Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Joseph C. Gigliotti, Ph.D.

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Office Phone #: 434-582-3544

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

10

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

The goal of this project is to develop educational materials based on clinical shadowing experiences. Students will be given a SOAP note template and record patient encounters while shadowing a physician. The students will then select a case and explain all aspects of the SOAP note from the perspective of biochemistry, molecular biology, physiology, pathophysiology, and pharmacology. Students are also encouraged to consider editing existing write-ups and assist in organizing the material for effective dissemination.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: James Grinols, Teresa Ramerth

Department: Pediatrics

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Office Phone #: 4345823371

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

General Pediatric Medicine, Pathology of Childhood diseases

Do you love Jesus? Are you a wordsmith? Do you have the ability to work with Christian physicians locally and across the nation putting together an anthology of biographical sketches which illuminate their medical specialties with observations from life and practice in the light of who they are as Christians?

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Critical Thinking: Reading and Writing across the Curriculum A. Grinols Copy available for review upon request

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Carl Hoegerl, DO

Department: Internal Medicine

Office #: 3207

Office Phone #: 592-6986

E-mail: choegerl@liberty.edu

Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

TBD

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

I have many research interests. However, for the Summer, 2023 I will be concentrating two main areas. The two that there may be areas for students to get involved include:

- 1. <u>Contributing, writing and experience in medical journal writing and editing in LUCOM's very own "E-Journal"/Cureus Journal of Medicine.</u>
- 2. <u>Getting involved in a clinical quality project through the Centra Neuroscience Service line that may lead to publication.</u>

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Hao, J., Pitcavage, J., Jones, J. B., Hoegerl, C., & Graham, J. (2017). Measuring adherence and outcomes in the treatment of patients with multiple sclerosis. *Journal of Osteopathic Medicine*, *117*(12), 737-747.

Hoegerl, C., Goldstein, F. J., & Sartorius, J. (2011). Implementation of a stroke alert protocol in the emergency department: a pilot study. *Journal of Osteopathic Medicine*, 111(1), 21-27.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Charles R Joseph, MD

Department: Internal Medicine

Office #: 217

Office Phone #: 582-7809

E-mail: crjoseph@liberty.edu

Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

4-5

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

Clinical research investigating utility of ASL MRI in differentiating brain perfusion changes in stroke vs neurodegenerative disease.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Fisher, R. A., Miners, J. S., & Love, S. (2022). Pathological changes within the cerebral vasculature in Alzheimer's disease: New perspectives. *Brain Pathology*, e13061. https://doi.org/10.1111/BPA.13061

- 1. Yoshiura, T., Hiwatashi, A., Yamashita, K., Ohyagi, Y., Monji, A., Takayama, Y., ... Honda, H. (2009). Simultaneous Measurement of Arterial Transit Time, Arterial Blood Volume, and Cerebral Blood Flow Using Arterial Spin-Labeling in Patients with Alzheimer Disease. *American Journal of Neuroradiology*, 30(7), 1388–1393. https://doi.org/10.3174/AJNR.A1562
- 2. Joseph, C. R., Benhatzel, C. M., Stern, L. J., Hopper, O. M., & Lockwood, M. D. (2020). Pilot study utilizing MRI 3D TGSE PASL (arterial spin labeling) differentiating clearance rates of labeled protons in the CNS of patients with early Alzheimer disease from normal subjects.

Magnetic Resonance Materials in Physics, Biology and Medicine, 33(4), 559–568. https://doi.org/10.1007/s10334-019-00818-3

- 3. Liu, Y., Zhu, X., Feinberg, D., Guenther, M., Gregori, J., Weiner, M. W., & Schuff, N. (2012). Arterial spin labeling MRI study of age and gender effects on brain perfusion hemodynamics. *Magnetic Resonance in Medicine*, *68*(3), 912–922. https://doi.org/10.1002/MRM.23286
- 4. Huang, D., Guo, Y., Guan, X., Pan, L., Zhu, Z., Chen, ai, ... Li, P. (n.d.). Recent advances in arterial spin labeling perfusion MRI in patients with vascular cognitive impairment. https://doi.org/10.1177/0271678X221135353

Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Lauri Ann Maitland, DO, MPH

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

This would involve collaborative effort with Lynchburg Family Medicine Residency. The projects would be Quality Improvement/Process Improvement exdeavors involving LFMR residents who would collaborate in directing these efforts with the goal of preparing a poster. Projects would be clinical in nature, based on current patient data. Ideas for upcoming QI projects: 1) examining & improving breastfeeding rates for LFMR patients 2) examining our process of mini-mental status exam screening in our clinical setting, 3) improving screening for Social Determinants of Heath at LFMR clinic

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Intervention to Increase Breastfeeding Rates | AAFP

Data show breastfeeding rates improving but disparities exist | AAP News | American Academy of Pediatrics

<u>Interventions to Improve Breastfeeding Self-Efficacy and Resultant Breastfeeding Rates: A Systematic Review and Meta-Analysis - PubMed (nih.gov)</u>

Mini-Mental State Examination for the Detection of Dementia in Older Patients | AAFP

Screening for Social Determinants of Health in Daily Practice | AAFP

Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Linda Mintle

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

Unclear at this time as we need to finish out multidisciplinary module on Delusions of Parasitosis with the 3 students + 1 resident involved; need to reword our DEI intervention for next academic year with 2 students and need to finish a study with Dr. Joseph, Dr. Lee, and Harm Reduction study....all of these need to be completed and submitted for possible publication so not sure how far along I will be to take on a new project and if I will be able to add students. I might be able but too early to know.

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

Social and behavioral sciences, medical student wellness, pain, religiosity/spirituality and health

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Mintle, L. & Kribs, J. Living beyond Pain (2019) Grand Rapids, MI: Baker Books

Mason, A., Lee, C., Nakamoto, A., Xu, J., Enright, R., & Mintle, L. (February 25, 2022). *The effect of forgiveness and service love intervention on psychological well-being well-being for COM students*. Poster presentation at the VCOM research Day, Roanoke, VA. (write up needs to be submitted)

2022 AMA poster: The impact of the COVID 19 pandemic on Medical Students in the 2021-2022 NRMP Application Process (write up in progress)

Mintle, L., Greer, C. & Russo, L. (2019). Longitudinal assessment of medical student emotional intelligence over preclinical training. *The Journal of the American Osteopathic Association*, 119(4), pp. 236-242.

Mintle, L. (June, 2022) A skills-based approach to build resiliency in medical students. Brief oral presentation at the Association of Directors of Medical Student Education in Psychiatry (ADMSEP) Annual Meeting, Austin, Texas.

Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Dr. Ojuola and Dr. Gigliotti

Department: Pediatrics

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E-mail: oojuola@liberty.edu, jcgigliotti@liberty.edu

Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

Osteopathic approach to ankyloglossia. Students will perform a literature review and summarize the oseoptahic approach to managing tongue-tie, with additional consideration to other forms of physical manipulation.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

Messner et al., (2020). DOI: 10.1177/0194599820915457

Kelly & Yang, (2022). DOI: 10.1542/pir.2020-005108

Ankyloglossia (tongue-tie) in infants and children. UpToDate (2022).

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Nicholas L. Rider, DO

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

This depends upon involvement at the time by other students and availability of data. Safely, I could accommodate 5 but perhaps more given optimal circumstances.

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

Population health, epidemiology, quality improvement and outcomes research related to allergy-immunology.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

A Validated Artificial Intelligence-based Pipeline for Population-Wide Primary Immunodeficiency Screening.

Rider NL, Coffey M, Kurian A, Quinn J, Orange JS, Modell V, Modell F.J Allergy Clin Immunol. 2022 Oct 12:S0091-6749(22)01343-4. doi: 10.1016/j.jaci.2022.10.005. Online ahead of print.PMID: 36243223

PI Prob: A risk prediction and clinical guidance system for evaluating patients with recurrent infections.

Rider NL, Cahill G, Motazedi T, Wei L, Kurian A, Noroski LM, Seeborg FO, Chinn IK, Roberts K.PLoS One. 2021 Feb 16;16(2):e0237285. doi: 10.1371/journal.pone.0237285. eCollection 2021.PMID: 33591972

<u>Calculation of a Primary Immunodeficiency "Risk Vital Sign" via Population-Wide Analysis of Claims</u>
<u>Data to Aid in Clinical Decision Support.</u>

Rider NL, Miao D, Dodds M, Modell V, Modell F, Quinn J, Schwarzwald H, Orange JS.Front Pediatr. 2019 Mar 18;7:70. doi: 10.3389/fped.2019.00070. eCollection 2019.PMID: 30937298

<u>Infection Phenotypes Among Patients with Primary Antibody Deficiency Mined from a US Patient Registry.</u>

Pickett G, Motazedi T, Kutac C, Cahill G, Cunnigham-Rundles C, Fuleihan RL, Sullivan KE, **Rider NL.** J Clin Immunol. 2021 Feb;41(2):374-381. doi: 10.1007/s10875-020-00916-1. Epub 2020 Nov 17.PMID: 33205244

Seeing the Forest for the Trees: Evaluating Population Data in Allergy-Immunology.

McGowan EC, Robinson LB, Chen W, Rider NL. J Allergy Clin Immunol Pract. 2021 Dec;9(12):4193-4199. doi: 10.1016/j.jaip.2021.09.018. Epub 2021 Sep 24.PMID: 34571199

Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Betsy L. Schloo, MD

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

6-7

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

Clinical Pathology - Laboratory Medicine Anatomic Pathology: Pediatric Pathology

Cardiac Pathology Pulmonary Pathology

<u>List of Publications/References for Students to Review</u>

Please provide no more than 5 references for student review that are pertinent to your research program.

Proposal:

COURSE DESCRIPTION: The modern concepts of cell and tissue biology including molecular cell biology are incorporated into a framework of traditional histology didactics. Morning sessions will be for initial pedacologic sessions reviewing non-diseased histology of major organ systems to include lung, cardiovascular, and kidney. It is expected that the student will achieve an understanding of the histological structure upon which much of the current knowledge of normal and pathological function is based. Focus in the afternoon session will be on the histologic changes within these organ systems that occur in common diseases that especially afflict today's civilization. Diabetes mellitus type II and hypertension will be studied during the first and second week. Amyloid, tobacco abuse and/or effects of aging are under consideration for third week choice. The fourth week will be study of a disease/disorder of the student-doctor's choice. A list of potential topics will be available. Alternatively, the student doctor can request a

specific disorder to explore; approval is required by the course director. The student-doctor will present the effects of the disease on appropriate organ systems to the group, incorporating articles as well as appropriate histology textbook sources.

The fundamental tissues and organs will be studied with virtual microscopy and digital images of light microscopic preparations; glass slides and microscopes will also be available. Students also have access to an on-line library of histological photographs. Reading assignments will be given to complement the learning experience and facilitate discussion within small groups and within the whole group. The student involvement will be utilized for grading – pass/fail.

The course will consist of daily team-based learning exercises and virtual/digital laboratory sessions. Students are expected to do the assigned pre-reading and come to the sessions prepared for discussion. The major learning experience occurs in the laboratory sessions where teaching consists of small group discussions related to anatomical questions of the day, and the discussions as to effects from the disease process.

The final week session and associated presentations/interactions will determine the final grade.

A field trip is also under consideration to observe a local pathology practice.

Learning objectives and grading rubric, as a pass/fail course, are under development.

TEXTS: 1. https://digitalhistology.org/review-textbook/

- 2. Pawlina and Ross. <u>Histology: A Text and Atlas</u>, 8th ed. Wolters Kluwer (available LWW Health library; required textbook)
- 3. Selected articles

Supplementary articles, laboratory manuals and materials will be supplied.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Scott Severance, PhD

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Office Phone #: 434-582-2477

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2-3

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

The goal of this project is to continue a project that was recently started by three OMS-III students who saw the need for and importance of providing encouragement to students, especially students studying for boards and starting their OMS-I and OMS-II years. Students working on this project would evaluate the effectiveness of the program in encouraging students who were studying for either Level 1 or Level 2 and take steps to expand the program to OMS-I and OMS-II students. Survey data would be analyzed, and, based on the findings, IRB paperwork and a new arm of the study and new surveys would be prepared.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Scott Severance, PhD

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2 - 3

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

The goal of this project is to continue a project that, using actual cases, sought to engage students in small-group discussions about ethical principles and their application to a future physician's practice. The discussions sought to incorporate material taught in HME and HMJ and to involve students from the schools of nursing, divinity, medicine, and nursing. Students working on this project would be responsible for analyzing survey results from small-group discussions held during the 2022 - 2023 school year and planning future small-group discussions.

<u>List of Publications/References for Students to Review</u>

Please provide no more than 5 references for student review that are pertinent to your research program.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Scott Severance, PhD

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Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

1-2

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

The goal of this project is to evaluate the utility of an interprofessinal educational ethics event involving first-year med students and students in their senior year of the nursing program at LU. The student working on this project would evaluate the materials used in the IPE learning activity, analyze survey results, seek to determine the most effective way to help students understand moral injury and build moral resilience, and suggest changes to future IPE events.

<u>List of Publications/References for Students to Review</u>

Please provide no more than 5 references for student review that are pertinent to your research program.

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Faculty Research & Scholarly Activity Program Overview

Mentor Information

Name: Scott Severance, PhD

Department: Molecular and Cellular Sciences

Office #: 3092

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E-mail: smseverance@liberty.edu

Expectations for Student Involvement During the Summer Research Elective

Please indicate amount of time students should dedicate to your research program over the summer to generate enough data/information for a research/scholarly activity product (such as an abstract for LUCOM Research Day or other meeting/conference).

More than 4-Weeks

Number of Students Willing/Able to Mentor During the Summer Research Elective

Please indicate the number of students who are able to participate in your research program for the Summer Research Elective.

2-3

Research & Scholarly Activity Interests and Area(s) of Expertise

Please list the fields in which you study and/or are recognized as an expert.

The goal of this project is to conduct a sleep study which asks students to track and think about their sleeping habits in order for us to determine if educating participants about the benefits of healthy sleep habits and the behaviors that affect good sleep would cause participants to positively change their sleeping behaviors; if yes, we seek to figure out if the changes have any affects on a student's medical school trajectory.

Students who participate in this project will be involved in conducting literature reviews, evaluating the efficacy of earlier versions of the sleep study, designing the study and surveys, collecting and analyzing data, and working with a team to achieve their goals. The potential of gamifying the study and publicizing the results of the study during the study will be a topic of discussion.

List of Publications/References for Students to Review

Please provide no more than 5 references for student review that are pertinent to your research program.

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