are also vertically integrated into the institute to support cross-cutting themes in biomedicine. The selected areas of science and technology were intentionally broad and inclusive with the aim of recruiting best-in-class scientists from diverse backgrounds with a breadth of knowledge. The proposed composition of the institute was for approximately half of the faculty to be appointed in Biomedical Engineering,

and half appointed in various departments and colleges. The IQ divisions include: Systems Biology (first floor northside, 1N), Synthetic Biology (2N), Developmental and Stem Cell Biology (3N), Biomedical Devices (4N), Biomedical Imaging (1S), Neuroengineering (2S), to be developed (3S) and Chemical Biology (4S).

III. IQ AS A CONNECTOR: To ensure IQ developed robust connections to the greater University, one of my first self-assigned tasks was to meet with each of the 17 MSU deans and ask, *“What is your college doing in biomedicine and how can IQ help?”* In response to my question, the deans’ answers were expansive and varied, and each college had efforts in biomedicine. IQ is committed to building local, regional and national networks that advance biomedical research. Now, after 6 years of IQ faculty, staff and trainees working diligently to build networks, many programs in biomedicine at MSU are better connected and more integrated. Through these interactions, I have had the honor and privilege of working with deans and many outstanding leaders who share the goal of building connections and eliminating barriers to collaboration. Strong communities are built through robust networks of interactions founded on trust and a need to support the common good, and this has been foundational in IQ’s role at MSU. One of the objectives of MSU’s sustainable health pillar is to, *“Engage the entire MSU campus in a comprehensive approach to improving health, leveraging expertise and elevating care, education and research activities.”*—this was foundational in the forming of IQ, and we have continued to lead this effort.

Community is built through shared experience and common goals, and IQ has established many mechanisms aimed at creating a welcoming and interactive community beyond hosting the typical seminar series. We periodically host IQ coffee coteries, summer picnics, occasional tailgate events, building-wide lab lunches after semi-annual all hands meetings. We have potluck meals, game nights, and other social events. To integrate social programs and scientific discussion, we also established a series of events that we call **“Brews and Views”**. Brews and Views is a partnership with the Center for Bioethics and Social Justice (CBSJ) designed to address bioethical implications of cutting-edge biomedical research and build robust connections with social sciences. IQ is a community of scientists seeking to positively impact the health of all people, and these social science connections help our researchers address disparities in healthcare and help close the gap in health inequities. The IQ community is diverse in race, gender, training/education, fields of study and ethnicity. We recruit broadly, hire diversely, seek equity in employment, and train across disciplines.

IV. THE FACULTY. Student and faculty successes in IQ have been monitored, reported, and celebrated broadly. We maintain a comprehensive faculty impact table that tracks many metrics of research excellence. To attain a comprehensive assessment of academic performance, we work with the faculty members’ academic units to monitor their teaching, service and contribution to DEI efforts as part of their annual reviews. To summarize some of the data, we have 43 IQ faculty representing 5 colleges and 18 different departments (Fig.1) with 18 assistant professors (3 fixed-term), 13 associate professors (5 fixed-term), 9 full professors and 3 specialists. The H-indices range for these IQ faculty from 2 to 88 with an

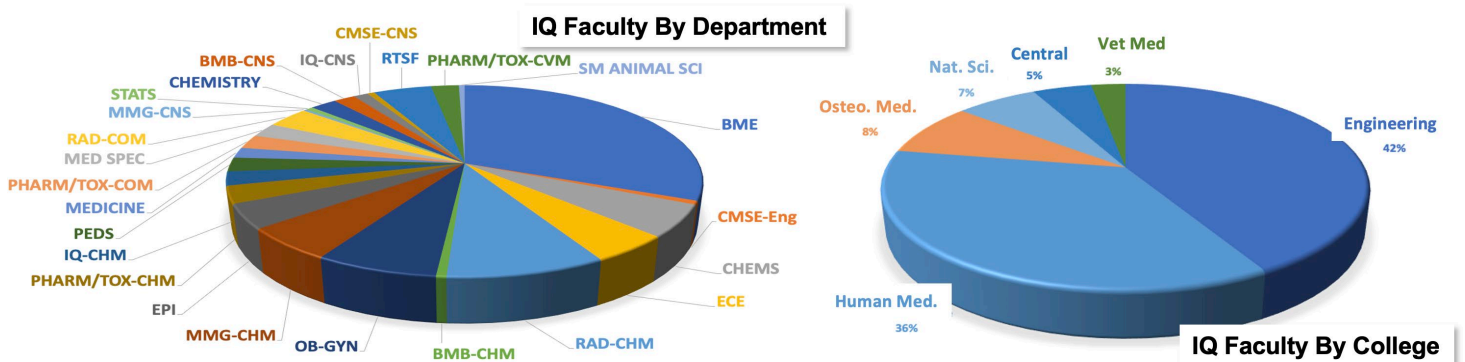


Figure 1. Faculty appointments by Department/college (left) and College (right)

average H-index of 25, this results from a total of 196,000 lifetime citations for the 43 IQ faculty with an average of 4558 citations per faculty member. There have been about 80-223 publications per year from IQ for a total of 1057 publications from IQ faculty in 6.5 years. These faculty members mentor, at present, 103 undergraduates doing research, 82 graduate students from various departments and programs, and 45 postdoctoral fellows. We have a BME student association that represents the 47 BME graduate students, and supports career development, monitors their progress and provides guidance. We also have an IQ Postdoc association that monitors progress, advances careers, and provides networking opportunities. We have built a national reputation, and many see IQ as an up-and-coming, forward-looking, biomedical research institute leading nationally in several fields. Evidence of this national reputation was apparent in negotiating the Henry Ford partnership in that the Henry Ford leadership saw IQ as an important resource and a magnet for faculty recruitment. Anecdotally, in many recruitment efforts IQ is mentioned as the reason candidates consider positions at MSU—most recently, an outstanding candidate indicated during her interview, that IQ was the only reason she was looking at MSU.

At its inception, institute recruitment was anticipated to be 15-20 faculty hires at junior and senior levels. Through interactions with deans, chairs and leadership, IQ has recruited a total of 46 faculty FTEs. One of these left MSU in 2018 for a position to be near a spouse and two terminated their IQ MOU and left the BME department in 2022, leaving a net of 43 IQ faculty. Research at IQ has been supported by internal and external sources with total expenditures for IQ ranging from \$5.2M to

\$11.7M per year since 2017, with the peak in 2020, followed by general declines, likely due to COVID, with significant recovery in 2022 to 2023 (Fig. 2). The departure of two senior faculty from IQ in 2022 did not dramatically impact IQ expenditures or numbers of publications. Expenditures from internal sources generally declined over the 6-year period and has been replaced by external sources largely starting in 2020; this is attributable to start-up funds ending and grant support increasing. IQ faculty have brought in a total of \$83M in new grants and contracts to MSU since the inception of IQ and in 2023 they brought in a total of \$14.2M in new grants and contracts (Fig. 3). A total of 665 grants have been submitted by IQ investigators by our pre award staff in 6.5 years with 146 of these awarded, 156 still pending yielding a success rate of 29% of submitted grants being funded. Using the NIH pay lines at ~10% as a metric, the IQ faculty are very successful. The drop in new external funding in 2019 correlates with the Precision Health Program (PHP) moving out of IQ and into ISTB and their grants largely being submitted through CHM.

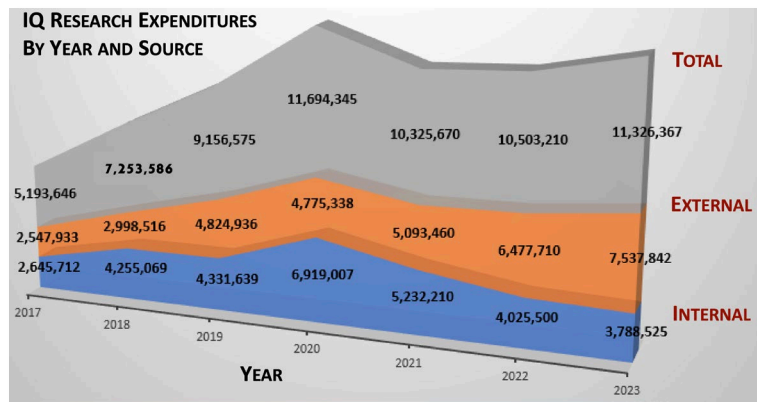


Figure 2. Predictable patterns of IQ research expenditures. Total expenditures (gray) are comprised of all research expenditures; it peaks at initiation of COVID and is again on the rise in 2023. External expenditures (orange) also peak in 2020 and is rising after the pandemic—external grants shown in Fig. 3. Internal expenditures (blue) are generally declining as the start-up packages for most IQ faculty have ended or are nearing their end and external funds are increasing.

NEW IQ GRANT DOLLARS TO MSU

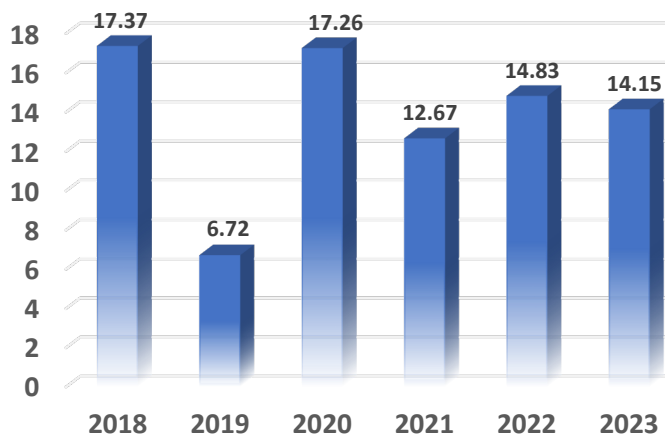


Figure 3. Total new dollars (in millions) awarded to IQ faculty by year.

this, 50% of that savings is returned to the faculty as unrestricted funds. For new faculty coming from medical schools, this policy was appreciated, but for faculty moving from other MSU programs it was perceived, by some, as unfair and unnecessary. The lesson learned was that when making foundational changes in institutional policies, there needs to be college buy-in and a thorough education as to the benefits of a financially secure Institute. This is ongoing and has required a cultural change at MSU emphasizing the value of putting academic year effort on grants. The IQ policies and procedures for finances, staffing, equipment management, and business operations support an interactive culture that is aimed at driving biomedical research. With a return of only 10% of the IDCs to IQ, salary recovery is the only path to be self-sustaining and the only means to drive a robust research initiative.

VI. SELECTED IQ HIGHLIGHTS. The IQ scientific programs are all built on existing strengths at MSU and new faculty hires into IQ have added new breadth and depth to these programs. For example, many of the faculty in IQ have brought unique skills in imaging to MSU and this has helped build Radiology at MSU raising its national ranking. The MSU clinical departments who have research faculty in IQ are often likely to be highly ranked, e.g., Pediatrics, Radiology, and OB/Gyn, and the BME department, largely in IQ, has a burgeoning, impressive national reputation. The skills in biomedical imaging brought to MSU through IQ recruitments, have helped to bring new infrastructure dollars to MSU, including the C06 grant for a Center of Excellence for Imaging and Image-guided therapy, and a P01 in Pharm/Tox, and training grants like the R25 (PI: de los Campos) to support underrepresented minorities (under review). Program project grants and training grants are a key part of the [IQ 5-year strategic plan](#) written in 2020, and these have been incorporated into college and university strategic plans.

ADMINISTRATIVE STAFF. The IQ administrative staff are outstanding and support the institute with pre- and post-award support, all-funds accounting, human resources, facilities, communications, and IT. The staff created the IQ intranet that supports our community with valuable resources that are organized and updated regularly. IQ/BME have invested thoughtfully and effectively in building a team of support staff comprised of well-trained and skilled individuals who are problem solvers and strive to continue to find innovative solutions to assist faculty with administrative needs. Members of our staff have been nominated for, and have received, multiple recognition awards.

V. ENSURING SUSTAINABILITY. The plan for the Institute's sustainability was an integral part in the founding of IQ. In this planning, it was immediately apparent that the only path to self-sufficiency was to turn recurring dollars into non-recurring, operational funds, by incentivizing faculty to put meaningful fractions of their funded salaries on extramural grants. In the IQ MOU, we ask that faculty aim to cover half of their annual salaries on external funds, and to incentivize

HIGH VISIBILITY PROJECTS THAT ADDRESS UNMET NEEDS AT MSU. Much of the work we do in IQ is at the cutting edge, therefore we established a partnership with CBSJ and launched [Brews and Views](#) to help address ethical issues of biomedicine. During COVID, the *Brews and Views at Home Edition* was started, and we focused these sessions on educating the MSU community about this new virus and the ethical issues associated with it. The Brews and Views series has attracted regional attention and is a highlight for many in the MSU community. A list of all the past Brews and Views recordings can be found on the [CBSJ site](#), and the series will continue with a focus on early cancer detection in Sept. 2023.

In 2019, we launched the Great Lakes Molecular Science Summer Courses held in Holland, MI, and will resume these courses in summer 2024; this endeavor was stalled by the pandemic. The first of these summer courses was the Great Lakes Advanced Molecular Imaging Course that was taught by faculty from across the region and attracted students from around the nation. The aim was to model these courses after those taught at Cold Spring Harbor and Woods Hole Laboratories, for the purposes of filling unoccupied niches in biomedical education, attracting attention to our region, demonstrating MSU's efforts in biomedicine, and making use of the MSU resources in Holland, MI ([The Bioeconomy Institute](#)). IQ has hosted meetings with venture firms to connect them to companies formed by member of the MSU faculty. In 2019, we held a technology showcase for representatives from the Emerson Collective, Catapult Boomerang, Red Cedar, Panacea, Ambry, EMITT, InVicro and others, and will continue these showcases now that COVID isn't limiting travel.

In addition to modifying Brews and Views for COVID education, IQ also responded to COVID in several other ways; we created a comprehensive intranet site (now archived) that facilitated robust tracking of building occupants, training requirements, and informational resources that led us to becoming the first research building on campus to reopen safely. We housed the COVID surveillance program led by Jack Lipton on the 3rd floor, worked with Ford Motor company to advance a mobile rapid testing program, and we launched research programs aimed at vaccines and pathogenesis of this new threat.

IQ has worked to build international partnerships with Chung Ahn Univ., Univ. Oslo, NTNU and Sheeba Medical Center. We have built strong corporate partnerships with PerkinElmer—funded postdoctoral fellowships and provided equipment, Leica—designated IQ as a Center of Excellence, GLAdiator—supporting research in three laboratories, EMITT—supporting instrument development, Siemens—providing equipment, In vivo Analytics—providing equipment, and Magnetic Insight—supporting imaging research. IQ has ongoing discussions with Arthrex, Genentech, Honeywell, and NovoNordisc. The faculty and students of IQ have started over a dozen companies, one of which was spun out by students in the BME BioDesign program—*LapraAssit*.

VI. MAJOR INVESTMENTS

A. FACULTY AND STAFF. Faculty and staff salaries are the major investments for any university program including IQ. Investment in qualified employees is key to faculty and student success.

B. CORES—Investments in technology and infrastructure builds programs, attracts world class faculty and students, enriches research capabilities, and helps retain top researchers; all of which leads to more IDCs to the University. IQ is home to 5 cores that support the University research endeavor. Research cores are available to all MSU faculty and several of these support outside users.

a. The Advanced Molecular Imaging Facility (AMIF) is a core facility for preclinical biomedical imaging housed on the first floor of the IQ and is supported by investments made into IQ, BME and PHP. The AMIF is equipped with state-of-the-art preclinical imaging facilities for imaging and over the past year, the AMIF served over 60 individual users from the laboratories of 27 principal Investigators. Facility staff include Christiane Mallett (Director), Jeremy Hix (Manager) and Erik Shapiro (faculty advisor, Dept. of Rad/BME).

b. The IQ Microscopy Core provides access to and research support for six advanced microscopes for live cell imaging, biological tissues, and animal experiments. The facility staff includes Sara Makaremi (Manager) and faculty advisors including Ripa Arora (Depts. of Ob/Gyn/BME) and Sangbum Park (Dept. Med). The microscopy core users come from 6 different departments and 3 colleges across campus.

c. 3D Printing Core currently includes a Stratasys J750 and Markforged X7 carbon fiber 3D-printers. In addition, two bioprinters and a Nanoscribe high-precision 3D printer will be integrated into the facility soon. This core is run by an IQ faculty committee and does not at present have a manager.

d. The Genome Editing and Stem Cell Core (RTSF subsidized) supports in-house generation of transgenic organisms, embryos, and cells in a variety of species using the latest genome editing technologies such as CRISPR-Cas and advances the stem cell mission of MSU. The core supported 63 MSU PIs from 16 departments and from 8 colleges, and 5 external PIs from 3 external institutions (CMU, UofM, HFHS) in 2022-2023. The facility staff includes Elena Demireva, Huirong Xie and Bana Abolibdeh.

e. The Cytometry Core (RTSF subsidized) provides flow cytometry, cell sorting, nano-particle analysis, and single-cell genomics services. Instruments in the IQ include an Aria cell sorter, a Cyttek Aurora spectral flow cytometer, an Accuri flow cytometer, and a 10x genomics Chromium system. The facility staff includes Matt Bernard and Daniel Vocelle, and they support the research of 80 faculty members (20 departments) of which 16 are members of IQ.

D. LESSONS LEARNED FROM LARGE INVESTMENTS. Lesson one: hire outstanding faculty and staff who can look beyond themselves and share the vision that building a community of interactive, collaborative scientists and staff is good for the

individual, good for the organization and helps build a national reputation that can improve grant success, increase corporate sponsorships, and drive philanthropic support. **Lesson two:** investments in technology and expertise as research cores, drives scientific inquiry with new tools, improves our ability to recruit world-class faculty and garners philanthropy. Before IQ was a going concern, NIH grant reviewers were scoring the resources and environment for some MSU faculty at 3 or worse, after the development of IQ, most summary statements have scores of 1 for resources and environment. The primary payoff of these investments is the IDCs that come back to the University based on grants supported by data generated with cutting-edge technology. Ideally, central administration would reinvest more of these IDCs into new tech and maintenance of the core resources which would, in turn, bring an even greater return to the university. IQ will continue to support core resources to the best of our ability, but are asking for support from central administration so we can continue to invest in the future of MSU. **Lesson three:** Space may be our most valuable resource, and the lesson learned is that IQ space oversight should be centralized to the IQ leadership.

VII. THE BME DEPARTMENT. The BME department has grown well and is attracting national attention. As inaugural chair I led the effort to write the bylaws, supported the establishment of the graduate program, and set the initial policies and procedures for the new department. The department recruits graduate students internationally into our nascent graduate program, and BME has had outstanding students; this serves as evidence of a growing international reputation. BME graduates have gone on to advanced careers in science. All BME faculty, other than the most recent one, were recruited while I was chair. The faculty are individually outstanding and as a community are well-balanced by rank and are supportive of their faculty peers, many have voluntarily helped our sister engineering departments, CMSE, ME and ECE, by teaching courses in these other departments. When a MSU BME undergraduate program starts, there will be less time to support these other departments with their teaching needs. The BME faculty are research intensive and are well-connected to the MSU community as well as to the national BME community. A core part of our BME graduate education is the BioDesign class. This course helps build connections to our clinical partners with BME PhD students shadowing their clinicians and solving pressing biomedical needs with tech solutions.

VII. THE DIRECTOR. In the posting for the position of the Founding Director of IQ, it was indicated that, "*The Director will need to demonstrate a substantial breadth of scientific experience, outstanding scientific judgement and wide-ranging external engagement with other scientific leaders*". I am appointed in Engineering (BME) and CHM (MMG) with courtesy appointments in the Center for Bioethics and Social Justice (CHM) and the Department of Radiology at MSU. Since coming to MSU, I have mentored four PhD students through graduation in three different departments, BME, MMG, and CMIB. Each of these newly minted PhDs are, at present, postdoctoral fellows at Lawrence Livermore National Laboratories, University of Colorado at Boulder, MSU and A2-AI. Two of these are women and one an underrepresented minority. I am currently mentoring five graduate students in four departments/programs including BME, CMB, MMG and CMIB and three of these are women. At present, I mentor two postdoctoral fellows (one woman) and three undergraduate students (one woman), who are in BMB, NeuroScience and MMG. Since coming to MSU, I am now approaching the publication rate that I achieved at Stanford with 11 publications in the first half of 2023. In the previous six years, I have averaged 6.5 publications per year, and I have published a total of 77 papers since coming to MSU. Since 2018, most publications are from work done at MSU, that was/is supported by NIH, NSF, corporate sponsored projects and an endowment. Together with my trainees, we have submitted two MSU patents on controlling adverse immune responses to biomaterials as tissue replacement parts, and twice submitted an NSF STC application, one of which was selected for full proposal but not funded.

VIII. THE FUTURE: IQ wrote a strategic plan prior to the recent MSU strategic plan and in the IQ plan, there are three aims for the second half of IQ's first decade of existence. **First**, is to complete the faculty recruitment starting with two positions from CNS, one possibly from CHM and additional BME hires. **Second** is to increase the number of program project grants (P01) and training grants (T32) at IQ. This aim is being advanced by forming groups of faculty members, within divisions and through connections to the greater MSU community. **Third**, to continue to grow and advance, we will need philanthropic support and IQ has been working across colleges with University Advancement to hold alumni events in Texas, Boston and Palo Alto, with the next event in the summer of 2023 in mid-Michigan and another in the Fall in San Francisco. As part of our educational mission, we will expand the Great Lakes Summer Courses and launch more IQ-based specialty courses.

IX. LESSONS LEARNED: In any endeavor, lessons are learned. Three "learning opportunities" for me as director of IQ were **first**, when two senior faculty were so disgruntled that they elected to leave the institute and the BME department. The management of their departure, not yet completed, has made a significant negative impact on both units; they have yet to exit the building. The lingering of non-IQ faculty in IQ adversely impacts our ability to recruit, advance our goals, and build programs—it remains an ongoing problem and more clearly stated expectations may have facilitated the transition. The **second** lesson relates to a foundational concept in IQ, is that there should be equity in salaries and advancement in rank. Considerable time and energy have been spent ensuring that faculty, staff and students who do the same type of work are compensated with equity. Faculty who had been historically underpaid, prior to working IQ, received increases to achieve equity, and firm policies for staff and student salaries are in place. The **third** lesson continues to hamper IQ growth. Historically, MSU has not supported campus-wide institutes; most institutes at MSU are generally supported by one unit or college. This has required us to develop, de-novo, policies and procedures for an inter-collegiate institute that works closely with deans to ensure that IQ supports the mission of their colleges. We continually communicate to leadership how the IQ mission advances the goals of colleges and departments. In the absence of prior successful institutes on campus, we have

spent considerable effort socializing the university community as to the value of organizations like IQ; this effort is ongoing and continues to prove to be necessary.

There have been so many lessons learned, but most importantly, is to have conviction in one's decisions, flexibility in addressing problems, commitment to communicate the broader vision with clear expectations, and an understanding that most people see from a single perspective. Leadership is challenging and those challenges can come from within the organization or from outside, by providing perspective to continents and leadership many challenges can be overcome. As a leader, it is necessary, at times, to step back and look at the careers that have been built, the research that has been done, and the positive impact on lives – if this is done well, the contributions to the community, the impact on human lives, and all the successes, are invigorating and enable us to overcome even the most difficult challenges. We have built a special place through the hard work and perseverance of amazing people.

In the job posting for the director's position, it was stated that, "*The Founding Director... ..will be a **top scientific figure, a visionary leader, and an accomplished manager** who has the ability to shepherd this enterprise through **its nascence and into a phase of rapid and transformational growth**. This position requires an exceptional leader with a national presence and a demonstrated commitment to building a high quality, interdisciplinary research operation.*" S/he will be, "*A person of high energy, absolute integrity, enthusiastic optimism and the perseverance to bring; an ambitious enterprise to fruition.*" I am hopeful that I have met these expectations.