

Kathryn Ann Maertens Dugan
Medical and Clinical Laboratory Sciences

Background

1. Education

1998- Auburn University at Montgomery – Montgomery, Alabama

- Master's degree, Secondary Education Biology – May 1998

2001-Auburn University at Montgomery – Montgomery, Alabama

- Bachelor's degree, Secondary Education Chemistry – March 2001

1985-Auburn University at Montgomery – Montgomery, Alabama

- Bachelor's degree, Biology
- Specialty in Medical Technology – April 1985

1979-1982 – Kansas State University – Manhattan, Kansas

- Undergraduate studies in Biology Fall 1979-1982

2. Experience

A. Academic

1. MCLS Program Director/Department Head-Auburn University-Montgomery, Alabama 2023-present

2. Assistant Professor (Tenured)-Auburn University at Montgomery-Montgomery, Alabama

Medical Laboratory Science Program August 2017-present

Courses Taught, August 2012-present

*Both Online and On Campus curriculum

CLLS 3443 Clinical Chemistry I*

CLLS 4453 Clinical Chemistry I*

CLLS 4463 Clinical Chemistry III*

CLLS 4474 Clinical Chemistry IV (Clinical Experience)

CLLS 4214 Clinical Urinalysis (Clinical Experience)

CLLS 4080 Lab Management and Education (WI)*

CLLS 3403 Clinical Instrumentation

CLLS 3203 Urinalysis and Body Fluids*

University Success 1000 August 2016-2017

3. Instructor-Auburn University at Montgomery-Montgomery, Alabama

Medical Laboratory Science Program August 2012 –July 2017

4. Auburn University, Montgomery – Montgomery, Alabama Summer Term 2009

Adjunct-Clinical Hematology lecture and laboratory

5. Jefferson Davis High School – Montgomery, Alabama August 1999 – 2012

Teacher-Science (AP Biology, Pre-AP Biology, Pre-AP Chemistry, General Chemistry, Forensics)

Science department Chair 2011-2012

6. Capital Heights Junior High School – Montgomery, Alabama August 1998 – May 1999
Teacher-8th grade science

7. Jackson Hospital Laboratory-Montgomery, Alabama August 1985-August 1998
Medical Technologist in Microbiology, Hematology, Chemistry and Blood Bank
Senior Technologist in Microbiology
Training new personnel and CLS students

B. Other professional

- Head of Science department, Jefferson Davis High School 2011-2012
- Level III Trainer/Participant in ASIM/AMSTI Biology and Chemistry beginning Summer 1999
- Senior Technologist in Microbiology 1995-1998
- Specialized in Microbiology and Hematology at Jackson hospital Laboratory 1987-1999
- Taught Medical Technology students in departments of Hematology and Microbiology as part of their six month rotation to complete their Medical Technology degree

Scholarly and Creative Productivity

1. Publications

A. Books

N/A

a. Scholarly books

N/A

b. Text books

- Clinical Chemistry: Principles, Techniques, and Correlations; Bishop, M., Fody, E., Schoeff, L. 9th edition. Revision Chapter 1: Basic Principles and Practices; **Kathryn Dugan** and Beth Warning. Submitted for publication, March, 2021, (88 pages). Published 2022.
- Clinical Chemistry: Principles, Techniques, and Correlations; Bishop, M., Fody, E., Schoeff, L. 8th edition. Revision Chapter 1: Basic Principles and Practices; **Kathryn Dugan** and Beth Warning. Submitted for publication, December 15, 2015 (72.5 pages). Published 2018.

B. Refereed/Invited Publications

a. Book chapters

N/A

b. Journal articles

- Peer reviewed “Healthy Kids: Impacting Children’s Healthy in Rural Alabama.” Langham, G., Taylor, J., **Dugan, K.**, Quan, L. Terry, A., Miles Godwin, Interprofessional endeavor with the nursing faculty in the College of Nursing and

Health Sciences. Online Journal of Rural Nursing and Health Care, Volume: 17, No:1. Published May 2017.

- Refereed Publication “A single session of aerobic exercise influences paraoxonase 1 activity and concentration”; J.Kyle Taylor, Michael R. Esco, Li Qian, **Kathryn Dugan**, & Kathy Jones. RETOS 27 (1), 222-225 January 2015 (4 pages).

c. Refereed monographs

N/A

d. Refereed proceedings

- Walter Serrano-Moreno, Monica Rios-Silva, Jose Moncada-Jimenez, J. Kyle Taylor, David K. Johnson, Miguel Huerta, Shellev Robin Latchem, **Kathryn Dugan**, Eder Rios-Bracamontes, and Xochitl Trujillo. *Association Between Vitamin D and Amyloid-related Biomarker Levels in Mexican Older Adults*. American College of Sports Medicine International Meeting. Denver. CO. Abstracted: Medicine and Science in Sports and Exercise. Vol (55); 915-916, 2023.
- Tomas Chapman-Lopez, J. Kyle Taylor, Ricardo Torres, Li Qian, **Kathy Dugan**, S. Robin Latchem, LesLee Funderburk, and Jeffrey S. Forsse. *Effects of Acute Bouts of Aerobic Exercise on Adipokines in Individuals with Mid-Spectrum Chronic Kidney Disease*. Texas American College of Sports Medicine Conference Proceedings. Abstracted: International Journal of Exercise Science. Vol. 2 (15): 162. 2023
- Catherine Lowry, Kathleen Adair, Ricardo Torres, Ahmed Ismaeel, Katelyn Severance, Cassidy Beeson, J. Kyle Taylor, Li Qian, **Kathryn Dugan**, Panagiotis Koutakis, and Jeffrey S. Forsse. *The Effect of High-intensity Interval Exercise on Renal Health and Filtration in Healthy Individuals Free of Cardiometabolic Diseases*. American College of Sports Medicine International Meeting. San Diego, CA. Abstracted: Medicine and Science in Sports and Exercise. Vol. 54 (9S): 627. 2022.
- Kathleen Adair, Zacharias Papadakis, Matthew N. Peterson, Cassidy Beeson, J. Kyle Taylor, Burritt W. Hess, D. Crawford Allison, Nicholas Schwedock, Jackson O. Griggs, Ron L. Wilson, **Kathryn Dugan**, Kathy W. Jones, Peter W. Grandjean, and Jeffrey S. Forsse. *Acute Responses in Agonists of Urine Epidermal Growth Factor to Steady-State Moderate-Intensity and High-Intensity Interval Exercise in Mid-Spectrum Chronic Kidney Disease*. American College of Sports Medicine International Meeting. Washington D.C. Abstracted: Medicine and Science in Sports and Exercise. Vol. 53 (7s). 2021
- Matthew N. Peterson, Jeffrey S. Forsse, Zacharias Papadakis, Nicholas Schwedock, Burritt W. Hess, Jackson O. Griggs, D. Crawford Allison, Ron L.

Wilson, J. Kyle Taylor, **Kathryn Dugan**, Kathy W. Jones, Kathleen Adair, Mitchell C. Cholewinski, Peter W. Grandjean, FACSM. *Circulating Inflammatory and Oxidative Stress Responses to Steady-State Moderate-Intensity and High-Intensity Interval Exercise in Mid-Spectrum Chronic Kidney Disease*. American College of Sports Medicine International Meeting. Orlando, FL. Abstracted: Medicine and Science in Sports and Exercise. Vol. 49 (5) No. 969: S199, 2019.

- Jeffrey S. Forsse, Matthew N. Peterson, Zacharias Papadakis, Nicholas Schwedock, Burritt W. Hess, Jackson O. Griggs, D. Crawford Allison, Ron L. Wilson, J. Kyle Taylor, **Kathryn Dugan**, Kathy W. Jones, Kathleen Adair, Mitchell C. Cholewinski, Peter W. Grandjean, FACSM. *Renal Function Responses To Steady-state Moderate-intensity And High-intensity Interval Exercise In Mid-spectrum Chronic Kidney Disease*. American College of Sports Medicine International Meeting. Orlando, FL. Abstracted: Medicine and Science in Sports and Exercise. Vol. 49 (5) No. 299: S56, 2019.
- Matthew N. Peterson, Zach Papadakis, Jeffrey S. Forsse, Fernando Gutierrez, J. Kyle Taylor, Li Qian, Omar Brito-Estrada, **Kathryn Dugan**, Peter W. Grandjean (FACSM). *Influence of Short, Disrupted Sleep and High-Intensity Interval Exercise on Fasting and Post-Prandial Blood Lipid and Lipid-Related Antioxidant Responses in Healthy Men*. American College of Sports Medicine International Meeting. Minneapolis, MN. Abstracted: Medicine and Science in Sports and Exercise. Vol.49 (5) No. 3304: S682, 2018
- Matthew N. Peterson, Zach Papadakis, Jeffrey S. Forsse, Fernando Gutierrez, J. Kyle Taylor, Li Qian, Omar Brito-Estrada, **Kathryn Dugan**, Peter W. Grandjean (FACSM). *Metabolic and Vascular Responses to Short, Disrupted Sleep and High-Intensity Interval Exercise in Healthy Men*. Texas American College of Sports Medicine Meeting. Abstracted: International Journal of Exercise Science. Vol. 2(10) 84, 2018
- J.K. Taylor, B. Kliszczewicz, M. Esco, K.W. Jones, **K. Dugan**, and L. Qian. *Paraoxonase Responses Comparing CrossFit Versus Treadmill Running*. American College of Sports Medicine International Meeting. Orlando, FL. Abstracted: Medicine and Science in Sports and Exercise. Vol. 46(5) No. 2363: S487, 2014.
- James K. Taylor, Michael R. Esco, Kathy W. Jones, **Kathy Dugan**, Li Qian, and A. Jack Mahurin. *Comparison of PON1 Activity and Concentration Between Non-Obese and Obese Men*. American College of Sports Medicine International Meeting. Indianapolis, IN. Abstracted: Medicine and Science in Sports and Exercise. Vol. 45(5) No. 2791: S550, 2013.

- C. Other Publications
- a. Non-refereed academic journal articles (no outside reviewer)
N/A
 - b. Others
2. Items Accepted for Publication but NOT Yet Published
N/A
3. Artistic or other Creative Contributions
N/A
4. Participation in Professional Meetings
- 2020 Co-presenter with Kathy Jones, Li Qian at annual meeting of CLEC. Presentation “Healthy Kids: An Innovative Interprofessional Education Project that Benefits Medically-Underserved Communities. February 2020, Orlando Florida.
 - 2019 Presenter at the Triennial Region III meeting of ASCLS. Presentation “Clinical Chemistry Review for the BOC Using Case Studies”. September 2019, Pensacola, Florida
 - 2016 Presenter at the Triennial Region III meeting of ASCLS. Presentation “Clinical Chemistry Review for the BOC using Case Studies”. November 2016, Birmingham, Al.
 - 2016-Co-presenter with Kathy Jones for the annual meeting of CLEC. Presentation “Warhawk Hospital: A successful Endeavor in Interprofessional Training”. February 2016, Minneapolis, Mn.
 - 2015-Judge poster presentations of original research at ASCLS Annual Meeting, Atlanta, Ga
 - 2014-Judge poster presentations of original research at ASCLS Annual Meeting, Chicago, IL
 - 2013-Judge poster presentations of original research at ASCLS Annual Meeting, Houston, Tx.
5. Other Scholarly or Creative Activities
- A. Service in role of discussant, critic, and reviewer for professional meeting or publications
 - Peer review book chapters for FA Davis Publishing; *Laboratory Operations and Management: Foundations of Practice, 1st edition*. Publish Oct. 2024
 - Peer review Manuscript for American Biology Teacher “A practice of directed student self-investigation on hemorrhagic fever new event. Vol. 85, Issue 9 2023
 - Review Manuscript for American Biology Teacher “A model curriculum or flipping an allied health microbiology course. Submitted February, 2019
 - Integrated Biochemistry: The Processes of Life. Review of proposal for a new biochemistry textbook. Pearson Publishing, submitted February, 2019
 - Review Manuscript for American Biology Teacher “Solving the mystery of an outbreak using the One Health concept”. Submitted, February, 2019.

- Lehman, Success! In Clinical Laboratory Science, 5. Chapters reviewed included Clinical Chemistry, Bacteriology, Mycology, Parasitology and Final Exam. Submitted, August, 2018
- Review of two abstracts for Clinical Laboratory Educators Conference to determine acceptance for the 2018 conference. October, 2017
- American Biology Teacher 2017-0032 “Geospatial Information Science and Technology Infusion into an Undergraduate Microbiology Course: a Pathway to Developing a GIS certificate program for STEM Majors.” Reviewed July 2017
- October 2015- Manuscript peer review of American Biology Teacher. Journal for National Association of Biology Teachers. Manuscript title: “The Exposome: A New Frontier for Education.”
- February 2015 – Manuscript peer review for American Biology Teacher. Journal for National Association of Biology Teachers. Manuscript title: “Broccoli and the Presidency: the role of taste in food choice”.
- April 2014-Review ESA student poster abstracts for acceptance to the 2014 ASCLS annual meeting.
- August 2014-Manuscript peer review for American Biology Teacher. Journal for National Association of Biology Teachers. Manuscript title: “How do we know that?” Examining scientific findings from the source.
- July 2013-Chapter review for Clinical Chemistry text, Garland Science, Abingdon, Oxfordshire. Chapters: Blood Lipids and Muscle
- February 2013-Chapter review for Mundt-Graff’s Textbook of Urinalysis and Body Fluids, Pearson Publishing, Upper Saddle River, New Jersey. Chapters: Serous Fluid, Microscopy and Synovial Fluid, Brochoalveolar Lavage and Sweat testing

B. Service in the role of officer of professional organization, program committee member, session organizer for professional meeting

- Member of the Triennial ASCLS Region III Student Bowl Committee 2016
- Planning and implementation of the annual Adams Foundation CLS symposium-topical hematology. 2015
- Member of Chemistry/Urinalysis Scientific Assembly of ASCLS. 2012-present.

C. General editorship of journal, monograph series, book series

N/A

D. Professional society Membership

- National Association of Biology Teachers (NABT)
- American Society of Clinical Laboratory Scientists (ASCLS)
- American Society of Clinical Pathologists (ASCP) certified Medical Technologist

6. Awards, lectureships or prizes

- Recipient of Distinguished Faculty Award, honorable mention, 2020
- Named person of the month for the ASCLS Chemistry/Urinalysis Scientific Assembly. February, 2020.

7. Grants and Contracts

A. Grants and contracts received

a. Principal investigator, co-principle investigator, or equivalent

N/A

b. Not principal investigator, etc.

N/A

8. Thesis/Dissertation Service

N/A

9. Major areas of Creative or Research Interest

N/A

10. Other Professional Accomplishments

A. Manuscripts under submission

B. Course/Program design and development

N/A

C. Special recognition for teaching

N/A

D. Academic service

a. On-campus

- College of Nursing and Health Science representative on the Faculty Senate Executive Committee. 2022-2023
- College of Nursing and Health Science representative on the Faculty Senate Faculty Welfare Committee. 2021-present
- Committee Secretary for the University Intercollegiate Athletic Committee, 2020-present
- College of Nursing and Health Science representative on the University Intercollegiate Athletic Committee, 2020-present
 - Member of the Faculty Senate Intercollegiate Athletic Committee. 2016-2020
- College of Nursing and Health Science representative on the Faculty Senate Professional Improvement Leave Committee. 2018-present
- College of Nursing and Health Sciences representative on the Faculty Senate Administrator Evaluation Committee. 2020-2023
- College of Nursing and Health Science representative on the Faculty Senate Strategic Plan Marketing Committee. 2019
- Participated and assisted with the NAACLS reaccreditation of the CLS program Fall 2019
- Member of AUM Advisor Forum. 2018-present.
- Participated in interprofessional teaching: Lectured to School of nursing students: Lab Values, what do they tell you? March, 2018-2019

- Member of the College of Nursing and health Sciences Marketing committee. 2016-present
- College of Nursing and Health Science representative on Faculty Senate. Fall 2017-2019
- College of Nursing and Health Science representative on the Faculty Senate Recruitment and Retention Committee. 2017-2019
- Assisted students with glucose testing at the AUMazing Health and Wellness event for AUM students. October, 2017.
- Assisted students with glucose testing at the School of Nursing heart wellness event.
- Spring and Fall CONHS/Athletics annual Blood Drive. Planned and implemented blood drive with A. Houston and J. Rosa from Athletics and various students from CONHS and AUM athletic teams. 2017-present
- Medcamp (Camp MDme)-program to allow students to gain real world experience in the medical field. Sponsored by River Region Envision 2020. 2016-present
- Member of the AUM Writing Across the Curriculum Committee. 2015-2016
- Healthy Kids – Lowndes County, Jackson Steele Elementary, Hayneville, AL and Elmore County, Holtville Elementary, Holtville, AL. Accompanied MLS students to Healthy Kids site and assisted School of Nursing faculty and students with health screening of elementary students. 2015-2019
- Member of Ad hoc Faculty Evaluation Committee for the College of Nursing and Health Sciences. 2015
- WarHawk hospital – Participated in the planning and implementing of the interdisciplinary mock hospital involving the School of Nursing, Clinical laboratory Sciences and Speech and Hearing Clinic students and faculty.
- MLS Student Bowl - Accompanied students to the University of Alabama Birmingham to compete in student MLS bowl. 2014-2015
- Member of the School of Sciences Award Committee 2014
- Represent the School of Sciences/College of Nursing and Health Science on the Faculty Handbook Review committee 2014-2016
- Judge for the School of Sciences Undergraduate Research symposium April 2014-2015
- Member of the AUM MLS Scholarship Committee 2012-present
- Member of the AUM MLS Advisory Board 2012-present
- Participated in the NAACLS reaccreditation of the CLS program Fall 2012
- Visited MLS students at clinical sites including East Alabama Medical Center (Opelika, AL), Jackson Hospital (Montgomery, AL), Emory-St. Joseph's hospital (Atlanta, GA), Quest Diagnostics (Tucker, GA) 2012-2016

b. Off-campus

- Invited guest lecturer at AMT/ASCLS Alabama Georgia Medical Laboratory Symposium, Atlanta, Georgia. Topic: Clinical Chemistry Review, March 2019
- Invited guest lecturer at University of Alabama Birmingham, Birmingham, School of Health Professions, Department of Clinical and Diagnostic Sciences-Topic Clinical Chemistry, April 2016-2019
- Member of Health Science Career Academy Advisory Council, 2008
Board works in conjunction with Montgomery Area Chamber of Commerce to promote health science careers.

E. Other service

- Led search committee to hire new Administrative Associate for the MLS department 2018
- Judge at the HOSA State Leadership Conference, February 2017-2019
- Served as a member of the Administrative Associate Search Committee for MLS
- Events photographer for Jefferson Davis High School, Montgomery, AL. 2012-present
Photographs were taken at various events including athletics, senior honors, prom, and graduation. Pictures were uploaded to a website for student and faculty access. Photographs were also used on the school website and in the annual yearbook.
- Science Fair Judge Bear Elementary School, Montgomery, AL Spring 2014, 2016
- Science Fair Judge Millbrook Middle School, Millbrook, AL Fall 2014-2017
- Debate competition judge for the Capitol City Classic Speech and Debate Tournament, April 2015

11. Other items of importance not to be found above

- Member of Robert and Jean Adam's Foundation board.