ACGC Course Director Biosketch Format (*Approved by BOD: January 2024*)

COURSE DIRECTOR/FACULTY TEACHING BIOGRAPHICAL SKETCH
Follow this format for all faculty course directors (For courses directed by program leadership use the Program Directors/Co-Directors or other Program Leadership form).

DO NOT EXCEED FOUR PAGES

NAME: Mackenzie Mosera MAT MS MPH CGC

INSTITUTION POSITION TITLE: Lead Genetic Counselor, Associate in Pediatrics

GRADUATE PROGRAM POSITION TITLE: Course Director

EDUCATION/TRAINING: *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
The College of New Jersey (Ewing, NJ)	BS	05/2015	Biology / Deaf Education
The College of New Jersey (Ewing, NJ)	MAT	05/2016	Deaf Education
University of Michigan (Ann Arbor, MI)	MS	05/2019	Genetic Counseling
University of Michigan (Ann Arbor, MI)	MPH	05/2019	Health Behavior & Health Education
MI Developmental Disabilities Institute (Detroit, MI)		05/2019	Leadership Education in Neurodevelopmental Disabilities (LEND)

A. **Course Title(s):** Medical Genetics I, Public Health Genomics, LEND ITT Program

B. **Please provide a brief statement of expertise and/or skill set that you offer for students taking the course(s) you are responsible for teaching (Standard A2.5.2).**

My primary clinical role focuses on working with patients with a wide range of conditions and genetic risk factors in pediatric and general genetics settings. Specifically, I work in both inpatient and outpatient general genetics clinics as well as serving as the Genetic Counselor for the Cleft & Craniofacial Multidisciplinary Clinic and Newborn Hearing Screening Follow Up. Throughout my time at Vanderbilt, my passion for addressing gaps in care and services, particularly as it relates to caring for patients in the inpatient setting has grown. Over the past few years, I have led efforts to improve genetic counseling services in the inpatient, and other settings at Vanderbilt through both dedicated effort in these spaces as well as increasing access to rapid genome sequencing for critically ill neonates and pediatric patients. My research interests span a variety of quality improvement projects. I aim to bring many of these advocacy skills into the classroom where I work with students to ensure they not only have the knowledge they need, but also the tools to communicate effectively about our expertise. In regard to my continued growth as an educator, I participate regularly in the Becoming a Better Educator Series through VUMC as well as program/course specific training with the MGC program and strive to incorporate student feedback effectively.

C. Positions, certification, and honors *(include dates)*:

I. *Positions and employment:*

I. Lead Genetic Counselor, Associate in Pediatrics, Division of Medical Genetics & Genomic Medicine (Feb 2024 – *Present)*

II. Genetic Counselor, Assistant in Pediatrics, Division of Medical Genetics & Genomic Medicine (Sep 2019 – Jan 2024)

III. Assistant Fieldwork Coordinator, Vanderbilt Masters Genetic Counseling Program (Jan 2022-Jan 2023)

IV. Genetic Test Utilization Management Counselor, Department of Pathology, Microbiology & Immunology (Jan 2020 – July 2024)

II. *Certification (please include specific field)*

I. Certified Genetic Counselor, American Board of Genetic Counseling (8/2019 – Present)

II. Licensed Genetic Counselor, Tennessee # 313 (8/2019 – Present)

III. *Honors:*

I.TNGCA Excellence in Advocacy Award (8/2023)

II. Safety Super Hero Award (8/2022)

III. TNGCA Outstanding Clinical Supervisor Award (8/2021)

IV. Nominated for 2021 Vanderbilt Genetics Institute Excellence in Classroom Education Award (5/2021) Award 5/2019

V. Nominated for 2020 Vanderbilt Genetics Institute Excellence in Mentoring Award (5/2019)

D. Please list your Teaching/Mentorship/Clinical Supervision/Leadership Activities. *(within the last 5years)*:

Graduate School Courses

Course Director for MGC Courses

GC 6500 - Medical Genetics I (formerly Human Development) | VU MGCP — Sep 2020 - Present
GC7000 - Genomics in Public Health| VU MGCP — Sep 2020 - Present
Leadership Education in Neurodevelopmental Disorders (LEND) MGC IT Program | VU MGCP — Jan 2020 - Present
GC7500 - Topics in Clinical Genetics | VU MGCP — Sep 2020 - Dec 2021

Guest Lectures

Topics in Audiology - Senior Extern Seminar Series | VU Doctorate of Audiology Program
- Genetics: Who, Why & How Often: March 2023

GC 6015 - Theories of the Human Experience | VU MGCP
- Two Day Disability Theory Workshop: March 2022, April 2023, March 2024

LEND Core Module | Vanderbilt Kennedy Center LEND Consortium
- Genetics Core Module Facilitator: November 2022, November 2023

PBHG 667 Public Health Genomics | The College of New Jersey MPH Program
- Genetic Counseling: Clinical Practice & Public Health Implications: Oct 2021, Oct 2022

GC 6250 - Laboratory Science in Medical Genetics | VU MGCP
- Genetic Test Utilization Management: Feb 2021, Feb 2022, Feb 2023, Feb 2024

HRSP 8352 - Pathology of the Auditory System | VU Doctorate of Audiology Program
- Genetic Counseling in the Context of Hearing Loss: Feb 2020, March 2021, March 2022, March 2023

GC 6515 - Medical Genetics II | VU MGCP
- CDG, Skeletal Metabolic Conditions & Biotinidase Deficiency: Feb 2020

GC 6500 - Human Development | VU MGCP
- Development of the Ear & Auditory System & Hearing Loss Genetics: Oct 2019

Curriculum Development

MGCP Integrated Case Content Developer — Sep 2019 - April 2021
- Developed and critically reviewed comprehensive medical education cases in alignment with ABGC Practice Based Competencies for Genetic Counselors

Continuing Medical Education

University of Kentucky - Pediatric Genetics — April 2024
Establishing a Perinatal Demise Workflow; One Institutions Experience

Division of Genetics & Genomic Medicine (VUMC) - Journal Club — January 2023

Division of Genetics & Genomic Medicine (VUMC) - Journal Club — May 2022

Division of Genetics & Genomic Medicine (VUMC) - MM&I Conference — April 2022
AIM-ing for the Correct Diagnosis…or No Diagnosis: Importance of Careful Variant

Interpretation

Division of Audiology (VUMC) - Journal Club — December 2020

Genetics Referrals for Audiologist: Who, Why & How Often?

Division of Genetics & Genomic Medicine (VUMC) - Journal Club — February 2020

Isolated Birth Defects Revisited: Early Evidence for Associations between Birth Defects & Pediatric Cancers

E. Professional Activities *(Within the last 5 years):*

I. NSGC Craniofacial Subcommittee of Pediatric Clinical SIG Co-Chair (Jan 2023-Present)
II. National Coordinatring Center for the Regional Genetics Networks (NCC) at ACMG
Hearing Loss ACT Sheet Working Group for Revision of ACT Sheet (March 2024)
III. National Organiation of Rare Disease (NORD)
Center of Excellence Public Policy & Collective Advocacy Working Group (May 2022-Jan 2024)
IV. NSGC Ophthalmology / Hearing Loss SIG – Project Co-Chair
Pocket Guide for Referrals to Genetics for Hearing Loss for Audiologists & Otolaryngologists (https://qrco.de/bc0WWd) (Oct 2020-Mar 2021)

F. Research, funded grants and/or scholastic endeavors including accepted abstracts and other publications: *(Please only include accomplishments from the last 5 years):*

Peer-Reviewed Publications

Publication / Journal of Perinatology

Schuler BA, **Mosera M**, Hatch LD, Grochowsky A, Wheeler F. Collaborative efforts to improve genetic testing in the neonatal intensive care unit. J Perinatol. 2023 Dec;43(12):1500-1505. doi: 10.1038/s41372-023-01817-y. Epub 2023 Nov 1. PMID: 37914812.

Publication / Molecular Genetics & Genomic Medicine

Tinker, R. J., Guess, T., Rinker, D. C., Sheehan, J. H., Lubarsky, D., Porath, B., **Mosera, M**., Mayo, P., Solem, E., Lee, L. A., Sharam, A., & Brault, J. (2022). A novel, likely pathogenic variant in UBTF-related neurodegeneration with brain atrophy is associated with a severe divergent neurodevelopmental phenotype. *Molecular genetics & genomic medicine*, *10*(12), e2054. https://doi.org/10.1002/mgg3.2054

Poster Presentations at Academic Conferences

Poster / American College of Medical Geneticists (March 2022)

Wheeler, F., **Mosera, M.**, Solem, E., Porath, B., Lee, L., Stricker, T., Phillips, J., Phillips III, JA., Exome sequencing unravels dual diagnoses and complex molecular etiologies in a family with prior negative diagnostic testing

Poster / Phonak 8th International Pediatric Audiology Conference (March 2021)

Mosera, M., Schaefer A., Genetic Counseling and Genetic Testing for Hearing Loss and Deafness: A Foundation for Comprehensive and Tailored Care

Invited Talks

Peer Reviewed Oral Presentation Moderator/ American College of Medical Genetics (March 2024)

Navigating Genetic Evaluation and Counseling in Cases of Perinatal Demise

Talk / Vanderbilt Youth Sports Conference (July 2023)

Improving Care & Support for the Medically Restricted or Disqualified Athlete

Talk / Cleft & Velopharyngeal Dysfunction Interactive Conference (October 2022)

Genetics: What Are The Options

Panelist / Early Hearing Detection & Intervention Virtual Conference (March 2022)

Food for Thought: Student-Professional Networking Breakfast Panelist