54th Annual Meeting
of the
American Osler Society

Dr. Logan Clendening in his library at The University of Kansas Medical Center

Friday, May 3rd – Monday, May 6th, 2024
The Westin Kansas City at Crown Center
Kansas City, Missouri

About the front cover photo:

In 1939, Dorothy Hixon Clendening presented the Hixon Laboratory to the University of Kansas. One floor of the laboratory was established as a library devoted to medical history. At that time, Logan Clendening donated to the library his collection of works on the history of medicine, as well as in the basic sciences. Upon Dr. Clendening's death in 1945, his collection of approximately 6,000 volumes was bequeathed to the University of Kansas Endowment Association. It served as the nucleus of the rare book collection.

In 1957, a celebration was held for the opening of a new library building. At this time, the library consisted of current medical literature, along with reference books, textbooks, and the special "History of Medicine Collection." Faculty, student groups, medical departments, booksellers, other libraries, and friends of the library presented a "Dedication Gift" of twenty-eight rare books, prints, and photographs to the Collection. The new library also received a proper name: the Clendening Medical Library.

In 1983, the Archie Dykes Library for the Health Sciences opened. Current medical literature was moved to that location. On July 28, 1983, the Library received formal designation as "The Clendening History of Medicine Library." Earlier that year, the Executive Committee of the Medical Faculty met and unanimously approved a resolution recognizing that "the Clendening Library houses one of the most outstanding collections of books and artifacts relative to the history of medicine that exists in the United States". Further, they opined "that the continued growth and development of all aspects of human medicine will be best achieved if based upon the history of medicine".

Through the years, other faculty joined the History of Medicine Department or became interested in book collecting. Clendening's generosity was augmented by gifts from Ralph H. Major (history of medicine), Edward H. Skinner (radiology), Russell L. Haden (hematology), Thor Jager (Rudolf Virchow, pathology), Darrel T. Shaw (plastic surgery), Leonard F. Peltier (orthopedics), Walter Blount (orthopedics), and more. During the 1980's and 1990's, the Library continued to acquire rare books, both through gifts and through direct purchase. In 1998, the Library participated in the Haskell F. Norman Library of Science and Medicine sale at Christie's. Purchases included a collection of works on mesmerism and Georg Bartisch's *Ophthalmoduleia*. In 2014, hundreds of books were accepted back from Dykes Library into the Clendening collection as they reduced the physical holdings housed in their space.

Additionally, during this time, the Library has acquired numerous new works in the history of medicine and expanded its scope to include biomedical ethics and medical humanities. Presently, the Library holds approximately 45,000 monographs, 1800 bound serials, and numerous manuscripts.

Information taken from https://www.kumc.edu/school-of-medicine/academics/departments/history-and-philosophy-of-medicine/library/history.html.

54th Annual Meeting of the

American Osler Society

Friday, May 3rd – Monday, May 6th, 2024

William Osler at a Patient's Bedside with Stethoscope in Hand

The Westin Kansas City at Crown Center
1 East Pershing Road
Kansas City, Missouri

Course Objectives

Upon conclusion of this program, participants should be able to:

1. Communicate with and treat patients humanely and professionally.
2. Think critically about the diagnosis and treatment of contemporary diseases by learning how physicians diagnosed and treated diseases in the past.
3. Incorporate into practice new research findings and treatments via the evolution of treatme of various diseases and conditions.

Intended Audience

The target audience includes physicians and others interested in Osler, medical history and any of the medically oriented humanities who research and write on a range of issues. Attendees will acknowledge the diversity of topics discussed and the spectrum of research techniques employed to investigate hypotheses, frame arguments, and draw conclusions. The themes addressed are comprehensible to all health care providers, making the content and conclusions accessible to the participants regardless of their main professional identity.

CME Accreditation and Designation Statement

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of The University of Arizona College of Medicine - Tucson and the American Osler Society. The University of Arizona College of Medicine - Tucson is accredited by the ACCME to provide continuing medical education for physicians.

The University of Arizona College of Medicine – Tucson designates this live activity for a maximum of 20.25 AMA PRA Category 1 Credit(s)™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Relevant Financial Relationships Statement

None of the presentations of this activity will discuss any products or services produced, marketed, sold or distributed by an ACCME-defined ineligible company. Therefore, there are no relevant financial relationships for anyone in control of content.

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Program Schedule

Friday, May 3, 2024

1:00 – 5:00 pm	Registration | Foyer
3:00 – 5:00 pm	The Frank Neelon Literary Gathering | Shawnee Mission Moderator: Frank Neelon
7:00 – 9:00 pm	Board of Governors Meeting | Roanoke

Saturday, May 4, 2024

7:00 am – 5:00 pm	Registration | Foyer
7:00 – 8:00 am	Continental Breakfast | Shawnee Mission
7:45 am	Welcome & Announcements | Liberty Rolando Del Maestro, American Osler Society President

Osler Connections - Part I

Moderator: Rolando Del Maestro | Liberty

8:00 am	James Bovell: After Osler (1869-1880) Ronald MacKenzie (Page 43)
8:20 am	Sir William Osler: Then and Now Bernard Karnath (Page 38)
8:40 am	Osler and the War Effort: The American Women's War Relief Hospital in Paignton J. Mario Molina (Page 48)
9:00 am	Who is the Father of Anesthesia? Mary M. Weaver (Page 67)
9:20 am	Osler, Mayo Brothers, and Brothers Saint Cosmas and Saint Damian Jong Lee (Page 42)
9:40 am	BREAK | FOYER

Program Schedule

Saturday, May 4, 2024 (continued)

Osler Connections - Part II
Moderator: Mario Molina | Liberty

10:00 am	Dr. William Osler's Baltimore - 1889 to 1905 Meg Fairfax-Fielding (Page 22)
10:20 am	Evaluating Osler's Legacy Robert Hage (Page 29)
10:40 am	Resilient Practice, Timeless Teaching: The Interplay of Frontier Medicine and Oslerian Principles in Shaping Medical Pedagogy Christopher Richter (Page 56)
11:00 am	*THE JOHN P. MCGOVERN AWARD LECTURE* Genocide, Nazi Medicine, Human Experimentation & Postwar "Justice" Michael Emmett
12:00 pm	LUNCHEON | SHAWNEE MISSION

Contemporary Discourse
Moderator: Michael Malloy | Liberty

1:00 pm	Mortality in Medicine; How Palliative Care and Euthanasia Reframe Our Relationship with Death Meygan Brody (Page 16)
1:20 pm	*WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE* Under the (Operating) Table: The Early Landscape of Gender Affirmation Surgery in the United States Sophia Hu (Page 33)
1:40 pm	The Historical Legacy of Trans Medicine in Galveston Grayson Jackson (Page 36)
2:00 pm	The Medical Treatment of Women Examined Through Accounts of Cesarean Sections Throughout History Varesh Gorabi (Page 27)
2:20 pm	Tale of Two Eras in Medicine: Evolution of the Hype Cycle and Hope from the Troughs of Disillusionment Caleb Huang (Page 34)
2:40 pm	BREAK | FOYER

Program Schedule

Saturday, May 4, 2024 (continued)

Public Health
Moderator: James Wright, Jr. | Liberty

3:00 pm	Tale of Two Hospitals: Missionaries, Indigenous Encounters, and the Making of a Modern Healthcare System in Taiwan Grace Lee and Brendan Ross (Page 41)
3:20 pm	Gluttony: The Sordid Socio-Medical History of Hotdog Eating Contests Clyde Partin (Page 51)
3:40 pm	The Royal Humane Society's Receiving Houses: Early Modern Emergency Rooms? Katarina Sawtelle (Page 61)
4:00 pm	"The Kingdom of Heaven": Reflections from Conversations at the Osawatomie State Hospital Kelly Brewer (Page 15)
4:20 pm	Sowing Seeds of Hope: The Rural Development Trust Meghana Potturu (Page 52)
4:40 pm	The "Venery" of Venereal Disease: Tracing the Evolving Moral Landscape of STI Public Health Art Through the 20th Century Bethany Snyder (Page 63)
5:00 pm	ADJOURN
5:30 pm	BOARD BUSES TO RECEPTION
6:00 – 8:30 pm	RECEPTION University of Kansas Medical Center, Health Education Building, 5th floor
8:30 pm	BOARD BUSES TO RETURN TO HOTEL

Program Schedule

Sunday, May 5, 2024

7:00 am – 5:00 pm	Registration | Foyer
7:00 – 8:20 am	Continental Breakfast | Shawnee Mission

For Bibliophiles
Moderator: Grayson Jackson | Liberty

8:00 am	A Book, A Battle, A Bean, and A Frank---Providential Provenance and Oslerian Tradition - A Bibliophilic Odyssey Thomas Frank (Page 24)
8:20 am	*WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE* Leonardo Da Vinci's Medical Library: Mining the Secrets of Genius, and Creativity Saman Arfaie (Page 12)
8:40 am	The Georgias (sic) and Osler's Valediction to Humanity Devin Kellis and Charles Bryan (Page 39)
9:00 am	Where's Your Sense of Humor? An Analysis of the Melancholic Persona in Robert Burton's The Anatomy of Melancholy and William Shakespeare's Hamlet John Cravero (Page 19)
9:20 am	An Army of the (Illustrated) Dead: The Role of Andreas Vesalius's Skeleton and Muscle Men in Overthrowing Galen as the Emperor of Anatomy Yoel Yakobi (Page 70)
9:40 am	The Harvey Cushing Stamp and John Singer-Sargent - Medicine and Art Alice Rhoton-Vlasak (Page 55)
10:00 am	BREAK | FOYER

Little Known, Yet Note-Worthy Biographies
Moderator: Robert Mamlok | Liberty

10:20 am	The Doctor Who Put Trees on Manhattan's Streets John Harris, Jr. (Page 30)

Program Schedule

Sunday, May 5, 2024 (continued)

10:40 am — WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE
The Central Nervous System in the 18th Century Japanese Dissection Scrolls: Art of Observation and Dissection
Neevya Balasubramaniam (Page 13)

11:00 am — Dr. Vivian Thomas: The Unsung Hero of Cardiothoracic Surgery
Erin Guerra (Page 28)

11:20 am — Setting the Rectum Straight: Clarifying Morgagni's Contribution to the History of Rectal Cancer Surgery
Oli Morris (Page 49)

11:40 am — William B. Coley and His Toxin
Robert Mennel (Page 46)

12:00 pm — LUNCHEON | SHAWNEE MISSION

Little Known, Yet Note-Worthy Biographies II
Moderator: Saman Arfaie | Liberty

1:00 pm — Charles L. Schepens: Ophthalmologist Extraordinaire
William H. Jarrett (Page 37)

1:20 pm — Sushruta the Philosopher Surgeon: The Relevance of Sushruta Samhita on Modern Medicine
Swetha Manne (Page 45)

1:40 pm — The Influence of the Chadwick Report in 19th Century Great Britain
Ethan Glass (Page 25)

2:00 pm — "If I Ever Meant Business, I Mean It Now": Charles R. Drew in Canada
Craig Miller (Page 47)

2:20 pm — BREAK | FOYER

Persistent, Pioneering Women
Moderator: Gaby Frank | Liberty

2:40 pm — Janet M. Vaughn, D.B.E., A 20th Century Pioneering Woman Hematopathologist: How Lady Osler Influenced Her Career
David Wolf (Page 68)

Program Schedule

Sunday, May 5, 2024 (continued)

3:00 pm	Frances Kelsey and The FDA Mark Hoffer (Page 32)
3:20 pm	The Legacy of Dr. Kadambini Ganguly in Indian Medicine and Women's Rights Krishna Sunskruthi (Page 40)
3:40 pm	The Fight Against the "Female Sphere": Ignited by Mary Putnam Jacobi and Its Persistent Flame Madeline Pan (Page 50)
4:00 pm	Dr. Dossibai Patell: A Pioneer of British and Indian Medicine Yash Ramgopal (Page 54)
4:20 pm	Dr. Gisella Perl: Balancing Compassionate Care With Humanity Shilpa Rajagopa and Richard Sherwood (Page 53)
4:40 pm	Dr. Fe del Mundo: The Angel of Santo Tomas Danielle Rogan (Page 57)
5:00 pm	ADJOURN
5:30 pm	Board buses to the National World War I Museum and Memorial
6:00 – 7:00 pm	MAIN & WYLIE GALLERIES SELF-GUIDED TOUR National World War I Museum and Memorial
6:00 – 7:00 pm	RECEPTION | National World War I Museum and Memorial
7:00 pm	BANQUET | National World War I Museum and Memorial Presidential Address – Rolando Del Maestro

Program Schedule

Monday, May 6, 2024

7:00 – 8:30 am Continental Breakfast | SHAWNEE MISSION

7:15 – 8:15 am Annual Business Meeting | Liberty

Surprising Revelations
Moderator: Charles Bryan | Liberty

8:20 am William Osler and His Views on Medical Hypnotism (Hypnosis)
George Sarka (Page 60)

8:40 am Medical Care of the Professional Voice: Triumphs, Mishaps and Performing Arts Medicine, 1950-2023
Thomas Irwin (Page 35)

9:00 am Howard A. Knox and the PHS: How Intelligence Testing Highlights the Bias in the Medical Inspection on Ellis Island
Carine Tabak (Page 65)

9:20 am The Death of Baruch Spinoza - Tuberculosis or Murder Most Foul?
Daniel Goodenberger (Page 26)

9:40 am Righting Nobel Wrongs
John Bullock (Page 17)

10:00 am BREAK | FOYER

Museum Worthy I
Moderator: Joan Richardson | Liberty

10:20 am A Unique Collection of Wax Models Showing Neurosurgical Techniques
Christopher Boes (Page 14)

10:40 am A Surgical Osler: The Humanist Edward Delos Churchill
Thomas Helling (Page 31)

11:00 am Medical Representation in Military Depictions of the Combat Art Programs: A Focus on Neurological & Neurosurgical Subjects
Michael Stanley (Page 64)

11:20 am The Glass Stethoscope
Milton Roxanas (Page 59)

Program Schedule

Monday, May 6, 2024 (continued)

11:40 am	Medicine and Art: Innovating Medical Care During World War I Jean Pierre Durand (Page 21)
12:00 pm	LUNCHEON | SHAWNEE MISSION

Museum Worthy II
Moderator: Joan Richardson | Liberty

12:30 pm	Why Does the Medical History Museum Matter? Priya Dave (Page 20)
12:50 pm	Dr. William Forsyth Milroy Recognized by Sir William Osler as a Medical Odysseus Dennis Costakos (Page 18)

Medical Education
Moderator: Barbara Thompson | Liberty

1:10 pm	Necessity is the Mother of Invention: William Stewart Halstead's Addiction and its Influence on the Development of Residency Training in America James Wright (Page 69)
1:30 pm	The Power of Case Reports: Richard C. Cabot and 100 Years of the New England Journal of Medicine's Case Records of the Massachusetts General Hospital Andrew Fenves (Page 23)
1:50 pm	Leonard Rowntree, Louis Wilson, Fielding Garrison, and The Origins of Teaching Medical History at Mayo Clinic Nathaniel Rogers (Page 58)
2:10 pm	Ben Weinstein, MD and his Legacy of an Enduring History of Medicine Society Michael Trotter (Page 66)
2:30 PM	Health Care Burnout: Historical Lessons from the Personal Life of Florence Nightingale Katherine Sheffield (Page 62)
2:50 pm	ADJOURN

Leonardo Da Vinci's Medical Library: Mining the Secrets of Genius, and Creativity

Saman Arfaie

Saman Arfaie is a Doctor of Medicine (M.D.) & Master of Surgery (C.M.) candidate at McGill University. He completed his B.Sc. in Neurobiology, Honors B.A. in Persian Literature, and double minors in chemistry and music, at the University of California, Berkeley. In 2020, Saman won the first prize in the Pam and Rolando Del Maestro Family William Osler Medical Student Essay Award competition and Osler Medal for his paper on Robert Schumann which was presented at the American Osler Society in 2022 at Galveston. In 2022 he won a Bean and Molina Foundation Research Award for this project (Leonardo's Library) supervised by Professor Rolando F. Del Maestro.

Leonardo's approach to art and science was philosophical in nature such that he investigated the unity of principles and the how' and 'why' of phenomena, rather than their applications alone. A meticulous notetaker, Da Vinci painstakingly preserved his thinking and used diagrams and illustrations to explain his findings in a series of notebooks (libretti). In these notebooks, Leonardo also outlined books he had purchased, was reading, had borrowed, and had translated by friends. This cornucopia of information allows an assessment of not only the volumes that Leonardo owned "Leonardo's Library" but also the books that may have influenced his investigation of numerous topics including those related to medicine. Leonardo, in 1494, listed forty items in his possession (Codex Atlanticus 210 r) and thirty-one of these would reappear in his Madrid Codices compose in 1504. (1) The Madrid Codices were brought to Spain by Pompeo Leoni (c.1533-1608), a sculptor in the court of Philip II (1527-1598). The two volumes were initially transferred to the monastic library of El Escorial and eventually to the Biblioteca Real in Madrid, where they remained unknown for 252 years. Scholars in the late 1890s began the search for these manuscripts, and in 1967, Dr. Jules Piccus, a scholar in early Spanish literature from the University of Massachusetts, Amherst, accidentally discovered these codices while conducting work on medieval ballads in the Bibliotheca National of Madrid. These volumes, containing 197 Pages and outlined a wide range of engineering and other topics. Of note, is a list of 116 books that Da Vinci possessed in his library in 1504. (2) On Folio 2 verso and 3 rectos of Codex II, at least fourteen volumes relate to medicine and contain a rich knowledge source utilized by Leonardo in his anatomical studies. This extensive medical library contained volumes such as Johannes de Ketham's Fasciculus Medicine, Albertus Magnus's Opus philosophie naturalis, and Chauliac's Guidone in Cerusiai, along with Galen's De Utilita and Ibn Sina's De Anima. These and other medical volumes that Leonardo possessed, commented on, and had access to provides insights into Leonardo's methods of anatomical and medical knowledge integration, transfer, and mastery.

Learning objectives:

1. Review the volumes present in Leonardo's Library outlined in 1504 in the Madrid Codex II that pertain to medicine and health.
2. Search Leonardo's notebooks for other medical volumes that he may have had in his possession, outlined, or consulted which may have influenced his concepts of medicine and health.
3. Assess the influence of both of these sources on Leonardo's life, writings, and anatomical investigations as they particularly relate to his studies related to the central nervous system.

The Central Nervous System in the 18th Century Japanese Dissection Scrolls: Art of Observation and Dissection

Neevya Balasubramaniam

Neevya Balasubramaniam is a third-year medical student at McGill University. Her interests include the History of Medicine with particular interest in the central nervous system. She is a Co-President of the McGill Osler Society, a member of the Board of Curators, and Standing Committee of the Osler Library of the History of Medicine and a Bean and Molina Foundation Research Awards winner.

In the Edo Period in Japan, Confucianism and Buddhism prohibited human dissections until 1754, when the first authorized dissection occurred. Controlled foreign travel and exchange moderated with the late 18th-century resulting in the arrival of European anatomical volumes in Japan, sparking a paradigm shift in knowledge transfer. On March 4, 1771, the physicians, Gempaku Sugita, Junnan Nakagawa, and Ryotaku Maeno attended a dissection after execution at Kotsugahara in Yedo (Tokyo). Sugita and Maenoeach brought along the same volume on human anatomy, Gerard Dieten's 1733 Dutch translation of Johann Adam Kulmus's (1689-1745) *Anatomische Tabellen* (1731), called the *Ontleedkundige Tafelen* (1734) in Japanese. These individuals, on comparing their visual observations of the ongoing dissection and the anatomical illustrations present in Kulmus's volume were deeply moved by the accuracy of the plates in the *Ontleedkundige Tafelen*. On their way home, Maeno, Sugita, and Nakagawa promised to undertake the translation of Kulmus' book from Dutch into Japanese. Three and a half years later, in 1774, the remarkable efforts of these three resulted in the publication of the first translation into Japanese of a Western medical text, which was called the Kaitai Shinsho which can be translated as "*New Book of Anatomy*". This publication heralded the beginning of three innovations in Japanese medical culture. First, the *Kaitai Shinsho* propelled the modern transformation of Japanese medicine, by focusing study on an anatomical approach to the body and outlining how direct visual observation during dissection was critical to increase knowledge of the human body. Second, the *Kaitai Shinsho,* functioned like a dissection manual or guide equivalent to how the translation from Latin to Italian of Mondino dei Liuzzi's (1270-1326) anatomical thesis in the 1493/94 *Fasciculo di Medicina* became an essential Renaissance dissection manual. The *Kaitai Shinsho* resulted in a paradigm shift in knowledge transfer which allowed Japanese physicians access to accurate descriptions and anatomical plates in their own language during the performing and documenting of their own finding during dissections. Third, the, *Kaitai Shinsho* stimulated the rise of Rangaku (Dutch studies) in Japan, which contributed to defining modern Japanese medical history, through the study of Western science. This presentation will utilize "Namisō Hōshi kai keiyo fu shi no zu: Fu sai sanjūshichi, furoki tōkotsu zenkotsu ena sōhō no zu", a dissection scroll of Heijiro execution from 1783, the *Kakkotsu shinkeizu* anatomical Codex and a *Kaitai Shinsho* manuscript copy in McGill's Osler Library to compare CNS depictions in these items with illustrations in the *Kaitai Shinsho* to help outline the role of the *Kaitai Shinsho* on central nervous system in Japan.

Learning objectives:

1. To explore the transfer of anatomical illustrations related to the central nervous system from Kulmus's volume to the wood engravings of the Kaitai Shinsho
2. To analyze how these wood engravings were used as a dissection manual or guide to both perform and illustrate scrolls and codices concerning human dissections
3. To outline how these illustrated scrolls and were used in the teaching of anatomical knowledge.

A Unique Collection of Wax Models Showing Neurosurgical Technique

Christopher J. Boes

Chris Boes is a Professor of Neurology and Professor of History of Medicine at the Mayo Clinic in Rochester, MN. He is medical director of the W. Bruce Fye Center for the History of Medicine at the Mayo Clinic, the designated institutional official in the Mayo Clinic School of Graduate Medical Education, and past president of the American Osler Society.

The first anatomic wax models used for medical purposes were made in the late 1600s in Italy. Medical moulage spread throughout Europe during the 1700s. In the 1800s, The Hôpital Saint-Louis in Paris became the home of French medical moulage.

Wax models at the Mayo Clinic in Rochester, Minnesota, were first made in the 1920s. An offer to create a medical exhibit at the 1933-1934 World's Fair in Chicago, Illinois, spurred the development of medical moulage at Mayo Clinic. Mayo Clinic physicians would often use wax models in exhibits at the yearly American Medical Association (AMA) meeting. Moulages showing sequential steps in surgical procedures were a prominent part of the Mayo collection, and step-by-step demonstration became a hallmark of Mayo Clinic exhibits.

Neurosurgeon Alfred Adson (1887-1951) first displayed wax models showing the technique of operations on the brain and spinal cord at the 1934 AMA meeting, and other neurosurgical technique models were made over the next 10-20 years. The neurosurgical models were generally based on medical illustrations published in articles by Adson. A clay model of the image would be made, and then a plaster mold created, which was used to make the wax positive. The Mayo Clinic medical moulage collection includes the steps of craniotomy, and surgeries for gliomas, meningiomas, vestibular schwannoma, pituitary tumor, trigeminal neuralgia, skull defects, and spinal cord tumors. The models can be directly compared to their original published medical illustrations.

There are surgical moulages at the Museum of Wax Moulages (Zurich, Switzerland), the Hunterian Museum (London, England), Baylor Scott & White Medical Center (Temple, Texas), and the McGovern Historical Center (Houston, Texas), but the Mayo Clinic's moulage collection was unique in its volume and focus on sequential steps of surgical procedures. The beautiful models showing Adson's neurosurgical procedures are highlights of the Mayo Clinic wax model collection.

Learning objectives:
1. Describe the unique collection of wax models showing neurosurgical technique at Mayo Clinic
2. Explain how these wax models were made
3. List the institutions outside of Zurich, Switzerland, that hold surgical moulages

“The Kingdom of Heaven”: Reflections from Conversations at the Osawatomie State Hospital

Kelly Brewer

Kelly is a second-year medical student at the University of Kansas School of Medicine, pursuing institutional psychiatry. Vocationally, Kelly is a licensed attorney as well as a former social worker and pre-seminarian. Personally, he is husband to Jenny and dad to Loren, Oscar, and Charlie.

During the summer of 2023, I attempted to fill an existing gap in the history of the Osawatomie State Mental Hospital. Over the course of ten weeks, I completed forty-five interviews with employees and other individuals connected to the hospital, focusing on the care of patients and the experiences of the staff. I amassed over 100 hours of audio recordings, capturing interviews with everyone from former Superintendents and department Directors to front line social workers, nurses, and technicians, to family members who grew up on the grounds as children.

With the permission of these subjects, I edited a few of the recorded remarks to create a presentation that shares a particularly affecting story regarding the release of patients carrying the ominous designation, “Not Guilty by Reason of Insanity.” The account was given by three current hospital employees. Based on their story, I offer personal reflections on the experience, framed thematically by the “Parable of the Weeds” (Matthew 13: 24-30). While not intentionally theological, I conclude that, based on the competing stories of incomprehensible human suffering and profound dedication to the patients, the State Hospital is “sacred ground,” a “weedy” and knotted up place where the very worst of what we have done is inextricably knotted up with the very best of who we are capable of being.

Learning objectives:
1. Explain that, while acknowledging obvious failures of the past, the State Hospital is not fully
2. defined by the historical “Bedlam” and mistreatment of vulnerable patients.
3. Demonstrate that many state hospital employees are quietly performing heroic work on behalf of patients.
4. Reflect that, because both realities exist simultaneously, the events in the hospital can be illuminated by the Parable of the Weeds, where the good and the bad are impossibly knotted together but where the potential for profound grace and love remains active.

Mortality in Medicine: How Palliative Care and Euthanasia Reframe Our Relationship with Death

Meygan Brody

Meygan Brody is a second-year medical student at McGill University. She loves to write and is passionate about the intersection between medicine and the social sciences. She was awarded first place in the 2023 Pam & Rolando Del Maestro Family William Osler Medical Student Essay Contest for the following work.

Palliative care and euthanasia are often portrayed as incompatible disciplines incorporating opposite views about appropriate end-of-life care. Palliative care's founder, Cicely Saunders, was strongly opposed to euthanasia. Throughout her lifetime, Dr. Saunders developed an innovative model of medical care for dying patients that encompassed adequate symptom control, rigorous scientific research, a multidisciplinary care team, and an emphasis on interpersonal relationships. While it may seem unusual to contest the very founder of palliative care on her views about euthanasia, a deeper look into both disciplines reveals that they are underpinned by many of the same fundamental ideas. Both view the "good death" as one that is not overly medicalized or technological; both share a deep respect for the dying patient's autonomy; and both engage deeply with the concept of human suffering and are committed to its relief. The common ground between both disciplines suggests that it may be plausible to view euthanasia as the natural extension of palliative care. The Flemish region of Belgium serves as a case example for this idea. After Belgium legalized euthanasia at the turn of the 21st century, the Flemish Palliative Care Federation developed a clinical model of integral palliative care, which supposes that euthanasia ought to fall under the scope of palliative care. The model challenges the field of palliative care to reflect on how its core values align with the practice of euthanasia. From a broader perspective, the debate about whether euthanasia can be conceptualized as an extension of palliative care asks us to reflect on the values that sustain medicine's relation to death. Medicine has historically thought of death as shameful and unnatural—as a personal enemy who physicians are meant to fight using all means at their disposal. Palliative care and euthanasia both challenge this narrative of shame and of confrontation. No matter what the correct conclusion to the debate may be, we should recognize the deep truths that both disciplines reveal and learn to care for our dying patients with more humility and compassion.

Learning objectives:

1. Review the history of palliative care and of euthanasia with an emphasis on Cicely Saunders' vision of end-of-life care.
2. Outline palliative care and euthanasia's shared values and introduce the concept of integrative palliative care.
3. Discuss how palliative care and euthanasia both challenge medicine's traditional relationship with death and dying.

Righting Nobel Wrongs

John D. Bullock

Dr. Bullock is a Forensic Medical Historian, Founder and Director of the Ophthalmic History Research Institute in Winchester, Massachusetts, and a Member of the Board of Governors of the American Osler Society. He is the author or co-author of over 250 publications, mostly within the fields of ophthalmology, ocular/orbital trauma, infectious diseases, and medical history.

Since 1901, when the first Nobel Prizes (NP's) were given, there have been a number of egregious oversights. Medical historians are familiar with some of the most glaring omissions including Oswald Avery, Charles Best, and Rosalind Franklin. However, there have been other significant, but perhaps less-well recognized, exclusions which will be presented in detail, including: [1] Paul Ehrlich, for the diphtheria antitoxin. In 1901 the sole award was given to his equal co-investigator, the former ophthalmologist and defrauder, Emil von Behring. Ehrlich did, however, co-receive the 1908 prize with Ilya Mechnikov "in recognition of their work on immunity." [2] Carlos Finlay (the Cuban ophthalmologist and infectious disease epidemiologist) who, in 1881, identified the Culex mosquito (now designated Aedes [Stegomyia] aegypti, Linn) as the only mosquito capable of transmitting yellow fever (in the Western Hemisphere). [3] Giovanni Grassi for his 1889 recognition of the Anopheles mosquito as the transmitting vector of human malaria. Grassi diagnosed a healthy man (living in a non-malarial zone) with tertian malaria after being bitten by an experimentally infected Anopheles claviger mosquito. However, Ronald Ross was the exclusive winner in 1902 for his 1897 observation of Plasmodium parasites in the gastrointestinal tract of a "grey mosquito with dappled wings," failing to correctly identify the exact mosquito species. Ross then launched a defamatory campaign against Grassi, accusing him of deliberate fraud. Ross later unsuccessfully nominated Finlay four times for a NP. [4] Jules Gonin, the Swiss ophthalmologist, was nominated seven times for the 1934 award. His envious Swiss ophthalmic competitor, Alfred Vogt, groundlessly cast doubt on Gonin's priority in discovering his consistently successful technique for treating retinal detachments. Because of Vogt, the Nobel committee postponed Gonin's award for one year. However, Gonin died unexpectedly from a cerebral hemorrhage in the spring of 1935, before the next prize was awarded. [5] In 1939 Gerhard Domagk was selected to receive the NP for his discovery of Prontosil, the first commercially available drug effective against bacterial infections. However, Adolph Hitler, himself, prohibited Domagk from accepting the award. In 1947, two years after the end of the Second World War and the Nazi regime, Domagk was invited to present his Nobel Lecture. He received the Nobel medallion and diploma but not, however, the monetary prize. [6] Albert Schatz was a PhD graduate student at Rutgers University studying with Selman Waksman, the recipient of the 1952 NP "for his discovery of streptomycin, the first antibiotic effective against tuberculosis." However, it was actually Schatz who independently isolated the first two separate strains of Streptomyces griseus which produced streptomycin. He personally obtained a sufficient quantity of streptomycin for William Feldman and H. Corwin Hinshaw at the Mayo Clinic to successfully treat guinea pigs experimentally infected with the highly virulent H37Rv strain of Mycobacterium tuberculosis. Later, he effectively sued Waksman to obtain his proper credit and a portion of the patent royalties from Merck & Company. However, he was unsuccessful in petitioning the Nobel Committee to include him in the 1952 prize.

Learning objectives:
1. Discuss the history of the discovery of mosquito-borne infectious diseases.
2. Explain how personal disputes influenced the awarding of two Nobel Prizes.
3. Define the priority rights of graduate students.

Dr. William Forsyth Milroy Recognized by Sir William Osler as a Medical Odysseus

Dennis T. Costakos

Dr. Dennis T. Costakos is in full-time practice as a Mayo Clinic neonatologist since 1989. Dr. Costakos values the ideas of Sir William Osler, the importance of teaching, and the idea that the medical profession is one international family.

Dr. William Forsyth Milroy (1855-1942) was a native New Yorker. He attended the University of Rochester for undergraduate education, did one year at Johns Hopkins University then earned his medical degree from the College of Physicians and Surgeons of Columbia University in 1883. He defended his thesis on acute lobular pneumonia in children before Dr. Francis Delafield. He joined the faculty of the Omaha Medical College in Nebraska and was on the faculty for almost fifty years. Dr. Milroy was president of the State Medical Society in 1916.

Dr. Milroy presented chronic edema of the legs and six generations of an inflicted family at the 24th Annual Nebraska Medical Society in May 1892. He published "An Undescribed Variety of Hereditary Oedema" in the New York Medical Journal, November 5, 1892. Dr. Milroy described in the family of a 31-year-old clergyman and one time missionary in India that of 97 individuals over six generations, unilateral bilateral edema was recognized in 22 of them. In every case with two exceptions, edema was present at birth, and the location of the edema in every case was limited to one or both extremities. There was no tendency to ulceration and associated varicosities. Dr. Milroy described that this edema was not attended by constitutional symptoms, and that it did not influence longevity. He was indebted to Dr. William Welch for the reference by Sir William Osler upon the subject of Angioneurotic Oedema. Milroy concluded that the fundamental characteristics of the family he was describing was dissimilar from angioneurotic edema.

Dr. Milroy wrote the first Omaha Medical History (1894), the only such history till 1977. In 1889 he wrote about the water supply in Omaha "saving money by drinking sewage is a form of economy which no community can afford" when he asked the Health Board for the prompt adoption of energetic measures to remedy typhoid in Omaha.

Milroy disease is caused in some cases by mutations in the FLT4 gene. The FLT4 gene provides instructions for vascular endothelial growth factor receptor 3 (VEGFR-3) and mutations in the gene affects growth, movement, and survival cells that line lymphatic vessels.

Learning objectives:

1. The attendees should be able to discuss that Milroy disease was designated as "Milroy's disease" after Sir William Osler gave it that name in practice.
2. The attendees will be able to discuss that there is value in long-term, indeed multi generation follow-up from the standpoint of both genetics and natural history.
3. The attendees will be able to discuss that Milroy disease is autosomal dominant and that mutations in the FLT4 gene cause some cases.

Where's your sense of humor? An Analysis of the Melancholic Persona in Robert Burton's *The Anatomy of Melancholy* and William Shakespeare's *Hamlet*

John C. Cravero

John Corbyn Cravero is a second-year internal medicine resident at Baylor Scott & White in Temple, Texas. He recently graduated from University of Texas Medical Branch John Sealy School of Medicine in Galveston in 2022 and previously earned a B.A. in English Literature from Texas A&M University in 2014.

As a bibliophile, Oxford professor, writer, and humanist, Sir William Osler's affinity for Robert Burton (1577-1640) and his magnum opus *The Anatomy of Melancholy* (1621) comes as no surprise. Osler referred to the *Anatomy* as "the greatest medical treatise written by a layman" and wrote about Burton on several occasions, namely within "Creators, Transmuters, and Transmitters" (1916) and "Robert Burton: The Man, His Book, His Library" (1926). Yet, of all the topics in medicine and literature, why melancholia and what did Osler find so revealing about Burton's *Anatomy*?

The term melancholia is derived from the Greek word *melaina chole,* or black bile, a component of the ancient four humors doctrine formulated by Hippocrates and Galen, whose excess resulted in a sad and depressed mood. However, by the seventeenth century, melancholy became an all-embracing term for disease that also included general character traits and temperaments associated with certain individuals. This shift was reinforced through the characterization of the melancholic persona within numerous literary works of the English Renaissance, which included not only Burton's *Anatomy*, but also William Shakespeare's *Hamlet* (1603).

Burton published his *Anatomy* under the pseudonym Democritus Junior, which was in allusion to the pre-Socratic Greek philosopher Democritus who had dissected animals in his own attempt to uncover the causes of melancholy. Burton also examined the causes of his own melancholy, which included his solitary lifestyle as a contemplating Oxford scholar. Collectively, these instances reflect Burton's embodiment of the melancholic persona and underscore his authority on the subject of melancholy and its seemingly innumerable causes and cures that Burton described in his own unique quotational and referential style. Like Burton, William Shakespeare (1564-1616) utilized the melancholic persona through his characterization of Hamlet, who can be analyzed as playing a variety of melancholic roles, including the contemplative scholar, melancholic lover, madman, humorist, and even theatrical play actor.

By analyzing these two great literary works together, one can appreciate not only the concept of melancholia as it existed during the Elizabethan-Jacobean Era, but also how vestiges of melancholia from this time period contribute to our modern understanding of depression.

Learning objectives:

1. Discuss the basis of Four Humors Doctrine and how it had changed up to the English Renaissance.
2. Outline passages of Burton's *Anatomy* that reveal his 'melancholic persona' under the pseudonym 'Democritus Junior.'
3. With Burton's *Anatomy* as a guide, explicate Shakespeare's characterization of Hamlet as a literary figure and the amalgamation of melancholic roles during the English Renaissance.

Why Does the Medical History Museum Matter?

Priya Dave

Priya Dave is finishing up her intern year at Mount Sinai in New York City. Her passion for medical history began as a docent at the "Old Pathology Building", Indiana's Medical History Museum, and she enjoyed building on that involvement as an American Osler Society member in her first year of medical school through the Bean Award. In her free time, she enjoys expanding upon her map of museums, coffee shops, and bookstores.

The modern medical history museum was established and rose to prominence in the sixteenth and seventeenth centuries. The first of these anatomical museums, including the Hunterian and Morgagni's expansive collection in Padua served as havens for learning and educating medical practitioners. Medical museums were central to institutional medicine until much of the 20th century. This abstract sheds light on the history of medical museums tracing their etiology and development. Since their advent, the role of the museum in medical education has evolved in several ways.

The medical museum has democratized in access, becoming a space for the general public to learn about medicine and medical history. The Mutter Museum serves as one case example. Once a part of The College of Physicians of Philadelphia and intended on educating the next generation of students, the Museum now boasts its collection to the international public. The Indiana Medical History Museum, once a functioning educational and anatomical museum similarly now opens its doors for public interest rather than its initial purpose of medical education. Such adjustments in mission have the potential to influence what is displayed, curating specimens that will peak the public's imagination.

Enduring aspects of the museum include their reliance on the actual specimen. The ethics of medical museums, especially in cases of their public facing nature, often come into question. Exhibitions such as Body Worlds and Bodies: The Exhibition, have raised a debate on what can and should be displayed and to whom.

In a digital era, and with the end of the "era of museum medicine", this abstract traces the history of the medical museum, offering a map of medical history museums, how they have evolved and ethical issues they have faced. By tracing the history of the medical museum, ask ourselves "why the medical museum matters," both historically and in present day.

Learning objectives:

1. Discuss the relevance of the medical history museum in modern digital medical education.
2. Theorize about what has endured and what has changed since their apex.
3. Provide an overview of the ethical terrain including high profile exhibitions which have spurred debate as to the value of such displays.

Medicine and Art: Innovating Medical Care During World War 1

Jean Pierre Durand

Jean Pierre Durand is a second-year medical student at the John Sealy School of Medicine in Texas. His family is originally from Peru, which sparked his interested in global health and surgery in resource limited areas.

The introduction of novel weapons like machine guns, poisonous gas, and flamethrowers during WW1 bolstered the brutality of combat at a level unseen before in human history. Humanity entered a new zeitgeist, prompting individuals to reevaluate the effects of using advanced scientific knowledge to propel bloodshed. Despite the cruelty that occurred during this era, war stimulated the innovation and improvement of medicine to deal with the challenges and demands of treated wounded soldiers. Simultaneously, war inspired artists across the globe to express the realities of war through different artistic mediums. These artists ultimately influenced the medical field in a variety of ways by using their abilities to document injuries, provide prosthetics, and shed light on the psychological effects of warfare. This connection between war, medicine, and art lead to the incorporation of humanistic compassion with practical uses of art to improve and personalize medical care.

Photography was a vital tool used to document the new levels of destruction and harm to the human body caused by WW1. Photographer Ernest Brooks was known for capturing the reality and impact of war, including soldiers with various physical injuries. These photos provide accurate representations of wounds for clinical observation while demonstrating the detrimental effects of war on the human psyche. Images of shell-shocked soldiers, gas gangrene, and the harsh conditions in trenches led to medical providers reevaluating ways to treat injured soldiers.

Art was integrated with medicine in a unique way through artificial limb construction. This development helped soldiers with accessibility in daily living while also catering to their psychological well-being. Anna Coleman Ladd serves as an example of a talented artist who used her experience to design personalized prosthetics for soldiers injured in combat. Her careful consideration for each soldier's unique physical injury allowed her to create prosthetics that were truly meant for each individual. By focusing on the person, prosthetics ultimately provided aid in alleviating psychological and emotional trauma caused by war and physical alterations.

The Great War began in 1914 and brought new weapons of destruction never before seen in combat. These weapons caused novel injuries which posed a challenge for medical professionals as these wounds required advancements in care. Despite being known for its violence; WW1 created an opportunity to unite art and medicine. The introduction of art like photography and sculpture lead to more effective medical treatment by documented accurate injuries and creating personal prosthetics.

Learning objectives:
1. Describe how art can be used in conjunction with Oslerean principles for achieving compassionate care.
2. Explain how WW1 introduced new types of war related injuries.
3. Discuss how photography and art were used to advance clinical care during WW1.

Dr. William Osler's Baltimore – 1889 to 1905

Meg Fairfax Fielding

Meg Fairfax Fielding is the in-house historian at MedChi, which was founded in 1799. She has explored nearly every inch of MedChi's two historic buildings in Baltimore, as well as searched through the four-story stacks library with its 55,000 books. She recently opened the MedChi Museum of Maryland Medical History, located in the Faculty's historic headquarters building.

William Osler, MD arrived in Baltimore in 1889 and almost immediately joined the Medical & Chirurgical Faculty of Maryland. His first position in Baltimore was as Professor of Medicine at Johns Hopkins, beginning in 1889. He then became the Dean of the Medical School, and Physician-in-Chief. In 1896, Osler became the President of the Medical & Chirurgical Faculty of Maryland and was a well-known Orator there as well. He was active in the faculty until his move to Oxford in 1905 but kept up a close relationship until his death.

During Osler's sixteen-year tenure in Baltimore, he became an active member of the City's elite, making friends both within and outside of the medical community. He worked to intermingle the staffs of both the University of Maryland's and Johns Hopkins' Schools of Medicine, the two leading medical schools in the city. However, he did not completely dismiss the other, smaller medical schools and allowed their students to attend his clinics.

In 1890, he was listed in the City Directories as living at 209 W. Monument Street, less than a mile as the crow flies from Johns Hopkins. In 1892, his address was listed as Johns Hopkins Hospital, but he eventually ended up living at 1 West Franklin Street until his move to Oxford. His house was a lively place, with frequent visitors from around the world. The adjacent house on Franklin Street was home to a rotating group of medical students, as well as his nephew, William Francis.

Among Dr. and Mrs. Osler's closest friends in Baltimore were Dr. and Mrs. Henry Barton Jacobs. Mrs. Jacobs was the former Mary Frick Garrett, the widow of Robert Garrett, President of the powerful B&O Railroad. Dr. Jacobs had been Mr. Garrett's physician. The two couples traveled together to the Garrett-Jacobs' country house, just west of Baltimore City, their house in Newport, Rhode Island and their apartment in New York City.

Dr. Osler was also a member of the prestigious Maryland Club, as were a number of his colleagues, including Dr. William Welch. Accounts of a certain dinner at the Maryland Club given by Osler's publisher sound like everyone had a rollicking good time! The menu from this dinner, signed by all attendees, was sold at auction several years ago for almost $10,000.

After the Great Baltimore Fire of 1904, which destroyed nearly all of downtown Baltimore and came within blocks of the Osler's house, Dr. Osler made the decision to accept the position of Regius Professor of Medicine at Oxford, England.

Learning objectives:
1. Explain the importance of Osler's years in Baltimore.
2. Discuss the significance of his friendships with medical and non-medical friends.
3. Explore why Dr. Osler's influence continues to this day.

The Power of Case Reports: Richard C. Cabot and 100 years of the New England Journal of Medicine's Case Records of the Massachusetts General Hospital

Andrew Z. Fenves

Dr. Fenves is a clinician educator at the MGH dividing his time between the internal medicine wards and the renal consult team. He is an associate professor of medicine at Harvard Medical School and publishes widely in nephrology and general internal medicine.

The case method of teaching, so prevalent in modern medical education, was first introduced at Harvard Law School in the 1870's. By the 1890's this method was also adopted by Harvard Medical School (HMS). In a 1906 monograph called "Case Teaching in Medicine", Richard Cabot started using cases as teaching exercises at HMS. He frequently included autopsies to clarify diagnoses, and together with James Wright established the Clinicopathologic Conferences (CPCs). These were initially published privately by MGH (1915-23), and thereafter, in the Boston Medical and Surgical Journal which would, in 1928, become the New England Journal of Medicine. Initially the cases were presented and discussed by Cabot himself but later evolved into unknowns discussed by others. These case-based teaching exercises have basically remained the same for the last 100 years, and today are read by over a million readers each week, 85% of them online. Over the years, the CPCs presented both common and rare diseases with their characteristic manifestations, but occasionally there were new syndromes introduced as well. There have been only 6 different editors of these CPCs since its inception. One of them, Benjamin Castleman, edited 2,000 Case Records of the MGH over 23 years. He also has a disease named after him, first described in 1956, initially called giant lymph node hyperplasia. These CPCs, emphasizing clinical reasoning, demonstrate the timeless importance of case studies in educating physicians and opening new avenues for patient based clinical research. Nevertheless, there are new challenges for these CPCs, including: many cases are increasingly more esoteric; it is difficult to find discussants; some CPCs are too long; there is less relevance to clinical practice; and, in general, less interest in differential diagnoses rather than management. Conclusion: Case-based teaching will continue to be important in medicine, and the NEJM CPCs will continue to have a major impact on educating medical students and clinicians around the world hopefully for many more years.

Learning objectives:
1. Explain the history of the NEJM CPCs.
2. Define the importance of case-based studies in medical teaching.
3. Discuss the challenges in maintaining the high quality of these cases and foster continued interest in future CPCs.

A Book, A Battle, A Bean and A Frank –Providential Provenance and the Oslerian Tradition – A Bibliophilic Odyssey

Thomas W. Frank

After taking his medical degree at Tulane, Tom completed a residency in internal medicine at Brook Army Medical Center and fellowship in allergy and immunology at Walter Reed. He spent 30 years on active duty in the Army and currently serves as Director of Preventive Medicine at Kirk U.S. Army Health Clinic and Public Health Emergency Officer for Aberdeen Proving Ground in Aberdeen, Maryland. A member of the AOS for 15 years, Tom lives in Havre de Grace, MD with his wife Susan. Surrounded by bookshelves, she is a gracious and indulgent victim of his bibliomania.

William Bennett Bean told us that "Books remind us of friendship. They lead us to equanimity and peace of mind. They help us maintain our individuality without the austere and crushing loneliness of those who love only themselves. The wisdom we gain from books leads us to act as though we were building our ideas for eternity, mindful that the nature of life and death are so ordered that we and our works are fleeting and falling grains of sand in the hourglass of time. If we can avoid the apathy of those who claim to know that nothing matters and the sheer folly of those who know that they personally matter immensely, we shall have been worthy successors to that silent company of physicians, our medical forebears whose spirits watch over us here. Through the careful and scholarly .... use of books ... they built our great tradition."

Perhaps one of those silent forbears directed me to this book. Camouflaged, its utilitarian habiliment belied its literary importance. *An Essay on Diseases Incidental to Europeans in Hot Climates* was the first English work on tropical medicine. In Sir William Osler's hierarchy, it occupied a middle position among the "bibliotheca secunda" of medical classics. The author, British naval surgeon James Lind, was credited with discovering the first treatment for scurvy. But it is the scribblings of previous owners which record a history of which few books can boast.

Occasionally, a book's provenance is at least as interesting as its contents. Seldom however does a book give evidence of having been present "in the room where it happened." The story of this book begins at the dawn of our nation. Possibly taken as a prize of war, this small octavo volume was at Saratoga, Valley Forge and the final parade of the Washington's Army. Nearly two hundred years later, while in the care of a 20th-century healer, the book bore witness to the founding of the American Osler Society.

Indeed, this unassuming volume touched the lives of a multitude of named and unnamed doctors over the course of its 250 years. And so Oslerians, I invite you, for the next few minutes, to join me on a journey through time with one remarkable book and three of its physician caretakers: first, a scholar and a surgeon of the American Revolution; second, a great medical humanist and inaugural president of the American Osler Society; and finally me, last and least of the three, but a committed Oslerian nonetheless, who, like my forebears, is a humble steward of the magnificent books upon which "our great tradition" was built.

Learning objectives:
1. Describe the education and preparation of American military physicians during the American Revolution
2. List five of the accomplishments of Dr. William Bennett Bean and one of his contributions to the American Osler Society.
3. Discuss the contributions of marginalia and provenance to the historical importance of antiquarian medical books.

The Influence of the Chadwick Report in 19th century Great Britain

Ethan Glass

*Ethan Glass is a second-year medical student at the University of Texas Medical Branch in Galveston, Texas. He received a B.S.A in Biology with a minor in Health Communications from The University of Texas at Austin in 2022. He was introduced to the life of William Osler through the Albert Schweitzer Osler student society at UTMB, where he now serves on the board of director*s.

Famed epidemiologist Jon Snow is often credited as the "father of modern epidemiology." His discovery of the Broad Street pump as the source of a local cholera outbreak in 1854 earned him such a title. His findings led to the complete overhaul of London's water and sewage system and pioneered the basic epidemiological study of disease for decades to come.

Less commonly recognized, Edwin Chadwick's 1842 *Report on The Sanitary Condition of the Labouring Population of Great Britain* served as the prerequisite for Snow's discovery. Colloquially known as the Chadwick Report, Chadwick laid the groundwork for the epidemiological study of disease, using novel methods of data collection to craft his arguments. Chadwick exemplified the unsanitary, inhumane conditions the working class of England endured using differential class-based death rates. Chadwick was a staunch miasmist at the time, so while his scientific reasoning was not empirically founded, his report still accomplished several notable changes. I argue that these changes, which I discuss below, are what allowed Snow's report to be successfully received by the English Parliament.

First, the Chadwick Report propelled the English government into action. Before the report, the health issues of urban areas were seen as an issue of the people. However, Chadwick convinced them that intervention was key to eliminating disease. His report appealed to the Poor Law Board in a way that both served their economic interests and highlighted the role of urbanization as a means to solve its own woes. By creating proper infrastructure, morality would improve among the working class, making them more compliant to their duties and improving their abilities to achieve maximum work output in the industrial free market. Second, the Chadwick Report laid the foundation for epidemiological analysis of populations to study disease. Chadwick demonstrated that the average age of death differed greatly across classes. The differences in mortality were not merely a component of urban living, but a result of inhospitable conditions which fostered disease. Chadwick's statistical methods may not survive scrutiny of today's standards, but they succeeded in their goal: to instigate change from the top-down. Chadwick's report became legislation in 1848 with the Public Health Act of 1848, which created a temporary general board of health, of which Chadwick would be the first president. Jon Snow's efforts in 1854 built upon Chadwick's success and used similar methods of data collection to make his report. If it weren't for the Chadwick Report, Snow's report would not have made nearly the impact that it did, and they are both worthy of recognition.

Learning objectives:
1. Explore the state of squalor and health disparity present in mid-19th century Britain.
2. Examine the role of the Chadwick report in the sanitation revolution.
3. Explain the origins of miasma theory and how it influenced policy during this time.

The Death of Baruch Spinoza – Tuberculosis, or Murder Most Foul?

Daniel M. Goodenberger

Dr. Goodenberger is Professor of Medicine at Washington University. A pulmonologist by training, the majority of his career has been spent in medical education and administration at Washington University, the University of Nevada, and the University of Texas Southwestern. He recently took on the job of founding a Washington University-affiliated primary care internal medicine residency program.

Spinoza is one of the most important philosophers—and certainly the most radical—of the early modern period. His extremely naturalistic views on God, the world, the human being, and knowledge laid the foundations for democratic political thought and a deep critique of the pretensions of Scripture and sectarian religion. Of all the philosophers of the seventeenth century, Spinoza is among the most relevant today. He has been referred to as the "first secular Jew" for reasons I will discuss. I will also discuss his life, philosophy, writings, rupture with the Dutch Jewish community, and his death, which is generally ascribed (wrongly I believe) to tuberculosis and will rather posit murder most foul.

Most accounts of Spinoza's life attribute his death to tuberculosis, based on disease prevalence, his mother's death from presumed tuberculosis, and his exposure to silica dust in his occupation as a lens grinder. The problem in Spinoza's case was that his death was sudden, in a way uncharacteristic of TB, as described by his contemporaries.

Rather, the circumstances of his death make poisoning more likely.

Likely culprits will be discussed, including members of the synagogue from which he was expelled, leaders of the Dutch Reformed Church, and a rival philosopher, Wilhem Leibniz. The impact of the "Affair of the Poisons" will be reviewed

Learning objectives:
1. Understand the influence of thought leaders based in Amsterdam on tenets that form the basis of western democracy, and Spinoza's contributions.
2. Review the circumstances that make Spinoza's death be unlikely due to tuberculosis, and more likely to be due to poisoning
3. Learn about the role of poisons in affairs of state in 17th century Europe.

The Medical Treatment of Women Examined through Accounts of Cesarean Sections Throughout History

Varesh Gorabi

Varesh Gorabi is a second-year medical student at the John Sealy School of Medicine. She graduated from the University of Texas Rio Grande Valley with a BS in Biomedical Sciences in 2020. She is interested in the role and impact of the humanities on healthcare advocacy.

Women's health and consideration of their pain and discomfort has been generally neglected historically and continues to be an area of concern today. Ancient historical accounts of women's medical treatments can be sparse, however there are several recorded stories and mentions of successful cesarean sections throughout history.

In early times in regions of the world such as Mesopotamia, India, Egypt and Rome, it appears that the cesarean section was used only to deliver children from the dead or dying mother. The first known mention of C-sections on live women who survived is in the Mishna and the Talmud, Jewish writings from the second century B.C.E. to the sixth century C.E.

Then in the Persian work of the Shahnameh, written during the 10th century, there is a description of the birth of Rostam, a mythical hero, through C-section. His mother was given wine as an anesthetic and a paste of musk flower and milk was applied to her wound afterwards as an anti-microbial. Part of this account is below:

> "A [cleric] ripped open her side without her feeling it, and turning the child's head toward the opening delivered it without harming the mother… they sewed up the wound and gave her treatment for pain."

Perhaps the most detailed account we have of a C-section on the African continent is the one observed in Uganda by Robert William Felkin, a physician-traveler from Britain. Of note, banana wine was given to the mother as an anesthetic and the healer washed his hands and her abdomen with the wine before the procedure. Cauterization was used as necessary, and following the surgery a root paste was applied on the wound.

The first record of a British individual performing a C-section in which both mother and child survive occurred in the early 1800s in Cape Town, South Africa. The operation was done by Dr. James Barry, a biological woman (not revealed until his death) and an army doctor who advocated for higher sanitation standards and higher quality of care.

Sir William Osler advocated for compassionate, humanistic treatment of patients, rooted in evidence-based practices. Before germ theory and the importance of antiseptics were widely known, these examples of C-sections show the thought and learning of healers in efforts to save the mother's life as well as child.

Learning objectives:

1. Discuss various ancient accounts of cesarian sections and place them in historical context.
2. Explain the implications and lessons to be learned from these stories, including the way C-sections were performed and how the mother was considered during these procedures.
3. Examine the life of Dr. James Barry and outline similarities between his and Sir Wiliam Osler's views on humane patient care.

Dr. Vivien Thomas: The Unsung Hero of Cardiothoracic Surgery

Erin Guerra and Ashraf Aly

Erin Guerra is a 2nd year medical student and Dr. Ashraf Aly is a professor of Pediatric Cardiology and a Scholar at the John P. McGovern Academy of Oslerian Medicine at the University of Texas Medical Branch Galveston. We are both passionate about showcasing contributions to medicine from under-represented minorities.

As Dr. William Osler once said, "In science the credit goes to the man who convinces the world, not to the man to whom the idea first occurs." Before 1944, surgeons believed operating on the heart was impossible and were mocking it as an "act of God." It wasn't until 1944 that the revolutionary ideas of Vivien Thomas under the supervision of Drs. Alfred Blalock and Helen Taussig that challenged this notion by creating a shunt that palliated the heart malformations of the Tetralogy of Fallot (TOF), an untreatable congenital defect at that time, at Johns Hopkins University. Many physicians know of Blalock and Taussig, but few know of Vivien Thomas. In a time of segregation and few opportunities for African Americans, Thomas, despite not having a medical degree, made life saving contributions to the field of medicine. These contributions in cardiology and cardiothoracic surgery included his work on shock and TOF, also known as "Blue Baby Syndrome". Thomas, the grandson of an enslaved person, was an African American born in Louisiana in 1910 with dreams of attending medical school. Unfortunately, those dreams fell short when Thomas, like many others, lost all his saved money during the Great Depression. Despite this setback, Thomas continued to persevere and took a job as a janitor with Blalock at Vanderbilt University, with the hopes of one day attending medical school. It was during this time where his surgical talents and his adeptness for medical knowledge were discovered as he began working side by side with Blalock. The two performed surgery on canines to investigate the death of soldiers on the battlefield during World War II. This led to their groundbreaking work on hemorrhagic and traumatic shock and the discovery of crush syndrome.

It was this breakthrough that led Blalock to accept the position of Chief of Surgery at Johns Hopkins School of Medicine in 1941 and appointed Thomas as his assistant. Despite this great achievement, Thomas was met with racism and backlash for dawning a white coat. It was also during this time when Taussig approached Thomas and Blalock with the task of attempting to help those "blue babies." Over the span of two years and practicing on over 200 canines, Thomas demonstrated that connecting the subclavian artery to the pulmonary artery, later called the Blalock-Thomas-Taussig shunt, would be palliative management for TOF. The shunt was surgically implemented successfully in 1944 by Blalock with the surgical assistance of Thomas. Since then, the technique has been used to save hundreds of infants from all over the world. Despite the blatant racism, constant questioning of his capabilities, and lack of recognition from the medical world, Thomas continued to work with Blalock for the next 35 years. Thomas went on to serve as the supervisor of surgical laboratories at Johns Hopkins School of Medicine where he taught countless medical students and doctors. It wasn't until 1976 that he was formally recognized with an honorary doctorate degree from Johns Hopkins School of Medicine for his contributions to medicine.

Learning objectives:
1. Recognize the contributions of Vivien Thomas to the field of cardiothoracic surgery.
2. Discuss the lack of recognition of contributions of African Americans to medicine.
3. Highlight revolutionary events in the development of the field of cardiology/surgery.

Evaluating Osler's Legacy

Robert Hage and Dragomir Dardanov

Dr. Robert Hage, a lifetime anatomist, retired otorhinolaryngologist, Chair of a recently established Department of Humanities and History of Medicine, and course director of many extracurricular selectives for medical students.

The assessment of historical figures like Sir William Osler should take into account the context of their time and the prevailing societal norms and values. Perspectives and beliefs of individuals from the past may however not align with contemporary ethical standards. While Osler is credited as a pioneer in bedside teaching and medical education, some of his views and associations reflected the attitudes of his era, which may be considered problematic by today's standards.

When evaluating the legacy of historical figures, it is essential to strike a balance between acknowledging their contributions and recognizing their flaws or shortcomings. Some important considerations when assessing a person like Osler are:

1. Historical Context: Understanding the time in which a person lived. Attitudes and beliefs change over time.

2. Contributions vs. Controversies: Recognize and honor the positive contributions while acknowledging their shortcomings or problematic views, and critique.

3. Historical Accountability: Examine how their beliefs and actions may have influenced or been influenced by the society they lived in and their possible influence to the present-day society and beliefs.

4. Teaching Moments: Controversies surrounding historical figures can be used as teaching moments to reflect on the progress that has been made in terms of ethics, diversity, and inclusion in the present day.

Learning objectives:
1. Discuss the importance of how to approach and evaluate legacies.
2. Outline how critique on Osler can be advantageous to the DEI concept.
3. Examine Osler's legacy to medicine: Is there room for both reverence and critique?

The Doctor Who Put Trees on Manhattan's Streets

John Harris, Jr.

Skip Harris is a retired internist and medical executive. He was the Executive Director of the Office of Continuing Medical Education at the University of Arizona until 2014. Dr. Harris published a biography of New York physician Stephen Smith earlier this year.

Toastmaster James Tyson ribbed fifty-five-year-old William Osler at his 1905 Waldorf Astoria farewell dinner when he introduced their mutual friend, seventy-six-year-old Weir Mitchell, "the oldest and youngest authorities on old age are to be brought into intimate communion." Yet, Weir Mitchell was not the oldest person in the room that night, nor even the oldest person at the head table. That dubious distinction belonged to eighty-two-year old Stephen Smith.

Osler wryly (and famously) suggested that one's genuine work was done by forty and there was little left by sixty, but when octogenarian Smith was Osler's age, he was attending at Bellevue Hospital, writing legislation for a National Board of Health on which he later served, and four years away from a grueling six-years of running New York's mental health system. And in 1905, he was pursuing an unfinished thirty-year effort to put trees on Manhattan's streets.

Other tree advocates saw then as source of urban beautification, but Smith had argued for their public health benefits since 1873. He wrote and helped pass a state law in 1902 that placed all New York City trees that were not privately owned under the City Parks Department: "An Act to extend the jurisdiction of the park board of the city of New York to the preservation, planting and cultivation of trees and vegetation in the streets thereof for the purpose of improving the public health." But his law was not enough. The Parks Department bureaucrats worried more about parks than streets, which was the frustrating dilemma facing Smith in 1905.

Nine years after Osler's farewell dinner, Smith launched a campaign to shame the Parks Department into enforcing his 1902 law. This led to the city's first tree census and, ultimately, a law providing funding for street trees and creating a Bureau of City Forestry in the Parks Department, which proved to be the long-term solution. Smith's 1915 tree census found 15,000 street trees in Manhattan. One hundred years later, Manhattan had 64,000 street trees.

Ironically, today's urban reforestation efforts emphasize tree benefits in terms of biophysical contributions, such as energy savings, carbon sequestration, and storm-water management. There is little advocacy for, or documentation of, Smith's compelling public health argument that launched the movement.

Learning objectives:

1. Describe Stephen Smith's work in New York's street tree preservation efforts.
2. Encourage further study of the health effects of urban reforestation.
3. Advocate for public health policy reforms.

A Surgical Osler: The Humanist Edward Delos Churchill

Thomas S. Helling

Thomas Helling is a Fellow of the American Osler Society, and a Professor of Surgery at the University of Mississippi School of Medicine

As the Twentieth Century unfolded, the burgeoning disciplines of the biological sciences accelerated understandings of the human condition and the wrath of human diseases. At the extreme technological spectrum was the field of surgery, the art of immediate manual intervention to correct dysfunctional and pathological processes. Put aside, in that specialty, seemed to be the metaphysical – even supernatural – suppositions of centuries past: that invisible forces held sway over the fortunes of men and that physicians worked at the permission of those powers. Led by such regimented technicians as William Halsted, surgeons began to assume the veneer of the practical, the mechanistic. Man was no more and no less than the sum of his parts. Yet, in the care of the patient – in the dealings of disease (physical) and illness (spiritual) – a pure rearrangement of tissues was not enough. Patients still suffered, worried, and agonized. That part of the human condition – the ethereal spirit – had been left poorly attended. The holistic teachings of William Osler seemed forgotten.

Edward Delos Churchill (1895-1972) labored to amend that image. This presentation will explore the humanistic philosophy of the master surgeon through his writings, lectures, and professional career. Churchill was the John Homans Professorship of Surgery and Chief of Surgery at the Massachusetts General Hospital. In all his expertise of operating skills, however, Churchill could not put aside his compassionate nature for the human spirit which still reeled from threats to mortality. “How much greater the satisfaction of him who practices scientific medicine, tinctured with a love for the suffering humanity placed in his care”, he said at one point. He understood the intensely personal nature of surgery. In a surgeon’s necessary touch, transmission of feelings, comfort, and reassurance was unavoidable. Still, in Churchill’s mind, this science had produced a rift in the alliance of medicine and the spiritual. “The image of the healer was ever a constituent of man’s religious matrix”, he spoke to his students. Churchill’s goal was to instruct his pupils and trainees that man is a complex arrangement of biology and spirituality – in totality, the human being is both. Like Osler, Churchill professed that the approach to sickness, then, must incorporate the disease itself and also the emotional reaction to disease – the illness. In that sense, like Osler, Churchill was a humanist. Treatment of disease must be all-inclusive. One without the other is doomed to failure no matter how dexterous the operator. “The surgeon worthy of the name combines in liberal measure the love of humanity, science, and craft”, he spoke. As a surgical humanist, Churchill reminded his followers of the fragile nature of the physical *and* the metaphysical. The emotional susceptibility of mind was as tenuous as the delicate balance of anatomy and physiology.

Learning objectives

1. The learner will contrast the mechanistic approach to the surgical sciences with the compassionate attention to unavoidable fear and pain of operative intervention.
2. The learner will appreciate the ability of surgeons to not only excel in their technical abilities but, at the same time, attend to the emotional needs of their patients.
3. The learner will understand the distinction of “disease” and “illness”; one a pathological process (disease) and the other (illness) the total (systemic and psychic) reaction to disease.

Frances Kelsey and the FDA

M. Mark Hoffer

Dr. M. Mark Hoffer is Professor Emeritus Orthopaedic Surgery, University of California (Irvine).

Drug regulation and safety began in the United States in 1813 with the Vaccine act for Smallpox control. During the Civil War food safety became the responsibility of the Chemical Inspection teams at Army bases. This Chemical Bureau became part of the Department of Agriculture under Harvey Wiley by 1883. The Wiley bureau then became responsible for Drugs as the result of the Food and Drug act in 1906.

Frances Oldham was born in British Columbia in 1914. She entered the University of Chicago as a PHD Pharmacology student. In a study with Professors Gelling and Kelsey, they determined that the contaminated elixir in sulfa drugs was the cause of 107 deaths. This led to the 1938 Pure Food and Drug act. Eventually Gelling became the director of this FDA, Kelsey married Frances and Frances finished Medical School. In 1960 Gelling asked her to lead the FDA evaluation of drug investigations. She became concerned that a new drug Thalidomide proposed for nausea control in pregnant women lacked pregnant animal studies. She stopped all United States human studies and any use of the drug in this country. This proved a wise decision because the medication caused congenital limb deficiencies and other birth problems in the rest of the western world. She went on to refine the requirements for drug studies using blinded controls as suggested by her husband, who had been working for the NIH. In 1962, a more sophisticated Food and Drug act was passed, and Frances Kelsey received the Presidential award from John Kennedy.

In 1975, Dr Kelsey and I were both invited to talk at an alumni meeting. Later she told me how angry she was at certain of my Orthopaedic colleagues, who had used the experimental study drug Chymopapain inappropriately. It was therefore not used in the United States and when used elsewhere resulted in significant complications. She was wise!

Learning objectives:

1. Explain the importance of leadership in regulation of experimental drugs.
2. Detail the evolution of the Food and Drug Agency.
3. Discuss the need for some animal experiments before human trails.

Under the (Operating) Table: The Early Landscape of Gender Affirmation Surgery in the United States

Sophia Hu, Michaela Asher, Gennady Vulakh, Daniel Hartman, Charles A. Raymer, and Aron D. Wahrman

Sophia Hu is a medical student at the University of Pennsylvania and a recipient of the Penn 21st Century Scholarship. She is conducting her research year at the Center for Transgender Health and Patient Reported Outcomes, Value, and Experience Center at the Division of Plastic Surgery at Brigham and Women's Hospital. She graduated from Stanford University in 2020 with a BA in Anthropology.

Gender affirmation surgeries (GAS) help those with gender dysphoria align their gender identity with their body and include procedures such as facial gender surgery, vaginoplasty, and phalloplasty. European surgeons such as Harold Gillies and George Burou are widely recognized to have first developed GAS techniques in the 1930's, whereas widespread American interest in GAS largely began in the 1950's when Christine Jorgensen became the first person to publicly undergo GAS. Despite social disapproval and pressure to discontinue, a select few physicians – who often received patients via word-of-mouth and covertly performed procedures – pioneered GAS in the United States (U.S.).

The objective of this presentation is to highlight this early community and their surgical contributions using archives from the Harry Benjamin and Elmer Belt Collections. Harry Benjamin was an endocrinologist and early leader of gender-affirming hormone treatment. He collaborated with multiple early GAS physicians from 1955-1971 and particularly with urologist Elmer Belt (who, in the spirit of Sir William Osler, was also an intrepid medical historian and extensive collector of works by Leonardo da Vinci). Other physicians in this community included plastic surgeons John Hoopes and Ralph Millard and psychiatrists Dr. Laidlaw and Dr. Carson. Together, their correspondence details 75 patients, 37 operations (primarily vaginoplasties and orchiectomies), and 14 complications across a nearly 20-year span.

These early pioneers met numerous challenges. Disapproval and the pressure to operate in secret was rampant; as Belt recounted, "I do wish we had a hospital available in which I could operate upon these patients without criticism. The present attitude of our fellow physicians toward this problem is pretty terrible to buck." In fact, Belt received so much pressure that he ultimately stopped performing GAS in the 1960's, stating "I felt that if I were to continue this kind of work, I would be obliged to relinquish the rest of my urologic practice". Patients also frequently struggled to afford procedures and Belt and Benjamin often provided services at steep discount or even pro bono. Belt himself was frequently patients' only option for gender affirmation surgery and struggled to accommodate patients amidst a tide of growing disapproval from local administrators and even law enforcement.

Despite these obstacles, these early physicians laid the foundation for modern-day GAS in the U.S. and even internationally. Hoopes helped found the Johns Hopkins Gender Identity Clinic, and Benjamin founded the modern-day World Professional Association for Transgender Health. Today, over 30 academic centers in the US have gender affirmation surgery programs. The dedication and pioneering spirit of these medical trailblazers – often at great personal and professional risk – sowed the seeds for acceptance and advancement of GAS in the U.S., and their early contributions should not be forgotten.

Learning objectives:
1. Learn the key physicians who performed gender affirmation surgery and gender affirming care in the US in the 1950-1970's.
2. Compare early U.S. gender affirmation surgical techniques to those employed today.
3. Explore the attitudes and challenges encountered by early gender affirmation surgery providers and understand their impact on the trajectory of the field.

Tale of Two Eras in Medicine: Evolution of the Hype Cycle and Hope from the Troughs of Disillusionment

Caleb Huang

Caleb Huang is a 6th year MD-PhD student in computational chemistry at the University of Texas Medical Branch. He is an Emeritus Student Scholar in the John P. McGovern Academy of Oslerian Medicine at UTMB.

Scientific progress has been described as occurring via paradigm shifts rather than linear growth in Thomas Kuhn's *The Structure of the Scientific Revolution*. Technological advancement in medicine has developed at an ever-faster pace. Less than 70 years have passed since the discovery of DNA structure in 1953 to the 2020 Nobel Prize for the discovery of CRISPR gene editing techniques. With these developments come excitement, but it is often followed by skepticism, fear, and ethical concerns. This is warranted, as seen in the controversy over gene-edited babies. A balance of enthusiasm and skepticism over new ideas is important, especially when seen as a "cure-all". Looking to the past can provide insights into our modern era.

While the Fourth Industrial Revolution of the 21st century has been defined by artificial intelligence and big data, the First Industrial Revolution of the 19th century was defined by electromagnetism and mechanization. Many elements between the two revolutions are shared. Paradigm shifts, medical or otherwise, typically follow the so-called hype cycle: (1) innovation trigger, (2) peak of inflated expectations, (3) trough of disillusionment, (4) slope of enlightenment, and (5) plateau of productivity.

A meta-analysis of historical events from the two eras reflects this cycle of rise and fall and ultimately growth. In the First Industrial Revolution, the discovery of the connection between electricity and muscular contraction, the so-called "Galvanism", triggered intense interest in electricity as the life force of all organisms. This also marked a paradigm shift away from the ancient Galenic idea of the four humors to one that was more scientific and mechanistic. At the same time, it gave rise to the development of pseudo-scientific "Mesmerism", characterized by the belief that illnesses could be cured by manipulation of the "magnetic fluid". The story of *Frankenstein* by Mary Shelley in 1818 reflected concerns over these developments and warned of the dangers of the unchecked scientific ambitions. She addressed questions pervasive in the Romantic era. Are technological advances in medicine a panacea for all? What does it mean to be human? With great power comes great responsibilities, and as history has shown, ideas from Galvanism led to the development of modern electrophysiology and radiology.

Like electricity defined the 19th century, information defines the 21st century. DNA, as a proxy for information, defines our essence. The idiomatic expression "X is in our DNA" reflects this notion. Advances in genomics have given rise to the concept of precision medicine, in which patients are given personalized treatments based on their genetic makeup. This has developed synergistically with CRISPR gene editing techniques. Controversies abound as to how and whether certain technologies should be used in medicine. While precision medicine and genetics is still in its infancy and its eventual trajectory still unknown, we compare insights from the past to understand our future.

Learning objectives:
1. Conduct historical meta-analysis of medical uses of electromagnetism in the 19th century and of big data in the 21st century.
2. Compare how ideas and technological advances in medicine developed and were perceived in the 19th century to that in the 21st century.
3. Examine ethical issues and concerns in both eras.

Medical Care of the Professional Voice: Triumphs, Mishaps and Performing Arts Medicine, 1950 to 2023

Thomas M. Irwin and Carla C. Keirns

Dr. Irwin is a resident physician in family medicine at HCA Midwest, Research Medical Center in Kansas City. He has three decades of experience as a professional musician in rock, opera and musical theater. His work at the intersection of performing arts and medicine includes research and practice with a focus on the care of performing artists.

The year 1997 saw the loss of two iconic voices on stage and screen. Julie Andrews, known worldwide for her four-octave vocal range and roles on stage and in films such as The Sound of Music had her voice destroyed by ill-advised laser surgery to remove a nodule. Sherrill Milnes, a member of the Metropolitan Opera since 1965, was known as the foremost operatic baritone of his generation. He also had vocal cord surgery in 1997 which destroyed his singing voice.

In both cases, the surgeons who operated on them should have known better. Although laser treatments were relatively new at the time, it was quickly recognized that laser procedures led to the fixation of the vocal cords, essentially spot-welding them together and changing the character of the voice. While for the average patient, this might be inconvenient, for a professional singer this was catastrophic, ending careers that more traditional techniques could have preserved.

The emerging field of performing arts medicine offers a window into the intersection of medical arts and human performance. At the intersection of the specialties of sports medicine, rehabilitation medicine, and various specialties such as otolaryngology for singers, performing arts medicine has been growing, particularly serving arts communities in cities like New York, San Francisco, Miami and Nashville.

The story of performing arts medicine is a fascinating tale of early innovators with connections to the arts, and the recognition by medical professionals that these patients required specialized knowledge and skills to maintain and enhance their bodies as the instruments of their art. Drawing on examples from singing, instrumental music and dance, we illustrate the unique needs of this population. The growth of specialty clinics at institutions such as Vanderbilt, Johns Hopkins, and Stanford, establishment of societies and journals, and development of professional fellowships have advanced the field by building expertise.

Learning objectives:
1. Discuss the need for specialized clinics and expertise in the care for professional performing artists.
2. Explain the roles of medical and surgical interventions that have improved and compromised performers' skills and abilities, and in particular the roles of new and unfamiliar technologies in creating unexpected outcomes.
3. Contrast performing arts medicine with fields such as sports medicine, orthopedics, and rehabilitation medicine in the care of performing artists.

The Historical Legacy of Trans Medicine in Galveston

Grayson R. Jackson and Jacob D. Moses

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Jacob D. Moses, PhD, is an Assistant Professor in the Department of Bioethics & Health Humanities at UTMB and a faculty member in the Institute for Bioethics & Health Humanities. Dr. Moses's research and teaching centers on the intersection of the history of medicine and public health, bioethics, and science & technology studies.

The institutionalization of transgender (trans) medicine in the United States dates to the mid- to late-twentieth century. The Gender Identity Clinic at Johns Hopkins was established in 1966, and university-based clinics were subsequently established in academic medical centers across the country.

Galveston, Texas, contributed to this history. The Harry Benjamin International Gender Dysphoria Association (HBIGDA), now known as the World Professional Association for Transgender Health (WPATH), was incorporated in Galveston in late 1979. The first edition of its *Standards of Care* guidelines was distributed by the Janus Information Facility. Psychologist Paul A. Walker served as HBIGDA's founding president and directed the Gender Clinic at the University of Texas Medical Branch (UTMB) from 1976 to 1980. After the UTMB-based clinic closed, the Rosenberg Clinic continued serving patients until its closure in 2010.

This presentation explores themes of standard-making in clinical practice, professionalization and the construction of expertise, and negotiation and politics in medicine. We analyze archival holdings in medical libraries and oral history interviews with practitioners involved in the UTMB and Rosenberg clinics to illustrate these themes. Trans medicine isn't a "new" phenomenon; this historical presentation illuminates how Galveston influenced the trajectory of present-day trans medicine.

Learning objectives:
1. Understand the historical beginnings of trans medicine in the United States.
2. Examine Galveston's significance in the history of trans medicine.
3. Identify key figures in the development of trans medicine, including oral interviews with some such figures.

Charles L. Schepens Ophthalmologist Extraordinaire

William H. Jarrett, II

William H. Jarrett, II is the son and grandson of physicians, and his Mom was a nurse. He graduated from the Gilman School in Baltimore, Yale University, where he majored in history, and The Johns Hopkins University School of Medicine, where he was the President of the Pithotomy Club and Class Secretary. After two years on the Osler Medical Service at Hopkins, he transferred to the Wilmer Eye Institute, where he served as chief resident. After a year's fellowship under Dr. Schepens at Harvard, he re-located to Atlanta, where he practiced retinal surgery for 40 years. Now retired, he maintains interests in history, the Civil War, reading, music, and the Atlanta Braves.

Every generation or so, an individual appears whose life's work completely changes medicine for the better. Think of Wilhelm Rontgen and his rays, or Alfred Blalock, whose work with blue babies opened the entire field of cardiac surgery, and, eventually, transplantation of the heart.

Such a man was Charles Schepens (1912-2006), whose invention of the Binocular Stereoscopic Indirect Ophthalmoscope revolutionized the treatment of retinal detachment and led to the establishment of retinal disease as a recognized sub-specialty in ophthalmology.

Herman Helmholtz, a German polymath and physician, invented the direct ophthalmoscope in 1851.But direct ophthalmoscopy, being monocular, lacked stereopsis, and even the most accomplished ophthalmoscopist could only visualize the retina to about its equator, leaving fully a third of the fundus invisible to the examiner. Schepens' invention allowed visualization of the entire retinal periphery, the locale of significant retinal pathology, thus enabling the physician to identify and successfully treat such lesions.

Schepens was born in Belgium, educated in local universities, trained in ophthalmology at London's famed Moorfields Eye Hospital and was practicing in Brussels when WW II broke out. After heroic service with the French underground, he immigrated to the USA in 1949, having received a fellowship at the Massachusetts Eye and Ear Infirmary.

Using his newly developed indirect ophthalmoscope, he soon became an expert in the repair of detached retinas. In 1950, he became the first-ever director of a clinic devoted solely to diseases of the retina. He and his associates published important articles outlining the surgical repair of detachments utilizing the scleral buckling technique which he developed. He organized a fellowship program which trained most of the early retinal surgeons in this country and abroad. He established a research organization, The Retina Foundation, since re-named the Schepens Eye Research Institute and now part of Harvard's Department of Ophthalmology. He was voted by his peers as one of the most influential ophthalmologists of the 20th century.

Learning objectives:
1. What are the disadvantages of the direct ophthalmoscope?
2. What are the advantages of Binocular Stereoscopic Indirect Ophthalmoscopy?
3. Name one disease whose cure rate doubled with the invention of indirect ophthalmoscopy.

Sir William Osler: Then and Now

Bernard M. Karnath

Dr. Karnath is Professor of Internal Medicine at University of Texas Medical Branch at Galveston, an Emeritus Scholar in the John P. McGovern Academy of Oslerian Medicine, and a Distinguished Teaching Professor.

Sir William Osler has come under scrutiny in recent years questioning his legacy. It is important to differentiate Criticism from Skepticism as we review Osler's Contributions to Medical Education. In my literature search, I found 3 articles titled William Osler: Then and Now. All 3 articles portrayed Osler in a positive light. There are, however, articles that question Osler's legacy as the Father of Modern Medicine.

In an article by Harry Bloch, he talks about Henry Sigerist, who in 1932 became the chair of the new Institute for the History of Medicine at Johns Hopkins. Sigerist was one of the earliest critics of Osler and one of the earliest to suspect a myth was beginning to accrete around Osler. Sigerist states that such posthumous adoration of Osler would undoubtedly raise questions. Sigerist also notes that although Osler's textbook was an admirable one, there were other single author textbooks of medicine around that time. Sigerist also notes that Osler made no outstanding discoveries, and that Osler came to the right place at the right time (i.e. Johns Hopkins)

In an article by Phillip K. Bondy, titled *What's So Special About Osler?*, Bondy notes that some of Osler's colleagues' achievements surpassed his own and that Osler's reputation has grown to mythic proportions. Bondy points out that Osler's leadership in medical education was no more impressive than many others and that his contributions to medical science were modest.

Osler's legacy was best shaped by his contemporaries. Osler would receive his highest praise and recognition from his students and colleagues. One example is that from Dorothy Reed, a student and intern under Osler. She would write that *"William Osler was the greatest teacher I have ever known; an inspiration to his pupils and colleagues, one of the great gentlemen and influences of his age in the profession of medicine."* In a Tribute by Maude Abbott, she notes that *"future generations will never understand the love which Osler's own generation lavished on him, and the respect in which it held him."*

After Osler's death in December of 1919, there were many editorials dedicated to his influence in medicine. An entire issue of the Canadian Medical Association Journal in July of 1920 was devoted to Sir William Osler. Many editorials were dedicated to his influence on the teaching of medicine. Although clinical teaching was introduced in European medical schools, it was Osler who introduced at Johns Hopkins Medical School the art of bedside teaching in medicine. Although author Patrick Fiddes recently reappraised Osler's legacy, he noted in a 2013 article that Osler's teaching philosophy presaged the transformative Flexner report, which had a major impact on medical education in the United States and beyond.

Learning objectives:

1. Evaluate Criticisms against Sir William Osler.
2. Explain the rationale for a reappraisal of Osler's legacy.
3. Appraise the evidence for and against Osler's legacy.
4. Compare Osler's contemporaries and their achievements to his own.

The *Georgias* [*sic*] and Osler's Valediction to Humanity

Devin M. Kellis and Charles S. Bryan

Devin Kellis is an M.D.-Ph.D. candidate focusing on neurosciences at the University of South Carolina School of Medicine, Columbia, where Charles S. Bryan is Heyward Gibbes Distinguished Professor of Internal Medicine Emeritus.

> "And I said of medicine, that this is an art which considers the constitution of the patient, and has principles of action and reasons in each case."
>
> PLATO: *Georgias* [*sic*]

Oslerians and book collectors prize this typographical error (*Georgias*) as it signifies a valuable first printing of *The Principles and Practice of Medicine* (1892). The epigraph itself relates to the highly nuanced concept of *technê*, which appears in various forms 675 times in all the Platonic dialogues, 45 times in the *Gorgias* alone, and twice in the closing paragraph of "The Old Humanities and the New Science," Osler's last public address and his valediction to humanity.

The *Gorgias* concerns a dialogue between Socrates and the title character (an aging professor of rhetoric) and his young protégés Polus ("colt") and Callicles (whose positions are famously paraphrased as "might is right"). Socrates takes Hippocratic medicine as the prototypical *technê*. He establishes three criteria to distinguish a *technê* from a mere knack (*empeiria*), such as rhetoric: (1) specific knowledge (*epistême*) of the subject matter as opposed to opinion or belief; (2) the ability to provide and defend a reasoned account of the subject matter; and (3) orientation toward a "good" that promotes human flourishing. In later dialogues, notably *The Republic*, Plato insists that philosophy constitutes the highest and perhaps the only *technê* and should therefore arbitrate what constitutes "the good."

Osler gave his last public address in the wake of World War I, which raised the possibility of omnicide (human extinction) caused by technoscientific kill mechanisms. He proclaimed that "there must be a very different civilization or there will be no civilization at all," cited the physician's "love of humanity" and "love of his craft" (*philanthropia* and *philotechnia*), and expressed the wistful hope that from "this combination" humanity might find the wisdom (*philosophia*) requisite for survival and flourishing. Philosophers continue to examine the *Gorgias* for unresolved dilemmas concerning the appropriate use of technology and power. Many of Osler's essays touch on these subjects and can still be read to advantage.

Learning objectives:

1. Describe how writers of the Hippocratic school of medicine used the idea of *technê* to differentiate themselves from other medical practitioners, and how Plato followed suit to distinguish his academy of philosophy from the Presocratic sophists.
2. Discuss how Plato's insistence (in *The Republic*) that only philosophers have sufficient expertise to determine "the good" (as it pertains to value choices and moral choices) prefigures the impact of the bioethics movement (1970s onwards) on medicine.
3. Explain why scholars continue to look to the *Gorgias* as early (and perhaps the first) philosophical attempt to understand the concept of power and, within this framework, suggest why Osler called Plato "the great idealist" and Aristotle "the great realist."

The Legacy of Dr. Kadambini Ganguly in Indian Medicine and Women's Rights

Sunskruthi Krishna

Sunskruthi Krishna is currently a second-year medical student at the UTMB John Sealy School of Medicine. She graduated with a BA in Biosciences with a Concentration in Integrative Biology from Rice University in 2021. She is a first-generation physician and is the daughter of Indian immigrants. She is interested in global health and the surgical specialties.

Dr. Kadambini Ganguly (1861-1923) was the first practicing female physician of Western medicine in South Asia. A trailblazer in 19th-century colonialist, patriarchal Indian society, Kadambini shattered the glass ceiling with her achievements as a physician and activist. Her conviction to expand the space for women and diversity in medicine exemplified the values of mentorship, leadership, and perseverance Sir William Osler instilled in his teachings.

Kadambini was one of the first two female college graduates in India under British rule. She was initially denied her bachelor's degree because she was a woman; however, she leveraged her high scores and her professor's support to establish a college program for her and other female students. She applied to Medical College, Kolkata, but once more was discriminatorily rejected. With her social and legal campaigning, Kadambini fought for her right to enter and was admitted. She faced scrutiny from her own Bengali community for her outspoken nature in her pursuit of medicine and women's autonomy, especially as a mother of eight. Her zeal for lifelong learning, an Oslerian value she embodied throughout her profession, could not be extinguished by social criticism. Kadambini succeeded academically while balancing her family life, garnering praise globally, including a recommendation letter from Florence Nightingale. Her struggles continued when she began practicing in Lady Dufferin Victoria Hospital, where European physicians were deemed more competent than their Indian counterparts. Faced with discrimination, she was tasked only with basic medical duties, prompting her to seek further education in Scotland. After earning a triple diploma at Scottish College in Western medicine in three months, Kadambini returned to Kolkata to practice as a senior obstetrician-gynecologist. Opening her own private practice, she was a trusted physician for all, especially the underserved and even the royal family. Beyond medicine, Kadambini was one of the first female members of the Indian National Congress, the first female congressional speaker, a proponent for female coal miners' rights, and Gandhi's successor as president of an anti-discrimination organization in South Africa. Kadambini broke barriers to advocate for the voiceless and disenfranchised. After performing surgery on the morning of October 3, 1923, Dr. Kadambini passed away that same evening, leaving behind a legacy of empowerment.

Learning objectives:
1. Discuss the historical context of the societal and cultural challenges faced by women and marginalized groups in colonial British India in the field of medicine.
2. Evaluate Dr. Kadambini's contributions to women in medicine today.
3. Examine the significance of promoting diversity in the medical field.

Tale of Two Hospitals: Missionaries, Indigenous Encounters, and the Making of a Modern Healthcare System in Taiwan

Grace Lee and Brendan Ross

Grace Lee is a medical student at University of South Florida. She is the editor-in-chief of The Pulse Student Review, University of South Florida's medical humanities journal. Brendan Ross is a resident in psychiatry at Mount Sinai Hospital. He received his MDCM from McGill in 2023. During medical school, he presented at multiple AOS annual meetings.

As an island situated on the Pacific frontier, Taiwan has long been a place of knowledge exchange and cultural interaction, and its history with medicine is no different. Indigenous people, who have inhabited the island for millennia, maintain their own herbal medicines and cultural rites, and Han settlers brought over traditional practices of medicine from China.

Around 200 years ago, Western biomedicine came to the shores of Taiwan through multiple conduits, from Japanese colonial authorities to Western missionaries, and Taiwan's healthcare system has its roots in these early endeavors. After being driven out of China following WWII, as second wave of missionaries came to Taiwan and sought to both proselytize and provide healthcare to Indigenous populations in areas that lacked access to care. Today, Taiwan has a modern healthcare system, but many of its health services have roots in these earlier missions.

This paper seeks to investigate this phenomenon of evolving health services in rural Taiwan by comparing and contrasting the work of two Christian hospitals established on Taiwan's East Coast, St. Mary's Hospital in Luodong (SMH) and the Evangelical Taitung Christian Hospital (TCH) in Taitung. By framing the historical narrative of these two hospitals' influence on local Indigenous populations as a micro-history, the paper will seek to understand how biomedicine became established in rural eastern Taiwan via outside networks of support and authority. The paper will rely on existing relationships that the authors maintain in Taiwan. B. Ross has previously collaborated with Dr. Joseph Kuo, an attending psychiatrist and the hospital historian at SMH. Dr. Kuo maintains an active historical archive there, and he has written a history of the hospital, which was founded by Camillian brothers and priests from Italy who were retreating from China's civil war in 1952. G. Lee has reached out to the founder of TCH, Dr. Frank Dennis. Dr. Dennis arrived in Taiwan in 1961 at the request of a missionary in Taitung and built Taitung's first Christian hospital in 1969. In order to better serve rural communities in Taitung, the hospital's early fundraising efforts were largely provided by Christian churches from the United States, with a focus on promoting the development of Taiwanese Christian medical providers. Dr. Dennis's current personal mission is to encourage local Taiwanese medical personnel to deliver aid to other underserved areas outside of Taiwan, and to spread awareness of regional medical practices.

This project will create a dialogue between two approaches to serving the unique rural and Indigenous communities of Taiwan: how these hospitals began, what they have evolved into, and how they have since incorporated the context and cultures of their patient populations into an effective practice of Western medicine. We hope to accurately portray these histories by documenting first-hand accounts and analyzing these findings through secondary sources.

Learning objectives:
1. Contrast the approach that different missionary hospitals took to engaging local populations.
2. Examine the roots of Taiwan's current public health services in the work of missionaries.
3. Critique how missionary hospitals in Taiwan both contribute to health promotion and played a role in weakening existing networks of knowledge and care present in Indigenous communities.

Osler, Mayo Brothers, and Brothers Saint Comas and Saint Damian

Jong O. Lee

Jong Lee, MD is a Professor of Surgery at the University of Texas Medical Branch in Galveston, Texas. He holds John P. McGovern Chair in Oslerian Education. He is a Scholar in the John P. McGovern Academy of Oslerian Medicine.

Sir William Osler valued lifelong friendship. This was omnipresent throughout his life. William James Mayo and Charles Horace Mayo were founders of the Mayo Clinic. William Mayo graduated from the University of Michigan Medical School in 1883 and joined his father's medical practice. His brother Charlie Mayo graduated from Northwestern University Medical School in 1888 and joined his father's practice.

In 1889, Sisters of Saint Francis established St. Mary's Catholic Hospital in Rochester, Minnesota. Will Mayo and Charlie Mayo who worked there were gifted surgeons and developed international recognition. Eventually the hospital was named Mayo Clinic in 1914.

Will Mayo was visiting Johns Hopkins during his educational leave in 1894. He and Charlie Mayo traveled to many leading hospitals in North America and Europe to learn new techniques and expand their practice. He wandered about the reception area at Johns Hopkins Hospital. A quick moving man approached Will Mayo and asked, "Well, what would you like to see?" It was none other than Sir William Osler. In his usual helpful way, Osler said, "Come with me."

Osler and the Mayo brothers developed close friendship which continued even after Osler left for Oxford and would last a quarter of a century. Osler would send the Mayo brothers little mementos. One that the Mayo brothers valued particularly was a lithograph of Arabian physicians, Saint Cosmas and Saint Damian that Osler purchased in Rome.

Saints Cosmas and Damian were twin brothers born in Arabia. They practiced medicine and surgery in the seaport of Aegeae in Cilicia in the third century. They never took pay for their service. They suffered martyrdom in Syria during the persecution of the Emperor Diocletian due to their faith. They are regarded as the patrons of physicians and surgeons.

Osler considered the analogy between the Mayo brothers and the surgeon-saints as being fitting. He referred to the Mayo brothers as the American Cosmas and Damian.

Learning objectives:
1. Examine friendship of the Mayo brothers and Sir William Osler.
2. List the accomplishments of William Mayo and Charles Mayo.
3. Discuss the life of Saint Cosmos and Saint Damian.

James Bowell: After Osler (1869-1880)

C. Ronald MacKenzie

Dr. C Ronald MacKenzie is Professor of Clinical Medicine and Medical Ethics at Weill Medical College of Cornell University and Attending Physician at the Hospital for Special Surgery where he holds the C Ronald MacKenzie Chair in Ethics and Medicine and maintains an active practice in general medicine, rheumatology, and perioperative care. He chairs his institutions Institutional Review Board and Ethic Committee.

James Bovell, physician-theologian, is a figure well known to all Oslerians. Remembered mainly for his mentorship of the young William Osler, his life as it pertains to this relationship is well documented in the Cushing and Bliss biographies, the Bryan Encyclopedia, and previous AOS presentations.

Details of his West Indian origins, his medical education remarkable in its time, his return to the West Indies followed by his immigration to Canada are well chronicled hence are referenced but not extensively reviewed in this presentation. Rather the focus is his less well documented period, the years after Osler.

This, Bovell's final period, begins in 1869 when at age 51, married with four daughters, and after 20 years of practice in Toronto, he makes a momentous decision to return to his origins though not to Barbados where he was born, nor to Antigua where he had practiced medicine, but to Nevis, a West Indian country to which he had had no prior connection. Although the origins of this decision are uncertain it was likely made for him as will become clear in this presentation. While well trained and educated, a much-sought teacher and brilliant lecturer, he was an absent-minded, easily distracted, inefficient practitioner, more interested in natural science and the power of his microscope than his patients. Further, as a deeply religious man, with a moral nature of "*unusual delicacy and fineness*", it was said that "*vice naturally avoided him, virtue was drawn towards him, and the good side of a man instinctively showed itself in his presence."* Thus, with dissatisfactions concerning the practice of medicine emergent, latent theological aspirations had increasingly become a driving life force.

Thus in 1870, not intending to leave Canada, Bovell visits Antigua where he is persuaded by the West Indian Bishop, W.W. Jackson to take Holy Orders. Ordained in 1871, he was named curate of the united parishes of St. George and St John in Nevis [hence the Bishop had selected Nevis], an appointment followed by a transfer to a less demanding position in Charlestown [1873], overseeing the parishes of St. Thomas and St. Paul's, the decision possibly resulting from failing health.

Bovell's decision proved an unfortunate one, with the conditions on the island difficult, the church in an "*awful state*" he describes himself in a letter to a Canadian friend as "*I am a most miserable recluse and rarely see any but the members of my own family … we have a terrible time of it."* Little is known of his final years and at age 63 he dies of a stroke, January 16th, 1880. He is buried in the churchyard of St. Thomas Lowland, Charlestown, Nevis.

Learning objectives:
1. To recall an important figure in the life of Sir William Osler.
2. To better understand the motivations for the abandonment of his career in medicine.
3. To address a knowledge gap concerning the later life of James Bovell.

Armond S. Goldman and the Development of the Immunobiology of Human Milk

Michael H. Malloy

Dr. Malloy is a neonatologist and Professor at the University of Texas Medical Branch, Galveston and Emeritus John P. McGovern Chair in Oslerian Education.

Armond S. Goldman (1930-2023), was born in the West Texas frontier town of San Angelo. He was the grandson of Eastern European Jewish immigrants who had found their way to New York City where his grandfather had obtained a degree in engineering from City College of New York. Armond's father, David, a lay educated Rabbi, found his way West to San Angelo through his sister who had married a Texan. David helped build the first synagogue in San Angelo and served the community until 1947. The West Texas environment seemed hardly one conducive to producing a man destined to be a polymath with numerous talents and interests. Yet, out of this close-knit community Armond burst upon the scene, acquiring an Associate's Degree at San Angelo Junior College at the age of 16 and a Bachelor's degree at the University of Texas, Austin at age 18. He was accepted and completed medical school at the University of Texas Medical Branch (UTMB) in 1953 and interned with the U.S. Public Health Service in New Orleans. He completed a Pediatric residency at UTMB in 1955. He spent 2 years in the U.S. Army returning to UTMB in 1957 as Chief Resident in Pediatrics. He was invited to become an Instructor in Pediatrics on the completion of that year and was promoted to Assistant Professor the following year, attaining the rank of Full Professor in 1972. He would spend 42 years as a full-time faculty member before being awarded the title of Emeritus Professor in 2002.

Armond's interest in human milk was stimulated, as he confessed, with the birth of his first child during his 2nd year in medical school when his wife insisted on breastfeeding their child. This was his first introduction into the wonders of breast milk. Armond had no formal training in immunology and as he began his own personal education into the field he was cautioned by his Chair of Pediatrics, Bill Daeschner (1920-2009) about jumping into the new and somewhat nebulous field of clinical immunology. Nevertheless, Dr. Goldman forged ahead with the aid of B.E. Walker, a PhD from the Department of Anatomy publishing a paper in 1962 on the origin of cells in response to protein injections in mice. Daeschner, despite his misgivings, called to Armond's attention a study supported by the Borden Company to ascertain whether the diagnosis of cow's milk allergy could be verified by an oral milk challenge. On applying for the study Armond was surprised to be asked to head the clinical part of a multi-physician study. "The results of the study demonstrated that cow's milk allergy was a disorder with a spectrum of clinical manifestations." Shortly thereafter Goldman began his investigations into the cellular components found in human breast milk. Though not the first to observe cells in breast milk, Van Leeuwenhoek had made similar observations in the 17th century as well as others examining other mammalian species milk, Goldman was the first to report that the leukocytes were alive and functioning. Over the next 34 years Goldman would produce 120 manuscripts, 45 of which were relative to the immunobiology of human milk. Thus, the marvel of the creative spirit of an individual rising above geographical and cultural limitations in a far West Texas outpost.

Learning objectives:
1. To review the beginnings of the life of Armond S. Goldman.
2. To review how Goldman's interest in human milk immunobiology began.
3. To review some of his groundbreaking observations on the immunobiology of human milk.

Sushruta the Philosopher Surgeon: The Relevance of Sushruta Samhita on Modern Medicine

Swetha Manne

Swetha Manne is a second-year medical student at University of Texas Medical Branch. She has a BA in Anthropology from UC Berkeley and a MHS in Molecular Microbiology and Immunology from Johns Hopkins University. Swetha is planning to pursue a residency in neurosurgery or neurology.

Sushruta was an ancient surgeon and philosopher who lived in India between 1200 BC and 600 BC. He defined health holistically as a balance of the three elements (doshas) of the universe. Per ancient Indian philosophy the three doshas were vata (wind), pitta (bile), and kapha (phlegm) that relate to air, fire, and water. Sushruta's principal philosophy was Charaka, the belief that disease was caused by imbalances in the body. A physician must treat the body through medical practices while restoring equilibrium. This approach to medicine was all-encompassing and was one of the reasons he was able to make so many medical advances in one lifetime. He was also a pioneer of Ayurveda, which is the ancient Indian practice of medicine. He made significant contributions to Ayurvedic practice through tridosha (humoral theory). One of the sections of his book consists of 46 chapters dealing with the fundamental principles of Ayurveda, which still commonplace in India today and is often used to supplement modern medicine.

Sushruta is considered the father of surgery in India. He taught at the University of Benares and wrote one of the world's earliest works on surgery and medicine called the Sushruta Samhita. This text is a collection of descriptions of over 1000 diseases, surgical procedures and instruments, and use of medicinal plants. He was a pioneer detailing in his writings methods for students to learn about anatomy by studying and dissecting a dead body. This was a very new mindset for the time as dead bodies were considered sacred and had to be cremated soon after death. Dissection is still one of the fundamental practices for learning anatomy today.

Sushruta is thought to have served in a royal court in the age of many wars. Necessity is the mother of invention, as he was dealing with wounds, injuries, and emergencies, and constantly innovated in his treatment of these issues. Nasal amputation as a form of punishment was common in Ancient India as the nose was a symbol of morality. As a treatment for this Sushruta invented rhinoplasty using the forehead flap technique that is still used today. He removed a full thickness piece of skin from the forehead to reconstruct the nose. This presentation seeks to further analyze Sushruta's Samhitas and its relevance to modern medicine.

Learning objectives:

1. Discuss Sushruta's contributions to the origin of Ayurvedic approach as a component of holistic treatment.
2. Explore Sushruta's approach to surgical education and cadaveric dissection.
3. Examine Sushruta's pioneering surgical techniques and their influence on modern medicine.

William B. Coley and His Toxin

Robert G Mennel

Bob is an Oncologist with a special interest in Sarcoma, and Molecular Medicine practicing at Baylor University Medical Center, Dallas.

William B Coley (1862-1936) a contemporary of William Osler was a very prominent and acclaimed surgeon, but he never obtained his full due as the father of immunotherapy during his lifetime. As a young surgeon, Coley was deeply moved by the rapid spread and death of a 17-year-old woman whose sarcomatous arm he had amputated 6 months earlier leaving her disease free. He reviewed cases of patients that he had heard of at the New York Hospital, who had cancers disappear after an erysipelas infection. He formulated and infected patients with his streptococcal "Coley's Toxin". A number of these patients that he treated had marked regression of their cancers and some were cured. However, the medical community had difficulty accepting a therapy that they could not explain. As a matter of fact, he was rebuked by many esteemed physicians, The AMA, and The American Cancer Society. He owes the title of the Father of Immunotherapy and the reinstatement of his reputation to his daughter, Helen Coley Nauts (1907-2001). Helen at the age of 29, after her father's death discovered 15,000 patient records in the family barn and spent the next 64 years analyzing these, reporting the importance of Coley's work, and eventually establishing the Cancer Research Institute, a major present-day institution, committed to the discovery and dissemination of the principles of immunotherapy for cancer.

Learning objectives:
1. Discuss William Coley's professional accomplishments,
2. Outline Helen Naut's role in the evolution of immunotherapy,
3. Explain the reasons why we repudiate ideas we don't grasp.

"If I Ever Meant Business, I Mean It Now": Charles R. Drew in Canada

Craig A. Miller

Dr. Craig A. Miller was educated at Northwestern University, the Ohio State University, and the University of California, San Francisco. He is a board-certified vascular surgeon and the author of three books: The Making of a Surgeon in the 20th Century, The Big Z: The Life of Robert M. Zollinger and A Time for All Things: The Life of Michael E. DeBakey, which was published in 2020 by the Oxford University Press. He is currently working on a biography of Dr. Charles Drew, to be published by the Georgetown University Press.

Charles R. Drew, M.D., is a seminal figure in twentieth century medical history. His contributions to the early development of blood banks and nearly single-handed establishment of excellence in the training of black surgeons places him in the highest pantheon of African American medicine. A native of Washington, D.C., Drew was a standout athlete at the famous Dunbar High School and Amherst College, but not a noted scholar. After matriculating at McGill University Faculty of Medicine in 1928, however, he emerged as an outstanding student, winning academic prizes, election to AOA, and finishing second in his class – all while continuing to set records on the athletic fields of Canada. Although biographical materials regarding Drew have been published with varying degrees of accuracy, this period in his life remains largely unexplored. Utilizing new research obtained for a forthcoming biography, we will examine in detail for the first time the seven essential years Charles Drew spent in Montreal and how they influenced his academic development, his indomitable personality in the face of the explicit institutional racism of his era, and his emergence as a driving force in the advancement of African American medicine.

Learning objectives:

1. To understand the obstacles faced by African American medical students in both the United States and Canada in the early twentieth century.
2. To understand the influence of seven years of medical school and post-graduate training at the McGill Faculty of Medicine on the life of Charles Drew.
3. To understand the great contributions of Drew to twentieth century medicine and the advancement of African Americans in the field.

Osler and the War Effort, The American Women's War Relief Hospital in Paignton

J. Mario Molina

J. Mario Molina is a former President of the American Osler Society, a curator of the Osler Library at McGill, and a trustee of the Huntington Library in San Marino. He has no relevant disclosures.

As we have seen in Ukraine and the Middle East, humanitarian crises, either natural or human-caused, bring out the best in Americans who rush to offer medical aid. The First World War was no exception. Recently I bought a scrapbook from the American Women's War Hospital in Paignton with many interesting photos including two of Sir William Osler. It documents the activities of the hospital including a visit by the Queen.

Within weeks of the outbreak of the war, several American women married to British citizens founded the American Women's War Relief Fund on August 5, 1914. One of these, the American Women's War Relief Hospital in Paignton, South Devonshire, England was set up at Mr. Paris Eugene Singer's estate, (Singer was heir to the Singer Sewing Machine fortune) and staffed by the American Red Cross. One of the organizers of the hospital was Lady Ward (aka Jean Templeton Reid) daughter of Osler's friend Whitelaw Reid who became U. S. ambassador to Great Britain in 1905. Osler and Reid belonged to the Roxburghe Club and Reid attended various functions in Oxford including receiving an honorary degree from Oxford University in 1907. Reid was Osler's patient until Reid's death in 1912. By the end of the war, this hospital served 7,000 patients.

When the war broke out in 1914, Osler at 65 years old, was too old to enlist and, by his own standards, he should have retired. Osler worked in three military hospitals. He was Physician-in-Chief to the Queen's Canadian Military Hospital, consultant to the American Women's War Hospital and head physician to the Canadian Red Cross Hospital built by Nancy Astor in Cliveden. Contemporary first-hand accounts of the hospital recorded by Henry Viets, E. L. Gilcreest and D. P. Penhallow give us a glimpse of life in the hospital and Osler's role in Paignton.

Patients in the hospital typically suffered from traumatic injuries including shrapnel wounds and compound fractures, most of which became infected. On the medical side, many of the men suffered from "gassing" which caused an "acute and painful form of bronchitis and in some instances their eyes were severely affected."

Osler's visits might last several days up to a week bolstering morale and reassuring anxious young doctors, shaking "hands with all the physicians, nurses…not overlooking the probationers." Osler entertained at lunch with "sparkling conversation full of humor." "Evenings were spent in the drawing room of the hospital where he would frequently talk to us by the hour of the history of medicine," where a nurse surreptitiously snapped a picture of Osler reading in the library, cigarette in hand.

Learning objectives:
1. Explain the role of the American Women's War Relief Fund during the First World War.
2. Describe Osler's role in the military hospitals he visited.
3. List the typical injuries and illnesses seen in the American Women's War Hospital.

Setting The Rectum Straight: Clarifying Morgagni's Contribution to The History of Rectal Cancer Surgery

Oli Morris

Oli Morris studied German and Classics at the Universities of Cambridge and Heidelberg, and is now a third-year medical student at the University of Exeter. He is particularly interested in the history and practice of surgical oncology.

The first deliberate and successful attempt to resect a cancer of the rectum was made in 1826 by Jacques Lisfranc, at l'Hôpital de la Pitié in Paris. Lisfranc's presentation of nine such cases in 1830 and 1833 revolutionised attitudes towards this disease by rendering it the target of surgical attack; before him, such operations had been subject to a taboo that can be traced through the writings of medieval surgeons back to Galen and Hippocrates. Yet it has been repeatedly claimed in the English-language literature on this subject that Lisfranc's efforts had an important intellectual precedent: Morgagni, we are often told, first proposed an operation for rectal cancer in the 18th Century. Since 1937, this claim has been repeated at least eight times, without ever citing Morgagni as its primary source. Examination of his writing shows it to be entirely false: Morgagni did not propose such an operation, but condemned it unequivocally, in terms which continue to resonate with the challenges faced by rectal cancer patients and surgeons today.

In *De Sedibus et Causis Morborum* (1762; III.xxxii.6-9), Morgagni condemned efforts to operate on rectal cancer as futile on three grounds: technical, functional and oncological. Technically, he had observed from his dissections that the disease often sat too high in the rectum for radical excision to be possible (which had been recognised as early as Galen as a condition of cure), and explicitly warned of the dangers of haemorrhage, nerve injury and intraperitoneal perforation attendant upon such an attempt. Functionally, he was uncertain of the capacity of the anal sphincter complex to sustain its potency following surgical damage. Most importantly, he cast doubt on the oncological validity of surgery as a treatment of rectal cancer at all, wondering 'even if this disease were of the kind which can be taken away by the surgeon's knife.' He therefore advised palliative treatment with ointments, enemas and dietary regimens; in this he recapitulated, with the authority of a scientific giant of the 18th Century, the consensus of the foregoing 1500 years. So thoroughly in fact did he embody that anti-surgical consensus that Lisfranc, presenting his cases to the Académie de Médecine in 1830 and 1833, felt it necessary to summon up Morgagni's ghost by name in order to defend himself against it. Therefore, in falsely attributing to Morgagni the proposal of an operation, the record underestimates Lisfranc's revolutionary stature; far from following Morgagni's intellectual lead, he defied the universally accepted wisdom of his own and every previous age.

Clarifying Morgagni's true position also has important implications for our understanding of the subsequent history of rectal cancer surgery. The three heads under which he defined the problem—technical, functional and oncological—have defined that whole history, in different ways, from 1826 to the present day. Colorectal surgeons the world over continue to grapple with Morgagni's ghost.

Learning objectives:
1. Describe Morgagni's true position regarding surgery for rectal cancer
2. Evaluate the intellectual novelty of Jacques Lisfranc's 1826 operation
3. Discuss the resonance of Morgagni's three-headed problem through the subsequent history of rectal cancer surgery up to the present day

The Fight Against the "Female Sphere": Ignited by Mary Putnam Jacobi and Its Persistent Flame

Madeline Pan

Madeline Pan is a first-year medical student at the University of Texas Medical Branch. She earned her B.S. in Biological Sciences and B.S. in Health & Society from Southern Methodist University in 2022.

Although she is not well-known to the general public, Mary Putnam Jacobi was a trailblazer for females progressing into the medical field. Born on August 31, 1842, she was the oldest of eleven children. Since no medical school in New York admitted women at the time, Jacobi studied medicine privately under the tutelage of Elizabeth Blackwell and graduated from the New York College of Pharmacy in 1861. After receiving her MD from the Female Medical College of Pennsylvania in 1864, she became the first woman to attend l'École de Médecine in Paris, graduating in 1871. Jacobi not only dedicated herself to advancing medicine but also to championing women's capacity in the medical and scientific spheres.

She challenged societal perspectives by responding to claims made by Dr. Edward H. Clarke in her essay titled *The Question of Rest for Women During Menstruation.* Her essay led her to become the first woman ever to win the Boylston Prize in 1876. Mary Putnam Jacobi was also a staunch proponent for the co-education of male and female medical students, as she witnessed that the women's medical schools did not have the resources to provide the same training compared to universities affiliated with large hospitals. In 1872, she organized the Association for the Advancement of the Medical Education of Women with the intention of addressing this disparity. From 1874 to 1903, she served as the president of the association.

Fast forward to the present day, thanks to the efforts of tenacious advocates like Mary Putnam Jacobi, the percentage of U.S. medical student matriculants who are women is higher than ever before, making up over 50% since 2017—an accomplishment worth celebrating. However, there is still work to be done as females in the medical profession still face challenges in obtaining leadership positions due to gender-based implicit bias. Female residents have expressed how their decisions are more frequently contested than their male counterparts and have received negative evaluations for showing assertive leadership behavior. These findings present areas where we, as current and future physicians, can strive to improve upon.

Learning objectives:
1. Outline the biography of Mary Putnam Jacobi.
2. Explain the significance of her essay *The Question of Rest for Women During Menstruation.*
3. Discuss how gender bias continues to impact female physicians today.

Gluttony: The Sordid Socio-Medical History of Hotdog Eating Contests

Clyde Partin

Dr. Partin completed college, medical school, and residency at Emory University. He then spent 6 years in the United States Air Force as an internal medicine physician and flight surgeon. On the faculty of Emory University School of Medicine since 1992, he continues to self-identify as a poet, although some may question that claim.

About 80 food-eating contests per year, representing a wide variety of delicacies, (including cockroaches) are formally sponsored in the United States. The most frequently consumed item is the hotdog, an iconic American symbol associated with the Fourth of July. Ironically the hotdog has its origins deeply embedded in European immigration and the sausage industry. Many large American cities have developed distinct, ethnic hotdog traditions. Hotdog vendors, minding their food carts, lined up outside baseball stadiums, and the bond between baseball and hotdogs flourished. In 1916, Nathan's Hotdog Stand opened on Coney Island and became the epicenter of the Fourth of July hotdog eating contests. The beginning of organized Coney Island hotdog eating contests is considered to be 1972. Japanese contestants began to dominate, notably Takeru Kobayashi, who once "ate his own vomit to salvage his final hot dog" and avoid disqualification. Sonja Thomas began to successfully challenge the men. George Shea, the tireless promoter of this event, once submitted an article, "The Belt of Fat Theory," to the NEJM, answered these unwanted developments by starting, in 2011, a separate contest for women. Requirements to enter the contest became more structured. By 1997, Shea had founded the International Federation of Competitive Eating (IFOCE) which sanctioned Major League Eating (MLE), to then sanction events in the US. The slighted Japanese objected to this bureaucracy and stopped participating in the event. Following this contract dispute, Pepto-Bismol pulled their sponsorship. As for other socio-political underpinnings related to the hotdog, its evolution from sausage invokes Upton Sinclair's book, *The Jungle*, an expose of the horrific conditions encountered in the production of sausages. Hotdog historian Jamie Loftus, recapitulated this sentiment with her observation that the hotdog is a "A charcuterie of the supposedly inedible."

The average stomach comfortably holds about 1.5 to 2 liters. Required capacity for 70+ ingested hotdogs with buns is about 5 liters. Competitive eaters habituate their stomachs by downing a gallon of water in minutes. Relinquishment of gastric contents, quaintly called a "reversal of fortune," is grounds for disqualification. Contestants have died from various complications, including aspirating hotdogs. Competitors report post-event fatigue, dyspnea, and lightheadedness. Radiologists studied the stomachs of competitors and noted a startling capacity for gastric expansion. They predicted dire consequences such as impaired gastric emptying, obesity, and disordered eating, but limited evidence suggests that this outcome is frequent. In an era of rampant obesity, others worried about the societal message these contests send. The governing board of the AOS has been asked to serve hotdogs, Kansas City style, at one of the lunches during the annual meeting.

Learning objectives:
1. Define the rules, medical complications, and spectacle of hotdog eating contests.
2. Explain the training routines of competitive hotdog-eating contestants.
3. Discuss the history of hotdogs, hotdog-eating contests, and the associated moral, social, and political baggage of the hotdog industry and competitive eating competitions.

Sowing Seeds of Hope: The Rural Development Trust

Meghana Potturu

Meghana Potturu is a medical student at the John Sealy School of Medicine, where she serves as the Junior Director for the St. Vincent's Free Clinic's Community Engagement Committee. She graduated from the University of Texas at Austin with a BS in Public Health and a minor in Health Communications. She is also involved with the operations of the AOS Blog and is passionate about showcasing the voices of medical trainees.

"We are here to add what we can to life, not to get what we can from life."— William Osler.

Adding value to life, rather than extracting from it, is a philosophy deeply embodied in the heart of rural India, particularly through the Rural Development Trust (RDT). Established in 1969 in Anantapur, Andhra Pradesh, by the visionary duo Vicente and Anne Ferrer from Spain, RDT has become a cornerstone in community empowerment, poverty alleviation, and fostering hope for the marginalized.

Following strides in education for children, RDT also began to establish community clinics that were crucial in providing healthcare for underprivileged, rural populations. A pivotal moment came in 1985 when RDT, in partnership with UNICEF, embarked on universal immunizations. This initiative unveiled the harsh reality faced by rural people with disabilities (PWDs) - often shunned by society and mistreated by their families. They lacked access to timely medical care, corrective surgeries, and regular follow-ups. Establishing *Vikalangula Sanghas*—self-help, gender-mixed groups for PWDs—created a platform for sharing experiences and fostering solidarity, emphasizing independence. Notably, one of their decrees was incorporated into India's PWD Act of 2016. They were also the first to translate the Act into Telugu, enhancing accessibility. The development of the first culturally adept Telugu sign language dictionary, derived from two years of field research, shows RDT's commitment to inclusivity. Community health clinics have bridged the disparity between remote communities and modern medicine through a grass-roots approach, emphasizing issues such as HIV/AIDS education, women's health, and nutrition. Mobile orthopedics/prosthetics clinics also offer care for PWDs in isolated villages with community health workers being trusted members.

The profound impact of RDT's expansive work eloquently illustrates that dedicated service, fueled by the arduous efforts of many, has the transformative ability to uplift individual lives and reshape entire communities. In addition to the sectors mentioned, RDT has efforts in ecology and sustainability, education, women's empowerment, rural hospitals, and inclusive sports. The RDT's journey, a tapestry of hope and progress, is a living testament to the philosophy that we are here to contribute to life, not just to take from it.

Learning objectives:
1. Discuss the impact of RDT on reshaping attitudes towards people with disabilities
2. Examine the philosophy of RDT through the Oslerian lens of selfless service
3. List the importance of community health workers and community clinic

Dr. Gisella Perl: Balancing Compassionate Care with Equanimity

Shilpa Rajagopal and Richard Sherwood

Shilpa Rajagopal is a second-year MD/MPH student, and Richard Sherwood is a second-year MD student at the University of Texas Medical Branch (UTMB) in Galveston. They both serve as coordinators for the UTMB Perl Osler Student Society and help organize events that promote Oslerian scholarship in medical education.

Quote by Marcus Aurelius (included in *Aequanimitas with Other Addresses*, 3e 1932): "Thou must be like a promontory of the sea, against which, though the waves beat continually, yet it both itself stands, and about it are those swelling waves stilled and quieted."

In his renowned essay *Aequanimitas,* Sir William Osler described the need for physicians to "[c]ultivate…a judicious measure of obtuseness…to meet the exigencies of practice with firmness and courage, without, at the same time, hardening, 'the human heart by which we live.'"[1] This ideal of empathy balanced by objectivity—a sense of "calmness amid the storm" as described by Osler—is especially paramount in times of moral distress when physicians are faced with difficult choices. The legacy of Dr. Gisella Perl, often referred to as the "Angel of Auschwitz", embodies such principles.

Born in 1907, nearly two decades after Osler had first delivered *Aequanimitas,* Dr. Perl was a trained gynecologist of Hungarian-Jewish descent who was imprisoned at the Auschwitz concentration camp during the Holocaust. To be pregnant was to hasten one's demise in the concentration camp, with the mother and unborn child sentenced to death on discovery. With the minimal tools available at her disposal — her voice, hands, and intellect —Dr. Perl provided direct care to the mothers and ended their pregnancies to help spare their lives. This was a source of emotional conflict between her personal beliefs and her duties to protect her patients; in her memoir, *I Was a Doctor in Auschwitz*, Dr. Perl wrote that she "loved those newborn babies not as a doctor but as a mother." Yet, despite the anguish and travails, she did not falter in her commitment to her patients. When all else was spent, with her living voice she gave more, relieving suffering through compassionate acts of storytelling.

While there is limited academic literature discussing Dr. Perl, her fortitude in protecting her patients amidst the gross iniquities of the Holocaust demonstrate circumstances under which a demeanor of *Aequanimitas* is essential: that she bore the torch of hope where it was dimmest and stood as a promontory and stilled the tumultuous seas about her. Her contributions to medicine and humanity are recognized through the recently renamed Perl Osler Student Society at the University of Texas Medical Branch at Galveston.

Learning objectives:

1. Examine the meaning and clinical significance of Osler's *Aequanimitas*.
2. Discuss the historical context and work of Dr. Perl, in relation to Oslerian principles of medicine.
3. Explore the legacy of Dr. Perl, the role of moral distress, and modern-day applications of *Aequanimitas* in clinical practice.

Dr. Dossibai Patell: A Pioneer of British and Indian Medicine

Yash Ramgopal

Yash Ramgopal is a second-year medical student at the University of Texas Medical Branch, Galveston. Yash graduated with a BS in Quantitative Sciences (with a concentration in Biology) from Emory University, where he was inducted into the 100 Senior Honorary which recognizes the top 100 seniors for their service to the Emory community. At last year's AOS conference, he presented a biography of a trailblazer of Indian medicine – Dr. Anandi Gopal Joshi.

"Live neither in the past nor in the future, but let each day's work absorb your entire energies and satisfy your widest ambition" Sir William Osler

Ever since its inception in 1800, the Royal College of Surgeons (RCS) of England has been at the forefront of surgical care in the UK and beyond. In the last 200 years, RCS has taken great strides to advance diversity and inclusion by promoting gender equality and anti-racism. One of its most influential members, who built the foundation for future generations, was a physician of Indian origin – Dr. Dossibai Patell (1881-1960). As she constantly challenged 20th century norms for women in medicine, Dr. Patell was able to "satisfy her widest ambition" by being the first of many, including the first woman to be a member of the Royal College of Surgeons.

Dossibai Patell, later known as Dossibai Ratenshaw Dadabhoy, was born in 1881 to a wealthy Parsi family in Bombay. At a time when India was suffering from a growing patriarchal society coupled with British policies that prohibited Indian women from gaining an education, Dr. Patell had a strong support system that enabled her to travel abroad and finish her MBBS at the University of London. While she is most known for being the first woman in the Royal College of Surgeons, her contributions to the development of Indian medicine are often forgotten.

After returning to India in 1912, she began practicing medicine as an obstetrics and gynecology physician. She played a pivotal role in establishing neonatal care that focused on lowering infant mortality – a common occurrence in India at the time due to the lack of quality medical care. One of her greatest achievements is the setting up of maternal welfare centers that additionally tackled the issue of maternal mortality by increasing supervision during pregnancy and delivery. Her research on gynecological malignancies led to the use of radium for the first time in India, opening avenues for potential treatment of different types of tumors.

Although Dr. Anandi Gopalrao Joshi is denoted as the first woman to become a physician in India, Dr. Dossibai Patell's revolutionizing contributions to British and Indian medicine have led her to gain the Most Excellent Order of the British Empire (MBE). She challenged the status quo every step of the way and displayed several Oslerian principles throughout her lifetime that have undoubtedly paved the way for her successors.

Learning objectives:
1. Describe the significance of Dr. Patell's efforts in establishing gynecological care in India.
2. Explain the role that Dr. Patell played in promoting diversity in professional organizations.
3. Draw similarities between Sir William Osler's ideals and Dr. Patell's life experiences.

The Harvey Cushing Stamp and John Singer Sargent- Medicine and Art

Alice Rhoton-Vlasak

Dr. Alice Rhoton grew up in Gainesville, FL, and is currently a Professor in the Department of Obstetrics and Gynecology at the University of Florida. Through a chance meeting at an annual summer family reunion, Alice met Dr John Carson who helped spark her interest in medical history and the Osler Society. It has been a thrill to learn about Osler and his impact on our lives as medical providers.

The Harvey Cushing stamp highlights the intersection between art and medicine. The postmaster general dedicated the Harvey Cushing postal stamp, as part of the Great Americans Series, June 17,1988 at the Amasa Stone Chapel in Cleveland, Ohio. The location for the dedication was chosen as the birthplace of Cushing in Cleveland Ohio. The stamp was unveiled on April 8, 1987, in a ceremony held in the Rose Garden at the White house in which president Ronald Reagan marked this ceremony. The White House ceremony included Cushing's 1 remaining living child Betsy, now Mrs. John Hay Whitney, and a large group of invited neurosurgeons.

The 45-cent stamp image of Cushing was created by artist Bradbury Thompson, based on the design of a charcoal portrait by John Singer Sargent. The original charcoal print was completed in 1916 and hangs in the Yale Medical library. Dr. Frank Netter, another famous medical artist and illustrator, also completed a portrait of Harvey Cushing. Cushing was recognized as the father of Neurosurgery, and the first to use x-rays and blood pressure readings during operations. He was also among the first surgeons to operate on the pituitary gland and eventually led to the discovery of Cushing syndrome. In 1906, John Singer Sargent was commissioned and completed a portrait of Cushing's mentor, Sir Williams Osler, and colleagues. The painting of the Four Doctors was of the lead teaching physicians of the Johns Hopkins School of Medicine. They were Dr. William H Welch, the first Dean of the school, Dr. William Osler, Dr. William S Halsted, and Dr. Howard Kelly. The portrait took a year to complete and has interesting details.

John Singer Sargent was from American parents but was born in Florence and spent the majority of his life in Europe. Over his career he did many portraits, landscapes, figure studies, river scenes and still lifes. Sargent composed other paintings that included references to an influenza outbreak during the war and women wearing mosquito nets as protection from mosquito borne diseases. Both Cushing and Sargent were talented artists and exploring their connection highlights the importance of art in medicine as a unique medium to explore the skill of observation and document medical knowledge and history.

Learning Objectives:

1. To highlight the art and history of the Harvey Cushing stamp
2. To consider the connection between non-medical art and its portrayal of medical events
3. To explore how the career of John Singer Sargent overlapped with the lives of Harvey Cushing and Sir Williams Osler

Resilient Practice, Timeless Teaching: The Interplay of Frontier Medicine and Oslerian Principles in Shaping Medical Pedagogy

Christopher Richter

Christopher Richter is a second-year medical student at the University of Texas Medical Branch and an esteemed Hamman Foundation Scholar. He graduated summa cum laude and Tau Beta Pi from Texas A&M University with a B.S. in Biomedical Engineering.

The late 19th and early 20th centuries in the Midwest of the United States witnessed a distinct evolution of medical practice. With contemporary foresight, these changes were undoubtedly necessitated by the unprecedented isolation and challenging conditions of frontier life. Physicians of this environment operated with a marked scarcity of resources – both in terms of medical literature and peer collaboration. Paradoxically, these conditions cultivated a distinct medical resilience honed by acute observational skills, adaptability, and a reliance on empirical knowledge.

Simultaneously, Sir William Osler, widely recognized as a pioneer and luminary in the field of medicine, was advocating for a monumental shift in medical education. His pedagogical approach emphasized experiential learning practices that regard bedside teaching as the quintessential learning environment for medical students. Osler's philosophy, defined in his belief that medicine's study without patients is incomplete, echoes the practical necessities of frontier medicine.

At this intersection in history, a previously unexplored interplay between the exigencies of frontier medicine and the Oslerian principles is ripe for dissection. By examining Osler's writings and contrasting them with primary accounts of frontier medical practices, a detailed analysis reveals a shared emphasis on experiential learning. Despite the stark differences in their settings, both domains align in advocating for hands-on experience as a cornerstone of medical knowledge.

In synthesizing insights from the practice of frontier medicine and Osler's educational advancements, this study highlights the timeless value of experiential learning in medicine. It suggests that patient interaction and hands-on learning remain at the core of medical practice, unchanged, despite the swift advancement of medical science and specialization. This belief, bolstered by the seminal contributions of Sir William Osler and the tribulated physicians of frontier medicine, has withstood the test of time and remains a fundamental principle of modern medical education and practice.

Learning objectives:
1. Analyze the unique medical practices and resourcefulness necessitated by the isolation of frontier medicine in the Midwest during the late 19th and early 20th centuries.
2. Evaluate the synergies and divergences between Sir William Osler's philosophy of medical education and the empirical, hands-on approaches employed by physicians in the Midwest frontier.
3. Assess the impact of direct patient care and experiential learning from historical and modern perspectives, highlighting their significance in shaping current medical education and clinical practice.

Dr. Fe del Mundo: The Angel of Santo Tomas

Danielle Rogan

Danielle Rogan is a rising fourth-year medical student at the University of Texas Medical Branch in Galveston, Texas, currently on a research year. She graduated from Austin College her Bachelor's in Biochemistry. She is a classically trained violinist and incorporates her love for the arts with her passion for medicine. She is a founder of the Filipino Medical Student Association at UTMB and hopes to encourage more Filipino students to become physicians.

Dr. Fe Villanueva del Mundo was a Filipina pediatrician and healer who revolutionized international pediatric medicine and pediatric healthcare in the Philippines. After graduating top of her class at the University of the Philippines in 1933, she came to the United States in 1936 to complete training in pediatrics at Harvard Medical School, University of Chicago, Johns Hopkins Hospital, and various institutions to round out her training in pediatrics and infectious disease.

Dr. Del Mundo returned to the Philippines in 1941, shortly before the Japanese invasion of the country. At that time, she joined the International Red Cross, caring for child-internees detained at the University of Santo Tomas internment camp. Her work there led her to be known as "The Angel of Santo Tomas," where she not only provided pediatric care, but worked as a healer after she set up a makeshift hospice within the internment camp. After the war, she became the head of the Department of Pediatrics at Far Eastern University, where she founded the Children's Medical Center Foundation in 1957.

Eventually, she desired to establish a pediatric hospital in the Philippines as there was none at the time. With a loan from the government and the sale of her home and most of her personal belongings, the Childrens Medical Center in Quezon City became the first pediatric hospital in the Philippines in 1957. With the establishment of the Institute of Maternal and Child Health in 1966, it became the first of its kind in all of Asia. She became the first female president of the Philippine Pediatric Society and the first Asian to become president of the Medical Woman's International Association. Devoting her life to medicine, Dr. Fe del Mundo lived on the second floor of her hospital the rest of her life and was rumored to continue making early morning rounds until her death at 99 years old.

While Sir William Osler is often called the father of modern medicine for his teachings and his approach to patient care, Dr. Fe del Mundo is often regarded as the mother of the modern pediatric healthcare system in the Philippines and the Eastern World. Both physicians strove to heal with compassion and make a change where they noticed their help was needed.

Learning objectives:

1. Outline a brief account of Dr. Fe del Mundo's life and devotion to her patients.
2. Discuss the lasting impact Dr. Fe del Mundo had not only on the world's healthcare stage, but also how she revolutionized Filipino pediatric medicine.
3. Highlight Dr. Fe del Mundo's application and adherence of Oslerian principles not only as a physician, but also as a healer.

Leonard Rowntree, Louis Wilson, Fielding Garrison, and the Origins of Teaching Medical History at the Mayo Clinic

Nathaniel P. Rogers Jr. and Christopher J. Boes

Nathaniel Rogers is an intern in internal medicine at the Mayo Clinic in Rochester, MN. He will continue there as a neurology resident. He attended Tulane University School of Medicine, Johns Hopkins Bloomberg School of Public Health, and the University of Virginia, where he majored in history.

A visiting surgeon described his disappointment with the one aspect of the Mayo Clinic in 1914, stating there was "the almost lack of anything that could be dignified by the term 'lecture.'" One year later, the antecedent to the Mayo Clinic School of Graduate Medical Education, the Mayo Foundation for Medical Education and Research, was founded with the goal of elevating the standard of residency training. With it came the development of a lecture-based curriculum and rigorous oral examinations of the "fellows" (the equivalent to today's residents).

In 1917, the Foundation declared History of Medicine a graduate level subject. The administration decided a "general knowledge of the history of medicine [would] be expected of candidates for the graduate degree in medicine," and Garrison's *History of Medicine* was suggested reading. By 1920, the committee overseeing graduate medical education decided to include history of medicine questions in the final oral examinations given to prospective graduates. In 1920 and 1921, there were several lectures given on historical topics, however, these lectures petered out, and there were no historical lectures as part of the official curriculum in 1923 or 1924.

Enter Leonard Rowntree, who was hired as the Chief of the Division of Medicine at the Mayo Clinic. In 1926, Rowntree sat on the Mayo Foundation's Medical Graduate Committee, and he used this role to propose a lecture series on the history of medicine. This was not a lecture series to be taught by local faculty, but rather, Rowntree's goal was to host distinguished speakers from around the world to deliver papers that Rowntree hoped to ultimately publish in a bound volume. After securing committee approval, Rowntree wrote to Fielding Garrison in early 1927 to ask for assistance in selecting speakers for what he hoped would be a 4-5 year lecture series. The two men corresponded and developed a list of eminent speakers to invite. Many of those men, including Sir Charles Ballance, William Welch, and Garrison himself, ultimately came to the Mayo Clinic to lecture on various medical history topics over the ensuing years.

These lectures served to enrich the greater midwestern medical community as well thanks to Louis Wilson. Then head of the Mayo Foundation, Wilson wrote to nearby institutions such as the Universities of Iowa, Wisconsin, and Minnesota as well as Northwestern in order to set up a lecture circuit for these speakers who traveled to the Mayo Clinic to lecture. Ultimately, the lectures were published as a book in 1933 with a forward written by Louis Wilson.

Learning Objectives:
1. Describe the contributions of Rowntree and Wilson to teaching the history of medicine.
2. Discuss the correspondence on speaker choice between Rowntree and Garrison.
3. List the speakers invited to lecture and their topics.

The Glass Stethoscope

Milton G. Roxanas

Milton Roxanas is a retired Associate Professor of Psychiatry in the University of Sydney with an interest in medical history and Osler.

Medicine did not have an objective method of diagnosing illness prior to the discovery of the stethoscope. It was out of frustration when he was examining an obese patient that René Théophile Hyacinthe Laennec stepped forward towards the students who were observing him in the theatre, took 'three quires of paper' from one, rolled them and went back to listen to the patient. Laennec was surprised at the improved clarity of the sounds and he named the instrument "stethoscope"- coming from the Greek, with "stethos" meaning chest and "skope" examination.

There are good reasons why using a monaural, tubular device caught on so quickly. In the nineteenth century, people did not shower or wash daily and were consequently dirty and smelly and some were obese. Furthermore, putting an ear to the chest and breast of a women was embarrassing.
Laennec quickly appreciated the improved auscultation with a stethoscope as it lessened the external noise and highlighted the internal sounds. Laennec was a good wood turner and gave a wooden stethoscope with every copy of his book "De l'auscultation mediate ou traite du diagnotic des maladie…". The stethoscope allowed Laennec to diagnose many lung conditions such as bronchitis, lobar pneumonia etc.

Stethoscopes were made out of paper, wood, glass, ivory but the glass stethoscope is worthy of mention because it was more aesthetic but fragile and I suspect only used in an office because of its fragility and size. In contradistinction the wooden was carried by the physician to the patient and the small detachable monaural stethoscope, with screwable ends, was carried in the top hat. The author could only find three glass stethoscopes in the world, one is in the museum of the Royal College of Physicians in London. It has a short stem and was used in obstetrics and the author was able to acquire two others which have been donated to the Osler Library at McGill University. A literature search in the internet did not find any other examples. Glass stethoscopes were sometimes called epidemic stethoscopes because of the distance they interposed between patient and examiner or pauper's stethoscopes as they were use in public clinics.

One wonders what Osler would have thought if he saw glass stethoscopes, though there is no evidence that he saw any. He gave his monaural stethoscopes to McGill and he was known to prefer using the binaural stethoscope designed by G P Cammann of New York in 1852.

Learning objectives:
1. Describe how the stethoscope was discovered.
2. What social factors helped its propagation.
3. How does the glass stethoscope compare with other stethoscopes.

William Osler and His Views on Medical Hypnotism (Hypnosis)

George Sarka

George Sarka is the Past President, Current Secretary and Division Head of Medical History Section of the California Neurological Society; Multispecialist/Internist at CSUN; Attending Staff in Rheumatology at CSMC; former Associate Clinical Professor of Medicine at UCLA; CME Director of SMMC; Past Governor of the ACP, Past President of the LA Neurological Society, and a Diplomate in ten subspecialties. He received his MDCM from McGill University in 1980, MPH/DrPH from UCLA in 2003/2013.

Hypnotism (Hypnosis) is defined as "*the act of putting someone into a mental state like sleep in which their thoughts can be easily influenced by someone else*." (source: Cambridge Dictionary)

William Osler while Professor of Medicine at the Johns Hopkins University presented a speech to the Johns Hopkins Historical Club on "*Medicine in the Nineteenth Century."* As both a physician and medical historian, he commented on the emerging field of hypnotism at the conclusion of the last section, *"the New School of Medicine."* Osler's address on this subject warrants review for his historical acumen, medical analysis and opinion on this subject.

He credits Franz Anton Mesmer with the introduction of hypnotism using former-related terms such as animal magnetism and mesmerism. Osler discusses the first careful study of hypnotism by James Braid, a surgeon in Manchester, England who introduced the terms of "*hypnotism, hypnotic, and nervous sleep*." Osler then discusses the use of hypnotism in clinical practice by the Anglo-Indian surgeon, James Esdaile who performed 261 surgical operations in a state of hypnotic unconsciousness. He gives credit and homage to Charcot and Bernheim for advancing this field.

Osler does highlight that "*hypnotism has been found to be of little use in organic disease but may be helpful in cases of hysteria, certain functional spasmodic afflictions of the nervous system, vicious habits of childhood, victims of alcohol and drugs, labor pains and surgical operations."* Overall, Osler views hypnotism as a valuable agent only in a few cases and that it has not fulfilled the void promised by other supporters. He also commented that hypnotism is not without risks and should never be performed without a third person present. He ends his discussion with stating that "*its indiscriminant employment by ignorant persons should be prevented by law."*

Was Osler correct? His medical historical references were accurate with some omissions like Elliotson, Prince, Mason, Quackenbos, etc. He was correct about stating that the claims for hypnotism were "*grossly exaggerated*." However, Osler was open-minded for potential applications of hypnotism as cited above in this abstract. These applications were reasonable, inciteful and valid with today's use of hypnosis. Finally, Osler's comments on hypnotism represent another example why this polymath was so ahead of his time, a bellwether for modern medicine and psychiatry and impeccable sense of judgment.

Learning objectives:
1. Expand the participant's knowledge of Osler's rarely known comments on hypnotism
2. Highlight the importance of Osler as a medical historian with emerging therapy of hypnotism in medicine.

The Royal Humane Society's Receiving Houses: Early Modern Emergency Rooms?

Katarina Sawtelle

Dr. Sawtelle is a practicing anesthesiologist and a degree candidate in the online History of Medicine Program at Johns Hopkins.

What makes an emergency room? Is it the dedicated space, the trained personnel, the medical equipment, the critically ill patients and worried families? Is it all of these? From its inception in 1774, the Royal Humane Society (RHS) recognized the need for a specialized environment for the resuscitation of the apparently dead by drowning. Initially, victims were transported to the closest home or public house, with rewards for admittance and cooperation. Medical Assistants were provided with the necessary resuscitation equipment, and protocols were posted in strategic locations. By the time of the 1776 Regatta on the Thames, "receiving houses" had been designated along the rivers and near waterways. In a letter to King and Parliament in 1782, the RHS proposed the establishment of a receiving house in each parish, to be paid for by taxes and housing a recent medical graduate interested in resuscitation. While their proposal was not adopted, by 1819, the Society had engaged a medical assistant to be physically present during peak swimming and skating seasons at their receiving house in Hyde Park. The Society's receiving houses predate Britain's Accident and Emergency System. While the history of the Royal Humane Society is well known, their insistence on identified facilities for the treatment of emergency victims has been underappreciated. Using the minutes and publications of the RHS, I examine the Society's manipulation of the physical environment to maximize the efficacy of resuscitation attempts.

Learning objectives:
1. Examine the Royal Humane Society's transformation of public spaces into proto-emergency rooms
2. Evaluate early modern public-private partnerships in public health
3. Examine the use of primary source materials in historical arguments

Health Care Burnout: Historical Lessons from the Personal Life of Florence Nightingale

Katherine "Nikki" Sheffield

Nikki Sheffield is a first-year medical student at UTMB in Galveston, Texas interested in psychiatry, neurology, and trauma-informed care. A previous yoga teacher, she is dedicated to teaching others about mental, emotional, and physical wellness.

Page after Page of history is devoted to the stories of dedicated individuals who revolutionized the field of medicine. A surprising number of these stories end with the person having a breakdown to the ruination of their personal life, the cost of their professional dedication. And yet, considering today's burnout rates among health care professionals, is it that surprising?

"And yet my present life is suicide…" By her own words written in 1850 at age 30, Florence Nightingale (1820-1910) was one such individual. A contemporary of Osler (1849-1919), their paths never seemed to cross. Known for revolutionizing the field of nursing, Nightingale experienced mental and emotional difficulties from childhood, was prone to overworking, and experienced multiple breakdowns, the last of which at age 37 left her invalid for the remainder of her life (50+ years). What follows is a reflection on Nightingale's personal mental, emotional, and physical health through personal writings and biographies.

Nightingale's life can be separated into chapters culminating in major events: her call to nursing, the start of her training, her work in the Crimean War, and her return home. Each of these moments marks a pivotal juncture of her life. Yet, upon study of her personal health, the transition leading up to each of these moments is marked with tremendous turmoil. An emotionally tumultuous child, "strange…miserable…violent," she grew up to hear God's voice calling her to pursue nursing at age 17 in 1837. Before nurse training in 1850, in 1849 at age 29, her "mental and physical state were pitiable. She was far from well and fainted on several occasions."

Nursing provided a healthy outlet for Nightingale, and she mentally and emotionally stabilized. In 1854, leading a team of nurses, she arrived in an occupied war zone and proceeded to work long hours. While not uncommon during war, a friend wrote home noting, "Flo has been working herself to death, never sits down to breakfast or dinner…the attempt to do more will kill her." In summer 1855, she fell ill for weeks with fever and almost died. In fall 1856, she returned home from Crimea as a national heroine and continued to overwork. She collapsed again in fall 1857 to spend the rest of her life "as an invalid."

There is no question Nightingale's professional life impacted the world. It also detrimentally impacted her personal life. Understanding the interaction between the professional and personal lives of historical figures can inform our current search for solutions to burnout.

Learning objectives
1. Examine personal writings and family-sanctioned biographies of Florence Nightingale.
2. Discuss the mental, emotional, and physical health of Nightingale through these writings.
3. Evaluate Nightingale's life for vulnerabilities that relate to contemporaneous burnout.

The "Venery" of Venereal Disease: Tracing the Evolving Moral Landscape of STI Public Health Art Through the 20th Century

Bethany Snyder, Samira Ali Shorey, Simon Longhi

Bethany Snyder is a third-year medical student at the University of Kansas School of Medicine. She aspires to become a physician who practices the art of medicine through a historical lens, especially with respect to race, sexuality, and gender. She is a recipient of the 2022 Clendening and King Fellowship.

Public health initiatives intended to prevent the spread of sexually transmitted infections (STIs) have contained concealed (and sometimes explicit) moral agendas related to gender and sexuality, which both reflected and influenced perceptions of those afflicted at the time. Artistic and historical analysis of poster campaigns regarding STIs in the United States from the early 1900s to the 1990s reflects that existing social fears and stigma were capitalized on to gain social control throughout this time period. One of the central findings of this analysis was that the main target of STI reduction efforts shifted with the primary moral crisis of that time. The post-WWI target was sex workers, during WWII the target was civilian White women, during the 1970s the target was wealthy White people, and during the 1980s/AIDS epidemic the target was the Queer community. Studying historical STI campaigns and synthesizing contemporary data on STI prevention also allows for the compilation of the ideal STI prevention poster design criteria, which includes effective use of race and culture, condom promotion, PrEP promotion, and focused efforts to reach disproportionately affected demographics, such as men who have sex with men (MSM) and injection drug users (IDUs). STIs are a persistent and multifaceted public health issue, but one way we can effectively combat them is with visual art campaigns, as seen in the 1980s.

Learning objectives:
1. Analyze historical poster campaigns related to STI reduction.
2. Identify the main target of STI reduction efforts as they shifted with the moral crises.
3. Formulate the ideal modern STI prevention poster design.

Medical Representation in Military Depictions of the Combat Art Programs: a Focus on Neurological & Neurosurgical Subjects

Michael P.H. Stanley

Dr. Stanley is a neurologist with an especial interest in the history, ethics, and humanities of his field. In addition to his writings and features in the lay press, he is a board member at large for the AOS and directs its social media presence. He is currently working on a collection of medical trainee poetry on behalf of our Society. Dr. Stanley is extremely proud of being able to support and foster a growing grassroots movement amongst neurology residency programs across the country for engaging with the "neuro-humanities."

Artists have been embedded in American military operations since at least World War I, when eight artists were made corporals in the Army and sent to the front with the express purpose of documenting and representing the American Expeditionary Forces. In World War II, the Army Corp of Engineers established a War Art Unit in 1942, which deployed both military and civilian artists to the European and Pacific Theaters, but discontinued in 1943, after federal funds were withheld for the project. Filling the void, *Life Magazine* and Abbott Laboratories independently developed civilian art programs to provide depictions of military life and battle. *Life Magazine's* seventeen artists were afforded war correspondent status and support by the War Department. Abbott's programmed worked specifically with the Medical Corps of the military branches to depict their operations. Well over 1000 of works of art were produced by *Life* and Abbott's programs and later donated to various divisions in the Army, Navy, Marines, Air Force, forming the core constituents of collections that to this day number in the tens of thousands. This continued expansion of the collections is not from outsider donations, but principally from the military's own art combat programs that continue to deploy artists alongside military forces.

While there have been limited exhibitions and occasional articles featuring these collections and programs in the military literature and programming, the focus on the medical representations of neurological and neurosurgical subjects found across these collections has not been closely considered as contributions to the form of 'genre painting.' I searched the indices provided by the archives and historical centers overseeing the military branches' independent art collections and identified photographic copies of the works depicting neurological and neurosurgical subjects. Many depictions are not the central to the artwork's subject. Others depict unusual or infrequently illustrated activities, procedures, equipment, injuries, or treatments for the public. This presentation uses examples of the art and stories of its artists to emphasize and explore why support for such activities began and continues in the US, and additionally, how art uniquely captures some elements of intersection of War & Medicine. Artwork not only chronicles but opines; it educates but also propagandizes. An important observation is examining the way representation of faces in war and in medicine have diversified over time (a need shared by both medicine and the military), while the core virtues of their efforts persevere unchanged.

Learning objectives:
1. Learn about the origins of the military and civilian art programs embedded in US War activities
2. Understand the ways in which art is used in military depiction and its effect on medical representation
3. Appreciate the diversity of people and experiences represented in these artworks overtime.

Howard A. Knox and the PHS: How Intelligence Testing Highlights the Bias in the Medical Inspection on Ellis Island

Carine A. Tabak

Carine Tabak is a third-year medical student at the University of Kansas School of Medicine with an interest in internal medicine. She developed her enthusiasm for medical humanities while researching immigration screening as a Clendening Fellow. She hopes to continue to explore this side of medicine throughout her career.

In the early twentieth century, the United States received an unprecedented number of immigrants. Over twenty-seven million people entered the country between 1870 and 1915. In response, the Public Health Services (PHS) implemented immigrant health screening in 1892 in the setting of a changing economic and political climate. The Ellis Island Immigration Center served as the largest screening facility in the U.S., with nearly twelve million immigrants passing through its doors. PHS physicians examined incoming immigrants to look for signs of infection, disability, or chronic disease with the responsibility to screen out individuals who might become dependent in some way on the state.

At first, a literacy test served as the psychological portion of the screening. But mental examination of immigrants became a topic of debate in public health with the rising popularity of the eugenics movement in the 1900s. Eugenicists believed that most human qualities were hereditary and that one's ancestral "stock" impacted behavior and intelligence. They argued that it was the state's responsibility to maintain the genetic quality of the nation by restricting the entry of "constitutionally inferior" immigrants. Testing subsequently changed from simple quizzing in the inspection line to the intense examination of logic and mathematical competency. Howard A. Knox, a PHS physician, spearheaded this new form of intelligence testing, where emphasis was laid on reasoning instead of language-based evaluation. A careful examination of Knox's tests show how they left space for personal interpretation and prejudice, thereby helping to scientifically "validate" eugenicists' belief in a racial hierarchy of ability.

In this context, intelligence testing at Ellis Island uniquely highlights the bias in the health screening of immigrants. The examination became a tool used to discriminate against certain races and religions. It is important to recognize that physicians, such as Knox and the PHS, used the authority of medicine to justify the exclusion of immigrants. The evaluation became a reflection of the social beliefs on immigration at the time and was distanced from its conventional medical intentions.

Learning objectives:
1. To discuss the role of the health inspection and the PHS in U.S. immigration policy
2. To understand how the health screening of immigrants came to serve eugenic objectives
3. To examine how subjective testing permitted the expression of bias in medical evaluation

Ben Weinstein, M.D. and his Legacy of an Enduring History of Medicine Society

Michael C. Trotter

Dr. Trotter received his undergraduate and medical degrees from the University of Tennessee and the Bowman Gray School of Medicine. He trained in surgery and cardiothoracic surgery at the University of Alabama at Birmingham and the Ochsner Clinic. He is retired and lives in Houma, Louisiana.

Benjamin Bernard Weinstein was a native New Orleanian and received his undergraduate and medical degrees (1933 and 1937) from Tulane University. Following an internship, he joined Tulane's faculty, taught gross anatomy, and received a master's degree in gynecology. He left the faculty in 1953 at the rank of Associate Professor and Senior Visiting Surgeon and went into the private practice of obstetrics and gynecology with a special interest in fertility and sterility.

Throughout his professional life, Weinstein was dedicated to sharing and disseminating information, experiences, and new techniques with colleagues world-wide. As such, he was a founding member of two major international specialty societies and was frequently a Distinguished Lecturer, Honorary Professor, or Honorary Member across the globe. His professional publications were numerous, and he served on multiple editorial boards.

But his passion was the Tulane History of Medicine Society. As an undergraduate, Weinstein's interests included poetry, literature, art, and music, and he became a bibliophile. When he discovered there was no group devoted to medical history in 1933, he founded the History of Medicine Society. He would become its guiding force and benefactor. In 1952, the B. Bernard Weinstein Lectureship was established by the Society. The long list of distinguished speakers includes physicians and historians such as Henry Sigerist, Alton Ochsner, Owsei Temkin, Chester Burns, Michael DeBakey, and Arthur Guyton. The annual event remains popular among students. The Weinstein Papers in Tulane's Special Collections provide significant insight into the dynamics and mechanics of the Society during his lifetime, and interviews with his children provide witness to his passion for medical history and the medical humanities.

Weinstein died in 1974 at age 61. His wife continued support of the Society, and the children have done likewise following her death. It has evolved to a completely student-run group with five named awards for essay writing and original research in the history of medicine which are given annually. The institution provides a faculty advisor and allows time and space for a history of medicine winter elective with guest lecturers. Interestingly, the group maintains a long-standing local presence but tends to be isolationist with regard to student involvement in the larger history of medicine community in the country despite awareness. The reason for this is unclear other than time and career stage. Therefore, the challenge for mentors, particularly volunteer mentors, is to provide access to opportunities to connect and facilitate engagement with the larger community. The AOS provides such opportunities and is actively involved in this effort. However, "you can lead a horse to water, but …"

Weinstein's legacy of an enriched life through the study and knowledge of the history of medicine continues through the Society. Further conversations on wider engagement may be beneficial.

Learning objectives:
1. Contrast medical student exposure to medical history in the mid-20th century and today.
2. Discuss the evolution of one of the oldest history of medicine societies in the U.S.
3. Examine the organizational dynamics and future ramifications of student medical history groups in the context of medical student education.

Who is the Father of Anesthesia?

Mary M. Weaver

Mary Madison Weaver is third-year medical student at John Sealy School of Medicine at the University of Texas Medical Branch in Galveston, Texas. Mary Madison graduated from Indiana Wesleyan University with a Bachelor of Science in Nursing with an Honors Humanities major as a John Wesley Honors College Scholar. Prior to medical school, she worked in critical care and emergency nursing at Parkland Memorial Hospital in Dallas, Texas.

In his 1913 lecture series "The Evolution of Modern Medicine" given at Yale University, Sir William Osler celebrated the discovery of inhaled anesthesia declaring that "no more precious boon has ever been granted to suffering humanity." Although the breakthrough proved monumental for the history of medicine, controversy surrounded who deserved recognition for what Osler described as "a discovery of supreme importance." During his lecture, Osler named two participants central to the debate: William T. G. Morton and Crawford W. Long.

William Thomas Green Morton (1819-1868) was attending Harvard Medical School and working as a dentist when he utilized inhaled sulfuric ether during a tooth extraction on September 30, 1846. On October 16, 1846 at Massachusetts General Hospital, Morton effectively administered the vapor during a public tumor removal performed by surgeon John Collins Warren. The medical world buzzed regarding the successful demonstration, which became designated "Ether Day." After the display, Morton struggled in his attempt to monetize and maintain recognition as others sought to claim the discovery as their own.

One such competitor, Crawford Williamson Long (1815-1876), a medical graduate of the University of Pennsylvania, petitioned the Georgia Medical and Surgical Association in 1852 to investigate the rights to the discovery. He attested to first using sulfuric ether vapor during surgical removal of neck tumors on March 30, 1842. He blamed his publication hesitancy on a desire to increase his patient cases and to use the vapor on a "severer surgical operation."

While speaking at Yale University, Osler acknowledged contributions made by Long and Morton – that Long implemented the vapor in practice before Morton showcased its effect in public. Osler recognized the roles of both men but avoided designating ownership of the discovery of inhaled anesthesia. He actually determined the difference of their value as inconsequential when he stated, "The rival claims of priority no longer interest us." Osler, rather, focused attention on the impact of inhaled anesthesia on the medical community and the world. Today, October 16th continues to be celebrated as World Anesthesia Day.

Learning objectives:

1. Discuss Osler's perspective on the significance of the discovery of inhaled anesthesia.
2. Discuss the contributions of William Morton and Crawford Long related to inhaled anesthesia.
3. Explain the significance of Ether Day.

Janet M. Vaughan, D.B.E., A 20th Century Pioneering Woman Hematopathologist: How Lady Osler Influenced Her Career

David J. Wolf

David J. Wolf, M.D. is a retired clinical hematologist/medical oncologist and antiquarian medical book collector who volunteers at the Weill Cornell, New York-Presbyterian Hospital Medical Center Archives. As a Fellow of the New York Academy of Medicine, he sits on the Section for the History of Medicine Executive Committee.

Upon acquiring a copy of *The Anaemias,* authored by Janet Vaughn (1899-1993) and published in 1936, I noticed a presentation inscription to Dr. George Richards Minot, an inscription by Dr. Minot after receiving the copy, and an inscription in an unknown hand indicating that Janet Vaughn had been principal of Somerville College, Oxford and related to Virgina Woolf. These inscriptions serve as the genesis of my presentation which describes Dr. Janet Vaughn's extraordinary life, family background, vivacious personality, relationship with both Virginia Woolf and Dr. George Minot (awarded the 1934 Nobel prize in medicine), and how Lady Osler influenced her career by facilitating her acceptance in 1929 as a visiting fellow at the Thorndike Memorial Laboratory in Boston. Dr. Vaughan went on to become a pioneering woman hematopathologist and social activist at a time when the medical profession did not welcome or respect women. This presentation describes how Dr. Vaughan established and directed the Emergency Blood Transfusion Service during the London blitz, traveled in 1945 to the liberated German Belsen concentration camp to research how to best refeed the starving emaciated internees, and after WWII became Principal of Somerville where during her tenure Margaet Thatcher attended as a chemistry major. As Principal, Dr. Vaughan continued to perform laboratory research on the metabolism of bone-seeking radioisotopes, to participate on governmental committees to restructure the British healthcare system and medical education, and to advocate for social justice for women and the poor. In 1957 she was named a Dame of the British Empire, and at age 80 was elected a Fellow of the Royal Society. In 1984 Dr. Vaughan was featured as one of 6 women in the BBC series entitled *Women of Our Century.*

Learning objectives:
1. Learn how academic medicine discriminated against women during the 20th century.
2. Learn how William Osler’s reputation posthumously jump-started Dr. Vaughan’s physician-scientist career.
3. Appreciate how an extraordinary woman managed a very successful career, raised children, and advocated for social justice throughout her life.

Necessity is the Mother of Invention: William Stewart Halsted's Addiction and its Influence on the Development of Residency Training in America

James R. Wright

Jim Wright received his MD, PhD (Experimental Pathology), and MA (Medical History) degrees from The Ohio State University and was the recipient of the AAHM William Osler Medal in 1984. After completing a residency in anatomical pathology and post-doctoral research training at Washington University in St. Louis, he moved to Dalhousie University in Halifax, Nova Scotia where he worked as a pediatric pathologist, established an active research laboratory doing experimental pancreatic islet transplantation, and was Professor of Pathology, Surgery, and Biomedical Engineering. In 2005, he moved to the University of Calgary as Head of Pathology & Laboratory Medicine, and after completing two terms, is now Professor Emeritus.

William Stewart Halsted greatly shaped surgical practice in the 20th century. Perhaps his most important and lasting contribution was educational. Halsted developed a novel residency training program while at Johns Hopkins Hospital that trained many surgical leaders in the United States. This training program, with some modifications, became the model for surgical and medical residency training in North America. Halsted's surgical career is usually divided into his early New York City years and his later Baltimore years. As a young surgeon in New York, he was a highly skilled, bold, fast, and daring surgeon who was charismatic and sociable; in Baltimore, he was a slow and meticulous "physiological" surgeon who was a recluse. Between these two periods, Halsted and some colleagues accidentally became addicted to cocaine, when in late 1884 they, became aware that cocaine could be used as local anesthesia and experimented upon themselves. Halsted's New York City career rapidly deteriorated and he was soon addicted to morphine which he used to control his cocaine addiction. Halsted rehabilitated himself doing innovative experimental surgery on dogs at Johns Hopkins, where, aided by hiding his continuing addiction, he was eventually appointed its first surgeon-in-chief and professor of surgery. Here, he designed and implemented his innovative multi-tier residency training program. Relying extensively upon "nuanced reinterpretation" of known facts and published quotes from Halsted, his former trainees, and other surgical scholars who have written about Halsted, this paper dissects how the program was self-serving and helped him hide his addiction under a veil of eccentricity and a pyramid of residents, while simultaneously optimizing patient care outcomes at Hopkins. Halsted's residency program will be compared and contrasted with surgical training programs in Germany, upon which it was initially modeled, and with 3 other early Hopkins residencies (i.e., those of William Osler, Howard Kelly, and William Welch). The dissemination of the Halsted School by his trainees, and its subsequent evolution into the standard model for residency in North America will be briefly addressed. Because of how the residency model evolved, there should be nothing sacrosanct about reconsidering elements of residency training in the context of the current 21st century environment.

Learning objectives:
1. Compare and contrast Halsted's surgical careers in New York and Baltimore.
2. Explain how Halsted used the innovative multi-tier residency training program he developed at Hopkins to hide his addiction.
3. Compare and contrast Halsted's surgical residency to those of his peers.

An Army Of The (Illustrated) Dead: The Role Of Andreas Vesalius's Skeleton And Muscle Men In Overthrowing Galen As The Emperor Of Anatomy

Yoel Yakobi

Yoel Yakobi is a third-year medical student at McGill University, having previously completed a Bachelor of Arts and Science and a Master of Bioinformatics at the University of Guelph. After his great enjoyment at the 53rd annual American Osler Society conference in London, he was determined to return and, having been accepted to the Molina Foundation Osler Library Medical Student Research Awards with his mentor Dr. Chriscinda Henry, has prepared the following work.

Over the course of his career, Sir William Osler is recorded as having owned nine copies of Andreas Vesalius's anatomical work *De humani corporis fabrica libri septem* – seven copies of the first edition published in 1543 and two copies of the second edition published in 1555. The *Fabrica* was a massive work of human anatomy, comprised of over 700 Pages of text and over 200 woodcuts, most of which were individual torsi and organs but approximately twenty of which were full-body figures depicting skeletons and muscle men. Though Vesalius had many motivations behind the creation of the *Fabrica,* prime among them was his resolution to refute and correct the erroneous descriptions of human anatomy made by Galen, a Greek physician from the second century CE and the predominant source of medical and anatomical knowledge in the Renaissance. Through his own dissections, Vesalius had discovered that over three hundred of Galen's claims corresponded not to the anatomy of humans but to that of apes. Much of the *Fabrica*'s text is dedicated to correcting these inaccuracies, but the woodcuts peppered throughout the work play just as much of a role in refuting Galen's claims and establishing Vesalius as the rightful source of human anatomical knowledge, and they do so in a manner particular to the illustrated medium. By intentionally framing his three skeletons and fourteen muscle men through the artistic traditions of Medieval and Classical times, Vesalius elevates his figures from being mere representations of human anatomy to multifaceted representations of human experience; just as their bones and muscles give the figures human form, their dynamic displays infuse them with the capacity for human thought and emotion. The innate humanness of Vesalius's cadavers was undeniable. In such a way, Vesalius asserts his authority over Galen in the realm of human anatomy; unlike the apish anatomist of old, Vesalius dissected cadavers of men and women with complex lived experiences, heralding his pronouncement as the new Emperor of Anatomy.

Learning objectives:
1. To outline the conflict between Vesalian and Galenic human anatomical tradition.
2. To analyze how the stylistic techniques and artistic inspirations underlying Vesalius's skeletons and muscle men emphasize their innate humanness.
3. To discuss the reception of the skeletons and muscle men by Vesalius's audience via annotations surrounding said illustrations.

Presidents of the American Osler Society

* Deceased

William B. Bean*	1970-1971	Eugene H. Conner*	1997-1998
George T. Harrell*	1971-1972	Richard J. Kahn	1998-1999
Thomas M. Durant*	1972-1973	Dee J. Canale	1999-2000
John P. McGovern*	1973-1974	Mark E. Silverman*	2000-2001
Edward C. Rosenow, Jr.*	1974-1975	John C. Carson*	2001-2002
A. McGehee Harvey*	1975-1976	Lawrence D. Longo*	2002-2003
Raymond D. Pruitt*	1976-1977	Marvin J. Stone	2003-2004
Martin M. Cummings*	1977-1978	Chester R. Burns*	2004-2005
Earl F. Nation*	1978-1979	Claus A. Pierach	2005-2006
Irving A. Beck*	1979-1980	T. Jock Murray	2006-2007
Peter D. Olch*	1980-1981	Francis A. Neelon	2007-2008
William C. Gibson*	1981-1982	Joseph W. Lella*	2008-2009
R. Palmer Howard*	1982-1983	John Noble*	2009-2010
Jeremiah A. Barondess	1983-1984	Charles S. Bryan	2010-2011
K. Garth Huston*	1984-1985	J. Michael Bliss*	2011-2012
William B. Spaulding*	1985-1986	Sandra W. Moss	2012-2013
Charles G. Roland*	1986-1987	Pamela J. Miller	2013-2014
Robert P. Hudson*	1987-1988	Herbert M. Swick	2014-2016
W. Bruce Fye	1988-1989	Paul S. Mueller	2015-2016
Richard L. Golden*	1989-1990	Joseph B. VanderVeer, Jr.	2016-2017
Jack D. Key*	1990-1991	Laurel E. Drevlow	2017-2018
Paul D. Kligfield	1991-1992	Clyde Partin, Jr.	2018-2019
Alvin E. Rodin*	1992-1993	J. Mario Molina	2019-2020
Robert E. Rakel	1993-1994	H. Michael Jones	2020-2021
Kenneth M. Ludmerer	1994-1995	Robert G. Mennel	2021-2022
Charles F. Wooley*	1995-1996	Christopher J. Boes	2022-2023
Billy F. Andrews*	1996-1997	Rolando Del Maestro	2023-2024

Secretaries and Treasurers of the American Osler Society

* Deceased

Year(s)	Treasurer-Historian	Secretary
1971	Alfred R. Henderson*	John P. McGovern*
1972	Alfred R. Henderson*	Edward C. Rosenow, Jr.*
1973	Alfred R. Henderson*	A. McGehee Harvey*
1974	Alfred R. Henderson*	Raymond D. Pruitt*
1975	Alfred R. Henderson*	Martin M. Cummings*
	Secretary-Treasurer	
1976 - 1985	Charles C. Roland*	
1986 - 1989	Jack D. Key*	
1990 - 2000	Lawrence D. Longo*	
2001 - 2009	Charles S. Bryan	
	Treasurer	**Secretary**
2009 - 2012	R. Dennis Bastron	Paul S. Mueller
2012 - 2014	R. Dennis Bastron	
2012 - 2017		Christopher J. Boes
2014 - 2019	C. Joan Richardson	
2017 - 2020		Douglas J. Lanska
2020 - 2021	J. Gordon Frierson	
2020 – 2023		David B. Burkholder
2021 – present	Andrew T. Nadell	
2023 – present		Maria G. Frank

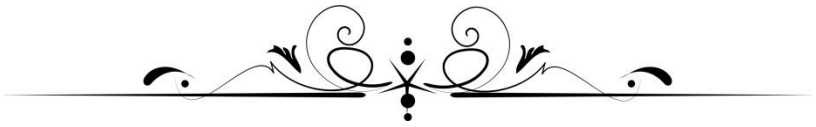
The John P. McGovern Lectureship

1986	Albert Rupert Jonsen	2006	Joseph Jack Fins
1987	Edward Janavel Huth	2007	Abraham Verghese
1988	Joanne Trautmann Banks	2008	Charles E. Rosenberg
1989	John Nicholas Walton	2009	Patrick A. McKee
1990	E. A. Vastyan	2010	Nuala P. Kenny
1991	Daniel Michael Fox	2011	Rosemary A. Stevens
1992	William C. Beck	2012	C. David Naylor
1993	Anne Hudson Jones	2013	Bert Hansen
1994	David Hamilton	2014	Sir Donald Irvine
1995	Sherwin B. Nuland	2015	Rolando Del Maestro
1996	David J. Rothman	2016	Mark G. Dimunation
1997	Roger James Bulger	2017	Carlos del Rio
1998	Paul Potter	2018	K. Patrick Ober
1999	John David Stobo	2019	Marie Wilson
2000	Gert Henry Brieger	2020	No Lecture
2001	Kenneth M. Ludmerer	2021	Jonathan D. Haidt
2002	James K. Cassedy	2022	Jeremy Norman
2003	Sir Richard Doll	2023	Shawna D. Nesbitt
2004	William F. Bynum	2024	Michael Emmett
2005	Karen Hein		

Recipients of the Lifetime Achievement Award

2005	Earl F. Nation
2006	Charles G. Roland
2007	Lawrence D. Longo
2008	Richard L. Golden
2009	W. Bruce Fye
2010	Charles S. Bryan
2011	Michael Bliss
2012	Jeremiah A. Barondess
2013	John C. Carson
2014	T. Jock Murray
2015	Marvin J. Stone
2016	Kenneth M. Ludmerer
2017	Richard J. Kahn
2018	Pamela J. Miller
2019	Joseph W. Lella
2020	Francis A. Neelon
2021	Claus A. Pierach
2022	Herbert M. Swick
2023	Joseph B. VanderVeer, Jr.

Newborn nursery at the original Eleanor Taylor Bell Memorial Hospital – the hospital built in conjunction with University of Kansas Medical Center



The American Osler Society was founded for the purpose of bringing together members of the medical and allied professions who are, by their common inspiration, dedicated to memorialize and perpetuate the just and charitable life, the intellectual resourcefulness, and the ethical example of Sir William Osler (1849-1919). This, for the benefit of succeeding generations, that their motives be ever more sound, that their vision be on ever-broadening horizons, and that they sail not as Sir Thomas Browne's Ark, without oars and without rudder and sails and therefore, without direction.