

**Agendum
Oakland University
Board of Trustees Formal Session
April 12, 2024**

**MASTER OF SCIENCE IN MEDICAL SCIENCES
A Recommendation**

1. **Division and Department:** Academic Affairs, Oakland University William Beaumont School of Medicine, Department of Foundational Studies.
2. **Introduction:** Oakland University proposes a new Master of Science degree in Medical Sciences. The new major creates a pathway to allow students who terminate early from the OUWB Doctor of Medicine (M.D.) program after completion of the preclinical curriculum to receive credentials recognizing their successful completion of rigorous biomedical sciences training and their competence for employment in a number of professions. The Master of Science in Medical Sciences degree can be completed within one to three semesters of entering the program.

Students who will qualify and opt to undertake this Master of Science in Medical Sciences degree pathway primarily fall into two categories. The first group of students will have been academically successful in the M.D. program, but because of changes in personal or career motives may decide they are no longer interested in becoming a physician. A second group of students may encounter difficulty with passing the United States Medical Licensure Examinations and/or clinical clerkships required for the M.D. degree. In both cases, the students will have been successful in the first two years of the program and are deserving of acquiring a credential documenting their competency in medical sciences. Recent national discussions among health professions educators have emphasized the importance of creating such degree programs and have described the creation of options to leave medical training that does not compromise the trainee's self-esteem or require the acquisition of additional debt as a "moral imperative".

The complete proposal for the Master of Science in Medical Sciences is included in Attachment A.

3. **Previous Board Action:** None.
4. **Budget Implications:** This program is not designed to be a revenue-generating program. Once exiting the M.D. program, students will need to complete 2-12 Capstone Research Project credits, depending on the status of the Embark Capstone Research Project when exiting the program.

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The costs for the program are minimal. The bulk of the program of study will have been completed by the students when they were enrolled as a student in the M.D. program. Only one course (Capstone Research Project) in the proposed program of study will be completed beyond the courses completed while the student was enrolled in the Doctor of Medicine program. This course will require a course director, the individual Capstone research mentor for the student, and departmental research support staff (librarians, illustrators, and statisticians). The course director has an administrative appointment within the School of Medicine as the Director of Graduate Studies and spends 100% of this administrative time overseeing Graduate Programs at the School of Medicine. Support staff are already employed and working with these students when they are enrolled in the M.D. program and will not see an increase in workload as a result of this program. Graduate students enrolled in the M.S. in Medical Studies are not eligible for stipends, teaching assistantships, or graduate research assistantships. No additional space (classroom or laboratory) or equipment needs are anticipated. The proforma budget is included in Attachment B.

5. Educational Implications: The proposed program will allow students terminating out of the M.D. program after completing the pre-clinical curriculum to complete a research requirement in fulfillment of a Master of Science degree which will provide them with the appropriate credentials and allow them to gain employment in disciplines where they may use the knowledge and skills they have acquired at Oakland University.

6. Personnel Implications: This program will have minimal personnel implications. Only one course is being added to this program, which will require a course director. The course director already has an administrative appointment within the School of Medicine to oversee its Graduate Programs, including as course director for the Master of Science in Medical Sciences program. Research support staff (librarians, statisticians, illustrators) are already employed by the School of Medicine and working with these students when they are enrolled in the M.D. program and will not see an increase in workload as a result of this program.

7. University Reviews/Approvals: The proposed program has been reviewed by the Oakland University William Beaumont School of Medicine Curriculum Committee, the Oakland University Graduate Council, the Oakland University Senate, and the Executive Vice President for Academic Affairs and Provost.

8. Recommendation:

WHEREAS, the Master of Science in Medical Sciences degree program is consistent with the objectives contained in Oakland University's Institutional Priorities; and

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WHEREAS, the Master of Science in Medical Sciences degree program will build on the academic and research strengths in Oakland University William Beaumont School of Medicine and provide new educational and community engagement opportunities in the field of medical science; now, therefore, be it.

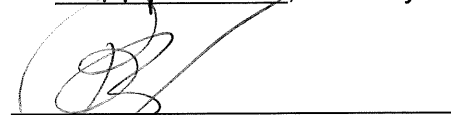
RESOLVED, that the Board of Trustees authorizes Oakland University School of Medicine to offer the Master of Science in Medical Sciences; and, be it further

RESOLVED, that the Executive Vice President for Academic Affairs and Provost will complete annual reviews of the Master of Science in Medical Sciences degree program to evaluate academic quality and fiscal viability to determine whether the program should continue.

9. Attachments:

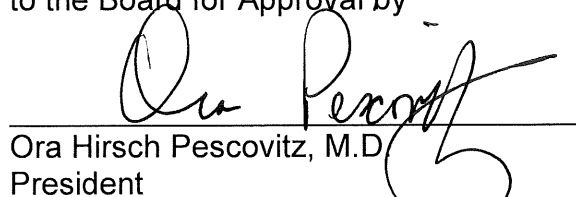
- A. Proposal for the Master of Science in Medical Sciences degree program.
- B. Proforma budget for the Master of Science in Medical Sciences degree program.

Submitted to the President
on 4/10 2024 by



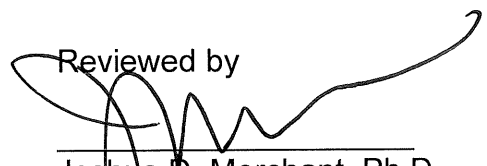
Britt Rios-Ellis, M.S., Ph.D.
Executive Vice President for
Academic Affairs and Provost

Recommended on 4/10, 2024
to the Board for Approval by



Ora Hirsch Pescovitz, M.D.
President

Reviewed by



Joshua D. Merchant, Ph.D.
Chief of Staff and
Secretary to the Board of Trustees

Oakland University

GRADUATE COUNCIL

Policy updated 2016-17

NEW DEGREE PROGRAM –GUIDELINES AND PROCEDURES

The Senior Vice President for Academic Affairs and Provost encourages proposals for new degree programs since continuing program development is vital to the university. This process may take up to two years – timing of the proposal submission is crucial. The timeline presented in this document is a **general guide** for new program development.

However, to meet this timeline it is crucial to have a well-reasoned and documented proposal. It is the purpose of these guidelines to help academic units develop good proposals and to elucidate the approval process.

The new degree proposal is a detailed description of the new program as outlined below. While writing the proposal, it is important to remember that it is the principal document used in the approval process for the program. Therefore, it must be written so that it is suitable and sufficient for two different audiences: 1) various faculty and administrative bodies within the university, and 2) a consultant, usually an expert in the field.

Any questions regarding the preparation of the proposal should be referred to the Graduate Study and Lifelong Learning.

THE PROPOSAL

Cover Memo

All proposals must be accompanied with a **signed cover memo** from the Dean stating that the proposal has received the appropriate school/college and department/school approvals, and that implementation of the proposal is recommended. **All proposals should be submitted in a word document to gradcouncil@oakland.edu**

Title Page

Abstract

One-page summary of the proposal

Table of Contents

The Table of Contents should show all headings and sub-headings in these Guidelines and Procedures, along with page numbers in the Proposal where the information is found. If some information is better located in another location, e.g., an additional appendix or supplemental binder, be sure to record according to this outline where the information is located.

Body of Proposal

Oakland University
Graduate Council

Cover Memo

REQUESTED Effective Term/Year Fall 2024
Proposed Title of the Graduate Degree program Master of Science in Medical Sciences
Department Department of Foundational Medical Studies
School/College Oakland University William Beaumont School of Medicine
The delivery method for the Graduate Degree <u>program</u> is <input checked="" type="checkbox"/> face to face (100%) <input type="checkbox"/> fully online (100%) <input type="checkbox"/> primarily online (75%)

I, Dean Christopher Carpenter, certify that the Master of Science in Medical Sciences has been reviewed by the appropriate school/college and department committees and that implementation of the proposed degree program is recommended.


Dean of College/School (signature)

9/18/23
Date

Christopher F. Carpenter MD
Dean of College/School (print)

DECISION OF GRADUATE COUNCIL

Date

Degree Program Title: Medical Sciences

Degree: Master of Science in Medical Sciences

Name of Degree Program Coordinator: Victoria C. Lucia, Ph.D.

Requested Implementation Term: Fall 2024

School or College Governance

Name of Department: Department of Foundational Medical Studies

Date Submitted: 08/01/23

Date Approved: 08/04/23

Curriculum Committee

Date Submitted: 08/03/23

Date Approved: 09/06/23

Dean School or College: Christopher Carpenter, M.D.

Date Submitted: 09/08/2023

Date Approved: 09/08/23

University Governance

Graduate Council

Date Submitted Date Approved

Senate

Date Submitted Date Approved

Board of Trustees

Date Submitted Date Approved

Presidents Council

Date Submitted Date Approved

One Page Abstract

The Oakland University William Beaumont School of Medicine proposes the creation of a new degree program to provide a Master of Science degree in Medical Sciences for students enrolled in the OUWB Doctor of Medicine (M.D.) program who have successfully completed the first two years of the four-year program, but subsequently terminate out of the M.D. program. By completing the first two years of the M.D. degree program of study, students have demonstrated a mastery of a rigorous mix of medical sciences coursework, including basic biomedical sciences, preventative medicine, humanities, bioethics, and clinical skills, as well as undertaken a mentored research experience through the Embark program. All students who chose to move into the M.S. in Medical Sciences program will be required to complete an Embark Capstone research experience in addition to successful completion of the course program requirements of years 1 and 2 of the M.D. program to meet program of study requirements for the M.S. degree.

M.S. in Medical Sciences program faculty believe students who will qualify and opt to undertake this M.S. in Medical Sciences degree pathway fall into two categories. The first group of students will have been academically successful in the M.D. program, but because of changes in personal or career motives may decide they are no longer interested in becoming a physician. A second group of students may encounter difficulty with passing the United States Medical Licensure Examinations and/or clinical clerkships required for the M.D. degree. In both cases, the students will have been successful in the first two years of the program and are deserving of acquiring a credential documenting their competency in medical sciences. The M.S. in Medical Sciences would never be awarded to a student terminated from the M.D. program because of professionalism or integrity issues.

The anticipated number of students qualifying for this degree will understandably be small. However, it is important to recognize their achievement, providing them a pathway to a career in the medical sciences. In providing this alternative degree pathway for students prematurely terminating from the Doctor of Medicine program, Oakland University can document a student's competency, and allow them to gain employment in disciplines where they may use the knowledge and skills they have acquired at Oakland University.

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I. Rationale

- a. How the program will help promote the role and mission of the university

The mission statements of Oakland University (OU) and the Oakland University William Beaumont School of Medicine (OUWB) are respectively, “Oakland University cultivates the full potential of a diverse and inclusive community. As a public doctoral institution, we impact Michigan and the world through education, research, scholarship, and creative activity.” and “To develop compassionate physicians who are dedicated to improving the health of their communities, collaboration, and lifelong learning.” This new M.S. in Medical Sciences program will enable graduating students to become valued employed members of the community, contributing as teachers, researchers, healthcare providers, and leaders, utilizing knowledge and skills acquired during their training at OU.

- b. Need for the program –unique or distinctive aspects

Use appropriate national, state, local, professional and disciplinary resources. Workforce Demand: What evidence is there of need or workforce demand in Michigan for graduates of this field?

All medical schools struggle with supporting the needs of students who prematurely terminate from Doctor of Medicine programs. It is especially difficult when students have made significant progress in the program of study, gained valuable knowledge and skills, as well as acquired substantial debt. Recent national discussion among health professions educators has emphasized the importance of creating compassionate off-ramps strategies for medical students leaving M.D. programs (Aagaard and Moscoso, 2019 and Bellini, et.al., 2019). In fact, the creation of options to leave medical training that do not compromise the trainee’s self-esteem or require the acquisition of additional debt, has been described as a “moral imperative”.

Reasons given for supporting compassionate off-ramp options include:

- Better supports the mission to graduate competent and committed physicians by identifying trainees who have found their career ambitions have changed or their abilities do not meet those necessary for success as a physician,
- Demonstrates a commitment to support all of our learners, including trainees who may have greater success in alternative careers,
- Recognizes that our trainees acquire significant marketable competencies throughout their training, that will enable them to obtain gainful employment in careers that can be emotionally and financially rewarding,
- Supports early identification and improved career counseling for struggling learners, and
- Promotes continuing learner reflection, giving trainees opportunities to reaffirm commitment to a career in medicine.

Many medical schools have, or are in the process of, creating degree options for these students who choose to prematurely terminate from medical degree programs without acquiring the M.D. degree. The recognition of the knowledge and skills acquired in the preclinical phase of the Doctor of Medicine through a compassionate off-ramp degree program, can provide these students with credentials recognizing their successful

completion of rigorous biomedical sciences training and their competence for employment in a number of well-paid professions.

Although the number of students who terminate early from the OUWB Doctor of Medicine program after completion of the preclinical curriculum is small (eight since 2011), the situation does occur. Most schools with compassionate off-ramp programs, annually report less than five students choosing to leave a program early (Stringham et.al., 2021). The reasons for students prematurely terminating from an M.D. program at that time are varied, but the student is most often left with significant debt and no credentialing recognizing the successful completion of a rigorous first two years of the academic program. Some reasons for medical students to consider a decision to prematurely terminate from medical school is after the completion of preclinical training include personal health issues, family responsibilities, change in career goals, and failure of the USMLE Step 1 licensure exam (after 3 attempts). Offering a master's degree option at Oakland University will provide these students the opportunity to acquire a degree that documents their acquisition of significant knowledge and skills that will provide them with several career options and contribute to skilled labor pool for the Michigan and national workforce.

- c. List the goals and objectives of the program

The goals, objectives and learning outcomes should lend themselves to subsequent review and assessment of program accomplishments.

Program Mission: To train biomedical scientists who will contribute meaningfully to the health and wellbeing of our community by educating them in the knowledge, critical evaluation, and research skills that will allow them to become well-informed, evidence-based professionals.

Program Goals

1. To prepare students for advanced careers in health and biomedical sciences.
2. To prepare students that have mastered the oral and written communication skills required to participate in health-related endeavors and convey the results of scholarly work.
3. To foster critical thinking and scientific research skills.
4. To foster compassionate commitment to equity in community and public health and embrace ethical treatment of others.

Program Objectives

1. Promote a deep and integrated understanding of the foundational medical sciences and their implication to the advancement of health and biomedical science.
2. Demonstrate effective communication skills in presenting and discussing their own work and the scholarly work of others.
3. Strengthen critical analysis and reasoning skills and the application of these skills to the design and execution of scientific inquiry relevant to specific biomedical disciplines.
4. Develop a commitment to life-long learning and career pursuits within health and biomedical science disciplines.
5. Foster a commitment to public health, wellness, and health equity.

It is the judgement of OUWB faculty that all students who enter the M.D. program of study are capable of successfully reaching their goal of earning the credentials required to become a practicing physician. However, program faculty recognize that occasionally circumstances occur that may preclude a student from completing the program. The development of a M.S. in Medical Sciences degree program in the School of Medicine will assist students who have successfully completed the preclinical phase of the M.D. program of study, but do not complete the program for personal or other reasons. The proposed M.S. in Medical Sciences degree program will recognize the competencies in the medical sciences these students have acquired, and acknowledge the knowledge and skills that these students have attained during the preclinical curriculum of the M.D. program.

Educators at other LCME-accredited medical schools in the U.S. commonly refer to these types of programs as “off-ramp” degrees. The programs allow the student to prematurely terminate from the standard program of study pathway, while still completing a masters-level degree program including a mentored research experience. In recognizing the substantial knowledge and skills these students have acquired in completing the preclinical phase of the M.D. program of study, its applicability to several alternative career pathways, and the tremendous cost and effort students have expended in acquiring these competencies, this program allows faculty to provide credentialing that these students have truly earned. More than two-thirds of existing compassionate off-ramp programs require the successful completion of the preclinical phase of training, while a quarter additionally require the completion of a thesis or capstone research project (Stringham et al., 2021)

The preclinical curriculum in the OUWB M.D program includes all courses taken before the dedicated study time to prepare for the USLME Step 1 exam (MDM2 9410 U.S. Medical Licensure Examination Review) in the second year of the M.D. program. Specifically, the following courses that take place after the dedicated study time at the end of the second year, and are primarily clinical preparation courses, are not considered part of the preclinical curriculum and do not need to be completed in order to be eligible for the M.S. in Medical Sciences program: Art & Practice of Medicine 5, Diagnostic Medicine 1, and Embark 5.

Eligibility of students for this proposed program will be limited to two categories of students, both enrolled in the OUWB M.D. program. The first category of students may have been highly successful in the preclinical curriculum of the M.D. academic program, but have chosen, for personal or professional reasons, not to continue to pursue the M.D. degree. The second category of students may have struggled in the academic program and decided to terminate their studies due to an inability to successfully complete the United States Medical Licensure Examinations (USMLE step exams) or courses and clinical clerkships in the third and fourth years of the M.D. degree program. In both cases, the proposed M.S. in Medical Sciences degree would recognize the trainees’ successful completion of preclinical portion of the M.D. program. That acquisition of preclinical knowledge and skills should allow them to pursue other career pathways in related fields.

Only students in the OUWB M.D. program will be eligible to enter the M.S. in Medical Sciences program. The choice to transfer to the program will be left to the student after an offer of eligibility is made. In no case, would a student being terminated from the M.D. program because of professionalism or integrity issues be eligible for this M.S. in Medical

Sciences degree. Once a student transfers to the M.S. in Medical Sciences program, they will not be eligible to transfer back into the M.D. program. Dual degrees (M.S. in Medical Sciences and M.D.) will not be conferred to students completing the four-year M.D. curriculum.

Academic leadership and advisors will emphasize this off-ramp program is not designed to “get rid of” or “terminate” students, but rather to be supportive as they transition to different career goals. As best practices suggest (Stringham et.al., 2021), we will be careful not to introduce the concept of an off-ramp program too early to a struggling student, so as not to discourage a student from correcting brief academic setbacks or overcoming temporary environmental pressures, in order to complete the M.D. program. This proposed compassionate off-ramp program is targeted to supporting students who have clearly decided it is in their best interests to leave the M.D. program and to help them prepare for seeking alternative employment strategies without significant additional coursework or tuition expenses.

d. Comparison to other similar programs –State/Regional/National

Describe any overlaps with other programs at O.U. or other Michigan public universities and justify any duplication of programs or extensive course offerings.

Many U.S. universities have or are in the process of developing M.S. programs allowing students to receive a credential for work completed after prematurely terminating from an M.D. program (Stringham et.al., 2021). Most require the completion of the preclinical phase of M.D. training at a minimum. Some programs additionally require capstone projects, theses, or exit essays. Locally, three other Michigan universities (University of Michigan School of Medicine, Wayne State University College of Medicine) offer compassionate off-ramp M.S. degree options similar to what is described in this proposal. All require the student to successfully complete the preclinical phase of M.D. training in order to be eligible for transfer into the program. Each local Michigan compassionate off-ramp program also requires the completion of a capstone scholarly project or thesis as an exit requirement. Only students who have been enrolled in and complete the preclinical phase of the M.D. program are eligible for transfer into the program at each of the other Michigan universities offering this degree program.

The preclinical coursework contained in the OUWB M.S. in Medical Sciences curriculum is identical to the first year of the curriculum and nearly all of the second year of the curriculum, as described in Section I – Rationale, Subsection C – Goals and Objectives above (100% overlap). This content meets national guidelines for preclinical curriculum as established by the American Association of Medical Colleges, the Liaison Committee on Medical Education, and the National Board of Medical Examiners. There will be no duplication of Oakland University programs or courses, as the students in this new program will take the preclinical courses in the program of study of our current OUWB M.D. program.

Only students currently enrolled in the OUWB M.D. program who have completed the preclinical curriculum of the M.D. academic program will be eligible to transfer into this M.S. in Medical Sciences program.

No other Michigan or national graduate programs will allow OUWB students who have completed the preclinical years of our M.D. program to enroll in a similar M.S. graduate

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program with the sole additional requirement of their program of study being the completion of a Capstone research project.

II. Academic Unit

a. How the goals of the unit are served by the program

The creation of this program serves the unit by ensuring that the students educated by unit faculty are provided an opportunity to complete a degree providing them with credentialing necessary for entry into the academic/business/healthcare workforce. This alternative degree pathway allows unit faculty and academic advisors to counsel students to undertake career pursuits that meet their life circumstances, talents, aptitudes, and desires, as they struggle with the decision whether to complete the medical school studies or terminate out of the Doctor of Medicine program. The alternative degree completion pathway also positively addresses measures of unit performance regarding degree completion for students who have expended funds and borrowed money in pursuit of academic credentialing as tracked by U.S. Department of Education and our accrediting body, the Liaison Committee for Medical Education.

b. How existing staff will support the proposed program

Students enrolling in the M.S. in Medical Sciences program will only be eligible to transfer into the program after completing the preclinical curriculum of the M.D. program at OUWB. All but one of the courses (repeatable up to 3 times) in the M.S. in Medical Sciences program of study are currently delivered in the OUWB M.D. degree preclinical curriculum. The additional course will support the Capstone research project exit requirement for completion of the program. As a result, the existing faculty and staff supporting the OUWB M.D. program will have provided all of the educational support for the prospective M.S. students for this degree program while they were enrolled in the M.D. program.

As described above, there is one new course in the M.S. in Medical Sciences program that is not part of the existing preclinical coursework in the Doctor of Medicine program curriculum. This course is the (1) Embark Medical Science Capstone Research Project course (course number has not yet been assigned to this course and is referred to throughout the application as FMED 9499, but this course number may change once it is generated by the registrar). This course will be delivered to allow students enrolled in the M.S. in Medical Sciences program to complete their Capstone research project as an exit requirement for the M.S. in Medical Sciences program. The Embark Medical Science Capstone Research Project course can be repeated three times (2-4 credits each time) as needed to conduct/complete the research. The Embark Medical Science Capstone Research Project course will require students to complete any outstanding research activities, including proposal development, IRB approval, data collection and analysis, and submit their final Capstone work-products and present their findings. Faculty support for the Capstone Research Project requirement will also require effort from unit faculty as Capstone Research Project mentors and OUWB library faculty for bibliographic support. The course director for the Capstone Research Project course (Dr. Victoria Lucia), the Capstone Research Project mentors and departmental research support staff (OUWB faculty librarians, statisticians, illustrators, etc.) should only expect a small increase in workload because of the projected small numbers of students expected to transfer into the program per year (one student or less projected per academic year) as well as the

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fact that they will have likely already been working with these students when they were enrolled in the MD program.

The Chair of the Department of Foundational Medical Studies and the Dean of the School of Medicine have acknowledged and approved of this small increase in faculty and support staff workload, especially since any additional research program activity will enhance scholarly output by the unit, the school, and participating faculty and support staff.

- c. Faculty qualifications - current scholarly activity of the faculty in the proposed program
Appendix A

See the attached CVs of M.S. of Medical Sciences Program Director Victoria Lucia and all participating OUWB Department of Foundational Medical Studies faculty.

- d. Current Resources and how will the new program impact existing resources

Only a small number of students would ever be expected to transfer into this master's program per year. Only two students have ever met the criteria for this degree in a given year, over the past eleven years that unit faculty have delivered the M.D. program. Therefore, it is not expected that this small number of eligible students and their required enrollment in new Capstone Research Program course would significantly impact existing resources.

III. Program Plan

- a. Admission Requirements

- Preparatory undergraduate course requirements for admission to the program
- GPA required for regular admission to the program
- Any required degree, certificate or licensing
- Academic term(s) and deadlines for applications for admission
- Specific admission requirements such as additional letters of recommendation, statement of objectives, personal interview, or special exams.

Students are only eligible for entrance (transfer) into the program if they:

- are currently enrolled in the OUWB M.D. program,
- have successfully completed all of the OUWB M.D. program of study course requirements for preclinical curriculum with course grades of Honors, P1 (Pass on First Attempt), or P2 (Pass on Second Attempt), and
- have not had a disciplinary action against them for professionalism or integrity issues which would have denied them from completing the M.D. program.

Admission into the program could occur at any time, but enrollment will only occur at the beginning of established semesters (Fall, Winter or Summer) of the OU academic year and will not overlap with the same OUWB semester if financial aid will be administered to the student for completion of the Capstone Research Project course. Admission into the program will require letters of recommendation from the OUWB Associate Dean for Preclinical Education, the Associate Dean for Student Affairs, and the OUWB Director of Records and Registration certifying the student meets the program requirements (academic, professionalism, and integrity).

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a. Degree requirements.

- Courses, credit hours and course prerequisite requirements **Appendix B**

Identify new courses to be added and % of a course distance delivered.

Program of study

Year 1 Fall Semester Courses - begins in August and runs through mid-December.

Students are required to complete the following courses

- MDM1 9190 Embark 1
- MDM1 9100 Basic Foundations of Clinical Practice (BFCP) 1
- MDM1 9105 Basic Foundations of Clinical Practice (BFCP) 2
- MDM1 9110 Anatomical Foundations of Clinical Practice (AFCP) 1
- MDM1 9111 Anatomical Foundations of Clinical Practice (AFCP) 2

Year 1 Winter Semester Courses - begins in January and runs through the end of May.

Students are required to complete the following courses prior to the end of year 1 winter semester.

- MDM1 9191 Embark 2

Year 2 Fall Semester Courses - begins in August and runs through mid-December.

Students are required to complete the following courses prior to the end of year 2 fall semester.

- MDM2 9390 Embark 3

Year 2 Winter semester Courses - begins in January and runs through mid-April.

Students are required to complete the following courses prior to the end of year 2 winter semester.

- MDM2 9391 Embark 4 Graduate Council

Year 3, up to 3 semesters- may begin the first semester after transfer to the MS in Medical Sciences program and no later than one year after exiting the MD program.

- FMED 9499 Embark Medical Science Capstone Research Project

Exit option (thesis, dissertation, project, internship, etc) **Appendix B**

- Additional requirements such as preliminary qualifying examination, comprehensive examination, thesis, dissertation, practicum or internship, some of which may carry credit hours included in the list above. (refer to *Policy- PhD Minimum Degree Requirements* on the Graduate Study website)

Completion of the Capstone project will be an exit requirement. Completion of the Capstone project will culminate with the submission of a research manuscript, as well as an oral presentation of the Capstone project to an audience of peers and unit faculty.

b. Curriculum Overview

- Provide typical Plan of Study for students enrolled full-time in the program **Appendix C**
- Provide course descriptions or syllabi for all new courses in the program **Appendix D**

See Appendix C and D.

c. Academic Progress – Probation – Dismissal

- Provide criteria by which a student is evaluated on academic progress

The Embark Capstone Research Project course will be up to 12 credits over 3 semesters with a minimum of 2 credits in any given semester. The number of credits per semester will be determined on a case-by-case basis depending on the student's progress in the MD Embark courses. An Individual Plan of Work will be completed for each student. Satisfactory progress in the program will be defined by enrollment and satisfactory performance in an Embark Capstone Research Project course as evidenced by a grade of SP (satisfactory progress) or a grade of Satisfactory if it is the last course taken. Students may receive an NP (no progress) for the course. If an NP is received for the first or second course taken then a revised Individual Plan of Work will be developed and the student will be allowed to enroll in the next course. If a student receives a second NP grade the student will be reviewed at the OUWB School of Medicine Student Performance Review Committee (SPRC) and a determination about dismissal from the program will be made. Academic progress will be monitored by the program coordinator Victoria Lucia and the SPRC.

- NP of two courses in the M.S in Medical Sciences program may lead to dismissal from the program.
- Students will be required to complete the M.S. in Medical Sciences degree within one year of enrollment to the program.

- Explain the steps that lead to probation and dismissal from the program

Students who fail to maintain the expected acceptable ethical, professional, or academic standards, and/or fail to comply with any of the policies, procedures, rules, regulations, ordinances or other requirements of OU and the OUWB School of Medicine may be subject to dismissal. At any time, the SPRC can review the overall academic performance and ethical or professional behavior of a student and recommend appropriate action, up to and including dismissal.

Failure of any required course in the M.S in Medical Sciences program for the second time or failure to complete the M.S. in Medical Sciences degree within one year of enrollment into the program will result in students being referred to the OUWB School of Medicine Student Performance Review Committee (SPRC) for possible dismissal.

1. Any graduate student deemed by the SPRC to demonstrate academic deficiencies that the SPRC, in the sole and exclusive exercise of its discretion, determines to be significant may be placed on Academic Probation.
2. Students on probation are not in Good Academic Standing.
3. Students placed on Academic Probation are informed that there is serious concern about their academic performance and that they may be subject to discipline and/or other requirements up to and including dismissal should their unsatisfactory academic performance continue.
4. Students are notified in writing by the SPRC why they have been placed on probation and the requirements for removal from probationary status.
5. A student shall remain on academic probation until all academic deficiencies have been made up and any other requirements established by the SPRC have been met.

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A student who has been dismissed from the program may not be considered for readmission to any other OUWB graduate program.

- d. Academic direction and oversight for the program
- Provide the name and position (or title) of the individual who will be responsible for the success of this program, and give the percentage of this individual's time that will be dedicated to the program.

Victoria Lucia, Ph.D., Associate Professor, Foundational Medical Studies and Director of Graduate Studies. Dr. Lucia has an administrative appointment for and spends 100% of the administrative appointment time on the oversight of this and other graduate programs in the OUWB School of Medicine.

- e. Interdisciplinary programs
- Participating academic units
 - Academic home -primary **college/school and department home** for the program
 - Statement of support from the Deans and department chairs with responsibility for providing courses and faculty for the program.
 - Process for recommending and proposing program changes

The M.S. in Medical Sciences degree is not an interdisciplinary program. All courses in this academic program will be administered by the Department of Foundational Medical Studies of the OUWB School of Medicine. Although the majority of coursework will be delivered by the Foundational Medical Studies faculty, OUWB faculty from other departments in the School of Medicine (Internal Medicine, Family Medicine, Obstetrics and Gynecology, Pathology, Pediatrics, Radiology, Surgery, Cardiology, and Urology) also participate in teaching.

- f. Accreditation
- If the program is in an area in which professional or specialized accreditation is available, identify the name of the accreditation agency; indicate the timetable and the resource commitments needed to achieve accreditation.

The M.S. of Medical Sciences program will not provide an accredited degree, although the M.D. program in the School of Medicine which is responsible for the curriculum in this program is accredited by the Liaison Committee on Medical Education. Full accreditation from the LCME was last obtained in 2019 with another accreditation visit anticipated in late 2027.

- g. Prepare a brief description of the program

The M.S. in Medical Sciences program is designed to provide a compassionate exit strategy for students who initially enroll in the M.D. program at the OUWB School of Medicine, successfully complete the preclinical curriculum of the academic program, and then leave the program. This M.S. degree will recognize the knowledge and skills they have acquired during rigorous study of their preclinical curriculum, and provide credentialing for career pathways where these competencies are job requirements. This program provides content covering basic biomedical science discipline content organized

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in an organ system-based curriculum. The curriculum also features supporting longitudinal courses in preventive medicine, public health, medical humanities, clinical bioethics, epidemiology, biostatistics, personal wellness, and clinical skills development. The program has a 5-6 course research program (Embark) requiring the completion of a mentored research project. The Embark program has a Capstone requirement for graduation from the program. Only students enrolled in the M.D. program are eligible for transfer into this program and those students must have completed at least the preclinical curriculum of the M.D. program at OUWB.

h. Source of Students

Students are only eligible for entrance into the M.S. Medical Sciences program by transferring from the OUWB M.D. program. Students will be required to have successfully completed the program requirements for the preclinical curriculum of the M.D. program in order to be allowed to enroll in the M.S. program. Students will not be eligible for the M.S. program if they have an adverse action by the OUWB Student Performance Review Committee against them for a professionalism or integrity issue(s) which would deny them the opportunity to complete the M.D. program at OUWB. Students must enroll in the M.S. program within one year of moving out of the OUWB M.D. program and complete the program within one year of enrollment.

i. Recruitment Plan

Only students currently enrolled in the OUWB School of Medicine Doctor of Medicine program will be eligible for enrollment (transfer) into the M.S. in Medical Sciences program. Students will be contacted by the program coordinator (Victoria Lucia) if they have been identified by the Associate Dean for Preclinical Education, Associate Dean for Undergraduate Clinical Education, or Associate Dean for Students Affairs as eligible or recommended for transfer into the program.

j. Planned Program Enrollment

As the goal of the program is to support the needs of students prematurely terminating from the M.D. program, our aim is to have the program available, but unused. Therefore, enrollment of students into the program is targeted to be smaller, rather than larger. It is not anticipated that more than one or two students would be enrolled in the program at any one time, with most years occurring without a single student enrolled in the M.S. in Medical Sciences program. Using past student performance as a guide, we have never had an academic year where more than two students could have been recommended for the program. National data indicates that no compassionate off-ramp program nationally has exceeded more than five students in a single academic year (Stringham et.al., 2021).

k. Advising students

Program students will receive academic and career advising from the program coordinator (currently Director of Graduate Studies, Victoria Lucia, Ph.D.) and their designated Embark Capstone Research Projector mentor. The students will receive nonacademic advising from the OUWB School of Medicine Center for Student Services staff.

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I. Retention Plan

Since the goal of the M.S. in Medical Sciences program is to provide a credential for students terminating from the M.D. program, it is not anticipated that there should be any retention issues. The program is designed to allow students to potentially earn the degree within one semester after leaving the M.D. program, depending on the status of the Embark Capstone project at the time of entry into the M.S. in Medical Sciences program.

m. Provide list of businesses that would likely employ graduates of the program

Hospitals and other healthcare providers, pharmaceutical and biotech companies, medical insurance providers, healthcare consultants, medical supply and equipment sales, and post-secondary educational institutions.

IV. Off Campus or Distance Delivered Programs

Address the quality, access and cost considerations for off campus or distance delivered program proposals.

- a. A site is a place where instruction is taking place and students can do one or more of the following:
 - i. Complete 50% or more of the courses leading to a degree program;
 - ii. Complete a full degree program (degree site); OR
 - iii. Complete 50% or more of the courses leading to a Title IV eligible graduate certificate
- b. **Distance Delivered Courses** are defined as courses in which all or the vast majority (75% or more) of the instruction and interaction occurs via electronic communication, correspondence or equivalent mechanisms, with the faculty and students physically separated from each other.
- c. **Distance Delivered Programs** are defined as graduate certificate or degree programs in which 50% or more of the required courses are taken as distance-delivered courses (defined above).

The majority of instruction for the program will occur on the Oakland University Rochester campus. Some of the preclinical curriculum instruction and assessment for the Art and Practice of Medicine 1-4 courses (MDM 9140, 9141, 9340, and 9341) occurs at the OUWB Clinical Skills Center on the Beaumont Troy campus. Some students may conduct their Capstone research project at the Beaumont Hospital Royal Oak or Troy campuses.

V. Needs and Costs of the Program

a. New Resources Needed for the Program

None required.

b. Source of New Resources

None required.

c. 5-Year Budget and Revenue from Program **Appendix E**

The goal of this degree is to provide a Master's degree for students terminating prematurely out of the OUWB School of Medicine M.D. program after completing the preclinical curriculum of the four-year program. Past history has demonstrated that that number of students has never exceeded more than two students per year, and is often zero students. For sake of the pro forma budget projections, the mostly likely scenario lists a single student every other year for five years.

The costs for the program are minimal. The bulk of the program of study will have been completed by the students when they were enrolled as a student in the M.D. program. Only one course in the proposed program of study will be completed beyond the courses completed while the student was enrolled in the Doctor of Medicine program (Embark Capstone Research Project). This course will require a course director, the individual Capstone research mentor for the student, and the departmental research support staff (faculty librarians, illustrators, and statisticians). No additional library resources will be required. Graduate students enrolled in the M.S. in Medical Studies will not be eligible for stipends, teaching assistantships, or graduate research assistantships. No additional space (classroom or laboratory) or equipment needs are anticipated.

d. Library – Include library assessment report **Appendix F**

Students in the program will use the same library resources as those in the MD program. OUWB Medical Library Director Trey Lemley determined that no new library resources are necessary. A memorandum from Trey Lemley is attached in Appendix F.

e. Classroom, Laboratory, Space needs

No additional classroom, laboratory or space needs are required.

f. Equipment Needs

No additional equipment is required.

VI. Program Assessment Plan

Provide student learning outcomes for program, i.e., what students are expected to know and to be able to do upon completion of the program.

The format recommended by the Assessment Committee includes citation of appropriate goals from the University mission statement, specification of the program's goals, identification of student learning outcomes linked to program goals, delineation of the measures for student learning outcomes, clarification of the "feedback loop," and designation of the program faculty responsible for assessment activities. **Appendix G**

See the proposed Assessment plan in Appendix G.

References:

Aagaard, Eva M. MD; Moscoso, Lisa MD, PhD Practical Implications of Compassionate Off-Ramps for Medical Students, *Academic Medicine*: (May 2019) **94**(5):619-622 doi: 10.1097/ACM.0000000000002569

Bellini, Lisa M. MD; Kalet, Adina MD, MPH; Englander, Robert MD, MPH Providing Compassionate Off-Ramps for Medical Students Is a Moral Imperative, *Academic Medicine*: (May 2019) **94**(5):656-658 doi: 10.1097/ACM.0000000000002568

Stringham, R.V.V., Whitlock, J., Perez, N.A. *et al.* A Snapshot of Current US Medical School Off-Ramp Programs—a Way to Leave Medical School with Another Degree. *Med.Sci.Educ.* **31**, 341–343 (2021). doi: 10.1007/s40670-020-01175-w

VII. Appendices

- a. Abbreviated Faculty Vitae
- b. Degree Requirements
- c. Typical Student Plan of Study – Full-Time Schedule
- d. Detailed New Course Descriptions or Syllabi
- e. Proforma Budget
- f. Library Budget Report
- g. Graduate Assessment Plan
- h. Support Letters
 - Professional Societies
 - Governmental Agencies
 - Prospective Employers
 - Professionals in the Field
- i. Survey Data

APPENDIX A

Abbreviated Faculty Vitae

<p>Faculty Name: Nelia Afonso</p> <p>Title: Professor – Foundational Medical Sciences</p> <p>School: Oakland University William Beaumont School of Medicine</p>	<p>Office 44300 Dequindre Rd Sterling Heights Mi 48314</p>	<p>Office Phone 248 964-5198</p> <p>Office Email afonso@oakland.edu</p>																						
<p>Degrees – School – Year University of Bombay, India M.B., B.S. - 1982 University of Bombay, India M.D.- 1987 Royal College of Physicians, United Kingdom M.R.C.P. -1989</p>	<p>Research Interests: Medical Education Simulation Clinical Reasoning Interprofessional Education</p>																							
<p>Grants Awarded:</p> <table border="0"> <tr> <td data-bbox="215 856 362 884">2003 - 2004</td> <td data-bbox="469 856 1503 947">Principal Investigator, PI-initiated: Assessment of the Effects of a Provider Awareness Program combined with Patient Education on Cholesterol Goal Attainment Among High-Risk Patients. Blue Cross Blue Shield of Michigan Foundation. (\$10,000).</td> </tr> <tr> <td data-bbox="215 951 362 978">2009 – 2010</td> <td data-bbox="469 951 1435 1010">Co - PI, Introduction to Geriatric Care in the Social Context. WSU Urban Research Enhancement Program (\$ 44,500)</td> </tr> <tr> <td data-bbox="215 1014 362 1041">2010 – 2011</td> <td data-bbox="469 1014 1398 1073">Co - PI, Senior Home Visit - Introduction to Geriatric Care in the Social Context. HomeAway Foundation (\$5000).</td> </tr> <tr> <td data-bbox="215 1077 362 1104">2012 -2013</td> <td data-bbox="469 1077 1533 1167">Co Investigator - "Community Assessment for Health Information Outreach Programs to Vulnerable and Underserved Populations." Planning and Assessment Award. NIH National Library of Medicine Outreach - Planning and Assessment Award (\$2500)</td> </tr> <tr> <td data-bbox="215 1171 362 1199">2012 - 2013</td> <td data-bbox="469 1171 1511 1251">Co - Investigator - Enhancement of First-Year Medical Student Understanding of Cardiac Anatomy and Physiology through Training in Bedside Cardiac Ultrasound. OU-Beaumont Multidisciplinary Research Award (\$13,000)</td> </tr> <tr> <td data-bbox="215 1287 362 1314">2013 - 2014</td> <td data-bbox="469 1287 1533 1377">Co-Investigator - Creating a database of short video clips to assess medical students – Oakland University William Beaumont School of Medicine Biomedical Sciences Multimedia Award Competition (\$5000)</td> </tr> <tr> <td data-bbox="215 1413 362 1440">2013 - 2014</td> <td data-bbox="469 1413 1455 1472">Principal Investigator: Community Connections - Developing Competent Community Physicians - Phillip and Elizabeth Filmer Memorial Trust (\$15,000)</td> </tr> <tr> <td data-bbox="215 1476 362 1503">2014 - 2015</td> <td data-bbox="469 1476 1511 1566">Co-Investigator - Medical Student as Teacher: Using Medical Students as Educators and Vaccinators in a High School Community. Philanthropic Donation from John Pino Agency \$2000</td> </tr> <tr> <td data-bbox="215 1591 362 1619">2014 - 2015</td> <td data-bbox="469 1591 1511 1650">Co-Investigator - Using Medical Students as Educators and Vaccinators in a High School Community. Michigan Campus Compact 43rd Venture Grant, \$3350.</td> </tr> <tr> <td data-bbox="215 1686 362 1713">2014 - 2015</td> <td data-bbox="469 1686 1511 1776">Co –Investigator - Medical Student as Teacher: Using Medical students as Educators and Vaccinators in a High School Community. Philanthropy Donation from John Pino Agency. August 2015-July 2016, \$2000</td> </tr> <tr> <td data-bbox="215 1801 362 1829">2015 - 2016</td> <td data-bbox="469 1801 1503 1892">Co –Investigator Medical Student as Teacher: Using Medical students as Educators and Vaccinators in a High School Community. Philanthropy Donation from John Pino Agency. \$2000</td> </tr> </table>			2003 - 2004	Principal Investigator, PI-initiated: Assessment of the Effects of a Provider Awareness Program combined with Patient Education on Cholesterol Goal Attainment Among High-Risk Patients. Blue Cross Blue Shield of Michigan Foundation. (\$10,000).	2009 – 2010	Co - PI, Introduction to Geriatric Care in the Social Context. WSU Urban Research Enhancement Program (\$ 44,500)	2010 – 2011	Co - PI, Senior Home Visit - Introduction to Geriatric Care in the Social Context. HomeAway Foundation (\$5000).	2012 -2013	Co Investigator - "Community Assessment for Health Information Outreach Programs to Vulnerable and Underserved Populations." Planning and Assessment Award. NIH National Library of Medicine Outreach - Planning and Assessment Award (\$2500)	2012 - 2013	Co - Investigator - Enhancement of First-Year Medical Student Understanding of Cardiac Anatomy and Physiology through Training in Bedside Cardiac Ultrasound. OU-Beaumont Multidisciplinary Research Award (\$13,000)	2013 - 2014	Co-Investigator - Creating a database of short video clips to assess medical students – Oakland University William Beaumont School of Medicine Biomedical Sciences Multimedia Award Competition (\$5000)	2013 - 2014	Principal Investigator: Community Connections - Developing Competent Community Physicians - Phillip and Elizabeth Filmer Memorial Trust (\$15,000)	2014 - 2015	Co-Investigator - Medical Student as Teacher: Using Medical Students as Educators and Vaccinators in a High School Community. Philanthropic Donation from John Pino Agency \$2000	2014 - 2015	Co-Investigator - Using Medical Students as Educators and Vaccinators in a High School Community. Michigan Campus Compact 43 rd Venture Grant, \$3350.	2014 - 2015	Co –Investigator - Medical Student as Teacher: Using Medical students as Educators and Vaccinators in a High School Community. Philanthropy Donation from John Pino Agency. August 2015-July 2016, \$2000	2015 - 2016	Co –Investigator Medical Student as Teacher: Using Medical students as Educators and Vaccinators in a High School Community. Philanthropy Donation from John Pino Agency. \$2000
2003 - 2004	Principal Investigator, PI-initiated: Assessment of the Effects of a Provider Awareness Program combined with Patient Education on Cholesterol Goal Attainment Among High-Risk Patients. Blue Cross Blue Shield of Michigan Foundation. (\$10,000).																							
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2015 - 2016	Co –Investigator Solidifying Concepts: Learning by Teaching. COMPASS Service-Learning Faculty Mini Grant (internal funding - Oakland University William Beaumont School of Medicine), \$1500.
<p>Publications:</p> <ol style="list-style-type: none"> Joyce B, Jung D, Lucia V, Kavanagh M, Afonso N. Developing Medical Student Competence in Intimate Partner Violence: a National Priority Med.Sci.Educ. doi: 10.1007/s40670-015-0144-4 Joyce B, Afonso N, Achike F. Using the Doctoring Course to Promote Integration: the Experience of Two New Medical Schools. 2016 Med.Sci.Educ. 2016 26: 529. doi:10.1007/s40670-016-0297-9 Scouten S, Lucia L, Wunderlich T, Uhley V, Afonso NM. An Assessment of Needs of Church Coordinators Providing Meals to a Homeless Shelter. J Health Care Poor Underserved. 2016;27(3):1211-9. doi:10.1353/hpu.2016.0124. Cheslock M, Wunderlich T, Afonso NM. Older Adult Perspectives on their Role in a Community-Based Health Profession Education Project. Journal of Gerontology and Geriatrics 2018; 66:30-35 Afonso NM, Kavanagh MJ, Swanberg SM, Schulte JM, Wunderlich T, Lucia VC. Will they lead by example? Assessment of vaccination rates and attitudes to human papilloma virus in millennial medical students. BMC Public Health. 2017 Jan 6;17(1):35. doi: 10.1186/s12889-016-3969-x. Kelekar A, Afonso N. Evaluation of the Effect of a New Clinical Reasoning Curriculum in a Clinical Skills Course. Accepted - Perspectives on Medical Education. 	
<p>Graduate courses taught:</p> <p>MDM1 9140 – Art and Practice of Medicine 1 MDM1 9141 – Art and Practice of Medicine 1 MDM1 9340 – Art and Practice of Medicine 1 MDM1 9341 – Art and Practice of Medicine 1 MDM1 9342 – Art and Practice of Medicine 5</p>	

<p>Faculty Name Stefanie Attardi</p> <p>Title Assistant Professor of Foundational Medical Studies</p> <p>School Oakland University William Beaumont School of Medicine</p>	<p>Office</p> <p>464 O'Dowd</p>	<p>Office Phone</p> <p>248 370 2830</p> <p>Office Email</p> <p>sattardi@oakland.edu</p>
<p>Degrees – School – Year</p> <p>Ph.D., The University of Western Ontario, 2015</p> <p>M.Sc., Queen's University, 2008</p>	<p>Research Interest</p> <p>Medical education, online anatomy education, anatomical sciences education integration</p>	

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B.Sc.H. Queen's University, 2005	
Grants Awarded Research Meeting Outreach Grant, American Association for Anatomy. \$3000.	
Most Recent Publications (limit to 6) <ol style="list-style-type: none"> 1. Harmon DJ, Attardi SM, Waite JG, Topp KS, Smoot BJ, Farkas GJ. Predictive factors of academic success in musculoskeletal anatomy among doctor of physical therapy students. <i>Anat Sci Educ.</i> 2022; <i>in press</i>. 2. Attardi SM, Mintz N, Barnett J, Rogers KA. Perspectives of Online Anatomy Teachers: A neglected study population struggles with the invisible student. <i>Anat Sci Educ.</i> 2022;15:233-248. 3. Attardi SM, Harmon D*, Barremkala M, Bentley DC, Brown K, Dennis JF, Goldman HM, Harrell K, Klein BA, Ramnanan C, Farkas GJ. An analysis of anatomy education before and during COVID-19: August-December 2020. <i>Anat Sci Educ.</i> 2022;14:132-147. 4. Attardi SM, Gould DJ, Pratt RL, Roach VA. YouTube-based course orientation videos delivered prior to matriculation fail to alleviate medical student anxiety about anatomy. <i>Anat Sci Educ.</i> 2022;15:685-697. 5. Schoenherr DT, Dereski MO, Bernacki K, Khayyata S, Attardi SM. Development and evaluation of an online integrative histology module: simple design, low-cost, and improves pathology self-efficacy. <i>Med Educ Online.</i> 2021; 27(1). doi.org/10.1080/10872981.2021.2011692. 6. Bentley DC, Attardi SM, Faul J, Melo V, Palmer C. Two-stage collaborative group testing does not improve retention of anatomy among students studying medical radiation technology. <i>JMIRS.</i> 2021;52:S96-S109. 	
Graduate Courses Taught MDM1 9110 Anatomical Foundations of Clinical Practice 1 MDM1 9111 Anatomical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9121 Cardiovascular MDM1 9122 Respiratory MDM1 9123 Hematology and Lymphoid MDM1 9160 Medical Humanities and Clinical Bioethics 1 MDM2 9310 Gastroenterology and Hepatology MDM2 9312 Renal and Urinary MDM2 9314 Endocrinology MDM2 9316 Male and Female Reproductive MDM2 9318 Musculoskeletal, Connective Tissue and Skin MDM2 9328 Neuroscience 2 MDM2 9360 Medical Humanities and Clinical Bioethics 3	Prospective Graduate Courses (relevant to new degree) Not applicable.
Faculty Name: Malli Barremkala Title: Associate Professor, Foundational Medical Studies School: OUWB School of Medicine	Office: 468 O'Dowd Hall Office Phone: 248-370-3888 Office Email: barremkala@oakland.edu
Degrees – School – Year PGDCA (Post graduate Diploma in Computer Application), Times Computers Literacy Education, Hyderabad, (1999) MBBS, Guntur Medical College, Guntur (2005)	Research Interest Techniques to enhance anatomy learning, Applied gross anatomy, Anatomical variations, Anatomic Body donations, Integration of basic and clinical sciences, Medical instructional simulation
Grants Awarded	

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<ul style="list-style-type: none"> Grant for Enhancing medical education skills, \$2700/1 year, Ross University School of Medicine Grant for Enhancing medical education skills, \$2500/1 year, Ross University School of Medicine Multimedia Grant Funding to develop interactive learning tool, \$5000/ 2 years, Department of Biomedical Sciences, Oakland University School of Medicine 		
<p>Most Recent Publications (limit to 6) Peer Reviewed Hajj I, Dany M, Forbes W, Barremkala M, Thompson BJ, Jurjus A. Perceptions of human cadaver dissection by medical students: a highly valued experience. Italian journal of anatomy and embryology = Archivio italiano di anatomia ed embriologia. 01/2015; 120(3): 162-71. 27086415 Non-Peer Reviewed Rose Clarie St. Hilaire, Lisa Buckley, Gregory E. Gilbert, Kim Leighton, Mallikarjuna Barremkala, Diana Callender, David Pederson. Enhancing knowledge of head and neck anatomy in preclinical medical students using low fidelity simulation. PeerJ Preprints. 11/2017; 5:e3427v2</p>		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <ul style="list-style-type: none"> MDM1 9110 Anatomical Foundations of Clinical Practice 1 MDM1 9111 Anatomical Foundations of Clinical Practice 2 MDM1 9121 Cardiovascular MDM1 9122 Respiratory MDM1 9123 Hematology and Lymphoid MDM1 9141 Art and Practice of Medicine 2 MDM2 9310 Gastroenterology and Hepatology MDM2 9312 Renal and Urinary MDM2 9316 Male and Female Reproductive MDM2 9318 Musculoskeletal, Connective Tissue and Skin MDM2 9341 Art and Practice of Medicine 4 		<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
<p>Faculty Name Dwayne M. Baxa</p> <p>Title Associate Professor</p> <p>School OUWB</p>	<p>Office</p> <p>404 O'Dowd Hall</p>	<p>Office Phone</p> <p>248-370-2729</p> <p>Office Email</p> <p>Baxa@oakland.edu</p>
<p>Degrees – School – Year</p> <p>BS, Biology, Oakland University, Rochester, MI 1990 M.S., Basic Medical Sciences, Wayne State University School of Medicine, Detroit, MI 1995 PhD, Department Immunology & Microbiology, Wayne State University School of Medicine, Detroit, MI 2002</p>	<p>Research Interest</p> <p>Microbiology (HIV, HBV, HCV)</p> <p>Medical Education (Research Training, Wellness)</p>	
<p>Grants Awarded</p> <ol style="list-style-type: none"> 08/2017 Project Medmind, Co-PI, \$5,000, Department of Basic Medical Science OUWB 07/2018 OUWB Medical Student Longitudinal Activity-Stress-Sleep tracking Wellness Initiative - LASTing Wellness, Co-investigator, \$35,000, OUWB Research Pilot Grant Program 		
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> Brar I, Baxa D, Markowitz N. HCV enters the twenty-first century. Current Infectious Disease Reports. 02/2013; 15(1): 52-60. 23263749 Markowitz N, Agarwal U, Baxa D. Hypothesis: Can clofazimine prevent IRIS in HIV/TB co-infected individuals?. The Indian Journal of Tuberculosis . 10/2014; 61(4): 281-7. 25675689 		

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<p>3. Christine L. M. Joseph, Dwayne Baxa , Linda Kaljee, Indira Brar , Carla Scott , Heather Dakki , Sarah I. Lubetsky, Jerel Michael Ezell , Liying Zhang , Lonni Schultz, Norman Markowitz. Communication Patterns Among Juvenile Detainees: A High-Risk Population for Transmission of Human Immunodeficiency Virus (HIV) and Other Sexually Transmitted Diseases. <i>Journal of Juvenile Justice</i>. 2015; 4(2): 27-36. 21538026</p> <p>4. Boncy PJ, Adrien P, Lemoine JF, Existe A, Henry PJ, Raccurt C, Brasseur P, Fenelon N, Dame JB, Okech BA, Kaljee L, Baxa D, Prieur E, El Badry MA, Tagliamonte MS, Mulligan CJ, Carter TE, Beau de Rochars VM, Lutz C, Parke DM, Zervos MJ. Malaria elimination in Haiti by the year 2020: an achievable goal?. <i>Malaria Journal</i>. 06/2015; 14(1): 237. 26043728</p> <p>5. Kara E. Sawarynski, Dwayne M. Baxa, Robert Folberg. Embarking on a Journey of Discovery: Developing Transitional Skill Sets through a Scholarly Concentration Program. <i>Teaching and Learning in Medicine</i>. 09/2018. 30216101</p> <p>6. Sawarynski KE, Baxa DM. Utilization of an Online Module Bank for A Research Training Curriculum: Development, Implementation, Evolution, Evaluation and Lessons Learned. <i>Medical Education Online</i>. 12/2019; https://doi.org/10.1080/10872981.2019.1611297(1): 1611297. 31072</p>		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>MDM1 9100 Biomedical Foundations of Clinical Practice 1 MDM1 9105 Biomedical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9122 Respiratory MDM1 9123 Hematology and Lymphoid MDM1 9190 Embark 1 MDM1 9191 Embark 2 MDM2 9328 Neuroscience 2</p>		<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
<p>Faculty Name: Abram Brummett</p> <p>Title: Assistant Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office</p>	<p>Office Phone (248) 370.3618</p> <p>Office Email: abrummett@oakland.edu</p>
<p>Degrees – School – Year Health Care Ethics, PhD Philosophy, MA History, MA Philosophy, BS</p>	<p>Research Interest Clinical Ethics Conscientious Objection and Provision Neuroethics</p>	
<p>Grants Awarded</p> <ul style="list-style-type: none"> N/A 		
<p>Most Recent Publications (limit to 6)</p> <ul style="list-style-type: none"> Brummett, Abram & Watson, Jamie. An Argument for Standardized Ethical Guidelines for Secular Healthcare Services. <i>The Journal of Clinical Ethics</i>. Forthcoming. Brummett, Abram & Salter, Erica. Mapping the Terrain of Clinical Deception. <i>The Hastings Center Report</i>. Forthcoming. 		

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<ul style="list-style-type: none"> • Brummett, Abram & Eberl, Jason. The Many Metaphysical Commitments of Secular Clinical Ethics: Expanding the Argument for a Moral-Metaphysical Proceduralism. <i>Bioethics</i>. Forthcoming. • Brummett, Abram & Whiting, Victoria & Mason-Maready, Marlee. Catholic Hospitals Should Permit Physicians to Provide Emergency Contraception to Rape Victims as an Act of Conscientious Provision. <i>The Linacre Quarterly</i>. Forthcoming. • Brummett, Abram. Burying the Basilisk of Bioethics. <i>Bioethics</i>. Forthcoming. • Brummett, Abram & Crutchfield, Parker. (2022). Two Internal Critiques for Theists Who Oppose Moral Enhancement on a Process Virtue Basis. <i>Bioethics</i>. 36(4), 367-373. 	
Graduate Courses Taught (relevant to new degree) <ul style="list-style-type: none"> • I have never taught a graduate course. 	Prospective Graduate Courses (relevant to new degree) <ul style="list-style-type: none"> • Philosophical bioethics • Moral theory • Philosophy of religion

Faculty Name: Claudio Cortes Title: Associate Professor School: OUWB School of Medicine	Office 456 O'Dowd Hall Office Phone (248)370-3674 Office Email cortes@oakland.edu
Degrees – School – Year DVM, Doctor of Veterinary Medicine. University of Chile, Santiago, Chile (1994). PhD Doctoral Program in Molecular and Cell Biology and Neurosciences. Faculty of Science. University of Chile, Santiago, Chile (2006).	Research Interest Immunology, Complement system, medical education, Community participatory research
Grants Awarded (PI only listed) 03/2000 – 03/2003 Role of CIITA in MHC-II expression; "Mecanismo de acción del transactivador CIITA en la regulación de las moléculas del complejo principal de histocompatibilidad de clase II", PI, National Fund for the Development of Science and Technology (FONDECYT – Chile). ~15,000 01/2015 – 01/2016 Interactive Learning Tool (ILT): Fun, Interactive, Competitive and Instructional Tool for Learning., Principal investigator, 5,000, Multimedia Award. Biomedical Department. Oakland University William Beaumont School of Medicine.	
Most Recent Publications (limit to 6)	

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- 1) **C. Cortes**, J.A. Ohtola, G. Saggi, V.P. Ferreira. (2013). Local release of properdin in the cellular microenvironment: role in pattern recognition and amplification of the alternative pathway of complement. *Front Immunol.* 3:412.
- 2) N.K. Banda, G. Mehta, V.P. Ferreira, **C. Cortes**, M.C. Pickering, M.K. Pangburn, W.P. Arend, and V.M. Holers. (2013) Essential role of surface-bound complement factor H in controlling immune complex-induced arthritis. *J Immunol.* 2013 Apr 1;190(7):3560-9.
- 3) Saggi G*, **Cortes C***, Emch HN, Ramirez G, Worth RG, Ferreira VP. (2013) Identification of a Novel Mode of Complement Activation on Stimulated Platelets Mediated by Properdin and C3(H2O). *J Immunol.* 190(12):6457-67. *Both authors contributed equally.
- 4) A.Z. Blatt, G. Saggi, K.V. Kulkarni, **C. Cortes**, J.M. Thurman, D. Ricklin, J.D. Lambris, J.G. Valenzuela, and V.P. Ferreira. (2016). Properdin-Mediated C5a Production Enhances Stable Binding of Platelets to Granulocytes in Human Whole Blood. *J Immunol.* 1600040; published ahead of print April 25, 2016, doi:10.4049/jimmunol.1600040
- 5) Blatt, G. Saggi, **C. Cortes**, AP. Herbert, D. Kavanagh, D. Ricklin, JD. Lambris, VP. Ferreira. (2017) Factor H. C-terminal domains are critical for regulation of platelet/granulocyte aggregate formation. *Frontier in Immunology* 102: 58-72
- 6) *J.Y. Chen JY, ***C. Cortes**, VP Ferreira. (2018). Properdin: a multifaceted molecule involved in inflammation and diseases. *Mol Immunol.* 102:58-72. *Both authors contributed equally

Graduate Courses Taught (relevant to new degree)

MDM1 9100 Biochemical Foundations of Clinical Practice 1; MDM1 9105 Biochemical Foundations of Clinical Practice 2; MDM1 9121 Cardiovascular; MDM1 9122 Respiratory, MDM1 9123 Hematology and Lymphoid; MDM2 9312 Renal and Urinary; MDM2 9314 Endocrinology; MDM2 9328 Neuroscience 2; MDM2 9316 Male and Female reproductive; MDM2 9316 Male and Female reproductive; MDM2 9318 MSK

Prospective Graduate Courses (relevant to new degree)

Not applicable.

Faculty Name: Luca Cucullo

Title: Professor

School: OUWB School of Medicine

Office 415 O'Dowd Hall

Office Phone
(248) 370-3884

Office Email
lcucullo@oakland.edu

Degrees – School – Year

Ph.D. Chem. And Pharm Technologies, University of Pisa (2000)
Postdoctoral Fellow, Cleveland Clinic Lerner College of Medicine, (2000-2003)

Research Interest

Cerebrovascular modeling, stroke, TBI, impact of smoking/vaping on the onset and/or progression of neuroinflammatory disorders, Neuropharmacology, Oxidative stress

Grants Awarded (PI only listed)

- -1 R01NS117906 – Repurposing Metformin to Offset Stroke Risk and Injury in Comorbid Populations of Smokers 07/01/20 – 05/31/25 (Total \$2,939,466)
- 2R01DA029121 – Testing tobacco smoke and e-cigarette toxicity at the blood-brain barrier. 07/01/17 – 04/30/22 (Total: \$1,912,500)

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- 1 R01DA049737 – *Blood and Brain-Based Biomarkers of Injury from Emerging Tobacco Products*.
09/01/19 – 08/31/22 (Total \$1,364,202)

Most Recent Publications (limit to 6 out of 76 manuscripts, 9 book chapters, and 154 Abstracts; h-index 41)

1. Sivandzade F., **Cucullo L.** Regenerative Cell Therapy for Neurodegenerative Diseases. *Int. J. Mol. Sci.* 2021, 22(4), 2153; <https://doi.org/10.3390/ijms22042153>.
2. Chowdhury E. A., Noorani B., Alqahtani F. Bhalerao A., S. Raut, F. Sivandzade, **Cucullo L.** Understanding the brain uptake and permeability of small molecules through the BBB: A technical overview. *J Cereb Blood Flow Metab.* 2021 Jan.
3. Kadry H., Noorani B., **Cucullo L.** A Blood-brain barrier overview on structure, function, impairment, and biomarkers of integrity. *Fluids Barriers CNS.* 2020 Nov 18;17(1):69. Doi: 10.1186/s12987-020-00230-3.
4. Archie S.R., **Cucullo L.**, Cerebrovascular and Neurological Dysfunction Under the Threat of Covid-19: Is there a comorbid role for smoking and vaping? *Int. J. Mol. Sci.* 2020, 21, 3916.
5. Sivandzade F., Alqahtani F., Sifat A., **Cucullo L.** Cerebrovascular and neurological impact of chronic smoking on post-traumatic brain injury outcome and recovery: an in vivo study. *Journal of Neuroinflammation*, 2020. 17(1): p. 133.
6. Sivandzade F, Prasad S, Bhalerao A, **Cucullo L.** NRF2, and NF-B interplay in cerebrovascular and neurodegenerative disorders: Molecular mechanisms and possible therapeutic approaches. *Redox Biol.* 2019;21:101059. Epub 2018/12/24. Doi: 10.1016/j.redox.2018.11.017. PubMed PMID: 30576920; PMCID: PMC6302038.

Complete list of publication available at **MyBibliography:**
<http://www.ncbi.nlm.nih.gov/sites/myncbi/luca.cucullo.1/bibliography/45281829/public/?sort=date&direction=ascending>.

Graduate Courses Taught (relevant to new degree)

Not applicable

Prospective Graduate Courses (relevant to new degree)

Not applicable.

<p>Faculty Name: Jickssa Gemechu</p> <p>Title: Assistant Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office: 402 O'Dowd Hall</p>	<p>Office Phone (248) 370-3667</p> <p>Office Email gemechu@oakland.edu</p>
<p>Degrees – School – Year B.Sc. in Biology, Addis Ababa University, (1999) M.Sc. in Anatomy, Addis Ababa University (2004) Ph.D. in Neuroscience, University of Verona (2013) Postdoctoral fellow, University of Verona (2013-2014) Postdoctoral fellow, Wayne State University (2014-2016)</p>	<p>Research Interest</p> <p>Neuroinflammation, Neurotoxicity, Neurodegeneration and Ageing Medical Education</p>	
<p>Grants Awarded</p> <ul style="list-style-type: none"> • NIH/NIDA R01 DA034783 Grant, \$1.7M. "Proteasome and parkin as drug targets against methamphetamine toxicity". Wayne State University. 		

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<ul style="list-style-type: none"> PharmaCog – Alzheimer’s disease Grant “Innate and adaptive immune responses in the brain and their variations during aging and in murine models of aging-related neurodegenerative diseases”. University of Verona. 1R21NS064888-01A1 project initiative (funded by the International Brain Research Organization and the Rita Levi-Montalcini Foundation). University of Verona. 		
Most Recent Publications (limit to 6) <ol style="list-style-type: none"> Jickssa M. Gemechu, Akhil Sharma, Dongyue Yu, Yuran Xie, Olivia M. Merkel and Anna Moszczynska (2018): Characterization of Dopaminergic System in the Striatum of Young Adult <i>Park2</i> -/-Knockout Rats. <i>Nature: Scientific Reports</i>, 8:1517, doi:10.1038/s41598-017-18526-0. Amenu T WIRTU, Soressa A GENETI, Abay M ZENEBE, Solomon A EWNETU, Jickssa M GEMECHU (2018): Incidence of Persistent metopic suture and extra sacral foramina in Ethiopian population. <i>Italian Journal of Anatomy and Embryology</i>, 123(2):108-113. Gemechu J.M. and Bentivoglio M. (2012): T cell recruitment in the brain during normal aging. <i>Frontiers in Cellular Neuroscience</i>, 6:38. Doi: 10.3389/fncel.2012.00038 		
Graduate Courses Taught (M1 and M2 courses) <ul style="list-style-type: none"> MDM1 9110 Anatomical Foundations of Clinical Practice 1 MDM1 9111 Anatomical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9123 Hematology and Lymphoid MDM4 9940 Integrated Clinical Anatomy 	Prospective Graduate Courses (relevant to new degree) Not applicable.	
Faculty Name Douglas J. Gould Title Professor and Chair School Medicine	Office 474 O’Dowd Hall	Office Phone 370-2802 Office Email djgould@oakland.edu
Degrees – School – Year Doctorate of Philosophy, Anatomy and Cell Biology Minor, Physiology October, 1997 Bachelor of Science, Social Science Health Studies Additional Major, Psychology December, 1992	Research Interest The creation, evaluation and dissemination of methods and tools to assist the modern learner. The recruitment, development and retention of new health sciences faculty members.	
Grants Awarded <ol style="list-style-type: none"> National Science Foundation; Course, Curriculum and Laboratory Improvement Grant. <i>Anatomy Revealed – Sensory Systems</i>. (Evaluation Coordinator 2% effort; P.I. Dr. Mark Hankin, Medical University of Ohio). #0442779; \$99,997 – Subcontract Period 4/1/05-3/31/06. Extension Period: 04/01/2006-03/31/2008. National Institutes of Health; Small Business Innovative Research Grant – Phase II. <i>Anatomy of the Central Nervous System – A Multimedia Course</i>. (Project Director 25% effort; P.I. Dr. Jo Fleming, ORCCA Technology) – #2R44NS040588-02; \$750,000 – Subcontract Period 12/1/04-6/30/06. 		

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3. Center for Postsecondary Education; *Innovative Reform of Large-Enrollment Courses* (P.I. Dr. Tad Pedigo) \$2,800. Period: 4/27/04-4/27/05.
4. National Science Foundation; Research Experience for Undergraduates Renewal Grant. *Interdisciplinary Neuroscience Program*. 10% effort: #0097471; \$195,000 – Period – 5/1/01-4/30/04.
5. National Institutes of Health; Small Business Technology Transfer Grant – Phase I. *Anatomy of the Central Nervous System – A Multimedia Course*. 10% effort: #1 R41 NS40588-01A1; \$100,000 – Period – 9/27/01-11/30/03.

Most Recent Publications (limit to 6)

1. Hatcher, A.R., MacPherson, B.R., **Gould, D.J.** and Brueckner-Collins, J.K. (2018) Assessing the Impact of the Graduate Certificate in Anatomical Sciences Instruction: A Post-degree Survey. *Anatomical Sciences Education*: April 2018.
<https://onlinelibrary.wiley.com/doi/abs/10.1002/ase.1786>
2. **Gould, D.J.**, Mi, M. and Patino, G. (2017) Active learning in neuroscience education for medical students: a systematic review. *International Journal of Medical Education*. Volume 8: 128-129.
3. Osula, V., Patino, G. and **Gould, D.J.** (2017) Foundational neuroscience in a newly designed integrated curriculum. *Medical Science Educator*. Volume 27 (1): 63-73.
*Featured article reviewed on website and listserv.
4. Benoit, E. and **Gould, D.J.** (2015) Supporting the transition from medical researcher to medical educator. *Medical Science Educator*: Volume 25(1): 83-87.
5. Lee, M.J. and **Gould, D.J.** (2014) The educational impact of a social networking application, Twitter, in an integrated anatomy course. *Medical Science Educator*: Volume 24: 273-278.
6. Mi, M. and **Gould, D.J.** (2014) Use of a Wiki as a collaborative learning tool to promote active learning in a neuroscience course for first-year medical students. *Medical Reference Services Quarterly*, Volume 33(2): 125-135.

<p>Graduate Courses Taught (M1 and M2 courses) MDM1 9110 Anatomical Foundations of Clinical Practice 1 MDM1 9111 Anatomical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9328 Neuroscience 2</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
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<p>Faculty Name: James F. Grogan</p> <p>Title: Professor Department of Foundational Medical Studies</p> <p>School: OUWB School of Medicine</p>	<p>Office: 476 O'Dowd Hall</p>	<p>Office Phone: (248)-370-2755 Office Email: jgrogan@oakland.edu</p>
<p>Degrees – School – Year:</p> <p>B.A., Bard College (1983) Ph.D., University of California at Santa Barbara (1990) Postdoctoral Fellow, National Cancer Institute, LMC, NIH (1990-1995)</p>	<p>Research Interest:</p> <p>Metalloproteins, Enzymes of Drug Metabolism, Saliva Proteins, Medical Education</p>	
<p>Grants Awarded: (listed grants where Grogan is PI, or co-PI)</p>		

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2007 "Assessment of Student Pre-Reading Behavior", Ross University School of Medicine
PI, \$5,000/ 1 year. (5% time)

1998 "Anionic Salivary Proteins in Dental Integuments," National Institute of Dental and Craniofacial Research, R37
Co-PI, \$380,131/ 1 year. (60% time)

1998 "Microbicidal Salivary Histidine-Rich Proteins," National Institute of Dental and Craniofacial Research, R01
Co-PI, \$320,540/ 1 year (20% time)

Recent Publications (limit to 6):

ORCID ID: <https://orcid.org/0000-0001-6921-7951>

Yin, A, Margolis, HC, Yao Y, Grogan J, Oppenheim, FG. Multi-component adsorption model for pellicle formation: The influence of salivary proteins and non-salivary proteins on the binding of histatin 5 onto hydroxyapatite. Arch Oral Biology 2006. 51(2): 102-110.

Leymarie, N, Berg EA, McComb ME, O'Connor PB, Grogan J, Oppenheim, FG, Costello, CE. Tandem mass spectrometry for structural characterization of proline-rich proteins: application to salivary PRP-3. Anal Chem 2002, 74:4124-32.

Grogan J, McKnight CJ, Troxler RF, and Oppenheim FG. Zinc and copper bind to unique sites of histatin 5. FEBS Letts. 2001. 491:76-80.

Gusman H, Grogan J, Kagan HM, Troxler RF, and Oppenheim FG. Salivary histatin 5 is a potent competitive inhibitor of the cysteine proteinase clostripain. FEBS Letts. 2001. 489: 97-100.

Lendenmann U, Grogan J, Oppenheim FG. Saliva and Dental Pellicle- A review. Adv. Dent. Res. 2001. 14: 22-28.

Dorneich, M. C., O'Dwyer, B., Dolowitz, A. R., Styron, J. L., Grogan, J. (2021). Application exercise design for team-based learning in online courses. *New Directions for Teaching and Learning*, 1-12.

Graduate Courses Taught (OUWB):

9100 Biomedical Foundations of Clinical Practice 1
9105 Biomedical Foundations of Clinical Practice 2
9121 Cardiovascular
9122 Respiratory
9312 Renal and Urinary
9314 Endocrinology
9380 Promotion and Maintenance of Health 3
9381 Promotion and Maintenance of Health 4

Administrative Roles at OUWB:

Interim Co-Associate Dean for Undergraduate Clin Ed.
Vice-Chair Department of Foundational Medical Studies
Course Director, Promotion and Maintenance of Health 3-4
Course Director, Biomedical Foundations of Clin. Practice 2

Faculty Name: Deidre N. Hurse

Title: Assistant Professor of Foundational Medical Studies

School: OUWB School of Medicine

Office 462 O'Dowd Hall

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(248)370-3666

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dhurse@oakland.edu

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<p>Degrees – School – Year</p> <p>2004 Bachelor of Social Work (BSW) University of Michigan-Flint, Flint, MI,</p> <p>2008 Master of Public Administration (MPA): Focus Healthcare Management, University of Michigan-Horace Rackham School of Graduate Studies, MI</p> <p>2019 Ph.D. Health & Rehabilitation Sciences: Concentration Health Services Research, Minor Health Literacy, Indiana University IUPUI School of Health & Rehabilitation Sciences, Indianapolis IN,</p>	<p>Research Interest</p> <p>Health Equity, Social Determinants of Health, Community Health, and Communicable Diseases.</p>
<p>Grants Awarded (PI only listed)</p> <ul style="list-style-type: none"> • Evaluation Plan for OCHD, Oakland County Health Division, \$3500/ 1 year. • Gaining perspective on Substance Use Disorder (SUD) treatment and recovery services for foster care youth in Michigan, this project is supported by the Centers for Medicare and Medicaid Services (CMS) of the U.S. Department of Health and Human Services (HHS) \$96,635/1 year. 	
<p>Most Recent Publications (limit to 6) n/a</p>	
<p>Graduate Courses Taught (relevant to new degree)</p> <ul style="list-style-type: none"> • MDM1-9181-58204.202105-Promotion Maintenance Health 2 	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>

<p>Faculty Name: Inaya Hajj Hussein</p> <p>Title: Associate Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office: 452</p>	<p>Office Phone: 2483703673</p> <p>Office Email: hajjhuss@oakland.edu</p>
<p>Degrees – School – Year</p> <p>Doctor of Philosophy, Molecular and Cellular Biology, Université Louis Pasteur Strasbourg, France. 2008</p> <p>Master of Science, Microbiology & Immunology, American University of Beirut, Lebanon. 2003</p> <p>Bachelor of Science, Medical Lab Technology, American University of Beirut, Lebanon</p>	<p>Research Interest</p> <p>Medical education: Teaching strategies, promoting self-learning, feedback and assessment.</p> <p>Behavioral Research: Vaccines; HPV; HIV/AIDS</p> <p>Bench Research:</p>	

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	<ul style="list-style-type: none"> • The role of bacteria in our microbiota and its involvement in Inflammatory Bowel Disease and colon cancer. • Wound Healing and Botox
<p>Grants Awarded</p> <ul style="list-style-type: none"> • Lebanese National Council for Scientific Research for research on Ulcerative Colitis (10,000 US\$). • Rath Research Institute. Pathogenicity of Bacteria isolated from diary based foods in Lebanon (5,940.00 US\$). • Lebanese National Council for Scientific Research for Research: Wound healing and role of cytokines in various treatment regimens (10,000\$.) • Effect of Botox on burn wound healing in a rat animal model. Supported by MPP-AUB (8000\$). • Lebanese National Council for Scientific Research for Research; Role of myofibroblast cells in wound healing (10,000\$). • Lebanese National Council for Scientific Research for Research: Effect of Estrogen in the management of Ulcerative colitis in Experimental model in rats (10,000\$). • Burn Wound Healing and Botox in Diabetic Rats: Modulation of TGFB1 and the interplay between Cells and Extracellular matrix (10,000\$). 	
<p>Most Recent Publications (limit to 6)</p> <ul style="list-style-type: none"> • Haji-Hussein I., Jurjus R., Salifa J., Ghanem S., Diab R., Bou Assi T., Daouk H., Leone A., Jurjus A. Modulation of β2 and β3 Integrins in Experimental colitis induced by Iodoacetamide and Enteropathogenic E. Coli. <i>Journal of Biologic Regulations & Homeostatic Agents</i> Vol. 27, no.2, 0-0; 2013. • Haji Hussein I., Chams N, Chams S, El Sayegh S, Badran R, Raad M, Gerges-Geagea A, Leone A and Jurjus A. Vaccines Through Centuries: Major Cornerstones of Global Health. <i>Frontiers in Public Health</i>. 2015;3. Doi:10.3389/fpubh.2015. • Sean Mackman, Inaya Haji Hussein. Awareness, Knowledge, and Behavior Regarding HIV/AIDS Among Freshman Students at Oakland University. <i>EMBJ for young doctors</i>. 2017,12 (16)070–073. • Inaya Haji Hussein, Jason Wasserman, Ameer Raouf, Abdo Jurjus. Differences in emotional experience and coping with human cadaver dissection between a sample of US and Lebanese medical students: A pilot study. <i>Medical Science Educator</i>. Pp.1-4, 2016. • Aishwarya Navalpakam, Mohammed Dany, Inaya Haji Hussein. Behavioral perceptions of Oakland University female college students towards Human Papillomavirus vaccination. <i>PLOS ONE</i>. 11(5), 2016. • Ahmad Murad, Abdo Jurjus, Inaya Haji Hussein. The What or The How: A Review Of Teaching Tools And Methods In Medical Education. <i>Medical Science Educator</i>. Pp 1-6, 2016. • Sana Chams, Inaya Haji Hussein, Skye El-Sayegh, Nour Chams, Khalid Zakaria, Hypercalcemia as a rare presentation of angioimmunoblastic T cell lymphoma: a case report. <i>J Med Case Rep</i> 2018 Apr 20;12(1):101. Epub 2018. 	
<p>Graduate Courses Taught (M1 and M2 courses)</p> <ul style="list-style-type: none"> • M1 Courses: MDM1 9100; MDM1 9105; MDM1 9110; MDM1 9111; MDM1 9120; MDM1 9121; MDM1 9122; MDM1 9123 • M2 Courses: MDM2 9310; MDM2 9312; MDM2 9314; MDM2 9316; MDM2 9318 	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>

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<p>Faculty Name: Suzan Kamel-ElSayed</p> <p>Title: Associate Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office: 414 O'Dowd Hall</p>	<p>Office Phone: 248-370-3632</p> <p>Office Email: elsayed@oakland.edu</p>
<p>Degrees – School – Year</p> <ul style="list-style-type: none"> VMD, Bachelor of Veterinary Medicine and Surgery, Assiut University, Assiut, Egypt (1991) MS, Master of Veterinary Sciences (MVSc) in Endocrine Physiology. Assiut University, Assiut, Egypt (1996) PhD, Bone Biology. Biomedical Sciences Department, School of Medicine, Creighton University, Omaha, NE (2004). 	<p>Research Interest</p> <ul style="list-style-type: none"> Bone Biology Medical Education 	
<p>Grants Awarded</p> <ul style="list-style-type: none"> A Qualitative Analysis on the Effectiveness of Peer Feedback in Team-Based Learning, co-investigator, TBLC (2017) Hakeemah, OUWB Mentor, Compass (2018) 		
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> Benjamin Kambiz Ghiam, Stephanie Swanberg, Suzan ElSayed. Integrated Roles of Glucoregulatory Hormones during Postprandial, Postabsorptive, and Stress States of Metabolism: A Review. MSPress Journal. 05/2018. Yongbo Lu *, Suzan Kamel-ElSayed *, Michael A. Grillo, Patricia A. Veno, Vladimir Dusevich, LeAnn M. Tiede-Lewis, Charlotte L. Phillips, Lynda F. Bonewald, Sarah L. Dallas. Live Imaging of Type I Collagen Assembly Dynamics in Cells Stably Expressing GFP-Collagen Constructs. *Equal contribution as first authors. Journal of Bone and Mineral Research (JBMR). 02/2018. Suzan Kamel-ElSayed, Stephen Loftus. Using and Combining Learning Theories in Medical Education. Medical Science Educator. 01/2018; 28(1): 255–258 Sahar A. Ismail, Ali M. Mahran, Eman Mosaad, Suzan Kamel-ElSayed. Omentin-1 in serum and seminal plasma correlate with semen quality. Human Andrology. 09/2017; 7 (4): 120-126 Kamel-ElSayed SA, Tiede-Lewis LM, Lu Y, Veno PA, Dallas SL. Novel approaches for two and three dimensional multiplexed imaging of osteocytes. Bone. 07/2015; 76: 129-40 Kamel SA, Yee JA. Continuous and intermittent exposure of neonatal rat calvarial cells to PTHrP (1-36) inhibits bone nodule mineralization in vitro by downregulating bone sialoprotein expression via the cAMP signaling pathway. F1000Research. 01/2013; 2: 77 		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <ol style="list-style-type: none"> MDM1 9105 Biomedical Foundations of Clinical Practice MDM1 9120 Neuroscience 1 MDM1 9110MDM1 9123 Hematology and Lymphoid MDM1 9121 Cardiovascular MDM1 9122 Respiratory MDM2 9310 Gastroenterology and Hepatology MDM2 9314 Endocrinology MDM2 9316 Male and Female Reproductive MDM2 9318 Musculoskeletal, Connective Tissue and Skin 	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>	

Faculty Name: Kyeorda Kemp	Office	Office Phone
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Oakland University

Graduate Council

Title: Assistant Professor of Foundational Medical Studies School: OUWB School of Medicine	415 O'Dowd Hall	(248)370-3672 Office Email kyeordakemp@oakland.edu
Degrees – School – Year <ul style="list-style-type: none">• B.S. in Microbiology, Michigan State University (2003)• Ph.D. Integrated Graduate Program in Life Sciences (IGP)-Immunology Focus, Northwestern University (2010)• Northwestern University Select-Teaching and Research Training (NU-START) Program Fellow funded by the National Institutes of Health (NIH) Institutional Research and Academic Career Development Award (IRADCA) program – September 1st, 2010 – September 1st 2013	Research Interest <ul style="list-style-type: none">• T cell signaling• Cytokine trafficking in immune cells• The role of diet in the production of inflammatory mediators and chronic disease• Asthma and Allergy• The role of self-corrections and retesting in student learning• The role of games in promoting communication and collaboration in medical students• Methods to reduce imposter phenomenon in medical students• Best practices for preparing undergraduate students to become future scientist	
Grants Awarded <p>Oklahoma INBRE Research Project Investigator Award – November 1st, 2016 – December 2018 <i>\$251,423 for two and a half years</i></p> <p>Oklahoma INBRE Mini-Grant Award – May 1st, 2016 – April 31st, 2017 <i>\$31,025 for one year</i></p> <p>Northeastern State University Faculty Research Council Award- July 1st, 2015- June 30th, 2017 <i>\$8,000 for one year</i></p> <p>Oklahoma INBRE Mini-Grant Award – May 1st, 2015 – April 31st, 2016 <i>\$31,630 for one year</i></p> <p>Oklahoma Established Program to Stimulate Competitive Research (EPSCoR) Research Opportunity Award – NSF funded- June 1st, 2015 – August 31st, 2015 <i>\$12,500 for one year</i></p> <p>Ruth L. Kirschstein National Research Service Awards for Individual Predoctorial Fellowships (F31) to Promote Diversity in Health-Related Research (NIH) – September 1st, 2008-August 31st, 2010</p>		
Most Recent Publications (limit to 6) <p>Kemp K, Poe C. (2019). Stressed: The Unfolded Protein Response in T Cell Development, Activation, and Function. <i>International Journal of Molecular Sciences</i>, 20(7):1792. https://doi.org/10.3390/ijms20071792</p> <p>Poe, C., Youngblood, C., Hodge, K., and Kemp, K. (2019). Treatment of established Th2 cells with 4μ8c, an inhibitor of IRE1α, blocks IL-5 but not IL-4 secretion. <i>BMC immunology</i>, 20(1), 3. Doi:10.1186/s12865-018-0283-7</p> <p>Satterfield, T., Pritchett, J., Cruz, S., and Kemp, K. (2017). Prion disease and endoplasmic reticulum stress pathway correlations and treatment pursuits. <i>Endoplasmic Reticulum Stress in Diseases</i>, 4(1), pp. 27-36. Doi:10.1515/ersc-2017-0003</p>		

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Kemp K., Lin, Z., Zhao F., Gao, B., Song, J., Zhang, K., and Fang, D. (2013). The Serine-Threonine Kinase Inositol-Requiring Enzyme 1 α (IRE1 α) Promotes IL-4 Production in T Helper Cells. *Journal of Biological Chemistry*. 288: 33272-82.

Gao B., Kong, Q., **Kemp, K.**, Zhao, Y., and Fang, D. (2012). Analysis of Sirtuin 1 Expression Reveals a Molecular Explanation of IL-2–Mediated Reversal of T-cell Tolerance. *Proceedings of the National Academy of Sciences*.109.3: 899-904.

Kemp, K., Levin, S., and Stein, P. (2010). Lck is Important in Controlling IL-10 Expression in Memory-Like T_{H1} Cells. *European Journal of Immunology*. 40.11: 3210-3219.

<p>Graduate Courses Taught (M1 and M2 courses) 9100 Biochemical Foundations of Clinical Practice 1, 9105 Biochemical Foundations of Clinical Practice 2, 9310 Gastroenterology and Hepatology, 9316 Male and Female Reproduction, 9318 Musculoskeletal, 9123 Hematology/Oncology, 9390 Embark 3, 9391 Embark 4, 9392 Embark 5, 9590 Embark 6, 9591 Embark 7, 9592 Embark 8</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
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<p>Faculty Name: Serena Kuang</p> <p>Title: Associate Professor</p> <p>School: SOM</p>	<p>Office ODH 416</p>	<p>Office Phone: (248) 370 2738</p> <p>Office Email: kuang@oakland.edu</p>
<p>Degrees – School – Year</p> <p>PhD (Neuroengineering) – Clemson University – 2014 Postdoc (Neurophysiology) – NIH/NIDA – 2009 – 2011 PhD (Education) – Indiana State University – 2005 MS (Pharmacology) -Nanjing Medical University – 1987 BS (MD equivalency by WES) – Nanjing Medical University – 1984</p>	<p>Research Interest</p> <ul style="list-style-type: none"> • Continue my neuron-based biosensor research and seek collaboration with other researchers. • Collaborate with Beaumont BioBank to conduct research on how nurturing parent-child relationship increases endogenous oxytocin release to mitigate stress and burnout. • Develop scholarly works on medical education. 	
<p>Grants Awarded:</p> <p>Nov, 2017: Departmental Research Seeding Fund (conditional approval), \$5,000</p> <p>Mar, 2006: Research Grant Award: Pi Lambda Theta International Honor Society and Professional Association in Education, \$1,500</p>		
<p>Most Recent Publications (limit to 6):</p> <ol style="list-style-type: none"> 1. Kuang SY, A broader outlook to reduce pre-exam stress, <i>Medical Teacher</i>. 2019; DOI: 10.1080/0142159X.2018.1563675 2. Kuang SY , Wang Z , Yang XQ, Huang T, Gao BZ. Developmental electrophysiology of cultured neuronal networks at early stages. <i>Biosensors and Bioelectronics Open Access</i>. 04/2018; 122(2): 1-8 		

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<ol style="list-style-type: none"> 3. Kuang SY, Yang XQ, Wang Z, Huang T , Kindy M, Xi T, Gao BZ. How microelectrode array-based chick forebrain neuron biosensors respond to glutamate NMDA receptor antagonist AP5 and GABAA receptor antagonist musimol. <i>Sensing and Bio-Sensing Research</i>. 01/2016; 10: 9-14 4. Kuang Y, McKittrick S, Yang G, Wang J, Mankoff R, Guan S. A continued analysis of filial attitudes of American and Chinese undergraduates. <i>Journal of Behavioral and Social Sciences</i>. 12/2015; 2(3): 148161 5. Kuang SY, Huang T, Wang Z, Lin Y, Kindy M, Xi T, Gao BZ. Establishment of a long-term chick forebrain neuronal culture on a microelectrode array platform. <i>RSC Advances</i>. 06/2015; 5: 5624456254. 10.1039/c5ra09663d 6. Kuang SY, Wang Z, Huang T, Wei L, Xi T, Kindy M, Gao BZ. Prolonging life in chick forebrain-neuron culture and acquiring spontaneous spiking activity on a microelectrode array. <i>Biotechnology Letters</i>. 03/2015; 37(3): 499-509 		
<p>Graduate Courses Taught (M1 and M2 courses):</p> <p>M1: BFCP1: Body Fluids and Homeostasis: 3 sessions Membrane Transport: 1 session Neuro I: Electrophysiology of cell membrane: 4 Cardiovascular: 6 Respiratory lab: 3 (spirometry)</p> <p>M2: Renal: 4.5 sessions MHC3: 1 session</p>	<p>Prospective Graduate Courses (relevant to new degree):</p> <p>Not applicable.</p>	
<p>Faculty Name: Sarah Lerchenfeldt</p> <p>Title: Associate Professor</p> <p>School: Department of Foundational Medical Studies Oakland University William Beaumont School of Medicine</p>	<p>Office: 466 O'Dowd Hall</p>	<p>Office Phone: (248) 370-3037</p> <p>Office Email: lerchenfeldt@oakland.edu</p>
<p>Degrees – School – Year</p> <ul style="list-style-type: none"> • Pharm D, With High Distinction, Ohio Northern University, Ada, OH (05/2009) • Residency, Certificate – Harper University Hospital, Detroit, MI, ASHP Accredited PGY1 – Pharmacy Practice Residency (06/2010) • Residency, Certificate – Karmanos Cancer Center, Detroit, MI, ASHP Accredited PGY2 – Oncology Pharmacy Residency (Non-Traditional) (06/2012) 	<p>Research Interest Team-Based Learning (TBL), Peer Feedback, Medical Education, Opioid Epidemic</p>	
<p>Grants Awarded A Qualitative Analysis on the Effectiveness of Peer Feedback in Team-Based Learning Team-Based Learning Research Grant, Primary Investigator, \$2250.00, Team-Based Learning Collaborative 03/2018</p>		

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<p>Most Recent Publications (limit to 6)</p> <p>1. Lerchenfeldt S, Ferrari T, Nyland R, Patino G. Autonomic Nervous System Team-Based Learning Module. <i>MedEdPORTAL</i>. 2016;12:10507. Published 2016 Nov 29. Doi:10.15766/mep_2374-8265.10507.</p> <p>2. Lerchenfeldt S, Nyland R. Learning technique utility and preferences among second-year medical students: a pilot study of general and pre-exam study habits. <i>MedEdPublish</i>. 2016. Doi.org/10.15694/mep.2016.000096.</p> <p>7. Brandl K, Lerchenfeldt S, Tiwari AK. Chemotherapeutic challenges. Patient-Oriented Problem-Solving (POPS) System in Pharmacology. 06/2016: 1-43</p> <p>8. Lerchenfeldt S, Nyland R. Bad blends: an introduction to pharmacology. The Team-Based Learning Collaborative Resource Bank. 09/2017</p> <p>9. Lerchenfeldt S, Hall L. Pharm.D.s in the midst of M.D.s and Ph.D.s: the importance of pharmacists in medical education. <i>Medical Science Educator</i>. 2018;28:259-261. Doi.10.1007/s40670-017-0520-3.</p> <p>10. Khan G, Karabon P, Lerchenfeldt S. Use of prescription assistance programs after the affordable health care act. <i>Journal of Managed Care and Specialty Pharmacy</i>. 03/2018; 24(3): 247-251. Doi:10.18553/jmcp.2018.24.3.247.</p>		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>MDM1 9105 Biomedical Foundations of Clinical Practice 2</p> <p>MDM1 9120 Neuroscience 1</p> <p>MDM1 9121 Cardiovascular</p> <p>MDM1 9122 Respiratory</p> <p>MDM1 9123 Hematology and Lymphoid</p> <p>MDM2 9310 Gastroenterology and Hepatology</p> <p>MDM2 9312 Renal and Urinary</p> <p>MDM2 9314 Endocrinology</p> <p>MDM2 9316 Male and Female Reproductive</p> <p>MDM2 9318 Musculoskeletal, Connective Tissue and Skin</p> <p>MDM2 9322 Behavioral Science</p> <p>MDM2 9324 Psychopathology</p> <p>MDM2 9328 Neuroscience 2</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>	
<p>Faculty Name: Victoria Lucia</p> <p>Title: Associate Professor</p> <p>School: Oakland University William Beaumont School of Medicine</p>	<p>Office: 448 O'Dowd Hall</p>	<p>Office Phone: 248-370-3623</p> <p>Office Email: lucia@oakland.edu</p>
<p>Degrees – School – Year</p> <p>2002 Wayne State University Degree: Ph.D., Social Psychology (Minor: Measurement)</p> <p>Dissertation: The Family Environment as a Predictor of Behavior Problems in Children: A Prospective Study</p> <p>1993 Oakland University Degree: B.A., Psychology</p>	<p>Research Interest</p> <p>Psychiatric Epidemiology; Service-Learning and Medical Education; Community Outreach & Medicine</p>	

Grants Awarded

1. Lucia VC. Transference of Learning in Undergraduate Medical Students. Senate Teaching and Learning Committee, Oakland University. April 2012-March 2013. \$750.
2. Pickard, D, Lucia VC, Wedemeyer R, Hudson M, Imbrunone M, Collis N., Afonso NM Medical Student as Teacher: Using Medical Students as Educators and Vaccinators in a High School Community. Philanthropic Donation from John Pino Agency, May 2014-June 2015, \$2000.
3. Lucia VC, Wedemeyer R, Afonso NM. Medical Student as Teacher. COMPASS Service-Learning Faculty Mini Grant (internal funding - Oakland University William Beaumont School of Medicine), August 2014-July 2015, \$1500.
4. Lucia VC, Wedemeyer R, Pickard D, Afonso NM. Medical Student as Teacher: Using Medical Students as Educators and Vaccinators in a High School Community. Michigan Campus Compact 43rd Venture Grant, September 2014-August 2015, \$3350.
5. Lucia VC, Wedemeyer R, Hudson M, Collis N, Afonso NM. Medical Student as Teacher: Using Medical Students as Educators and Vaccinators in a High School Community. Philanthropic Donation from John Pino Agency. August 2015-July 2016, \$2000.
6. Lucia VC, Wedemeyer R, Afonso NM. Solidifying Concepts: Learning by Teaching. COMPASS Service-Learning Faculty Mini Grant (internal funding - Oakland University William Beaumont School of Medicine), September 2015-July 2016, \$1500.
7. Lucia VC, Wedemeyer R. Passport to Medicine: Exposing Early Adolescents to the Medical Professions. Phillip and Elizabeth Filmer Memorial Charitable Trust Foundation, February 2017-July 2018, \$14,500.
8. Lucia VC, Wedemeyer R. Passport to Medicine: A Summer Expansion Experience. Oakland University Women & Philanthropy. November 2018-October 2019, \$5000.
9. Lucia VC. Passport to Medicine Program with Pontiac Middle School Students. Oakland University and City of Pontiac Initiative. December 2018-November 2019, \$4675.

Most Recent Publications (limit to 6)

1. Lucia VC, Stefaniak JE, Wunderlich T, Szura J. The development of the nutritionally aware physician: A service-learning project aimed at promoting nutritional health. *Medical Science Educator*. 2014;24:19-21.
2. Lucia VC, Szura JM. Utilizing service-learning in medical education: Promoting health in underserved communities and professional development in medical students. *Evidence Based Teaching and Learning Conference Proceedings*. 2014; October:19-23.
3. Joyce BL, Jung D, Lucia VC, Kavanagh M, Afonso N. Developing medical student competence in intimate partner violence: A national priority. *Medical Science Educator*. 2015;25:229-232.
4. Scouten S, Lucia VC, Wunderlich T, Uhley V, Afonso NM. An assessment of needs of church coordinators providing meals to a homeless shelter. *Journal of Health Care for the Poor and Underserved*. 2016;27:1211-1219.

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<p>5. Afonso NM, Kavanagh MJ, Swanberg SM, Schulte, JM, Wunderlich T, Lucia VC. Will they lead by example? Assessment of vaccination rates and attitudes to human papilloma virus in millennial students. <i>BMC Public Health</i>. 2017;17:35.</p> <p>6. Lucia VC, Swanberg SM. Utilizing Journal Club to Facilitate Critical Thinking in Pre-Clinical Medical Students. <i>International Journal of Medical Education</i>. 2018;9,7-8.</p>		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>PMH1 & 2: Epidemiology, Biostatistics Capstone: Preparing for Statistical Analysis, Statistical Analysis, Survey & Questionnaire Design EBM: Harm APM: Facilitator (Flu Vaccine Clinic, Dementia Simulation)</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>	
<p>Faculty Name: Paul Megee</p> <p>Title: Associate Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office 470 O'Dowd Hall</p>	<p>Office Phone 248-370-3681 Office Email megee@oakland.edu</p>
<p>Degrees – School – Year</p> <p>BA in Biological Sciences, minor in Chemistry, University of Delaware (1987) PhD in Microbiology, University of Virginia (1995); training was in molecular genetics/molecular biology Postdoctoral Fellow, Carnegie Institution of Washington (1995-2000); training was in chromosome biology</p>	<p>Research Interests</p> <p><u>Scientific:</u> Chromosome structure and segregation, kinetochores, aneuploidy, cell cycle regulation, and sister chromatid cohesion</p> <p><u>Medical Education:</u> The proliferation of direct-to-consumer genetic testing has revealed the reluctance of primary care physicians to discuss genetics with patients, due mainly to the lack of comfort with legal, social and ethical implications. I am working to develop a curriculum for practicing physicians to provide instruction in these areas.</p>	
<p>Grants Awarded</p> <p>12/15/09-11/30/14 R01-GM66213-09 NIGMS, NIH</p> <p>Molecular Mechanism of Pericentric Sister Chromatid Cohesion \$1.35 Million</p> <p>7/1/02-6/30/07 R01-GM66213-05 NIGMS, NIH</p> <p>Molecular Mechanism of Pericentric Sister Chromatid Cohesion \$1.18 Million</p> <p>3/15/02-3/14/03 Howard Hughes/U. of Colorado School of Medicine New Faculty Research Award \$100,000</p>		

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Most Recent Publications (limit to 6)

Woodman, J., M. Hoffman, M. Dzieciatkowska, K. Hansen, and P. C. Megee. 2015. Phosphorylation of the Scc2 cohesin deposition complex subunit regulates chromosome condensation through cohesin integrity. *Mol. Biol. Cell* 26: 3754-3767.

Woodman, J., T. Fara, M. Dzieciatkowska, M. Trejo, N. Luong, K.C. Hansen, and P. C. Megee. 2014. Cell cycle-specific cleavage of Scc2 regulates its cohesin deposition activity. *PNAS* 111: 7060-7065.
Recommended in "Faculty of 1000Prime"

Kim, H.-M., B. Erickson, W. Luo, D. Seward, J. H. Graber, D. D. Pollock, P. C. Megee, and D. L. Bentley. 2010. Gene-specific RNA polymerase II phosphorylation and the CTD code. *Nature Struct. Mol. Biol.* 17: 1279-1286.

Kogut, I., J. Wang, V. Guacci, R. K. Mistry and P. C. Megee. 2009. The Scc2/Scc4 cohesin loader determines the distribution of cohesin on budding yeast chromosomes. *Genes Dev.* 23: 2345-2357.

Eckert, C., D. Gravidahl, and P. C. Megee. 2007. The enhancement of pericentromeric cohesin association by conserved kinetochore components promotes high fidelity chromosome segregation and is sensitive to microtubule-based tension. *Genes Dev.* 21: 278-291. *Featured in "Perspectives", Genes Dev.* 21: 238-241.

Weber, S.A., J. L. Gerton, J. E. Polancic, J. L. DeRisi, D. Koshland, and P. C. Megee. 2004. The kinetochore is an enhancer of pericentric cohesin binding. *PLoS Biology* 2: 1340-1353. *Featured in "News and Views", Nature* 430: 520-521.

Glynn, E., P. C. Megee, H.-G. Yu, C. Mistrot, E. Ünal, D. Koshland, J. L. DeRisi, and J. L. Gerton. 2004. Genome-wide mapping of the cohesin complex in the yeast *Saccharomyces cerevisiae*. *PLoS Biology* 2: 1325-1339.
Featured in "News and Views", Nature 430: 520-521.

<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>9100 Biomedical Foundation in Clinical Practice 1 9105 Biomedical Foundations in Clinical Practice 2 9110 Anatomical Foundations in Clinical Practice 1 9180 Promotion and Maintenance of Health 1 9121 Cardiovascular Organ Systems</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
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<p>Faculty Name: Misa Mi Title: Professor School: OUWB School of Medicine</p>	<p>Office: Kresge Library 130</p>	<p>Office Phone: 248-370-3774 Office Email: mi@oakland.edu</p>
<p>Degrees – School – Year</p> <p>PhD, Learning Design & Technology, Administration & Organizational Studies Division, College of Education, Wayne State University, Detroit, Michigan; 2005-2010</p> <p>MLIS, Library and Information Science, School of Information Sciences, Wayne State University, Detroit, Michigan; 1996-1997</p>	<p>Research Interest: Design and developmental research, educational research, e-learning, evidence-based medicine, information-seeking behaviors, learning environment, learning assessment and program evaluation, self-directed learning and lifelong learning, knowledge management, medical education</p>	

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<p>MA, Reading and Language Arts, School of Education & Human Services, Oakland University, Rochester, Michigan; 1991-1993</p>	
<p>Grants Awarded (PI only listed):</p> <ul style="list-style-type: none"> • Learning Community Award (\$1500) for establishing and organizing a learning community on Integration of Arts, Humanities, and Social Sciences in Developing Healthcare Professionals, Center for Excellence in Teaching and Learning (CETL), Oakland University, 2019 • Express Outreach Award for project titled “Health Information Outreach to Homeless Patients at HOPE Recuperative Care Center” with J Wasserman (\$10,000), National Institutes of Health, National Library of Medicine, 2016 • Research, Development, and Demonstration Project Grant (\$1,000), Medical Library Association, 2015 • Faculty Research Grant for Project “Health Professions Students’ Lifelong Learning Orientation: Associations with Self-Assessed Competency in Information Skills” with C Riley-Doucet (\$1,200), Oakland University, 2015 • Planning and Assessment Award for Project “Community Assessment for Health Information Outreach Programs to Vulnerable and Underserved Populations” with J Stefaniak, N Afonso (\$2,500), National Institutes of Health, National Library of Medicine, 2012 • Faculty Learning Community Grant for establishing and organizing a faculty learning community on Scholarly Teaching and Scholarship of Teaching and Learning (\$1,500), Oakland University, 2012 • Technology Improvement Award for Project “Designing and Providing Web-Based Multimedia Training Targeted to Community-Based Physicians” (\$2,771), National Institutes of Health, National Library of Medicine, 2010 	
<p>Most Recent Publications (limit to 6):</p> <ul style="list-style-type: none"> • Howard KK, Makki H, Novotny NM, Mi M, Nguyen N. Value of robotic surgery simulation for training surgical residents and attendings: a systematic review protocol. <i>BMJ Open</i>. 2022 Jun 14;12(6):e059439. doi: 10.1136/bmjopen-2021-059439. • Pfennig M, Lee A, Mi M. How does telementoring impact medical education within the surgical field? A scoping review. <i>Am J Surg</i>. 2022 May 6:S0002-9610(22)00301-4. doi: 10.1016/j.amjsurg.2022.04.038. • Mi M, Wu L, Zhang Y, Wu W. Integration of arts and humanities in medicine to develop well-rounded physicians: the roles of health sciences librarians. <i>J Med Libr Assoc</i>. 2022 Apr 1;110(2):247-252. doi: 10.5195/jmla.2022.1368. • Smydra R, May M, Taranikanti V, Mi M. Integration of Arts and Humanities in Medical Education: a Narrative Review. <i>Journal of Cancer Education</i>. 2021. https://doi.org/10.1007/s13187-021-02058-3. • James E, Evans M, Mi M. Leadership Training and Undergraduate Medical Education: a Scoping Review. <i>Med Sci Educ</i>. 2021;1-9. doi:10.1007/s40670-021-01308-9. • Roach VA, Mi M, Mussell J, Van Nuland SE, Lufler RS, DeVeau K, Dunham SM, Husmann P, Herriott HL, Edwards DN, Doubleday AF, Wilson BM, Wilson AB. Correlating spatial ability with anatomy assessment performance: A meta-analysis. <i>Anatomical Sciences Education</i>. 2020 Oct 30. doi: 10.1002/ase.2029. 	
<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>Integrated course sessions in MDM1 9190 Embark 1, MDM1 9191 Embark 2, MDM1 9140 APM, MDM1 9180/9181 PMH, MDM2 9326 Integrative Evidence Based Medicine</p> <p>Course developed and taught: Elective Course for M4, MDM4-9983, <i>Systematic Review in Health Care</i></p>	<p>Prospective Graduate Courses (relevant to new degree):</p> <p>Would be interested in developing and teaching the following courses:</p> <ul style="list-style-type: none"> • Systematic Review in Health care • New Roles of Health Consumers/Patients in Medicine of the Future • Information/Knowledge Management for Practitioners of Tomorrow

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<p>Faculty Name: Changiz Mohiyeddini</p> <p>Title: Professor of Foundational Medical Studies Director of Psychopathology Director of Behavioral Science School: OUWB School of Medicine</p>	<p>Office 400 O'Dowd Hall</p>	<p>Office Phone (248)370-3905</p> <p>Office Email mohiyeddini@oakland.edu</p>
<p>Degrees – School – Year</p> <p>B.Sc. in Psychology, University of Trier, Germany (1992)</p> <p>M.Sc. in Psychology, University of Trier, Germany (1995)</p> <p>Ph.D. in Psychology, University of Trier, Germany (1995)</p> <p>Habilitation (2nd PhD) in psychology/ Psychopathology, University of Tuebingen, Germany (2005)</p>	<p>Research Interest</p> <p>Human resiliency, emotion regulation, stress coping, personality research, clinical-health research, health behavior, mindfulness, homegrown terrorism,</p>	
<p>Grants Awarded (PI only listed)</p> <ul style="list-style-type: none"> • Research grant from Swiss National Research Foundation. \$80,000/1 year. • Tier I research grant for study on youth violence. Northeastern University. \$50,000/1 year • Research grant for study on biological responses to acute stress. Roehampton University. \$60,000/2 years • Research grant for study on biomechanics of human gait and emotion regulation. Roehampton University. \$45,000/2 years • Research grant for study on biological indicators of emotion regulation. University of Salzburg. \$30,000/1 years 		
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> 1. *Szczepaniak, A., *Johnson, R., *Azoulay-Jamot, N., Mohiyeddini, S., *Carson, H., & Mohiyeddini, C. (2018). Creating Positive Group Work Experiences to Increase Student Persistence. <i>E-xllence in Teaching</i>, 18, 39-45. 2. Volpe, R. J., Casale, G., Mohiyeddini, C., Grosche, M., Hennemann, T., Briesch, A. M., & Daniels, B. (2018). A universal behavioral screener linked to personalized classroom interventions: psychometric characteristics in a large sample of German schoolchildren. <i>Journal of School Psychology</i>, 66, 25-40. 3. Mohiyeddini, C. (2017). Repressive Coping: A protective factor against body image concerns, the drive for thinness and bulimia symptoms. <i>Body Image</i>, 22, 9-47 4. Leblanc, S., *Uzun, B., *Pourseied, K., & Mohiyeddini, C. (2016). Effect of an Emotion Regulation Training Program on Mental Well-Being. <i>International Journal of Group Psychotherapy</i>, 1-16. doi:10.1080/00207284.2016.1203585. 5. Mohiyeddini, C., & Opacka-Juffry, J. (2015). Disentangling the link between Depressive Symptoms and Plasma Oxytocin: The Role of Brooding Rumination. <i>Hormones and Behavior</i>, 75, 142-149. 6. Mohiyeddini, C., Bauer, S. & Sample S. (2015). Neuroticism and stress. The role of Displacement behaviour. <i>Anxiety, Stress & Coping</i>, 28, 391-407. 		
<p>Graduate Courses Taught (relevant to new degree)</p> <ul style="list-style-type: none"> • MDM2-9322 Behavioral Science • MDM2 9324 Psychopathology 	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>	

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<p>Faculty Name: Ngan Nguyen</p> <p>Title: Assistant Professor Department of Foundational Medical Studies</p> <p>School: OUWB School of Medicine</p>	<p>Office 454 O'Dowd Hall</p>	<p>Office Phone (248)370-3680</p> <p>Office Email ngannguyen@oakland.edu</p>
<p>Degrees – School – Year</p> <p>B.S. in Biomedical Sciences, University of Waterloo, 2002 - 2006</p> <p>M.Sc. in Anatomy and Cell Biology, Western University, 2006 - 2008</p> <p>Ph.D. in Anatomy and Cell Biology, Western University, 2008 - 2012</p> <p>Postdoctoral Fellow, Western University, 2012 - 2014</p> <p>ACS-AEI Simulation Fellow, OhioHealth, 2014 - 2016</p>	<p>Research Interest</p> <p>Simulation, medical education, health care education, assessment, evaluation,</p>	
<p>Grants Awarded (PI only listed)</p>		
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> 1. Sbrocchi TJ, Watson WD, Ruiz O, Nguyen N. (2020) Efficacy of a Novel Cholangiogram Simulator for Training Laparoscopic Intraoperative Cholangiography. <i>Journal of Surgical Education</i> 77(3):683-689 2. Nguyen N, Watson WD, Dominguez E. (2019) Simulation-based communication training for general surgery and obstetrics and gynecology residents. <i>Journal of Surgical Education.</i> 76(3): 856-863 3. Nguyen N, Watson WD, Dominguez E. (2016) An event-based approach to designing teamwork training scenario and assessment tool in surgery. <i>Journal of Surgical Education.</i>73(2): 197-207 4. Nguyen N, Elliott JO, Watson WD, Dominguez E. (2015) Simulation improves non-technical skills performance of residents during the perioperative and intraoperative phases of surgery. <i>Journal of Surgical Education</i> 72(5), 957–963 5. Nguyen N, Mulla A, Nelson AJ, Wilson TD (2014) Visuospatial anatomy comprehension: The role of spatial visualization ability and problem-solving strategies. <i>Anatomical Sciences Education</i> 7(4):280–288 6. Nguyen N, Eagleson R, Boulton M, deRibaupierre S (2013) Realism, criterion validity, and training capability of simulated diagnostic cerebral angiography. <i>Studies in Health Technology and Informatics</i> 196:297–303 		
<p>Graduate Courses Taught (relevant to new degree)</p>	<p>Prospective Graduate Courses (relevant to new degree)</p>	

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Faculty Name Gustavo A. Patino	Office 422 O'Dowd Hall	Office Phone (248) 370 - 3903
Title Associate Professor		Office Email patino@oakland.edu
School Oakland University William Beaumont School of Medicine		

Degrees – School – Year MD - Universidad Nacional de Colombia - 2000 MS - University of Michigan - 2007 PhD - University of Michigan - 2010	Research Interest Statistical methods in medical education Neurological education Channelopathies
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Grants Awarded N/A

<p>Most Recent Publications (limit to 6)</p> <p>Saban RJ, Berns MM, Al-Hakim MM, Patino GA (2020). Hydrocephalus as the presenting symptom of sarcoidosis: A case report and review of literature. <u>Clin Case Rep</u>, 8(2): 363-368</p> <p>Dang LT, Glanowska KM, Iffland li PH, Barnes AE, Baybis M, Liu Y, Patino G, Vaid S, Streicher AM, Parker WE, Kim S, Moon UY, Henry FE, Murphy GG, Sutton M, Parent JM, Crino PB. (2020). Multimodal analysis of STRADA function in Brain Development. <u>Front Cell Neurosci</u> 14:122. doi: 10.3389/fncel.2020.00122</p> <p>Lerchenfeldt S, Kamel-ElSayed S, Patino G, Thomas D, Wagner J. (2020) Suicide Assessment and Management Team-Based Learning Module. <u>MedEdPORTAL</u>, 16: 10952. doi:10.15766/mep_2374-8265.10952</p> <p>Sarva H, Patino G, Rashid M, Sandrone S, Robbins MS. (2021). The status of neurology fellowships in the United States: clinical needs, educational barriers and future outlooks. <u>BMC Med Educ</u>, 21(1): 108. doi:10.1186/s12909-021-02536-8</p> <p>Patino G. Using Physical Humor in Lectures (2021). In: Vaidya K (Ed.), Teach Medical Science With a Sense of Humor (Vol. 2). The Curious Academic Publishing. Kindle Edition. ISBN: 978-1-925128-98-7</p> <p>Osuna Suarez E, Patino Fernandez G. (2022) Neuroanatomia 2 – Funcional y Clinica. Second Edition. Ed. Universidad Nacional de Colombia. Bogota, Colombia. ISBN: 978-958-783-756-8</p>
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Graduate Courses Taught (M1 and M2 courses) APMI I MHCB I Embark II Neuro I Neuro II	Prospective Graduate Courses (relevant to new degree) Not applicable.
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Faculty Name. Rebecca Pratt	Office 418 O'Dowd Hall	Office Phone 248-370-3670
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<p>Title. Professor</p> <p>School. January 2018 – current Oakland University William Beaumont School of Medicine November 2017 – current Weill Cornell School of Medicine (Visiting Professor of Anatomy and Radiology) March 2010 - current St. George University School of Medicine (Visiting Professor of Clinical Anatomy)</p>		<p>Office Email rebeccapratt@oakland.edu</p>
<p>Degrees – School – Year August 1999-2003 Purdue University; West Lafayette, Indiana Doctorate of Philosophy, Basic Medical Sciences Anatomy and Cell Biology/Oncology</p> <p>August 1998-1999 University of Charleston; South Carolina Masters Degree course work: Marine Biology</p> <p>August 1993-1997 Michigan State University; East Lansing, Michigan Bachelor of Science, Double Majors: Botany and Plant Pathology and Zoology Graduated with Honors</p>	<p>Research Interests Fascia Fascia education Medical Curricular design Recall and retention (of anatomy)</p>	
<p>Grants Awarded Foundation Medical Studies Professional Development Fellowship 2019 Foundation Medical Studies Professional Development Fellowship 2018</p>		
<p>Most Recent Publications (limit to 6) Pratt, R. L. and M. Gainsburg. Fascia the Truth! <i>Men's Health Magazine</i> (May 2019) 30-31. Pratt, R. L. Educational Avenues for Promoting Dialog on Fascia. <i>Clinical Anatomy</i> (2019) Accepted. In print. Attardi, S., Gould, D., Pratt, R. and V. Roach. A Data-Driven Design: Addressing student need for an anatomy pre-matriculation experience. <i>American Association for Anatomy 2019</i> Pratt, R. L. and M. Gainsburg. FASCIA <i>Women's Health Magazine</i> (December 2018) 116-123. Pratt, R. Surface Anatomy Assessment Using Near-Peer Evaluation in Gross Anatomy: Planning and Perspectives <i>American Association of Clinical Anatomists 2018</i> Hemanth, R., Errigo, E., Pantall, P. and R. Pratt Muscle fiber direction of the upper trapezius in relation to tender zones of patients with chronic neck pain. <i>American Association of Clinical Anatomists 2015</i></p>		
<p>Graduate Courses Taught (M1 and M2 courses) MDM1 9110 Anatomical Foundations of Clinical Practice 1 MDM1 9111 Anatomical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9121 Cardiovascular MDM1 9122 Respiratory MDM2 9316 Male and Female Reproductive MDM2 9318 Musculoskeletal, Connective Tissue and Skin (co-director) MDM2 9312 Renal and Urinary</p>	<p>Prospective Graduate Courses (relevant to new degree) Not applicable.</p>	
<p>Faculty Name: Kara Sawarynski</p>	<p>Office</p>	<p>Office Phone</p>

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<p>Title Associate Professor & Vice-Chair Foundational Medical Studies Department</p> <p>School OUWB School of Medicine</p>	473 O'Dowd Hall	248-370-3671 Office Email sawaryns@oakland.edu
<p>Degrees – School – Year</p> <p>8/1997 - 5/2001, BS, Biomedical Sciences Major, Magna Cum Laude, The Lee Honors College of Western Michigan University, Kalamazoo MI</p> <p>8/2001 - 12/2006, PhD, Cancer Biology Major, Wayne State University School of Medicine – Karmanos Cancer Institute, Detroit MI</p>	<p>Research Interest</p> <p>Medical Education including Study Skills, Asynchronous Interactions with students, and iGen and medical education</p> <p>Project MedWell & LASTing Wellness - Stress, Burnout, Sleep and Mindfulness in Medical Students - An early intervention</p> <p>Multi-institutional study on Program Directors valuing of research post Step1 changes (collaborators at University of Chicago, Albert Einstein College of Medicine, Medical College of Wisconsin, University of Michigan Medical School, University of Texas McGovern Medical School, and Johns Hopkins University School of Medicine)</p>	
<p>Grants Awarded</p> <p>2003 - 2005, NCI Training Grant “Ruth L. Kirschstein National Research Service Award” - Karmanos Cancer Institute Cancer Biology Program, Wayne State University School of Medicine, Detroit, MI, Pre-doctoral Trainee, National Cancer Institute</p> <p>2013 - 2014 OUWB Department of Biomedical Sciences Multimedia Grant Award, Principle Investigator, \$5000.00, OUWB Department of Biomedical Sciences</p> <p>2016 - 2017 Present OUWB Department of Biomedical Sciences Research Seed Grant, Principle Investigator, \$6113.00, OUWB Department of Biomedical Sciences</p> <p>11/2017 - Present OUWB Research Pilot Grant Program - OUWB Medical Student Longitudinal Activity-Stress-Sleep Tracking Wellness Initiative – LASTing Wellness, Principle Investigator, \$34,916, Oakland University William Beaumont School of Medicine</p>		
<p>Most Recent Publications (limit to 6)</p> <p>Gould DJ, Sawarynski KE, Mohiyeddini C. Academic Management in Uncertain Times: Shifting and Expanding the Focus of Cognitive Load Theory During COVID-19 Pandemic Education. <i>Frontiers in Psychology</i>. 06/2022; 13(2022)</p> <p>Sawarynski KE, Swanberg S, Roach V, Taylor T, Baxa D. Fostering Early Preclinical Experiences for Developing Knowledge, Skills, and Confidence in Key Residency Competencies Through Participation in a Medical Student Research Training Program. <i>Journal of Medical Education and Curriculum Development</i>. 11/2021; eCollection. 34820529</p> <p>Attardi SM, Taylor T, Lerchenfeldt S, Pratt RL, Sawarynski KE. Adapting Strategically to Changing Times in Health Professions Education: A Generational Workshop for Educators. <i>MedEdPortal: The Journal of Teaching and Learning Resources</i>. 02/2021; 17:11084. 33553618</p> <p>Lerchenfeldt S, Attardi SM, Pratt RL, Sawarynski KE, Taylor TAH. Twelve tips for interfacing with the</p>		

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<p>new generation of medical students: iGen. Medical teacher. 11/2020: 1-6. 33174808</p> <p>Sawarynski K, Gould DJ. A Foundational Science Department's Transition to an Online Community. Medical science educator. 09/2020: 1-3. 32923082</p> <p>Sawarynski KE, Baxa DM. Utilization of an online module bank for a research training curriculum: development, implementation, evolution, evaluation, and lessons learned. Medical education online. 12/2019; 24(1): 1611297. 31072278</p>		
<p>Graduate Courses Taught (M1 and M2 courses)</p> <p>MDM1 9100 Biomedical Foundations of Clinical Practice 1 MDM1 9105 Biomedical Foundations of Clinical Practice 2 MDM1 9120 Neuroscience 1 MDM1 9122 Respiratory MDM1 9123 Hematology and Lymphoid MDM1 9190 Embark 1 MDM1 9191 Embark 2 MDM2 9390 Embark 3 MDM2 9391 Embark 4 MDM2 9314 Endocrinology</p>		<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>
<p>Faculty Name: Varna Taranikanti</p> <p>Title: Associate Professor</p> <p>School: OUWB School of Medicine</p>	<p>Office: 444 O'Dowd Hall</p>	<p>Office Phone (248)370-3886</p> <p>Office Email taranikanti@oakland.edu</p>
<p>Degrees – School – Year</p> <p>M.B.B.S Rangaraya Medical College (1992) Andhra University, India M.D (2001) All India Institute of Medical Sciences, New Delhi India Ph.D. (2008) in Breast cancer (Anatomy department) All India Institute of Medical Sciences, New Delhi, India <u>Fellowships</u> Union for International Cancer Control Fellowship (UICC) John Wayne Cancer Institute (2002), Santa Monica LA, USA Project: Significance of biological markers (Her2 neu, P53 and Bcl-2) in prognostication and prediction of response to treatment in node negative breast cancer. International Cancer Research Technology Transfer Fellowship (ICRETT, UICC) Breast and Angiogenesis unit (2005) Cardiff University, Wales UK Project: Role of Lymphangiogenesis in breast cancer</p>		<p>Research Interest Cell Cycle regulation in cancers</p> <p>Medical Education: Integrated curriculum, Innovation in teaching and assessments</p>

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<p>Grants Awarded</p> <p>(SQU) (IG/MED/ANAT/12/01) Muscat Oman Grant amount \$25000 Project Title: A study of the role of lymphangiogenesis in breast cancer and Endoplasmic stress response in cancers</p> <p>(SQU) Mucat Oman IG/AGR/FOOD/17/05 Grant amount \$12000 Project Title: Potential Health Aspects of Vitamins B and Curcumin in a Rat Model of Hyper homocysteinemia</p>		
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> 1. Smitha Padmanabhan, Mostafa I. Waly, Varna Taranikanti et al Folate/Vitamin B12 Supplementation Combats Oxidative Stress-Associated Carcinogenesis in a Rat Model of Colon Cancer. Nutr Cancer. 2018 Oct 29:1-11. doi: 10.1080/01635581.2018.1513047. PMID:30372163 (Impact Factor:2.322) 2. Srinivasa Rao Sirasanagandla, Varna Taranikanti, Raghu Jetti A Complex Cross Link between the Tendons of Flexor Hallucis Longus and Flexor Digitorum Longus J Morphol Sci 2018; 35(03): 177-179 (Scopus) 3. Inuwa IM, Al-Rawahy M, Roychoudhry S, Taranikanti V. Implementing a modified team-based learning strategy in the first phase of an outcome-based curriculum--challenges and prospects. Med Teach. 2012;34(7):492-499 (Impact Factor:2.170) 4. Inuwa IM, Taranikanti V. Al-Rawahy M, Habbal O. Anatomy practical examinations: How does student performance on computerized evaluation compare with the traditional format? Anat Sci Educ. 2012;5(1):27-32. (Impact Factor:2.976) 5. I. M. Inuwa, M. A. Rawahy, V. Taranikanti, , Habbal O. Anatomy 'steeplechase' online- necessity sometimes is the catalyst for innovation. Anat Sci Educ. 2011;4(2):115-8. (Impact Factor:2.976) 6. Taranikanti V. and Banerjee Y. Antihypertensive treatment of patients with cardiovascular disease but without hypertension. JAMA. 2011;305(21):2170 (IF:30) 		
<p>Graduate Courses Taught (M1 and M2 courses):</p> <ol style="list-style-type: none"> 1. AFCP-1MDM1-56204 2. AFCP-2MDM1-56205 3. Cardiovascular 4. Respiratory 5. Nervous system 6. APM MDM1- 56206 7. Renal and Urinary MDM2-9312 8. Gastroenterology and Hepatology MDM2-9310 9. Male & Female Reproductive MDM2-9316 10. Endocrinology MDM2-9314 11. MSK MDM2-9318 12. Neuroscience II MDM2-328 13. APM 	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>	
<p>Faculty Name: Tracey (Hunt) Taylor</p> <p>Title: Associate Professor and Associate Dean for Diversity, Equity, and Inclusion</p> <p>School: OUWB School of Medicine</p>	<p>Office: 475 O'Dowd Hall</p>	<p>Office Phone: (248) 370-3901</p> <p>Office Email: tataylor2@oakland.edu</p>
<p>Degrees – School – Year</p>	<p>Research Interest</p>	

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<p>BSc Cellular, Molecular, and Microbial Biology, University of Calgary 1997</p> <p>MSc Cellular, Molecular, and Microbial Biology, University of Calgary 2000</p> <p>PhD Microbiology and Immunology, University of Western Ontario 2004</p> <p>Postdoctoral Fellow Cell Biology, University of Alberta 2003-2006</p>	<p>diversity and inclusion in medical education, microbiology and pathogenesis, microbiology education including microbiology medical education research and microbiology laboratory teaching; pathogenesis of the aquatic bacteria <i>Plesiomonas shigelloides</i>; prevalence of antibiotic-resistant <i>Staphylococcus aureus</i> (MRSA) among the homeless and economically disadvantaged populations.</p>
<p>Grants Awarded</p> <p>2010-2011 KCUMB Intramural Grant; Investigation of the Effect of HIV Tat Protein mutations on the Drug Efflux Pump P-glycoprotein in an Enterocyte/Lymphocyte Co-culture System; Principal Investigator (\$15 000.00)</p> <p>2007-2008 KCUMB Intramural Grant; Investigating the effect of the HIV Tat protein on P-glycoprotein drug efflux pump function in human intestinal enterocytes; Principal Investigator (\$15 000.00)</p> <p>2000 American Society for Microbiology Student Travel Grant Award</p> <p>1999 Graduate Conference Travel Grant, University of Calgary</p>	
<p>Most Recent Publications (limit to 6)</p> <ol style="list-style-type: none"> Hurse, D., K. Kemp, J. Grogan, T.A.H. Taylor. 2021. Using what's at hand: the creation of an online microbiology outreach program. <i>Journal of Microbiology & Biology Education</i> 22(3). doi.org/10.1128/jmbe.00201-21. Sawarynski, K.E, S.M. Swanberg, V.A. Roach, T.A.H. Taylor, D.M. Baxa. 2021. Fostering early pre-clinical experiences for developing knowledge, skills, and confidence in key residency competencies through participation in a medical student research training program. <i>Journal of Medical Education and Curricular Development</i>, 8:1-5. doi.org/10.1177/23821205211054965 Jackman, T.D., A.M. Dersch, T.A.H. Taylor, and C. Cortes. 2021. An Integrated <i>Mycobacterium tuberculosis</i> Infection Session: Utilizing an Online Collaborative Platform in a Synchronous Classroom Setting. <i>MedEd PORTAL</i> 17:11143. doi.org/10.15766/mep_2374-8265.11143 Attardi, S.M., T.A.H. Taylor, S. Lerchenfeldt, R.L. Pratt, and K.E. Sawarynski. 2021. Adapting Strategically to Changing Times in Health Professions Education: A Generational Workshop for Educators. <i>MedEdPORTAL</i> 17:11084. doi.org/10.15766/mep_2374-8265.11084 Lerchenfeldt, S., S.M. Attardi, R.L. Pratt, K.E. Sawarynski, and T.A.H. Taylor. 2020. Twelve tips for interfacing with the new generation of medical students: iGen. <i>Medical Teacher</i>. 43(11): 1249-54. doi.org/10.1080/0142159X.2020.1845305. • note: this publication was recognized at "Authors at Oakland", 2021 Ledford, C., D. G. Pitts, D.M. Thomas, T.A.H. Taylor, R. Noiva, R.J. McAuley, D. G. Mezwa, 2020. Snapshots in Medical Education in the US and Canada: Oakland University William Beaumont School of Medicine. <i>Academic Medicine</i>. 95: S245S248. doi.org/10.1097/ACM.0000000000003357. 	
<p>Graduate Courses Taught (M1 and M2 courses):</p> <p>MDM1 9100 Biomedical Foundations of Clinical Practice 1</p> <p>MDM1 9105 Biomedical Foundations of Clinical Practice 2</p> <p>MDM1 9121 Cardiovascular</p> <p>MDM1 9122 Respiratory</p> <p>MDM2 9310 Gastroenterology and Hepatology</p> <p>MDM2 9312 Renal and Urinary</p>	<p>Prospective Graduate Courses (relevant to new degree)</p> <p>Not applicable.</p>

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MDM2 9318 Musculoskeletal, Connective Tissue and Skin MDM2 9390 Embark 3 MDM2 9391 Embark 4 MDM2 9392 Embark 5	
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Faculty Name: David M. Thomas, Ph.D. Title: Associate Dean for Preclinical Education School: OUWB School of Medicine	Office: 428 O'Dowd Hall	Office Phone: (248) 370-4235 Office Email: thomas@oakland.edu
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Degrees - School - Year Psychology B.A.; SUNY @ Buffalo; 1990 Biological Sciences B.S.; SUNY @ Buffalo; 1990 Biological Sciences Ph.D.; Wayne State University; 1999	Research Interest: Medical Education
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<p>Grants Awarded</p> <ul style="list-style-type: none"> • CGEA Grant "Evaluation of the Use of Artificial Intelligence to Map Medical Education Assessment Alignment" Taylor, T. (PI), Grogan, J., Noiva, R., Rivest, R., and Thomas, D.M. Award: \$5,000 (2020) • TBLC Research Grant "A Qualitative Analysis on the Effectiveness of Peer Feedback in Team-Based Learning" Lerchenfeldt, S. (PI), ElSayed, S., Patino, G., and Thomas, D.M. Award: \$2,250 (2018) • Oakland University William Beaumont SOM; Office of Medical Education "Cellular and Molecular Biology Outreach" Thomas, D.M. (Co-PI), Sawarynski, K.E. (Co-PI) Non-competitive award: \$75,455 (2013) • Oakland University William Beaumont SOM; Department of Biomedical Sciences "Development of an Adaptable Molecular and Cellular Biology Virtual Learning Environment" Thomas, D.M. (Co-PI), Sawarynski, K.E. (Co-PI) Competitive award: \$5,000 (2013) • Veterans Health Administration Merit Award "Investigating the Role of Microglia in Methamphetamine Neurotoxicity" Role: PI Funding Period: 10/1/08 - 9/30/11 Total Costs: \$501,300 • NIH (National Institute of Drug Abuse) - K01 Award "Molecular Mechanisms of Methamphetamine Neurotoxicity" Role: PI Funding Period: 06/01/07 - 04/30/10 No-cost extension: 05/01/10 - 04/30/11 Total Costs: \$344,777 • Veterans Health Administration Merit Award Supplement "Molecular Mechanisms of Methamphetamine Neurotoxicity" Role: PI Funding Period: 10/1/08 - 9/30/09 Total Costs: \$35,000

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<ul style="list-style-type: none"> Veterans Health Administration Merit Review Entry Program Award “Molecular Mechanisms of Methamphetamine Neurotoxicity” Role: PI Funding Period: 10/01/05 - 09/30/07 Total Costs: \$303,000 - remitted 3rd year of funding upon receipt of NIH K01 award 		
Most Recent Publications (limit to 6) <ul style="list-style-type: none"> A Qualitative Analysis on the Effectiveness of Peer Feedback in Team-Based Learning. Lerchenfeldt, S., Kamel-ElSayed, S., Patino, G., Loftus, S., and Thomas, D.M. <i>Submitted to Medical Science Educator</i> 9/13/22 Suicide Assessment and Management Team-Based Learning Module (2020). Lerchenfeldt, S., Kamel-ElSayed, S., Patino, G., Thomas, D.M., and Wagner, J. <i>MedEdPORTAL</i> Oakland University William Beaumont School of Medicine: A Snapshot of Medical Student Education in the United States and Canada: Reports From 145 Schools (2020). Ledford, C.H., Pitts, D.G., Thomas, D.M., Taylor, TAH, Noiva, R., McAuley, R.J., and Mezwa, D.G. <i>Academic Medicine</i> (95) S245-S248. GI Secretions and Their Clinical Relevance: A Team Based Learning Session (2019). ElSayed, S., Sabina, R., Thomas, D.M., Patino, G., Lerchenfeldt, S. <i>Team Based Collaborative Research Portal</i>. Thomas D.M and Sabina R.L. (2015). Team-Based Learning. In: <i>How-To Guide for Active Learning</i> (Poznanski A, Fornari A. Eds.). <i>IAMSE Manual</i>. 21-28. Skin Signs of Systemic Disease TBL (2015). Chapman, R., Sabina, R., and Thomas, D.M. (2015). <i>MedEdPORTAL</i> 		
Graduate Courses Taught (relevant to new degree) Not complete courses; rather, elements of courses: WSU College of Pharmacy: <ul style="list-style-type: none"> Principles of Pharmacotherapy V CNS Diseases, Mood Disorders, Substance Abuse Principles of Pharmacotherapy II: Cardiology, Nephrology OUWB School Of Medicine: <ul style="list-style-type: none"> Biomedical Foundations of Clinical Practice 1 Neuroscience 1 	Prospective Graduate Courses (relevant to new degree) <ul style="list-style-type: none"> Biomedical Foundations of Clinical Practice 1 Neuroscience 1 	
Faculty Name: Jason Adam Wasserman, PhD, HECC Title: Professor, Foundational Medical Studies; Professor, Pediatrics School: OUWB School of Medicine	Office ODH 412	Office Phone 248-370-4627 Office Email wasserman@oakland.edu
Degrees – School – Year	Research Interest Clinical Bioethics	

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<p>BA, Philosophy – University of Alabama at Birmingham - 2000</p> <p>MA, Medical Sociology – University of Alabama at Birmingham - 2005</p> <p>PhD, Medical Sociology – University of Alabama at Birmingham - 2007</p>	<p>Homelessness and Health Sociology of Health</p>
<p>Grants Awarded</p>	
<p>09/2006 - 08/2007</p>	<p>American Refugees: A Visual Ethnographic Study of the Street Homeless Co-Investigator and Project Director \$10,000, Faculty Development Program, University of Alabama at Birmingham</p>
<p>02/2009 - 01/2010</p>	<p>Interdisciplinary Team Building in the Medical Professions: Improving Decision Outcomes by Developing Collaborative Techniques Co-Principal Investigator (with Herb Janssen and Cindy Acton) \$2,500, QEP Seed Grant through TTU Health Sciences Center</p>
<p>05/2009 - 04/2010</p>	<p>A comparative pilot study among diploma and bachelor of science senior nursing students: The effectiveness of an interprofessional teamwork educational program on students' approaches to conflict and interprofessional team readiness, knowledge, and attitude Co-Principal Investigator (with Herb Janssen and Cindy Acton) \$2,500, QEP Seed Grant through TTU Health Sciences Center</p>
<p>05/2009 - 04/2010</p>	<p>The effectiveness of an interdisciplinary team building education program using collaborative decision-making techniques among senior nursing students. Co-Principal Investigator (with Herb Janssen and Cindy Acton) \$2,500, QEP Seed Grant through TTU Health Sciences Center</p>
<p>02/2012 - 08/2012</p>	<p>Neighborhood Infrastructure, Community Dynamics, and Health Outcomes, Co-Principal Investigator (with Richard R. Suminski) \$6,100, Pilot grant from Local Initiative Support Corporation (LISC)</p>
<p>02/2012 - 08/2012</p>	<p>Neighborhood Infrastructure, Community Dynamics, and Health Outcomes, Co-Principal Investigator (with Richard R. Suminski) \$13,853, Intramural grant from KCUMB</p>
<p>08/2013 - 07/2014</p>	<p>Epistemological Beliefs and Medical Humanism Education: A Systematic Review Co-investigator (with Jennifer Eastwood) \$5,000, Arnold P. Gold Foundation, Rigorous Reviews of Research on Humanistic Healthcare Grant (Please note: I was not part of the initial application, but joined research team upon arriving at OUWB, collaborated on data collection, interpretation, and writing, and was funded through the grant to present at the Gold Foundation Symposium.)</p>

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07/2014 - 06/2015	Graphic and Information Design for MHCB iBook Principal Investigator \$3,000, Department of Biomedical Sciences - Oakland University William Beaumont School of Medicine
04/2015 - 03/2016	Study of Impact of Recuperative Care Shelter for Homeless Patients Principal Investigator \$15,000, Metro Health Foundation and Blue Cross Blue Shield
10/2015 - 11/2015	An Evening of Medical Humanism with Special Guest Thomas Lynch \$4,000, Arnold P. Gold Foundation
10/2016 - 09/2016	Health Information Outreach to Homeless Patients at the HOPE Recuperative Care Center Co-Principal Investigator with Misa Mi \$10,000, National Network of Libraries of Medicine
01/2019 - 10/2020	Humanism in Health and Healthcare: Development of a Free, Internationally Available Course on Humanism Delivered on the NextGenU Platform Principal Investigator \$5,250, Arnold P. Gold Foundation
07/2020 - 06/2021	Street Medicine Pontiac Principal Investigator \$57,094, DMC Foundation

Most Recent Publications (limit to 6)

- **Wasserman JA**, Navin MC, Vercler CJ. Pediatric Assent and Treating Children Over Objection. *Pediatrics*. 11/2019; 144(5).
- **Wasserman JA**, Redinger M, Gibb T. Responding to Unprofessional Behavior by Trainees: A "Just Culture" Framework. *The New England Journal of Medicine*. 02/2020; 382(8): 773-777.
- **Wasserman JA**, Navin MC, Drzyzga V, Gibb TS. Practising What we Preach: Clinical Ethicists' Professional Perspectives and Personal Use of Advance Directives. *Journal of Medical Ethics*. 10/2020; Online available, print forthcoming.
- Navin MC, **Wasserman JA**, Opel DJ. Reasons to Accept Vaccine Refusers in Primary Care. *Pediatrics*. 11/2020; 146: e20201801.
- **Wasserman JA**, Browne BJ. On Triggering and Being Triggered: Civil Society and Building Brave Spaces in Medical Education. *Teaching and Learning in Medicine*. 02/2021(33):561-567.
- Navin MC, Brummett A, **Wasserman JA**. Three Kinds of Decision-Making Capacity for Refusing Medical Interventions. *American Journal of Bioethics*. 08/2021; Online Available, Print Forthcoming.

Graduate Courses Taught (relevant to new degree)

Seminar in Medical Sociology (SOC 5381) (TTU)
Psychiatric Sociology (SOC 5382) (TTU)
Research Organization - Qualitative Methods (SOC 5332) (TTU)
Origins of Sociological Theory (SOC 5308) (TTU)
Introduction to Bioethics (BETH 502) (KCUMB)

Prospective Graduate Courses (relevant to new degree)

Bioethics / Public Health Ethics
Medical Sociology
Social Determinants of Health
Social Theory and Health

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<p>Social Justice, Bioethics, and Medical Practice (BETH 510) (KCUMB) Social and Ethical Transformations in Medicine: Past, Present, and Future (BETH 510) (KCUMB) Bioethics through Film (BETH 510) (KCUMB) Research Methods Lab (BETH 502-L) (KCUMB) Patient Care Relationships and Ethics (SOC 789) (UAB) Medical Humanities and Clinical Bioethics 1 (OUWB) Medical Humanities and Clinical Bioethics 2 (OUWB) Medical Humanities and Clinical Bioethics 3 (OUWB) Medical Humanities and Clinical Bioethics 4 (OUWB) Medical Humanities and Clinical Bioethics 5 (OUWB) Medical Humanities and Clinical Bioethics 6 (OUWB)</p>	
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Degree Requirements

A minimum of 57 credits are required for the degree.

CORE COURSES					
Course	Title	Credits	Prerequisites	New (x)	% Distance
MDM1 9100	Biomedical Foundations of Clinical Practice 1	12			
MDM1 9105	Biomedical Foundations of Clinical Practice 2	12			
MDM1 9110	Anatomical Foundations of Clinical Practice 1	10			
MDM1 9111	Anatomical Foundations of Clinical Practice 2	10			
MDM1 9190	Embark 1	3			
MDM1 9191	Embark 2	3			
MDM2 9390	Embark 3	3			
MDM2 9391	Embark 4	2			
FMED 9499	Embark Medical Science Capstone Research Project	2-12		X	0

Typical Plan of Study – M.S. in Medical Sciences Full-Time Schedule

Student Schedule		
Fall I MDM1 9100, MDM1 9105 MDM1 9110, MDM1 9111 MDM1 9190	Winter I MDM1 9191	Summer I
Fall II MDM2 9390	Winter II MDM2 9391	Summer FMED 9499 Capstone Research Project
Fall III FMED 9499 Capstone Research Project (if needed)	Winter III FMED 9499 Capstone Research Project (if not yet taken)	

Provide Detailed New Course Descriptions or Syllabi

FMED 9499 Embark Medical Science Capstone Research Project

This course provides dedicated time for students to conduct the research for their Embark Capstone project and submit their final project in a manuscript form and present their work to their peers, mentors, faculty, and Embark program staff utilizing the skills they acquired through their Embark course curriculum. Throughout this focused research time, the student is expected to move their project progress forward with support from their mentor, other research advisors, statisticians, and medical librarians. Students are required to set individual focused research goals at the beginning of the course and submit documentation of Capstone project progress at the conclusion of the course. Depending on project progress, there may be face-to-face meetings required with the Course Director as communicated to students following the required Capstone progress report submissions. (2-12 Credits). May be repeated up to three times. Graded SP/NP/Satisfactory.

Proforma Budget

Insert Budget using Proforma Budget Template

The attached Excel sheets depict the project budget for the M.S. in Medical Sciences program for the first five years. There will be no additional costs for faculty/staff salaries. The Director of Graduate Studies (Victoria Lucia) has an administrative appointment for and spends 100% of the administrative appointment time on the oversight of this and other graduate programs in the OUWB School of Medicine. A Graduate Studies Coordinator is also already employed by OUWB and will be assisting the Director. Funding has been allocated for research supplies required to complete the Capstone project.

Proposed Program:



Per Student Tuition Calculations

Accompaniment to SRBC Proforma Statements

of Credits for Program Completion

6

Program Level

Graduate

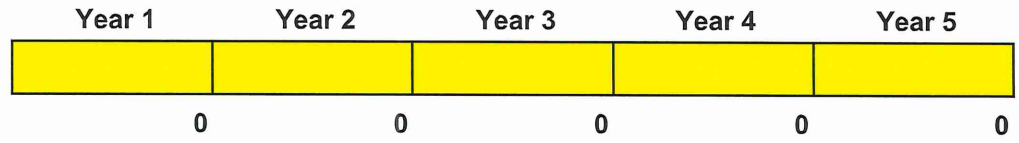
Student Year - New to OU only

		Year 1	Year 2	Year 3	Year 4	Total
Tuition Desc	Rate (Resident)					
UG LL CAS	\$ 485.75					0
UG UL CAS	\$ 562.50					0
UG LL SBA	\$ 506.50					0
UG UL SBA	\$ 595.50					0
UG LL SEHS	\$ 499.50					0
UG UL SEHS	\$ 584.00					0
UG LL SECS	\$ 517.00					0
UG UL SECS	\$ 608.25					0
UG LL SHS	\$ 499.50					0
UG UL SHS	\$ 584.00					0
UG LL SON	\$ 511.75					0
UG UL SON	\$ 600.50					0
GR	\$ 834.00	6				6
PHD	\$ 839.00					0
Total Credits / Student		6	0	0	0	6
Tuition Revenue/Student		\$ 5,004	\$ -	\$ -	\$ -	\$ 5,004

Graduate Assistants

GR1	
-----	--

Total Graduate Assistants



Proforma - Most Likely						
	Year 1	Year 2	Year 3	Year 4	Year 5	
New Student Count	1	0	1	0	1	
Description						
UG LL CAS	\$0	\$0	\$0	\$0	\$0	
UG UL CAS	\$0	\$0	\$0	\$0	\$0	
UG LL SBA	\$0	\$0	\$0	\$0	\$0	
UG UL SBA	\$0	\$0	\$0	\$0	\$0	
UG LL SEHS	\$0	\$0	\$0	\$0	\$0	
UG UL SEHS	\$0	\$0	\$0	\$0	\$0	
UG LL SECS	\$0	\$0	\$0	\$0	\$0	
UG UL SECS	\$0	\$0	\$0	\$0	\$0	
UG LL SHS	\$0	\$0	\$0	\$0	\$0	
UG UL SHS	\$0	\$0	\$0	\$0	\$0	
UG LL SON	\$0	\$0	\$0	\$0	\$0	
UG UL SON	\$0	\$0	\$0	\$0	\$0	
GR	\$5,004	\$0	\$5,004	\$0	\$5,004	
PHD	\$0	\$0	\$0	\$0	\$0	
Gross Tuition Revenue	\$5,004	\$0	\$5,004	\$0	\$5,004	

Proforma - Best	
New Student Count	
Description	
UG LL CAS	
UG UL CAS	
UG LL SBA	
UG UL SBA	
UG LL SEHS	
UG UL SEHS	
UG LL SECS	
UG UL SECS	
UG LL SHS	
UG UL SHS	
UG LL SON	
UG UL SON	
GR	
PHD	
Gross Tuition Revenue	

Year 1	Year 2	Year 3	Year 4	Year 5
1	1	1	1	1
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0	\$0
\$5,004	\$5,004	\$5,004	\$5,004	\$5,004
\$0	\$0	\$0	\$0	\$0
\$5,004	\$5,004	\$5,004	\$5,004	\$5,004

Proforma - Worst		
	<u>Year 1</u>	<u>Year 2</u>
New Student Count	0	0
Description		
UG LL CAS	\$0	\$0
UG UL CAS	\$0	\$0
UG LL SBA	\$0	\$0
UG UL SBA	\$0	\$0
UG LL SEHS	\$0	\$0
UG UL SEHS	\$0	\$0
UG LL SECS	\$0	\$0
UG UL SECS	\$0	\$0
UG LL SHS	\$0	\$0
UG UL SHS	\$0	\$0
UG LL SON	\$0	\$0
UG UL SON	\$0	\$0
GR	\$0	\$0
PHD	\$0	\$0
Gross Tuition Revenue	\$0	\$0

SBRC Proforma Template

FY2024

Most Likely Scenario

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. New Students to Program	1		1		1
1st Year Cohort Revenue	\$ 5,004	\$ -	\$ 5,004	\$ -	\$ 5,004
2nd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
3rd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
4th Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Gross Tuition Revenue	\$ 5,004	\$ -	\$ 5,004	\$ -	\$ 5,004
Less: Avg Financial Aid (30%)	\$ (1,501)	\$ -	\$ (1,501)	\$ -	\$ (1,501)
Net Tuition Revenue	\$ 3,503	\$ -	\$ 3,503	\$ -	\$ 3,503
Expenses					
Salaries					
Faculty Salaries	6101				
Visiting Faculty	6101				
Administrative Professionals	6201				
Clerical Technical	6211				
Administrative IC	6221				
Faculty Inload/Replacement Costs	6301				
Faculty Overload	6301				
Part-Time Faculty	6301				
Graduate Assistant	6311	\$ -	\$ -	\$ -	\$ -
Casual/Temp	6401				
Out of Classification	6401				
Student Labor	6501				
Total Salary Expense	\$ -	\$ -	\$ -	\$ -	\$ -
Fringe Benefits	6701	\$ -	\$ -	\$ -	\$ -
Total Compensation	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Expenses					
Supplies and Services	7101	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Graduate Tuition	7101	\$ -	\$ -	\$ -	\$ -
E-Learning Support	7102				
Travel	7201				
Equipment	7501				
Maintenance	7110				
Recruitment and advertising	7101				
Library	7401				
Total Operating Expenses	\$ 1,000	\$ -	\$ 1,000	\$ -	\$ 1,000
Total Expenses	\$ 1,000	\$ -	\$ 1,000	\$ -	\$ 1,000
Net Income (Loss)	\$ 2,503	\$ -	\$ 2,503	\$ -	\$ 2,503

¹The tuition calculations do not account for any attrition of students.

Best-Case Scenario

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. New Students to Program	1	1	1	1	1
1st Year Cohort Revenue	\$ 5,004	\$ 5,004	\$ 5,004	\$ 5,004	\$ 5,004
2nd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
3rd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
4th Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Gross Tuition Revenue	\$ 5,004	\$ 5,004	\$ 5,004	\$ 5,004	\$ 5,004
Less: Avg Financial Aid (30%)	\$ (1,501)	\$ (1,501)	\$ (1,501)	\$ (1,501)	\$ (1,501)
Net Tuition Revenue	\$ 3,503	\$ 3,503	\$ 3,503	\$ 3,503	\$ 3,503
Expenses					
Salaries					
Faculty Salaries	6101				
Visiting Faculty	6101				
Administrative Professionals	6201				
Clerical Technical	6211				
Administrative IC	6221				
Faculty Inload/Replacement Costs	6301				
Faculty Overload	6301				
Part-Time Faculty	6301				
Graduate Assistant	6311	\$ -	\$ -	\$ -	\$ -
Casual/Temp	6401				
Out of Classification	6401				
Student Labor	6501				
Total Salary Expense	\$ -	\$ -	\$ -	\$ -	\$ -
Fringe Benefits	6701	\$ -	\$ -	\$ -	\$ -
Total Compensation	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Expenses					
Supplies and Services	7101	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Graduate Tuition	7101	\$ -	\$ -	\$ -	\$ -
E-Learning Support	7102				
Travel	7201				
Equipment	7501				
Maintenance	7110				
Recruitment and advertising	7101				
Library	7401				
Total Operating Expenses	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Total Expenses	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000	\$ 1,000
Net Income (Loss)	\$ 2,503	\$ 2,503	\$ 2,503	\$ 2,503	\$ 2,503

¹The tuition calculations do not account for any attrition of students.

SBRC Proforma Template

FY2024

Worst-Case Scenario

	Year 1	Year 2	Year 3	Year 4	Year 5
Est. New Students to Program					
1st Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
2nd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
3rd Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
4th Year Cohort Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Gross Tuition Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Less: Avg Financial Aid (30%)	\$ -	\$ -	\$ -	\$ -	\$ -
Net Tuition Revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Expenses					
Salaries					
Faculty Salaries 6101					
Visiting Faculty 6101					
Administrative Professionals 6201					
Clerical Technical 6211					
Administrative IC 6221					
Faculty Inload/Replacement Costs 6301					
Faculty Overload 6301					
Part-Time Faculty 6301					
Graduate Assistant 6311	\$ -	\$ -	\$ -	\$ -	\$ -
Casual/Temp 6401					
Out of Classification 6401					
Student Labor 6501					
Total Salary Expense	\$ -	\$ -	\$ -	\$ -	\$ -
Fringe Benefits 6701	\$ -	\$ -	\$ -	\$ -	\$ -
Total Compensation	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Expenses					
Supplies and Services 7101					
Graduate Tuition 7101	\$ -	\$ -	\$ -	\$ -	\$ -
E-Learning Support 7102					
Travel 7201					
Equipment 7501					
Maintenance 7110					
Recruitment and advertising 7101					
Library 7401					
Total Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Net Income (Loss)	\$ -	\$ -	\$ -	\$ -	\$ -

¹The tuition calculations do not account for any attrition of students.

Library Budget Report

Not applicable. No additional library resources are required as determined by OUWB Director of Medical Libraries Trey Lemley (memo attached).



School of
MEDICINE

OAKLAND UNIVERSITY WILLIAM BEAUMONT

To: Victoria Lucia, Director of Graduate Studies, OUWB

From: Trey Lemley, Director of Medical Library, OUWB

Re: Library Budget Evaluation for MS in Medical Sciences Program

Date: August 4, 2023

The MS in Medical Sciences program offers medical students who have completed at least the first two years of medical school the opportunity to receive a Master's degree to reflect the knowledge that they have acquired from the clinical OUWB curriculum should they decide to leave the medical school curriculum. Students offered the opportunity to enroll in the MS in Medical Sciences degree program must complete a research thesis, which means that they must complete the Embark project that they started as a medical student. The proposed curriculum includes two independent study courses which would allow students to complete and present the thesis, but the courses would require no additional library resources beyond what was already available to students when they were enrolled as medical students.

Graduate Assessment Plan
Insert Graduate Assessment Plan following <https://www.oakland.edu/oira/>

Step 1: Basic Information

Program Name: **MS Medical Sciences**

School or College your program resides in: **Oakland University William Beaumont School of Medicine**

Program Level (check all that apply):

- Undergrad
Master's
Doctoral

Date Report Submitted:

Current Assessment Contact Representative (& E-mail): Victoria Lucia, lucia@oakland.edu

Current Department or Program Chair (& E-mail): Douglas Gould, djgould@oakland.edu

Current Dean (& E-mail): Christopher Carpenter, cfcarpen@oakland.edu

Step 2: Type of Assessment Plan

Option A. Programs that have an external accrediting agency other than the Higher Learning Commission may be eligible to use their accreditor's response in lieu of following the UAC's standard process. These programs use the UAC's 'external accreditation mapping' form instead of this form. For more information, please contact the UAC/OIRA liaison Reuben Ternes (ternes@oakland.edu). Programs without external accreditation should proceed to option B.

Option B. If you are not accredited by an external body (or your accreditor's standards do not meet the standards set by the Higher Learning Commission), then proceed to Steps 3-5 to create your assessment plan. Members of the UAC are always willing to work with individuals from any department to develop or revise their assessment plans. In addition, the Office of Institutional Research and Assessment (OIRA) has some very helpful tools for faculty and departments listed on their website (www.oakland.edu/OIRA). If at any time you have any questions, need any assistance, or would like to schedule a meeting with any UAC representatives, please contact the UAC and OIRA liaison, Reuben Ternes (ternes@oakland.edu).

Step 3: Aligning the OU Mission, Program Goals, Student Learning Outcomes, and Assessment Measures

Please begin your program assessment plan by completing the table below. Use the "Table" menu in Word to add rows, merge cells, etc. as needed. [A completed table is presented as a sample on our website: XXXX.]

- In column 1, record what aspects of the OU Mission your program addresses.

Oakland University

Graduate Council

- In column 2, record your program goals as they relate to the OU Mission.
- In column 3, record your program's planned student learning outcomes related to each program goal.
- In column 4, record the assessment measure(s) that evaluate each student learning outcome (note: each learning outcome should have an associated assessment measure).
- Add rows to the table as necessary.

(1) OU Mission	(2) Program Goals	(3) Student Learning Outcomes	(4) Assessment Measures
Oakland University cultivates the full potential of a diverse and inclusive community. As a public doctoral institution, we impact Michigan and the world through education, research, scholarship, and creative activity.	<ul style="list-style-type: none"> • Foster critical thinking and scientific research skills. • Prepare students that have mastered the oral and written communication skills required to participate in health-related endeavors and convey the results of scholarly work. • Prepare students for advanced careers in health and biomedical sciences. • Foster compassionate commitment to equity in community and public health and embrace ethical treatment of others. 	<ul style="list-style-type: none"> • Apply basic science concepts to patient care • Develop and conduct a research study, critically analyzing study results and applying to patient care and articulating study results to scientific/medical and lay communities • Obtain positions related to hospital administration, healthcare consulting, pharmaceuticals, biomedical sciences education and research & development in Michigan, nationally, and internationally 	<ul style="list-style-type: none"> • Student performance on examinations • Evaluation of Capstone research project • Publication and presentations resulting from research • Exit survey of students completing the program • Career placement record of program graduates

Step 4: Participation in Assessment Process

Who Will Participate in Carrying Out the Assessment Plan	What Will Be Their Specific Role/s
Graduate Program Coordinator	Collection of data and writing assessment report
Director of Graduate Studies	Annual review of program outcomes
OUWB School of Medicine Curriculum Committee (Curriculum Evaluation Subcommittee)	Annual review of program outcomes

Step 5: Plan for Analyzing and Using Assessment Results to Improve Program

A. How will you analyze your assessment data?

The graduate program coordinator will annually collect and review program outcomes data for reporting to the OUWB Director of Graduate Studies and the OUWB School of Medicine Curriculum Committee. The majority of the coursework in the Medical Sciences curriculum is the first two years of the Doctor of Medicine curriculum Program of Study. OUWB School of Medicine courses are annually evaluated by the OUWB Office of Medical Education and the M1/M2 Curriculum subcommittee of the OUWB Curriculum Committee, based on data collected and compiled by the OUWB office of Medical Education. Course and program outcomes are compared to other OUWB courses and national outcomes reported from other schools of medicine by the American Association of Medical Colleges. Because of the small number of students participating in the program, feedback from student input (especially the exit interview and survey) will be important to the evaluation process.

B. How will you use results to improve your program?

Based on Feedback from the Director of Graduate Studies and the Curriculum Committee, program modifications or alterations in program administration or content delivery will be proposed by the program faculty to the Curriculum Committee (and Graduate Council if necessary) for approval.

Step 6: Submit Assessment Plan

Send completed form electronically to ternes@oakland.edu

Support Letters

1. Christopher Carpenter, MD, Stephan Sharf Interim Dean, Oakland University William Beaumont School of Medicine.
2. Douglas Gould, PhD, Chair, Foundational Medical Studies
3. Douglas Wendell, PhD, Chair, Biological Sciences
4. Paula Schuiteman-Bishop, MBA, MPA, Vice President, Office of Research and Education, Corewell Health of West Michigan
5. Stephanie Attardi, PhD, OUWB Curriculum Committee Chair (committee approval email)



School of
MEDICINE

OAKLAND UNIVERSITY WILLIAM BEAUMONT®

OFFICE OF THE DEAN

September 8, 2023

Victoria Lucia, Ph.D.
Oakland University William Beaumont School of Medicine
Room 448 O'Dowd Hall
586 Pioneer Dr
Rochester, MI 48309

Dear Dr. Lucia,

I am extremely pleased to provide this letter of support for the Master of Science in Medical Sciences program proposed by Oakland University William Beaumont School of Medicine. The program will replicate many similar programs that are being developed nationwide to provide a compassionate alternative for enrolled medical students who decide, for various personal or professional reasons, to terminate their medical education career after completing the preclinical curriculum. Completion of the preclinical curriculum, along with the thesis requirement, will provide our students with the competencies to market themselves in many rewarding fields in the medical sciences, including healthcare, research, and teaching.

As a long time, Beaumont physician who has been involved in the School of Medicine since its inception, I am proud of the rich tradition of providing a robust medical education experience for our students that always keeps the patient at the forefront of what we do. Our preclinical curriculum prepares our students to become dynamic professionals with intellectual intensity and depth necessary to meet the challenging demands of our current healthcare environment and beyond.

While this program will likely only impact a small number of our students, I see it as an ideal and moral alternative for the subset of students that it would benefit. I fully support the MS in Medical Sciences program at OUWB.

Sincerely,

A handwritten signature in black ink, appearing to read 'C. Carpenter'.

Christopher F. Carpenter, M.D, MHSA
Stephan Sharf Interim Dean



OAKLAND UNIVERSITY WILLIAM BEAUMONT

August 3, 2023

Re: LOS for MS in Medical Sciences

Dear Dr. Lucia,

I am extremely pleased to provide this letter of support for the Master of Science in Medical Sciences program proposed by the Oakland University William Beaumont School of Medicine (OUWB). I am a Professor and Chair of the Department of Foundational Medical Studies at OUWB. As such I am keenly aware of the need for a program that provides a meaningful recognition of a student's accomplishment(s), short of completion of the full medical degree curriculum.

The program will enable medical students who decide to terminate their education after completing at least the first two years of medical school for various personal or professional reasons to leave the university with a degree that accurately reflects the specific training that they have received in biomedical sciences during the preclinical years. The added research component will expand a graduate's opportunities even more. Such a degree will make these students more marketable upon graduation in various fields of healthcare, industry, research, and teaching.

While this program will likely only impact a small number of students, I see it as an ideal and compassionate alternative for this subset of students. There are a multitude of excellent careers for individuals with such credentials, including work in industry, laboratories, and academia. Such a program is long overdue and I'm pleased that you are leading this effort.

Sincerely,

A handwritten signature in black ink that reads 'Douglas J. Gould'.

Douglas J. Gould, PhD, FAAA

Distinguished Professor and Chair, Department of Foundational Medical Studies
Oakland University William Beaumont School of Medicine

MEMORANDUM

DATE: August 7, 2023
TO: Victoria Lucia, Associate Professor, OUWB School of Medicine
FROM: Doug Wendell, Chairperson, Department of Biological Sciences
SUBJECT: Support for Proposed MS in Medical Sciences

Thank you for sharing your proposal for an MS in Medical Sciences. I agree that it would be valuable to have a mechanism so that students who are unable to complete the MD can still exit the program with a graduate degree. Your proposal's rationale for having a "compassionate off-ramp" is valid.

The MS in Medical Sciences is distinct from the graduate programs offered by the department of Biological Sciences because it is only available to students who have already been admitted to the OUWB MD program and if they fall in to one of two categories: (1) students will have been academically successful in the M.D. program but at some point are longer interested in becoming a physician, or (2) encounter difficulty with passing the United States Medical Licensure Examinations and/or clinical clerkships required for the M.D. degree. Therefore, as proposed, it does not duplicate our existing graduate programs.

Doug Wendell

August 15, 2023

Victoria Lucia, Ph.D.
Director of Graduate Studies
Oakland University William Beaumont School of Medicine
O'Dowd Hall
586 Pioneer Drive
Rochester, MI 48309

Dear Dr. Lucia,

I am very honored to provide this letter of support for the Master of Science in Medical Sciences program proposed by Oakland University William Beaumont School of Medicine. The proposed program will enable medical students who decide to terminate their education after completing at least the first two years of medical school for various personal or professional reasons to leave the university with a degree that accurately reflects the specific training that they have received in biomedical sciences during the preclinical years.

Additionally, a Master of Science degree will make these identified students more marketable upon graduation in various fields of healthcare, industry, research, and teaching. The added research component during their academic time will expand a graduate's opportunities even more into a compatible career.

As a hiring leader in the fields of research and academics, we are continually looking for suitable applicants who have a clinical background and experience. These students already have high academic achievement, a strong curriculum vitae, community service experience and have a background in working in a healthcare clinical environment. Candidates with these types of qualifications and skills will make them a desirable addition to any number of my research and academic teams at Corewell Health.

While the Master of Science in Medical Sciences program will likely only impact a small number of students, I see it as an ideal and compassionate alternative for this subset of medical students and could easily see them being an excellent fit within my department, as well as many other areas within our institution.

Sincerely,



Paula Schuiteman-Bishop, MBA, MPA
Vice President, Office of Research & Education
Corewell Health of West Michigan



Victoria Lucia <luca@oakland.edu>

Approval of MS in Medical Sciences

1 message

Stefanie Attardi <sattardi@oakland.edu>

Fri, Sep 8, 2023 at 9:43 AM

To: Victoria Lucia <luca@oakland.edu>

Cc: David Thomas <thomas@oakland.edu>, "Morris, Pierre A." <pierre.morris@corewellhealth.org>

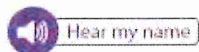
Dear Dr. Lucia,

I am writing to inform you that the MS in Medical Sciences program was approved by the OUWB Curriculum Committee on Wednesday, September 6, 2023. Please let me know how the Curriculum Committee can support future efforts related to the new program.

Thank you,
Stefanie Attardi
Chair, OUWB Curriculum Committee

Stefanie Attardi, Ph.D. ([she/her/hers](#))
Associate Professor (Histology & Anatomy)
Co-Director, Anatomical Foundations of Clinical Practice

Department of Foundational Medical Studies
Oakland University William Beaumont School of Medicine
464 O'Dowd Hall, [586 Pioneer Drive, Rochester, MI, USA 48309-4482](#)
E-Mail: sattardi@oakland.edu | Tel: (248) 370-2830 | Fax: (248) 370-4060
ORCID: [0000-0003-3291-490X](#) | [Google Scholar](#) | Twitter: [@sattardi](#)



I respect your personal time. If you are receiving this email outside of your regular work hours, there is no expectation for you to reply at this time.

Survey Data

The purpose of this proposed graduate program is to provide a degree option for students who terminate from the Oakland University William Beaumont School of Medicine before completing the Doctor of Medicine program of study requirements, but after completing all required basic science course work and the Embark Capstone research project requirement. Therefore, no students will be admitted directly into this program who are not currently enrolled in the Doctor of Medicine program. Consequently, we have not surveyed prospective students for their interest in enrolling in the proposed program.

The value of the proposed degree program is that it will credential students terminating from the Doctor of Medicine program for professions which require strong foundations of knowledge and skills in the biomedical sciences but not a full M.D. degree. Those professions would include, but are not limited to, jobs in the pharmaceutical sciences, health insurance, healthcare delivery, biomedical sciences research and development, and biomedical sciences education.

MS in Medical Sciences

Board of Trustees

Medical Sciences, M.S.

*Department of Foundational Medical
Studies, OUWB School of Medicine*

Presented by: Victoria Lucia, PhD



Summary of Need

- The “off-ramp” program is to provide credentialing that students have truly earned if they leave the program after completing the pre-clinical years of medical school. Job prospects include pharmaceutical sciences, health insurance, healthcare delivery, biomedical sciences research and development, and biomedical sciences education.
- There is a national movement in medical education to provide this opportunity:
 - University of Michigan
 - Michigan State University
 - Wayne State University
 - University of California - Irvine
 - Georgetown University
 - Temple University

Program Goals: To foster critical thinking and scientific research skills; To prepare students with the skills required to participate in and convey the results of scholarly work; To prepare students for advanced careers in healthcare and biomedical sciences.

Rationale

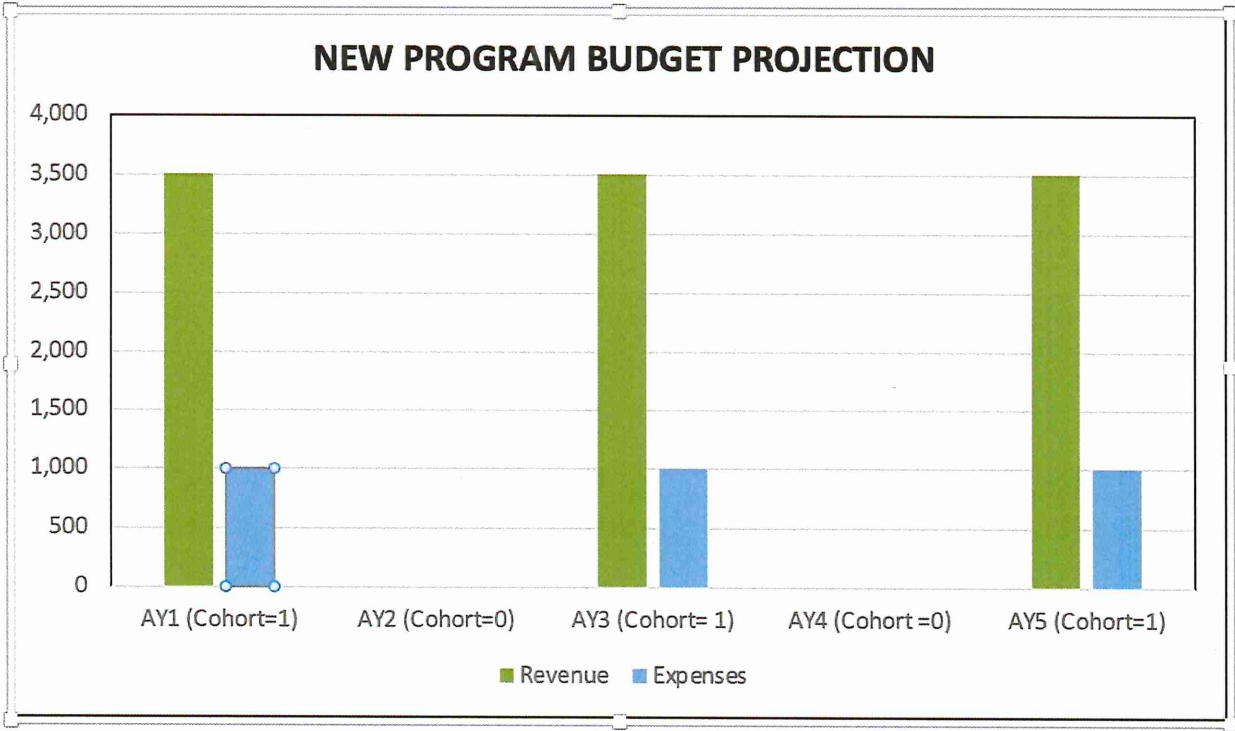
- Why do we need this program?
 - Better supports the mission to graduate competent and committed physicians by identifying trainees who have found their career ambitions have changed or their abilities do not meet those necessary for success as a physician
 - Recognizes that our trainees acquire significant marketable competencies throughout their training, that will enable them to obtain gainful employment in careers that can be emotionally and financially rewarding
 - Demonstrates a commitment to support all of our learners, including trainees who may have greater success in alternative careers
 - Supports early identification and improved career counseling for struggling learners

Description of Program

Number of Credits: 57-67 credits, depending on how far along the student is with their Capstone Research Project when entering the program

Timeline for Students: All students will have completed and passed all curricular requirements of the first two years of medical school (with the exception of the clinical preparation courses, APM5, Embark5, and Diagnostic Medicine 1 and the Step 1 Exam). Students will have one year to complete the Capstone Research Project in fulfillment of the MS in Medical Sciences degree

Proforma



ROI - Return on Investment

- This program will have limited enrollment and there will be no active recruitment/advertisement
- Students who meet criteria for the program will be offered the opportunity to enroll in the MS in Medical Sciences program on a case-by-case basis
- It is anticipated that no more than 0-2 students per year will enroll in the program