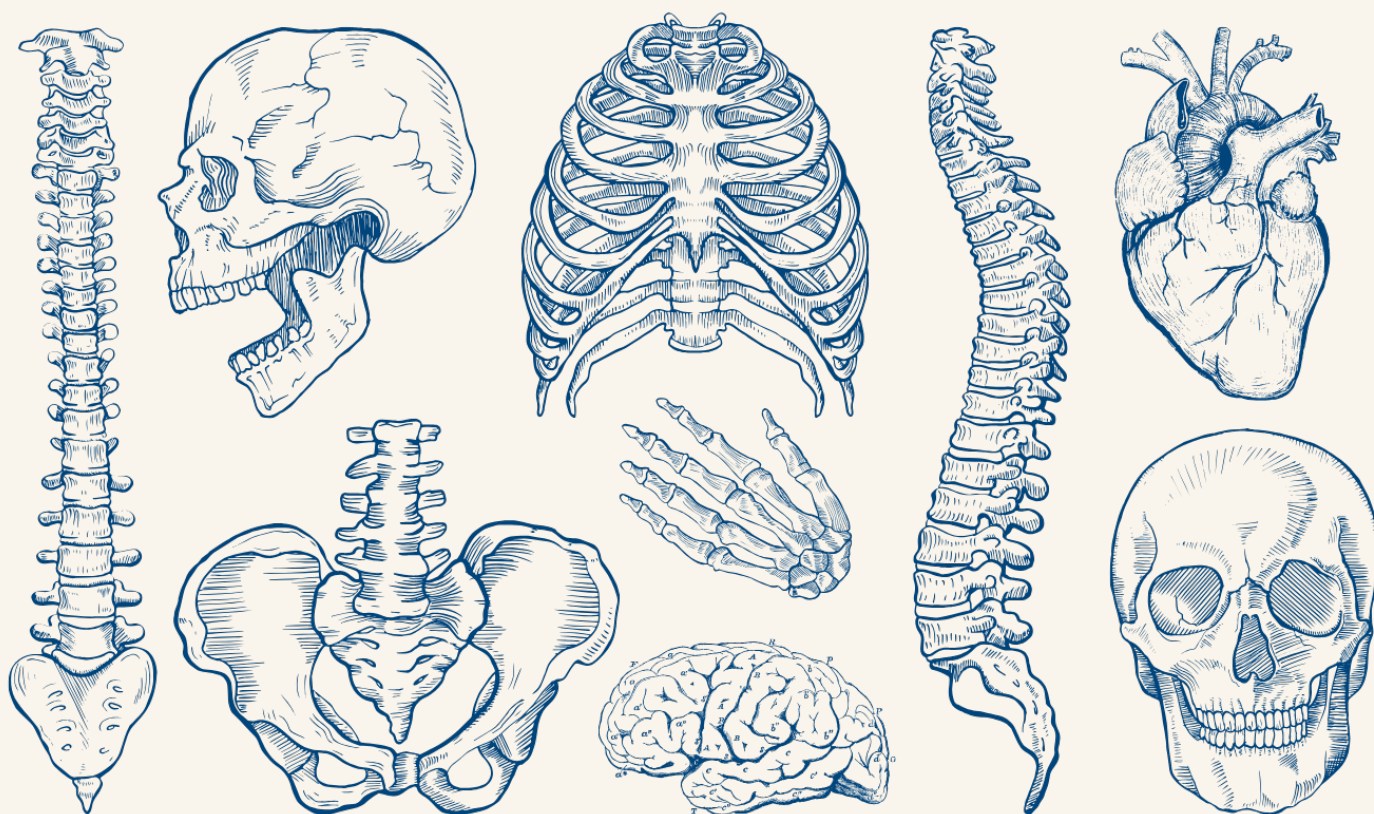


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# Waring Library Society

# NEWSLETTER



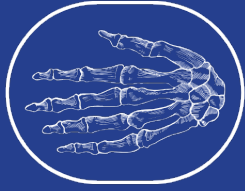
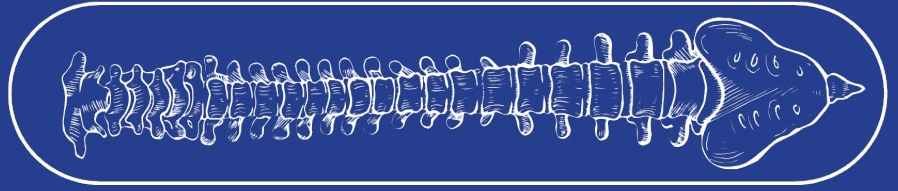
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NO. 71  
Spring 2024



 **MUSC**  
Medical University  
of South Carolina

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# PRESIDENT'S



# CORNER

## The First President's Corner with Robert Ball

*Robert Ball MD MPH FACP  
President, Waring Library Society*

In this bicentennial year of the Medical University (ne' College) of SC, we reflect on our founders, aptly called **Men of Unsullied Reputation**. We also honor our Waring Historical Library (WHL) staff past and present for their devotion to continuing the legacy established in honor of Dr. J. I. Waring. Our new Curator, Ms. JoAnn Zeise, leads with the very able assistance of Mss. Brooke Fox, Anna Marie Schuldt, and Tabitha Samuel. Their work, especially the increased digitization of our vast collections, allows unparalleled medical history research.

The WHL continues a strong legacy of leadership to promote the history of virtually all health sciences. Space does not permit the elaboration of all WHL resources, but the reader is invited to **surf the website** - it's enlightening!

The Waring Library Society (WLS), comprised of long-time devotees of the WHL, supports and strengthens the WHL missions and goals. Special recognition goes to the Officers and Past-Presidents, especially immediate Past-President Dr. Jacob Steere-Williams, who assisted in securing superb speakers.

Our recent Annual Meeting in April 2024, the first in-person since COVID, allowed us to reflect on the WLS's many accomplishments, discuss

important matters, and plan further for the future. We also received an update on the current restoration of the WHL. We look forward to the year ahead as we begin construction!

As requested, most WLS Board of Directors members submitted their committee preferences. Those who have yet to do so are requested to complete this small duty so that we can progress. A good example would be the Collections Advisory Committee, established to support the development, management, and conservation of the Waring's historical collections. The slogan of one WLS Board member's organization's is, "What's in Your Attic?" Please ask yourself and your kin this question regarding records relating to medical history.

The WLS has many goals, including:

1. Continuing to support the WHL restoration project, which has received over \$1 million thus far. Learn more about the **project and fundraising initiative** online.
2. Promoting the Waring and Sawyer Lectures, which experienced a decrease of in-person attendance in the last few years. The Program Assessment and Development Committee will work with Waring staff together input about past programs and generate engagement strategy options and outreach goals.
3. Supporting the WHL's Student History Club for our busy students and staff to learn about the varied histories of the healing arts.

# CURATOR'S COMMENTS



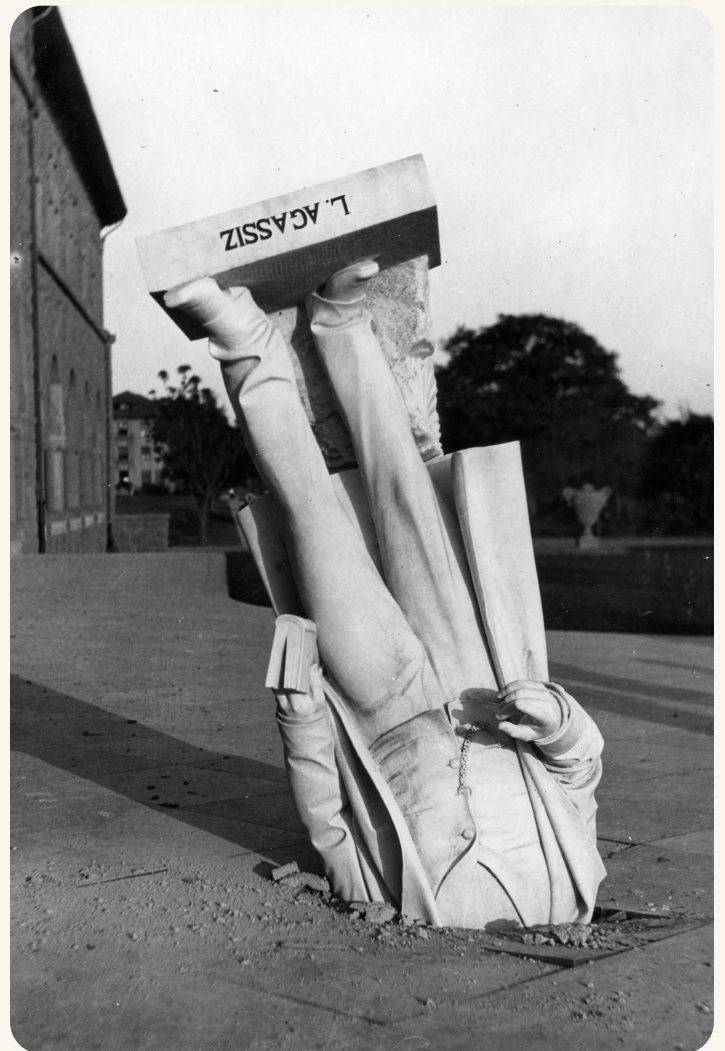
## Agassiz at the Medical College

JoAnn Zeise  
Curator, Waring Historical Library

Spring sends some of us into our gardens, seeds at the ready and pondering what's happened in our soil. The same is true this year's bicentennial celebration of our school's founding. As we look forward to great things, we are also inspired to investigate our "soil" and better understand what grew here. To help do this work Gabriella Angelonia, PhD joined the Waring team, and you can explore some of what she unearthed in a virtual exhibition on our website, [Men of Unsullied Reputation](#). Her work also shed light on the Medical College's hiring of Louis R. Agassiz in 1849.

Swiss-born Agassiz was the "science-guy" of mid-19th century America. He made science approachable for popular audiences. Agassiz's notoriety garnered him a professorship at Harvard where he lectured on a variety of topics such as geography, taxonomy, sociobiology, and polygenism, the idea that different races of people were distinctly different species and giving scientific credence to white supremacy. Agassiz's work was situated at the center of the scientific, religious, and political thought of mid 19th century America. The Medical College of South Carolina's trustees were certainly aware of it when they hired him.

During a lecture tour in 1847 he presented his theory on race at the Literary Society of Charleston. Three years later Agassiz published



*This image shows Agassiz's stature after the 1906 San Francisco earthquake outside of Stanford's zoological building. Agassiz is still recognized for important work in natural history and his geological discoveries, yet his rejection of evolution and support of polygenism caused him to fall from grace with the scientific community even before his death in 1873. Image courtesy of the Stanford University Archives.*

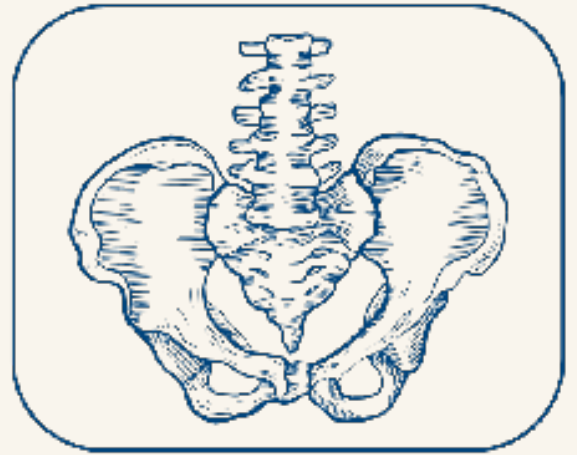
“The Diversity and Origin of the Human Species” and joined with South Carolina native J. E. Nott to advance polygenism at the American Association for the Advancement of Science’s meeting in Charleston. That year the Medical College of South Carolina offered him a faculty position created “solely for Professor Agassiz.” He enthusiastically accepted. He kept his position at Harvard and spent the winter lecturing and researching in South Carolina. He wrote to a friend that this arrangement afforded him an “excellent opportunity of examining the negros.” Also in 1850, Agassiz had images taken of seven enslaved men and women in Columbia: Alfred, Fassena, Renty, Delia, Drana, Jem, and Jack. These daguerreotypes, currently at the Peabody Museum of Archaeology and Ethnology at Harvard, are among the most researched and debated images of enslaved Americans.

What did Agassiz teach while he was an instructor at the Medical College? Dr. Angelonia found in the academic bulletin that the “celebrated” Agassiz focused on “Vertebrates... from Fishes through Reptile, Birds and

Mammalia, to Man.” He “reference[d]...the structure of the human body, in order to prepare the student more fully for a correct understanding of its peculiarities and the functions of its organs.” His lectures included “diagrams and the exhibition of natural specimens.” We do not know but might speculate that he utilized those 15 images during his lectures. Yet there is little surviving evidence since by 1852 Agassiz resigned due to poor health, a disappointment for both him and the school.

There is still much to learn about Agassiz’s time at the Medical College and the influence of his gallimaufry of religious beliefs, science, and racist ideas. Then, as now, such debates were not simply one view versus another. In the 1850s and 1860s they were happening on a swiftly polarizing political landscape whose soil was seeded with deeply personal and religious beliefs. Continued research will doubtless bring more light on this brief yet interesting time in the school’s history and help define South Carolina’s place in scientific, political, and theological discussion in antebellum America.

# PROJECT UPDATES



## Spring 2024 Additions to MEDICA@MUSC

*Tabitha Samuel*  
*Digital Archivist, Waring Historical Library*

The following dissertation and thesis titles have been recently submitted to **MEDICA@MUSC** in Digital Commons by MUSC's Spring 2024 master and doctoral degree candidates:

- **Next Generation Human Cardiac Organoids: Modeling Inflammatory Diseases and Engineering Their Protection in vivo** by Dimitrios Chrisovalantou Arhontoulis
- **A Comparative Analysis of Costs Associated with Assisted Reproductive Technology; Invitro Fertilization of Singleton, Twin, and Multiple Gestations Compared to Non-Invitro Fertilization Singleton Gestations** by Ruth Arthur-Asmah
- **Oral Feeding of Infants Who Require Noninvasive Respiratory Support: Retrospective Investigations** by Carolyn Barnes
- **Framework for Clinical and Non-Clinical Best Practices for Care for Transgender Individuals** by Sundeep Singh Boparai
- **Characteristics and Patterns of Diagnoses for Patients Admitted from and Discharged to Court or Law Enforcement in the State of Florida** by Christopher Bridgeman
- **Determining Microbial and Neuroimmunological Differences Associated with Adolescent Alcohol Use** by Brittney Browning
- **Healthcare Key Performance Indicators; A DHA Study in Perception and Importance by Clinical and Non-Clinical Healthcare Professionals at a Large Healthcare System** by Jennifer Burchill
- **Telehealth Utilization in Clinical Trials: Facilitators, Barriers, and Future Directions** by Michael Carpenter
- **Estradiol Signaling Improves Extinction Memory Recall to Combat Cue-Induced Heroin Relapse in Rats** by Jordan S. Carter
- **Role of Centrosomal P4.1 Associated Protein (CPAP) in Tumor Suppression** by Heena Dave
- **Potential for Telehealth Support to Improve Access to Care: A Needs Assessment Using Heat Maps of Ed Use and Avoidable Hospitalizations for the I/Dd Population in South Carolina** by Daphanie Dean
- **Assessing the Types of Juvenile Detention Medical Issues: A Focus on Florida** by De'Angelo Dean
- **Insulin as a Mediator of Obesity-Related Cognitive Decline** by Stephanie Gloria DiLucia
- **Identification and Characterization of Novel, Small Molecule Inhibitors of Spermine Oxidase** by Amelia Bryn Furbish

- **Calpain Activation Regulates Rho-ROCK Pathway in Parkinson's Disease** by Amy Jacqueline Gathings
- **Gut Check: Exploring the Role of Acinetobacter in Intestinal Inflammation** by Janiece Glover
- **A Comparative Analysis of Births for Women Aged 20-25 Vs. 35-39: An Examination of Longitudinal Trends of Volume and Outcomes** by Kristy Hampton
- **MALDI-MSI Identification of Tissue-Level N-Glycomic and Proteomic Molecular Biomarkers of Aggressive Prostate Cancer** by Jordan Hartig
- **Financial Implications Associated with Laboratories Performing Laboratory Developed Tests For Medicare and Commercial Patients** by Summer Hartig
- **Real-World Use of Bevacizumab for Treatment of Advanced Ovarian Cancer Among Elderly Women in the U.S.** by Janet Hildebrand
- **Emergency Department Utilization by South Carolina Patients with Type 2 Diabetes: A Needs Assessment to Inform Primary Care Access and Telehealth Improvement** by Beverly Wilson Holmes
- **Exploring Patterns in Worksite Healthcare: An Exploratory Analysis of Worksite Healthcare Utilization and Costs** by Patrick Howell
- **An Assessment of the Impact of Patient Characteristics on Pediatric ECMO Outcome in the United States** by Stanley C. Ibe
- **Rapid Displacement of BRD4 from Chromatin by the DNA-PK Inhibitor NU7441** by Brandon Johnson
- **Interventions to Modify Negative Perceptions of the Need for Behavioral Health Care for African American Patients** by Tiffany Jones
- **The Role of Sphingolipids in T-Cell Mitophagy, Metabolism, and Signaling** by Mohamed Faisal Kassir
- **Implementation of Psychiatric Collaborative Care Management in Rural Primary Care Practices** by Ryan Kruis
- **The Regulation of BRD4 in Transcription and DNA Repair** by Baicheng Lin
- **Comparative Analysis of Inpatient and Outpatient Total Hip Arthroplasty: Cost, Rehabilitation, and Complexity** by Kam Maghazehe
- **Individual Differences in Cannabis Use Disorder with Implications for Endocannabinoid Modulation in Therapeutics Development** by Erin Martin
- **A Mechano-Molecular Landscape Underlying Regionalized Left Ventricular Fibrosis in Mitral Valve Prolapse** by Jordan Morningstar
- **H2S-Prdx4 Axis Mitigates Golgi Stress to Bolster Tumor-Reactive T Cell Immunotherapeutic Response** by Nathaniel Oberholtzer
- **An Analysis of Inpatient and Outpatient Radiofrequency Cardiac Ablation: Quality Outcomes and Reimbursement** by Ben Parekkadan
- **Engineering Mesenchymal Stromal Cells to Suppress Inflammation and Increase Beta-Cell Mass for Treating Type 1 Diabetes** by Dhruva Patel
- **The Impact of Health Insurance Coverage on Short-Term and Long-Term Readmissions to the Emergency Department for Pediatric Patients with Asthma: A Retrospective Regression Analysis** by Micheline Plantada
- **What Is the Effect of Telehealth and the Internet of Medical Things (IOMT) on Outcomes When Used in At-Risk Pregnancies: A Scoping Review of the Components of Remote Maternal Monitoring for Hypertensive Disorders**

**that Can Successfully be Done Via Digital Technology?** by Leighton Pitter

- **The Impact of Covid-19 on the Utilization of Early Magnetic Resonance Imaging (eMRI) in the Assessment of Acute Uncomplicated Low Back Pain (LBP) and the Subsequent Effect on Health Care Service Utilization and Patient Outcomes** by Kimberly Radcliffe
- **Readmission Rates of Mothers Experiencing Preeclampsia or Complications After Delivery in Underserved Populations** by Sadia Robinson
- **Attention Network Dynamics Predict Motor Improvement through Language and Visual Area Synchrony in Chronic Stroke** by Claudia Salazar
- **Opportunistic Pathogen Porphyromonas gingivalis Targets the LC3B-ceramide Complex and Mediates Lethal Mitophagy Resistance in Oral Squamous Cell Carcinoma** by Megan Sheridan
- **Enhancing Adoptive T Cell Therapy: Unveiling the Cell Autonomous Role of Stat5 in T Cell Engraftment** by Megan Daley Tennant
- **The Genomics of CHAMP1: Insights into their Cell-Type Specificity and Developmental Trajectories** by Zoe Marie Van Caugherty
- **Home Health Utilization and Health Outcomes for Medicare Fee for Service Survivors of Acute Ischemic Stroke** by Suzanne Van Kirk
- **An N-glycan Tissue Atlas of Multiple Tissue Types and a Focus on DCIS** by Elizabeth Wallace
- **Therapeutic Inhibition of Complement Component 3 in Spontaneous Osteoarthritis** by Jen Xu
- **Exploring the Perceptions and Experiences of Remote Work Among**

**Administrative Healthcare Personnel at an Academic Medical Center in the Southeastern United States: A Qualitative Investigation** by Jonathan Young

The following titles were also submitted this Spring to MEDICA@MUSC as ELOTD and PPOTD capstone projects for the OTD doctoral defense:

Post-Professional Occupational Therapy Doctoral Capstones

- **Fall Prevention: A Resource Toolkit for Occupational Therapy Practice for Older Adults** by Katherine Baslik
- **Bridging the Gap in Fine Motor and Writing Readiness Skills in At-risk Preschoolers: A Professional Development Program** by Christine Boone
- **The Role of Occupational Therapists in the Joint Commission's Disease-Specific Care Certification Process: A Continuing Education Course** by Addie E. Broom
- **Life-Skills and Transition Training in Special Education: Evidence-Based and Stakeholder Driven** by Lindsay Busha
- **Developing the FORE-U Perinatal Mental Wellness Care Planning Tool** by Stephanie Garner
- **Scoping Review: Health Care Use in Foster Care Children** by Karen McWaters
- **Cognitive-Motor Dual Tasking in Acute Care with Neurological Patients: Inservice Training and Framework** by Mattie Smith
- **Building Intentional Leaders Through Emotional Intelligence** by Tremayne Thurman

Entry-Level Occupational Therapy Doctoral Capstones

- **Supporting Preschool Educators Through Developmental Resources to Promote Proper Development for Children Ages 0-5** by Erin Adkins



- **Developing Educational Resources for Powerfully You, a Self-Regulation Program** by Emily Bott
- **Development and Evaluation of a Training Program to Increase Caregiver Understanding of TheraBracelet** by Molly Brinkhoff
- **Promoting Engagement of Male Individuals with Alzheimer's in a Memory Day Care** by Tara Brophy
- **Sensory Regulation and Avoidant Restrictive Food Intake Disorder: Education and Resources for Providers** by Kylie Bugbee
- **Addressing Mental Health Through Community Based Surf Therapy Groups** by Shelby Cobb
- **Juntos Podemos (Together We Can): A Resource Platform for Special Education Teachers in Latin America** by Susan Dempsey
- **Increasing Occupational Therapy Student Confidence with Cultural Humility in Clinical Practice Through Meaningful Resources** by Emily Meiring Donovan
- **Creating Mental Health Resources for Veterans and Caregivers at the Charleston Fisher House** by Ashley Edwards
- **Camp Cardiac: A Pediatric Inpatient Camp Program Aimed to Improve and/or Remediate Psychosocial Difficulties through Play** by Katja Ehlers
- **The Forgotten Occupation in Stroke Rehabilitation: Use of Keyform Mapping to Address Sleep Disturbance & Student Research Therapist Experience** by Erin Elenz
- **Supporting the Caregiver's Transition Home After SCI: Resource Development for Roper Rehabilitation's Family Training Program** by Katelyn Feeny
- **Addressing Home Health Caregiver Burden: Screening Tool Development for Enhancing Caregiver Health & Well-Being** by Morgan Fontenot
- **Pediatric Burn Injuries: Addressing Psychosocial Concerns During the Acute Care Phase of Treatment** by Lauren Garrett
- **Supporting the Caregiver's Transition Home After SCI: Resource Development for Roper Rehabilitation's Family Training Program** by John Joseph Guerriero IV
- **Increasing Social Inclusion and Engagement of Exercise for Individuals with Spinal Cord Injuries: A Universal Resource Development for Wellness Facilities** by Alexa Hall
- **Optimizing Neurologic Recovery in Acute Care: A Focus on Addressing Rehabilitation Needs at the Medical University of South Carolina** by Audrey Hartis
- **Tier One Tools: Improving Educators' Understanding of the Multi-Tiered System of Supports Within the School System Including a Case Example** by Maclaine Harvey
- **Improving Parent and Daycare Staff Confidence in Monitoring Developmental Milestones Through Education of Pediatric Development** by Reagin Hunter
- **Preschool-Based Environmental Adaptions to Facilitate Developmental Milestones** by Jessica Kirk
- **Creating Educational Resources to Increase Access to Wellness** by Hannah Lindahl
- **The Development of Intervention Toolkits for Non-Specialized Personnel and Families of Children with Autism Spectrum Disorder in La Paz, Bolivia** by Margaret Mahoney
- **Interprofessional Collaboration to Evaluate Health Disparities in the Utilization of Therapy Services for Children with Down Syndrome** by Ashlyn McKeegan

- **Yoga and Wellness-Based Interventions with Marginalized Populations** by Marisa Moore
- **Addressing the Physical Demands of Caregiving or Children with Disabilities in Nicaragua: A Quality Improvement Collaboration with FNE International** by Grace Price
- **Pediatric Sensorineural Hearing Loss: Improving Services for Children At-Risk for Future Developmental Delays** by Sophie Sherman
- **Enhancing Awareness of Aquatic-Based Occupational Therapy Services Across the Lifespan** by Jaime Stacy

Full text of a given work may be subject to access restrictions determined by the author. For more information, contact the Waring Digital Archives program at [medica@musc.edu](mailto:medica@musc.edu).

Congratulations to all of MUSC's Spring 2024 graduates!

# CONTRIBUTING



# VOICES

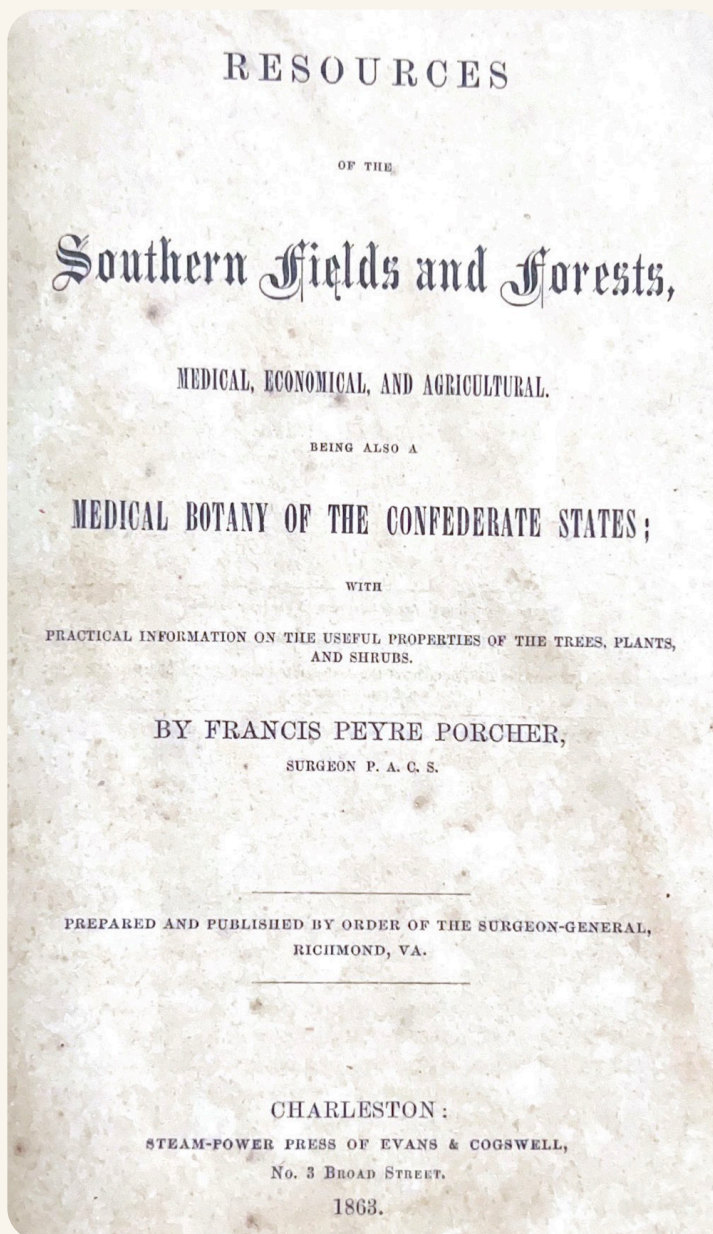
## A Return to Our Roots

*Kathryn Glorioso*  
*Biomedical PhD Student*

We walked the maritime forest path talking quietly of future plans for research. Unlike the usual hum of incubators and fume hoods that I've become accustomed to in my biomedical program, our research lab today was filled with sounds of birds and the rhythmic crunching of our boots on sandy soil. I was in my first year of my PhD and in the process of rotating through various research labs. This rotation, however, was vastly different.

My guide, Dr. George Hanna, suddenly deviated from the path, following a deer trail he knew well. Dr. Hanna is a research assistant professor in the Public Health Sciences department at MUSC. His research focuses on identifying and characterizing compounds in plants that may have applications in medicine. We approached an area of forest that was only a stone's throw from the marsh. With a very experienced eye, Dr. Hanna immediately found our shrub of interest, the abundant *Baccharis halimifolia*, also known as consumption weed. As a novice shadowing student, I struggled to find it. Its broom-shaped flowers were no longer in bloom, so the shrub was more subtly identified by its toothed leaves and bark pattern. Dr. Hanna and I set to work, digging in the moist earth. It was not the flowers or leaves we were after but the roots.

We followed a protocol found in a large volume written by Dr. Francis Porcher in the mid 1800s and housed in the archives of the Waring



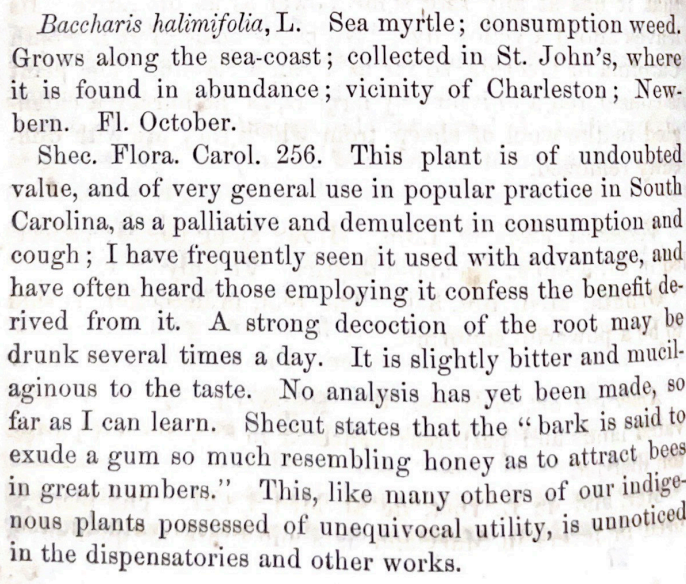
*This image shows the title page of "Resources of the Southern Fields and Forests" written by Francis Peyre Porcher and published in 1863.*

Historical Library. Porcher was not only a trained physician at MUSC but also a botanist and passionate scholar of the medicinal uses of native plants. His work, *Resources of the Southern Fields and Forests*, is a collection of remedies prepared from plants of South Carolina and the surrounding states. Representative plants from this resource can be found in the Porcher Medicinal Garden on MUSC's campus. Fortunately for us, the often-illegible cursive on the yellowed pages of this guide had been transcribed into text.

After harvesting the *Baccharis* roots, I painstakingly peeled the outer covering away, placing this portion of the root into a large boiling flask. Porcher had written that the roots would be brewed as a tea for the treatment of consumption, a term that describes the symptoms of a Tuberculosis infection. For this reason, Dr. Hanna plans to study the compounds found in the decoction for use against Tuberculosis which currently requires an aggressive treatment of multiple drugs. While some may regard plant remedies as better suited for mystical studies than scientific ones, the unique compounds found in plants have often been used in drug development. The most notable of these is paclitaxel, a powerful cancer drug first isolated from the bark of the Pacific yew tree.

As the pungent fragrance of the tea filled the lab, Dr. Hanna discussed other promising leads, including plants used by the Gullah Geechee people, descendants of African slaves who lived in the coastal regions and Sea Islands of the Lowcountry. The Gullah Geechee have a rich tradition of using medicinal plants, a practice deeply rooted in African heritage and adapted to the Southern environment. They relied on local flora for treating ailments, often using plants that Porcher documented.

I tasted the tea: it was bitter just as Porcher described. In the lab, we would further purify it to isolate and study its components. In many ways, this study of local medicinal plants is more than a biomedical one. It is also historical, cultural, and environmental. We pull from historical observations made by both professional and



*Baccharis halimifolia*, L. Sea myrtle; consumption weed. Grows along the sea-coast; collected in St. John's, where it is found in abundance; vicinity of Charleston; Newbern. Fl. October.

Shec. Flora. Carol. 256. This plant is of undoubted value, and of very general use in popular practice in South Carolina, as a palliative and demulcent in consumption and cough; I have frequently seen it used with advantage, and have often heard those employing it confess the benefit derived from it. A strong decoction of the root may be drunk several times a day. It is slightly bitter and mucilaginous to the taste. No analysis has yet been made, so far as I can learn. Shecut states that the "bark is said to exude a gum so much resembling honey as to attract bees in great numbers." This, like many others of our indigenous plants possessed of unequivocal utility, is unnoticed in the dispensaries and other works.

This image shows a section on *Baccharis halimifolia* on page 418 of "*Resources of the Southern Fields and Forests*" written by Francis Peyre Porcher and published in 1863.

citizen scientists before us who tested and optimized herbal remedies. We consider and credit the cultural origins of our science, bringing light to the important contributions made by the displaced and enslaved Africans who lived in this region. And we work to preserve the ecological diversity of the Lowcountry which harbors untapped resources in its fields and forests.

Unlike my rotation with Dr. Hanna, my classes and research at MUSC usually engage me at a computer screen. Resources and new insights are just a click away. But as I take a stretch break and walk through the Porcher Medicinal Garden between the library and the lab, I wonder what discoveries await if we explored a little closer to home. Went back to our roots, so to speak. It is quite possible that the medical breakthrough that seems out of our reach could be found in the plant we pass on our way into lab.