



# ECU

## BRODY SCHOOL OF MEDICINE

### DISTINCTION TRACK PROGRAM ANNUAL REPORT

Academic Year: June 2023 - May 2024

The Brody School of Medicine offers four distinction tracks related to the core missions of the school: Health System Leadership and Transformation, Medical Education and Teaching, Research and Service-Learning.

The distinction tracks provide a mechanism to formally recognize the exceptional accomplishments of medical students, while allowing the students to independently pursue areas of interest that inspired them to pursue a career in medicine. Mentors work closely with students throughout the rigorous, longitudinal three-year experience, guiding and evaluating their progress throughout.



**Track Leader:** Weili Chang, MD

**Distinction Track:** Health System Leadership and Transformation

**Description of Learning Activities:**

**Summer Immersion:**

The summer immersion is an 8-week program that uses a variety of instructional techniques, using adult learning theory, to educate on Health Systems Science topics. In general, students spent about 15 hours/ week for in-class didactics, activities, and experiences and the remainder of the 25 hours/week on outside experiential activities, independent study, project work and group activities. The students reflect on their educational content through many techniques including small group discussion, debate, written reports, small and large group presentations. Lessons learned during COVID allowed us to move to a hybrid approach for the summer immersion with the ability to invite more outside speakers.

Sessions for the immersion included:

The session themes included:

1. **Systems Thinking and QI**
  - Intro. to Health Systems Science
  - Historical Overview (PS/QI)
  - Systems Thinking
2. **MFI and Patient Safety**
  - Patient Safety
  - QI vs research
  - Sustainability
  - Improvement Models
  - Change Management
  - Six-sigma
  - Patient Safety & RCA
3. **Health Policy & Leadership**
  - Health Policy
  - International Health
4. **Data and Economics**
  - Billing & Coding
  - Informatics and Data Analysis
  - Accountable Care Organizations
  - Value Based Care
  - Pricing of Health Care
5. **Population Health and Public Health**
  - Population Health
  - Public Health
6. **Team Science and IPE**

- Interprofessional Practice/Team Science
- Interpersonal Communication Skills

#### 7. Communication

- Interpersonal Communication
- Media Training
- Poster Development

#### 8. Wrap Up

- Innovation
- Leading Others
- Change Management

### **M2 (2022 Cohort):**

This longitudinal curriculum builds on the summer immersion to enhance the foundational material and include experiential activities in the real-world setting. The students met 5 times over the year with curriculum included several small group sessions with readings, small group activities, and presentations. The students continued to participate in a mentored quality improvement activity. The progress on the project was monitored through regular updates and submitted reports. The leadership thread was developed with attention to leading others with a DiSC assessment and group feedback session.

### **M3 (2021 Cohort):**

This longitudinal curriculum builds on the summer immersion to enhance the foundational material and include experiential activities in the real-world setting. The curriculum included several small group sessions with readings, small group activities and presentations. The students continued participation in a mentored quality improvement activity. The progress on the project was monitored through regular updates and submitted reports. The leadership thread was continued with attention to leading others with the completion of the Thomas Kilmann Instrument exploring conflict styles and using a group feedback session.

### **M4 (2020 Cohort):**

This longitudinal curriculum continued to build and enhance the foundational material, culminating in a Capstone experience. The focus of this curriculum for this year was to complete the quality improvement project, prepare a presentation and manuscript suitable for publication. The students had regular activities as they did in prior years. The capstone experience reinforced the completion of the project, preparation of a manuscript and public presentation. The leadership thread was continued with a formal Emotional Intelligence assessment, M2-M4 group meeting for pearls of wisdom from the upper classes, and group feedback session.

### **Presentation:**

Improving documentation of Pediatric Early Warning Score (PEWS) in the Electronic Health Record (EHR). **Titilola Babatunde**, Shademan Memarian, MD, Edith Reyes Alvarado, MD. 2024 ECU Health Quality Improvement Symposium. Honorable mention for Quick Shot Podium Presentations.

Promoting Radiology Integration through Medical Education (PRIME) – Improving Student Competency at an Early Stage. **Taha Lodhi**. 2024 ECU Health Quality Improvement Symposium

Standardizing Skill Development Discussions with Adolescents with Diabetes to Improve Transition from Pediatric to Adult Care. **Ananya Koripella**. 2024 ECU Health Quality Improvement Symposium

Right Care at the Right Location – Retrospective Review. **Miles Farlow**. 2024 ECU Health Quality Improvement Symposium

Improving Transition to Adult Care in Children and Youth with Special Health Care Needs. **Rishita Yedur**. 2024 ECU Health Quality Improvement Symposium

Improving Care for People with Diabetes in ECU APHC through Optimization of Clinic Resources. **Nolan Davis**. 2024 ECU Health Quality Improvement Symposium

Improving Sickle Cell Transition from Pediatric to Adult Care. **Jonathan Bowling**. 2024 ECU Health Quality Improvement Symposium

The Impact of Using a Health Systems Sciences Signposting on Student Health Systems Sciences (HSS) Knowledge During the Preclinical and Clinical Medical Education Curriculum. **Valentine Okafor, BS, M2**, Brody School of Medicine, Ashish Khanchandani, MS, M4, Brody School of Medicine, Jenna Garris, MA, Office of Medical Education, Brody School of Medicine, Jill Sutton, MD, Department of Obstetrics & Gynecology, Brody School of Medicine, Lisa Domico, PhD, Department of Pharmacology & Toxicology, Brody School of Medicine. 2024 ECU Annual Medical Education Day

Promoting Radiology Integration through Medical Education (PRIME): Augmentation of Quick Hits – Class of 2026. **Jacob C. Richardson**, MS, M2, Sebastian A. Vega, BA, M2, Michael H. Burt, BA, M4, Ilya Boykov, MS, M4, **Taha Lodhi**, BS, M3, Philip J. Boyer, MD, PhD, Department of Pathology and Laboratory Medicine, P. Montoya, MD, Department of Radiology, ECU Health Medical Center, Eastern Radiologists. 2024 ECU Annual Medical Education Day

Bridging the Gap in Medical Education: The Role of Near-Peer Created Resources in Anatomy and Embryology at Brody School of Medicine. K. Ryan Dickerson, M3, MET Scholar, Kegan Cox, M2, Thomas Decker, M2, Courtney Elliot, M3, Micah Furr, M3, Thekra Hindi, M2, **Taha Lodhi**, M3, Julianna Roupas, M3, Emily Askew, PhD, Department of Anatomy and Cell Biology. 2024 ECU Annual Medical Education Day

Evaluating Second-Year Medical Student Perceptions of a Combined Anki Deck for Spaced Repetition-Based Pathology Course Study. Sebastian Vega, M2, Radhika Dhingra, M2, **Taha Lodhi**, M3, David Nacouzi, M3, Brady B. Buchanan, Resident, Philip J. Boyer, MD, PhD, Department of Pathology & Laboratory Medicine. 2024 ECU Annual Medical Education Day

Utilization of Artificial Intelligence Image Generation Tools to Augment Mnemonics for Medical Students: Proof of Concept. **Jacob C. Richardson**, MS, M2, Alissa L. Davis, BS, M2, Lisa M, Domico, MS, PhD, Department of Pharmacology & Toxicology, Philip J. Boyer, MD, PhD, Department of Pathology & Laboratory Medicine. 2024 ECU Annual Medical Education Day

**Presentations for each cohort:** 12 total (CO2024=5, CO2025=4, CO2026=5)

### **Student Publications:**

**Travia K**, Kohler JA Sr, Akpan US. Implementing food insecurity screening in a level IV neonatal intensive care unit. *J Perinatol.* 2023 Sep;43(9):1183-1188. doi: 10.1038/s41372-023-01709-1. Epub 2023 Jul 3. PMID: 37400495.

**Mooney S**, Devagiri S, Puuri A, Naylor M, Bear K, Akpan US. Improving Parental Knowledge of Medically Complex Neonates Through Scheduled Conferences. *Am J Med Qual.* 2024 May-Jun 01;39(3):105-114. doi: 10.1097/JMQ.000000000000180. Epub 2024 Apr 24. PMID: 38683697.

**Publications for each cohort:** 4 total; CO2024=3, CO2025=0, CO2026=1. Includes all status' (submitted, accepted, in press)

### **Accomplishments:**

The program continues to evolve and improve to meet the needs of our LINC Scholars. This year we graduated the seventh cohort of scholars. Collectively they have successfully established a strong foundation for ongoing program development. They have all completed their program requirements and graduated with distinction. The participants continue to give positive feedback on the content and describe how participation has enhanced their residency applications. Students have indicated that the program has given insight into alternative career goals.

Program requirements for the longitudinal curriculum is in the process of evolving with the new director. We have added new lectures to further improve publication for the scholars based on scholars' feedback. We have developed checklists and meeting content for each year. This has enabled the program leadership to ensure the expansion of the curriculum and educational development. The structure has enabled both students and program leaders to better track and monitor the curriculum. An important evolution of the program has been to continue the evolution of the leadership curriculum for all Distinction Tracks. Combining the students from all the Tracks has improved the experience, enhanced the learning community, and expanded the reach of the Tracks.

### **Barriers:**

A significant barrier is continuing to recruit mentors for student projects. While we have been successful recruiting Teachers of Quality graduates, faculty mentors are still challenging to recruit based on their many other competing responsibilities.

With the continued growth and development of the program, there still exists challenges for managing the curriculum. Jenna Garris provides excellent organization and management of the program. However, the increasing demands on her time and the growth of additional Distinction Track programs will challenge overall administrative resources.

Funding for all Distinction Tracks will remain a concern. There has been ongoing support for the programs, but future budget challenges are possible. In addition, items that are not allowed by state funding (food, awards, material) will be difficult to provide. With the changes to the compensation plan, the ongoing faculty needs for the program are a concern.

**Do you anticipate implementing any changes to the program in the upcoming academic year?**

A new program director started in July of 2024. There is still a heavy clinical load and often meetings require shuffling of clinical work or placed on post call days. There is ambition to reformat the longitudinal sessions with the goal of boosting both experience as well as publications. This may require reexamination of the existing curriculum, activities, and program deliverables. The changing compensation plan, with emphasis on clinical work, may put additional pressures on faculty involvement and contributions to the program in terms of mentor recruitment.

**Track Leader:** Kacie Lord, MAEd., EdS., and Dave Eldridge, MD (Co-Directors)

**Distinction Track:** Medical Education & Teaching (MET)

**Description of Learning Activities:**

**Summer Immersion:**

- MET Scholars completed a Summer Immersion Teaching Experience (SITE) through the Allied Health Gross Anatomy course, Brody Rise Program, and the Clinical Simulation Center. Students acted as Teaching Assistants throughout these programs, refining their curricular design and deployment, assessment design and evaluation, program development and administration, and peer-to-peer tutoring and feedback skills.
- Scholars completed two online Adult Education courses: ADED 7580 and 6491 through the ECU College of Education.
- Scholars participated in small-group discussion sessions focused on adult learning theory, effective teaching strategies, and medical education research planning. Research planning involved completing IRB online training modules and RefWorks training, and preliminary literature searches.
- Scholars reflected on their teaching experiences through an open-ended essay and provided program feedback after the SITE was completed.

**M2:**

- Scholars secured an educational research mentor in an area of interest, and worked to develop a unique IRB-approved, hypothesis-driven Medical Education Research Project (MERP), designed to fill a curricular gap in either basic science or clerkship curricula.
- Progress was mapped quarterly to promote student completion.
- Scholars engaged in small group meetings throughout the M2 year focused on further developing their understanding of adult education and the role of educators in academic medicine, and strengthening their knowledge of instructional tools

**M3:**

- MERP data collection and analysis continued, and scholars prepared preliminary results for presentations locally, regionally, and/or nationally.
- Progress was mapped quarterly to promote student completion.
- Scholars engaged in small group meetings throughout the M3 year focused on expanding their understanding of LCME accreditation requirements, and further expanding awareness of emerging trends and innovative methods for clinical instruction.

**M4:**

- Scholars began to prepare final MERP results for presentations at Distinction Day, as well as for manuscript submission to a scholarly journal.
- Scholars finalized teaching portfolio elements prior to residency interview season.
- Scholars completed a Capstone Course in which they honed their peer-review skills, interviewed a clinical educator, and practiced designing and delivering an educational session.

- Select scholars completed online Adult Education coursework (ADED 6495 and 6487), rounding out the requirements for the ADED graduate certificate.

### **Scholarship:**

#### **Student Abstracts (include abstracts submitted but not accepted):**

- 6 (CO2024=5, CO2025=0, CO2026=1)

#### **Student Presentations/Publications:**

- 2 (CO2024=2, CO2025=0, CO2026=0)

#### **Faculty/Team Presentations/Publications:**

- Abstract submitted for a poster presentation, but will not know until August if it's been accepted or not.

#### **Non-Scholarly Communication (i.e. news stories): N/A**

#### **Accomplishments:**

- The track produced three graduates with the MET distinction, all of whom confirmed the track was an invaluable experience, aiding in their ERAS applications. All graduates noted they were asked about this experience in all of their residency interviews.

#### **Barriers:**

- Summer Immersion Teaching Experiences (SITES) for the summer anatomy course appeared to provide an unbalanced workload for scholars compared to other sites, based on feedback from students across all SITES.
  - This workload has been considered during SITE placement for the upcoming cohort of summer immersion students, and track leadership will be working directly with SITE administrators to facilitate a more equitable workload for all learners.
- A number of Step and Course failures has created a very small cohort for the current M3 and M4 classes, which will present a challenge with some of the group work scheduled in the track.
  - We have reimagined some of the group-based activities for implementation this year, and will monitor how these changes will impact attainment of course objectives as the year progresses.

#### **Technical Assistance Needed:**

- Continued assistance with managing the new VidaNova site and posting items within the course page.
- Jess Day-Brinkley does an amazing job with managing this side of things and is an invaluable part of successfully executing our track.

#### **Additional Recourses Needed:**

- No additional resources are being requested at this time

#### **Timeline/Work plan for next year:**

- Explore options for additional SITES beyond the anatomy experience for the coming year.

#### **Do you anticipate implementing any changes to the program in the upcoming academic year?**



- Changes to Summer Immersion programming were made for this year, including:
  - Coordination with ADED faculty to meet with the cohort in-person during the immersion program.
- Reduction in number of Anatomy SITE placements from three scholars down to two.
- Inclusion of recent graduates in summer immersion programming.
  - Most recent M4 graduates will be hosting a new session to aid in transitioning M2 scholars into the track and providing 'tips and tricks' for managing the workload of the track within the context of medical school demands.

**Budget/Expenses:**

- We hope to have our students attend appropriate conferences to share the results of their innovational endeavors. Some of our students are also requesting additional resources to help start and continue their medical educational projects. More specific expenditures are not available at this time.

**Track Leader:** Johanna Hannan, PhD

**Distinction Track:** Research

**Description of Learning Activities:**

**Summer Immersion:**

- 28 total (4 dental and 24 medical) students participated in the 2023 Summer Scholars Research Program run by Dr. Kori Brewer. The program had in person weekly didactic sessions and research experiences.
- The following topics were covered: developing a research question, searching and appraisal of the literature, data analysis, elevator speech, graphical abstracts, writing abstracts, poster presentations, and social media to promote your research.
- The 2023 Medical Student Scholarship Day was held in person on July 31<sup>st</sup>. To increase awareness and advertise for the event, the week before the scholarship day students posted quick-shot presentations of their project via Twitter.
- 13 students applied to the Research Distinction Track. 10 were selected based on a written proposal and their research day poster presentations.

**M2:**

- Ten RDT students met in person five times during their M2 year and received both informal and formal didactic presentations on topics, including an in-depth review of objectives and expectations of the RDT program, oral presentations of research proposals, Myers–Briggs Type Indicator session, navigating mentor and sponsor relationships, making room for research in medical school and an all-track DiSC session. Unfortunately, in April, three students were dismissed from the track due to Step 1 failures. Each student submitted quarterly reports of their progress via a RedCap form.

**M3:**

- Eight RDT students in the M3 cohort met six times for both informal and formal didactic presentations on topics, such as how to write for the reader, identifying journals for publishing, writing the first draft, data visualization, writing introduction/discussion sections, manuscript review process, and one all track leading through conflict session. Each student submitted quarterly reports of their progress via RedCap form.

**M4:**

- Eight M4 students remained in the RDT for the graduating cohort. One student left the track prior to Capstone. An informal in person session was held with all three cohorts (M2, M3, M4) to allow everyone to share advice with their lower classmates. Additionally, we held a trivia session for all cohorts hosted by Here's Your Host. Five virtual sessions were held covering the following topics: performing and interpreting systematic reviews; CV, personal statements and biosketches; finding funding and writing specific aims; Making room for research in a clinical career; and creating a research proposal. Each student submitted quarterly reports of their progress via RedCap.

- Students participated in a 2-week Capstone course where they participated in large-group leadership sessions and completed program deliverables including a poster, a final manuscript, and a mock grant proposal. Capstone culminated with a poster presentation at Distinction Day.

**Scholarship:**

**Student Abstracts/Presentations:** 14 (CO2024=3, CO2025=5, CO2026=6)

**Student Publications:** 23 total (CO2024=17, CO2025=4, CO2026=2)

**Faculty/Team Presentations/Publications:** 0

**Non-Scholarly Communication (i.e. news stories):** 0

**Accomplishments:** Students continue to impress me with the number of presentation awards and the growth of the student's writing skills as they complete the track. Overall everyone stayed engaged in virtual session and felt more connected to this group of M4s.

**Barriers:** None.

**Technical Assistance Needed:** Continued administrative support from OME (2 people preferred).

**Additional Recourses Needed:** Continuing to pull RedCap data from the quarterly progress meetings would be helpful to put together the annual reports.

**Timeline/Work plan for next year:** Similar number of meetings to this year.

**Do you anticipate implementing any changes to the program in the upcoming academic year?**

- I have intentions of implementing a buddy system and pair new RDT scholars with an upper year RDT scholar to provide mentorship. This should be the year to implement it!

**Budget/Expenses:** Group ASPA membership, Prism licenses, Poster printing, Trivia event, food for progress meetings, funding for travel, "How to Write a lot Books" for M3s, dotted notebooks for M2s

**Track Leader:** Jennifer Crotty, MD

**Distinction Track:** Service-Learning Distinction Track

**Description of Learning Activities:**

**Summer Immersion:** 50 hours of volunteer time with community partners and weekly didactics focusing on advocacy, Social Drivers of Health, epidemiology, Community Project Development, Leadership Development courses. All scholars presented their summer work at Summer Research Forum in August 2023

**M2:** Longitudinal Resilience Curriculum from A Doctor's Dozen Book and group community service project prepared meal at the Ronald McDonald House. Longitudinal involvement with community partner. All track Leadership/Personality testing

**M3:** Longitudinal SDoH curriculum every 6-8 weeks and group community service project was a community garden workday at the Farmville community garden. Longitudinal involvement with community partner. All track Leadership/Personality testing.

**M4:** Longitudinal curriculum focusing on transitioning advocacy and service in residency and beyond, participation in All track Leadership/Personality testing. 2-week Capstone with focus on presentation and completion of projects. All projects presented at Distinction Day. As a group, participated in a service-learning project where they held a health fair on MLK weekend.

**Scholarship:**

**Student Abstracts (include abstracts submitted but not accepted):**

**Student Presentations/Publications:**

Lopez M et al. "Building Bridges: The Impact of Matching Mentees and Mentors in a Premedical Peer Mentoring Program" *South Med J* 2024 May;117(5):279-281. doi: 10.14423/SMJ.0000000000001678.

Furr M et al. "Musculoskeletal Knowledge on the in-Training Examination Improves in Family Medicine Residents Participating in a Longitudinal Sports Medicine Clinical Track" *J Med Educ Curric Dev*,. 2024 May 2;11:23821205241250145. doi: 10.1177/23821205241250145. eCollection 2024 Jan-Dec.

Valentina Marginean 1, Pankti Sheth 1, Ashima Varma 1, Arden Vessie 1, "A short review of acculturation and addiction among immigrant and refugee communities in the United States and abroad" *J Nurs Scholarsh*. 2023 May;55(3):584-589. doi: 10.1111/jnu.12873. Epub 2023 Jan 5.

**Presentations for each cohort:** 13 total (CO2024=4, CO2025=4, CO2026=7)

**Publications for each cohort:** 9 total all cohorts (CO2024=6, CO2025=3, CO2026=0) Includes all status' (submitted, accepted, in press).

**Faculty/Team Presentations/Publications:** none relating to track

**Non-Scholarly Communication (i.e. news stories):** Track director featured in Daily Reflector for her work with Reach Out and Read

**Service hours for each cohort:** CO2024=275, CO2025=390, CO2026=809

**Accomplishments:**

Seven M2, 4 M3, 4 M4 SLDT scholars were inducted into ECU's Servire Society in recognition of >100 hours of community service by each person in the preceding year.

Dr Crotty served on the state board of directors the American Academy of Pediatrics (NCPeds) for her work in child advocacy

Taylor Stamey was awarded a Schweitzer fellowship to complete a Homeless Respite at Crossroads Community Shelter

Arden Vessie received the 2023 US Public Health Service Excellence in Public Health Award

Latasha Stabler raised over 1K for service-learning projects in an effort toward establishing a service-learning funding source

**Barriers:** lost an M2 student because of academic struggles, faculty time cut from 0.1FTE to 0.2FTE

**Technical Assistance Needed:** no additional

**Additional Recourses Needed:** no additional

**Timeline/Work plan for next year:** no changes

**Do you anticipate implementing any changes to the program in the upcoming academic year?** no

**Budget/Expenses:** no changes