52nd Annual Meeting
of the
American Osler Society

Ashbel Smith Building (fondly known as "Old Red")
Original UTMB medical school building opened in 1891.

Sunday, April 10th – Wednesday, April 13th, 2022
The San Luis Resort
Galveston, Texas

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of the
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William Osler at a patient's bedside with stethoscope in hand 1903

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Course Objectives

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

- Describe new research findings in the history of medicine.
- Outline the evolution of medicine in a particular disease.
- List professional contributions made by others in medicine.

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

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 17.75 *AMA PRA Category 1 Credit(s)* ™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclosure Information

None of the presenters at this CME activity will discuss any products or services produced, marketed, sold or distributed by an ACCME-defined commercial interest. Therefore, the possibility of a conflict of interest does not exist.

Appreciative Acknowledgements

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Joan Richardson
Barbara Thompson

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*Some donations were carried over from the cancelled 2020 meeting.

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Program Schedule

Sunday, April 10, 2022

1:00 – 5:00 pm	Registration | 3rd floor, Ballroom Foyer
3:30 – 3:45 pm	Board buses for tours Meet at the rear entrance of the hotel
4:00 – 6:00 pm	Tour UTMB Ashbel Smith Building (Old Red) & Truman Blocker, Jr. History of Medicine Collection in the Moody Medical Library
7:00 – 9:00 pm	Board of Governors Meeting | 2nd floor, Elissa

Monday, April 11, 2022

7:00 am – 5:00 pm	Registration | 3rd floor, Ballroom Foyer
7:00 am – 5:00 pm	Art Exhibit | 2nd floor, Windjammer
7:00 – 8:00 am	Continental Breakfast | 3rd floor, Ballroom Foyer
7:45 am	Welcome & Announcements | 3rd floor, Ballroom Robert Mennel, American Osler Society President
	Presentation of latchkey necklace from Past President Mike Jones to President Robert Mennel

Discrimination

Moderator: Robert Mennel | 3rd floor, Ballroom

8:00 am	Deep Run the Roots of Racism in American Medicine, Part I. John Y. Bassett, Osler's "Alabama Student" (Zoom) Richard D. deShazo and Margaret W. Balch (page 24)
8:20 am	Deep Run the Roots of Racism in American Medicine, Part II. Four Racially Biased Physicians Associated with Osler Charles S. Bryan (page 16)
8:40 am	Untold Medical History: Montreal's Days of Shame Lilly Groszman (page 27)
9:00 am	*WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE* Becoming a Doctor, Becoming a Monster: A Graphic Family History of Medical Socialization and Desensitization in Nazi Germany and 2020 America (Zoom) Simone Hasselmo (page 28)

Monday, April 11, 2022 (continued)

9:20 am BREAK | 3rd floor, Ballroom Foyer

Bean Award and Trainee Lectures
David Burkholder | 3rd floor, Ballroom

9:40 am *WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE*
The Kitty Mac Clinic: Origins of Large-Scale Pelvic Cancer Screening and Ancestor of Today's Annual Physical
Drew Davis (page 22)

10:00 am Emanuel Libman: The Life and Legacy of New York City's Legendary Turn of the Century Physician
Priya Dave (page 21)

10:20 am *WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE*
Through the Looking-Glass: Insights from Full Text Analyses of the *Journal of the American Medical Association* and the *New England Journal of Medicine* (Zoom)
Moustafa Abdalla (page 11)

10:40 am Illustrating the Unimaginable: Dissection Scrolls of Edo-Era Japan
Brendan Ross (page 46)

11:00 am *THE JOHN P. MCGOVERN AWARD LECTURESHIP*
Jeremy Norman

12:00 pm LUNCHEON | **2nd** floor, Mainsail

Gray Matters and the Humanities
Moderator: Kelsey Klaas | 3rd floor, Ballroom

1:00 pm Colourful Innovations in Neuropathology: Robert Hooper and the Shift in Portrayal of the Morbid Brain in the Nineteenth Century (Zoom)
Minahil Khan (page 36)

1:20 pm Silas Weir Mitchell and the Treatment of Epilepsy
David B. Burkholder and Christopher J. Boes (page 18)

1:40 pm Harry Lee Parker: Games Lost and Won on the Playing Fields of Neurology
Christopher J. Boes (page 15)

2:00 pm Sir Fredrick Banting's First Paper: Stimulating the Cerebellum
Rolando Del Maestro (page 23)

Monday, April 11, 2022 (continued)

2:20 pm	The Arts of the COVID-19 Pandemic Herbert M. Swick (page 53)
2:40 pm	Exploring the Relationship between Robert Schumann's Bipolar Disorder and His Creative Musical Genius Saman Arfaie, Roe-Min Kok, and Rolando Del Maestro (page 14)
3:00 pm	BREAK | 3rd floor, Ballroom Foyer

"I Still Hear Your Sea Winds Blowing" and Other Texas Topics

Moderator: Joan Richardson | 3rd floor, Ballroom

3:20 pm	Abraham Flexner's Visit to UTMB Galveston Bernard M. Karnath (page 35)
3:40 pm	War on Rats: The Architecture of the Bubonic Plague in Galveston Leonard K. Wang (page 56)
4:00 pm	Townes Van Zandt and the History of Psychiatry at UTMB Galveston Dwight V. Wolf (page 58)
4:20 pm	Yellow Jack! A History of Yellow Fever in Galveston and Walker Counties John C. Cravero (page 20)
4:40 pm	Amos Pollard, M.D. and the Texas Revolution Michael C. Trotter (page 55)
5:00 pm	ADJOURN
5:30 pm	Board buses for reception & banquet Meet at the rear entrance of the hotel
5:45 pm	Depart for The Grand 1894 Opera House
6:00 – 8:30 pm	Reception & Banquet Presidential Address – Robert Mennel
8:45 pm	Board buses to return to San Luis Resort

Program Schedule

Tuesday, April 12, 2022

7:00 am – 5:00 pm	Registration | 3rd floor, Ballroom Foyer
7:00 am – 5:00 pm	Art Exhibit | 2nd floor, Windjammer
7:00 – 8:20 am	Continental Breakfast | 3rd floor, Ballroom Foyer

Osler I

Moderator: Herbert Swick | 3rd floor, Ballroom

8:20 am	Osler Meets Kalidasa: How the Indian Classical Arts Tradition Emphasizes Seizing the Day Pranati Ahuja (page 13)
8:40 am	Did William Osler as a Preacher's Kid and a Scientist Believe in Immortality? Sandra S. Hatch (page 29)
9:00 am	It Grows with the Growth: Learning What Cannot Be Taught Francis A. Neelon (page 42)
9:20 am	Francis Packard on William Osler's Fixed Period Speech – An Unpublished Manuscript R. Hal Scofield (page 49)
9:40 am	Sir William and the "Pervert" (Zoom) Irving Rosen (page 45)
10:00 am	BREAK | 3rd floor, Ballroom Foyer

Osler II

Moderator: Katie Ray | 3rd floor, Ballroom

10:20 am	Previously Undiscovered Letters of Grace Revere Osler Marvin J. Stone and Rob Stone (page 52)
10:40 am	Sir William Osler's Bibliophilic Interest in Bookworms of The Insect and Human Varieties David J. Wolf (page 57)

Tuesday, April 12, 2022 (continued)

11:00 am	Dr. Battle and the "Baron" of Biltmore: An Oslerian Consultation and the Pressure of Practice H. Michael Jones (page 41)
11:20 am	The Proceedings of the Charaka Club (1902-1985) with reference to the contributions of Sir William Osler C. Ronald MacKenzie (page 38)
11:40 am	What was known about childhood diabetes before the discovery of insulin? – William Osler's role in creating and then nullifying historical confusion James R. Wright, Jr. and Lynn McIntyre (page 60)
12:00 pm	LUNCHEON | **2nd** floor, Mainsail

Biography Plus

Moderator: Michael Trotter | 3rd floor, Ballroom

1:00 pm	Mesmer and Animal Magnetism Gordon Frierson (page 26)
1:20 pm	*WILLIAM B. BEAN STUDENT RESEARCH AWARD LECTURE* The Role of Academic Policies in Nurturing Surgeon-Scientists: Lessons from Dr. Debakey's Historical Success (Zoom) Divyansh Agarwal (page 12)
1:40 pm	Mentorship to Friendship: Lasting Relationships of Osler to Davison to McGovern Jong O. Lee (page 37)
2:00 pm	Hallervorden, Spatz and Seitelberger: Problems Beyond Eponyms Claus A. Pierach (page 44)
2:20 pm	L. Joseph Butterfield: A Pioneer for Palliative Care in Perinatal Medicine (Zoom) Laura E. Fitzgerald and Hillary C. Lee (page 25)
2:40 pm	All That Is Beautiful: Tôn Thất Tùng and the Foundations of Vietnamese Surgery Thomas S. Helling (page 31)
3:00 pm	BREAK | 3rd floor, Ballroom Foyer

Tuesday, April 12, 2022 (continued)

Patient Care, the Practice of Medicine, and the Olympics

Moderator: Mike Jones | 3rd floor, Ballroom

3:20 pm	Polio Hospitals in Los Angeles During the Early 20th Century Epidemics M. Mark Hoffer (page 32)
3:40 pm	What is the Art of Medicine? Barry Silverman (page 50)
4:00 pm	Contagious Calling Jacob Moran (page 40)
4:20 pm	The Origins of the Medical Applications of the Scientific Revolution in Management Efficiency in the Early Part of the Twentieth Century in the United States William C. Wood (page 59)
4:40 pm	Physician Olympians Stephen I. Schabel (page 48)
5:00 pm	ADJOURN
5:30 pm	Board buses for tour & reception Meet at the rear entrance of the hotel
5:45 pm	Depart for The Bryan Museum
6:00-8:00 pm	Tour exhibits, refreshments, reception

Wednesday, April 13, 2022

7:00 – 8:00 am	Continental Breakfast | 3rd floor, Ballroom Foyer
7:15 – 8:15 am	Annual Business Meeting | 3rd floor, Ballroom

Variety's the Very Spice of Life I

Moderator: Skip Harris | 3rd floor, Ballroom

8:20 am	Patrick Romanell, William Osler, and The Philosophy of Medicine Michael H. Malloy (page 39)

Wednesday, April 13, 2022 (continued)

8:40 am — Heart Surgery and Organ Transplantation as Game-Changers in Society's Concepts of Life and Death (Zoom)
David K.C. Cooper (page 19)

9:00 am — The History of Airline Medicine, 1928-2022
Robert R. Orford (page 43)

9:20 am — Exploring the Challenges of Professionalism in the Digital Age
Grayson Jackson and Jasmine Jones (page 34)

9:40 am — Patients, Diagnoses, and Deaths in a Major Safety-net Hospital in the American South: A 100-Year Perspective
Amber Thacker, Derek Thacker, James Bailey, and Bruce Steinhauer (page 54)

10:00 am — BREAK | 3rd floor, Ballroom Foyer

Variety's the Very Spice of Life II

Moderator: Mike Malloy | 3rd floor, Ballroom

10:20 am — Priority in Medical Discovery: The Devil is in the Details
John D. Bullock (page 17)

10:40 am — The History of Neurodivergence: The Evolution of Autism Spectrum Disorder (Zoom)
Katherine Holder, Bernardo Galvan, and Steven Berk (page 33)

11:00 am — Structured Autonomy: Reimagining Self-Governance in Modern Bioethics (Zoom)
Derek Soled (page 51)

11:20 am — Is the Legacy of Johns Hopkins Woke Enough to Survive the 21st Century? (Zoom)
George Sarka (page 47)

11:40 am — Surgical Education and Improving Patient Care: The History of the Surgical Morbidity and Mortality Conference
Thomas Z. Hayward (page 30)

12:00 pm — ADJOURN

Through the Looking-Glass: Insights from Full Text Analyses of the *Journal of the American Medical Association* and the *New England Journal of Medicine*

Moustafa Abdalla

Moustafa is a MD-PhD student in his final year at Harvard Medical School, supported by the Harvard University Associates in Canada and Harvard Medical School Scholarships. He completed his DPhil at the University of Oxford, as a Rhodes Scholar and as a (Canadian) National Science and Engineering Research Council post-graduate fellow, in computational statistics and machine learning. Part of his research interests lie in developing and applying computational language/linguistic methods for the content and language of publishing, which he believes offer a treasure trove of (historical) insight waiting to be further explored and to serve as inspiration for follow-up research using traditional methods of historical scholarship.

Analysis of the content of medical journals enables us to frame the shifting scientific, material, ethical, and epistemic underpinnings of medicine over time, including today. Leveraging a dataset comprised of nearly half-a-million articles published in the *Journal of the American Medical Association (JAMA)* and the *New England Journal of Medicine (NEJM)* over the past 200 years, we (a) highlight the evolution of medical language, and its manifestations in shifts of usage and meaning, (b) examine traces of the medical profession's changing self-identity over time, reflected in its shifting ethical and epistemic underpinnings, (c) analyze medicine's material underpinnings and how we describe where medicine is practiced, (d) demonstrate how the occurrence of specific disease terms within the journals reflects the changing burden of disease itself over time and the interests and perspectives of authors and editors, and (e) showcase how this dataset can allow us to explore the evolution of modern medical ideas and further our understanding of how modern disease concepts came to be, and of the retained legacies of prior embedded values.

Learning objectives:

1. The most elemental form of data-mining of publication datasets is the time series analysis of the changing prevalence/frequency of a term. This technique can be used to look at words of interest to identify temporal trends (e.g., the occurrence of specific disease terms within *JAMA* and *NEJM*, which reflects the changing burden of disease itself over time – at least within the United States, and reflecting the interests and perspectives of authors and editors.) As we show, this also reveals interesting trends regarding the medical profession's changing self-identity over time (e.g. rise and fall of 'ethics' and 'experimental') and medicine's material underpinnings (e.g. time-varying signals around 'hospital' and 'clinic').
2. One challenge of the time series analyses is that the meaning and usage of a specific term can change over time. To solve this, we use an approach called 'vector representations'. The technique of vector representations (referred to as "word embeddings" among computational linguists) can be used to identify the other words most closely associated with the target term in a specific time period. Fundamentally, these techniques seek to define a numerical address (a vector) for every word based on the company it keeps: more co-occurrences translate to two words inhabiting a similar neighborhood in an abstract ndimensional space. The numerical addresses for most words (e.g., "the") are fixed and do not change, while others vary and evolve over time. Our analyses focus on four charged ones: abortion, bias, defective, and race – and highlight how their meaning and usage evolved over time.
3. Computational analyses serve only as a guide to reveal unexpected signals or confirm/add nuance to existing hypotheses. All results demand further scholarly analysis and require more thorough historical investigation. We invite others to join in the work!

The Role of Academic Policies in Nurturing Surgeon-Scientists: Lessons from Dr. Debakey's Historical Success

Divyansh Agarwal

Divyansh Agarwal graduated cum laude and Phi Beta Kappa with exceptional distinction in Molecular, Cell and Developmental Biology from Yale University in 2015, earning both a B.S. and an M.S. For his applied math research on modeling breast cancer risk using statistical genetics, he won the Yale University's Edgar J. Boell and the William R. Belknap Prizes. He was also awarded the 2015 Thomas J. Bardos Science Education Award by the American Association for Cancer Research as well as the 2014 Michael Manzella Foundation Cancer Research Fellowship. During his MD-PhD training at the University of Pennsylvania, Divyansh earned a PhD in Computational Biology, and was the inaugural Blavatnik Foundation Family Fellow in Biomedical Research. He has a passion for the history of science and medicine, and has also been awarded the Becker Medical Library History Travel Grant to conduct archival research on surgical history.

Surgeons are surrounded by opportunities to devise new solutions to improve healthcare. In this quest, the surgeon-scientist plays an important role. We performed archival research at the U.S. National Library of Medicine (NLM) Michael E. DeBakey Archives to shed light on the lessons that today's surgeons can learn to pursue a surgeon-scientist career path using Dr. DeBakey's career as an example. Our investigation highlighted a model of surgeon-scientist careers that could be developed based on collaboration between the military and civilian surgical sectors. For example, damage control surgery, wherein definitive operations are delayed until a patient can better tolerate the operation, was developed by civilian surgeons, and then later adopted by military surgeons. Likewise, military techniques have often revolutionized civilian medicine when transferred to the latter sector based on experiential knowledge. The cardiovascular surgeon Michael DeBakey, who famously helped develop Mobile Army Surgical Hospital (MASH) units, also realized that the medical activities of the armed forces during World War II generated vast quantities of medical records, prompting him to help create the Medical Follow-up Agency to successfully mine those records for clinical discovery. What DeBakey experienced by accident during his wartime service should be embraced by the civilian sector so that surgeons can integrate scientific investigation seamlessly in their work. These case studies highlight the need for immersive cross-institutional programs where surgeons from the military and civilian sectors can gain exposure to the kinds of techniques, data, and institutional knowledge the other affords. These cross-institutional efforts, the most recent of which is the Naval Strategic Health Alliance for Readiness and Performance, provide a new avenue through which surgeons can advance the frontiers of scientific and clinical knowledge.

Learning objectives:

1. While many academic medical centers struggle to foster the surgeon-scientist career path, the military health system provides an alternative model that successfully encourages innovation by emphasizing collaboration. Establishing scientific alliances, such as between the biotech industry and academic surgeons, represents a promising means of stimulating surgical innovation.
2. Academic surgery centers often provide a more robust scientific research infrastructure than the VA and military centers. Our analysis suggests that increased federal investment in epidemiology research into military medical records will generate new knowledge relevant for all sectors.
3. Policies and specific strategies to support reciprocal learning between military and academic surgery can allow surgeons to leverage the strengths of different healthcare systems to improve their craft.

Osler Meets Kalidasa: How the Indian Classical Arts Tradition Emphasizes Seizing the Day

Pranati Ahuja

Pranati Ahuja is a third-year medical student at the University of Texas Medical Branch, where she is an Osler Student Scholar at the McGovern Academy of Oslerian Medicine. Pranati graduated with a B.S. in Neuroscience from UT Dallas in 2017 as a Terry Scholarship recipient, and has been interested in global and public health ever since her undergraduate days. She is also formally trained in Indian classical music and dance and hopes to incorporate her love for the arts and cross-cultural connections into her future in medicine.

Sir William Osler was loved for his re-centering of medicine around the patient as a human, first and foremost. His focus on mindfulness - both with the patient and in personal life - is emphasized by his highlighting the idea of viewing time through the lens of "day-tight compartments;" he underscored this concept in "A Way of Life," his 1913 address to bright-eyed Yale students. According to Dale Carnegie, Osler was inspired by a Sanskrit poem by one of India's greatest poets and playwrights, Kalidasa (circa 400 AD), and kept this poem at his desk. This is the very same poem that has come to be known as "Salutation to the Dawn." Osler specifically requested for this poem to be added to future reprints of "A Way of Life."

The objective of this presentation is to highlight how Kalidasa's poem - and more broadly, the Indian classical arts traditions - overlap with Osler's message in "A Way of Life." A fitting example is the background of the instrument, Dilruba, which means "heart-stealer." This string instrument was designed 300 years ago by Guru Gobind Singh (10^{th} Guru of the Sikhs) in India, and was built to be light enough to be carried by warriors on horseback, allowing them to fit their music, meditation, and prayers into day-tight compartments. This presentation will delve into this and other aspects of the Indian classical music tradition (Shastriya Sangeet) which align with Osler's message of living a mindful and fulfilling life each day. Finally, the presentation will include a musical interpretation and rendition of the poem "Salutation to the Dawn" played on the Dilruba.

Learning objectives:
1. Describe Kalidasa's poem, "Salutation to the Dawn," which was loved by Osler
2. Depict and appreciate the message of the poem "Salutation of the Dawn" through Indian Classical Music (through a played rendition on the Dilruba)
3. Highlight how the Indian classical arts traditions focus on mindfulness and align with Osler's message in the address "A Way of Life"

Exploring the Relationship Between Robert Schumann's Bipolar Disorder and His Creative Musical Genius

Saman Arfaie, Roe-Min Kok & Rolando Del Maestro

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, Honours B.A. in Persian Literature, and double minors in chemistry and music, at the University of California, Berkeley before conducting brain tumor research at UCSF. Saman's love for classical music started at six, and he has continued this love with passionate fervor since. He is currently studying piano under Dr. Jui-Sheng Li and Dr. Tatian Dardykina both at the McGill School of Music. An avid bibliophile, Saman appreciates making connections between different fields and is grateful for this intellectual opportunity to showcase the marriage of medicine with music. Saman is a TEDx speaker. He currently serves as the Co-president of the McGill Osler Society. In 2020, Saman won the 1st prize of the Pam and Rolando Del Maestro Family William Osler medical Student Essay Award competition and Osler Medal for his paper. He was mentored by Professor Roe-Min Kok. Under her mentorship, Saman is currently working on a book chapter focused exclusively on Schumann's mental health conditions to be published with Cambridge University Press.

Robert Schumann remains one of the most elusive and influential composers in Western music. Schumann maintained an active career as the editor of *Neue Zeitschrift für Musik*, a teacher at the *Leipzig Conservatory* and a prolific genius, until his untimely death due to self-starvation in July 1856. He embodied all the core traits of Romanticism: introspection, idealism, desire for the infinite, surrender to nature, and intensified subjectivism.

Reports indicate that as early as 1833, Schumann suffered from what appears to be melancholic depressive episodes which manifested themselves as frequent exaltations along with recurring delusional ideas of others wanting to hurt or injure him. Various lines of evidence suggest that Schumann very likely had Bipolar Disorder. Additionally, Schumann's older sister, Emilie, struggled with 'melancholy' and 'silent insanity'. According to Sutermeister (1910-95), a medical historian, Emilie jumped from a window. Another theory is proposed by the Schumann scholar Gustav Jansen (1831-1910) who claimed that she drowned. While there is a reasonable amount of scholarship that explores Schumann's psychopathology in detail and speculates about the conditions the composer most likely had, there is very little original work conducted that explores the relationship of his neuropsychological conditions and symptomatology to his creative musical genius. Using musical illustrations, primary evidence and the DSM-V criteria, this will be analyzed further.

Learning objectives:

1. Understand the impact of mental illness, specifically Bipolar Disorder, on the musical creativity of the German composer Robert Schumann.
2. Explore the relationship between musical genius and the course of mental illness.
3. Gain a deeper insight to Schumann's development of *Charakterstück* (character pieces in music).

Harry Lee Parker: Games Lost and Won on the Playing Fields of Neurology

Christopher J. Boes

Chris Boes is a Professor of Neurology at the Mayo Clinic in Rochester, MN. He is Medical Director of the W. Bruce Fye Center for the History of Medicine at Mayo Clinic and a Senior Associate Dean in the Mayo School of Graduate Medical Education. He was Secretary of the American Osler Society from 2012-2017 and is currently First Vice President of the organization.

Harry Lee Parker (1894-1959) was an American and Irish neurologist. He was born in Limerick, Ireland, and attended medical school at Trinity College, Dublin. Parker defended the Unionist Trinity College against Irish republicans during the 1916 Easter Rising as a member of the Officers' Training Corps. After graduating in 1918, Parker joined the Royal Army Medical Corps and served as a battlefield surgeon in France during World War I. He was discharged after recovering from influenza in 1919. Sir Thomas Myles (his cousin and a surgical friend of Will Mayo) recommended he go to America for graduate medical education. Parker trained in neurology at Mayo Clinic in Rochester, MN, until early 1925 when he became a consultant. He was a neurologic force of nature. Salaries were cut at Mayo Clinic during the Great Depression, and he missed Ireland. In 1934, Parker returned to Ireland to work at the Richmond Hospital in Dublin after the sudden death of internist-neurologist Dr. Frank Purser. He felt scientifically isolated and experienced financial stress during World War II. He circled back to Mayo Clinic in 1945 to finish his medical career, and died at St. Mary's Hospital in Rochester, MN, in 1959. Hospital administrator Sister Mary Brigh stated that "we have lost our best teacher."

Parker's biography reveals what it was like to live through the 1916 Easter Rising, World War I, 1918-19 influenza pandemic, Great Depression, and World War II, and highlights the individual and cumulative impacts of these historical events on a medical professional. Irish surgeon Thomas Myles opened the Mayo Clinic door for Parker because of his relationship with Will Mayo, but Harry's performance got him the job there. Parker became friends with Will and Charlie Mayo. He could be tough on those he worked with, but he was notably gentle with patients. Harry shined as a teacher of neurology, and this was his greatest educational achievement; the book *Clinical Studies in Neurology* (1956) was his second greatest educational accomplishment. Parker had a great eye for research topics, and many are still of interest (paraneoplastic disease, chronic traumatic encephalopathy, paroxysmal symptoms of multiple sclerosis). The bulk of his research occurred in the first 15 years of his career, and he had national and international influence on the field of neurology. Harry Lee Parker had a restless spirit, and an unforgettable personality.

Learning objectives:
1. Define the influence of the 1916 Easter Rising, World War I, 1918-19 flu pandemic, Great Depression, and World War II on Harry Lee Parker
2. Explain why he moved from Ireland to Rochester twice
3. Describe the background of his book *Clinical Studies in Neurology*

Deep Run the Roots of Racism in American Medicine, Part II. Four Racially Biased Physicians Associated with Osler

Charles S. Bryan

Charles S. Bryan, Heyward Gibbes Distinguished Professor of Internal Medicine Emeritus at the University of South Carolina, is a past president of the American Osler Society.

The first part of this tandem presentation focuses on Osler's "Alabama Student," John Y. Bassett. Here, the focus is on prominent physicians associated with Osler or the Oslerian tradition whose records on race are blemished from a twenty-first-century perspective.

Edmond Souchon (1841–1824), who corresponded with Osler, was an eminent anatomist and surgeon at Tulane whose legacies include the Souchon Museum of Anatomy at that institution. His notoriety among medical historians derives in part from his removal of a large part of the corpse of William Banks, who 10 years before his death had undergone the first successful surgical repair of an aneurysm of the subclavian artery by another New Orleans surgeon, Andrew W. Smyth (1849–1916). While Blacks protested outside the autopsy room at Charity Hospital, Souchon, without permission, separated Banks's head, right upper extremity, and right half of the trunk from the rest of his body to create what became a much-celebrated museum specimen. Souchon later developed the display of racialized pathology specimens into an art form, showing them throughout the state on the "Louisiana Health Exhibit Train."

Rudolph Matas (1860–1957), called "the father of vascular surgery" by Osler and a contributor to the Festschrift for Osler's seventieth birthday, developed visual materials pertaining to "racial pathology" including a 128-page monograph on *The Surgical Peculiarities of the American Negro*. The historian Stephen C. Kenny argues that Matas developed "weaponized notions of Black inferiority … that deepened and extended … damning portraits of Black health." Matas selectively chose photographs from among 150 images in the Tulane University archives to convey "warped notions of Black bodies …" resembling "a circus sideshow."

Robert Bennett Bean (1874–1944), who attended the Johns Hopkins Medical School and assembled aphorisms from Osler's writings and teachings later edited by his son (see below), used physical anthropology, and notably craniometry, to assert Black inferiority. In 1906 he published a 79-page paper on "Some Racial Peculiarities of the Negro Brain" in which he contended that "the Negro has the lower mental faculties [such as body-sense and melody] well-developed, whereas the Caucasian [has] the higher [faculties well-developed]" such as self-control, will power, and reason. Recent scholars contend that Bean used fraudulent data and biased his interpretations to support racial discrimination.

William Bennett Bean (1909–1989), the son of Robert Bennett Bean, brought out his father's compilation of Osler's aphorisms in 1950 and later became, in 1970, the founding president of the American Osler Society. Bean as an undergraduate student at the University of Virginia wrote a term paper expressing alarm about the changing demographics of society. He argued for "wide dissemination of birth control knowledge" among African Americans, since: "If the negro is given knowledge of contraception … this combined with his high death rate, aided by strict racial integrity laws … will cause his extinction in a comparatively short time and then insure a white America and her place in the world."

Learning objectives:

1. Name at least three types of racism as these continue to affect society.
2. Suggest one or more "Oslerian virtues," drawing from Osler's *Aequanimitas* compilation of essays, this presentation, and your own opinions, that should be called upon for racial reckoning today.
3. Discuss the following paradox presented by Osler in his 1897 address to the British Medical Association: On the one hand, he proclaimed, "Distinctions of Race, nationality, colour, and creed are unknown within the portals of Æsculapius, but on the other hand he said: "We English are the modern Greeks, and we alone have colonized as they did, as free peoples."

Priority in Medical Discovery: The Devil is in the Details

John D. Bullock

Dr. Bullock is a retired ophthalmologist, infectious disease epidemiologist, and forensic scientist. He is now a medical historian serving on the Board of Governors of the American Osler Society. He is the founder and director of the Ophthalmic History Research Institute in Winchester, MA.

Within the past 130 years the advances in diagnostic and therapeutic medicine have been extraordinary. Frequently, different scientists and physicians have labored on the same research projects at the same time. It is, therefore, of little wonder that multiple people and institutions have taken credit for the same discovery. Three examples are given and their details are minutely dissected along with meticulous timelines. Sometimes these controversies are due to semantics while others are clearly issues of fact. These "black and white" factual matters include: [1] the creation of the first X-ray image in the United States; [2] the first use of insulin in the U.S.; and [3] the first use of cortisone in patients with rheumatoid arthritis (R.A.).

[1] On February 3, 1896 the first clinical X-ray image in the United States was made in a classroom in Reed Hall at Dartmouth College. The object of the X-ray was the broken wrist (Colles' fracture) of 14-year-old Eddie McCarthy who had fallen on January 19, 1896 while ice skating on the Connecticut River in Hanover, NH. The image of this X-ray has been repeatedly published as was a photograph of the process of the X-ray being taken. On February 14, 1896, the article (dated Feb. 4) describing this event was published in *Science*. (Frost EB. Experiments on the X-rays.*Science*.1896;3:235-236)

[2] The first insulin treatment in the U.S. was administered on May 22, 1922 by Dr. John R. Williams of Rochester, NY to James Dexter Havens. (*Ann Int Med*.2005;143:907-912)

[3] In September 1948, doctors at the Mayo Clinic (M.C.) in Rochester, MN administered cortisone (synthesized by Mayo biochemist, Edward C. Kendall) to a volunteer patient ("Mrs. G.") who had R.A. The resulting improvement was amazing; several other patients had similar results. Kendall, Mayo Clinic rheumatologist Philip Showalter Hench, and the Swiss organic chemist Tadeus Reichstein shared the 1950 Nobel Prize in physiology or medicine for their "discoveries relating to the hormones of the adrenal cortex, their structure, and biological effects." (*Mayo Clin Proc*.2001;76:529-532)

Counterclaims have been made by: the Massachusetts General Hospital, Yale University, the University of Pennsylvania. Harvard Medical School, and Boston's Brigham and Women's Hospital.

Learning objectives:
1. The attendees should be able to explain the details of the first clinical X-ray in the U.S.
2. The attendees should be able to discuss the creation of insulin and its first U.S. use.
3. The attendees should be able to evaluate the first use of cortisone for R.A. by the M.C.

Silas Weir Mitchell and the Treatment of Epilepsy

David B. Burkholder & Christopher J. Boes

Dr. David Burkholder is a consultant in the Division of Epilepsy at Mayo Clinic in Rochester, MN. In addition to his clinical roles, he serves on the Departmental and Enterprise Education Committees, Mayo Clinic Historical Committee, and Resident Wellness Committee. He is also program director of the Clinical Neurophysiology-EEG fellowship track in Rochester.

Silas Weir Mitchell (1829-1914) career in neurology spanned a period where the pathophysiological theories and treatment of epilepsy began to transform from older theories and approaches to more recognizable modern forms. Here we describe Mitchell's own approaches to treating epilepsy through his career.

Review of Mitchell's publications regarding epilepsy compared to his peers regarding epilepsy treatments. Comparison of Mitchell's ideas and practice methods with period textbooks and publications regarding seizure management.

Pharmacologic therapy of the time focused on bromides. Mitchell lamented bromide side effects, and so introduced lithium bromide as a better-tolerated formulation, albeit more expensive. He also presented inhaled amyl nitrite as an abortive therapy, which was popular with other physicians of the time including Sir William Gowers. While reasonably effective, Mitchell was not able to speculate on the physiologic mechanism of its success. He had plans to develop longer-acting formulations to use as a preventative and even tested potassium nitrite on himself, but failed to progress further than that. Interestingly, though Mitchell is well-known for his "rest cure," he did not support lifestyle changes aimed at treating epilepsy. Though sexual or reproductive-based theories were still common during his era of practice, Mitchell did not support surgical intervention on the abdomen or female reproductive system with a goal of alleviating seizures, saying "Epilepsy truly…due to abnormal states of the sexual apparatus is rarely (I am tempted to say never) seen." He ultimately was pessimistic in his views of epilepsy treatment, saying "We must, I am sure, feel a sense of therapeutic despair whenever a case of ordinary epilepsy appears for treatment at a clinic…" in 1912, only 2 years before his death.

Mitchell primarily focused on pharmacology as a treatment for epilepsy, and introduced 2 new agents during his life. He was generally disinterested in other treatments for epilepsy focused on lifestyle changes or non-neurologic organ systems. At the end of his career Mitchell was disheartened at what little gain in epilepsy treatment had taken place through his life.

Learning objectives:
1. Discuss treatments introduced by Mitchell during his career.
2. Explain Mitchell's thoughts on non-pharmacologic epilepsy management.
3. Contrast Mitchell's efforts at epilepsy treatment with his nihilistic view of treatments during his time.

Heart Surgery and Organ Transplantation as Game-Changers in Society's Concepts of Life and Death

David K.C. Cooper

David Cooper studied medicine in the UK, and was a cardiac surgeon with a special interest in heart transplantation for 17 years before dedicating himself to transplantation research.
Heart surgery, including transplantation, was one of the major advances in medicine during the latter part of the 20th century, and did much to change our concepts of 'life' and 'death'.

Initially, 'closed' heart surgery was undertaken, where the heart was only opened to allow a finger to be inserted to expand a diseased valve. At times, *cardiac arrest* occurred, but the heart (and the patient) could often be successfully resuscitated by heart massage and/or electrical defibrillation. With the introduction of the heart-lung machine (cardiopulmonary bypass), 'open' heart surgery became possible, during which there might be *no heartbeat* for several minutes or hours, yet the patient survived. During heart transplantation, there was not only no heartbeat but, for a period of time, *no heart*, yet again the patient remained alive. Finally, the failing heart was replaced by a total artificial heart, in which *the absence of the heart would be permanent*. All of these developments changed not only the medical profession's concept of death, but also that of the public.

Organ donation, particularly donation of the heart, equally influenced our understanding of life and death. The concept of 'brain death' was introduced, irrespective of whether the heart was beating or not. The metabolic sequelae of brain death were investigated and it was slowly recognized that death is not uniform in all organs, but may take place at different rates throughout the body. Heart (and other organ) donation became the subject of ethical and medico-legal challenges, but slowly brain death was accepted as a criterion of death. And so, a patient was determined to be 'dead' even when the heart was beating, whereas, in contrast, in open heart surgery and heart transplantation the patient was considered alive when there was no heartbeat or even no heart.

Heart surgery and heart (and other organ) transplantation, now routine forms of therapy, have undoubtedly been revolutionary innovations in medicine. Coupled with our better understanding of patients in severely brain-damaged, 'vegetative' states, our societal concepts of life and death have evolved remarkably. Indeed, surgery of the heart has proved to be a historical and philosophical 'game-changer' in medicine.

Learning objectives:
1. To review the development of heart surgery and transplantation.
2. To understand the impact of heart surgery on our concept of life and death.
3. To understand the impact of organ donation on our concept of life and death.

Yellow Jack! A History of Yellow Fever in Galveston and Walker Counties

John C. Cravero

John Corbyn Cravero is a fourth-year medical student at the University of Texas Medical Branch in Galveston, Texas. He earned his B.A. in English Literature from Texas A&M University in 2014. During medical school, Mr. Cravero has been recognized for his writing abilities and was the recipient of the Ivan Bruce Memorial Award for best historical essay in Psychiatry as well as the John P. McGovern Practice of Medicine 3 Professionalism Essay Award. Mr. Cravero has applied for residency in Internal Medicine with the hopes of becoming a General Internist.

The development of America as a nation was inexplicably linked to yellow fever epidemics throughout the 18th and 19th centuries. Affecting seaport cities predominantly in the South and occasionally along the Atlantic coast, yellow fever became a major influencer of trade and immigration that contrasted against Jeffersonian ideals of metropolitan growth, prosperity, and even personal liberties of health. Although yellow fever's mosquito vector would not be discovered until 1900 by Major Walter Reed, several theories regarding its transmissibility and containment strategies were advocated. Majority of physicians, including Osler, believed yellow fever was a 'poison' introduced either by infected persons or fomites. This belief had both a positive and negative effect; on one hand, it promoted the emerging practice of sanitation in conjunction with the historical practice of quarantining. On the other hand, it demonized immigrants as infected persons who were 'unacclimated strangers' to the Southern climate and more susceptible to the disease. For this reason, yellow fever was also known as Stranger's Disease.

The first outbreak of yellow fever in Texas occurred in Galveston in 1839, just three years after the Texas Revolution. Dr. Ashbel Smith, a pioneer physician and Surgeon General of the Army of the Republic of Texas, documented the outbreak and reported on several of his patients within his treatise entitled, *Yellow Fever in Galveston*. As the oldest port city in Texas, Galveston served a sentinel role by inspecting incoming ships for yellow fever as well as processing newly arrived immigrants, earning it the title as the Ellis Island of the Southwest. To better serve this screening process, several quarantine and immigration stations were built on the on the East end of the island, their location varying throughout time due to conditions related to severe hurricanes and the need for continual renovation.

However, yellow fever outbreaks were not limited to Galveston and were also documented deep within the mainland. The southeast coast of Texas is marked by several tributaries that penetrate the inland that once made it more accessible for the transportation of goods and people by way of steamboats. Along one of these tributaries, the Trinity River, was the city of Cincinnati, a farming community decimated by a yellow fever outbreak in 1853 that would later become the subject matter for local myths in the neighboring city of Huntsville, Texas. Although stationed approximately fifteen miles south of Cincinnati, Huntsville was also not spared from yellow fever and experienced an outbreak in 1867. One Huntsville resident and historian, Henri G. Noordberg, related the outbreak through excerpts called the "Nolley Papers," a collection of family correspondence from two sisters, Martha Anne and Eliza Thomas Nolley, who attended yellow fever patients during the 1867 outbreak.

Learning objectives:
1. Review the predominate theories surrounding yellow fever and its transmissibility prior to 1900.
2. Discuss Dr. Smith's account of Galveston in 1839 as well as local maritime quarantine practices.
3. Examine accounts related to Cincinnati and Huntsville outbreaks, including the Nolley Papers.

Emanuel Libman: The Life and Legacy of New York City's Legendary Turn of the Century Physician

Priya Dave

Priya Dave is a medical student at the Icahn School of Medicine at Mount Sinai, currently pursuing a Master's of Bioethics Degree at Harvard Medical School. She graduated from the Indiana University School of Liberal Arts with a degree in Medical Humanities and Health Studies in 2018. Upon graduation, she was awarded the School of Liberal Arts Faculty Medal of Distinction. Prior to medical school, Priya was a museum docent at the oldest pathology buildings in the nation, where she developed an interest in the history of medicine.

Emanuel Libman (1872-1946) was a renowned physician, pioneer scientist, and fervent advocate for Jewish causes at the turn of the century. In the words of George Baehr, "In many ways, his life summed up the condition and development of clinical medicine in his era."
As one of the early clinicians to reach celebrity status, he was interviewed on popular talk shows and was featured in newspaper articles and magazines for his "secret-divining eyes" and unorthodox diagnostic methods. As a philanthropist, particularly for Jewish causes, his efforts revolved around bringing Jewish scientists to the U.S. in the face of the Hitler Regime. And as a scientist, Libman is credited for bringing bacteriology and blood culture techniques to the United States. He published over 100 peer-reviewed journal articles and corresponded with many leading medical figures of the day, including Sir William Osler.
Libman and Osler maintained a personal and professional relationship, until Osler's death in 1919. Both had interests in diseases of the heart, particularly in the field of endocarditis. Their correspondence dates from Osler's days at Johns Hopkins. Though they worked separately, Osler's organization of cases pertaining to endocarditis and Libman's mastery in bacteriology led to major advances in understanding the etiology of the disease.
Emanuel Libman's career embodies the rise to prominence of one of the turn of the century's "Greats" in medicine. His fame was not merely the result of his skills as a clinician and medical discoveries, but also his famous patients, students who achieved great success of their own, and New York City's central role in media and medicine.

Learning objectives:
1. Present on the life of Dr. Emanuel Libman, M.D. and the integration of philanthropy, research, and mentorship that distinguished his medical career
2. Give insight into the personal and professional relationship between Sir William Osler and Libman
3. Discuss the context surrounding the rise of a major medical figure in early twentieth-century New York

The Kitty Mac Clinic: Origins of Large-Scale Pelvic Cancer Screening and Ancestor of Today's Annual Physical

Drew Davis

Drew Davis is a second-year medical student at Drexel University College of Medicine in Philadelphia. Prior to this project, his medical history research looked at the social weight of serious diagnoses such as HIV and cancer. He also writes journalism, and has published articles about healthcare, healthcare history, and social justice in local newspapers.

Up until the 1940s, uterine and cervical cancer ("pelvic cancer") diagnoses were usually terminal, and physicians knew why: patients always presented with advanced disease. Dr. Catherine Macfarlane, a Philadelphian female physician known as "Kitty Mac", had been hearing "if patients came earlier, they could be saved" for decades. In response, in 1936 she implemented the first large-scale pelvic cancer screening study of asymptomatic women, which was the first large-scale asymptomatic screening for any cancer, and which met with resistance. Many physicians felt well women would not show up for appointments. One prominent male gynecologist compared female patients to cars: "If your automobile knocks or misses, you take it to the repair shop. There is no use in taking it before something happens. It is the same way with women." But Kitty Mac ran her study regardless, with her clinic performing 18,573 pelvic exams on asymptomatic women over fifteen years, for the first time finding pelvic cancer when it was still curable. In response, hundreds of cancer detection clinics bloomed all over the nation. In 1956 a male patient, a train engineer, stated "this is great–this is the way we treat our locomotives. We put them on the examining table every twenty-four hours. Think how we treat our carcasses." Broad-scale asymptomatic cancer screening had, at least for the moment, arrived–and added momentum to the preventive approach to cancer mortality control.

Kitty Mac's trial received much attention in the mid-twentieth century, but her work is little-known now. One reason is that her study was eventually overshadowed by the arrival of the pap smear. But the work of Kitty Mac and her colleagues at the Woman's Medical College of Pennsylvania actually enabled the quick, widespread adoption of the pap smear, because they played a valuable role in steering the medical field towards well-visits and asymptomatic screens. This can be seen by looking at physician views about preventive screens before vs after her study. By learning about her work, one can see more clearly why the trajectory of the pap smear, annual physicals, and cancer screening at large took the shape we see in today's medical establishment.

Learning objectives:
1. Illustrate how, despite gender-rooted barriers, female physicians' early success in asymptomatic screening for uterine cancer–an insidious, deadly, but slow-growing malignancy–influenced approaches towards cancer screening throughout the 1900s
2. Detail how Catherine MacFarlane's pelvic cancer screening caught uterine cancer early for the first time, setting the stage for widespread implementation of the Pap smear
3. Detail how Catherine MacFarlane's large-scale, longitudinal research study pushed the American medical establishment away from anecdotal-based clinical thinking towards reliance on larger studies, which both reflected and propagated economic and racial disparities in healthcare

Sir Fredrick Banting's First Paper: Stimulating the Cerebellum

Rolando Del Maestro

Dr. Rolando Del Maestro is the William Feindel Professor Emeritus in Neuro-Oncology, Professor, Department of the Social Studies of Medicine and Director of the Neurosurgery Simulation Research and Training Centre, at McGill University Montreal, Canada. His interests include the History of Medicine with a particular interest in Leonardo da Vinci and Renaissance. He is the Honorary Osler Librarian, Chairperson of the Standing Committee, and member of the Board of Curators of the Osler Library of the History of Medicine at McGill.

In 1922 a paper was published in the journal Brain co-authored by F. R. Miller and F. G. Banting entitled: Observations on Cerebellar Stimulation. These experiments had been carried out in 1920 and 1921 in the Physiology Department, Western University Medical School, London, Canada. Banting, after completing medicine at the University of Toronto in 1917, joined the military and after discharge obtained surgical training at the Hospital for Sick Children setting up his practice in July 1920 in London, Ontario. He obtained the position of Instructor in Surgery and as Michael Bliss writes "introduced himself to F. R. Miller, Western's Professor of Physiology, volunteered to help Miller with his research, and was soon spending hours helping Miller with interesting neurological experiments on cats". Miller had obtained his MD from Toronto and received training in physiology with Otto Frank in Munich, Albrecht Bethe in Strasbourg, and Sir Charles Sherrington in Liverpool. Miller was appointed Lecturer in Physiology at McGill in 1912 and after spending further time with Sherrington, took the position of Chair of Physiology at Western. Miller carried out extensive research on the physiology of the cerebellum and chemical stimulation of the cerebellar cortex and subcortical regions of the nervous system. After joining Miller, Banting actively participated in these experiments which included the anaesthetizing, ligation of both carotids and decerebrating of cats along with clamping the basilar artery in preparation for simulating the exposed cerebellum and applying cocaine to record results. A narrative (myth) has persisted related to the question as to how Banting, an "inexperienced" researcher "a total outsider" was able to formulate and carry out the experiments to discover insulin. This presentation advances the concept that Banting's involvement helping Miller with these surgically complex cerebellar experiments provided him with an understanding of the experimental method and a model of how to successfully carry out scientific research before moving to Macleod's lab to carry out his experiments to discover insulin.

Learning objectives:
1. Outline the role of Fredrick R. Miller in the research training of Sir Fredrick Banting
2. Profile the thoughts of other authors on Miller and Banting
3. Explore Banting's and Miller's engagement with the Western Medical School

Deep Run the Roots of Racism in American Medicine, Part I.
John Y. Bassett, Osler's "Alabama Student"

Richard D. deShazo & Margaret W. Balch

Richard deShazo is Adjunct Professor in the Department of Medical Education at the University of Alabama School of Medicine at Birmingham, having previously served as chair of the departments of medicine at the University of South Alabama School and the University of Mississippi. Margaret W. Balch is curator of the Reynolds-Finley Historical Library at the University of Alabama at Birmingham, where she is an Assistant Professor within UAB Libraries.

In January 1895 William Osler told members of the Johns Hopkins Historical Club about an obscure physician (1804–1851), whom he subsequently made famous as the title subject of Osler's 1908 compilation, *An Alabama Student and Other Biographical Essays*. Bassett, who left his family in Huntsville to study abroad for 11 months only to die 13 years later, became for Osler an avatar of idealism in medicine.

Osler based his talk and essay on Bassett largely on a packet of letters Bassett wrote home in 1836 from Paris, where he studied under celebrated physicians including the famous surgeon Alfred-Armand-Louis-Marie Velpeau (1795–1867). Bassett's subsequent career in Huntsville was exemplary in some respects but, unbeknownst to Osler, Bassett was also a scientific racist who used the theory of polygenesis (the idea that there are different species of *Homo sapiens*) to assert Black inferiority as justification for enslavement. Bassett according to the U.S. census of 1850 owned 7 enslaved persons. When a Presbyterian minister brought out a *Report on Slavery* in which he maintained that while "slavery is a sin" it should be continued for reasons of benevolence, Bassett responded in print that he was "a citizen of the South and a slave-holder, not professing to hold my slaves from benevolent motives…"

Polygenesis was popular and respectable in eighteenth- and early-nineteenth-century Europe. In 1813 the British physician-ethnologist James Cowell Pritchard (1786–1843) supported the opposite idea—monogenesis, whereby *Homo sapiens* constitutes a single species—in his two-volume *Researches into the Physical History of Man*. In 1839 the University of Pennsylvania physician-anthropologist Samuel G. Morton (1799–1851) published *Crania Americana*, claiming his measurements of skull and facial features from various angles (craniometry) established Blacks as a separate and inferior species. Supporters of enslavement celebrated, since Morton's "scientific" data supported the "positive good" theory of slavery whereby Blacks were suited for labor but not self-government. Bassett corresponded with fellow Alabamian Josiah C. Nott (1804–1873), a surgeon who became the most famous member of a small group of southern physicians who used physical anthropology to defend enslavement.

Bassett entered the fray after Pritchard brought out the fifth and final volume of the third edition of *Physical History of Man*. In a 31-page diatribe, published in the *Southern Quarterly Review*, Bassett opined on the contrasting natures of the two races (Black and white), one being that of "civilization" and the other "savagism," the natural result of which is "bondage." Bassett died 4 months later of tuberculosis.

Learning objectives:
1. Define "polygenesis" and "monogenesis" and name at least two proponents for each theory.
2. Identify four physicians of the antebellum American South who published on scientific racism in defense of enslavement.
3. Discuss the following paradox presented by John Locke (1632–1704), another subject in Osler's *Alabama Student*: On the one hand, he wrote (as quoted by Osler) that "All men are naturally in a state of freedom, also of equality," but on the other hand he invested in the Royal African Company (Britain's major exporter of enslaved Africans), and in the *Fundamental Constitutions of Carolina*, stipulated that "every freeman … shall have absolute power and authority over his negro slaves…"

L. Joseph Butterfield: A Pioneer for Palliative Care in Perinatal Medicine

Laura E. Fitzgerald & Hillary C. Lee

Laura Fitzgerald is a second year pediatric resident at the University of Utah. Hillary Lee is a second year pediatric resident at Children's Hospital Los Angeles. They attended medical school together at the University of Texas Medical Branch in Galveston and were both selected as Osler Student Scholars in the John P. McGovern Academy for Oslerian Medicine. Laura and Hillary are planning to pursue pediatric fellowships in palliative care and neonatology, respectively.

L. Joseph Butterfield's innovative care of newborns revolutionized the field of neonatology. He interned at San Francisco General Hospital before returning to Children's Hospital in Denver in 1956 as a pediatric resident and then fellow in premature infant care. Although neonatology may not be the first specialty that comes to mind when considering Sir William Osler, Osler's passion for children's health should not be overlooked. He served as the fourth president of the American Pediatric Society and published on a variety of pediatric conditions. Despite practicing nearly 100 years apart, Osler and Butterfield were kindred spirits and resilient advocates for children.

After completing his fellowship, Butterfield undertook the impressive task of developing the neonatal unit at Denver Children's Hospital. While he is fondly remembered for a multitude of contributions made within that newborn center, one of his lesser known triumphs was founding the neonatal hospice program in 1979. When the field of pediatric palliative care was still in its infancy, Butterfield had the foresight to create a "Family Room" to allow the families of dying infants the space to grieve in private. This mourning process was personal to Dr. Butterfield, as two of his own children died young. His efforts demonstrated that palliative care training could profoundly influence how both families and neonatal ICU staff cope with death during the perinatal period.

Like Osler, Butterfield was renowned for his kind demeanor and witty sense of humor. However, these attributes only scratch the surface of Dr. Butterfield's legacy within the field of newborn care. He developed the well-known APGAR mnemonic, coined in honor of his colleague Dr. Virginia Apgar. In 1963, Butterfield founded the Aspen Conference on Perinatal Biology, a meeting which many consider established neonatology as a recognized field in the United States. His dedication to pediatric healthcare was not limited to the hospital setting; he became a registered lobbyist, and he was so well respected by Colorado legislators that they often sought out "how Butterfield stands on the issue" prior to voting on a bill.

Learning objectives:
1. Outline the major events of Dr. Butterfield's life and medical career.
2. Discuss the impact Dr. Butterfield's neonatal hospice program has had on modern neonatal intensive care units.
3. Appreciate Dr. Butterfield's applications of Oslerian principles as a physician and healer.

Mesmer and Animal Magnetism

Gordon Frierson

Dr. Frierson was engaged in the private practice of internal medicine and infectious diseases for 35 years. He served as attending physician at the Tropical Medicine Clinic at the University of California San Francisco for many years and operated a private travel medicine clinic for 16 years. He is currently retired, pursuing his interest in the history of medicine and publishes a blog containing vignettes from the history of medicine (http://medihist2.blogspot.com).

In 1778 Franz Anton Mesmer, a German doctor educated at the University of Vienna Medical School, left his Vienna practice under a cloud and moved to Paris. He specialized in a new therapy: manipulation of animal magnetism. It assumed an invisible fluid that permeated the universe and whose passage through the body was essential for good health. Interruption of the flow caused illness, an aberration that Mesmer could remedy. His practice flourished, partly related to the dramatic effects of treatment on the way to a cure.

Mesmer entered a Paris captured by the Enlightenment. Writings by Voltaire portrayed Newton's gravitation as an invisible, pervasive "fluid". Similar was electricity, another mysterious fluid. Magnetic attraction resembled gravity, and phlogiston, an invisible carrier of heat, permeated scientific thought. Balloons filled with "dephlogisticated air" (hydrogen) ascended to extraordinary heights. Mesmer's animal magnetism fit well with prevailing theories.

Patients under treatment sat around a large wooden tub containing iron filings and water, covered in wood, from which protruded iron rods that were placed on the body parts needing treatment. The patients were connected to each other with ropes and by holding hands. Soft music played. Seizures, shouting, spitting, and the like, appeared as the magnetic fluid surged. A room with padded walls stood ready for those with the most violent seizures.

The controversy over mesmerism was so intense that King Louis XVI established a royal commission, in 1874, to investigate. Members of the Academy of Sciences and the Faculty of Medicine, including the chemist Antoine Lavoisier, the astronomer Jean-Sylvain Bailly, Dr. Joseph Ignace Guillotin (of the beheading instrument), and the botanist Laurent de Jussieu, were appointed. Benjamin Franklin, the most notable of all, headed the commission.

Mesmer refused to cooperate. A Paris Faculty of Medicine member, however, Charles Deslon, physician to the brother of Louis VI, was a believer and was trained in therapy. He orchestrated the investigations. Realizing that "cures" could be spontaneous, the commissioners focused on whether the "fluid" could be detected by either normal or "sensitive" patients. The testing of commission members and patients was an early example of a blinded trial. The commission eventually concluded that the "cures" could only be attributed to patient suggestion and that there was no evidence of a mysterious "fluid". Following the report, Mesmer's influence faded. During the ensuing revolution Lavoisier and Bailly were beheaded and Dr. Guillotin was imprisoned, but later released.

Learning objectives:
1. Review the biography of Mesmer and the history of his movement.
2. Describe the blinded trials of animal magnetism and their relevance to today.
3. Show the relation of cultural background to the shape and content of medical theories.

Untold Medical History: Montreal's Days of Shame

Lilly Groszman

Lilly Groszman is a first-year medical student at McGill University in Montreal, Canada. Born and raised in Montreal, she has always been fascinated by her city's rich history. Under the supervision of Dr. George Weisz in the Department of Social Studies of Medicine, Lilly was awarded top prize in the 2021 Pam and Rolando Del Maestro Family Medical Student Essay Award and presented her work at Research and the Osler McGill Osler Day 2021.

On June 15, 1934, interns at Montreal's Notre Dame Hospital initiated Canada's first medical strike, protesting the appointment of Dr. Samuel Rabinovitch as a chief intern, a French-speaking Jewish graduate of Université de Montréal. By June 16th, the strike spread to seventy-five more interns from Hôpital de la Miséricorde, Sainte-Justine, Hôtel-Dieu, and St. Jean-de-Dieu. The strike was purely antisemitic, a response to the appointment of the first Jewish physician to hold a staff position at a Catholic hospital. By placing the Notre Dame Hospital within a social context, Rabinovitch's story exemplifies the history of systemic racism in medicine and depicts how contrary these practices might appear in the ideology of do no harm. Rabinovitch would eventually resign from his position, stating that it was "[his] duty as a physician and as a Jew to decide upon an article which will be in the best interests of humanity". This presentation aims to provide a comprehensive analysis of the relationship between Montreal's medical history and antisemitism during the first half of the twentieth century. The 1934 strike reinforces the historical basis of promoting racial diversity and inclusion in medical education. It is within our power to manage contemporary, discriminatory issues by examining a complicated case of discrimination in medical practice through the lens of institutional, local, and global politics. By learning about the history of other forms of prejudice, we can move towards a more inclusive future and compel action in response to racial injustices in the healthcare community.

Learning objectives:

1. To provide a detailed picture of Montreal in 1934 by demonstrating the porousness between the world of antisemitism outside the hospital and within the hospital (medicine) itself.
2. To trace the events that led to Rabinovitch's resignation from the Notre Dame Hospital and explore the strike's unfortunate consequences.
3. To examine the historical relevance of Montreal's record of discrimination in our present-day medical system.

Becoming a Doctor, Becoming a Monster: A Graphic Family History of Medical Socialization and Desensitization in Nazi Germany and 2020 America

Simone Hasselmo

Simone Hasselmo graduated from Harvard College in 2016, where she studied integrative biology and served as art editor of the "Harvard Lampoon". She matriculated at Yale's School of Medicine in 2018 and plans to pursue residency in psychiatry, and hopes to find a career mixing clinical practice with further work and education in the medical humanities.

I am currently in the process of creating a graphic narrative placing the memoirs and manuscripts of my grandfather, Dr. Peter Stern, who underwent medical education in Germany during WWII and served as a medical translator at the Nuremberg Doctors' Trial, alongside my own written experiences of medical education during the COVID-19 pandemic and the surrounding years. In the period since receiving my award, I have synthesized these sources, alongside research on medical history, ethics, and graphic narratives to produce a 137 page scripted draft on which the final graphic narrative will be based. The story is ultimately an exploration of how medical students learn, adopt, and internalize the principles of medical ethics, and more importantly of how these ethics are challenged during the course of medical education and their ensuing careers. In Nazi Germany, the focus is of course on treatment of all those deemed to be "Lebensunwertes Leben" ("life unworthy of life"): Jews and their allies, the mentally ill, the disabled, the queer, and prisoners of all stripes. Modern stories encompass national stories alongside their corollaries at YNHH: the BLM protests of summer of 2020 alongside racially charged police presence within YNHH's child psychiatry unit, ICE gynecologists' unnecessary surgeries done on immigrants mirrored by emergency hysterectomies done on Spanish-speaking women without interpreters present, and the uphill battle faced by substance users, sex workers, the incarcerated, and the mentally ill when seeking compassionate and competent medical care. I began this project during the summer of 2019, and have been at work researching, writing, and illustrating the project ever since. I am working full time on the project for the duration of this academic year; I aim to complete the written script by the end of November, and to produce a finished graphic book between 200 and 300 pages by the end of July 2022.

Learning objectives:
1. Identify processes of medical socialization that have evolved or remained constant between WWII and the present day.
2. Appreciate how societal shifts influence medical education and shape the values of young physicians.
3. Recognize the unique features of comics well-suited to constructing a diachronic narrative about the process of becoming a doctor.

Did William Osler as a Preacher's Kid and a Scientist Believe in Immortality?

Sandra S. Hatch

Dr. Hatch is a Professor at MD Anderson Cancer Center and Adjunct Professor and Chair in the Department of Radiation Oncology at the University of Texas Medical Branch at Galveston. She is a John P McGovern Academy of Oslerian Medicine Scholar.

Sir William Osler's relationship with death is realized by his collection in his personal library, research, autopsies, and response to loss of his son. But as a preacher's kid, what was his belief regarding "everlasting life" or "immortality"? We will explore this topic through review of his publication *Science and Immortality* published as Regius Professor of Medicine at Oxford. The publication represents the Ingersoll Lecture at Harvard University he gave in 1904.

Learning objectives:
1. Discuss the complexity of immortality as defined by William Osler.
2. Define Osler's classification of human responses to death.
3. Converse and examine Osler's status as a PK concurrent with his being a scientist.

Surgical Education and Improving Patient Care: The History of the Surgical Morbidity and Mortality Conference

Thomas Z. Hayward, III

Dr. Hayward is an acute care surgeon and intensivist who is fascinated by history. As director of grand rounds, I have dedicated a session and lectured every year on the history of surgery. I am hoping to contribute to the American Osler Society as well.

Before the 20th century, social and public shaming dominated the peer review and quality process in American medicine. This practice was not scientifically based and stifled innovation. At the turn of the 20th century, great medical educators discussed the emerging understanding of diseases and treatments but did not analyze the root causes of complications in individual patients. Richard Cabot advocated for the educational value of learning from mistakes and the socialization of physicians in preventing recurrent errors. Ernest Codman pushed a strong agenda of quality care and peer review with his "End Results System," where patients should be continuously tracked to know the outcome of surgery both in the near and long term. The American College of Surgeons Hospital Standardization Program chaired by Codman then leveraged and disseminated this conference dedicated to reducing errors and improving surgical outcomes. Subsequent pioneers through the 1920s and 1930s created a weekly conference where outcomes including deaths, postoperative complications, and unsatisfactory results were discussed openly. During this time the use of projection systems to enhance the educational experience and incorporation of autopsy data to objectify outcomes were also added. In the 1940s, multi-specialty and multi-institutional efforts like the Anesthesia Study Commission disseminated ways to make the practice of anesthesia for surgery safer. This commission's efforts analyzing peri-operative deaths created post-operative care units and reduced the risk of harm from surgical procedures. The ACGME incorporated the M&M conference into graduate medical education in 1960. In the 1970s, Charles Bosk's sociologic studies demonstrated the role the conference has in teaching learners the standards of practice while providing a moral education about handling the inevitable errors and failures of surgical practice. In the 1980s, renewed efforts on the needed critical attitude in medicine reemerged. In the 1990s, management theories improved scientific knowledge on quality improvement and error reduction. In the early 21st century, reforms emphasizing education over accusations resurfaced.

In its modern form, the M&M conference embraces all ACGME core competencies and is a critical hour of surgical education. A delicate balance of the themes of education, quality improvement, and peer review is needed to avoid hurt feelings. Graceful acceptance of criticism provides an effective learning experience and is the cornerstone of safe surgical practice.

Learning objectives:

1. Outline the major historical events that have created and defined the M&M conference
2. Examine why a conference existing for over a century still struggles to maintain a balance between education, quality improvement, and peer review.
3. Investigate why the M&M conference, while universally recognized today, continues to vary between specialties, institutions, and departments.

All That Is Beautiful: Tôn Thất Tùng and the Foundations of Vietnamese Surgery

Thomas S. Helling

Thomas S. Helling is currently tenured Professor of Surgery at the University of Mississippi School of Medicine and Chief, Division of General Surgery at the University of Mississippi Medical Center. His career focus has been on surgery of the liver, trauma surgery, and the historical foundations of both.

Born in the early 20th century, the Vietnamese surgeon Tôn Thất Tùng received his medical education in French colonial Indochina at the fledgling *l'Ecole de Médecine de Hanoi*, the first indigenous medical school in Southeast Asia. The benefactor of a postgraduate position at the medical school, Tôn Thất Tùng subsequently obtained his surgical training at the *Phủ Doãn* Hospital in Hanoi and concurrently developed a passion for study of liver anatomy, pathology, and surgery. His contributions to an understanding of liver anatomy based on meticulous dissection of autopsy specimens antedated and rivaled later work by the famous western anatomists Couinaud, Healey, Schroy, and others. An intense nationalist, Tôn Thất Tùng also became active in the Vietnamese liberation movement of the post-World War II 1940s led by the charismatic Hồ Chí Minh. With the onset of hostilities around Hà Nội and the retreat of Hồ Chí Minh's insurgent Việt Minh to the remote Việt Bắc wilderness of north Tonkin, Tôn Thất Tùng became one of the few well trained surgeons available to treat the mounting battle casualties suffered during engagements with the French. His expertise in treating combat wounded under the most deplorable of circumstances won him enduring admiration by his colleagues and the new Hồ Chí Minh government once the French were defeated at Điện Biên Phủ. It was from that point forward that Tôn Thất Tùng worked to establish a firm basis for Vietnamese surgery in Hà Nội and recognition by the Occidental scientific communities as a respected – and modern – surgical force in Southeast Asia. Through the second American Vietnam war, and largely now shut out from the West, Tôn Thất Tùng maintained his professionalism and efforts to access European (mostly Soviet) scientific thought and practices, including, now, establishment of cardiac surgery expertise. He was chiefly responsible for the sophisticated surgical practices, education, and facilities that exist today in Hà Nội. Personal recollection and memoirs, contemporaneous literature, archival records, and interviews will serve to illustrate Tôn Thất Tùng's life and work.

Learning objectives:
1. Describe the obstacles to education of indigenous medical practitioners placed by French colonialist in early Twentieth Century Indochina
2. Recognize the significance of Tôn Thất Tùng's contribution to liver anatomy and liver surgery
3. Recognize the ingenuity, determination, and dedication of Tôn Thất Tùng in developing state of the art surgical resources in the new Vietnam

Polio Hospitals in Los Angeles During the Early 20th Century Epidemics

M. Mark Hoffer

Dr. Hoffer is a Professor Emeritus of Orthopaedics at the University of California (Irvine).

Polio has existed in endemic form all over the world for at least 3000 years. It was first reported in epidemic clusters in the modern Western World by Bell in 1836. The first clusters were reported in the U.S.A. in 1894 and there were eight epidemic waves in this country from 1910-1955. The first epidemic in Los Angeles involved 316 cases in 1912 and there were a total of 47,142 in the State of California in the years of the epidemics.

There were four hospitals in Los Angeles that cared for these patients

(1) LA County General was founded in 1887 and by 1929 had 3,500 beds. In the summer months over 500 Polio patients were admitted in each epidemic year. After acute pulmonary care these patients were transferred to the hospital wards of the old County Poor Farm, Rancho Los Amigos.

(2) Rancho would have an average Polio census of 87 patients with 65 dependent on mechanical respirators. After patients were stabilized physical therapy and appropriate reconstructive surgery was performed.

(3) The Children's Hospital of Los Angeles was founded in 1901 by a charitable group of women known as the "LA Kings Daughters" and initially provided acute pulmonary care to some of the children but no adults. Therapy and surgery were added in the 1930s.

(4) The Los Angeles Orthopaedic Hospital, founded in 1911 was the first institution in the West to provide therapy and reconstructive surgery to Polio patients. Children and adults were admitted after their acute care.

Learning objectives:

1. Contrast the programs for care in the epidemic between the governmental and private charity institutions
2. Evaluate the difficulty in providing rehabilitation to pulmonary dependent patients
3. Discuss the lessons learned about an urban community facing a set of epidemic waves

The History of Neurodivergence: The Evolution of Autism Spectrum Disorder

Katherine Holder, Bernardo Galvan & Steven Berk

Kate Holder is a third-year medical student at Texas Tech University Health Science Center's School of Medicine in Amarillo, Texas. She is passionate about documenting classical disease descriptions and championing healthcare rights and accommodations for the underserved.

Reports of neurodivergent individuals exhibiting atypical speech, uncommon emotional expression, and repetitive physical comfort techniques have pre-dated written history. The first known science-based reports concerning atypical neuro-psychological traits were published in the Middle Ages. Venerable Bede, a monastic scientist at Wearmouth Monastery in Sunderland East England in 600 AD, published detailed reports of a non-verbal child who displayed a conglomerate of symptoms that would eventually be categorised as autism. Other physicians, like Abu Bark Zahariyya Al-Razi around 900 AD, described similar conditions and even outlined early behavioral therapies.

In 1911, the term autism was first used by Eugene Bleuler, a Swiss psychiatrist who coined the term to refer to symptomatology that presented similar to schizophrenia. He originally believed that the disorder was characterized by infantile wishes to avoid unsatisfying realities and replace them with fantasies. Two decades later, Grunya Efimovna Sukhareva, a female scientist from Moscow, published the first 'case series' describing six boys with a clinical picture of "high functioning" autism with incredible precision and modernity including descriptions of sensory abnormalities. For the duration of the twentieth century, the diagnosis of Autism became increasingly common and was treated with a plethora of experimental drugs and procedures. These included electroconvulsive therapies, dietary restrictions, shock therapy, aversive punishment approaches, and auditory integration training, none of which proved to be overwhelmingly successful.

In the late 1970's, amidst the Disability Rights Movement and rapid de-institutionalization, autism gained increased attention from the medical community. With the age of emerging technologies around the turn of the twenty-first century, people with autism began campaigns of self-advocacy. Social models around disability and the definition of "normal" became increasingly scrutinized by American culture and the medical community. Rather than characterizing autism as a disease or a spectrum of traits, an alternative concept emerged over the last decade concerning neurodiversity. Neurodiversity is the idea that just as with race, gender, or culture, there are many types of "normal" neuropsychiatric profiles. This concept will undoubtedly change how clinicians perceive and "treat" or manage spectrum disorders in the future. Understanding neurodiversity and neurodivergence is essential for any healthcare provider as the concept of atypical neuropsychiatric diseases evolve and shape how the medical community perceives the human psyche and human experience.

Learning objectives:

1. Contrast the current understanding of neurodivergent disorders with the historic perception of autism spectrum disorder.
2. Discuss the importance of de-stigmatizing neurodivergent disorders like Spectrum Disorder.
3. Define 'neurodivergent' and examine why parlance is important when discussing Spectrum Disorder.

Exploring the Challenges of Professionalism in the Digital Age

Grayson Jackson & Jasmine Jones

Grayson Jackson and Jasmine Jones are second-year medical students at the University of Texas Medical Branch in Galveston, in the MD-PhD and MD/MPH programs, respectively. They are Student Scholars in the John P. McGovern Academy of Oslerian Medicine at UTMB.

Sir William Osler was famous for his legacy of humanistic medicine and practical, bedside teaching. In large part, our understanding of the patient-physician relationship is influenced by this legacy, and medical education today strives to instill the Oslerian tradition of patient-centeredness. New media, however, presents a challenge to this model for medical educators and students, and the profession must adapt to these media to preserve ethical, professional patient-physician connections.

Nationwide, an explosion of social media use among students and healthcare professionals has provided a platform for connecting directly with patients, speaking to national issues in health and patient advocacy, and collaborating with colleagues. This explosion has also given rise to equally significant challenges concerning responsible and professional conduct on these platforms. For example, physicians may inadvertently embroil their practice in controversy by tweeting about partisan politics, whereas students could cross ethical boundaries by representing themselves poorly on their social media profiles. These examples highlight how new media may strain the patient-physician relationship and prompt us to reconsider what professional conduct looks like.

It is no secret that medicine is shifting toward increased reliance on newly developed technologies, including those that enable and enhance medical care, teaching, and communication. During the COVID-19 pandemic, for example, we have leaned on telemedicine to assess patients who were otherwise unable to be seen in person. These new platforms will not disappear anytime soon, so the medical profession must learn to navigate novel quandaries of professionalism in the digital age. This requires us to evaluate what constitutes responsible social media use and how to avoid ethically questionable behavior on virtual platforms.

Learning objectives:

1. Recognize the importance of leadership, communication and professional identity formation in medical education.
2. Understand how technology and new media are changing the way we learn, teach and practice in medicine.
3. Identify challenges pertaining to professionalism in the virtual setting, particularly in medical education.

Abraham Flexner's Visit to UTMB Galveston

Bernard M. Karnath

Bernard M. Karnath, M.D., F.A.C.P., Professor of Internal Medicine is an Emeritus Scholar in the John P. McGovern Academy of Oslerian Medicine and Distinguished Teaching Professor at the University of Texas Medical Branch at Galveston.

Abraham Flexner's visit to Galveston in 1909 would be a historic moment in UTMB's 130-year history. Flexner would spend just one day in Galveston. He visited 3 other medical schools in the state of Texas in the month of November. In his report, Flexner would claim, *"there is now only one educational institution in the state capable of maintaining a medical school whose graduates deserve the right to practice among its inhabitants. That institution is the state university; the medical school is its department at Galveston."* Flexner would choose the Johns Hopkins University as his gold standard by which all other medical schools were compared and the German model of a full-time system by which medical professors would teach. The Flexner Report published in 1910 would have an important impact on the future of medical education for the next 100 years.

Flexner praised the University of Texas Medical Department. He admired the teaching laboratories and anatomical museum. He described the laboratory as *"a complete series of admirable teaching laboratories covering anatomy, physics, chemistry, pathology, bacteriology, histology and embryology."* He described the pathological museum as follows, *"there is a large pathological museum, labeled and indexed; and notable anatomical museum in which special preparations are most advantageously arranged for teaching."* Flexner spoke highly of the university hospital describing its organization as being on sound lines.

Flexner did have some criticisms of the Medical Department however. The dispensary was not so thoroughly organized and he noted that no effort was made in the direction of research. His biggest criticism however was the location of the medical department in Galveston. The University of Texas main campus was placed in Austin. According to Flexner, *"to an outsider it seems a regrettable mischance that located the medical department away from the University. Were it placed in Austin, it would apparently gain in every other way."* In January of 1920 Flexner would re-visit UTMB. He again expressed doubt about the future of UTMB. He did not believe that a "big medical school could develop in a small place," unless it controlled its own hospital. As fate would have it, the John Sealy Hospital would become a state-owned hospital.

The Medical Department in Galveston became a possibility due to the amendment introduced to the State legislature by state Senator James B. Stubbs from Galveston in 1881 that would permit Texas to place the university's medical school in a city that was not the same as the main campus. On October 5, 1891 the school of medicine began formal instruction.

The John Sealy Hospital opened on January 10, 1890 at the bequest of Galveston business man John Sealy who died in 1884 and would leave a portion of his estate to public charity. Sealy's wife (Rebecca) and brother (George) made a proposal for a new city hospital. The John Sealy Hospital became a state facility operated by the University of Texas in 1941. The UTMB campus has grown to encompass 4 schools of profession with a strong foundation in education, research and clinical care.

Learning objectives:
1. Explain how Abraham Flexner's visit to Galveston in 1909 impacted the future of UTMB.
2. List the contributions by the Faculty of Medicine in the early days of UTMB.
3. Review the historical timeline of UTMB's development from 1891 to the current day.
4. Draw connections between William Osler, Abraham Flexner and UTMB.

Colourful Innovations In Neuropathology: Robert Hooper And The Shift In Portrayal Of The Morbid Brain In The Nineteenth Century

Minahil Khan

Minahil Khan is a medical student at McGill University in Montreal, Canada. Under the supervision of Dr Richard Fraser in the Department of Pathology, Minahil received second place in the McGill Osler Society Pam and Rolando Del Maestro Family William Osler Medical Student Essay Contest and presented her work at McGill Osler Day 2020.

In 1826, Dr. Robert Hooper (1773-1835), an English physician and pathologist, published The Morbid Anatomy of the Human Brain, the first neuropathological atlas in colour. It was amongst the pioneering pathology atlases that were published in colour and widely circulated in the second quarter of the nineteenth century. Hooper's illustrations were strikingly different from prior neuropathological plates – notably compared to woodcut engravings, which had been the standard for three-dimensional anatomical drawings since the time of Vesalius and Da Vinci. Hooper's illustrations opened new possibilities in the depiction of neuro-pathological disease, particularly with respect to their innovative use of colour and detail. For infectious diseases, the detailed use of colour allowed for a remarkably precise depiction of inflammation (including "morbid vascularity") and an accurate representation of the various appearances of purulent exudates. It also allowed Hooper to capture the macroscopic morphological changes of the various stages of abscess formation and depict the texture of granulomas in tuberculosis. For cerebrovascular diseases, the medium allowed Hooper to display the deformation and staining of the lateral ventricle secondary to haemorrhage, and the appearance of old and new infarcts. In neoplastic diseases, Hooper's technique allowed him to represent the textural and vascular properties of various types of tumours that helped to differentiate tumours based on location (meningiomas, gliomas) and origin (primary, secondary). Although he planned to produce a great atlas of pathology of the various organ systems, but his early death would prevent this achievement. However, the volume was widely circulated among contemporaries, who would derive inspiration and use it to inform their own works. As the classification of diseases was becoming an emerging priority in medicine, the photorealistic quality of the plates was essential to allow contemporaries to incorporate the illustrations into their own theoretical frameworks. Hooper is referenced by several other authors who produced pathological works, such as John Howship and John Cruveilhier, as well as Matthew Baillie. Notably, his work would pave the way for larger, more ambitious pathological atlases, such as John Cruveilhier's Anatomie pathologique du corps humain (1829-1842). Indeed, as Hooper predicted in his preface, his landmark illustrations truly did become "more useful than the preparations themselves." (Hooper, 1826).

Learning objectives:

1. Provide an artistic analysis of Hooper's illustrations to explain how they allowed the medical community of the time to observe, and thereby better understand, a variety of neurological diseases that would not have otherwise been visually accessible to them.
2. Provide a pathological analysis compared with the most well-known prior pathological volume containing neurological diseases, namely Matthew Baillie's A Series of Engravings, to demonstrate the innovative features of his illustrations and how Hooper's contemporaries may have conceptualised the highly realistic images.
3. Explore the impact of Hooper's volume and how it increased the standard for illustrations in this field, thus fuelling further innovation.

Mentorship to Friendship: Lasting Relationships of Osler to Davison to McGovern

Jong O. Lee

Dr. Lee is a Professor of Surgery at the University of Texas Medical Branch in Galveston, Texas. He holds Annie Laurie Howard Chair in Burn Surgery. He is a Scholar in the John P. McGovern Academy of Oslerian Medicine at the University of Texas Medical Branch.

Wilburt C. Davison was one of three of last of William Osler's American students. He graduated from Princeton University and was selected as a Rhodes Scholar. He chose Oxford University and began his medical education in 1913. He had the ambition of finishing basic sciences in medical school in one year. Of course, he was told that "it isn't done." He was persistent believing it can be done. He was told to go see Sir William Osler who was the Regius Professor of Medicine at the time. When Davison arrived at 13 Norham Gardens, he had a second thought and was ready to withdraw his request and retreat in haste, but it was too late. Osler came out and said, "I am Sir William and have heard your request which I think is very foolish but of course you can do anything you please and now let's have tea." That was a beginning of incredible mentorship and friendship. They spent a lot of time together as Osler took Davison to ward rounds, Duchess of Connaught Hospital in Cliveden, Mount Vernon, and The Open Arms.

Osler recommended Davison to go back to the States to finish his medical school. Davison went to Johns Hopkins to finish his medical school in 1917. He continued his correspondence with Osler. He went back to England to visit Osler. After Osler died, he had chance to visit Grace Osler. He finished pediatric residency at Johns Hopkins and stayed on as faculty advancing to assistant dean. He remained at Johns Hopkins until 1927 when he went on to become the first Dean and Pediatric Chairman of the Duke University Medical School.

When Davison was a dean, John P. McGovern had a meeting with him in 1942. Davison told McGovern about Sir William Osler during the interview and accepted him into Duke University Medical School after the interview. Davison and McGovern went on to be lifelong friends. McGovern had lifelong dedication to teaching and practice of Osler because of Davison's mentorship. This culminated in formation of American Osler Society in 1970 and formation of McGovern Academy of Oslerian Medicine at the University of Texas Medical Branch in 2001. The three Rhodes Scholars who had been Osler's students at Oxford were named Honorary Members of American Osler Society, which included Wilburt C. Davison.

Learning objectives:
1. Examine friendship of Wilburt C. Davison and Sir William Osler.
2. Discuss life of William C. Davison.
3. Discuss friendship of Wilburt C. Davison and John P. McGovern.

The Proceedings of the Charaka Club (1902-1985) with reference to the contributions of Sir William Osler

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. More recently his attentions have focused on medical ethics and professionalism, an interest evolving from his roles as Chairs of the Institutional Review Board at Hospital for Special Surgery and the Ethics and Conflict of Interest Committee of the American College of Rheumatology. Outside of these professional activities, he has served on the Boards of a number of non-profit institutions including the Newport Festivals Foundation. He is a long standing member (clarinetist) of the Westchester Symphonic Winds a concert band located in Westchester County where he resides.

The Charaka Club was founded in 1898 by five distinguished New York physicians. The first meeting of the club, then nameless, was held in November of 1898 at the home of Charles Dana. The five founding members were Columbia physicians, three neurologists, one opthalmologist, and a psychiatrist, men with interests beyond the boundaries of medicine. By 1902, with their expectations sufficiently realized, Volume One of the *The Proceedings of the Charaka Club* was published, an effort that would eventually grow to a 12 volume collection.

By the publication of Volume One, the club membership stood at 10 with an additional 11th Hononary Member, William Osler, whose first presentation *"On Linacre"* was one of 27 given during the preceeding four years. Although not amongst the 8 chosen for inclusion in the inaugural volume, this distinction appears reserved for the founding members with the first offering that of Bernard Sachs. Entitled *On Hindu Medicine,* this was not the first talk given to the Club, indeed it was the eighth and is listed elsewhere in the volume under another title (*The Medicine of Ancient India*). It nonetheless serves well as an introduction to the collection as in it Sacks introduces the ancient Hindu physician Charaka, a figure whose works are amongst the oldest extant treatises on medicine, preceeding those of Hippocrates. Further it was this commentary that suggested to a member present to name the club after this historic figure the proposal accepted unanimously. By Volume Two, a publication of particular interest to Oslerians, another 27 presentations had been given. Of those two were by William Osler (*Fracastorius, Oxford)* and one by his co-inductee Silas Weir Mitchell (*Books and Man*) with *Fracastorius* and *Books and Man* included amongst the 12 selected for publication in *The Proceedings*. In addition, a description of the Charaka Club dinner in honor of Osler's departure to England (1905) closes the volume. In Volume Three, two additional papers of Osler's are listed (*Imaginary Libraries, Libraries of France and Italy*), neither of which are included amongst those eventually published in full. Of the 78 contributing authors, George L Walton a Boston neurologist, holds the record with 11 contributions chosen for publication.

The *Proceedings of the Charaka Club* encompass a broad range of subjects, fully satisfying the founders mandate, discourse concerning the *"literary, artistic and historical aspects of medicine*." In its totality the 12 volumes represents a fascinating, but under-appreciated, resource concerning the history of medicine and its intersection with the humanities. The works are of particualar interest to Oslerians given William Osler's association with and contribution to the early years of the organization.

Learning objectives:

1. Learn of the Proceedings of the Charaka Club.
2. Promote the Proceedings as an important but underappreciated resource to medical historians and those interested in the medical humanities.
3. Discuss the early contribution of William Osler to the Charaka Club and its publications.

Patrick Romanell, William Osler, and The Philosophy of Medicine

Michael H. Malloy

Dr. Malloy is a neonatologist and Professor at the University of Texas Medical Branch, Galveston, holder of the John P. McGovern Chair in Oslerian Education, and Assistant Dean of the Osler Student Societies.

"Empiricism, experience, the collection of facts, the evidence of the senses, the avoidance of philosophic speculations, were the distinguishing features of Hippocratic medicine."

William Osler

"No one can understand the science of medicine unless he knows what man is…and must first learn such things, as the origin and Nature of man."

Empedocles

"Hippocrates was potentially a greater philosopher than Socrates, because the Hippocratic concept of nature is more inclusive that the Socratic concept of man."

Patrick Romanell

William Osler would deny that he was any sort of classical scholar or philosopher. He did so in his last public address given to the Classical Association at Oxford in 1919 saying he was but, "an amateur" when confronted with, "the thought of addressing (such) a body of experts." Concluding that, "in a life of teaching and practice, (he was) a mere picker-up of learning's crumbs made to realize the value of the humanities in science not less than in general culture." Nevertheless, his essays, public addresses, and musings give testimony, that he was an astute observer and interpreter of humanity, the human condition, and the Nature of man.

Patrick Romanell was born in Bari, Italy in 1912 and moved to the United States becoming a naturalized citizen as a teenager. He was educated at Brooklyn College (BA) and Columbia University attaining an MA and Ph.D. in philosophy in 1937. He taught at Brooklyn College (1937-41), Barnard College (1941), University of Panama (1941-44), Wells College (1946-52), before being recruited by Dean Chauncey Leake at the University of Texas Medical Branch in 1952 to develop a program in the history and philosophy of medicine. Romanell was a pioneer in the field of medical ethics and was noted by the acclaimed anthropologist, Margaret Meade, to be "the only known medical philosopher in the Western World." After leaving UTMB in 1962, he taught at the University of Oklahoma and the University of Texas in El Paso. He died in 2002.

Romanell quotes Osler's observations on the "distinguishing features of Hippocratic Medicine" and takes Osler to task concerning the dismissal of philosophy as a distinguishing feature of the nature of medicine. The nature of medicine is underpinned by an understanding of the nature of man (philosophical concept) and requires that the pedagogy of medicine incorporate not only the empirical science that is the basis for the practice of medicine, but also the logical and metaphysical concepts of the nature of man. These concepts are informed by the humanities that include history, literature, and the arts. Thus, the urgency to continue to push for the incorporation of the humanities into the education of the physician. Osler's astute capacity to observe and understand the condition of his fellow humans was certainly informed by his knowledge and exposure to the humanities. Although he may not have considered himself a philosopher, he promoted a philosophy of medicine that deserves continued emulation.

Learning objectives:

1. To review the life and writings of Patrick Romanell.
2. To better understand what the philosophy of medicine may be.
3. To provide an argument for the integration of the humanities into medical education.

Contagious Calling

Jacob Moran

Jacob Moran is a 7th year MD/PhD student at the University of Texas Medical Branch at Galveston. He is a Student Scholar of Oslerian Medicine in the John P. McGovern Academy of Oslerian Medicine at UTMB.

Sir William Osler emphasized compassionate, patient-centered, and evidence-based medical care. He referred to the practice of medicine as "a calling in which your heart will be exercised equally with your head". Time honored principles are inherent in this role. Physicians themselves are respected and perceived as esteemed members of their community. Caring is at the core of what it means to be a physician. Certainly, medical schools search for evidence of this quality in applicants. Still, this is a calling fraught with challenging ethical and moral dilemmas that over time may erode the naïve joy observed in many recently matriculated medical students leaving remnants of the vibrance that once was.

It would seem there are common trajectories among medical trainees and practicing physicians. One that may stand out for its troubling implications for the practice of medicine is that which is observed when the optimistic medical student becomes the realistic resident and proceeds to the pessimistic physician. Somewhere along the way, the awe of performing a physical exam, excitement of gathering a history, and the respect for persons fades away.

With modern medicine ever threatening to push the boundaries of emphasizing quantity at the expense of quality, our profession must intentionally work together to preserve the unspoken reverence for this role we have been called to. It is a privilege to be a doctor; to be called a healer and invited into the most challenging circumstances faced by those in suffering. We must not allow an imperfect system to make the compassionate, patient-centered physician a thing of the past.

This presentation will serve as an appeal to Oslerians to strive to foster the development and maintenance of physicians with qualities that are contagious in nature; spreading through our profession and guarding against indifference and apathy.

Learning objectives:
1. Describe the impact supervising physicians have on trainees
2. Explain the role of the supervising physician in fostering healthy maintenance of optimism and a sense of awe in learners
3. Articulate basic strategies for minimizing negative effects on trainees' perspectives

Dr. Battle and the "Baron" of Biltmore
An Oslerian Consultation and the Pressure of Practice

H. Michael Jones

Dr. Jones is a pathologist, most recently retired from the faculty of the University of North Carolina, capping 50 years of practice.

A previously unreported cache of correspondence to and from Osler has recently been uncovered in the archives of the Biltmore Estate in Asheville, NC. It gives us a unique, and perhaps the only, detailed documentation of a consultation event with Osler over an extended period, and with the patient hospitalized so far from home. Sadly, the record not only documents the demise of the patient, "Baron" Eugene d'Allinges, but also outlines the growing frustration of the patient's employer with the efforts of both Dr. Osler and Johns Hopkins Hospital.

The farms manager of George Vanderbilt's vast estate called Biltmore became ill in 1895 and was placed under the care of a local well-regarded physician, Dr. S. Westray Battle, who quickly recognized the need for a higher level of care. Dr. Battle, a generalist, belonged to that class of physicians highly praised by William Osler, and Battle recommended sending the "Baron" to the Johns Hopkins Hospital to the care of Dr. Osler. D'Allinges had suffered with enlarged neck glands, generalized itching and extensive severe furunculosis.

The general manager of the estate, Mr. Charles McNamee was placed in an awkward position, first because d'Allinges had no family in this country and second, because he was responsible to George Vanderbilt for the continuing successful operation of the farming division at Biltmore. He requested detailed information from Osler on more than one occasion, with cursory delayed answers which clearly did not satisfy him. With a hint of pique, McNamee goes over Osler's head to Henry Hurd, the hospital superintendent to complain.

This period in Osler's life was exceptionally busy and he was frequently away, preparing for meetings, or writing, as well as conducting his hospital and consultative practice. Hurd makes this argument and stands in for Osler in providing the detailed information. Hurd and Osler express optimism about the eventual recovery of d'Allinges, but he apparently continues to deteriorate, much to the consternation of the Asheville contingent. The correspondence reveals little about the feelings of Dr. Battle, who visited the "Baron" in Baltimore, but McNamee (an attorney by training) minces no words in expressing his disappointments just before having the "Baron" placed on a steamer to his home in Saxony, where he soon dies.

The episode raises questions about the nature of consultative interchanges in the day and whether this was in any way the normative for Osler, Hopkins or consultations in general.

Learning objectives:
1. To gain a broader understanding of the nature of consultative interactions of Osler
2. To develop a keener perspective about the unusual demands on Osler's time
3. Recognize the beginnings of "burnout" that ultimately sent Osler to England
4. Does this encounter say anything about the wealthy paying for employee's medical care?

It Grows with the Growth: Learning What Cannot Be Taught

Francis A. Neelon

Frank Neelon, a retired internist and endocrinologist at Duke University, served as President of the American Osler Society, 2007-2008.

William Osler liked lay sermons — talks with a moral or quasi-religious tone. A notable example, *A Way of Life*, contains Osler's prescription to worry not about future or past, but to focus on the present, organizing life and work into "day-tight compartments." It begins:

> *Every man has a philosophy of life in thought, in word, or in deed, worked out in himself unconsciously. In possession of the very best, he may not know of its existence; with the very worst he may pride himself as a paragon. As it grows with the growth it cannot be taught to the young in formal lectures*.

The meaning and import of those opening sentences are curiously opaque; commentators have generally passed over them to dwell on Osler's subsequent personal revelations and advice to his "Fellow Students." But I want to look more deeply at those sentences.

The manuscript notes Osler used to prepare his talk are more straightforward:

> *A man must have a philosophy of life, in thought, in word or in deed. He must work it out for himself unconsciously. He may have the very best and not know of its possession, with the very worst he may pride himself as a paragon. It cannot be taught.*

The Cushing Collection at Yale has the copy of the talk as delivered by Osler, including Osler's handwritten *apologia*, "I wrote this on the steamer going to America, from memoranda that I had been jotting down for months. . . The first part of it was typed on the steamer, but I only finished it on the Sunday of its delivery." Osler did extensively emend the typescript, including inserting the enigmatic and ambiguous phrase, *As it grows with the growth*. What could these words mean: "As" in the sense of "because" or of "while or when"? Does "philosophy" serve as antecedent for "it"? I will argue that "it" does stand for philosophy, and that Osler used "as" in the sense of because, thereby directly connecting the phrase to his assertion that philosophies of life and work are acquired unconsciously; that, like Topsy, they just growed; that, therefore, they *cannot be taught to the young in formal lectures* (of course, Osler devotes the rest of his essay trying to do just what he says cannot be done). Despite the apparent paradoxes and linguistic uncertainties, I submit that viewing this phrase as a revealing, Morellian trifle shows that, perhaps beyond the horizon of conscious knowledge, Osler presciently announced the role of tacit learning and the prominence of tacit knowledge in all that doctors do and think. That view is supported by Osler's separate dictum that, "We expect too much of the student and we try to teach him too much." What *really* counts can be learned but cannot be taught.

Learning objectives:

1. A close parsing of Osler's sometimes difficult but profoundly illuminating prose
2. A deeper appreciation of Osler's philosophy of teaching and learning
3. Explication of the preeminent role of tacit learning and knowledge in medical education

The History of Airline Medicine, 1928-2022

Robert R. Orford

Robert Orford, MD, MS, MPH is a Consultant at Mayo Clinic Arizona, and was previously on staff at Mayo Clinic in Rochester, MN where he served as Medical Director of Northwest Airlines. He is a Federal Aviation Administration Senior AME. An Assistant Professor at Mayo Clinic College of Medicine and Associate Professor at University of Texas Medical Branch (UTMB), Galveston, Texas, and Past President of the American College of Occupational and Environmental Medicine, the Airlines Medical Directors' Association (now the International Airlines Medial Association), and the Arizona Medical Association. He is currently Vice President, International Activities for the Aerospace Medical Association and Co-chair of the Scientific Program Committee of the International Academy of Aviation and Space Medicine.

The world's first airline service was the St. Petersburg-Tampa Airboat Line, which crossed Tampa Bay and lasted only three months. The first commercial aircraft, the un-pressurized Boeing Model 80, was manufactured in 1928 for use by Boeing Air Transport, with Dr. John Tamisea as its Medical Advisor in Seattle. Nurse Ellen Church became the first flight attendant. All flight attendants in that era were trained nurses. As airlines developed through the 1930s, airline medicine emerged as a branch of aerospace and occupational medicine and grew rapidly with the expansion of airlines following the Second World War, paralleling the paralleled the growth of industry in general.

The first US airline medical department was established on July 1, 1936 at Eastern Airlines by Dr. Richard Greene, and other airlines soon followed with Dr Ross McFarland at Pan American (1936), Col. Arnold Tuttle at United and Dr. Randy Lovelace at Northwest (1937), and Dr. Edward Greene at American Airways (1941). Trans World Airlines was decentralized until 1947 when Dr. Randolph Lovelace became Medical Director, soon succeeded by Dr. Harold Dye.

Challenges in airline medicine have evolved through the history of aviation, and include, for crew: fatigue, cosmic radiation, alcohol and drug screening, HIMS rehabilitation program for alcohol and substance abuse, regular Federal Aviation Administration evaluation of airline pilots, and disability of pilots and other crew members; and for passengers: Emergency Medical Kits, inflight passenger medical services and onboard Good Samaritan physician helpers, passenger oxygen systems, seatbelts, air sickness bags, disability (Air Carrier Access Act and Americans With Disabilities Act), and infectious diseases (coronavirus, pandemic flu, TB, and measles).

In recent years, growth in both occupational medicine and airline medicine has slowed or halted as US airlines have reduced or eliminated their in-house medical staff, and physician contracts have been outsourced. Passenger inflight medical advice is now provided by commercial services expert in this area, who also advise cruise lines and yachts, and backcountry ventures. Many international airlines outside of the United States continue to employ inhouse medical staff. The Airlines Medical Directors Association, which first met in 1945, was recently renamed the International Airline Medical Association, and continues to advance the science of airline medicine.

Learning objectives:
1. Explain the evolution of commercial aviation and airline medical services over the past century.
2. List the principal medical and related challenges associated with commercial air transport.
3. Describe how inflight medical events are handled, the role of inflight medical services, and the role of on-board Good Samaritan medical providers, and how those roles have evolved.

Hallervorden, Spatz and Seitelberger: Problems Beyond Eponyms

Claus A. Pierach

Claus Pierach is Professor of Medicine, Program in the History of Medicine at the University of Minnesota, Minneapolis. He still consults in porphyria, teaches and is fascinated by the interface between American and German History of Medicine.

Julius Hallervorden (1882-1965) and Hugo Spatz (1888-1969) described a rare neurological disease in 1922 that bore their names. Both were neuropathologists and became well known for their work. During the Nazi era (1933-1945) they continued their collaboration, using brains that had become available from the euthanasia program.

In the 1950s their Max Planck Institute for Brain Research was located at the University of Giessen, Germany, where the author got to know them, long before knowing anything about the shadow on their work. Hallervorden and Spatz had been interrogated by psychiatrist, Leo Alexander in connection with the Nuremberg Physicians Trial, but his report was sufficiently inconsequential that both continued their scientific work after the war, still using hundreds of brains from the euthanasia program. All remains have since been respectfully interred.

Franz Seitelberger (1916-2007) was an Austrian neurologist and neuropathologist. Seven years after the end of the war, Seitelberger, became a docent under Hallervorden. For his thesis he had studied the brains of 3 children (2 brothers and their cousin) who all suffered from the same neurological disease and died in the euthanasia program. Their neurodegenerative disease became known as Seitelberger Syndrome. In this case, the victim's name (Kutschke) is now known and could be substituted for the describer's name.

The aforementioned neuropathologists were highly honored for their seminal work, but in recent years Hallervorden and Spatz have been stripped of many of their honors. No evidence has been found that Seitelberger has been similarly demoted.

There is a modern trend to eliminate eponyms from medical literature and the Hallervorden-Spatz Syndrome is now known as Pantothenate kinase deficiency syndrome, using the biochemical cause of the disease as its name. Likewise the Osler-Weber-Rendu Syndrome is now named hereditary hemorrhagic teleangiectasia. Recently, 3 proposals were offered about eponyms: 1. abandon eponyms altogether. 2. perpetrators' names not be used. 3. in print, use the scientific description followed by a footnote giving the name(s) of the describer(s) and, if appropriate, add a remark such as: unethical circumstances have been found.

Learning objectives:
1. Discuss how ethics and the law can collide
2. In eponyms, help to substitute scientific descriptions for proprietary names
3. If possible, honor the victims of disease and not only the researchers

Sir William and The "Pervert"

Irving Rosen

Dr. Rosen is a Professor of Surgery at the University of Toronto who is retired from long time practice in General Surgery. He devotes his time currently to the study of History of Medicine.

Reared in 1800s rural hinterlands, north of Toronto, Osler amazingly evolved to become the World's peerless medical personality. His Toronto connection compelled delinquent neuropsychiatrist Ernest Jones to travel to Oxford to successfully request Osler's recommendation for a position with Dean Clarke at University of Toronto medical school. Just introduced to Freudianism by chum, surgeon, Trotter, Jones, in 1908 at 29 came to neoVictorian Toronto with addicted mistress and housekeeper sister. Soon he became Associate Professor of Psychiatry, Director of first Psychiatry OPD, Pathologist, Editor and chief contributor to Bulletin of the Insane and published 70 significant papers. He continually visited USA, lecturing and joined several neurological societies. In 1909 he joined Jung and Freud at their Massachusetts lectureship befriending, Harvard's Putnam and other USA notables. He helped found the American Psychoanalytic Society while promoting and practising psychoanalysis which dealt with sexual matters which offended Toronto MDs. Accused of sexual misbehaviour, by a patient he foolishly attempted to bribe her silence. He left in 1913 under a cloud, described as a pervert, returning to London where he prevailed in practice, founding the English and International Psychoanalytic Societies, rescuing Freud from the Nazis and producing a 3 volume biography of Freud. Freudianism has currently been surpassed by drug treatment. Unpopular in Toronto, Jones helped kick start Toronto's transformation from provincial capitol to global metropolis and with his contributions in psychiatry well justifies Sir William's prescient recommendation.

Learning objectives:
1. Discuss physician practice problems in dealing with emotional patients
2. List the chief contributions made by Dr. Ernest Jones to Psychiatric practice
3. Contrast current treatment of mental illness with the recent past

Illustrating the Unimaginable: Dissection Scrolls of Edo-Era Japan

Brendan Ross

Brendan Ross is a second-year medical student at McGill University, Montréal. His interests include Chinese and Japanese intellectual traditions of medicine and non-Western approaches to medical knowledge. His essay, "Illustrating the Unimaginable: Dissection Scrolls of Edo-Era Japan", written under the supervision of Prof. Mikaël Bauer, Assistant Professor of Japanese Religions at McGill, was awarded the first prize in the Pam and Rolando Del Maestro Family William Osler Medical Student Essay Contest at McGill's Osler Library in November 2019.

Japan's first official state-sanctioned dissection took place in 1754. During that same century, medical and anatomical illustrations from Europe had made their way to Japan and became integrated into Japanese medical institutions through the practice of "Dutch learning." The Japanese began illustrating their own anatomy atlases and conducting original anatomical dissections, yet modern scholars have argued that this practice often presented a "copying" of European illustration techniques and medical knowledge. A Japanese dissection scroll in McGill's Osler Library, however, points to a more complex story. This scroll named the *Kansei fujin kaibo-zu* is both an important historical document and a rare medical artifact. Its colorful illustrations depict the dissection of a convicted criminal—a young woman pregnant with twins—in Osaka in 1800. The drawings prompt a series of questions over the ethical boundaries of medical dissection and over how the body was valued and conceptualized in Edo Japan. The scroll also frames an argument for how the Japanese went beyond merely copying the Dutch: they applied European anatomy illustrations but altered representations to fit their own philosophies, scientific practices, and artistic modes. Additionally, the *Kansei fujin kaibo-zu* emphatically reveals how the Japanese were more interested in the human body itself than they were in "Dutch learning." As displayed on the scroll's illustrations of kidney structure and function, anatomists in Japan were also concerned with understanding the body's physiological processes through independent scientific investigation. The scroll's kidney experiments are the earliest known evidence of an understanding of the kidney as a filter and point to real medical progress in Edo Japan. The scroll, therefore, holds relevance to medicine on many levels. First, it depicts how local cultural beliefs influenced the production of medical knowledge in Japan, and second, its investigations support the idea that medicine is indeed a dynamic, physical science, one in which the physician-researcher can employ novel observation to transcend paradigms of power and past knowledge to come to a deeper, more nuanced understanding of what is true.

Learning objectives:
1. Examine specific approaches to anatomical dissection in Japan c. 1800;
2. Evaluate cross-cultural knowledge translation and experimentation in the context of anatomical illustrations;
3. Gain insight into the history of early efforts to demonstrate the physiological function of the kidneys.

Is the Legacy of Johns Hopkins Woke Enough to Survive the 21st Century?

George Sarka

George Sarka is an Associate Clinical Professor of Medicine at UCLA; Multispecialist at the California State University, Northridge; Immediate Past President and Current Secretary of the California Neurological Society, Past Governor of the ACP, Past President of the LA Neurological Society, and a Diplomate in 11 subspecialties. He received his MDCM from McGill University in 1980, MPH/DrPH from UCLA in 2003/2013.

Recently, wokeism has taken this country by storm. What is a working definition of wokeism? It is a Marxist inspired movement that started off with well-intentioned people that wanted to stop racism and social injustice. However, it has now metamorphosized and seeks to silence all of those who disagree. The most recent historical victims being that of George Washington, Thomas Jefferson as well as universities of higher learning such as Yale. Will the philanthropist, Johns Hopkins, be a future target?

To answer this, one needs to address who was Johns Hopkins? He was an entrepreneur, abolitionist, and philanthropist. Born on tobacco plantation in 1795 from a heritage of English descent and Quaker influence in his formative years, Johns Hopkins left the plantation to pursue work with his uncle Gerard Hopkins' Baltimore wholesale grocery business. In the ensuing years, he partnered with his brothers to establish Hopkins & Brothers Wholesalers in 1819. From there, he pursued banking as president of the Merchants' National Bank of Baltimore and the director in the First National, Mechanics' Central, National Union, Citizens', Farmers', and Planters' banks. He was also director of the Baltimore & Ohio Railroad with a major stockholding in that company.

Recently, researchers from Johns Hopkins University have questioned his abolition advocacy since he may have owned or enslaved people who worked at his home and on his country estate, citing census records from 1840/1850. Documentation of Hopkins parents freeing enslaved people is also in question. To the contrary, there are documents from contemporary black leaders of his day, praising him for his philanthropy with the establishment of an orphanage for black children. Hopkins was also a staunch supporter of Lincoln and the Union as well as bringing Lincoln's emancipatory vision to fruition in Baltimore.

Philanthropy was a passion of Hopkins being well-connected to the social elite of Baltimore, many of whom were fellow Quakers. With the advent of yellow fever and cholera epidemics affecting Baltimore post-Civil War, Hopkins realized the city's need for medical facilities, and set aside a massive sum at that era of $7 million dollars for his envisioned free hospital, affiliated medical and nurse's training colleges, orphanage for African American children and a university justifying his raison-d'être.

Will wokeism destroy the reputation of Johns Hopkins? Being that his name is synonymous with the hospital/ institutes of higher education as well as with the city of Baltimore, I think not. Although there are controversies about his family heritage, slavery and his support of abolitionism, the key elements for a positive legacy: passion, truth, knowledge, sense-of-duty, interest in other people, small flaws in human nature and his philanthropy uniquely dedicated to the city of Baltimore resulted in a strong force, difficult to condemn via wokeism.

Learning objectives:
1. Identify the key elements of wokeism.
2. Augment the participant's knowledge of Johns Hopkins as an entrepreneur, abolitionist, and philanthropist.
3. Discuss key elements of a positive legacy.

Physician Olympians

Stephen I. Schabel

Stephen I. Schabel, M.D. Distinguished University Professor Radiology Medical University of South Carolina.

Since 2020 is an Olympic year and Los Angeles has served as host city for the summer games twice in 1932 and 1984 and will again in 2028 I thought it would be appropriate to look at the Olympic athletes of the modern games who either were physicians when participating or became physicians afterward. While none of the original faculty or students of Johns Hopkins Medical School which opened in 1893 participated in the modern Olympics which only began in 1896 several might have had the games begun a decade or two earlier while they were collegians. All the early faculty were driven personally to excellence and many could easily have become Olympic athletes today. William Stewart Halsted was very active in sports in college rowing on crew, playing baseball and serving as the captain of the Yale football team. John Miller Turpin Finney even today is the only student who played varsity football for both the Princeton and Harvard teams and Harvey Cushing was an accomplished college gymnast and a very competitive and talented tennis player even into later life.

I have reviewed the lives of 58 physician athletes from the summer and winter games and will review some of their personal characteristics, family backgrounds, education, subsequent medical training and careers and choices of specialty of both the 35 who won medals and the 13 who did not. Success has been more prevalent in physician Olympians than the athletes in general. 16 received gold medals 10 silver and 7 bronze. 4 won multiple medals either in separate games or multiple events. The large majority of physician Olympians medaled in team events, 24 vs only 11 individual medals. Many came from very privileged backgrounds and were introduced to sport as children and young adults. They often attended prestigious prep schools and universities where participation in Olympic sports was available. Most Physician Olympians (41) have been males a result of both the male domination of medicine until the last few decades and the choice of Olympic sports that were predominantly male. Almost all were white - a reflection of Olympic participation being predominantly white particularly in the winter game sports and the racial makeup of North American and European medical classes.

Most physician Olympians of course were justly proud of their Olympic successes and had very successful lives. Several made significant contributions to medical science. A few had significant life difficulties though and historical blemishes on either their sport or medical careers. Amazingly one silver medalist was always deeply disappointed for not having won gold.

I will review some of the characteristics needed to be a successful Olympic athlete that are similar to those needed to enter and succeeded in medicine.

Learning objectives:
1. List the commonest specialty career choices for Physician Olympians
2. Discuss minority physician participation in the Olympic games
3. Describe the life failures of physician Olympians who struggled in their careers

Francis Packard on William Osler's Fixed Period Speech – An Unpublished Manuscript

R. Hal Scofield

Hal Scofield is Professor of Medicine at the University of Oklahoma, where he teaches medical history to second year medical students. His research concentrates on the immunology, genetics and clinical expression of systemic lupus erythematosus and Sjögren's syndrome. He is a Master's student in the Johns Hopkins University Department of the History of Medicine.

William Osler delivered the Fixed Period speech on 22 February 1905 at a farewell dinner marking his leaving Johns Hopkins to become Regius Professor of Medicine at Oxford. Osler discussed the Fixed Period, an obscure novel by Antony Trollope, in which men at age 60 retired to a college and were euthanized one year later. Osler remembered that chloroform was used. The speech raised a controversy covered extensively by the lay and medical press.

Francis Packard (1870-1950) attended the University of Pennsylvania and was graduated in 1892 with the MD. Subsequently, he undertook post-graduate training with William Osler, and then returned to Philadelphia where he was one of the first US specialists in otolaryngology. An early medical historian, Packard contributed to the history of William Osler with a paper entitled "Sir William Osler and the Library of the College of Physicians of Philadelphia (Trans Coll Physician Philadelphia, 1920). Upon his death, Packard donated his personal library to the College of Physicians in Philadelphia.

Among the Packard papers is a short, double-spaced manuscript version of a paper entitled *Sir William Osler and "The Fixed Period"*. This manuscript was likely prepared for submission but has a few handwritten corrections. Francis Packard was not present for the 'Fixed Period' address, but the manuscript makes it clear that he discussed the matter with not only Osler but members of the audience. By Packard's account, no one hearing the speech nor Osler himself thought that 'he had said anything out of the way, or calculated to produce a sensation'. Packard quoted Basil Gildersleeve, Professor of Greek at Johns Hopkins and an auditor of Osler, that the speech '… did not cause me a flutter.' Packard commented that he did not understand why Osler considered the novel charming, and called references to the work 'unfortunate.' Further, Packard reported that Osler felt 'very deeply the result … to be so misinterpreted.' Finally, Packard reported on comments regarding the Fixed Period Speech by Mitchel Weir at a farewell dinner honoring Osler at the Waldorf-Astoria in New York on 2 May 1905. Thus, this unpublished manuscript of Francis Packard adds to the interpretation of the Fixed Period speech.

Learning objectives:
1. Explain the controversy of Osler's Fixed Period Speech
2. Examine the contributions of the unpublished paper by Francis Packard to interpretation of the speech.
3. Discuss the concept of retirement and old age at the time of the speech.

What is the Art of Medicine?

Barry Silverman

Dr. Silverman is part of Emory University School of Medicine and has been an Oslerian for 30 years. Dr. Silverman still teaches at Emory/Grady Hospital.

Medical humanists and philosophers have discussed the importance of practicing the "Art" of medicine for thousands of years. Hippocrates comments: "Where ever the Art of medicine is loved, there is a love of humanity. Paracelsus remarked; "Medicine is not only a science; it is also an art. It does not consist of compounding pills and plasters; it deals with the very processes of life, which must be understood before they may be guided." And Osler said; "The practice of medicine is an Art; a calling, not a business; a calling in which your heart will be exercised equally with your head." We are reminded by Francis Peabody that the secret of caring for the patient is caring for the patient and Maimonides remarked; "The Good Physician treats the Disease; the Great Physician treats the Patient with the disease."

Yet, there is no formal teaching of bedside manners and "the Art" it is taught by the "Hidden Curriculum" which we know can teach bad habits as well as good ones, No textbook is available and no effort is made on the wards for students, residents, or fellows to develop patient centered, family centered bedside skills. Philip Tumulty expressed this problem elegantly when he observed: Actually, what many patients miss and resent today is the inability to communicate with their physician in a meaningful manner. Patients have questions they want answered, fears requiring dissipation, misunderstandings that need clarification and abysmal ignorance about themselves that demands enlightenment. Today, many patients with serious health problems leave their physician's offices with less comprehension of what is wrong and what they must do to get well than the average customer understands about his car when he drives it out of his repair shop. And if the patient feels deprived of adequate communication with his physician, family members are totally devoid of it. No wonder the resentment."

The "Art" of medicine today is a patient centered concept where doctors should be taught to understand what is the patient's real problem. Not just the disease they present with, but the real reason they came to the doctor's office. The doctor must understand who the patient is as a person. The doctor and the patient have to come to a join agreement on what the problem is and how it will be diagnosed and treated. The doctor has a responsibility to follow up with the patient and be aware if the patient completes the evaluation and takes the prescribed medications. The doctor has to discuss the costs of care and offer alternatives if the patient feels the recommendations for not affordable. And the doctor needs to involve the patient's family and supportive friends to help navigate the illness. Studies show that as doctors move through their training, they spend less time with history taking and addressing social and emotional issues.

In my own experience, trainees frequently do not know the living situation of their patient, the work place experience, their financial resources, the social and emotional issues related to family and work. All of this is important to developing trust with patient and ensuring they will follow the doctor's advice. There is an Art to medicine, Osler understood this even as he preached the importance of science, today technology and science dominate medicine and without the "Art" we lose the trust and confidence of our patients.

Learning objective:
1. What is the Art of Medicine?
2. How can we teach virtue and manners at the bedside?
3. What is the hidden curriculum and how can we influence it to the benefit of our patients?
4. What are the principles of a patient centered approach to patient care?

Structured Autonomy: Reimagining Self-Governance in Modern Bioethics

Derek Soled

Derek Soled is a MD/MBA candidate at Harvard Medical School and Harvard Business School who will be entering a medical residency in June 2022. Derek has authored over six dozen peer-reviewed articles, abstracts, or chapters on modern bioethical tensions in the physician-patient relationship. He received his master's degree in medical anthropology from the University of Oxford as a Walter Byers Scholar and his bachelor's degree in sociology and molecular biology from Yale University.

As a core tenant of bioethics, *autonomy* describes the ability of patients to make informed decisions about their medical care. Over the last decade, however, research in behavioral economics has questioned just how independent and voluntary individual decision-making is. Specifically, irrational biases and environments impact decision making. Consequently, physicians may be operating as "libertarian paternalists" and using *nudges* to purposely or inadvertently exert their influence and guide their patients' decisions without limiting their patients' rights to either refuse or request alternative options. Libertarian paternalism is the theory that individual decision-making can be steered in a particular direction without coercion. Unfortunately, this theory of governance stands in contrast to conventional definitions of autonomy, which assume all actors can function as true independent decision-makers. This presentation proposes a more nuanced and novel theory of autonomy, which I label as *structured autonomy* – a type of self-governance that is compatible with current understandings of the automatic cognitive processes and biases inherent to human decision-making. To support my argument, I analyze the transparency, resistibility, and capacity for individuals to become aware of nudges, thereby reconciling the ethical tensions that exist in our current conception of autonomy and offering a new lens through which we may determine what constitutes legitimate and proper individualism in the physician-patient relationship.

Learning objectives:
1. Examine the use of behavioral economics, specifically nudge theory, in physician-patient relationships.
2. Discuss the strengths and shortcomings of traditional definitions of autonomy as currently used in medicine.
3. Outline the ways in which medical definitions autonomy can be adapted to incorporate recent understandings of human decision-making and thereby enable proper self-governance and genuine informed consent for patients.

Previously Undiscovered Letters of Grace Revere Osler

Marvin J. Stone & Rob Stone

Marvin J. Stone is Chief Emeritus of Hematology and Oncology at Baylor University Medical Center, Dallas. He is a past president of the American Osler Society and recipient of the Lifetime Achievement Award. Rob Stone is an award-winning documentary filmmaker who has directed and produced several projects under the banner of his company, Vienna Productions, including the historical documentary "Sir William Osler: Science and the Art of Medicine".

Grace Revere Osler died suddenly in 1928 not quite nine years after her beloved husband, William. She asked that her personal correspondence be destroyed after her death. Her sister, Susan Chapin, exerted control over Grace's papers including the brief memoir (56 pages) written by Arnold Muirhead and privately published in 1931. Only 500 copies of the memoir were published by the Oxford University Press. Though not a physician, Muirhead was a Rhodes Scholar who became one of the "latchkeyers" and close friend of the Oslers at Oxford.

In 1991, Rob Stone found a copy of the Muirhead memoir of Lady Osler at a used bookstore in Los Angeles. Rob gave this book to Marvin as a Christmas present. Inserted in the small volume were several letters, some handwritten and others typed, from Grace Osler, W.W. Francis, and Sue Chapin. The letters from Grace to Dr. George Dock were handwritten on 13 Norham Gardens letterhead. Grace told Dock she had Bill Francis and family there "while he was finishing the catalogue of books to go to McGill" (February 12). The letter of March 22nd mentioned the Hopkins meeting. Grace added, "People come in here and talk about him [William] as though he would walk in any moment."

In the June 29th letter to Dr. Dock, Grace wrote, "Thanks for the cheque – gave it to the Base Hospital." She mentioned "two wounded nephews in the house" and said life overall was "depressing." She continued, "Things at a standstill about America – hope for the best," and wrote of their "German friends."

These personal letters from Grace Revere Osler are among the few that survived. With the subsequent demise of many antiquarian bookstores, it is unlikely such accidental "finds" will be discovered often in the future.

Learning objectives:
1. Explain the importance of Arnold Muirhead to Grace Osler.
2. How long did Grace Osler live after William Osler's death?
3. Identify the person who catalogued William Osler's books for McGill.

The Arts of the Covid-19 Pandemic

Herbert M. Swick

Herbert Swick is a former President of the AOS and is Clinical Professor Emeritus, University of Washington School of Medicine. He has long been interested in the nexus of medicine and the humanities.

Since ancient times, challenges such as wars, famines, political unrest, and disease have evoked many responses, ranging from despair to resilience. Such upheavals have also resulted in the flowering of creative activity. One thinks of Homer's Iliad or the Renaissance art that emerged from the Black Death. One thinks of the powerful poetry that emerged from World War I or the often-poignant photographs that captured the Great Depression.

Almost immediately after the onset of the Covid-19 pandemic in late 2019, artists, musicians and writers began to create works that have served not only to record but also to honor, not only to commemorate but also to spur reflection on the individual and collective impact of Covid-19. Already there exists a rich and varied creative body of music, visual art, and poetry.

Olivia Phillips, a senior at Harvard who felt isolated after her school closed in the spring of 2020, noted her despair in a poem entitled *things to do in quarantine*:

sleep in since you can't go out let your body decide what time the
day begins with a cup of tea…because you'll need more caffeine if you mean to survive all

of the nothing on your to do list hanging hostile on the wall…

pace the hallway…tread the carpet cross the threshold
into insanity or (worse) apathy…

In addition to despair, being quarantined occasionally evoked a wry humor:

Quarantine has me realizing why my dog gets so excited about something moving outside and going for walks and car rides. I just barked at a squirrel.

This presentation will be richly sprinkled with many such examples drawn from the arts of Covid-19, including visual art, music, and literature.

Learning objectives:
1. Describe some ways in which creative artists have responded to the Covid-19 pandemic.
2. Identify ways in which music and poetry have been used to honor patients and healthcare providers impacted by the Covid-19 pandemic
3. Appreciate the breadth of artistic responses to the Covid-19 pandemic.

Patients, Diagnoses, and Deaths in a Major Safety-net Hospital in the American South: A 100-Year Perspective

Amber Thacker, Derek Thacker, James E. Bailey & Bruce Steinhauer

Amber Thacker is an Assistant Professor at the University of Tennessee Health Science Center in Memphis, TN. She works as a hospitalist and clinician-educator at Regional One Health, the major safety-net hospital and trauma center for the region encompassing west Tennessee, north Mississippi, and East Arkansas. She earned her MD from the University of South Alabama and completed residency in Internal Medicine and Pediatrics at the University of Tennessee Health Science Center in Memphis, TN.

Memphis General Hospital, chartered in 1829 and today called Regional One Health, is the oldest hospital in Tennessee and the Mid-South region. The purpose of the Hospital at the time of its inception was to provide care to sick travelers passing through the Mississippi River ports of Memphis, and it served victims of Memphis' Yellow Fever epidemics brought by steamboat from New Orleans in the epidemics of 1828, 1855, 1867, 1873, and 1877-88. Over the course of almost two centuries since the hospital opened its doors, the Hospital has undergone radical evolution in response to the changing needs of its patient population. Even though Regional One Health now bears little outward resemblance to the 19th century hospital from which it evolved, the facility continues to function today as an important safety-net hospital for the region. Around the turn of the twentieth century, the Hospital became the clinical site for medical students from two medical schools in the area. Today, the Hospital continues to operate as a clinical training site for residents and fellows from the University of Tennessee Health Sciences Center.

Over the past 100 years, the emergence of modern medicine as a science served to dramatically shift the spectrum of diagnoses made at the Hospital. For example, the most common diagnoses in the early 20th century were infectious in nature. 1918 brought with it one of the deadliest influenza pandemics in human history, spanning almost three years, infecting half a billion people worldwide, and killing tens of millions. In the last few months of 1918, there were 446 cases of influenza admitted to Memphis General Hospital with 51 mortalities attributed to influenza. That same year, there were 623 cases of smallpox with 12 mortalities and 132 cases of tuberculosis, 16 of those fatal. Advancements in modern medicine have seen the eradication or attenuation of these infectious diseases, paving the way for other conditions like human immunodeficiency virus and metabolic syndrome to become major contributors to human morbidity and mortality.

This presentation will review the history of this major southern hospital and the changes in its clientele through the period of the American civil rights movement to the present. We will analyze data contained within hospital discharge records from 1916-1928 and compare that data with the current diagnostic profile comparing numbers of patients served and death rates by race. This historical review of the changes in the patients, diagnoses, and death rates over the last 100 years demonstrates a major transition from a period focused on treatment of potentially curable infectious diseases to one focused on management of incurable chronic diseases associated with obesity and tobacco use.

Learning objectives:

1. Outline the history of the Memphis General Hospital, the oldest hospital in Tennessee and the mid-south region.
2. Review the detailed discharge records for Memphis General Hospital to identify patient characteristics, most common diagnoses, and causes of death for the time period from 1916-1930.
3. Contrast the patient demographic characteristics, most common diagnoses, and causes of death for patients discharged from the Memphis General Hospital in 1918 with those seen in 2018.

Amos Pollard, M.D. and the Texas Revolution

Michael C. Trotter

Dr. Trotter received his undergraduate and medical educations at the University of Tennessee and Wake Forest University. He trained in surgery and thoracic-cardiovascular surgery at the University of Alabama at Birmingham and the Ochsner Clinic in New Orleans. He has retired from surgical practice and lives in Houma, Louisiana and Dauphin Island, Alabama.

Several physicians served in varying medical and non-medical capacities during the Texas Revolution. The story of the Alamo and the names of Travis, Bowie, and Crockett are well known. Less well known is Amos Pollard, M.D., and it is his name that is most closely associated with medical care at the Alamo.

Pollard was born in Ashburnham, MA in 1803. His parents moved the family to Surry, NH around 1810 where his father owned a tavern. After his early education, Pollard was able to enroll at the Vermont Academy of Medicine in Castleton, VT where he received his M.D. degree in 1825. He relocated to New York, first to Greenbush then to New York City where he is listed in city directories between 1828-1834. He married in 1828, had a daughter in 1830, and his wife died in 1831. Pollard's professional activities included publishing in the *Boston Medical and Surgical Journal* and actively treating patients in the 1832 cholera epidemic. In 1833, he left his daughter in the care of others and immigrated to Texas. He began a medical practice in Columbia and applied for land which was cheap and abundant. In Texas, he encountered abolitionist Benjamin Lundy with whom he shared anti-slavery sentiments and had a letter published in Boston's abolitionist newspaper, *The Liberator*, extolling the virtues of Texas and identifying himself with the abolitionist cause.

In the fall of 1835, Pollard joined the volunteer militia in the Texas Revolution. After the Battles of Gonzales and Bexar (San Antonio), Pollard was named Chief Surgeon of the Regiment by Stephen F. Austin. He remained in Bexar as Chief Surgeon of the Garrison where he provided care for the sick and wounded, developed a hospital, and relocated it to the Alamo by the end of the year. In a series of letters in early 1836 to Gov. Henry Smith of the provisional government, Pollard apprises Smith of the medical situation while adamantly supporting him in the effort for Texas independence. Pollard kept a busy census in the hospital, including Bowie and Mexican casualties from the previous battles. Pollard died on March 6, 1836 with his nearly 200 fellow defenders of the Alamo. His daughter received his land grants and back pay in 1851, but unfortunately died in Galveston in 1853. Pollard was committed to his profession and to his political beliefs. To him, Texas represented unlimited opportunity. He gave his life for it.

Learning objectives:
1. Recognize the historical context of medical care during the Texas Revolution.
2. Understand the impact of Texas opportunities on physicians during that time.
3. Examine the vicissitudes of healthcare during conflict.

War on Rats: The Architecture of the Bubonic Plague in Galveston

Leonard K. Wang

Leonard K. Wang is a first-year medical student at the University of Texas Medical Branch in Galveston, Texas. He studied Honors Biomedical Sciences with a minor in Medicine and Society at the University of Houston through an accelerated BS/MD program.

As the oldest seaport city in the Gulf of Mexico west of New Orleans, Galveston has been a prime location for disease outbreaks. The intersection of commerce and immigration allowed humans, animals, and goods to enter easily as vectors in Galveston in the early 20th century. Notably, the bubonic plague bacterium, *Yersinia pestis*, primarily spread to Galveston via infected rats and fleas on steamboats. Known as the Black Death during medieval times, the bubonic plague infected 17 Galvestonians from 1920 to 1921. To combat the spread of the deadly disease, Galveston officials launched a "War on Rats" campaign with supervision from the US Public Health Service. Forty rat trappers were hired to exterminate rat dwellings, fumigate structures, and rat-proof buildings and ships—common anti-plague practices at the time. Indeed, in his 8th edition of *Principles and Practice of Medicine (1916)*, Osler writes that "making houses rat proof" was necessary to eradicate the plague. He even recommended that "old, badly infected buildings should be destroyed."

During the Galveston bubonic plague outbreak, Dr. Mark F. Boyd (1889-1968), University of Texas Medical Branch microbiologist and director of the Galveston Plague Laboratory, documented the plague control program through photographs, journal entries, and data collection. By the end of the plague outbreak, 46,623 rats were trapped and examined by Boyd and his colleagues, with a total of 67 infected rats identified. The effects of the bubonic plague can still be seen in Galveston's architecture today. A number of buildings remain with the quintessential raised foundational concrete barriers of the 1920 rat ordinances that required all structures to be rat-proofed. The rat-proofing of buildings in Galveston offers a glimpse into the intersection of public health and architecture.

Learning objectives:
1. Examine Dr. Boyd's account of the plague control program from 1920-1921.
2. Discuss the rat-proofing of buildings during the bubonic plague outbreak in Galveston, Texas in the 1920s.
3. Outline the intersection of public health and architecture through the lens of infectious disease outbreaks.

Sir William Osler's Bibliophilic Interest in Bookworms of The Insect and Human Varieties

David J. Wolf

David J. Wolf, M.D. is a retired clinical hematologist/medical oncologist and antiquarian medical book collector who volunteers as a faculty member 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 History of Medicine Executive Committee.

Sir William Osler wrote an article entitled *Illustrations of a Book-Worm* published in the Bodleian Quarterly in February, 1917 in which he meticulously describes finding and extracting a live, wiggling, head-bobbing larva of the beetle *Anobium Hirtum* from a wormed book that he had acquired from a bookseller in Southern France. Osler was so astonished to find this living larva, that he enlisted the talents of Horace Knight, an artist at the British museum, to design a vividly colored realistic illustration of the damaged book, the larva, beetle, and pupa case. Mr. Knight's beautiful sketches were so superior to any previously published illustrations that Mr. Madan, chief editor of the Bodleian Quarterly Record, kindly consented to have the plate published. In the article, Osler, the bibliophile, expounds upon bookworm bibliography and the history of insect bookworm illustrations.

This presentation examines Osler as a self-diagnosed bibliomaniac, bibliophile, and antiquarian book collector. Osler is perhaps the only physician to have published articles about bookworms of both the insect and human varieties. The history of bookworm illustration starting with Aristotle, bookworm bibliography (ie. books about bookworms), the life cycle of insects that desecrate books, different varieties of bookworms, and common types of bookworm damage will be discussed. Osler's whimsical and perhaps autobiographical comments concerning bookworms of the human variety (ie. human bibliophiles who derive great nourishment and pleasure by devouring books) will also be presented.

Learning objectives:
1. Describe William Osler's interest in Bookworms of the insect and human varieties.
2. Appreciate the history of insect bookworm illustration and bibliography.
3. List types of insect pests and the various ways they damage books.

Townes Van Zandt and the History of Psychiatry at UTMB Galveston

Dwight V. Wolf

Dwight V. Wolf is a Professor of Psychiatry in the Child and Adolescent Division, Department of Psychiatry & Behavioral Sciences at UTMB, the Vice Chair of the Department of Psychiatry, an Osler Scholar in the McGovern Academy of Oslerian Medicine at UTMB, and a musician.

Townes Van Zandt (March 7, 1944-January 1, 1997) was one of the most influential singer-songwriters to emerge from the state of Texas. Born to a wealthy and influential family with roots dating back to the founding of the state, he withdrew from academics and a future career in law for a life on the road as an itinerant musician. With influences ranging from Shakespeare to Hank Williams, his songs became hits for other artists. Despite his immense talent, he failed to achieve commercial or financial success. His influence on artists in the Folk, Country, Roots and Americana genres remain profound.

Townes struggled with substance abuse and psychiatric illness throughout his life. He was hospitalized for schizophrenia at age 20 at the Texas State Psychiatric Hospital in Galveston, now UTMB. His hospitalization occurred during the tenure of the first Chairman of the Department of Psychiatry, Dr. Titus Harris. Accomplishments under Dr. Harris' leadership included pioneering research on lithium, benzodiazepines, electroconvulsive therapy, and lobotomy. Dr. Harris developed the first psychiatric residency training program in the South and Southwest (1932) and one of the first child and adolescent psychiatry divisions in the nation. Dr. Harris followed an Oslerian model of teaching, rounding with trainees on the wards and allowing his residents to directly participate in the care of his own patients. Despite state-of-the-art care for the time, the success of Townes' hospitalization was marginal.

Townes' later life and the trajectory of his psychiatric symptoms are complex and tragic. In retrospect, newer diagnostic models may lead one to question the diagnosis of schizophrenia. His presentation may be more consistent with a diagnosis of bipolar disorder under the current DSM5 criteria. The diagnostic and treatment issues are further complicated by a lifelong pattern of substance abuse including inhalants, heroin and, most prominently, alcohol. A review of his life prompts questions regarding diagnostic uncertainty, the concept of "creativity and madness," and psychosocial barriers to treatment. Although the field of Psychiatry has progressed, would his prognosis be better in today's world?

Learning objectives:

1. Describe and debate the validity of the relationship between "creativity and madness" in the context of the life of Townes Van Zandt.
2. Discuss the significance of the University of Texas Medical Branch Department of Psychiatry as the first psychiatric residency program west of the Mississippi, Dr. Harris' Oslerian teaching model and the phrase "gone to Galveston."
3. Describe the complexity of treating psychiatric illness in those with occupational, lifestyle, or logistical challenges.

The Origins of the Medical Applications of the Scientific Revolution in Management Efficiency in the Early Part of the Twentieth Century in the United States

William C. Wood

Dr. Wood graduated from the University of Tennessee School of Medicine and had postgraduate training in surgery at the Medical College of Virginia following which he completed his internal medicine residency and cardiology fellowship at the University of Tennessee. He practiced cardiology for 37 years, including military service, private practice, academic cardiology, and service in the Veterans administration. He maintains an avid interest in medical history, military medical history, and in the career and contributions of Dr. Henry S. Plummer.

At the beginning of the twentieth century in America, the concepts of management efficiency of Frederick Winslow Taylor were widely discussed. During this time period Dr. Henry S. Plummer at the Mayo Clinic designed systems to improve clinic efficiency at the Mayo Clinic including a defined medical record, improved patient flow in office practice, and enhanced communication modalities. It is challenging to identify the specific examples of system design Dr. Plummer was influenced by at this time, but we can do a historical review of the available literature and identify similar approaches to problems in Boston and Philadelphia in this era. This paper highlights the interest of multiple physicians in various areas in 1900-1920 in application of industrial management efficiency methods to actual medical practice. A current problem challenging medical practice is the increasing physician stress associated with productivity pressures and requirement to use time consuming EMR programs. By study of how efficiency concepts were introduced, and with review of the differences between factory type production and medical practice, solutions can be developed to maintain efficiency, reduce physician stress, and improve patient care.

Learning objectives:
1. Discuss the initial adoption of efficiency techniques into American medical practice in the time period 1900-1920.
2. Examine specific examples of early adoption of efficient management methods in American medicine in locations other than the Mayo Clinic.
3. Contrast the course of progressive efficiency management pressures with current physician challenges to deliver comprehensive care to patients with complex medical problems.

What was known about childhood diabetes before the discovery of insulin? – William Osler's role in creating and then nullifying historical confusion.

James R. Wright, Jr. & Lynn McIntyre

Jim Wright received his MD, PhD (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 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 the Department of Pathology & Laboratory Medicine, and after completing two terms as Head, now continues as Professor of Pathology & Laboratory Medicine and Pediatrics and is based at Alberta Children's Hospital.

Historians of diabetes mellitus (DM) have long claimed that clinicians were aware of two distinct types of DM by the late 19th century and that these were roughly the equivalent of Type 1/juvenile-onset and Type 2/adult-onset DM. This distinction has been incorrectly attributed to the French physician Étienne *Lancereaux*, who based on autopsy and clinical studies classified DM as either *diabète maigre* (thin, or more accurately emaciated, diabetes) or *diabète gras* (fat diabetes) circa 1880. We reviewed Lancereaux's papers and his description of *diabète maigre* bears little resemblance to juvenile diabetes; all of his emaciated patients were middle-aged or older. He believed thin DM was caused by pancreatic calculi. Unfortunately, beginning in the 1960s, historians of diabetes latched onto Lancereaux's catchy terminology without reading his papers and then misinterpreted thin DM using a present-day understanding, by confabulating that Lancereaux's patients had been young, with a rapid course to ketosis. On the other hand, Lancereaux's *diabète gras* is akin to Type 2 diabetes and he should be credited for its characterization. Having dealt with Lancereaux, we reviewed the writings of prominent specialist physicians including diabetologist Elliott P. Joslin, internist William Osler, pediatrician Luther Emmett Holt, and others practising just prior to the discovery of insulin in 1921-1922 and conclude there is little evidence that any of these experts believed that adult and childhood diabetes were distinct. In fact, more than a decade passed after the discovery of insulin before diabetes in children and adults even began to be distinguished. This may have been because childhood diabetes was exceedingly rare in the 19th and early 20th century (its incidence has remarkably increased 3% per year since the 1970s). Extensive European data suggested that children under 10 years of age represented between 0.14% and 0.59% of all cases of DM. The 1897 first edition of Holt's 1,200-page textbook *The Diseases of Infancy and Childhood* had only a 1½ page chapter on DM and there is no evidence this prominent New York pediatrician had ever seen a case at that time. William Osler figured as well in both creating and then nullifying the historical confusion about thin diabetes. Osler's Principles and Practice of Medicine, editions 1-9, while not mentioning Lancereaux directly, was among the first English-sources to publicize the terms *diabète maigre* and *diabète gras*. However, no edition suggested that age-of-onset distinguished types of DM. All sources reviewed considered DM to be a chronic disease in adults. So, if there was no understanding that childhood DM was fundamentally different than adult-onset DM and childhood cases were exceedingly rare, how was it that the Toronto insulin discovery team selected 14-year-old Leonard Thompson to be the first recipient of insulin 100 years ago? It is interesting to speculate about what might have happened if the first clinical pancreatic extract tests had been performed on adult-onset diabetics with insulin-resistance, which may not have responded to therapy. Clearly, the results would have been disappointing and the discovery of insulin delayed. We elaborate on what was known about childhood DM and reveal how the test subject decision was made in January 1922.

Learning objectives:

1. Explain the concepts of *diabète maigre* and *diabète gras*.
2. Discuss the history of classification of diabetes mellitus.
3. Consider the process of medical discovery within an environment of erroneous understanding of the disease under investigation.

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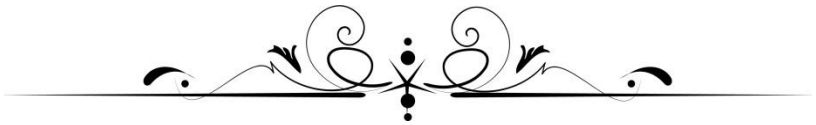

The American Osler Society was founded for the purpose of bringing together members of the medical and allied professions who are, by their common inspiration, dedicated to memorialize and perpetuate the just and charitable life, the intellectual resourcefulness, and the ethical example of Sir William 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.