

## MLS Program

### Site Reviewers' Comments (grouped for a unified response below)

1. Need for more graduates: The program faces many of the same challenges as other MLS programs throughout the country – primarily the balance of graduates needed vs. the number of employment position vacancies, keeping or increasing clinical affiliate training sites, and curriculum changes.
2. Increase size of student body: Program faculty and staff would like to increase the size of the student body, yet lack of adequate numbers of clinical sites, the need for additional administrative support, and the need for additional teaching staff and student laboratory staff represent the main challenges.
3. Add clinical sites: Since the prior program review, additional clinical sites have been added. Faculty and staff are currently in discussions with two additional potential sites. One challenge with the newly identified sites and other potential sites is that they are geographically located outside the Puget Sound area, making it challenging for students to commute. As such, sometimes the students perceive these sites as less desirable. The provision of short-term housing would enable students to take turns rotating through these sites.
4. Need for additional Program Administrator: The current Program Operations Specialist (Ms. Heather Eggleston) is serving in many roles and takes on many necessary tasks including establishing a Diversity Committee and participating in numerous recruitment efforts annually. As one example, she would like to reach back to high school students to increase program awareness of the MLS program and careers, expand the pool of applicants to the MLS program, and meet the needs of employers at the local, regional and national levels. The Department should give serious thought to hiring an additional program administrator.

**RESPONSE to 1-4:** As noted in the Overall Impressions of the MLS Program, the program is very strong, and all the above points would enhance an already highly successful undergraduate program. Once Ms. Eggleston is officially reclassified to Director of Academic Services (in progress), she will take a more active role in affiliate site development while delegating several current administrative tasks to the Program Coordinator, Mr. William Bartram.

Creating more affiliate relationships outside of the Puget Sound with institutions that can offer housing facilities will lead to a greater number of rotation offerings. This will then lead to the ability to admit more students to the program and produce more graduates to fill the MLS hiring shortage. Therefore, points 1-4 can realistically be achieved to solve the clinical affiliate shortage.

However, creating more affiliate agreements solves only half of the equation as we must be able to have adequate numbers of teaching staff to successfully get students through the didactic year of the program before going into clinical rotations.

Additionally, the size of the student body is constrained by facilities in the Health Sciences building. Currently, most of the classrooms have a maximum capacity of 35 students. There is a limited number of classrooms with a larger capacity, and there is a large demand for those rooms among other university programs. This constraint poses a challenge to the program to accommodate more than 35 students per cohort.

### **Site Reviewers' Comment:**

5. Teaching (1): Hire one additional teaching staff to relieve pressure on existing staff and to enable them to attend conferences such as CLEC.

**RESPONSE:** The MLS Program Director is currently in the negotiation process to have an additional teaching staff position approved. A new teaching staff member would allow for the MLS program to be less reliant on external support from the affiliated clinical laboratories while also providing support to the current MLS program staff. To better gauge the needed functions of the new staff member, a survey is being constructed that will go to the affiliated laboratories assessing the hours they give to the MLS didactics and the topics covered. This information can be used to craft a position to alleviate some of the pressures facing the labs and the MLS program.

### **Site Reviewers' Comment:**

6. Teaching (2): There is a lack of a consistent approach to the delivery, evaluation, and management of didactic coursework. To increase the number of staff available to teach, the department could consider funding and offering teaching assistantships to MS students (see below).

**RESPONSE:** Funding and offering teaching assistantships to MS students is currently under consideration. This option would allow the MLS program to potentially recruit active, working professionals who would bring valuable insights from the clinical lab to the students. At this point, the MS program requires one quarter of teaching experience which is of limited help for the MLS program. An expanded teaching assistantship would allow for more reliance on the graduate students while also allowing the graduate students more opportunities to gain mastery with teaching.

### **Site Reviewers' Comment:**

7. Teaching (3): Some faculty and staff feel there is a lack of recognition of existing teachers, and the tremendous backgrounds and expertise they bring to their positions. There is also a perceived lack of promotional opportunities for these individuals. One suggestion for improved recognition would be to provide support to facilitate attendance at annual CLEC meetings. This would entail providing clinical coverage to free up staff to attend (as above).

**RESPONSE:** Moving forward, CLEC attendance will be a priority for the MLS Program Director to promote and support amongst the MLS teaching staff, but the approval of an additional teaching position (see above) would need to occur to make this a more realistic goal.

### **Site Reviewers' Comment:**

8. Teaching (4): With Molecular Diagnostics playing a larger role in Laboratory Medicine year over year, the students suggest that a pre-requisite course in genetics be required.

**RESPONSE:** This is something that the MLS faculty will take into consideration. While not impossible, it is a challenge to add even more required prerequisite credits to a degree that already requires two full years of prerequisites. If this were to be adopted, we would have to do a thorough review of existing prerequisite courses and determine what could possibly be eliminated if anything. As a compromise, we are considering expanding the amount of genetics education in the Foundations course which is offered in the fall quarter. While this solution does not offer an entire introductory

genetics course, it is a reasonable compromise to meet student need, while not requiring any additional prerequisite credits.

**Site Reviewers' Comment:**

9. Representation on Upper Campus: As the only undergraduate program in the School of Medicine, the MLS program becomes invisible to administrators in upper campus and program staff would like to be better informed about policies for undergraduate programs. Specifically, there is a need to develop a stronger link to the UW Office of Undergraduate Academic Affairs.

**RESPONSE:** Shortly after the site visit, Dr. Slattery and Dr. Polyak connected Ms. Eggleston to Dr. Allen in the School of Medicine. A meeting took place with Dr. Allen and Ms. Eggleston and progress was made toward goal #9 above. Dr. Allen was very informative and established that she is the link between the MLS Program and Undergraduate Academic Affairs and will provide any information that is needed from upper campus. Furthermore, Ms. Eggleston's partnership with the Health Professions Recruitment Collaborative has proven to be very productive in increasing visibility and outreach opportunities for the MLS Program.

**Site Reviewers' Comment:**

10. UW Advancement: The Department could consider working with UW Advancement to increase the frequency of contact and the number of opportunities for alumni to participate in networking events, with the goal of increased program visibility, possibly resulting in additional financial support. The Department currently invites alumni who are one-year post-graduation to complete a student satisfaction survey. Repeated contacts in the years after graduation, particularly with an opportunity for alumni to reconnect with colleagues at social events, may result in both increased financial scholarship contributions and more intense visibility for potential students.

**RESPONSE:** We fully agree. This topic will be on the MLS Strategic Planning Meeting agenda to determine what level of resources we will put toward developing more extensive alumni relationships. Thank you to Dr. Devine for connecting the School of Pharmacy and the School of Medicine Advancement contacts for future collaborations. Since the site visit, Mr. Bartram has begun discussions with the Alumni Office to identify ways in which the Department of Laboratory Medicine can better connect with and engage graduates.

## MS Program

### Site Reviewers' Comment:

1. Develop a strategic plan and road map to meet the overall educational goals of the Department for the next ten years.

**RESPONSE:** We thank the reviewers for their huge efforts and thorough review of the MS program. We fully agree that the program requires a strategic plan to reformat and rebrand the MS program to suit today's and tomorrow's student needs. A key question is whether the program is to train Managers of the Clinical Laboratory versus training critically thinking Scientists. It is our current belief that Scientific training, within the context of the MLS-driven Clinical Laboratory, is the direction we need to go.

We therefore plan to develop a planning process for the Strategic Plan, which will be deployed in five phases. The MS Strategic Plan will determine what we want the program to be in 3-5 years and how we are going to get it there.

The Strategic Planning Committee (SPC) will consist of a committee led by Dr. Polyak (the MS Program Director), Ms. Eggleston (who will be reappointed as Director of Academic Services; please see below), Mr. Bartram (the MS Program Coordinator), and Mr. Louzon (the newly appointed MLS Program Director). Of note, Mr. Bartram has considerable experience from his prior employer on developing strategic plans. Thus, we feel we are appropriately qualified to conduct this process. The SPC will meet quarterly with Dr. Baird (Lab Med Interim Chair) and bi-annually with all Lab Med Division Heads.

Phase 1 will focus on the development a situational analysis of the MS Program. We will complete a Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis and a balanced scorecard for the program. During this phase, we will also conduct regional and national surveys, in conjunction with NACCLS' national listserv and our affiliate rotation sites. The survey will ask questions to identify current needs of scientists, lab managers, etc. It will help to identify educational gaps that exist at UW and nationwide. This will advise the decision making of the strategic planning committee, especially in Phases 2 and 3.

Phase 2 will be devoted to envisioning possible directions for the program. The mission and vision statement for the program will be revised. We will consider conservative, progressive, and aggressive options as possible strategic directions.

Phase 3 will involve a thorough review of the survey results and evaluation of strategic directions identified in Phase 2. We will consider the academic environment, our risk tolerance, and financial situation. We will identify clear goals and measurable objectives for the selected strategic direction(s). The SPC will meet twice monthly until the new Strategic Plan is completed (with Laboratory Medicine Chair and Division Head) input.

Phase 4 will be the construction of an implementation roadmap for the Strategic Plan. We will identify high level strategies for reaching our goals. We will develop a series of tactical actions that will lead to the achievement of our strategic objectives.

Phase 5 will implement the Strategic Plan and monitor progress towards goals and objectives. Concurrent to the development of a strategic plan, the program will add one 500-level class worth 3-5 credits to the MS program curriculum. The course was described in our self-study. Briefly, Dr. Polyak, Mr. Louzon, and Ms. Eggleston will develop a Research Design and Critical Thinking class with the approval of the School of Medicine curriculum committee and Faculty Council on Academic Standards (FCAS) and added to the official degree requirements. Regardless of the outcome of our Strategic Planning process, we unanimously agree that these classes will only enhance the rigor of the program. Dr. Polyak will teach these classes, and he will recruit Lab Med faculty for guest lectures. Additionally, we believe that implementing these classes at the beginning of the strategic planning process will allow us to measure changes in real-time and to adjust strategies and tactics accordingly.

**Site Reviewers' Comment:**

2. Explore providing online training. Look to other schools and departments within and outside of UW to identify successful models. Obtain specific and accurate information about current funds flow and tuition recapture.

**RESPONSE:** This is an excellent suggestion, which we will pursue once we have the feedback from our national and regional surveys. We feel that before we commit the time and resources to move towards online education, we must understand what MLS graduates want from a MS Program. Dr. Devine, the Chair of the Site Visit Committee, has proactively offered information about her Department's success with developing online curriculum. There are many examples of successful models, which we will pursue as indicated by the data.

**Site Reviewers' Comment:**

3. Consider offering online material to prepare students for the ASCP BOC examinations. This would provide a new source of revenue for the Department's educational programs. The faculty and staff are confident such a program would be well received by recent graduates of the MLS program.

**RESPONSE:** This is an excellent idea, which we would pursue based on survey feedback and would obviously be paired with any online content directly for the MS Program.

**Site Reviewers' Comment:**

4. Develop a Diversity Plan and a Diversity Committee; strive for the diversity representing Seattle. Look to the plans of other departments within the School of Medicine and in other Schools within UW.

**RESPONSE:** We fully agree and plan to establish a single Diversity Committee within the Department, which serves both the MLS and MS Programs. We envision the committee consisting of 3 faculty members, 2-3 students, and 2-3 staff. We also intend to liaise with Leo Morales, who is the Director of Diversity in the UW School of Medicine.

**Site Reviewers' Comment:**

5. Devote effort to creation of a marketing plan to increase national visibility.

**RESPONSE:** After we gather data from our national needs assessment survey, we will determine if there is a strong enough national need/interest in our MS Program to decide if we will invest resources into a national marketing plan.

### **Site Reviewers' Comment:**

6. Work further with the UW Office of Advancement to increase alumni support and scholarship availability.

**RESPONSE:** We fully agree. This topic will be on future planning meeting agendas to determine what level of resources we will put toward developing more extensive alumni relationships. Thank you to Dr. Devine for connecting the School of Pharmacy and the School of Medicine Advancement contacts for future collaborations. As noted above, Mr. Bartram has begun discussions with the Alumni Office to identify ways in which both the MLS and MS program to increase alumni support.

### **Site Reviewers' Comment:**

7. Hire a Medical Director to advocate for the program within and beyond the UW School of Medicine.

**RESPONSE:** We do not feel this is necessary. Dr. Polyak is the MS Program Director and Dr. Baird, as Chair, provides adequate representation of both the MLS and MS Programs to the UW SOM and Upper Campus.

### **Site Reviewers' Comment:**

8. Hire a Director of Student Services to offload some duties from current staff. This would enable expansion of recruitment and marketing efforts, and provide time to devote to other activities.

**RESPONSE:** We unanimously agree on this point and Ms. Eggleston is already performing this role for both the MLS and MS Programs. She is in the process of being reclassified into this position.

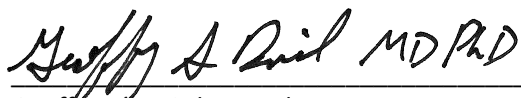
### **Site Reviewers' Comment:**

9. Develop a Succession Plan for teaching, and begin to hire new staff, both to fill current needs, as well as to anticipate upcoming retirements.

**RESPONSE:** We fully agree. Please see above for details.

## Clarifications

1. The MLS Program graduated its first student in 1952 rather than 1969. Autumn 2018 marks 66 years in existence.
2. The MLS Program was awarded continuing accreditation status for the full ten-year period rather than seven-year period.
3. For the most recent three years for which data are available, the MLS Program has enrolled between 25-30 students; 100% of these students, that have started the second/final year, have completed the MLS degree and have graduated.
4. The department receives funding from the Washington state general operating fund to support a portion of the MLS Program's expenses. There is no direct tuition reimbursement.
5. The MLS and MS Program Coordinator is William Bartram rather than Lara Williamson.
6. "The demand to establish an online MS is high." To establish how high the demand is we first need to conduct a needs assessment survey within the Dept. of Laboratory Medicine, regionally and nationally. Ms. Eggleston has received feedback over the years that prospective students would need an online program to realistically fit this program into their work schedules, however we need to gather quantifiable data to determine if an online program would be worth the investment.



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Geoffrey S. Baird, MD, PhD  
Interim Chairman  
Department of Laboratory Medicine



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Max Louzon, MS, MLS(ASCP<sup>cm</sup>)SBB  
Program Director  
Medical Laboratory Science Program



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Steve Polyak, PhD  
Research Professor, Director  
Laboratory Medicine Master of Science Program