## **CURRICULUM VITAE**

## NAIRA BAREGAMIAN, MD, MMS, FACS

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**EDUCATION:** 

1995-1999 Bachelor of Arts, California State University Northridge (CSUN) Northridge, CA

1999-2003 Doctor of Medicine, St. George's University School of Medicine (SGUSOM), St. George's, Grenada

2005-2007 Master of Medical Science (MMS), Graduate School of Biomedical Sciences

University of Texas Medical Branch (UTMB), Galveston, TX

**POST-GRADUATE TRAINING:** 

2003-2005 General Surgery Residency (PGY 1-2, categorical)

Maimonides Medical Center, Brooklyn, NY

2005-2007 NIH T32 Research Fellowship (Years 1-2)

Mentors: B. Mark Evers, Dai H. Chung, UTMB, Galveston, TX

2007-2008 General Surgery Residency (PGY 3)

UTMB, Galveston, TX

2008-2009 NIH T32 Research Fellowship (Year 3)

Mentors: B. Mark Evers, Dai H. Chung, UTMB, Galveston, TX

2009-2011 General Surgery Residency (PGY 4-5)

UTMB, Galveston, TX

2011-2012 Fetal Surgery Fellowship

Cincinnati Children's Hospital Medical Center, Cincinnati, OH

2013-2014 Endocrine Surgery Fellowship

Yale University, New Haven, CT

LICENSURE AND CERTIFICATION:

2003-current Permanent ECFMG Certification, 2003, #0-626-157-2

2013-current American Board of Surgery (ABS), General Surgery, Certificate #058161

2014-current Medical Board of Tennessee, License #51740

2023-2025 American Board of Surgery (ABS), General Surgery Recertification

**ACADEMIC APPOINTMENTS:** 

2023-current Associate Professor of Surgery

Division of Surgical Oncology & Endocrine Surgery

Department of Surgery, Vanderbilt University Medical Center (VUMC), Nashville, TN

2014-2023 Assistant Professor of Surgery (Endocrine Surgery)

Division of Surgical Oncology & Endocrine Surgery Department of Surgery, VUMC, Nashville, TN

2014-current Teaching Faculty

Vanderbilt University School of Medicine (VUSM), Nashville, TN

#### **HOSPITAL APPOINTMENTS:**

2014-current Attending Physician

Division of Surgical Oncology & Endocrine Surgery

Department of Surgery, Vanderbilt University Medical Center (VUMC), Nashville, TN

### **PROFESSIONAL ORGANIZATIONS:**

2003-current American College of Surgeons (ACS)
2005-current Association for Academic Surgeons (AAS)
2005-current American College of Surgeons (ACS)
Association for Academic Surgeons (AWS)

2010-2014 Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)

2013-current American Association of Endocrine Surgeons (AAES)

2016-current Nashville Surgical Society (NSS)

2017-current Tennessee Chapter American College of Surgeons (TNACS)

2018-current American Association for Cancer Research (AACR)

2020-current Von Hippel Landau (VHL) Alliance

2021-current American Armenian Medical Society (AAMS)

2022-current International Society of Innovative Technologies for Endocrine Surgery (ISITES)

2023-current International Medical Congress of Armenia (IMCA)
2024-current International Association of Endocrine Surgeons (IAES)

### PROFESSIONAL ORGANIZATION LEADERSHIP ROLES AND COMMITTEES:

## American Association of Endocrine Surgeons

2018-2019 IT Committee Member
2019-2023 Research Committee Member
April 2023 AAES Leadership Course

2023-2026 Guidelines and Emerging Therapeutics (GET) Committee Member

2024-2025 AAES Visiting Professor (Host: Weill Cornell Medical College; Sponsor: Dr. Thomas J. Fahey)

April 2024 Moderator, Scientific Session IV: Adrenal

### American College of Surgeons

2010-2012 Resident Education Committee (REC) Member

2015-current Fellow Member

July 2021 National Tutorial Seminars for Medical Students August 2022 National Tutorial Seminars for Medical Students

## Association for Academic Surgeons

2017-2019 Publications Committee Member

## Association of Women Surgeons

2018-2020 Publications Committee Member

2018-2020 Membership Services Committee Member

## International Medical Congress of Armenia

2/2023 Abstract Reviewer, Surgery Section

## International Society of Innovative Technologies for Endocrine Surgery

2021 Media Coordinator, 3<sup>rd</sup> Symposium on Parathyroid Fluorescence 2022 Media Coordinator, 4<sup>th</sup> Symposium on Parathyroid Fluorescence

2024 Panelist, 6<sup>th</sup> Symposium on Parathyroid Fluorescence

# Society of American Gastrointestinal and Endoscopic Surgeons

2010-2014 Resident Education Committee Member

## Tennessee Chapter American College of Surgeons

2019-2022 Councilor, Middle TN
 2020-2023 At-Large Director, Middle TN
 2020-2024 Chair, Diversity, Equity & Inclusion (DEI) Committee
 2020-2024 Cancer Committee Member
 2020-current Chair, Diversity, Equity & Inclusion Committee Chapter
 2020-current Board of Directors
 2020-current Founder, Dorothy Brown Surgical Scholarship for Underrepresented/Minority Medical Students, DEI

2022 Abstract Reviewer, DEI & Disparity Session
2023 Abstract Reviewer, Cancer Research Competition
2024 Panelist, Fireside Chat, "Treating Thyroid Disease"

2024 Abstract Reviewer, Cancer Research Paper Competition, Annual TN ACS Chapter Meeting

### **PROFESSIONAL ACTIVITIES:**

### **INTRAMURAL**

#### Vanderbilt University Medical Center

2015-current Founder, Endocrine Neoplasia Biorepository
2016-2018 EPIC Cohort Leader
2016-2018 EPIC Leap Subject Matter Expert
2016-2018 EPIC Leap Ambassador
2016-2018 EPIC Peer Trainer
2016-2020 EPIC eStar Protocols
2019-current Founder, Endocrine Neoplasia Laboratory
2019 current Founder, Endocrine Organoid Program (Parage

2019-current Founder, Endocrine Organoid Program (Baregamian Laboratory)

2020-current Diversity & Inclusion Committee, Department of Surgery

### Vanderbilt-Ingram Cancer Center (VICC)

2015-current Member

2020-2024 Cancer Liaison Physician (CLP), ACS Commission on Cancer (ACS CoC)

2020-2024 Clinical Cancer Committee (CCC)

2021-current Translational Research, and Interventional Oncology (TRIO) Research Group Member

## Elliott Newman Society, Vanderbilt University (VU)

2022-current Member

## Vanderbilt Institute of Chemical Biology (VICB)

2024-current Member

## **EXTRAMURAL**

### Von Hippel Landau (VHL) Alliance

1/2020-current Endocrine Surgery Clinical Advisor

#### National Institutes of Health/National Cancer Institute (NIH/NCI)

2022-current NIH/NCI Early Career Reviewer (ECR)

Clinical Oncology (CONC), Oncology Translational Clinical (OTC) Integrated Review Group (IRG)

#### **Journal Editor**

2021-2023 Associate Editor (Endocrine)

Journal of Cellular and Molecular Medicine (JCMM)

#### Ad Hoc Reviewer

Journal of Clinical Investigations Insights (JCI Insights) Journal of American College of Surgeons (JACS) Surgical Endoscopy World Journal of Surgery (WJS) Journal of Surgical Research (JSR) Surgery

Cancer Research

Molecular Cancer Therapeutics

International Journal of Molecular Sciences

Journal of the Endocrine Society

Frontiers in Oncology Nature Star Protocols

Journal of Cellular and Molecular Medicine (JCMM)

Cancer Letters

eLife

#### **Honors & Awards**

1999-2003	Academic Excellence Award, Magna Cum Laude, CSUN
2001	Medical Student Honors, Surgery Clerkship, SGUSOM
2006-2011	Best Basic Science Project, Singleton Surgical Society, UTMB

2006 Best Basic Science Project, 14th Annual Molecular Biology Symposium, UTMB

2009 John P. McGovern Academy of Oslerian Medicine Travel Grant, ACS

2018 TNACS Basic Science Competition (2<sup>nd</sup> place, Student: Kathleen Gallagher, VUSM, VUMC)

2019 TNACS Cancer Research Competition (1st place, Resident: Chelsea Isom, VUMC)

2019-2021 Paul LoGoerfo Research Award, AAES

2019-2023 Excellence in Patient Experience Award, VUMC

TNACS Cancer Research Competition (1st place, Student: Jordan Baechle, Meharry Medical College)
SCRIPS Faculty Scholar Award, Burroughs Wellcome Fund Physician Scientist Institutional Award, VUMC

2021 NCI/VICC Multi-Tier Developmental Support Grant (P30CA068485), VICC, VUMC
2021 ACS CoC Research Competition Award (1st place, Resident: David Hanna), VUMC
2022 NCI/VICC Multi-Tier Developmental Support Grant (P30CA068485), VICC, VUMC

2022 VICC 23<sup>rd</sup> Annual Scientific Retreat (Honorable Mention, Student: Sriram Cyr, VUSM), VUMC

STAR BRIGHT Award, Vanderbilt Institute for Clinical and Translational Research (VICTR), 1<sup>st</sup> award, VICC STAR BRIGHT Award, Vanderbilt Institute for Clinical and Translational Research (VICTR), 2<sup>nd</sup> award, VICC

2022-2025 Vanderbilt Faculty Research Scholar Award (VFRS), VUSM, VUMC

2023-2024 STAR BRIGHT Award, Vanderbilt Institute for Clinical and Translational Research (VICTR), VICC

2024-2025 AAES Visiting Professor, Weill Cornell Medical College

### **Public Media**

2020 Baregamian Lab in the News: https://www.vumc.org/surgical-oncology/baregamian-lab-news

"Thyroid Cancer Paper Lands National Recognition", VUMC Reporter, VUMC
 "Immune Landscape in Adrenal Cancer", Aliquotes, VUMC Reporter, VUMC
 "Molecule Irons Away Aggressive Thyroid Cancer Cells", DISCOVER, VUMC

## **TEACHING ACTIVITIES:**

### **VUSM Courses**

2014-current Medical Student Core Surgery Rotation Lecturer

2016-current Clinical Mentor, Advanced Clinical Endocrinology for Medical Students

#### VU Graduate School Courses

2019-2022 Vanderbilt Program in Molecular Medicine (VPMM)

2022-2024 ASPIRE Path in Molecular Medicine

# **VUMC Continuing Medical Education**

2014-current Lecturer, Endocrinology Fellow Teaching Conference

2014-current Operating Room Instruction

## Advisory/Mentorship

2017-2018 Basic Science Judge, Annual Research Forum, VU Graduate Medical Education (VU GME)

2020-current Endocrine Surgery Fellowship Faculty Advisor, Department of Surgery, VUMC

2022-current Surgery Interest Group Mentor, Surgery Mentorship Program, VUSM (Niketna Patel, Reilly Frankhauser)

2022-current Vanderbilt Global Surgery Faculty, VUMC

#### **CLINICAL TEACHING:**

## Vanderbilt University Medical Center

2014-current Endocrine Surgery Rotation Teaching (PGY-3 residents, patient rounds, clinic and OR)

2014-current Operating Room Instruction

2014-current General Surgery Resident Teaching Conference Lecturer (2-3/year)

2014-current Surgical Oncology Resident Education Conference, Endocrine Topics (2/year)

2014-current General Surgery Resident Mock Orals

2014-current Medical Student Core Surgery Rotation Lecturer

2015-current Develop MOCK Oral Boards Endocrine Questions, Department of Surgery

2016-2018 Advanced Clinical Endocrinology Course
 2017-2018 Advanced Clinical Endocrinology Counsel Faculty

2019-current Resident Cadaver Laboratory, Neck Dissections, Instructor

2020 Develop Endocrine Test Questions for Medical Student Surgery Core Rotation Quiz

## Vanderbilt University School of Medicine

2022-2023 Medical Student Research Teaching

Community

2014-current CME Lunchtime Series

#### RESEARCH SUPERVISION/TRAINING:

### **Undergraduate Students**

2024 Research Mentor

Mentee: Paul George, Biomedical Science, Belmont University

#### Medical Students

2017-2018 Research Mentor

Mentee: Caitlyn F. Bell, MS3/4, VUSM

2017-2018 Research Supervisor

Trainee: Kathleen Gallagher, MS3, VUSM

VUSM Research Immersion MD Curriculum Program

2018 Research Mentor

Mentee: Jackson Cabo, MS3, VUSM

2019-2020 Research Supervisor

Trainee: Jordan Baechle, MS3/4, MMC

MMC Research Immersion MD Curriculum Program

2021-2022 Research Supervisor

Trainee: Sriram Cyr, MS3/4, VUSM

VUSM Research Immersion MD Curriculum Program

#### **Graduate Research Students**

2019-2022 Kensey Bergdorf, PhD candidate

Clinical Mentor, Vanderbilt Program in Molecular Medicine (VPMM)

2022-2024 Heather Hartman, PhD candidate

Clinical Mentor, ASPIRE Path in Molecular Medicine

## Surgical Residents

2018-2019 Research Mentor, Dr. Jenny Ousley, PGY-2, VUMC

2018-2019	Research Mentor, Dr. Chelsea Isom, PGY-3, VUMC
2018-2020	Research Mentor, Dr. Joseph Blankush, PGY-2/3, VUMC
2019-2021	Research Mentor, Dr. David Hanna, PGY-3/4, VUMC
2020-2022	Research Mentor, Dr. Taylor St. Amour, PGY-1/4, VUMC
2020-2023	Research Mentor, Dr. David Hanna, PGY-2/5

#### RESEARCH PROGRAM:

## **Ongoing**

2021-2024 Vanderbilt SCRIPS Faculty Scholar Award (VUMC/VUSM)

**Burroughs Wellcome Fund Physician Scientist Institutional Award** 

"The Role of Oxidant Tumor Immunometabolic Plasticity in Advanced Thyroid Cancer" Primary Mentor: W. Kimryn Rathmell, MD, PhD; External Mentor: Steve Leach, MD

Role: Baregamian PI (50% effort)

Amount: \$300,000

2022-2025 Vanderbilt Faculty Research Scholar (VFRS) Award (VUMC/VUSM)

"Glutathione Metabolism-Dependent Immunometabolic Modulation in Thyroid Tumor Microenvironment"

Mentor: W. Kimryn Rathmell, MD, PhD, Jeffrey C. Rathmell, PhD

Role: **Baregamian PI** (50% effort) Amount: \$300,000

2023-2024 Star Bright VICTR Grant Award (VICTR)

"Ferroptosis Mediated TfR1 Dimerization"

Role: Baregamian PI (50% effort)

Amount: \$2,000

**Completed** 

2019-2021 Paul Lo Goerfo Research Award (AAES)

"Immunometabolic Glutathione Pathway-Dependent Targeting of Tumor Progression in Thyroid Cancer" Role: **Baregamian, PI** (50% effort)

Amount: \$15,000

2021 P30CA068485 NCI/VICC Multi-Tier Developmental Support Grant (VICC)

"Targeting GPX4/GSH Ferroptosis Axis in Thyroid Cancer Microenvironment"

Role: Baregamian PI (50% effort)

Amount: \$2,000

2021-2022 P30CA068485 NCI/VICC Multi-Tier Developmental Support Grant (VICC)

"Utility of GPX4/GSH Ferroptosis Axis Biomarkers in Thyroid Cancer"

Role: **Baregamian PI** (50% effort) Amount: \$2,000

2022 Star Bright VICTR Grant Award (VICTR)

"Characterization of 3-dimensional multi-cellular thyroid cancer spheroid model of ferroptosis"

Role: Baregamian PI (50% effort)

2022-2023 Star Bright VICTR Grant Award (VICTR)

"Metabolic Alterations During Ferroptosis in Thyroid Cancer"

Role: **Baregamian PI** (50% effort)

Amount: \$2,000

Amount: \$2,000

## **PUBLICATIONS AND PRESENTATIONS:**

#### **Articles in Refereed Journals**

- Baregamian N, Song J, Jeschke MG, Evers BM, Chung DH. IGF-1 Protects Intestinal Epithelial Cells from Oxidative Stress-Induced Apoptosis. *Journal of Surgical Research*. 2006 Nov;136(1):31-7. PMID:16999977; PMCID: PMC2613687.
- Baregamian N, Rychahou PG, Hawkins HK, Evers BM, Chung DH. Phosphatidylinositol 3-Kinase Pathway Regulates Hypoxia-Inducible Factor-1 to Protect from Intestinal Injury During Necrotizing Enterocolitis. Surgery. 2007 Aug;142(2):295-302. PMID:17689699; PMCID: PMC2613757.

- 3. Kang J, Ishola TA, <u>Baregamian N</u>, Mourot JM, Rychahou PG, Evers BM, Chung DH. Bombesin Induces Angiogenesis and Neuroblastoma Growth. Cancer Letters. 2007 Aug 18;253(2):27381.2007.02.007. PMID:17383815; PMCID: PMC2709810.
- 4. <u>Baregamian N</u>, Mourot JM, Ballard AR, Evers BM, Chung DH. PPAR-Gamma Agonist Protects Against Intestinal Injury During Necrotizing Enterocolitis. *Biochemical Biophysical Research Communications*. 2009 Feb 6;379(2):423-7. 2008.11.155. PMID:19114032; PMCID: PMC2652838.
- 5. **Baregamian N**, Song J, Bailey CE, Papaconstantinou J, Evers BM, Chung DH. Tumor Necrosis Factor-Alpha and Apoptosis Signal-Regulating Kinase 1 Control Reactive Oxygen Species Release, Mitochondrial Autophagy, and c-Jun N-Terminal Kinase/p38 Phosphorylation During Necrotizing Enterocolitis. *Oxidative Medicine and Cellular Longevity*. 2009 Nov-Dec;2(5):297-306. PMID:20716917; PMCID: PMC2835918.
- 6. <u>Baregamian N</u>, Song J, Papaconstantinou J, Hawkins HK, Evers BM, Chung DH. Intestinal Mitochondrial Apoptotic Signaling is Activated During Oxidative Stress. *Pediatric Surgery International*. 2011 Aug;27(8):871-7. PMID:21400030; PMCID: PMC3668660.
- 7. <u>Baregamian N</u>, Song J, Chung DH. Effects of Oxidative Stress on Intestinal Type I Insulin-Like Growth Factor Receptor Expression. *European Journal of Pediatric Surgery*. 2012 Feb;22(1):97-104. PMID:22434232; PMCID: PMC4313734.
- 8. Bischoff A, Calvo-Garcia MA, <u>Baregamian N</u>, Levitt MA, Lim FY, Hall J, Peña A. Prenatal Counseling for Cloaca and Cloacal Exstrophy-Challenges Faced by Pediatric Surgeons. *Pediatric Surgery International*. 2012 Aug;28(8):781-8. PMID:22878705; PMCID: PMC3417092.
- 9. Wolfe K, Lewis D, Witte D, Kline-Fath B, Lim FY, Jaekle R, Habli M, Hostiuck J, <u>Baregamian N</u>, Keswani S, Crombleholme T. Fetal Cervical Teratoma: What is the role of fetal MRI in predicting pulmonary hypoplasia? *Fetal Diagnosis Therapy*. 2013; 33(4):252-6. PMID:23429169.

### Since at VUMC

- 10. Javid M, Callender G, <u>Baregamian N</u>, Carling TC. Pheochromocytomatosis Treated by Radio-Guided Surgery. AACE Clinical Case Reports. 2017 Vol 3, No. 2 Spring 2017.
- 11. Kiernan CM, Weiss VL, Mehrad M, Ely K, <u>Baregamian N</u>, Solórzano CC. New Terminology-Noninvasive Follicular Neoplasm with Papillary-Like Nuclear Features (NIFTP) and its Effect on the Rate of Malignancy at a Single Institution. *Surgery*. 2018 Jan; 163(1):55-59. PMID:29126555.
- 12. Bell CF, Warrick MM, Gallagher KC, <u>Baregamian N</u>. Neurocognitive Performance Profile Postparathyroidectomy: A Pilot Study of Computerized Assessment. *Surgery*. 2018 Feb;163(2):457-462. PMID:29133114.
- 13. Gallagher KC, Geromes AB, Stokes J, Reddy IA, Lewis JS Jr, <u>Baregamian N</u>. Rare Undiagnosed Primary Amyloidosis Unmasked During Surgical Treatment of Primary Hyperparathyroidism: A Case Report. *Journal of the Endocrine Society*. 2018 Jan 3;2(2):112-116. PMID:29359203; PMCID:PMC5770298.
- 14. Cabo J, Gallagher KC, <u>Baregamian N</u>. Challenges and Controversies in the Surgical Management of Uremic Hyperparathyroidism: A Systematic Review. *American Journal of Surgery*. 2018 Oct;216(4):713-722. PMID: 30057108.
- Thomas G, McWade MA, Paras C, Mannoh EA, Sanders ME, White LM, Broome JT, Phay JE, <u>Baregamian N</u>, Solórzano CC, Mahadevan-Jansen A. Developing a Clinical Prototype to Guide Surgeons for Intraoperative Label-Free Identification of Parathyroid Glands in Real Time. *Thyroid.* 2018 Nov;28(11):1517-1531. PMID:30084742; PMCID: PMC6247985.
- 16. Cha J, Khurram M, Gellert L, Epstein P, <u>Baregamian N</u>, Hendrickson C. Case of Reversible Diabetes Mellitus in the Setting of Benign Pheochromocytoma. *Journal of Clinical and Translational Endocrinology Case Reports*. 2018 Dec;10:1-3. PMID:30666294; PMCID: PMC6338797.
- 17. Thomas G, McWade MA, Nguyen JQ, Sanders ME, Broome JT, <u>Baregamian N</u>, Solórzano CC, Mahadevan-Jansen A. Innovative Surgical Guidance for Label-Free Real-Time Parathyroid Identification. *Surgery*. 2019 Jan;165(1):114-123. PMID:30442424; PMCID: PMC6380501.

- 18. Vilgelm AE, Bergdorf K, Wolf M, Bharti V, Shattuck-Brandt R, Blevins A, Jones C, Phifer C, Lee M, Lowe C, Hongo R, Boyd K, Netterville J, Rohde S, Idrees K, Bauer JA, Westover D, Reinfeld B, **Baregamian N**, Richmond A, Rathmell WK, Lee E, McDonald OG, Weiss VL. Fine-Needle Aspiration-Based Patient-Derived Cancer Organoids. *iScience*. 2020 Aug 21;23(8):101408. PMID:32771978; PMCID: PMC7415927.
- 19. Solórzano CC, Thomas G, <u>Baregamian N</u>, Mahadevan-Jansen A. Detecting the Near Infrared Autofluorescence of the Human Parathyroid: Hype or Opportunity? *Annals of Surgery.* 2020 Dec;272(6):973-985. PMID:31804401.
- 20. Phifer CJ, Bergdorf KN, Bechard ME, Vilgelm A, <u>Baregamian N</u>, McDonald OG, Lee E, Weiss VL. Obtaining Patient-Derived Cancer Organoid Cultures Via Fine-Needle Aspiration. *STAR Protocols*. 2020 Dec 21;2(1):100220. PMID:33377121; PMCID: PMC7758553.
- 21. Thomas G, Solórzano CC, <u>Baregamian N, Mannoh EA</u>, Gautam R, Irlmeier RT, Ye F, Nelson JA, Long SE, Gauger PG, Magner A, Metcalf T, Shirley LA, Phay JE, Mahadevan-Jansen A. Comparing Intraoperative Parathyroid Identification Based on Surgeon Experience Versus Near Infrared Autofluorescence Detection A Surgeon-Blinded Multicentric study. *American Journal of Surgery*. 2021 May 13:S0002-9610(21)00280-4. PMID:34024629.
- 22. Kiernan CM, Thomas G, <u>Baregamian N</u>, Solórzano CC. Initial Clinical Experiences Using the Intraoperative Probe-Based Parathyroid Autofluorescence Identification System-PTeye™ During Thyroid and Parathyroid Procedures. *Journal of Surgical Oncology*. 2021 Sep;124(3):271-281. PMID:33866558; PMCID: PMC8319062.
- 23. Mannoh EA, Thomas G, <u>Baregamian N</u>, Rohde S, Solórzano C, Mahadevan-Jansen A. Assessing Intraoperative Laser Speckle Contrast Imaging of Parathyroid Glands in Relation to Total Thyroidectomy Patient Outcomes. *Thyroid.* 2021 Oct;31(10):1558-1565. PMID:34078120.
- 24. Baechle JJ, Hanna DN, Sekhar KR, Rathmell JC, Rathmell WK, <u>Baregamian N</u>. Multiplatform Computational Analysis of Mast Cells in Adrenocortical Carcinoma Tumor Microenvironment. *Surgery.* 2021 Jul 11:S0039-6060(21)00540-7. PMID:34261605.
- 25. Baechle JJ, Hanna DN, Sekhar KR, Rathmell JC, Rathmell WK, <u>Baregamian N</u>. Integrative Computational Immunogenomic Profiling of Cortisol-Secreting Adrenocortical Carcinoma. *J Cell Mol Med.* 2021 Nov;25(21):10061-10072. PMID:34664400.
- 26. Gallant JN, Chen S, Ortega C, Rohde S, Belcher RH, Netterville JL, <u>Baregamian N</u>, Wang H, Liang J, Ye F, Nikiforov YE, Nikiforova MN, Weiss VL. The Molecular Landscape of Pediatric Thyroid Nodules and The Utility of a Multigene Genomic Classifier in Children. *JAMA Oncology*. 2022 Sep 1;8(9):1323-1327. PMID: 35679040; PMCID: PMC9185516.
- 27. Sekhar KR, Hanna D, Cyr S, Baechle J, Kuravi S, Balusu R, Rathmell WK, <u>Baregamian N</u>. Glutathione Peroxidase 4 Inhibition Induces Ferroptosis and mTOR Pathway Suppression in Thyroid Cancer. *Sci Rep.* 2022 Nov 12;12(1):19396. PMID: 36371529; PMCID: PMC9653479.
- 28. Lillemoe HA, Hanna DN, <u>Baregamian N</u>, Solorzano CC, Terhune KP, Geevarghese SK, Kiernan CM. The Use of a Preoperative Educational Time-Out in Endocrine Surgery to Move the Needle in Operative Autonomy. *Surgery*. 2023 Jan;173(1):84-92. Epub 2022 Oct 7. PMID: 36216620.
- 29. Thomas G, Kiernan CM, Willmon PA, Haugen E, Luckenbaugh AN, Barocas DA, <u>Baregamian N</u>, Mahadevan-Jansen A, Solórzano CC. Label-Free Enhancement of Adrenal Gland Visualization Using Near Infrared Autofluorescence for Surgical Guidance. *World J Surg.* 2023 Feb;47(2):350-360. PMID: 36184672.
- 30. Sekhar KR, Cyr S, Hanna D, <u>Baregamian N</u>. Ferroptosis Inducers in Thyroid Cancer. *World J Surg.* 2023 Feb;47(2):371-381. PMID: 36195678.
- 31. <u>Baregamian N,</u> Sekhar KR, Krystofiak ES, Vinogradova M, Thomas G, Mannoh E, Solórzano CC, Kiernan CK, Mahadevan-Jansen A, Abumrad N, Freeman ML, Weiss VL, Rathmell JC, Rathmell WK. Engineering Functional 3-Dimensional Patient-derived Endocrine Organoids for Broad In Vitro Multiplatform Applications. *Surgery.* 2023 Jan;173(1):67-75. Nov 16. PMID: 36400581; PMCID: PMC9939934.

- 32. Belcher R, Thomas G, Willmon P, Gallant J, <u>Baregamian N</u>, Lopez M, Solórzano C, Mahadevan-Jansen A. Label-free Parathyroid Identification During Pediatric Thyroid and Parathyroid Surgeries with Near Infrared Autofluorescence Detection. *Laryngoscope* 2023 Mar 3. Epub ahead of print. PMID: 36866696.
- 33. Sekhar KR, Codreanu S, Williams O, Rathmell JC, Rathmell WK, McLean JA, Sherrod SD, <u>Baregamian N.</u> Metabolism of Parathyroid Organoids. *Front Endocrinol* (Lausanne). 2023 Jul 10;14:1223312. PMID: 37492197; PMCID: PMC10364603.
- 34. Xu GJ, Loberg MA, Gallant JN, Sheng Q, Chen SC, Lehmann BD, Shaddy SM, Tigue ML, Phifer CJ, Wang L, Saab-Chalhoub MW, Dehan LM, Wei Q, Chen R, Li B, Kim CY, Ferguson DC, Netterville JL, Rohde SL, Solórzano CC, Bischoff LA, <u>Baregamian N</u>, Shaver AC, Mehrad M, Ely KA, Byrne DW, Stricker TP, Murphy BA, Choe JH, Kagohara LT, Jaffee EM, Huang EC, Ye F, Lee E, Weiss VL. Molecular signature incorporating the immune microenvironment enhances thyroid cancer outcome prediction. *Cell Genom.* 2023 Sep 14;3(10):100409. PMID: 37868034; PMCID: PMC10589635.
- 35. Mannoh EA, <u>Baregamian N</u>, Thomas G, Solórzano CC, Mahadevan-Jansen A. Comparing laser speckle contrast imaging and indocyanine green angiography for assessment of parathyroid perfusion. *Sci Rep.* 2023 Oct 12;13(1):17270. PMID: 37828222; PMCID: PMC10570279.
- 36. Diaz D, Bergdorf K, Loberg MA, Phifer CJ, Xu GJ, Sheng Q, Chen S, Tigue ML, Hartmann H, Rohde SL, Netterville JL, **Baregamian N**, Goettel JA, Ye F, Lee E, Weiss VL. Wnt/β-catenin Signaling is a Therapeutic Target in Anaplastic Thyroid Carcinoma. *Endocrine*. 2024 (*In press*)

## **Book Chapters**

- 1. <u>Baregamian N</u>. Chung DH. Neuroblastoma (Chapter 34). Atlas of Pediatric Surgical Techniques, Editors Townsend CM, Evers BM, Elsevier, Sept 2009; 355-359.
- 2. <u>Baregamian N</u>. Solórzano CC. The Physiology of Serum Calcitonin and Carcinoembryonic Antigen in Medullary Thyroid Cancer (Chapter 3). Medullary Thyroid Cancer, Editors Evans DB, Wang T, Springer 2016; 25-32.
- 3. <u>Baregamian N.</u> Solórzano CC. Cortisol-Secreting Adrenal Tumor (Chapter 71). Clinical Scenarios in Surgery, 2018 Editors Dimick J, Upchurch G, Sonnenday C, Kao L, Walters Kluwer.
- 4. <u>Baregamian N</u>. Subtotal Parathyroidectomy (Chapter). 2022 Open Atlas of Surgical Technique for Low Resource Settings, 2022. VUMC, Global Surgery Atlas. <a href="https://www.vumc.org/global-surgical-atlas/">https://www.vumc.org/global-surgical-atlas/</a>
- 5. Davis R, <u>Baregamian N</u>, Gibson CQ. Approach to Parathyroid Disease (Chapter). 2022 Open Atlas of Surgical Technique for Low Resource Settings, 2022. VUMC, Global Surgery Atlas. <a href="https://www.vumc.org/global-surgical-atlas/">https://www.vumc.org/global-surgical-atlas/</a>

## **ACS Quality Programs**

Grisham C, Sanders M, <u>Baregamian N</u>, Sweeting RS.
 Early-Stage Breast Cancer Diagnosed With 99<sup>m-To-MIBI</sup> Parathyroid Scintigraphy in a Patient with Hyperparathyroidism.
 ACS Case Reviews in Surgery. 2020, V3N1, December 14, 2020.
 <a href="https://www.facs.org/for-medical-professionals/news-publications/journals/case-reviews/issues/v3n1/sweeting-early/">https://www.facs.org/for-medical-professionals/news-publications/journals/case-reviews/issues/v3n1/sweeting-early/</a>

## PRESENTATIONS AT SCIENTIFIC MEETINGS:

# Peer-Reviewed

- 1. Laparoscopic Pyloromyotomy: Standard of Care for Hypertrophic Pyloric Stenosis. IPEG's 13th Annual Congress for Endosurgery in Children. Maui, HI. 2004.
- 2. Tumor Necrosis Factor-Alpha and Apoptosis Signal-Regulating Kinase 1 Control Reactive Oxygen Species Release, Mitochondrial Autophagy, and c-Jun N-Terminal Kinase/p38 Phosphorylation During Necrotizing Enterocolitis, American Pediatric Surgical Association (APSA). Orlando, FL. 2006.
- 3. IGF-1 and Oxidative Stress-Induced Apoptosis in NEC. Singleton Surgical Society (UTMB). Galveston, TX. 2006.

- 4. Bombesin Induces Angiogenesis and Neuroblastoma Growth. ACS Annual Surgical Congress, Pediatric Surgery, Chicago, IL.2006.
- 5. IGF-1 Protects Intestinal Epithelial Cells from Oxidative Stress-Induced Apoptosis. 1st Annual Surgical Congress. (AAS). San Diego, CA. 2006.
- 6. Phosphatidylinositol 3-Kinase Pathway Regulates Hypoxia-Inducible Factor-1 to Protect from Intestinal Injury During Necrotizing Enterocolitis. 2nd Annual Surgical Congress (SUS). Phoenix, AZ. 2007.
- 7. Intestinal Mitochondrial Apoptotic Signaling is Activated During Oxidative Stress. ACS Annual Surgical Congress, Pediatric Surgery. New Orleans, LA. 2007.
- 8. Intestinal Mitochondrial Apoptotic Signaling is Activated During Oxidative Stress. 23rd International Pediatric Surgical Research Symposium. Tokyo, Japan. 2010.
- 9. Ex Utero Intrapartum Treatment to Extracorporeal Membrane Oxygenation (EXIT-TO-ECMO) Strategy for Severe Congenital Diaphragmatic Hernia (CDH). American Pediatric Surgery Association (APSA). San Antonio, TX. 2012.
- 10. The Role of Oxidant Tumor Immunometabolic Plasticity in Advanced Thyroid Cancer, VUMC 1st SCRIPS Symposium, First Faculty Scholar Presentation (Virtual). 2020.
- 11. Oxidant Tumor Immunometabolic Plasticity in Thyroid Cancer Progression, VUMC 2nd SCRIPS Symposium, Faculty Scholar Presentation (Virtual). 2021.
- 12. GSH Immunomodulation in Thyroid Cancer Progression, 41st Annual AAES Meeting, Opening Session, LoGoerfo Research Award Presentation (Virtual). 2021.
- 13. Immunoregulatory Mast Cell Signature in Cortisol-Secreting Adrenocortical Carcinoma Tumor Microenvironment. 41st Annual AAES Meeting, Podium Session (Virtual). 2021.
- 14. RSL3 Induces Ferroptosis via GPX4 Inhibition in Papillary Thyroid Cancer. Annual ACS Commission on Cancer (CoC) Research Competition (Virtual). 2021.
- 15. Use of Probe-Based Parathyroid Autofluorescence Detection and Its Impact on Resident Education. 4th Symposium on Parathyroid Fluorescence. ISITES. 2022.
- 16. Autofluorescence Studies in Human 3D Endocrine Organoids. Symposium on Parathyroid Fluorescence. ISITES. San Francisco, CA. 2022.
- 17. Engineering Functional 3-Dimensional Patient-Derived Endocrine Organoids for Broad Multiplatform Applications. AAES (Virtual). 2022.
- 18. Ferroptosis Inducers in Thyroid Cancer. International Association of Endocrine Surgeons (IAES). Vienna, Austria. 2022.
- 19. Parathyroid Organoid Metabolism: Advancing In Vitro Applications. 5th International Symposium on Parathyroid Fluorescence. ISITES. Geneva, Switzerland. 2023.
- 20. Novel Biomimetic 3-Dimensional Parathyroid Organoid Modeling Platform in Metabolic Bone Disease. 6<sup>th</sup> International Symposium on Parathyroid Fluorescence. ISITES. Nashville, TN. 2024
- 21. A Pilot Study of Real-time Intraoperative Probe-based Near Infrared Autofluorescence Parathyroid Detection and Quantification of Parathyroid Vascularity, ISITES. Nashville, TN. 2024
- 22. Characterizing Near-infrared Autofluorescence from Parathyroid Glands of Pediatric Patients, ISITES, Nashville, TN. 2024

- 1. Parathyroid Imaging Modalities for Complex Parathyroid Surgeries. Multidisciplinary Endocrine Conference, Yale University, New Haven, CT. 2015.
- 2. Surgical Management of Benign and Malignant Thyroid disease. Medicine Grand Rounds, Baptist Health Deaconess, Madisonville, KY. 2016.
- Primary hyperparathyroidism and Innovative Neurocognitive Assessment Tools. Surgical Grand Rounds, VUMC, Nashville, TN, 2018.
- 4. Multicentric Study with PTEye for Label-Free Parathyroid Identification in Presence of Ambient OR Light. 1st Symposium on Parathyroid Fluorescence, Geneva, Switzerland. 2019.
- 5. *Moderator*, Quick-Shot Oral Session. Academic Surgical Congress (ASC), 2019.
- 6. *Moderator*, Oral Session. International Society of Innovative Technologies for Endocrine Surgery. 2<sup>nd</sup> Symposium on Parathyroid Fluorescence, February 2020.
- 7. Discovery of Parathyroid Autofluorescence and Utility During Thyroid and Parathyroid Surgeries. Annual Wisconsin Surgical Club Conference, VUMC. 2020
- 8. Evaluating the Relationship Between Intraoperative Laser Speckle Imaging for Parathyroid Vascularity and Total Thyroidectomy Patient Outcomes. 2nd International SPF, Lausanne, Switzerland. 2020.
- 9. Human 3D Endocrine Organoids: A New Window for Advancing Autofluorescence & Therapeutics Research. 3rd Symposium on Parathyroid Fluorescence (Virtual). 2021.
- 10. Surgical Management of Graves' Disease. International Armenian Thyroid Club (Virtual). 2021.
- 11. Women in Surgery. TNACS Annual Meeting, Memphis, TN. 2021.
- 12. Ferroptosis in Papillary Thyroid Cancer. VICC, Clinical Cancer Committee, ACS CoC (Virtual). 2021.
- 13. Dr. Dorothy Brown Scholarship: Legacy of Dr. Brown. TNACS Annual Meeting, Inaugural Brown Memorial Scholarship Award Ceremony, Nashville, TN. 2022.
- 14. Surgical Management of Graves's Disease and Substernal Goiters. Blanchfield Army Community Hospital, Ft. Campbell, TN (Virtual). 2022.
- 15. Surgical Management of Substernal Goiters. Medicine Grand Rounds. Jennie Stuart Health, Hopkinsville, KY (Virtual). 2022.
- 16. Endocrine Organoids: Advancing Multiplatform Applications. STEMCELL & VUMC Organoid Research Symposium. Nashville, TN. 2023.
- 17. Multidisciplinary Surgical Approaches to Complex Benign and Malignant Thyroid Diseases. 6th IMCA, Armenia. 2023.
- 18. Parathyroidectomy for Secondary and Tertiary Hyperparathyroidism. 6th IMCA, Armenia. 2023.
- 19. Advances in Endocrine Surgery: The role of endocrine autofluorescence. 6th IMCA, Armenia. 2023.
- 20. Surgical Treatment of Thyroid Disease. TN ACS Fireside Chat, Nashville, TN. 2024.
- 21. Moderator, Live Streaming OR Transmission on Parathyroid Autofluorescence. ISITES. Nashville, TN. 2024.
- 22. *Moderator*, Scientific Session: Adrenal. AAES, Dallas, Texas, 2024.

#### **Poster Presentations**

- 1. **Baregamian N**. IGF-1 and Oxidative Stress-Induced Apoptosis in NEC. 14th Annual Molecular Biology Symposium (Oral-poster), Galveston, TX. 2006.
- 2. **Baregamian N**. PPAR-Gamma Agonist Protects Against Intestinal Injury During Necrotizing Enterocolitis. Digestive Disease Week (Poster), Washington, DC. 2007.
- 3. **Baregamian N**. Mid-Molecule PTH is a Useful Adjunct in Establishing the Diagnosis of Primary Hyperparathyroidism. 16th International Congress of Endocrinology & the Endocrine Society's 96th Annual Meeting & Expo (Poster), Chicago, IL. 2014.
- 4. **Baregamian N**. Global Metabolomic Profiling of Papillary Thyroid Carcinoma. International Association of Endocrine Surgeons (IAES, Oral-Poster), Basel, Switzerland. 2018.
- 5. **Baregamian N**. Metabolic Antioxidant Plasticity in Thyroid Cancer. Keystone Symposia, Tumor Metabolism. 2020.
- 6. Cyr S, **Baregaman N**. RSL-3 Induces Ferroptosis via Glutathione Peroxidase 4 Inhibition in Papillary Thyroid Carcinoma, VICC Translational Research Symposium, November 2021.
- 7. Cyr S, **Baregamian N**. RSL3-Mediated Ferroptosis in Thyroid Cancer. VICC 23rd Annual Scientific Retreat, May 2022.