

*41<sup>st</sup> Annual Meeting of the*  
**AMERICAN OSLER  
SOCIETY**



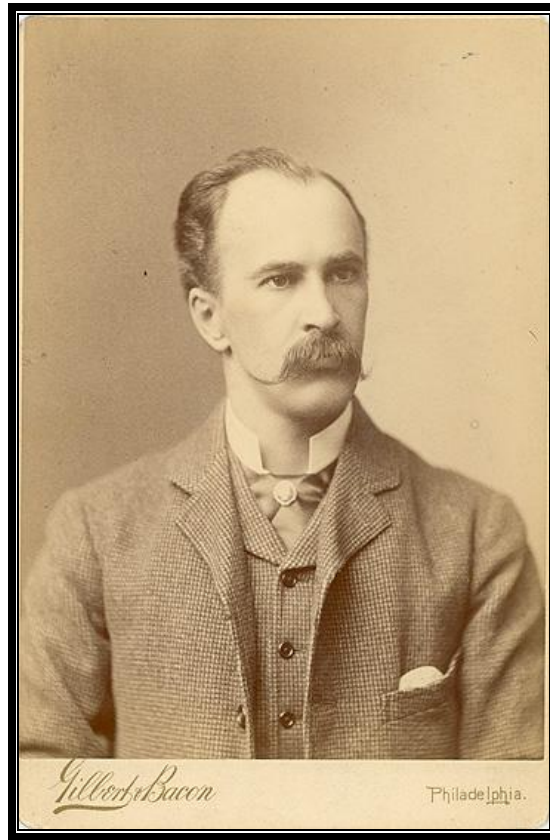
**Sunday, May 1<sup>st</sup> - Wednesday, May 4<sup>th</sup>, 2011**  
**Hyatt Regency Hotel at Penn's Landing**  
**Philadelphia, Pennsylvania**

## **On the Cover**

### ***Portrait of Dr. Samuel D. Gross (The Gross Clinic)***

Dr. Samuel D. Gross (1805-1884) appears in the surgical amphitheater at Jefferson Medical College, lit by the skylight overhead, operating on a bone sequestration. Gross was one of America's leading surgeons and surgical educators, and also an accomplished pathologist and writer. Confident of the outcome of the operation, the surgeon calmly and majestically turns to address his students, including the artist, Thomas Eakins (1844-1916), who is seated at the right edge of the canvas, though not easily visible. The dramatic composition, tonal qualities, and depiction of Gross's countenance make this one of the great American paintings of the nineteenth century, though it shocked and repelled many viewers in 1875. The painting underwent a fully researched restoration in 2010, and will be hanging at the Pennsylvania Academy of the Fine Arts, 128 North Broad Street, during the period of AOS and AAHM meetings.

The image is courtesy of the Pennsylvania Academy of the Fine Arts in Philadelphia, where Eakins taught. The painting was a gift of the Alumni Association of Jefferson Medical College to the College in 1878; and was many years later purchased by the Philadelphia Museum of Art and the Pennsylvania Academy of the Fine Arts with the generous support of more than 3,400 donors.



*Photo courtesy of Osler Library of the History of Medicine – McGill University*

Portrait of William Osler, circa 1888

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## ***Course Objectives***

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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***

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The target audience includes physicians 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***

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This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Nevada State Medical Association through the joint sponsorship of Children's Heart Center - Nevada and Children's Heart Foundation. Children's Heart Center-Nevada is accredited by the Nevada State Medical Association to provide continuing medical education for physicians.

Children's Heart Center - Nevada designates this educational activity for a maximum of 17.75 AMA PRA Category 1 Credits™. Physicians should claim only credit commensurate with the extent of their participation in the educational activity.

## ***Appreciative Acknowledgements***

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Robert Mennel  
Sandra Moss  
Steve Peitzman

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Philip Leon  
Pam Miller  
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Suzanne VanderVeer  
Renee Ziemer

### College of Physicians of Philadelphia Reception Underwriters

McGovern Oslerian Scholars at  
University of Texas Medical Branch

### "1st Drink's on Us Quartet"

John Carson  
Garth Huston  
Mario Molina  
Marvin Stone

### Reenactors' Underwriters

Vivien McAllister  
Thomas Frank  
William Smith

### Tote Bag Underwriter

Medical History Society of New Jersey

### Lanyard Underwriter

R. Dennis Bastron

### Flag Centerpieces

Anonymous donation

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# Program Schedule

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## Sunday, May 1, 2011

- 2:00 – 5:00 p.m.      Registration  
*Grand Ballroom Foyer*
- 3:00 – 5:00 p.m.      Recitations  
Moderator: Frank Neelon  
*Riverview B*
- 6:00 – 7:00 p.m.      Past Presidents Dinner Meeting  
*Riverview B*
- 7:00 – 9:00 p.m.      Board of Governors Meeting  
*Riverview B*
- 7:30 – 8:30 p.m.      Creative Writing Session  
Moderator: David Cooper  
*Riverview A*

## Monday, May 2, 2011

- 7:00 – 7:45 a.m.      Registration & Continental Breakfast  
*Grand Ballroom Foyer*
- 7:00 a.m. – 5:30 p.m. First Annual Art Exhibit  
*USS Olympia Room*
- 7:45 a.m.              Charles S. Bryan, AOS President  
Welcome and Announcements  
*Grand Ballroom A*
- General Session, Charles S. Bryan, Moderator**  
*Grand Ballroom A*

### ***Philadelphia***

- 7:50 a.m.              SANDRA W. MOSS (page 55)  
“I’d Rather be Here Than Philadelphia”: Yellow Fever in the New Jersey  
Hinterlands
- 8:10 a.m.              STEVEN J. PEITZMAN (page 59)  
Medicine in Philadelphia 1884-1889: What Else Was Happening?
- 8:30 a.m.              ROBERT G. MENNEL (page 52)  
The College of Physicians of Philadelphia

# Program Schedule

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## Monday, May 2, 2011 (continued)

8:50 a.m. JOSEPH B. VANDERVEER, Jr. (page 72)  
Not Without Honor: Thomas Eakins and Samuel D. Gross

9:10 a.m. MARVIN J. STONE (page 67)  
Osler's Somersault on Malaria

9:30 a.m. CHARLES S. BRYAN  
Presentation of new AOS merchandise

9:40 a.m. REFRESHMENT BREAK  
*Grand Ballroom Foyer*

### ***Osleriana***

10:00 a.m. IAN A. CAMERON (page 25)  
“It is Always Better to do Something Wrong the First Time”: Dr. William Osler and Medical Mistakes

10:20 a.m. H. MIKE JONES (page 41)  
Osler and the Sanitary Movement - with a Scatological Guide to Loos, Privies, and Crappers

10:40 a.m. GEORGE S. BAUSE (page 17)  
The Professor *versus* the Plagiarist: Has Osler Finally Triumphed Over Souvielle?

### ***The John P. McGovern Award Lectureship***

11:00 a.m. Rosemary A. Stevens (page 66)  
The Back Forty: *American Medicine and the Public Interest* Revisited

12:00 p.m. LUNCHEON  
*Grand Ballroom B&C*

**General Session, Michael Bliss, Moderator**  
*Grand Ballroom A*

### ***Oslerian Medicine, 2011***

1:00 p.m. JEREMIAH A. BARONDESS (page 16)  
Internal Medicine as a Vocation

# Program Schedule

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## Monday, May 2, 2011 (continued)

1:20 p.m. DENNIS K. WENTZ (page 77)  
Osler's Pervasive Influence on Modern Continuing Medical Education

1:40 p.m. PAUL R. McHUGH (page 51)  
Whither Bioethics Given the Deliberative Approach of the President's Council? – Thoughts from an Oslerian

### **Concurrent Session, Michael Bliss, Moderator**

*Grand Ballroom A*

### ***Osler & Oslerians***

### **Concurrent Session, Sandra Moss, Moderator**

*Grand Ballroom B&C*

### ***Potpourri***

2:00 p.m. PERRY HOOKMAN (page 39)  
On the Origins of Osler's Philo-Semitism  
*Grand Ballroom A*

JUN TASHIRO (page 70)  
Abraham Louis Levin: Demystifying the Duodenum  
*Grand Ballroom B&C*

2:20 p.m. MILTON G. ROXANAS (page 62)  
Osler's Connections with Australia  
*Grand Ballroom A*

GEORGE SARKA (page 63)  
Osler, Keats and Tuberculosis  
*Grand Ballroom B&C*

### ***Moving Forward (continued on Wednesday)***

2:40 p.m. CARLA C. KEIRNS (page 43)  
Visions of the Good Physician: A National Survey of Oaths Administered at US Medical Schools in 2008-09  
*Grand Ballroom A*

### ***Potpourri***

LORELEI E. STEIN (page 65)  
The Citizens Commission on Graduate Medical Education: Its Impact on Residency Programs in the United States  
*Grand Ballroom B&C*



# Program Schedule

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## Monday, May 2, 2011 (continued)

- 3:00 p.m. REFRESHMENT BREAK  
*Grand Ballroom Foyer*
- 3:20 p.m. W. BRYANT BOUTWELL (page 21)  
John Shaw Billings – Librarian, Medical Bibliographer, Hospital Designer, Medical Statistician and Science Administrator  
*Grand Ballroom A*
- J. GORDON FRIERSON (page 32)  
East Meets West: Early Medical and Artistic Exchanges with China  
*Grand Ballroom B&C*
- 3:40 p.m. SARA SPETTEL (page 64)  
J. Marion Sims: Vesico-Vaginal Fistula Repair and Surgical Experimentation  
*Grand Ballroom A*
- KENNETH J. WEISS (page 75)  
Isaac Ray's Jefferson Lectures: America's First Psychiatry Curriculum  
*Grand Ballroom B&C*
- 4:00 p.m. HERBERT M. SWICK (page 69)  
Osler in the West: Dr. Earle Strain, the Wood Tick and Rocky Mountain Spotted Fever  
*Grand Ballroom A*
- CLAUS A. PIERACH (page 60)  
Two Gardening Movements in 19<sup>th</sup> Century Germany – Friedrich Froebel and Dr. Moritz Schreber  
*Grand Ballroom B&C*
- 4:20 p.m. MICHAEL W. CATER (page 26)  
Augustus Calvin Behle: An Oslerian Pioneer  
*Grand Ballroom A*
- RICHARD J. KAHN (page 42)  
Polenta, Paddle Wheelers, and Pachyderms  
*Grand Ballroom B&C*
- 4:40 p.m. J. MICHAEL FULLER (page 34)  
Thomas E. Brittingham: A Vanderbilt Oslerian?  
*Grand Ballroom A*
- JOHN F. DELANEY (page 29)  
Training of St. Luke, Physician and Apostle  
*Grand Ballroom B&C*

# Program Schedule

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## Monday, May 2, 2011 (continued)

- |           |                                                                        |
|-----------|------------------------------------------------------------------------|
| 5:00 p.m. | ADJOURN                                                                |
| 6:00 p.m. | Buses leave for Reception at the College of Physicians of Philadelphia |
| 6:30 p.m. | RECEPTION<br>College of Physicians of Philadelphia                     |
| 7:45 p.m. | Buses begin return from the College of Physicians of Philadelphia      |

## Tuesday, May 3, 2011

- |                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| 7:00 – 8:00 a.m. | Registration & Continental Breakfast<br><i>Grand Ballroom Foyer</i> |
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|-----------------------|-----------------------------------------------------|
| 7:00 a.m. – 5:30 p.m. | First Annual Art Exhibit<br><i>USS Olympia Room</i> |
|-----------------------|-----------------------------------------------------|

**General Session, Laurel Drevlow, Moderator**  
*Grand Ballroom A*

### ***Moving Forward (continued on Wednesday)***

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|-----------|----------------------------------------------------------------------|
| 8:00 a.m. | HOWARD I. KUSHNER (page 44)<br>Toward an Applied History of Medicine |
|-----------|----------------------------------------------------------------------|

### ***Riches of Medical History***

- |           |                                                                                                                                                                  |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:20 a.m. | SUSAN LAMB (page 45)<br>“The Most Important Professorship in the English-Speaking Domain”:<br>How Johns Hopkins Recruited Adolf Meyer, a Pathologist of the Mind |
| 8:40 a.m. | T. JOCK MURRAY (page 56)<br>Dr. Lewis Yealland and the Treatment of Shell Shock: Demon or Healer?                                                                |
| 9:00 a.m. | ERIC L. MATTESON (page 49)<br>Friedrich Wegener: “His” Granulomatosis and His Place in History                                                                   |
| 9:20 a.m. | ROBERT R. NESBIT, Jr. (page 57)<br>The Cocoanut Grove Fire                                                                                                       |
| 9:40 a.m. | REFRESHMENT BREAK<br><i>Grand Ballroom Foyer</i>                                                                                                                 |

# Program Schedule

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## Tuesday, May 3, 2011 (continued)

- 10:00 a.m. CHRISTOPHER J. BOES (page 20)  
The Difficulty of Recognizing New Diseases: Examples from Osler and Horton
- 10:20 a.m. DAVID R. HABURCHAK (page 36)  
The Evolution of Isolation: Pest Houses to Isolation Rooms
- 10:40 a.m. WILLIAM N. EVANS (page 31)  
Origins of the Medical-Surgical Bond Needed for Treating Cardiac Malformations
- 11:00 a.m. DAVID K.C. COOPER (page 28)  
A Brief History of Cross-Species Organ Transplantation
- 11:20 a.m. ALLEN B. WEISSE (page 76)  
Dr. Castle's Little Secret and Self Experimentation in Medical Research
- 11:40 a.m. SCOTT H. PODOLSKY (page 61)  
Park's Story and Winters' Tale: Alternate Allocation Trials in Turn-of-the-Century America
- 12:00 p.m. LUNCHEON  
*Grand Ballroom B&C*
- General Session, Mike Jones, Moderator**  
*Grand Ballroom A*
- Medicine and Media***
- 1:00 p.m. ROB STONE (page 68)  
Twitter MD: Physicians and Social Media
- 1:20 p.m. VIVIAN C. McALISTER (page 50)  
Open Access or Open Season:  
Reuse of Medical Illustrations Over the Ages
- 1:40 p.m. JOHN D. BULLOCK (page 24)  
Artistic Depictions of Blindness

# Program Schedule

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## Tuesday, May 3, 2011 (continued)

**Concurrent Session, Mike Jones, Moderator**

*Grand Ballroom A*

### ***William B. Bean Student Research Award Lectures***

**Concurrent Session, Pam Miller Moderator**

*Grand Ballroom B&C*

### ***Women***

2:00 p.m.

MICHAEL BRENER (page 22)

A Social Experiment's Impact on Medical Education: The Story of the  
Baltimore City Almshouse in the Antebellum Era

*Grand Ballroom A*

J. MARIO MOLINA (page 53)

Sir William Osler and Nurses

*Grand Ballroom B&C*

2:20 p.m.

NITIN K. AHUJA (page 13)

Fordism in the Hospital:  
Albert Kahn and the Design of Old Main, 1917-1925

*Grand Ballroom A*

MARGARET P. WARDLAW (page 74)

Osler's Martha: The Role of the Doctor's Wife in Historical and  
Contemporary Medical Practice

*Grand Ballroom B&C*

2:40 p.m.

KATHERINE A. LATIMER (page 46)

Forgotten Operations in Dr. Harvey Cushing's Early Practice

*Grand Ballroom A*

JACALYN M. DUFFIN (page 30)

Feminization of Canadian Medicine: Voices from the Second Wave

*Grand Ballroom B&C*

3:00 p.m.

REFRESHMENT BREAK

*Grand Ballroom Foyer*

# Program Schedule

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**Tuesday, May 3, 2011 (continued)**

***Biographical***

*Grand Ballroom A*

***Biographical/Literary***

*Grand Ballroom B&C*

3:20 p.m.

ROBERT P. TURK (page 71)  
Boerhaave, The Osler of the 18<sup>th</sup> Century  
*Grand Ballroom A*

CAROLINE COATS (page 27)  
Surgery, Medicine and Detection: Who taught the teachers?  
*Grand Ballroom B&C*

3:40 p.m.

JOHN W.K. WARD (page 73)  
Thomas West (1777-1857)  
*Grand Ballroom A*

DARRYL D. BINDSCHADLER (page 18)  
The Medical Life of Arthur Conan Doyle  
*Grand Ballroom B&C*

4:00 p.m.

MICHAEL E. MORAN (page 54)  
Harvey's Parrot, Procreation and Panspermia  
*Grand Ballroom A*

STEPHEN B. GREENBERG (page 35)  
"Microbe Hunters" Revisited – Paul de Kruif and the Beginning of  
Popular Science Writing  
*Grand Ballroom B&C*

4:20 p.m.

ROBERT I. LEVY (page 48)  
Robert Boyle, Lignum Nephriticum and Colour Indicators  
*Grand Ballroom A*

DAVID HAMILTON (page 37)  
Tissue Transplantation and Popular Culture  
*Grand Ballroom B&C*

# Program Schedule

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## Tuesday, May 3, 2011 (continued)

- 4:40 p.m. CONRAD C. FULKERSON (page 33)  
Passion Without Bounds: The Collecting of Henry Solomon Wellcome  
*Grand Ballroom A*
- RYAN T. HURT (page 40)  
The Trial of Dr. Charles W. Malchow an Early Case of the Comstock Law  
*Grand Ballroom B&C*
- 5:00 p.m. ADJOURN
- 6:00 – 7:00 p.m. SOCIAL HOUR  
“The Surgeon and Assistant”  
The 6<sup>th</sup> PA Regiment Revolutionary Reenactors
- 7:00 – 9:00 p.m. BANQUET  
*Grand Ballroom D*  
PRESIDENT’S ADDRESS  
Charles S. Bryan (page 23)

## Wednesday, May 4, 2011

- 7:00 – 8:00 a.m. Registration & Continental Breakfast  
*Grand Ballroom Foyer*
- 7.30-8.30 a.m. Annual Business Meeting  
*Grand Ballroom A*
- General Session, Allen B. Weisse, Moderator**  
*Grand Ballroom A*
- Creative Genius***
- 8.40 a.m. PHILIP W. LEON (page 47)  
Thomas Hood’s “Stanzas: Farewell Life!” Osler: “A good poem for doctors, and all should know it.”
- 9:00 a.m. JAMES E. BAILEY (page 15)  
Dante Alighieri – Physician of the Soul
- 9:20 a.m. CLYDE PARTIN, Jr. (page 58)  
An Historical Look at Writers, Poets, Mental Health and Creativity
- 9.40 a.m. REFRESHMENT BREAK  
*Grand Ballroom Foyer*

# Program Schedule

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## Wednesday, May 4, 2011 (continued)

### *Moving Forward*

- 10:00 a.m. JUDITH F. ARONSON & BARBARA L. THOMPSON (page 14)  
Learning Anatomy and Pathology in Osler's Era: UTMB's Collection of 1400 Specimens in an 1892-Vintage Learning Environment
- 10:20 a.m. MICHAEL BLISS (page 19)  
The Little We Know About Willie and the Oslers

### *Riches of Medical History (continued from Tuesday)*

- 10:40 a.m. SIMON HANFT (page 38)  
"This Stockholm Experiment": The Story of Frigyes Karinthy and the Founder of Swedish Neurosurgery, Herbert Olivecrona
- 11:00 a.m. ADJOURN

William Osler at work in  
the Blockley Mortuary,  
Philadelphia General  
Hospital, 1886 or 1889



*Photo courtesy of Osler Library of the History of Medicine – McGill University*

## **The William B. Bean Student Research Award Lectureship**

### **Fordism in the Hospital: Albert Kahn and the Design of Old Main, 1917-1925**

**Nitin K. Ahuja**

*Nitin Ahuja is a fourth-year student at the University of Michigan Medical School and a recipient of the 2010 William B. Bean Student Research Award. He graduated cum laude from Harvard College in 2007 with a major in Biology. In July 2011, he will begin a residency program in Internal Medicine.*

Hospital-based medicine has long been prone to industrial analogies. At present, the image of “hospital as factory” is primarily negative, portraying institutionalized medical practice as mechanical and depersonalized. In early twentieth century America, however, the same comparison would have been more likely celebratory than pejorative. Principles of scientific management proliferating at the turn of the century offered a potent template for the optimization of labor productivity. Throughout the ensuing efficiency movement, factory-based industry, as best elaborated under the banner of Henry Ford, served as a model of ideal practice for many other enterprises, hospital administration included.

This project seeks to elucidate the formal convergence of hospitals and factories. The 1917-1925 planning at the University of Michigan of a new University Hospital, later dubbed Old Main, provides an interesting case study. Designed by Albert Kahn, the same architect responsible for Ford Motor Company’s archetypal plants, and located less than forty miles from Detroit’s burgeoning factory landscape, Old Main was well positioned to reflect the values of industry in both appearance and operation. Additionally, its status as a public facility, affiliated with a major medical school and funded by the Michigan State Legislature, allowed for an especially clear expression of efficiency as an institutional priority.

Through printed publicity materials, photographic records, and the architect’s personal reflections, a discussion of the industrial roots of Old Main’s design dwells on two principal features. Externally, the building lacked significant ornamentation, departing from a long tradition of historicist referencing and resonating with Kahn’s functionalist leanings. Internally, a novel diagnostic unit bore close parallels to the assembly line model of production, dictating a unidirectional path for patient travel in order to maximize the output of care.

According with growing emphasis on empirical science and standardization in Western medicine, Old Main’s design represents a significant landmark in the American hospital’s formal evolution. Indeed, the building may be considered a precociously Modernist hospital, relating streamlined form to function more explicitly than many of its contemporary institutions.

#### **Learning Objectives:**

1. List some of the social and cultural forces that transformed the role of American hospital prior to the turn of the twentieth century
2. Describe the unique design features of the 1925 University of Michigan Hospital
3. Explain how the Efficiency Movement might have influenced the form and operation of later healthcare facilities



## **Learning Anatomy and Pathology in Osler's Era: UTMB's Collection of 1400 Specimens in an 1892-Vintage Learning Environment**

**Judith F. Aronson and Barbara L. Thompson**

*A graduate of the University of North Carolina at Chapel Hill medical school, UTMB professor of experimental pathology Judith Aronson trained at the University of Washington and the Armed Forces Institute of Pathology. She directs UTMB's autopsy service and was selected as the first Minnie Stephens Piper Professor in its Academy of Master Teachers.*

*Barbara Thompson, Sealy Hutchings and Lucille Wright Hutchings Professor and chairman of UTMB's Department of Family Medicine, graduated from UTMB herself and also trained there, having received additional training in geriatric medicine. She is acknowledged by her colleagues for making her patients feel like participants in their care and for championing patient access to health care.*

*Dr. Aronson and Dr. Thompson are Osler Scholars in UTMB's John P. McGovern Academy of Oslerian Medicine. Both also serve on the Old Red Anatomical Museum Task Force, Dr. Aronson as chair and Dr. Thompson as immediate past chair.*

Sir William Osler's teaching broke with the sterile tradition of emphasis on lectures to stress patient-centered care at the bedside as well as hands-on laboratory learning in medical schools. In service of both approaches, he was one of the leaders in North America to encourage the organized study of anatomical and pathological specimens. Painstakingly prepared, these would show in three-dimensional form examples of both healthy and diseased tissues, organs and bones.

Although teaching based on anatomical/pathological collections may have fallen out of fashion in the face of rapid high-tech developments in medical pedagogy, the neglect of those collections has recently come to be widely recognized as a mistake. They have proven not only useful for students but of interest to the public as well. Around the world, museums built around such collections have recently been reborn to fresh life, reorganized and made more attractive to the broader public, e.g., the Mutter in Philadelphia and the Medical-Historical Museum of the Charite in Berlin.

In response to these trends, while rebuilding its hurricane-damaged campus, UTMB in Galveston is planning a similar modern museum based in part on its surviving anatomical/pathological collection. These c. 600 anatomical and c. 800 pathological specimens go back in part to Osler's era. The earliest date from 1907. The museum will include photographs and instruments from the late 19<sup>th</sup> and early 20<sup>th</sup> centuries and will be housed in the landmark Ashbel Smith Building, an 1892 Romanesque brick structure that originally housed the entire medical school. As an added distinction, one of the two original amphitheaters survives, as do the skylights and converted gas fixtures that illuminated the gross anatomy laboratory. Open to the public as well as to medical and medical humanities students, faculty and scholars, UTMB's museum will thus be in part a memorial to the medical teaching traditions of Sir William.

### **Learning Objectives:**

1. Describe the functions of anatomical and pathological specimens in late 19<sup>th</sup> and early 20<sup>th</sup> century medical education
2. Apply the essence of these methods to 21<sup>st</sup> century medical education, employing past and current technology
3. Debate the value of a living museum of medicine and medical education as a way of teaching anatomy and pathology and addressing the evolution of thinking surrounding ethical issues such as informed consent and equitable distribution of care

## **Dante Alighieri – Physician of the Soul**

### **James E. Bailey**

*James E. Bailey studied the great books at St. John's College in Annapolis, MD, and trained in public health and medicine at the University of Alabama in Birmingham and the University of Washington. He serves as a Professor of Medicine at the University of Tennessee Health Science Center and directs its Healthy Memphis Data Center, a research unit dedicated to improving health and healthcare in the MidSouth region.*

Dante Alighieri (1265-1321) became a member of the physician and apothecaries guild in Florence in order to participate in public affairs. Florentine law was passed in 1295 requiring enrollment in one of the guilds or Corporazioni delle Arti e dei Mestieri (lit. Corporations of the Arts and Crafts) for consideration as a prerequisite for election to office. So, Dante was elected a prior in 1300 as a representative of the physician and apothecaries guild.

Several lines of indirect evidence suggest that Dante's interest in medicine was more than passing. His beloved Beatrice's father was a noted benefactor in Florence. Dante could not have been unaware that Beatrice's father Folco Portinari was the main benefactor for the innovative Santa Maria Nuova Hospital in the center of Florence near the presumed site of the Alighieri home. The Santa Maria Nuova Hospital was known throughout Europe as one of the most scientifically organized, beautiful, and effective hospitals in the world. It is also likely that Dante studied medicine using popular medical textbooks of the time such as Dioscorides's *Materia Medica*. Dante may have formally studied with Taddeo d'Alderotti who is described in the *Paradiso* and was the founder of the Florentine school of Medicine.

Literary evidence from *The Divine Comedy* also suggests that Dante was well aware of the common diseases of his region and knew the prominent hospitals in Italy. *The Divine Comedy* itself can be viewed as a recounting of Dante's own path to healing and the path that he saw all men must take to gain the true health of their souls.

### **Learning Objectives:**

1. Discuss the sense in which Dante Alighieri was a physician, and the meaning of his membership in the physician and apothecaries guild
2. Examine the state of medicine in Medieval Italy
3. Describe how Dante's work was influenced by his study of medicine

## Internal Medicine as A Vocation

### Jeremiah A. Barondess

*Jeremiah A. Barondess, MD is President Emeritus of the New York Academy of Medicine and William T. Foley Distinguished Professor in Clinical Medicine (Retired) at Weill-Cornell Medical College. He was President of the American Osler Society in 1983, and is past president of the American College of Physicians, the American Clinical and Climatological Association and Alpha Omega Alpha. His present interests are focused on life course efforts to reduce the prevalence of chronic disease.*

In 1897 William Osler spoke at the New York Academy of Medicine. The title of his talk was Internal Medicine as a Vocation. In it he described a pathway leading ultimately to consultant status for the aspiring young internist. He emphasized the importance of retaining the general nature of internal medicine in the face of what at that time were the first stirrings of specialization.

In these considerations of generalism versus specialism around the turn of the twentieth century, Osler was opening a window on a vista he could not have foreseen. Along with the growth in replication of his model internist, and derived from the widespread development of hospital training for medical graduates, specialization emerged and led to the development of specialty boards beginning in the 1930s, of specialty societies, and ultimately of subspecialties.

In recent years, under the pressure of a wave of subspecialization that has come to encompass a majority of those finishing residency training in internal medicine, and with the additional pressure created by the emergence of the primary care movement, the Osler model of the consultant in internal medicine has virtually disappeared, and internal medicine itself has fallen sharply as a career choice for American medical graduates.

What has emerged is a system that is increasingly inappropriate for the new aging demographic in the American population, and for the burden of multiple simultaneous chronic diseases that characterizes the elderly. In contradistinction to the generalist master physician in the Oslerian model, patients now are confronted with the need to consult multiple physicians in multiple subspecialties at multiple sites, all of this presenting severe problems in duplication, communication and a kind of medical nomadism.

The question is whether it is time to resurrect the model presented so powerfully by Osler, of the master internist, to deal with the new complexities presented by an aging population characterized by multiple chronic diseases and oriented toward managing that complexity. Such an individual would have as particular strengths the nuancing of clinical priorities and valences in the presence of multiple diseases, teaching responsibilities that have atrophied severely, including sophisticated clinical skills, clinical reasoning and the management of patients with a degree of technologic restraint. Research functions deriving from clinical issues remain to be revived as well.

“Internal Medicine as a Vocation” has fallen on hard times. The vista opened by Osler’s 1897 talk has expanded beyond anything he could imagine, and along with the undeniable progress of the last hundred years, derivative problems have appeared. Osler’s model should be thought about again because it is the most rational approach to a continuing linkage between internal medicine and patient need.

### Learning Objectives:

1. Describe the internist model outlined by Osler
2. Describe the trajectories of internal medicine and of subspecialty internal medicine over the past 75 to 100 years and the fit of the resultant arrangements in internal medicine with the health needs of the population
3. Describe the advantages (and disadvantages) of a revived model of the consultant internist

## **The Professor *versus* the Plagiarist: Has Osler Finally Triumphed Over Souvielle?**

**George S. Bause**

*George Bause, a 1981 Johns Hopkins medical graduate and 1985 Hopkins-NIH Fellow, is a clinical associate professor at Case Western Reserve University. Since 1987, from Yale and from Case, he has curated the Wood Library-Museum for the American Society of Anesthesiologists.*

On October 27, 1883, London's venerable Medical College of St Bartholomew's Hospital, recorded the following minutes:

*"A letter as to Mr. Souvielle from Dr. William Osler of Montreal was read and a letter from Mr. Matthew Souvielle in reply was also read. As Mr. Souvielle admitted what Dr. Osler asserted amongst other matters, that he had endeavored to obtain a degree...by a fraudulent thesis it was resolved that Mr. M Souvielle be not permitted to enter to the practice of this Hospital...."*

So just who was "The Plagiarist" and how did Professor William Osler catch him? From the early 1880s, our story begins with two men pursuing professional lives alongside each other in Montreal. After Professor Osler alerted "Bart's" about Matthew Souvielle's cheating past, the Plagiarist would spend the rest of his life trying to outwit Osler and his medical colleagues throughout North America.

Exactly as his nemesis Osler would, Souvielle moved south of the Mason-Dixon Line and then married a bright, wealthy widow from the Northeast. And, in spite of Osler's contacting "Bart's" about the episode of plagiarism, Souvielle would not only successfully practice medicine; he would even join Osler as a member of the American Association for the Advancement of Science. In international circles, Souvielle would associate himself with organizations fighting tuberculosis and even be listed for his efforts on the same page as Osler!

So did this conniving Plagiarist totally outwit our beloved Professor? Would Souvielle really take fame and fortune with him to the grave? Or would Osler triumph?

Join the author in piecing together clues to an intriguing story involving: thousands of patients, five patents, four medical schools, three continents, two men, but only... one "real doctor"....

### **Learning Objectives:**

1. Contrast the attitude of Souvielle with that of Osler on practitioners' filing of patents
2. Discuss how medical schools in Europe and North America shared information in the early 1880s about "problem" applicants or students
3. Contrast the final resting places of Professor Osler and "Doctor" Souvielle

## **The Medical Life of Arthur Conan Doyle**

**Darryl D. Bindshadler**

*Darryl Bindshadler is a retired pulmonologist-internist from Cheyenne, Wyoming.*

Several individuals have suggested that the relatively short medical career of Arthur Conan Doyle was a failure. One American remarked “that it was a sinister fact that although Sir Arthur Conan Doyle was supposed to be a doctor no living patient of his had ever been seen.” Born in Edinburgh May 22, 1859, only a mile from the University of Edinburgh, he entered Edinburgh Medical School in 1876, graduating in August 1881 with an MB and CM. He had to take time out during medical school to earn money, seven months as an unqualified surgeon on an Arctic whaling vessel and several medical student assistantships with practicing physicians. Dr. Joseph Bell chose Conan Doyle for a much sought after medical clerkship. There he learned observational and deductive skills whose origin can be traced to one Dr. James Syme and to Voltaire’s 1747 story of Zadig Memnon. Doyle characterized himself as an average student, an underestimate according to his graduating grades and clinical skills. He was noted by a fellow student to be “very kind and considerate towards the poor people whom I’m afraid some of us were in the habit of treating somewhat cavalierly.”

In October 1881, he sailed as a qualified surgeon on the steamship Mayumba on a voyage to West Africa during which he became critically ill with malaria but recovered uneventfully. In May 1882, he joined the practice of former classmate, George Budd Jr., “half genius, half quack”, an experience that only lasted 2 months. He then opened a private practice in Portsmouth where he remained for 8 years. Having successfully defended his thesis on *Tabes Dorsalis*, he was awarded an MD degree In July 1885.

In November 1890 in response to reading Koch’s paper suggesting that a cure for tuberculosis had been discovered, he immediately traveled to Berlin to hear the details. After overcoming monumental difficulties in accessing the relevant material, he wrote to a London newspaper disagreeing with the conclusions in every case and suggested that the information was still experimental and prematurely released. Shortly thereafter he abruptly closed his practice and went to Vienna for further training in Ophthalmology. At the same time, he was advised by a friend to leave his practice and go to Vienna for further training in one of Conan Doyle’s favorite areas, Ophthalmology. He returned to open an Eye practice near Harley Street in London but never saw a single patient over several weeks. He came down with influenza and upon recovery closed his practice thus ending his formal time in the practice of medicine. He would serve at a hospital near Bloemfontein in the Boer War for about four months.

### **Learning Objectives:**

1. List three notable aspects of Conan Doyle’s medical career
2. Describe his Boer War experience with typhoid fever
3. Explain Doyle’s support for the smallpox vaccination

## The Little We Know About Willie and the Oslers

**Michael Bliss**

*President-Elect of the American Osler Society, Michael Bliss, formerly distinguished professor of history at the University of Toronto, is the author of the most recent biographies of William Osler and Harvey Cushing. His latest book is The Making of Modern Medicine: Turning Points in the Treatment of Disease (University of Chicago Press, 2011)*

While William Osler's may be one of the best documented medical lives in modern history, a biographer is struck by all the gaps in our knowledge. We know very little about Osler's boyhood, his college years, his training as a clinician, his courtship of Grace Revere Gross, his relations with his son Revere, and many other aspects of his life and thought. We know even less about the lives of his parents and his siblings.

A decade after I tried to study all the available sources on William and the other Oslers for the new biography, very little new primary material has surfaced that changes the history presented in *William Osler: A Life in Medicine*. In this paper I will discuss some of the gaps in the primary sources, discussing possibly fruitful new areas for biographical research, and meditate on larger epistemological problems Osler's and other biographers cannot avoid. Can we really get inside our subjects' heads?

### **Learning Objectives:**

1. Understand the extent of the documentation of Osler's life
2. Discover possibly fruitful lines of research into Osler's life, family, and times
3. Ponder the extent to which any historical actor's life or thoughts are in fact knowable

## The Difficulty of Recognizing New Diseases: Examples from Osler and Horton

**Christopher J. Boes**

*Chris Boes is an Associate Professor of Neurology and neurology consultant at the Mayo Clinic in Rochester, MN. He has been the neurology residency program director at Mayo Clinic Rochester for six years. He is president of the Mayo Foundation History of Medicine Society, and a Councilor of the Executive Committee of the American Academy of Neurology History Section. His research interests include the history of neurology and headache.*

In 1918, the British physician Arthur MacNalty examined several patients with an unusual neurological disorder involving lethargy and ophthalmoplegia. MacNalty was inclined to think that the patients had a new disease. Sir William Osler saw many of these patients at the request of MacNalty, and initially thought that the patients had a cerebral form of acute poliomyelitis (Heine-Medin disease). After consulting with other physicians including Head and Fearnside, and once “the foreign medical journals came through”, it was determined that the patients most likely had encephalitis lethargica, as described by von Economo in Vienna 1917. These were the first such patients diagnosed in Britain. Osler reconsidered his initial diagnosis after reviewing with his colleagues, and eventually agreed with MacNalty on the diagnosis of encephalitis lethargica, giving full credit to MacNalty in the 1920 9<sup>th</sup> edition of *The Principles and Practice of Medicine*. In addition, Osler said that there were 57 varieties of encephalitis lethargica—as many as pickles.

Bayard Horton of the Mayo Clinic saw his first patient with temporal arteritis in early 1931. This 50-year-old woman had symptoms we now recognize as typical of the disease (headache, scalp tenderness, weight loss, fever, night sweats). Both temporal arteries were enlarged and thrombosed. She was anemic and had an elevated sedimentation rate. His colleague Dr. George Brown initially thought she might have a malignancy of some form, and later felt she had periarteritis nodosum. In his first note on the patient, Horton thought she might have metastasis of an unknown malignancy to the region of the temporal arteries. Horton eventually thought she had a new disease. Temporal artery biopsy showed a granulomatous arteritis. Actinomyces was found in culture from the artery. A 68 year-old-male was seen two months later with a similar clinical presentation, and actinomyces was found in culture from his resected artery. Both patients were initially felt to have actinomycosis of the temporal arteries. After consultation with his more experienced colleagues, Horton eventually decided that the organism was not etiologic. Actinomyces was identified as a contaminant. Horton and colleagues reported these two patients in 1932 as “an undescribed form of arteritis of the temporal vessels.” Although Jonathan Hutchinson gave the first clinical description of temporal arteritis in 1890, Horton and colleagues obtained the first biopsy specimens of the affected arteries and were the first to describe the histopathology. Giant cell arteritis is referred to as Horton’s disease.

The path of disease discovery is often long and winding. Although a number of diseases were described primarily by one person (i.e. Wilson’s disease), some require team effort to identify. The first inclination of many physicians (including great ones) is to postulate that a patient presenting with unusual symptoms and signs has an odd presentation of a known entity rather than a new disease.

### **Learning Objectives:**

1. Present two examples of new diseases that were identified primarily by teamwork
2. Summarize the particular circumstances that lead to Osler’s incorrect diagnosis of Heine-Medin disease in patients ultimately felt to have encephalitis lethargica
3. Summarize the particular circumstances that lead to Horton’s correct diagnosis of giant cell arteritis

**John Shaw Billings – Librarian, Medical Bibliographer,  
Hospital Designer, Medical Statistician and Science Administrator**

**W. Bryant Boutwell**

*Dr. Bryant Boutwell has served the institutions of Houston's Texas Medical Center for more than three decades and holds The John P. McGovern, M.D. Professorship in Oslerian Medicine at The University of Texas Medical School at Houston. His teaching interests include medical communications, history, and ethics. A former news journalist, he has written award-winning newspaper columns, radio programs and videotape presentations, including scripts narrated by Walter Cronkite. He is currently writing the biography of John P. McGovern, M.D., one of the founders of the American Osler Society.*

John Shaw Billings, M.D. (1838-1913) exerted a powerful influence on medicine as a librarian, medical bibliographer, hospital designer, medical statistician, and much more. An 1860 graduate of the Medical College of Ohio, he served as medical inspector of the Army of the Potomac during the American Civil War. Assigned to the Office of the Surgeon General of the Army in Washington, D.C. in 1864, he was named head of the Library of the Surgeon General's Office and developed that collection as the core of what is today the National Library of Medicine. He served as director until 1895 and during that time he is responsible for creating both the *Index Medicus* (1879) and the *Index-Catalogue* (1880).

This talk will explore not only his accomplishments establishing what is today the National Library of Medicine, but also his connection to Sir William Osler as well as Osler's youngest American student at Oxford, Wilburt C. Davison, founding dean of Duke University School of Medicine. Billings' many contributions as a librarian often overshadow his key role in designing John's Hopkins Hospital and the curriculum of the new medical school as well as his lead role in the recruitment of William Welch (1884) and Osler himself (1889).

Long before joining Johns Hopkins, Osler was a frequent correspondent to Billings at the Surgeon General's Library at 7<sup>th</sup> and Independence and at its earlier location in Ford's theatre in Washington. Osler also followed closely Billings' work as consultant to the Census Office for the 1880 census. Billings' vision of an electric tabulator utilizing punch cards to aid in the 1880 census was of great interest to Osler and perhaps Sir William's first brush with what would become computerized medical statistics. Examples of correspondence from Osler will be presented to further explore the Osler connection and the fascinating and highly accomplished life of John Shaw Billings.

**Learning Objectives:**

1. Examine the life and accomplishments of John Shaw Billings
2. Identify Osler's multiple connections to Billings
3. Explore the connection of Billings to Wilburt C. Davison, founding dean of Duke University School of Medicine and John P. McGovern, a Davison student and a founding member of the American Osler Society



## **The William B. Bean Student Research Award Lectureship**

### **A Social Experiment's Impact on Medical Education: The Story of the Baltimore City Almshouse in the Antebellum Era**

**Michael Brener**

*Michael Brener is a second year medical student at the Johns Hopkins School of Medicine. He received his bachelor's degree in antebellum American history from Columbia University. His interest in all things Osler was kindled after a read of the great physician's work, Aequanimitas. Michael hopes to pursue a residency in internal medicine upon graduation.*

The city of Baltimore established an almshouse in 1773 to rid the streets of the homeless, poor, handicapped and mentally disabled. Appointed citizens in Baltimore's many neighborhoods patrolled the streets and used the Almshouse to purge their communities of the unwanted. Once at the Almshouse, residents either worked for their room and board, or landed in the Almshouse's medical wards. Ward physicians treated their patients' ailments and provided a basic regimen of medical care. With time, the Almshouse ward gained a reputation by piquing the interest of physicians with its rare and interesting cases. By the coming of the 19<sup>th</sup> century, a permanent staff of doctors, nurses, and technicians from local hospitals attended the almshouse and transformed it into a respectable medical institution in the city.

One such physician, Samuel Annan (b. 1800 – d. 1868), helped steer the Almshouse in this new direction. Annan trained in Edinburgh and returned to the United States to assume his post as the Almshouse senior physician in the 1830s. On three occasions, Annan contributed extensive case reports to the *American Journal of Medical Sciences*. In so doing, he used the Almshouse and the exceptional patients he saw to advance both his career and the stature of the Almshouse's medical ward.

Therefore, the Baltimore City Almshouse of 1841, the year of Annan's retirement, was a far different institution from the one charted by the citizens of Baltimore in 1773. Intended initially as an institution of social welfare, the Almshouse evolved into a respected medical center that employed a staff of dedicated and well educated young physicians.

#### **Learning Objectives:**

1. Appreciate the landscape of medical practice in antebellum Baltimore
2. Recognize the function of the Almshouse and its contributions to the provision of medical care for the city's homeless, poor, and cast-offs
3. Understand how young physicians, much like Samuel Annan, used the Almshouse to advance their careers by sharing their patients with the medical community at large

## Presidential Address

### The Courage Befitting a Man

Charles S. Bryan

*Charles S. Bryan is Heyward Gibbes Distinguished Professor of Internal Medicine Emeritus at the University of South Carolina.*

I have had three personal ideals. One to do the day's work well and not to bother about tomorrow.... The second ideal has been to act the Golden Rule, as far as in me lay.... And the third has been to cultivate such a measure of equanimity as would enable me to bear success with humility, the affection of my friends without pride and to be ready when the day of sorrow and grief came to meet it with the courage befitting a man. —William Osler, 1905

For a perspective on medical education in its symposium issue to greet the new millennium, *The Lancet* turned to the French medical historian Danielle Gourevitch. She called William Osler “the last *maître à penser* for a noble-minded general medicine” and opined that teaching the humanities to medical students is pointless since there will soon be widespread replacement of physicians by technicians. Others, such as last year's John P. McGovern lecturer Nuala Kenny, similarly predict that our era's commodification and commercialization of medicine will negate the very possibility of medical professionalism as most of us have known it and tried to teach it.

The American Osler Society serves its members and, I'd like to think, the larger society, by keeping alive the Osler flame, broadly defined as the reconciliation of cutting edge science with certain values informed by the humanities—the ideal of *philanthropia* and *philotechnia* traceable to classical Greece. William Osler was by no means perfect (contrary to opinions held in some quarters, we're not a troupe of hagiographers). However, we believe that his eloquent articulations of certain ideals for medicine and life merit remembrance, reflection, and refinement by each generation.

The loss of so many close friends in our Society prompts my focus on the third of Osler's personal ideals as disclosed in his 1905 farewell address to the North American medical profession. Contemporaries turned to Osler for his take on the Big Questions of our existence, namely, the meaning of life, the question of death, and the possibility of an afterlife. Hence, Osler was invited to give such lectures as “Science and Immortality” and “Man's Redemption of Man.” The Big Questions are, of course, in the end unanswerable. Michael Bliss's terse summation at our 2010 meeting that “the default position to suffering and death has always been denial” is amply captured by the first of Osler's personal ideals—living in day-tight compartments, shutting out the past and future to focus on what we can accomplish here and now. But still ... when the Big Questions beckon, as they inevitably do for us all, it behooves us to strive with equanimity, as Osler did, for “the courage befitting a man.”

#### Learning Objectives:

1. Discuss whether Osler's personal ideals constitute an adequate philosophy of life.
2. Review Osler's approaches to death and dying and also the evolution of the concept of “a good death.”
3. Compare and contrast the issues surrounding death and dying in Osler's lifetime with those brought on by twentieth-century advances in medical technology.

## Artistic Depictions of Blindness

**John D. Bullock**

*Dr. Bullock is the Emeritus Professor and Chair of Ophthalmology and Brage Golding Distinguished Professor of Research at the Wright State University School of Medicine.*

Sight has always been the fundamental means by which we human beings relate to our environment and to each other. We use our eyesight to perceive, to understand, and to ascertain the truth. For thousands of years, artists have depicted the theme of blindness and have portrayed the transforming effects of loss of vision. Blindness may be cast as punishment-sometimes divine in origin, sometimes human in origin, and occasionally self-inflicted. For the artist, it is often difficult to characterize the blind by depicting the eyes alone. The eye is usually a small detail in a much larger figure and is typically barely noticed in most works of art. The eyes of the blind are frequently depicted no differently from those of other, presumably sighted, figures. In addition, since neither most artists nor observers are ophthalmologically sophisticated, with rare exceptions, it is highly unusual for the artist to depict authentic ocular pathology. In some instances, ocular pathology is depicted figuratively, and rarely, in others, it is extremely realistic; the imagery can also be highly gruesome. Both metaphorical and actual blindness have been artistically depicted. Metaphorical blindness is typically shown by covered eyes, representing arbitrariness. The depicted individuals really can see but choose not to. Depiction of actual blindness can be categorized as follows: the dramatic act of blinding (with spears, burning shafts, knives, or lightning); the state of being blind; and, the curing of blindness. The state of being blind has been artistically depicted using various objects held or used by the blind individual for use in furthering the plot, such as alms cups, walking sticks, and assistance by sighted children and dogs, or by ocular (askew gazing, ptotic eyelids, or eyes overcast by shadows), gestural, or narrative methods. When gestures are used to depict actual blindness, such blind figures are usually shown leaning forward and walking tentatively. Searching hands and spreading fingers demonstrate tactile superiority over absent vision. Narrative depiction means placing the blind person in an accurately illustrated story line with accessories. The curing of blindness has been artistically depicted in a variety of ways, typically with special medicaments or by the laying on of hands. Because of the critical importance of vision to artists, blindness has always been seen as a great tragedy and the restoration of sight to the blind has been regarded as a supreme miracle. While it is clear that the artistic rendering of blindness, depicted across various media of expression, is extremely varied, there have been some amazing constants throughout recorded history even though medical understanding of, and our ability to restore, vision, has undergone almost incomprehensible change. Oscar Wilde said: "...art imitates life." It is clear that the fear of blindness and the appreciation of our precious gift of sight, as depicted in art, have changed little over the millennia.

### **Learning Objectives:**

1. Explain how artists have depicted blindness
2. List different representative techniques of depiction
3. Discuss how these depictions have changed over time

**“It is Always Better to do Something Wrong the First Time”:  
Dr. William Osler and Medical Mistakes**

**Ian A. Cameron**

*Ian Cameron is a retired professor of family medicine and Hannah Affiliate Professor of the History of Medicine at Dalhousie University. He was President of the Dalhousie Society for the History of Medicine for 24 years. He currently is practicing rural medicine in Sherbrooke Nova Scotia and is working on a project involving the importance of stories in medicine.*

Shortly after his arrival as Chair of Medicine at Johns Hopkins University, Dr. Osler made a diagnostic error. He subsequently used his misdiagnosis as a teaching tool. He also felt that making a mistake was a good learning opportunity, “It is always better to do something wrong the first time.” This is a comment Dr. Osler made to Wilder Penfield on observing his first post mortem.

This paper will examine Dr. Osler’s context and his approach to medical mistakes and the current view on how doctors think and the medical mistakes that can result. Did Dr. Osler lead the way or would he be sued today?

**Learning Objectives:**

1. Discuss the relationship between heuristics and pattern recognition
2. Discuss the difference between a misdiagnosis and medical negligence
3. How would you introduce medical cognition into a medical curriculum

## **Augustus Calvin Behle: An Oslerian Pioneer**

**Michael W. Cater**

*Dr. Cater has practiced general pediatrics for 37 years and is a Clinical Instructor of Pediatrics at the Children's Hospital of Orange County. He practices in Tustin, California*

With the driving of the last spike of the transcontinental railroad at Promontory, Utah on May 10, 1869, life in the western territory of Utah was forever changed. The rapid growth of the mining industry resulted in a large influx of immigrant workers. St. Mark's Hospital was established in Salt Lake City in 1874 with the primary mission of providing medical care to the large number of immigrant miners and their families. Dr. August C. Behle was critical to the introduction of modern medical techniques to St. Mark's Hospital and much of Utah.

Born January 24, 1871, Behle was the son of a physician in Blackfoot, Idaho. After becoming a registered pharmacist at the age of 19, he entered Rush Medical College in Chicago and graduated with honors in obstetrics in 1894. Dr. Behle returned to the west and opened practice in Salt Lake City. For three years he kept office hours downtown as well as serving as the solo intern at St. Mark's Hospital. In 1897, Dr. Samuel Pinkerton, Salt Lake City's leading surgeon, recognized Behle's ability and suggested that he travel east (at Dr. Pinkerton's expense) to study at the new Johns Hopkins Medical School under the guidance of America's best medical teachers. According to his son, "Behle was especially attracted to Osler's work and he absorbed some of the atmosphere of that great man. He was always impressed by the thoroughness of the man and the great study given to each of his patients, and his ability to combine clinical medicine with laboratory work." While rounding, Osler would hum tunes and occasionally chide the unmarried Behle by asking him, "How many wives do you have out in Utah?" Dr. Behle was particularly impressed with the work of William Welch, especially his knowledge of pathology and bacteriology, and his emphasis on surgical asepsis. Upon finishing a course in clinical microscopy, Dr. Welch recommended him for a position as pathologist at Lakeside Hospital in Cleveland. Instead, Dr. Behle decided to return to St. Mark's Hospital, where he was appointed Staff Surgeon and Pathologist in 1899. Behle introduced many principles and techniques he had learned from Osler and others at Hopkins. He brought the first microscope to the hospital. He was the first physician on the staff to have a sound understanding of pathology. Behle was given a free hand to revise the operating room technique along the lines of the aseptic methodology practiced at Johns Hopkins. He introduced, for the first time in Utah, the use of rubber gloves and surgical masks, and he developed a method for the sterilization of catgut. He brought the first X-ray machine to St. Mark's Hospital in 1902, only the second such machine in the state.

In 1903, Dr. Behle left for a year's study in Europe, where he studied at Vienna's famous Allgemeines Krankenhaus. He traveled to Wurzburg to study with Wilhelm Roentgen, to Berne to observe the famous goiter surgeon, Theodor Kocher, to Berlin to work with Willy Meyer, to Breslau to work with Jan Mikulicz and then to Bonn to work with August Bier.

Returning to Utah in 1904, he married Daisy Harroun, one of the three graduates of the St. Mark's School of Nursing in 1898. After five productive years as a surgeon, Behle was appointed "special lecturer" at the newly founded two year medical school at the University of Utah in Salt Lake City

The next five years were extremely productive as well as physically taxing. Two severe duodenal hemorrhages led Dr. Behle to travel to Rochester, MN where William Mayo performed a gastroenterostomy in 1916. Following his surgery, Dr. Behle was able to resume his practice in Salt Lake City, where he focused his interests on three areas: thyroid, cleft palate, and brain surgery, including "removal of tumors, draining of cysts, repairing compound skull fractures, hematomas and spinal cord decompressions."

Dr. Behle suffered serious facial injuries from a fall in the operating room at St. Mark's in 1931 and promptly retired from practice, although he lived until 1952. Dr. Behle is remembered as the father of asepsis, surgical pathology and neurosurgery in the state of Utah.

### **Learning Objectives:**

1. Recognize the contributions Dr. Augustus Behle made to Utah medicine
2. Summarize how the influence of William Osler and Johns Hopkins influenced early medicine in the west
3. Name the single event that led to the industrialization of the Utah Territory?

## **Surgery, Medicine and Detection: Who taught the teachers?**

### **Caroline Coats**

*Dr Caroline Coats is a trainee cardiologist and PhD student at University College London. She graduated from Imperial College and undertook general medical training in Edinburgh. She is a previous recipient of the Osler medal for History of Medicine, from The Society of Apothecaries.*

“The 4 points of a medical student’s compass are Inspection, Palpation, Percussion, Auscultation.”  
William Osler

Perhaps, Joseph Bell (1837-1911), one of the most remarkable and well-liked medical teachers of his time would have added “Contemplation and Deduction”. For medical students, his theatrical performance was both inspiring and intimidating. And later, his legacy would become immortalized in the writings of his most famous pupil, Sir Arthur Conan Doyle.

The Bell family name was an institution in Edinburgh where the tradition of medicine spanned four generations. Joseph Bell, had a classical education at the Edinburgh Academy, where James Gloag and D’Arcy Wentworth Thompson taught him. Bell entered medical school, with sound advice "Stick to Syme". James Syme would be his mentor and instructor and later would engage the young Bell as his house surgeon and assistant at the Royal Infirmary. Bell, although devoted to his work, was a private individual who found solace in his religious and family life. His early role models, at home and at school, shaped his medical teaching style, which was centered on developing observation and reasoning. Like every student of clinical surgery, Arthur Conan Doyle was mesmerized by the deductive powers of Joseph Bell, who was a superb diagnostician and highly regarded by his peers. But Bell’s real strength lay in his ability to inspire and influence his students.

Now, on the centenary of Joseph Bell’s death, we can put aside the debate on “Who was the real Sherlock Holmes?” and reflect on our teachers. Training and education might be very different today. But medicine is an Art, learnt by apprenticeship, and the teacher-pupil relationship is at its very heart. No one forgets a good teacher.

### **Learning Objectives:**

1. To identify the teachers and mentors that influenced Joseph Bell during his early years
2. To explore Joseph Bell’s influence on medical education in Edinburgh
3. To reflect on the qualities that make a good teacher

# A Brief History of Cross-Species Organ Transplantation

David K.C. Cooper

*David Cooper spent 17 years as a heart transplant surgeon, and now heads a research group exploring xenotransplantation. His book on the surgeons who pioneered heart surgery, 'Open Heart', was published in 2010.*

Cross-species transplantation (Tx) (xenotransplantation) offers the prospect of an unlimited supply of organs and cells for clinical Tx, thus resolving the critical shortage of human tissues that currently prohibits a majority of patients on the waiting list from receiving transplants.

Between the 17<sup>th</sup> and 20<sup>th</sup> centuries, blood was transfused from various animal species into patients with a variety of pathological conditions. As immediate destruction of the cells transfused must have occurred, and it is surprising that the transfusion was not fatal in more patients. The list of skin graft donors for humans in the 19<sup>th</sup> century is extensive, with grafts being taken from sheep, rabbits, dogs, cats, rats, pigs, chickens, pigeons, and, most popular of all, frogs. The first corneal Tx from an animal into a human was carried out in 1838, more than 60 years before the first human corneal Tx (allotransplantation).

Alexis Carrel, a French research surgeon working in the US, carried out numerous organ transplants across species barriers, though not in humans. In 1907, he is quoted as saying, "The ideal method would be to transplant on man organs of animals easy to secure and operate on such as hogs, for instance. But it would in all probability be necessary to immunize organs of the hog against the human serum". This is clearly what we are attempting to do today, which is to genetically-engineer pigs to protect their organs from the human immune response.

In the 1920s, Serge Voronoff, a Russian émigré working in Paris, advocated the Tx of slices of chimpanzee testis into aged men whose 'zest for life' was deteriorating, believing that the hormones produced by the testis would rejuvenate his patients. This form of therapy became popular in Europe and North America for a number of years. Although it may have had only a placebo effect, Voronoff can be credited with the concept of hormone replacement therapy. This is exactly what we are doing today with the Tx of pancreatic islets (that produce insulin) into patients with diabetes, and what is planned for the Tx of genetically-modified porcine islets for the same therapeutic effect.

Kidneys from various animal species have been transplanted into patients since 1905. In 1963-4, when human organs were not available and dialysis was not yet in use, Reemtsma transplanted chimpanzee kidneys into 13 patients, the majority of whom died within weeks from rejection or infection. One patient returned to work as a teacher for almost 9 months before suddenly dying from what was believed to be an electrolyte disturbance; the kidneys looked microscopically normal. The first heart transplant in a human ever performed was by Hardy in 1964, using a chimpanzee heart, but the patient died within two hours. The consent form signed by the patient's relatives (as the patient was semi-comatose), although stating that no heart transplant had ever been performed, made no mention that an animal heart might be utilized, illustrating the significant changes that have taken place since the 1960s in the regulatory and legal environment. In 1984, Bailey transplanted a baboon heart into a newborn infant (baby Fae); the graft functioned for 20 days. Although this did little to further xenotransplantation, it did draw attention to the difficulty of obtaining organs for Tx into infants and children. Starzl carried out the first chimpanzee-to-human liver Tx in 1966, but it was not until 1992 that he obtained patient survival for 70 days following a baboon liver transplant.

With the advent of genetic engineering and cloning technologies, pigs are currently available with a number of different manipulations that protect their tissues from the human immune response, resulting in increasing graft survival in experimental models.

## Learning Objectives:

1. Understand the historical development of clinical xenotransplantation
2. Discuss the changes in ethical and medical/legal outlooks during the past 50 years
3. Outline the current approaches being taken to enable animals to be sources of organs and tissues for clinical transplantation

## **Training of St. Luke, Physician and Apostle**

**John F. Delaney**

*Dr. Delaney is the former chairman of the Department of Psychiatry, at the Western Pennsylvania Hospital. A practicing physician at West Penn Hospital, St. Margaret Hospital and UPMC Presbyterian Hospital, He is an Associate Professor of Psychiatry and Behavioral Sciences with Temple University.*

There have been many arguments that the Apostle Luke was not a physician, but references in his writings suggest an extensive knowledge of medicine that would require someone with medical training to understand and use. This paper looks at Luke's background. He was a Greek, and some say may have been a slave. He was literate and used language well indicating that he had some education. Some thought that he was a slave since families at the time often sent slaves for medical training so that they could have their own physician. This paper will review the specific references in his writings and how well he understood the medicine of the day by his use of specific examples. There are also questions about his role with Paul and Timothy, and whether he provided any medical care during his travels with them. This paper will discuss these issues and establish Luke's role as a physician. While the information about these issues is sparse, there is enough to establish that Luke was a well trained physician and expressed this in his writings.

### **Learning Objectives:**

1. Understand the training of Luke as a physician and the medical knowledge of the day
2. Note the medical references in Luke's writings that establish him as a physician
3. Understand the relationship of Luke to Paul and Timothy and did he treat them during their travels



## **Feminization of Canadian Medicine: Voices from the Second Wave**

**Jacalyn M. Duffin**

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In 2009 a Canadian newspaper pundit claimed that the current doctor shortage in that country stems from increasing numbers of women in medicine. This opinion is widely held, despite articulate opposition from medical deans who characterized it as a new variant of the old “sexist blame game” (CMAJ 2008).

In this ambivalent climate, we interviewed ten women who entered the Canadian profession between 1945 and 1960, when strict limits on female students were established in most schools.

Using semi-structured, in-person and telephone interviews, we found that they worked as much as their male colleagues. Their inspiration to study medicine came from passion for science. Few had met a woman doctor before entering medical school. If they married, they chose physicians. Several also raised three to five children; and negotiation of the domestic sphere usually fell to them. Most worked past age 65, and two are still working well into their ‘80s.

Poverty was almost always an issue—not only during studies, but after. Choices were influenced by payment possibilities. One coping strategy entailed going abroad for postgraduate training. In the UK, medical women were more plentiful, clinical teaching excellent, and house officers well paid. While they encountered some discrimination, they often hesitated to label it as such.

Our findings will be set in the context of the existing literature on women in medicine and on second-wave feminism. We will also examine the results of surveys on physicians’ working hours, in which all specialties show a decline, including those that have not been feminized. We conclude that the women who entered the profession between 1945 and 1960 did not contribute to the current doctor shortage.

### **Learning Objectives:**

1. Analyze the conditions for education and employment for women entering the medical profession in the 15 years after World War Two
2. Explore career paths of Canadian women physicians from 1945 forward with an emphasis on choice, finances, and hours of work
3. Relate these findings to the current demographics of the profession

## Origins of the Medical-Surgical Bond Needed for Treating Cardiac Malformations

William N. Evans

*William Evans is professor of pediatrics at the University of Nevada School of Medicine, and he is the founder and director of the Children's Heart Center – Nevada. His interest is in the history of pediatric cardiology.*

Medical physicians generally refer patients with potentially operable conditions to surgeons who then establish the anatomic diagnosis before or sometimes during the surgical procedure. In contrast, the approach to the anatomic treatment of cardiac malformations compelled a medical-surgical collaborative approach from the outset. Today, pediatric cardiologists, charged with providing exacting anatomic diagnoses, and pediatric cardiovascular surgeons, possessing the technical skills required to affect anatomic repair, meet jointly to review physiological and imaging studies that help determine the type and timing for each patient's treatment.

Two early twentieth-century collaborations, one for the surgical treatment of patients with a patent ductus arteriosus and the second for a palliative method of improving the cyanosis in patients with tetralogy of Fallot, laid the foundation for the present symbiotic model. Maude Abbott strongly influenced the first medical physicians behind both of these treatment methods. In turn, Maude Abbott's initial enchantment with the study of cardiac malformations resulted from the influence of her most important mentor, William Osler. Abbott wrote "Sir William Osler, whose keen interest in my work and broad human sympathy pierced the veil of my youthful shyness with a personal stimulus that aroused my intellect to its most passionate endeavor." Also, the lives and work of William Welch, William Halsted, and William Osler impacted and inspired the first two cardiac malformation surgeons, Robert Gross and Alfred Blalock.

Regarding cardiac malformations, William Osler wrote in his 1892 first edition of *Principles and Practice of Medicine*, "... nothing can be done to remedy the defect or even to relieve the symptoms." Osler's description represented centuries of opinion regarding congenital heart disease. Following the first report of a successful patent ductus arteriosus ligation in 1938, Mayo Clinic and University of Minnesota pathologists, later reminisced, "I recall in 1939 when Bob Gross presented his paper on ligation of patent ductus.... For the youngsters of today, a paper on this subject might not seem exciting, but for the audience that was present at that time it was a most dramatic event." During a dinner presentation at the first International Cardiac Surgery Symposium in 1955, London cardiac surgeon, Sir Russell Brock, proclaimed, "Dr. Helen Taussig whose inspiration and carefully ordered conclusions on the basic factors in cyanotic heart disease enabled her to inspire and guide the happily convenient technique of Alfred Blalock." Then in 1988, during his Founders Award address to the Cardiology Section of the American Academy of Pediatrics, Alexander Nadas, the "medical" Chief of Pediatric Cardiology at Boston Children's Hospital, succinctly stated, "Pediatric cardiology is a surgical specialty."

### Learning Objectives:

1. Describe the requisite medical-surgical approach for the anatomical treatment of cardiac malformations
2. Outline the history of the first two medical-surgical collaborations
3. Discuss early letters between Taussig and Blalock detailing aspects of their initial partnership

## East Meets West: Early Medical and Artistic Exchanges with China

### J. 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.*

For many years China was wrapped in a cocoon of self imposed isolation. In particular, medicine was not evolving and surgery was almost nonexistent. Early Jesuit teachings were generally confined to the court and did not spread. 1805 saw the first meaningful introduction of Western medicine into China, when an East India Company surgeon, Alexander Pearson, brought Jennerian vaccination to Macao. Actual medical care directed to the Chinese was not seen until 1820 when another East India Company surgeon, John Livingstone, collaborated with a missionary and two Chinese practitioners on a clinic in Macao. A deeper and more permanent influence was that of the missionary physician, Peter Parker, who arrived in 1834. Parker was a deeply religious man with medical schooling but no direct clinical experience. He established an eye hospital near Canton, where he treated eye disease and performed ever more adventurous general surgery, in spite of no formal training. His skill was appreciated, and the patient load went from hundreds per year to thousands. Additionally, he began training Chinese in western medicine.

Parker engaged a talented Chinese painter, Lamqua, to do a series of oil paintings depicting particular patients, most of whom had large, often grotesque, tumors or deformities. The entire body, including the face, is usually depicted. Subtle cultural and psychological themes are evident. There were about 110 paintings overall. Lamqua is thought to have trained with the accomplished, Irish-born artist, Chinnery, and he certainly used similar stylistic elements. Many works were hung in the hospital, presumably to impress patients and visitors, and many accompanied Parker to the U.S. and Europe during a speaking tour. They were certainly helpful in eliciting donations.

The works made for Dr. Parker are unprecedented in medical art. They are generous in size (24x18 inches), and many can be correlated with Parker's case reports. Using preliminary drawings and water colors made on rice paper in the hospital, the oil versions were later painted in Lamqua's three-story studio. The majority of the paintings are presently in the Yale Medical Library. Lamqua was a versatile artist, was considered the best in Canton, and did portraits and landscapes for a large clientele, both Western and Chinese. His work was known in London and New York.

Parker's hospital in Canton had a long life, and the teaching tradition established by Parker persisted. Sun Yat-sen studied there one year, well after Parker's day. The hospital was eventually melded into the Sun Yat-sen Medical College. After the first opium war other ports were opened to foreigners and Western medicine exerted ever more influence.

### Learning Objectives:

1. Outline the early history of Western medicine in China and its interaction with Chinese medicine
2. Be able to discuss some of the diseases of nineteenth century China
3. Trace the interaction of art, with its cultural and psychological overtones, and medical illustration

## **Passion Without Bounds: The Collecting of Henry Solomon Wellcome**

**Conrad C. Fulkerson**

*Conrad Fulkerson is a physician and psychiatrist in private practice and on the faculty of Duke University Medical Center. He designs and teaches curricula addressing the doctor-patient relationship and plans to complete a certificate in documentary studies at Duke in 2011.*

When Henry Wellcome was four in rural Wisconsin, a stone caught his eye. His father identified it as a Native American tool. In 1936 at 83 he owned warehouses of artifacts and antiquities from throughout the world gathered by an army of agents directed to obtain virtually everything for his dream: The Wellcome Historical Medical Museum.

Unbridled acquisition that far exceeded any order overwhelmed his London storage. Many items were not catalogued or conserved. His collecting exceeded that of most in sheer amount even when collecting was fashionable. Herein is the story of a lesser known but core dimension of this remarkable man.

Wellcome and fellow American pharmacist Silas Burroughs came to England in 1880 to exploit the pharmaceutical market. Wellcome's discipline, vision, intuition and creativity projected their company to worldwide pharmaceutical prominence.

Collecting was woven through Wellcome's sense of self, personal life, position in British society, and product presentation. As he acquired "things", he encountered Osler, Cushing and other collectors of the time. Osler's academic robes came to reside in his collection. Wellcome's unique medicine cases were praised by Henry Morton Stanley.

Wellcome's dream of the ultimate medical museum grew into a consuming obsession and finally fell short of his lofty vision of a complete scholarly exhibition of human health. He was competitive and secretive. He mistrusted scholars, collectors, academics not in his employ and often his own staff. Though wildly successful in business, in collecting he failed to find a sought-after place in the antiquities, academic, medical or other communities. His perfectionism, drive for complete control, and vision expansive to impossibility left him, finally, in a self-imposed isolation. Pieces from his collection continue to be catalogued and distributed to museums worldwide.

### **Learning Objectives:**

1. List three significant successes of Henry Wellcome.
2. Name three errors Wellcome made that limited the success of his museum.
3. Describe the relationship between Wellcome's collecting and his company.

## **Thomas E. Brittingham: A Vanderbilt Oslerian?**

### **J. Michael Fuller**

*Michael Fuller is Associate Professor of Medicine at the University of South Carolina School of Medicine, Associate Program Director for the Internal Medicine Residency and Vice Chairman – Academics for the Department of Medicine at Greenville Hospital System where he also serves as an attending in the Division of Pulmonary and Critical Care Medicine.*

Vanderbilt University School of Medicine has an illustrious history. It was founded in 1874, initially owned and operated as a private property of the practicing physicians who were the faculty paid by the students. It was reorganized under the Vanderbilt Board in 1895 with more stringent academic requirements, and vaulted further in acclaim after Abraham Flexner indicated it was “the institution to which the responsibility for medical education in Tennessee should just now be left.” There are numerous eminent physicians associated with the Vanderbilt history including Alfred Blalock, Hugh Jackson Morgan, Grand Liddle, and Tinsley Harrison. However, a lesser known practitioner, Thomas E. Brittingham, might be best described as Vanderbilt’s true Oslerian.

Dr. Brittingham served as the Department of Medicine’s first director of the residency program as well as the medical clinical clerkships. He graduated from Harvard Medical School, completed his internship and residency at New York Hospital, and a hematology fellowship at Washington University. Respected early in his career as a skilled clinician, he headed the St. Louis City Hospital medical service until he came to Vanderbilt. He demanded physicians-in-training to be responsible for every aspect of a patient’s care—health, comfort, emotional security, and social situation. He applied a sense of deep interest, concern, and responsibility in a total commitment to all those whom he encountered. It has been said by one of his students that he was, “the most careful and thoroughly fair man every known,” making it possible for all, “to work harder and to do better than they otherwise would have been able to do, and be happy doing so.” His unconventional attitudes toward diagnosis and treatment were admired, as was his teaching, which was unique, memorable, and great theater. He knew his students well and was deeply involved with them. He understood and communicated the importance of rigorous intellectual honesty, careful reflection, and a healthy skepticism while skillfully extinguishing simplistic ideas and presumptions. He was also increasingly religious as he grew older, finding the values he held central were more easily viewed and discussed using religion as a background. A treatise he gave to every medicine clerk on their first day on service illustrates these attributes very well.

Was Thomas Brittingham a Vanderbilt Oslerian? The Oslerian tradition is often invoked, but not well defined. Charles Bryan states that, “the tradition might be best understood as a virtuous approach to medicine and to life as taught and modeled by Osler.” He further reminds us that Osler spoke of “the love of humanity associated with the love of his craft” while stressing the study of pathophysiology and mastery of skills, striving to become a “physician proper.” Bryan adds, “Familiarity with Osler’s traits and ideals should help us to make choices that are in society’s best interest.” In this light, Thomas Brittingham’s life and legacy appear to exemplify the Oslerian tradition.

### **Learning Objectives:**

1. Discuss the historical beginnings of Vanderbilt University School of Medicine
2. Examine the life and legacy of Thomas E. Brittingham, a respected Vanderbilt clinician
3. Define the Oslerian tradition and evaluate if Brittingham’s values and ideals represent this tradition

## **“Microbe Hunters” Revisited – Paul de Kruif and the Beginning of Popular Science Writing**

**Stephen B. Greenberg**

*Stephen B. Greenberg is Distinguished Service Professor, Herman Brown Teaching Professor and Dean of Medical Education at Baylor College of Medicine. He has been Chief of Medicine at Ben Taub General Hospital since 1990. He has been at Baylor College of Medicine for 38 years, beginning as Infectious Disease fellow. He is currently Herman Brown Teaching Professor, Dean of Medical Education and Chief of Medicine at the Ben Taub General Hospital. He is developing the undergraduate course entitled “Microbe Hunters Revisited” for students at Rice University.*

Paul de Kruif is credited with being one of the first popular science writers for the general public. He received his Ph.D. from the University of Michigan in 1916 and worked at the Rockefeller Institute under Simon Flexner. After being fired in 1922 after publishing a scathing article on medical research, de Kruif caught the attention of Sinclair Lewis, who used his scientific background to write his Pulitzer Prize winning novel, *Arrowsmith*. In 1926, de Kruif published *Microbe Hunters* which recounted the exploits and discoveries of fourteen renowned microbiologists from von Leeuwenhoek to Pasteur, Ross, Paul Ehrlich and Walter Reed. *Microbe Hunters* became a best seller, was translated into eighteen languages, and formed the basis of two Hollywood movies, “Yellow Jack” and “The Magic Bullet.” Generations of young readers were captivated by the vivid portrayal of these men and their discoveries. Although the facts did not always mesh with the historical accounts, they were becoming known to many people who had no scientific background. The recent generation of infectious disease investigators have never read *Microbe Hunters*, but recent books have attempted to update this genre by describing more recent discoveries of new infectious agents (i.e. *Microbe Hunters Revisited*, M. Oldstone). Although he would go on to write many other books and publish numerous popular magazine articles, it is *Microbe Hunters* for which Paul de Kruif is best remembered.

### **Learning Objectives:**

1. Describe the popularity of “*Microbe Hunters*” to laymen
2. Explain the importance of “*Microbe Hunters*” for aspiring ID physicians in the past 75 years
3. Examine the role Paul de Kruif played in popularizing commercial science writing

## **The Evolution of Isolation: Pest Houses to Isolation Rooms**

### **David R. Haburchak**

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The oldest references to communicable disease isolation are in *Leviticus* 13 and 15, dealing with “leprosy” and “discharges,” respectively. Time, washing, and religious ritual were necessary to allow return to civic intercourse. While the original intent may have been spiritual rather than medical, there is no doubt that isolation for suspected contagion has been practiced for millennia. Religious orders established and maintained a widespread network of leper-houses as early as the 7<sup>th</sup> century, A.D.

Plagues, however, were more troubling, and often resulted in flight which paradoxically might spread the disease. Apparently, the practice of isolation of plague and smallpox patients arose independently among peoples of Africa, Asia, and Europe. Such patients were banished to leper-houses, or to “pestilence” or “pest” houses, rude accommodations conveniently adjacent to cemeteries. A historically noteworthy example has been restored in the English village of Findon, which traces its history from the pre-Norman era through the Black Death of 1348 and Great Plague of 1665.

Formal quarantine began in Dubrovnik (1377) and was widely practiced in major world seaports through the 20<sup>th</sup> century. Quarantine facilities were used for isolation as well. Local towns in New England and Virginia colonies practiced mandatory home and pest house isolation of smallpox to prevent transmission to Indians. The London “Lock Hospital” for treatment of syphilis opened in 1747. Later, cholera and yellow fever patients were isolated in pest houses throughout the United States in the 1800’s.

As cities and their poor immigrant populations increased, public hospitals enlarged and used outbuildings or special contagious disease wards, but not without public protest and occasional arson. Care givers at such poorly furnished facilities were expected to remain isolated with their patients. Michael Bliss’s biography of Osler describes a typical experience in the 1872-81 Montreal epidemic.

More fully equipped hospitals specializing in contagious disease started in Philadelphia in 1865, and expanded to Boston, New York, and Toronto. Compulsory notification and isolation of contagious diseases began in Brooklyn (1873). The new hospitals promoted scientific study of illness and therapies. Cases now included common pediatric illnesses such as diphtheria, measles, scarlet fever, as well as adults with typhoid and pneumonia. In Baltimore and Chicago, such hospitals arose by stealth at outlying locations, often near asylums. Meanwhile, tuberculosis patients were managed separately in state or private sanatoria. By 1950, all such facilities began closing.

Unexpected antibiotic resistance in common nosocomial infections led to the infection control movement in the 1960’s. Today, demented patients colonized with multi-antibiotic resistant bacteria shuttle between hospital and nursing home, suffering and forsaken from both public view and compassionate care. Isolation carts and yellow gowns designate the pest houses of today.

### **Learning Objectives:**

1. Describe the difference between isolation and quarantine
2. Describe the means used to isolate empirically contagious patients and their medical personnel through the past two centuries
3. Place Osler’s experience with treating smallpox within the social history of medical isolation

## Tissue Transplantation and Popular Culture

David Hamilton

*David Hamilton is a retired Scottish transplant surgeon. His books include The Healers: a History of Scottish Medicine, The Monkey Gland Affair, A History of Organ Transplantation (in press) and Golf - Scotland's Game. He runs the Partick Press printing limited editions using traditional letterpress methods. He was first director of the Wellcome Unit for the History of Medicine in Glasgow, and gave the John P. McGovern Award lecture at the Oxford meeting of the AOS in 1994.*

Surgical attempts at tissue transplantation have been watched with interest by outsiders from the start. The plastic surgery work of the Italian surgeon Gaspare Tagliacozzi in 1597 was lampooned by Samuel Butler in his poem *Hudibras* (1663), and *The Tatler's* 1710 satire assisted in the neglect of these surgical methods for 200 years. The revival of plastic surgery came when it was commended in a scholarly study of *Tristram Shandy* by John Ferriar in 1798, and when the London surgeon Joseph Carpue pioneered a revival of Tagliacozzi's methods in 1812, Mary Shelley's *Frankenstein* (1818), included a grim description of the construction of the Monster from body parts. But expansion of European plastic surgery was rapid. Nose replacement was seen instead as comic and was satirized in 1862 by the French novelist Edmond About. A more sinister view of transplantation emerged in H.G. Wells' *The Island of Dr Moreau* (1896) where an irresponsible surgeon creates human-animal hybrids. In the immunologically-disordered 1920s there were improbable claims for human testis transplants, even from monkey donors, giving an obvious source for a number of comic novels. The new science fiction periodicals of the 1920s carried transplant fantasies notably based on grafting of hearts, brains and hands, in particular exploiting the possibilities of transfer of the donors' personalities and habits.

When organ transplantation emerged successfully in the 1960s, there was a largely favorable fictional response, which emphasized the heroic side of transplantation. But in the late 1960s, concern over the excesses of heart transplantation and doubts about use of brain death criteria evoked a new genre of fictional works which involved callous, irresponsible, Frankenstein-like surgeons and sleazy organ procurement and organ sale rackets. Of these, Robin Cook's novel *Coma* (1977) is best known and in this pre-cyclosporine era there was a major hesitation in the development of organ transplantation.

The extent to which these ever-present popular accounts shadowed clinical transplantation from the start was unique in the history of surgery. The texts were usually inaccurate in depicting the state of transplantation at the time, but often involved aspirations which anticipated later surgical success. When the fictional literature was favorable to transplantation it gave clinical encouragement but when hostile, it caused or amplified public concern and served to check surgical progress.

### Learning Objectives:

1. Examine the linkage between popular culture and the progress of tissue and organ transplantation
2. List the resulting episodes of help and hindrance to surgical efforts in transplantation
3. Discuss whether popular culture has a broader role in the advance of surgery



## **“This Stockholm Experiment”: The Story of Frigyes Karinthy and the Founder of Swedish Neurosurgery, Herbert Olivecrona**

**Simon Hanft**

*Simon Hanft is a 4<sup>th</sup> year resident in Neurological Surgery at the Neurological Institute of the Columbia University Medical Center. As a medical student, he won the Bean Student Research Award and presented a talk at the annual meeting on the relationship between the poetry of William Carlos Williams and John Keats (Halifax, 2006). At the following annual meeting in Montreal, he gave a talk on the merits of Wilder Penfield as a novelist. Simon continues to look at the unique literature of the physician-author, and has focused more recently on the relationship of literature to the experience of neurosurgery.*

In the annals of neurosurgical history, there are certain well-known doctor-patient pairings. Certainly the earliest and most high profile example involves Leonard Wood, former Army Chief of Staff in 1910 and Republican presidential candidate in 1920, as the patient of Harvey Cushing, the founder of modern neurosurgery. This case, performed in 1910, brought fame to Cushing and in many ways legitimized the practice of neurosurgery to the general public. There is also the famous case of George Gershwin and Walter Dandy, Cushing's most successful protégé, who was contacted emergently while yachting on Chesapeake Bay to treat the failing Gershwin. Ultimately, it would be Howard Naffziger of UCSF who would treat Gershwin, as Dandy could not be flown into southern California in sufficient time.

In the mid-1930's, nearly concomitant with Gershwin's battle with a brain tumor, Frigyes Karinthy, a well-known Hungarian author, began to suffer from symptoms that were the result of a brain tumor. What makes the case of Karinthy unique in the case history of neurosurgical patients is the fact that he documented and described his experience in excruciating detail, beginning with the first whiff of symptoms all the way through the surgery and eventual recovery. This text, which he entitled *A Journey Round My Skull*, still stands to this day as a one of a kind testimony. Completed in 1939, Karinthy's account shows us the diagnostic challenges that faced neurologists of the era; the troubled thoughts and anxieties of a patient facing an unknown, then grappling with the known in the form of a brain tumor; the inchoate art of neurosurgery, as contained within Karinthy's experience of the awake craniotomy; and the portrait of Herbert Olivecrona, a Cushing disciple and widely regarded as the founder of neurosurgery in Sweden.

*A Journey Round My Skull* has significant relevance today as a living document of the unique relationship between a neurosurgeon and his patient. I will show how this book represents a profound meditation on what it means to be a victim of a brain tumor; how Olivecrona occupies a space both heroic and impersonal, empathic and yet distant to Karinthy; and perhaps most uniquely, how literature enables Karinthy to understand himself as the main figure in a drama that is larger than anything he previously imagined. Indeed, *A Journey* is no way a typical, journalistic account of a novice author; on the contrary, we have an expert practitioner who utilizes his experience as a writer in order to understand and explain his relationship to illness, his neurosurgeon, and the ever-present prospect of imminent death. It is a singular text in the history of medical literature.

### **Learning Objectives:**

1. Develop a sense of Olivecrona as a neurosurgeon and the state of neurosurgery at the time of Karinthy's operation
2. Contextualize Karinthy's encounter within the lengthy and continuing tradition of well-known neurosurgical patients
3. Understand how Karinthy's experience as an author enabled him to interpret his illness and subsequent odyssey in a wholly unique way

## On the Origins of Osler's Philo-Semitism

Perry Hookman

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Osler's father, Featherstone Osler, a British Anglican missionary to Canada named his new son William after William of Orange on July 12, 1849. He held up the newborn William to the marching Protestant crowds celebrating the July 12 1690 Battle of the Boyne Protestant victory over Catholics. Catholics in Ireland to this day still see these Orange Order marches as provocative. The question is how did William Osler given his provincial strictly Protestant background become so ecumenical, general and universal in his broadminded vision of other religions? We know that he read and re-read his hero and spiritual mentor Sir Thomas Browne's *Religio Medici*. Dr. Faith Wallis believes that despite Browne's alleged prejudiced remarks against Catholics, Jews, Moslems, blacks and women in this work, Osler was unaffected, stating that Browne had "become denationalized so far as his human sympathies were concerned." Wallis also believes that "both men were men of their age" thus should not be judged by present day values-or Presentism.

Despite the era in which Osler lived he was a vigorous opponent of anti-Semitism in his speeches and writings. Drs. David B. Hogan and A. Mark Clarfield suggest that Sir William Osler "was not merely immune to the endemic anti-Semitism of his age but was positively Philo-Semitic." From whence could this positive Philo-Semitism originate?

An exploration of the literature and sociology of the Victorian era is helpful in answering this question. Historian Barbara Tuchman points out, in 19th century England and Anglo-Saxon society in general, a strong sense of Philo-Judaism coexisted with the more prevalent anti-Semitic attitudes. Cultural kinship between Britons and Hebrews was postulated most famously during the middle of the nineteenth century by Benjamin Disraeli and Matthew Arnold. In their works, "the Hebraic is moved to the center of definitions of English national identity." This expression of British and Hebrew affinity is the set of beliefs known as British-Israelism. Many who held to these ideas also believed that the British were the direct descendants of one or more of the ten lost tribes of Israel. Even outside British-Israel circles a common theme in much of imperial Victorian discourse referred to Britain as a "new Israel" with the same mission of being "a blessing and a light to all nations."

Though this British-Israelism theory reached its height in the 19<sup>th</sup> century it was many times rejected, often derisively. It is noteworthy, however, that these ideas persisted at least in the upper and literary classes past the 20<sup>th</sup> century. British-Israelites believed in the ultimate restoration of the Jews to the Holy Land under the protection of Britain. George Eliot's Victorian novel, "Daniel Deronda" (1876) advocated just that Zionist goal long before "the first Zionist" -Theodore Herzl's "The Jewish State"(1896) was published. Though not a close contemporary of Osler, (1849 – 1919), Eliot (Marian Evans 1819 – 1880), had upper class friends in common with Osler. She broke the longstanding tradition of English literary anti-Semitism that stretched from Shylock to Fagin. Osler often referred to her books-especially *Middlemarch* (1871) as offering valuable lessons to doctors. This continuous Victorian cultural stream of British-Israelism flowed into the political 1917 Balfour Declaration - a formal statement of British government as a sign of "sympathy with Jewish Zionist aspirations. This aided the birth of Israel as a state.

It is hard not to believe that William Osler, had a strong streak of 19<sup>th</sup> century Victorian British-Israelism and would have approved.

### Learning Objectives:

1. Discuss William Osler's attitude towards other religions.
2. Evaluate William Osler's opinions on anti-Semitism.
3. Contrast William Osler's beliefs versus his Victorian era upbringing.

## **The Trial of Dr. Charles W. Malchow an Early Case of the Comstock Law**

**Ryan T. Hurt**

*Ryan Hurt is an assistant professor of medicine and senior associate consultant in the division of General Internal Medicine at the Mayo Clinic in Rochester, Minnesota. He is a graduate of Hamline University and has a research interest in the history of the Hamline University Department of Medicine and the history of medicine.*

Charles W. Malchow was born and raised in Minnesota and graduated from the Minneapolis College of Physicians and Surgeons (MCPS) in 1894, and was awarded the medal for the best performing graduate in his class. The MCPS merged with Hamline University (HU) in 1896 at which time Dr. Malchow opened a practice in Shakopee, Minnesota and a year later sold his practice to study for a year in Europe. He first studied at Guy's Hospital in London, with subsequent stops in Paris, Berlin, Munich and Vienna. He returned a year later for further studies and when he returned home he opened a practice in Minneapolis, Minnesota. He joined the faculty at HU first as an instructor and later promoted to professor of proctology and associate in clinical medicine. He published articles on female sexual sense and proctology during his days on the HU faculty.

In 1904 he wrote his book "The Sexual Life" and his publisher Olly D. Burton began to send circulars advertising the book through the mail. The book won early praise from numerous medical societies and journals and sold approximately 3000 copies in the first few months. At the time it was first published there were very few examples of books written for physicians and students dealing with topics such as sexual libido and the role of sex in healthy relationships.

In August 1904, a grand jury convened in Minneapolis indicted both Malchow and Burton for violating the Comstock Act for mailing the circular which advertised the book which the jury considered obscene, lewd, and lascivious. In October 1904, they were tried in U.S. District Court in Minnesota and eventually found guilty and sentenced to one year in the Minnesota State Penitentiary at Stillwater. In February 1905 they appealed the decision to the Circuit Court of Appeals and lost.

While the judgment was pending Malchow and Burton were out on bail. During this time Malchow was receiving strong support from politicians from Minnesota. The former mayor of Minneapolis, William Henry Eustis went to Washington to meet with the attorney general of the United States, William Henry Moody. Moody was attentive to the case and it was later presented to the President. In addition to the support from the governor, Senators Moses Clapp and Knute Nelson from the state of Minnesota also were actively involved in the petition. In a letter to Senator Nelson dated April 10, 1906 President Roosevelt commented "I am sorry to have to say that in the case of the doctor who has been convicted for circulating obscene literature, the more I have looked into it, the less I feel inclined to relieve the man in any way of penalty of his crime. I would as soon see poison circulated in the household as see that book put therein; and it is to me simply inconceivable that it should have been written say for debased purposes and by man of debased mind." He refused to pardon Malchow and he was taken to the penitentiary to serve his 12 month sentence.

When the University of Minnesota and Hamline University merged medical schools in 1908 most of the history of MCPS and Hamline including the story of the trial and imprisonment of Charles Malchow were slowly lost over time. His book sold over 250,000 copies, went into 7 editions with over 30 printings into the early 1930's and is still cited in recent literature.

### **Learning Objectives:**

1. Discuss the career of Dr. Charles W. Malchow as his contribution to medicine, the trial, and President Roosevelt's role in the case
2. Review the Comstock law and discuss the important early cases of the Comstock Law
3. Discuss Osler's thoughts on sexual physiology and education

# Osler and the Sanitary Movement with - A Scatological Guide to Loos, Privies, and Crappers

## H. Mike Jones

*Mike Jones is Professor of Pathology in the University of North Carolina School of Medicine and attending on the Autopsy Service of North Carolina Memorial Hospital.*

The term “potty humor” is ingrained in modern American culture. However, it was not that long ago such matters were more a cause for concern than humor. Debate over the etymology of terms such as “loo” and “crapper” today are entertaining, but not matters of life and death. Given Osler’s profound interest in matters of public health and sewage, it is surprising there have been so few talks on these subjects at meetings of the Osler Society. To better understand Osler’s ire at the state of affairs in Baltimore, it is helpful to understand something about the history of the handling of human waste over the centuries and how recognition of its impact surfaced in various cultures. What were the “conditions on the ground” in Osler’s time?

There has been a substantial variance over time in how wastes have been managed, not always in a continuously improving manner. Remarkable achievements in public sanitation by the ancients (flush toilets and sewers were used in the third millennium BC) were all but lost in the “Dark Ages” in Europe. Only monasteries and abbeys maintained the Roman methods of water disposal of waste. Most citizens simply dumped wastes on the ground around their dwelling. The connection between the growing stench and disease was observed early with an emphasis on “vapors” and “miasmas” as causative. Improving economies and burgeoning populations were accompanied by efforts to relieve these problems by various methods of collection, containment and disposal. These focused on the immediate origins of the material, using variations of chamber pots, garderobes, and close stools (a simple or decorated box with a top hole and removable receptacle inside); these receptacles were often kept in the bedroom or dining room. The flush toilet was reintroduced by Sir John Harington in 1596. It underwent numerous modifications, but was still malodorous and messy. In 1775 improvements were introduced by Cummings and Bramah in the form of water valves. It was another 75 years before Jennings devised a valveless water closet. Thomas Crapper, although a successful vendor of plumbing devices, did not invent the flush toilet, as sometimes stated. Unfortunately, odor was still a problem until an understanding of properly interconnected venting developed. Improved receptacle devices alone did not solve the problems of disease or nuisance. The most significant problem not adequately addressed until the 19<sup>th</sup> century was the ultimate and collective destination of wastes. In Europe and the USA, descriptions abounded of the slime, filth, and odors generated in backyards, alleyways, and public streets; some have described citizens, particularly the poor, as “drowning” in waste. The Great Sanitary Awakening of the 19<sup>th</sup> century came in two stages. Before 1870 the “miasmatisers,” believing disease derived immediately from noxious air, drove the campaign with beneficial effect even though their science was wrong. The major movement forward was to route sewage into underground conduits from the point of production, rather than on to open surface drainage sewers, open pits, or streets. After 1870 the bacteriological science of the “contagionists” ruled the debates about origins of disease.

The USA lagged Europe in solving the problem of the destination of waste products and it was in this environment that Osler focused his attention on the lack of proper sewers and the association with morbidity. His interest began early when studying abroad in Berlin in the early 1870’s, as he writes home about the malodorous deplorable “canalization” or sewers skirting the streets. He took up the cause in earnest in Baltimore in 1891, pointing to the enormous achievements in medicine, claiming that in other places “clean streets, good drains, and pure water” had reduced death from certain diseases by 50%. In the last of a series of eight papers on typhoid in 1893, he praised proper sanitation for reducing infectious diseases to a “minimum.” He claimed although the Baltimore water supply was well-arranged it was contaminated; he decried “no sewage system.” Speaking to the AMA in 1896 he declared that “we are culpably negligent” for not instituting known preventive measures. With Osler’s considerable influence the Maryland Public Health Association came into being in 1897. In 1902 he exhibited the most passionate display of his fervor in a public conference on TB addressed by the mayor, when Osler followed the mayor’s remarks by shaking his finger in the mayor’s face, lambasting him for lack of a long-sought sewerage system. In subsequent years his remarks assumed a more historical tone as opposed to one of exhortation. He may not have been aware that he was a part of a “movement” in the sense used by historians, but he certainly helped drive the improvement of the public health of Baltimore.

### Learning Objectives:

1. Outline the history of human waste disposal methods
2. Discuss the important elements of a properly constructed household waste system
3. Explain Osler’s role in improving sanitation in Baltimore

## **Polenta, Paddle Wheelers, and Pachyderms**

**Richard J. Kahn**

*Richard has been a member of the AOS since 1981 and was president 1998-99. He feels the Mastership in the ACP he received in 2006 proves the Peter Principle continues to function. As a septuagenarian who has been practicing medicine for 39 years, he now lives and practices geriatrics in Rockland and Camden, Maine. In the spirit of 18<sup>th</sup> and 19<sup>th</sup> century physicians in Maine, he and Patty welcome AOS members to visit them in downtown Martinsville, Maine should they be “doing the Maine coast.”*

October 25, 1836 was cold and stormy when fire broke out aboard the steamship *Royal Tar* in Penobscot Bay off the coast of Maine. In addition to the 92 passengers and 21 crewmembers, an elephant, 2 lions, 2 dromedaries, a Bengal tiger, a gnu, etc were aboard. The “circus” had toured the Maritime Provinces that summer and was returning to Boston by way of Portland. I will somehow link polenta and bacteriology to the early history of steamboats in order to set the scene for that horrendous day in the short life of the *Royal Tar*.

The story takes us from St. John, New Brunswick to Portland, Maine with a brief detour to Padua, Italy. What caused the fire, what was the outcome, and what became of Mogul the elephant? Contemporary newspaper accounts and images will be used to relate what I believe to be the first U.S. marine circus disaster.

### **Learning Objectives:**

1. Who is Serafino Serrati and what does he have to do with the story of the *Royal Tar*?
2. What is the most important question one should ask when boarding a ship with carrying a circus?
3. Briefly describe the events that took place aboard the *Royal Tar* on October 25, 1836

**Visions of the Good Physician:  
A National Survey of Oaths Administered at US Medical Schools in 2008-2009**

**Carla C. Keirns**

*Dr. Keirns practices internal medicine and teaches medicine, history, ethics, and health policy at Stony Brook University, Stony Brook, New York. She received her MD and PhD from the University of Pennsylvania and is the author of Measured Breath: A Short History of Asthma, forthcoming from Johns Hopkins University Press in 2012.*

**Context:** The taking of a physicians' oath during White Coat Ceremonies and graduation is an important symbol of the values of the medical profession. Oath-taking in US medical schools has increased from 74% in 1959 to 100% since the 1970s. With clinical transition ceremonies and White Coat Ceremonies, many students take oaths at least twice during their training.

**Objective:** To determine the frequency, timing, and content of physicians' oaths in US medical schools.

**Design:** A national survey of US medical schools was conducted in 2008 and 2009.

**Setting:** 130 US allopathic and 28 US osteopathic medical schools and branch campuses

**Results:** A survey of 158 US allopathic and osteopathic medical schools and branch campuses was conducted, and usable responses were received from 155 (98.1%). All responding schools report administering an oath to medical students. All Osteopathic medical schools report using the Osteopathic Oath at graduation, though not all versions received were the same. At graduation 67 schools use versions of the Hippocratic Oath, two of which are recognized translations of the original Oath (one Adams, one Edelstein). The next most common was versions of the World Medical Association's Declaration of Geneva, loosely based on the Hippocratic oath, used at 22 allopathic medical schools, varying largely in which of the WMA's versions they chose, varying largely in which of the following categories they agree to protect from discrimination: "age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient." Two medical schools offered their students a choice of oaths and 29 reported use of a student or faculty written oath. The remaining recognizable oaths were the Prayer of Maimonides (4 schools) and the Oath of Louis Lasagna (2 schools), a "modernized" Hippocratic Oath edited by a Lasagna when he was at Tufts or Johns Hopkins in the 1960s. Of the 65 oaths that were labeled "modified" or "modernized" Hippocratic Oaths, one third were a standard modernization, and two thirds were unique with no clear Hippocratic lineage. In addition, most faculty and student authored oaths adopted pieces of the Hippocratic Oath, the Declaration of Geneva, or the Prayer of Maimonides.

**Conclusions:** All US medical schools report administering a medical oath to their students. While the content of these oaths varies substantially, all of them embody the aspirations of a medical profession seeking to claim an ancient heritage and adjust to rapidly changing demands and obligations on contemporary physicians. More recent oaths expand from an emphasis on the dyadic physician-patient relationship to including elements of larger social roles for physicians in public health, health policy, social responsibility, and patient advocacy.

**Learning Objectives:**

1. Explain and contrast common options for use of an oath in US Medical Schools
2. Examine the connections between the form and content of oaths and the missions of medical education
3. Evaluate the role of rituals such as White Coat Ceremonies and Graduation Oaths in medical professionalism

## **Toward an Applied History of Medicine**

**Howard I. Kushner**

*Howard I. Kushner is the Nat C. Robertson Distinguished Professor of Science & Society at Emory University. He is author of four books, including *American Suicide: A Psychocultural Exploration* (1991) and *A Cursing Brain? The Histories of Tourette Syndrome* (1999) and numerous articles on medical and psychiatric history in journals including *Lancet*, *the Bulletin of the History of Medicine*, *Perspectives in Biology & Medicine*, *Journal of the History of Medicine*, *Journal of Pediatric Infectious Disease*, and *Pediatric Cardiology*. He is co-editor of a special issue of *BioSocieties*, 5 (March 2010) entitled “Drugs, addiction and society.” He is currently working on a book-length study of the history of laterality and mental disorders.*

This presentation argues for the creation of an “applied history of medicine” that draws on an integration of clinical and academic medical history as research tools for engagement with current medical conundrums. It begins with the recognition that, despite a number of exceptions, there are currently two distinct and legitimate approaches to the history of medicine. The first, and oldest, is clinically informed, while the second emerged from academic social history in the 1970s. Although both clinician and academic medical historians use the term “history” to describe what they do, they are not always engaged in the same enterprise and generally aim at different audiences. Clinical history serves two purposes, creation of professional identity and didactic training. In contrast, academic historians, critical of narratives of medical progress, view history as a contextual enterprise in which the past and the present are incommensurate. While the challenge remains, as it has for decades, of how or whether to create a collaborative environment to bring the dual strands of historical scholarship together, in this article we propose a third approach, that of an applied history of medicine, as a tool for medical research. Such an applied history is informed by both clinical practice and scientific knowledge as well as by the contextual claims of academic history. To do this, we first explore the obstacles that have impeded both the application of academic historical methods to medical education, practice, and research and the incorporation of medical knowledge into academic history. We then provide exemplars of the utility of applied history of medicine for medical research. Finally, we offer some suggestions about how to provide opportunities for others interested in pursuing an applied history of medicine.

### **Learning Objectives:**

1. Discuss the “histories” of the history of medicine
2. Examine ways to reduce obstacles to collaboration between clinician and academic historians
3. Examine the value of the application of historical skills to the medical practice & research

## **“The Most Important Professorship in the English-speaking Domain”: How Johns Hopkins Recruited Adolf Meyer, a Pathologist of the Mind**

**Susan Lamb**

*Dr. Susan Lamb received her doctorate from the Institute of the History of Medicine at Johns Hopkins University in 2010. Her current book project on Adolf Meyer, the Phipps Psychiatric Clinic, and the origins of American psychiatry flows from her dissertation research. She is currently a Post-doctoral Fellow in the Social Studies of Medicine Department at McGill University.*

In June of 1908, having just secured a large philanthropic endowment for a new psychiatric clinic at Johns Hopkins, the university's Chiefs of Pathology and Medicine rushed to see Dr. Adolf Meyer, then head of pathology for the entire New York State asylum system. “Professor Welch and Professor Barker of Johns Hopkins were just here,” a stunned Meyer wrote to his brother in Switzerland. They had offered him the job of designing and overseeing the clinic, and the position of first Psychiatrist-in-Chief of the preeminent teaching hospital. He did not exaggerate when he confided to his brother, amazed, that he had just accepted psychiatry's “most important professorship in the English-speaking domain.”

Historians have long recognized that the character of twentieth-century psychiatry has been shaped profoundly by Adolf Meyer, a Swiss-German émigré and Director of the Phipps Psychiatric Clinic at Johns Hopkins Hospital from 1908 to 1941. In the absence of any systematic studies of his ideas or clinical methods, this wholesale influence on the fledgling discipline of psychiatry has been attributed to the authority he wielded as a Hopkins Chief. An important question remains, however: why did Adolf Meyer emerge as the obvious candidate to establish a department of psychiatry at the nation's foremost institution for medical research and teaching?

Meyer had emigrated from Zurich only fourteen earlier, a young and idealistic neurologist whose first job was pathologist of a large state mental asylum. Like his sweeping authority after World War I, Meyer's role as the principal importer of clinical methods to the American mental asylum in the 1890s is widely accepted but not yet satisfactorily explained. Existing narratives often gloss over both the means by which an inexperienced foreigner managed to convince established asylum superintendents to adopt new practices and, importantly, his own reasons and capacity for doing so. Beginning with his medical training, and then through three successively authoritative positions in large American mental hospitals, this paper explores Meyer's reorientation away from the brain and laboratory and toward the mind and clinic. On the one hand, his medical training – acquired in the elite universities and scientific cultures of Europe – predisposed him to a clinical model that combined pathological research, bedside teaching, and therapeutic innovation. On the other, his experiences with large numbers of asylum patients convinced him that the pathological processes responsible for most forms of mental illness took place not at the level of tissues and lesions, but at that of adaptive behavior and experience. In this paper I show how Meyer's crusade to harmonize the methods of scientific medicine with his conception of *psycho*-pathology – to proceed, in other words, as a pathologist of the mind – pegged him, in the minds of Hopkins authorities, as an exemplar of its commitment to pathological research and clinical teaching.

### **Learning Objectives:**

1. Evaluate critically historical narratives of medicine's development, and to discern speculative from substantiated claims of causation
2. Explain why scientific, institutional and cultural values must be examined *collectively* in order to develop a critical interpretation of historical events
3. Discuss the ways in which Adolf Meyer's vision for psychiatry both complemented and diverged from the model of medical research and teaching that characterized the Johns Hopkins ideal



## **The William B. Bean Student Research Award Lectureship**

### **Forgotten Operations in Dr. Harvey Cushing's Early Practice**

**Katherine A. Latimer**

*Katherine Latimer is currently in her third year of study at the Johns Hopkins University School of Medicine. She has worked in Dr. Alfredo Quinones-Hinajosa's Brain Tumor Stem Cell Laboratory for the past two years. Her historical research has focused on the early years of Dr. Harvey Cushing's neurosurgical practice. She is actively involved in SHARE, a student group which helps to donate unused medical supplies for medical mission trips and works part-time as a perinatal educator at Georgetown University Hospital. She is grateful to the American Osler Society for its William Bean Student Research Award which has helped to support her work.*

Dr. Harvey Cushing, the man widely regarded as the founder of modern neurosurgery, began his career at Johns Hopkins Hospital in 1896. At Hopkins, he completed residency under the renowned Dr. William Halsted and served as an attending until 1912 when he moved to Peter Bent Brigham Hospital. Cushing's contributions to the medical field are numerous and well celebrated: he oversaw a decrease in mortality from treatment of brain tumors from approximately 50% to less than 13% and greatly influenced treatment of pituitary disorders and trigeminal neuralgia. While a significant body of work exists from the latter half of his career at institutions such as Peter Bent Brigham Hospital and Yale School of Medicine, less is known about the early years of his practice and challenges he undertook before finding his area of focus.

A review of the original Johns Hopkins Hospital surgical case files, courtesy of the Chesney Archives at Johns Hopkins Hospital, revealed that, in addition to the techniques for which he gained notoriety, Cushing also attempted surgical cures for a number of other medical conditions including glaucoma and migraine. He never published these efforts; however, his strategies provide insight into contemporary understanding of such conditions.

Rapid advances in glaucoma treatment had begun in the mid-nineteenth century with the invention of the ophthalmoscope. Dr. Cushing, with the approval of an ophthalmology colleague, performed extirpation of the superior cervical ganglion on a patient diagnosed with glaucoma. The patient previously had bilateral iridectomies and was believed to have chronic glaucoma with a new onset acute attack. At the time, there was a burgeoning interest in attempting sympathetic surgery for a variety of medical conditions including trigeminal neuralgia and glaucoma. Several medications had also been introduced to treat glaucoma, including pilocarpine. The case provides insight into the brief surgical trend in sympathetic surgery for glaucoma and a benchmark of contemporary understanding of the disease and its treatments: pupillary dilation was an area of focus in glaucoma therapy.

Cushing also attempted to devise a surgical cure for migraine. At Hopkins, he admitted four women with long histories of migraine, observed them in hospital until a headache occurred, and operated while they were in the midst of an attack. Interestingly, it appears that Cushing relied on a combination of contemporary theories of migraine including humoral science, vasospastic theory, organic cause, and increased intracranial pressure in attempting to devise a treatment strategy. His tried methods included decompression, temporal artery ligation, and removal of the spine of the second vertebrae. Worth noting, Cushing sought long-term follow-up with his patients and openly documented poor outcomes as well as medical mistakes in the surgical files of his patients.

This review defines a willingness to attempt new surgical techniques and an open attitude toward experimentation and innovation at the dawn of neurosurgery. Early in his practice, Dr. Harvey Cushing devised a number of surgical treatments rooted in contemporary pathophysiological theories and experimented with newly proposed treatments. The results of his experiences have since been forgotten due to the fact that their results were never published. His treatments benchmark historical understanding of common conditions at the turn of the twentieth century.

#### **Learning Objectives:**

1. Review insights into the pathophysiological understanding of glaucoma and its treatments in the early 1900s.
2. Discuss the myriad theories surrounding migraine at the turn of the twentieth century.
3. Document Dr. Harvey Cushing's open attitude toward innovation and experimentation in developing novel surgical treatment strategies for common conditions during his early practice.

**Thomas Hood's "Stanzas: Farewell Life!" Osler:  
"A good poem for doctors, and all should know it."**

**Philip W. Leon**

*Philip W. Leon is Professor Emeritus of English at The Citadel, Charleston, South Carolina. He is the author of *Walt Whitman and Sir William Osler* (1995) and *Sir William Osler: Medical Humanist* (2007). He has served two terms on the Board of Governors of the American Osler Society.*

As he lay on his deathbed, Sir William Osler received Drs. A.G. Gibson and William Collier of the Radcliffe Infirmary who came to try to relieve him of his distressing cough. Osler told them, "I had a good night, and smell the rose above the mould this morning." They did not understand the poetic reference indicating that he was still alive, so he explained that it was from Thomas Hood's "Stanzas: Farewell Life!" He also told them that it "was a good poem for doctors, and all should know it." I will explicate the two-stanza poem:

Farewell, Life! My senses swim;  
And the world is growing dim;  
Thronging shadows cloud the light,  
Like the advent of the night,—  
Colder, colder, colder still  
Upward steals a vapour chill—  
Strong the earthy odour grows—  
I smell the Mould above the Rose!  
Welcome, Life! The Spirit strives!  
Strength returns, and hope revives;  
Cloudy fears and shapes forlorn  
Fly like shadows at the morn,—  
O'er the earth there comes a bloom—  
Sunny light for sullen gloom,  
Warm perfume for vapour cold—  
I smell the Rose above the Mould!

Thomas Hood (1799–1845) composed this poem while on his deathbed. He was best-known as a comic writer, specializing in puns and clever wordplay. While he wrote serious poems, plays, and novels, the public demanded that he provide them with humorous poems that poked fun at other writers and politicians. He never achieved the fame of the High Romantics who preceded him nor of the Victorian writers who followed him, but he won the admiration of many of them. Both Charles Lamb and Charles Dickens called him genius, and they meant it.

**Learning Objectives:**

1. Discuss the imagery found in "Stanzas: Farewell Life!"
2. Evaluate the quality of the devices found within the poem
3. Discover Osler's affinity for the poem as appropriate for his own deathbed thoughts

## Robert Boyle, Lignum Nephriticum and Colour Indicators

Robert I. Levy

*I am a retired Nephrologist interested in the history of medicine, especially related to nephrology and related areas. Prior studies have included evaluation of Richard Bright, Pierre Rayer and Robert Christison in the early history of Nephrology.*

**Abstract:** Robert Boyle (1627-1691) was familiar with the medieval dyer's art of his time, empirically using plants that change colours induced by chemical means. He learned from reading a mid sixteenth text of Nicholas Monardes of a white wood, *Lignum nephriticum* (kidney wood), from Mexico that produced a "beautiful blue colour" that the Indians in the New World had used for a variety of kidney disease. Studying the colour changes produced by adding known acids or alkali, in his book *The Beginning of an Experimental History of Colours*, Boyle defined an acid, such as vinegar as a substance that would "obliterate the "beautifully blue caeruleous colour" of a tincture of Lignum nephriticum and an alkali as a substance that would restore the colour. He also used strips of paper impregnated with an infusion of Lignum nephriticum or syrup of violets to test whether they were acids or bases. The description of this blue colour from Lignum nephriticum was the first example of fluorescence to be characterized two centuries later. While the therapeutic uses of Lignum nephriticum for kidney disease was to be disputed a century later in 1788 in the Edinburgh Dispensary, "Practitioners have not found these virtues warranted by experience", Boyle's studies with Lignum nephriticum defined acid and bases and was an early advance in modern chemistry.

### Learning Objectives:

1. Evaluate Robert Boyle's knowledge of the medieval dyer's art of coloring manuscripts and fabrics by using chemical means of modifying the colour of plants
2. Discuss the Spanish explorer's reports including the writing of Nicolas Menardes concerning the tree with white wood from Mexico that yielded a blue colour that Indians as well as the Europeans used for centuries for kidney diseases
3. Examine how Robert Boyle (1627-1691) used knowledge of the dyer's art to evaluate the ability of acids and alkali to modify the blue colour of Lignum nephriticum, defining acids and bases, which was an early advance in modern chemistry

## **Friedrich Wegener: “His” Granulomatosis and His Place in History**

**Eric L. Matteson**

*Eric Matteson is professor of medicine, and Chair, Division of Rheumatology at Mayo Clinic. He has particular interest in the meaning of history, and history of idiopathic vasculitis and rheumatology. He and a colleague Alexander Woywodt have brought to light the past of Friedrich Wegener, and challenged honors bestowed upon Wegener.*

Friedrich Wegener is regarded as the physician who introduced a newly described form of vasculitis in 1936, which has since achieved eponymous recognition. Less well known is that the disease was initially described by his medical school roommate Fritz Klinger in 1931. Even less well known is that Wegener had established ties with the Nazi regime. In September 1932, eight months before the Hitler regime seized power, Wegener became a member of the violent Sturmabteilung, the storm troopers (brown shirts) of the early Nazi movement. On May 1, 1933, three months after Hitler’s seizure of power, Wegener also became member of the national socialist party, and during the years to follow, he also joined the national socialist physicians association and the party’s organization of academic teachers. In 1938 Wegener became “SA-Sanitäts-Obersturmbannführer.”

Shortly after the start of World War II, on November 1, 1939, Wegener arrived in Lodz, Poland, the first major ghetto for Jews. During his 6 year tenure in Poland as an army and health office pathologist, Wegener worked in close proximity to the genocide machinery in nearby Chemno, and the close proximity of the ghetto to Wegener’s workplace and the fact that his institute received, at least on occasion, victims of the deportations, presumably for autopsy.

Wegener was wanted by Polish authorities and his files were forwarded to the United Nations War Crimes Commission (UNWCC). Records from these files have been lost, so that details of these allegations and Dr Wegener’s deeds may never emerge.

After 1945, Wegener resumed his career and avoided ever publicly commenting on what he had surely seen and knew of. As he attained international acclaim, his testimony might have helped the German medical establishment finally free itself of its shameful past of the National Socialist era. In addition he could have provided additional eyewitness evidence to further refute the revisionists and holocaust deniers. But Wegener chose silence. For this he must be held morally responsible as well. The challenge from this investigation is to determine what lessons may be learned which serve the medical ethos, and a question for today is whether in light of these findings the eponymous disease distinction can be upheld.

### **Learning Objectives:**

1. Explain the historical context of Wegener’s description of the disease named for him
2. Discuss the context of the professional career of Wegener as it relates to medical and the Nazi ethos
3. Evaluate the implications of the eponymous honorific of the disease designation “Wegener’s granulomatosis”

## Open Access or Open Season: Reuse of Medical Illustrations Over the Ages

Vivian C. McAlister

*Vivian McAlister, a surgeon, is a professor in the University of Western Ontario and a major in the Canadian Forces Medical Service.*

Osler was one of the first historians of Medicine to credit the role played by Fabricius ab Aquapendente in the career of his pupil, William Harvey. The student not only used the teacher's methods but restricted his research to lines of investigation developed by the teacher. In one aspect they differed: while Harvey preferred written description, Fabricius relied on illustration. When Harvey required a figure to demonstrate the direction of blood flow in the arm, he borrowed an image from Fabricius. Harvey was probably not the first, and certainly not the last, author to reuse images from books by Fabricius. Almost three centuries later, Italian anatomist Giuseppe Sterzi wondered about unexplained similarities in many medical illustrations of the intervening period. His search for their common origin led him to 212 life size oil paintings of human and comparative anatomy bequeathed by Fabricius to Biblioteca Marciana in Venice ``so that they would be freely available for study''. Sterzi's rediscovery of this treasure was almost submerged again by two world wars and by a perceived loss of relevance in a digital world. In 2005, the restored *tavole* of Fabricius were exhibited by the Marciana.

Henry Gray illustrated his *Anatomy* with drawings of his dissections made by Henry Vandyke Carter. To the second edition of 1860, they added a lifelike drawing of the arterial anastomosis around the knee. Gray labeled this illustration a `schematic` to indicate that it was not a dissection. His source was a written description by Richard Quain. Gray's schematic has been copied by virtually every textbook of anatomy and surgery since then. JCB Grant, who redid many dissections but avoided the genicular arterial anastomosis, would not be pleased to see modern editions of his *Anatomy* with a cartoon version of Gray's figure. Maher Sabalbal and I dissected 10 cadavers to study this area and found the anatomy to be highly variable. The anastomosis is present only in the minority, is difficult to see when present and impossible to represent even with modern photography.

The laws of copyright, which were not codified for almost a century after Fabricius and Harvey, were designed by the Church and government to control printers rather than to protect intellectual property. Fabricius may have intended for his illustrations to have been reused. Even today image reproduction is specifically permitted for teaching purposes. At no time however was it appropriate to use another's illustration to deceive the reader either that the work was your own or that it was accurate. This concern may explain why Osler, like Harvey, preferred written description to visual representation.

### Learning Objectives:

1. Consider the role of imagery in academic communication
2. Discuss precedence in medical illustration
3. Understand the principles of image copyright

**Whither Bioethics given the deliberative approach of the President's Council?  
– Thoughts from an Oslerian:**

**Paul R. McHugh**

*Dr. McHugh was Henry Phipps Professor at Johns Hopkins School of Medicine and Psychiatrist-in-chief at Johns Hopkins Hospital from 1975-2001. He is now University Distinguished Service Professor of Psychiatry at Johns Hopkins University. He served as a member of President George W. Bush's President's Council on Bioethics throughout its tenure from 2002-2009*

A bioethics establishment - increasingly self-referential in that it now mostly appeals to its own theories and authority – now dominates ethical matters in medical education. I shall review (from my personal experience) the methods of approach and the several achievements that characterized the President's Council on Bioethics over its tenure from 2002 -2009. I shall demonstrate how this Council like William Osler emphasized that the emergence of an effective ethical sense and energetic moral agency of physicians comes primarily from practicing within a community of those with common intentions and similar shaping experiences rather than from the imposition of a set of 'principles' that come down from 'theory.' My aim is to encourage physicians to consider whether the now ascendant 'bioethics establishment' has enriched or impoverished our medical and biotechnical discourse from that of Osler's time.

**Learning Objectives:**

1. Attendees should be able to explain the new participatory approach to bioethical matters brought to public attention by the President's Council on Bioethics
2. Attendees should be able to discuss the standard contemporary approach to medical Bioethics based on "principles" of patient Autonomy, physician Beneficence, etc. and contrast it with an approach built upon 'practice' communities
3. Attendees should be ready to discuss the place of theory and of practice as ways of generating moral dispositions amongst physicians and other care-givers with special reference to the teachings of William Osler

## **The College Of Physicians of Philadelphia**

**Robert G. Mennel**

*Bob Mennel is the Director of Clinical Oncology at the Sammons Cancer Center at Baylor University Medical Center at Dallas. His areas of medical history interest have centered on Oncology, and Philadelphia and Baltimore where he trained.*

Philadelphia has had a number of medical firsts for the United States. It is the home to the colonies' first medical school and first hospital. To this list should be added "The College of Physicians of Philadelphia". Founded in 1787, The College of Physicians of Philadelphia holds the distinction of the oldest medical society in the United States. The College of Physicians of Philadelphia has had some of the most famous figures in American medicine as members, including the founders of the first medical school, a signer of the Declaration of Independence, the founder of the country's oldest hospital, the chief medical officer of the Continental Army, the country's first neurologist, physicians to the presidents and William Osler. The College has also been a major center for medical education throughout its whole history, through its library, meetings, and its museum. The College of Physicians of Philadelphia reportedly has the oldest medical library in the United States. The College's library started in 1788 with the donation of 24 volumes by Dr. John Morgan MD, the founder of the medical school of the University of Pennsylvania. The library grew rapidly through donations of books and monies from the College's members. Because of its members' interest in books and their wealth, the library grew into one of our country's best medical libraries, with some of the most rare medical books in the world. The College of Physicians of Philadelphia has also amassed an outstanding collection of art. The College's Mutter Museum is an outstanding collection of medical specimens and paraphernalia.

The College of Physicians of Philadelphia has had a history that has mirrored and formed American medicine. The College has not rested on its laurels and continues to be a vibrant American medical society

### **Learning Objectives:**

1. Discuss the history of the first medical society in the United States
2. Enumerate some of the important members of The College of Physicians of Philadelphia, and their contributions to American medicine
3. Discuss the importance of The College of Physicians of Philadelphia library and medical collections

## Sir William Osler and Nurses

**J. Mario Molina**

*J. Mario Molina is CEO and Chairman of Molina Healthcare and a member of the board of trustees of Johns Hopkins Medicine.*

Throughout his life Sir William Osler depended on others to help him, librarians with his literary pursuits, residents with clinical work and nurses to care for hospital patients. In written reminiscences, we hear mainly from his physician colleagues and former students. Nurses are conspicuously absent. There is little mention of nurses in Cushing's *The Life of Sir William Osler*, nor in Bean's *Aphorisms*. What was Osler's relationship with nurses?

Osler was supportive advocate for training professional nurses. Hunter Robb wrote "he took every opportunity to emphasize to physicians and the laity the importance of the Training School and the efficiency of the Hopkins nurse." He lectured annually to the nursing students. Just as he invited medical students into his home, he and Grace invited nursing students into their home. He supported the Nurses' Club and the Johns Hopkins Nurses' Registry to promote the development of trained professional nurses in Baltimore.

Nurses played an important role in his ward rounds. They began with Osler greeting the nurses who played a prominent role as can be seen from photos of Osler on rounds. However, the nurses were not exempt from Osler's playful practical jokes.

Charity Babcock graduated from the Hopkins Training School in 1897 and Osler's address to her class was published in *Aequanimitas* as "Nurse and Patient". She became head nurse on Ward F where Dr. Osler had his private patients. She wrote, "I remained a year as head nurse...it was so full of interesting details under Dr. Osler, so many of the interns who became famous."

She returned home to Iowa working as a nurse until 1906 when she married and moved to Michigan to run a hunting lodge. This validated Osler's warning to her class, "Marriage is the natural end for the trained nurse." Osler wrote to her "What the deuce are you doing with another name! You never asked my opinion (or consent). Did you really go off with some nice fellow? How scandalous and at your tender age" [she was 39].

### **Learning Objectives:**

1. Describe Osler's actions to promote professional nurses
2. Cite evidence suggesting that nurses played a role in Osler's ward rounds
3. Discuss Osler's view of marriage in the life of a professional nurse



## Harvey's Parrot, Procreation and Panspermia

Michael E. Moran

*Dr. Moran is the Curator for the American Urological Association's William P. Didusch Center for Urologic History. He is currently an Adjunct Clinical Associate Professor of Urology at the University of Florida. In addition, he has changed his practice to the Sonoran dessert in Southern Arizona where he lives, practices, reads and writes.*

William Harvey is widely known as the scientific discoverer of cardiovascular circulation and the founder of modern experimental physiology. He is less widely regarded for his contributions in the generative sciences. The amount of scholarly output regarding Harvey makes any modern attempt pale in comparison to the legion of experts in this field including Sir William Osler's Harveian Oration for 1906 and his 1913 Silliman Memorial Lectures. Harvey's great contribution to medicine, *Exercitatio anatomical de motu cordis et sanguinis in animalibus* appeared in 1628 and far overshadows his later works. This 72 page publication is appropriately considered a landmark in the history of science. But our attention is drawn to his third major treatise, *Exercitationes de generatione animalium* published in 1651.

Harvey was born on April 1, 1578 in Folkestone, Kent. He came from a prosperous family and entered Caius College, Cambridge before matriculating and receiving medical degrees from Padua and Cambridge in 1602. He studied anatomy and surgery with the famed anatomist and heir of Vesalius, Hieronymus Fabricius of Aquapendente. Following Harvey's return to England in 1604. He married the daughter of a highly influential London physician, Elizabeth Browne. Her parrot fascinated Harvey and he wrote a lengthy letter detailing his autopsy of this beloved pet that they thought was a male, but in fact was a female. Perhaps it was this autopsy that triggered the mature physician's rekindled interest in animal generation that had enraptured his mentor, Fabricius. There was a famous painting of his wife with the Psittacus, but sadly a fire at the Burley-on-the-Hill, Rutland, England under suspicious circumstances in the presence of Winston Churchill, in 1907 robbed posterity of this priceless relic. He also became a doctor of physic at Oxford.

In *De generatione* Harvey takes his time presenting his lifetime's mature work introducing modern embryology and comparative reproductive physiology as well as comparative sex psychology. It is rightly considered by many to be an incomplete work, but Harvey clearly admitted his profound sorrow at the loss of so much research effort on the reproductive mechanisms of insects, that were destroyed in the raid upon his house in London during the Civil War. This manuscript more clearly identifies William Harvey's profound grasp on ancient medical literature. He is able to use his naked-eye observations on the complex physiologic mechanisms that have interested biologists since Aristotle's own observations of chick embryonic development. Harvey made some errors in his methodical investigations in reproductive physiology, but there were no microscopes then available. This textbook on Generation is his epistle to his Aristotelian and anti-Galenic convictions. He clearly considers the development of the fetus as an epigenetic phenomenon, and cannot make himself go all the way towards an atomistic, purely mechanical/biological process and invokes the divine guidance of a creator ala William Paley. Yet like Harvey's own lamentation regarding his lost work, his panspermian leanings coupled with his clear affection for his wife's deceased parrot that has no name or image to immortalize its contribution to modern embryology more humanizes this brilliant early medical physiologist.

### Learning Objectives:

1. Describe the life and times of William Harvey in context to his three major medical publications
2. Name some of the contributions that have direct links to his 1651 publication *De generatione*
3. Explain how the writings and thinking of William Harvey have affected thought in the Enlightenment and modern eras

## **“I’d Rather Be Here Than Philadelphia”: Yellow Fever in The New Jersey Hinterlands**

**Sandra W. Moss**

*Sandra Moss is past president and program chair of the Medical History Society of New Jersey. Her major area of research focuses on medicine in nineteenth-century New Jersey.*

When yellow fever devastated Philadelphia in a series of epidemics in the 1790s, thousands of Philadelphians sought safety across the Delaware. Historians have paid scant attention to the shock waves that reached far into New Jersey from the urban epicenter. This paper examines the 1790 epidemics from the Jersey side of the river. Diaries, letters, newspaper notices, handbills, and memoirs combine to create a mirror image portrait of the epidemic so thoroughly documented from the Philadelphia side.

In its most vicious form, yellow fever, “this destroying scourge,” caused organ failure and the fearsome “vomito negro,” explaining the terror which led some citizens to abandon the sick and deny succor to refugees. Many who nursed fever victims remained well, while others living along the Delaware fell ill and died, despite little contact with refugees. Physicians loudly debated the critical issue of contagion. Theories aside, it seemed to many that the refugees brought the fever with them along the post roads. Scores who left Philadelphia in apparent health died on the roadsides or unattended in abandoned buildings.

As reports reached them by letters or word of mouth, townspeople sensed the scourge advancing toward them like an invading army. In the absence of public health systems, local communities fashioned responses to deal with the crisis. Quarantines were proposed and sporadic municipal efforts were made to ban overland and ferry traffic from Philadelphia. Vigilantes tried to intercept sea-going vessels diverted from Philadelphia. Newspapers underreported, minimized, or denied the epidemic.

Courage and kindness marked the responses of many New Jersey towns. Quakers in Woodbury appointed a committee to “provide nurses and persons to undertake at funerals.” The citizens of Springfield offered their town “as an asylum to the people flying from Philadelphia.” The medical response underlined the strong bonds between Philadelphia and south Jersey physicians. Dr. Benjamin Rush, Philadelphia champion of aggressive bleeding and purging, was in frequent communication with colleagues and former medical apprentices practicing in New Jersey. Physicians were not spared and some died in the performance of their duties.

Today, bioterrorism and emerging diseases such as Ebola pose unpredictable threats, not too dissimilar to the terrors of the yellow fever epidemics of the 1790s. For health care personnel, now as in the 1790s, courage consists primarily in showing up for work in the face of a contagious and often fatal disease. Victims can still hope that they will be “blessed by the kindness of strangers.”

### **Learning Objectives:**

1. Discuss the response of ordinary citizens to an explosive epidemic
2. Enumerate barriers to the medical care of refugees from epidemics
3. Explain how theories of contagion can affect the medical response to epidemic disease

## **Dr. Lewis Yealland and the Treatment of Shell Shock: Demon or Healer?**

**T. Jock Murray**

*Dr. T. Jock Murray is Professor Emeritus and former Dean of Medicine at Dalhousie University and a Past President of the American Osler Society. He is Chairman Emeritus of the American College of Physicians and a founder and Past President of the Consortium of MS Centers. He is an Officer of the Order of Canada and Order of Nova Scotia.*

Lewis Yealland was a young Canadian neurology registrar at the National Hospital, Queen Square, when World War I broke out. The military establishment sought ways to manage the problem of “Shell Shock” in the large numbers of soldiers traumatized by trench warfare. Yealland, working under the future Nobel Prize winner Edgar Adrian, achieved attention as an effective therapist using an adaptation of German electric shock and powerful suggestive therapy to treat soldiers with dramatic presentations of aphasia, mutism, paralysis and movement disorders due to shell shock. The military was pleased with his immediate results.

Other military physicians at the time believed in a more humanistic approach such as “talking therapy” and a rehabilitation/occupational therapy model, but there was no accepted theory of the cause or the therapy of shell shock and Yealland’s therapy seemed to have rapid results. Proud of his war efforts, Yealland published a book of his cases, describing in great detail how he would confine the soldier in a locked room, and with repeated and increasingly strong electric shocks coupled with strong suggestion, he would “cure” the paralysis or aphasia in hours.

Subsequently, Yealland has been demonized as a cruel torturer of traumatized young soldiers, portrayed as an evil doctor.

This discussion will comment on the confusion about therapy of shell shock at the time, and current psychiatric views on Yealland’s approach. I will also outline his later career and the recent portrayals of Yealland in literature and film.

I will put in context the desire of a young physician to please superiors, the apparent success of his approach, the pressures of the military on physicians, and the problem of war events clouding ethical considerations. Many of the issues and questions surrounding the ethical limits of medical and military approaches are relevant today.

The author is grateful to the assistance and resources of the Osler Library at McGill University, Wellcome Institute, British Library, Imperial War Museum, University of Western Ontario Archives and BBC Archives.

### **Learning Objectives:**

1. Discuss the reasons for conflicting views on the cause of shell shock in World War I
2. List the various forms of therapy for shell shock
3. Evaluate the role of Dr. Lewis Yealland and his therapy of shell shock

## **The Cocoanut Grove Fire**

**Robert R. Nesbit, Jr.**

*Dr. Nesbit is Professor Emeritus of Surgery at the Medical College of Georgia. He was Chief of Vascular Surgery until his retirement in April 2000. Although he is no longer involved in patient care, he continues to be active teaching at the Medical College. He has been a member of the American Osler Society since 2003.*

The most deadly nightclub fire in American history occurred in Boston on November 28, 1942. Four hundred and ninety one people died when the overcrowded Cocoanut Grove nightclub was quickly destroyed. The injured – and many of the dead – were rapidly taken to two nearby hospitals – the Massachusetts General Hospital and the Boston City Hospital. Investigations into the causes of the disaster and of the reasons for the loss of so many lives led to major changes in fire and building codes. The timing of the fire, just short of a year after the bombing of Pearl Harbor, and the location of the fire in proximity to two world class medical centers, led to critical advances in the understanding and treatments of burn injuries and burn patients. Just seven months after the fire a whole issue of the *Annals of Surgery* was devoted to the care of the victims at MGH. I will discuss the medical aspects of the Cocoanut Grove fire – an event in which I have a personal interest.

### **Learning Objectives:**

1. Describe the circumstances of the Cocoanut Grove fire and the reasons for its high death toll
2. Discuss the care received by the fire's victims
3. List advances in burn care which resulted from study of the Cocoanut Grove victims

## **An Historical Look at Writers, Poets, Mental Health and Creativity**

**Clyde Partin, Jr.**

*Clyde Partin is an Associate Professor of Medicine at Emory University School of Medicine. In 2009, he spent five days at the Bread Loaf Writer's Conference near Middlebury, Vermont. He is the author of a handful of published poems and has written on a wide variety of subjects including raising chickens; Hank Aaron's Hate Mail; Coming of Age in the Emergency Room; and Harry Potter, Magic and Medicine.*

At age ten, the novelist Kaye Gibbons endured her mother's suicide. A year later her father succumbed to the ravages of alcohol. "It was the sort of childhood that encourages someone to either become a writer or to rob convenience stores," Ms. Gibbons wryly observed. Armed with her insight, I began to delve into the smoldering mystique of writing, depression and creativity. Does one need to be raised in a dysfunctional family to pursue a career as a writer or poet? Emory poet-cardiologist John Stone spoke of the "Columbus Point," a metaphor for sailing toward one's own unknown edge of knowledge, an abyss of ignorance so profound that to probe it is akin to falling off the end of the earth. My journey to the Columbus Point was fruitful and I returned with some answers that seemed to be the ultimate blending of the sciences and the humanities, bringing thoughtful scrutiny, medical knowledge and statistical analysis to bear upon the creative mind set of writers and poets.

The ancient Greek notion of the muses, as a sort of creative alter ego of the writers and poets, became associated with divine madness. The Renaissance authors fostered a link between creativity and melancholy. Authors such as Robert Burton ("all poets are mad"), Shakespeare ("the lunatic, the lover and the poet are of one imagination"), and the English Romantics perpetuated the idea, as did many poets, exploiting their eccentricities in a self-serving manner. Modern day work on the subject of creativity and mental health began in the 1960s when Nancy Andreasen studied members of the Iowa Writers Group. Valid, if tentative data began to emerge connecting mental illness, primarily mood disorders, not thought disorders, to creativity. Later work by others, including Kay Jamison, gave some credence to the hypothesis, as did seminal work discovered from Iceland and Germany.

Turning my attention to the poets, (who, incidentally die, on average at age 62, compared to 68 for the non-fiction writers) I present information from the book Poets on Prozac, by psychiatrist Richard Berlin. He invited sixteen poets to write about their mental health experiences, the effects of treatment on their creativity, and the effects of their disease on their ability to write. Some concrete details begin to emerge that show mental health aberrations are not necessarily a salubrious tonic for the writer. Lastly, I look at the work of Albert Rothenberg, MD, who has been for four decades the principal investigator for *Studies on the Creative Process*. He feels that the myth of inspiration and the myth of special talent fall prey to empirical evidence. Motivation and capacity for endless revision are the mark of successful writers. Translogical thinking, a capacity for making connections between ideas and things that do not seem connected, and a propensity for metaphors define writers, regardless of the state of their mental health.

### **Learning Objectives:**

1. What do formal scientific studies conclude about the link between mental health and the creativity of writers and poets?
2. Does being in the throes of depression, an alcohol binge or manic phase enhance the creativity of the writer?
3. How do psychopharmaceutical drugs and/or psychoanalysis affect the writer's works?

## Medicine in Philadelphia 1884-1889: What Else Was Happening?

Steven J. Peitzman

*Steven Peitzman is Professor of Medicine at Drexel University College of Medicine (Formerly Medical College of Pennsylvania) where he practices and teaches nephrology, as well as history of medicine. His historical areas of interest include his own specialty, women in medicine, medicine in Philadelphia, and the history of physical examination. He has presented at and served on councils of both the AOS and the AAHM and is the author of two books on historical subjects.*

William Osler on arriving in Philadelphia in 1884 greeted a complex, diverse, and celebrated medical environment. The city contained medical schools of every possible species, the oldest hospital in the United States, the oldest medical society, and the by then the usual array of hospitals spread throughout the many neighborhoods, most supported by religious organizations, and two major city hospitals. These along with well over 500 physicians and numerous dispensaries served a population approaching one million, many recently arrived immigrants seeking work, but finding as well sickness and injury, in what had become a major industrial center.

Arriving in Philadelphia in 1884, Osler would have noted, probably without approval, the opening of a new sort of medical school, the Philadelphia Polyclinic and College for Graduates in Medicine, where soon the city's emerging specialists found a teaching home. Centered at the Woman's Medical College of Pennsylvania and Woman's Hospital, a community of women physicians (and surgeons!) had won a secure if somewhat sequestered place, and many patients. In 1888, for the first time a woman attained membership in the County Medical Society (though not the College of Physicians of Philadelphia—that event was decades in the future). Also at home in Philadelphia were a sizeable number of homeopathic physicians, along with *their* medical school, hospital, dispensaries, and clubs.

The city could boast of many celebrated physicians and surgeons—James Tyson and William Pepper of Penn, Jacob Mendez Da Costa and Samuel Gross (the younger) at Jefferson, and one of Philadelphia's most widely known citizens, S. Weir Mitchell, who never held a major medical school post, despite his credentials as clinician and physiologist. Many Philadelphia physicians became nationally known through their books and through journals: the Quaker City was the epicenter of medical publishing in the U.S.

And yet, during Osler's years in Philadelphia the historian can discern the beginning of the city's decline as the "City of Medicine," and his departure for Baltimore perhaps symbolized this. According to one former student, between 1885 and 1889 not a single lecture "on a bacteriological subject" was to be heard at the University of Pennsylvania School of Medicine. The future would grow in the research laboratory. Paradoxically, despite his success at Johns Hopkins, William Osler's comfortable situation remained at the bedside and at the dead house: Philadelphia suited him better.

### Learning Objectives:

1. Discern some of the factors that make a particular period one of transition within medicine
2. Describe the constituents of a "medical environment" and sources of medical care and scientific advance in a major city
3. List factors that explain how a shift in medical thought was accompanied by a geographical shift as well, as has happened more clearly in the earlier nineteenth century

## Two Gardening Movements in 19<sup>th</sup> Century Germany – Friedrich Froebel and Dr. Moritz Schreber

Claus A. Pierach

*Claus Pierach is Professor of Medicine, Program in the History of Medicine at the University of Minnesota, Minneapolis. An authority on the porphyrias, he was a full-time clinician until recently; he still enjoys teaching students and residents.*

The 19<sup>th</sup> century delivered the industrial revolution to much of Europe and the Americas, an advancement that also strained families and societal infrastructures. Leaving the countryside (*Landflucht*) for newly created jobs in the city deprived many people of their additional income and pastime - growing flowers and vegetables for pleasure and sustenance. Women, in particular, carried a heavy burden in this “new world”, often caring for large families and increasingly doing extra work for money. Time to care for their own children was inevitably reduced. Institutions existed to look after these children (*Kinderbewahranstalten*) similar to today’s daycare.

In 1840 the German teacher Friedrich Froebel (1782-1852) created what he called *Kindergarten*, offering children a place to play, to socialize and to learn. He devised their toys and considered play a rather serious matter. His ideas found wide acceptance and became an integral part of growing up. Today, in Germany, the idea of the *Kindergarten* became somewhat diluted in *Kindertagesstaetten*, (*Kitas*) where children are again merely and often barely attended of. This was certainly not what Froebel had in mind.

Two centuries ago, in Germany, a garden movement grew quickly, giving urbanized families a chance to again work a piece of the land. The Red Cross had promoted the idea of offering families small plots of otherwise fairly useless land. This movement became known as *Kleingaerten*. However, a catchy name was missing until the idea sprung to call them *Schrebergaerten* after Dr. Daniel Gottlob Moritz Schreber (1808-1861), a prominent Leipzig orthopedist who promoted a healthy environment for children and their families. This movement is still strong and has been transplanted to many American cities as Community Gardens. The 5 boroughs of New York have ca. 300 such gardens and an appropriately named GreenThumb Program. Today, Germans cultivate 1.2 million *Schrebergaerten*. Since these small gardens started, they clearly were non-commercial and had a particular salutary effect in hard times such as during the World Wars when potatoes supplanted peonies.

Tracing the steps of Froebel and Dr. Schreber, it becomes clear that both brought practical ideas to the times and places in which they lived, concepts, that are still shaping our world. Coincidentally, Sir William Osler’s last address in Oxford was 13 Norham Gardens.

### Learning Objectives:

1. Identify the societal turmoil during the 19<sup>th</sup> Century Industrial Revolution
2. Name two movements to strengthen the societal fabric, then and now
3. Explain potential use of useless land

## Park's Story and Winters' Tale: Alternate Allocation Trials in Turn-of-the-Century America

Scott H. Podolsky

*Scott Podolsky is Assistant Professor of Global Health and Social Medicine at Harvard Medical School, and Director of the Center for the History of Medicine at the Countway Library of Medicine. His most recent volume, co-edited with Charles Bryan, is entitled Oliver Wendell Holmes: Physician and Man of Letters.*

In 1898, Johannes Fibiger of Copenhagen, in the setting of scepticism regarding the efficacy of diphtheria antitoxin, had famously allocated 484 patients admitted to his hospital on alternate days to either receive or not receive antitoxin in order to prove its utility. Over the subsequent half-century before the Medical Research Council's randomized control study of streptomycin for tuberculosis, alternate allocation would emerge as an increasingly utilized and respected methodological tool for determining therapeutic efficacy. Yet the advent and early dissemination of this methodology – and the resistance to its wider application – is only beginning to be addressed at this time.

William H. Park (1863-1939), the longstanding director of the laboratories of the New York Board of Health, has been justifiably honoured for having saved countless lives through the use of diphtheria antitoxin and immunization in New York City at the end of the 19<sup>th</sup> century and first decades of the 20<sup>th</sup> century. During those same years, Park would play a key role in some of the most sophisticated and visible therapeutic trials in the world involving alternate allocation of treatment groups. These trials, involving such therapies as active vaccination for whooping cough and passive serotherapy with antipneumococcal antiserum, entailed such increasingly sophisticated methods as the use of double-blinding and multi-site collaborations and biometrically compared treatment groups.

Yet Park would claim, like Fibiger, to have first conducted such an alternate allocation study in the 1890s in the setting of scepticism regarding the utility of diphtheria antitoxin. And a deeper investigation of the context of Park's "study" reveals not only a surprise twist, but important insights into the advent of, and resistance to, the alternate allocation trial in the United States. Indeed, as this examination – abetted by emerging digital resources - will demonstrate, alternate allocation represented a potentially powerful, but equally problematic, tool, one whose usage would require ongoing justification and promotion in the decades to follow.

### Learning Objectives:

1. Explain the origins of the alternate allocation study, forerunner of today's randomized controlled trial
2. Understand the deep-seated nature of the ethical, epistemological, and logistical resistances to the application of alternate allocation studies and later RCT's
3. Develop an awareness of emerging digital resources and their application to historical scholarship



## Osler's Connections with Australia

### Milton G. Roxanas

*Milton Roxanas is a graduate of the University of New South Wales, in Sydney, Australia. He is a Psychiatrist working at Concord Hospital, the University of Sydney and in private practice. His interest in Osler arose during his university days and grew over the years. He has been collecting Osleriana for many years and wrote with Richard Golden about the Australian edition of Osler's Principles and Practice of Medicine. He has also written about Cushing and his Australian connections.*

Osler's influence was not confined to the North American continent and Europe where he taught and frequently visited but also extended to Australia. Osler had relatives in Australia and had read about Australian medical practice because he referred to this in his address "British Medicine in Greater Britain" in the British Medical Association annual conference in Montreal in 1897. He was aware about Australian and New Zealand publications especially about trends in cancer of the stomach mortality as he referred to these in his book "Cancer of the Stomach". He made reference to Australian patients who he was asked to see and about Australian doctors whom he met. He also read about Australian aborigines before presenting the Silliman Lectures on the "Evolution of Modern Medicine" describing the Aboriginal witchdoctor with powers to heal or kill. I will focus on the close relationship between Osler and Leslie Cowlshaw as both were historians and book collectors who appear to have stimulated each other in these pursuits. There is correspondence from Osler which point to a close relationship and Cowlshaw wrote about Australian medical history and made references to Osler in his publications. Cowlshaw also acquired the biggest collection of old medical books which were sold to the Royal Australasian College of Surgeons. Other Australians were frequent visitors to Osler's home in Oxford and these included Piero Fiaschi, Hugh Cairns and perhaps James Linklater Isbister. Osler's influence on Australian medicine persists to the present as can be seen by references to modern authors.

### Learning Objectives:

1. List at least two things which Osler knew about Australia
2. Discuss the close relationship between Osler and Cowlshaw
3. Name and discuss some Australians who met Osler

## Osler, Keats and Tuberculosis

### George Sarka

*George Sarka is an Associate Clinical Professor of Medicine at UCLA, Governor of the ACP, Southern CA, Region II, Past President of the LA Neurological Society and a Diplomate in 10 specialties: Internal Medicine, Rheumatology, Neurology, Geriatrics, Sports Medicine, Headache Medicine, Emergency Medicine, Occupational Medicine, Public Health/General Preventive Medicine and Public Health. He received his MD from McGill University in 1980, MPH from UCLA in 2003 and is presently pursuing a DrPH Candidate in Public Health at UCLA.*

Sir William Osler was not only one of greatest physicians of his time but also an avid bibliophile and medical historian. One such shining example of Osler's literary and historical enthusiasm was in the life and times of John Keats (1795-1821). On the centennial of this poet's birth, Osler delivered a passionate and revealing historical speech on the life of John Keats in 1895 to the British Historical Club titled "John Keats—The Apothecary Poet" which exemplified the artistic as well as the analytical/ historical talents of Osler.

Arguably, one of the greatest romantic English poets of the 19<sup>th</sup> century, John Keats began his career as a physician only to find that his true calling in life was that of poet. In an era, where tuberculosis was often romanticized in literature and opera, Keats like Osler knew of the real tragedy of this disease was human suffering and death. As a child, Keats first experienced consumption (tuberculosis) with the untimely death of his mother (Francis Jennings Keats) followed the many cases of consumption seen in medical school, then only to relive the family tragedy in 1818 with his dying brother Thomas and finally succumbing to the disease himself at the age of 25. Ironically, Keats completely avoids the topic of consumption in his poetry possibly because he found it to represent the mundane, the realistic and the painful side of life for which there was no exit except in death. Keats used poetry to romanticize human existence and escape from the vicissitudes of life. This is probably one of the reasons why Osler so revered this poet.

Osler provides an in depth analysis of the life of Keats in his 1895 speech where the poetry and imagery of Keats is mixed with the dreaded world of tuberculosis and its ramifications prior to effective treatment. It is ironic that Keats was also a victim of malpractice. His treating physician (Dr. James Clark) misdiagnosed Keats' consumption as that of the stomach rather than the lungs necessitating a treatment regimen of blood-letting, starvation, antimony and sedatives which caused much of the poet's suffering at the end of his life rather than from the disease itself. Osler once commented that "*poor Keats had not even the hope of the tuberculous that often carries them to the very gates of death.*"\*

Certainly, both men were legends in their time and thereafter. Although Keats finished medical school, he never practiced medicine but his legacy lives on via his poetry. Osler, to the contrary, completed medical school, never wrote romantic poetry but his legacy lives on via his legendary transformation of medicine.

\* Dormandy, Thomas, *The White Death: A History of Tuberculosis*, London, The Hambledon Press, 1999, p. 20.

### Learning Objectives:

1. Augment the participant's awareness of Osler's interests in literature and medical history
2. Highlight the importance of tuberculosis during the life of John Keats and Osler
3. Discuss the importance of Osler's ideas regarding the medical management of John Keats upon succumbing to tuberculosis

## **J. Marion Sims: Vesico-Vaginal Fistula Repair and Surgical Experimentation**

**Sara Spettel**

*Dr. Sara Spettel is a third-year Urology resident at Albany Medical College. She graduated from medical school at Drexel University College of Medicine in Philadelphia, and received her undergraduate degree from Barnard College in New York with a major in Latin American Studies. She is the 2010 recipient of the American Urological Association Earl Nation Retrospectroscope Award for historical presentation.*

J. Marion Sims is one of the most decorated American surgeons and called the “father of modern gynecology.” He rose to prominence based on his promotion of vesico-vaginal fistula repair, a technique he refined over four years by repetitively operating on fourteen female slaves who he kept on his property for this purpose.

Sims was highly decorated both during and after his career, serving as president of the American Medical Association. He was the first medical professional to receive a statue from the city of New York, a statue which still stands in Central Park across from the New York Academy of Medicine. While the ethics surrounding Sims legacy is vigorously debated in the historical and medical ethics literature, relatively little mention of his controversial history is found in standard urology textbooks or journals. We will highlight the unique historical circumstances that allowed Sims to rise to such prominence and divergence in his presentation between historical and medical texts. Finally we present an argument questioning his legacy as a hero of women’s health.

### **Learning Objectives:**

1. Discuss the historical events during the 19<sup>th</sup> century which contributed to Dr. Sims prominent reputation
2. Contrast Dr. Sims portrayal between modern medical and historical sources
3. Evaluate the ethical issues of Dr. Sims medical experimentation

## **The Citizens Commission on Graduate Medical Education: Its Impact to Residency Programs in the United States**

**Lorelei E. Stein**

*Dr. Lorelei Stein is an associate professor in the School of Arts and Sciences at Point Park University in Pittsburgh, Pennsylvania. She teaches research methods, quantitative methods, health care policy analysis, politics and policy in criminal justice, and has developed a course in the history of medicine for the fall 2011 academic year. Dr. Stein has also worked as an educator and an accreditation specialist for residency and fellowship programs. She is a member of the Southern Association for the History of Medicine and Science, and also the Pittsburgh-based C. F. Reynolds History of Medicine Society. Dr. Stein's areas of research are the history of medical education, the accreditation of graduate medical education in the United States, and medical treatment in correctional institutions.*

The purpose of the study was to review the factors influencing the establishment of the Citizens Commission on Graduate Medical Education, examine its activities and meetings held during 1963-1966, and analyze the impact of the Commission's findings to residency programs in the United States.

The period of 1951-1963 was permeated with problems of a physician shortage, increased tensions between hospital service commitment and educational needs of residents, policy development and future planning for graduate medical education, and political tensions among constituent organizations involved in graduate medical education. Many of these issues were and are unresolved. Medicine recognized the need for a comprehensive examination of graduate medical education by an independent commission, thus, the Citizens Commission on Graduate Medical Education was established in 1963. The actions and recommendations of this Commission need to be analyzed to understand the circumstances and roles the communities of interest had in graduate medical education, and their potential roles in the reform process.

The Citizens Commission had a central role in unifying graduate medical education and its recommendation to end the internship as a free-standing and independent entity was implemented; the internship was subsumed into the residency. This action served to increase the tensions between university affiliated hospitals and community hospitals that remain to some degree today. The Commission was also instrumental in laying the foundation for the establishment of primary care medicine (family practice) as a specialty. The Commission clearly identified the need for medicine to respond to its communities of interest by providing a means for these organizations to participate in the process to accredit graduate medical education. While the communities of interest eventually did work cooperatively to form a central agency for governing graduate medical education (first as the LCGME and then the ACGME) the catalyst that accelerated this action was not the Commission's report (also known as the Millis Report) but an external force, fear of the federal government becoming involved in graduate medical education.

### **Learning Objectives:**

1. Examine the rationale for the establishment of the Citizens Commission on Graduate Medical Education
2. Analyze the findings of the Citizens Commission on Graduate Medical Education
3. Explain the impact of the Commission's findings to residency programs in the United States

## The John P. McGovern Award Lectureship

### The Back Forty: *American Medicine and the Public Interest* Revisited

Rosemary A. Stevens

*With the 1971 publication of American Medicine and the Public Interest, Rosemary A. Stevens established a wide reputation as one of America's most distinguished and influential medical historians. The former dean of the College of Arts and Sciences at the University of Pennsylvania, she currently lives in New York City, combining scholarship in social medicine and public policy with an active "second career" as an artist.*

By invitation, I have accepted the challenge of talking about a book I published forty years ago. I thus find myself talking about a history which is also an artifact of history. *American Medicine and the Public Interest* is, as I hope to show, a product of its time and then-prevailing professional, political and social ideas. Nevertheless, some of the themes from 1971 resonate to our present.

How and why I wrote the book provide context to place it in its own history. I describe its major findings, and consider prospects for medicine as it looked in 1971. The book's title is more ambiguous to us today than it was then. How far does "medicine" encompass all of medical service; or is it limited to the history of the medical profession? Is there a "public interest?" The specialization (and sub-specialization) of American medicine is a major, continuing theme. I stress that specialization necessarily has two faces: one affecting the profession, the other the organization of medicine. Specialization provides opportunities for scientific knowledge and technical proficiency to advance through focused training, research and practice. However the effectiveness of expertise in limited fields can only be reached where the pieces are combined into well-functioning organisms. Specialization is *the* fundamental theme of the organization of American medicine. In the United States a skewed pattern of health care developed, built on excellent but fragmented professional parts, which are still largely uncoordinated.

The professional, political, and/or social history of medicine was grossly under-researched in the 1960s. This was both a benefit and a burden in writing about the field. *American Medicine and the Public Interest* necessarily encompassed both the professional and the organizational/political history of health care from the late nineteenth century up through the implementation of the Medicare and Medicaid programs and the founding of the American Board of Family Medicine (then Family Practice) in the late 1960s. The invention of the HMO, as originally designed in 1970, missed the deadline. I wanted then, and will consider now, how different (selected) foci for organization flared and faded at different times. The American alternative for demonstrably efficient, comprehensive health services has been a vibrant, fractured, costly health care industry, backed up by huge tax commitments, up to and including the current health reforms. Examples will be given.

Meanwhile medicine, like other professions over the past few decades (including the professoriate) has lost much of its former autonomy and social status, while subjected to increased regulation. What has happened to medicine as a profession? Here we make a brief foray into medical specialization in 2011, the organizational problems of generalism, and Oslerian themes, including medicine as a noble profession, its supposedly moral effect on the physician, intellectual pursuits, and the (lost or found?) role for the medical generalist.

American medicine was in a supposed crisis (a "maelstrom") in 1971, but so it was before then, and so it seems to have been ever since. Basic themes remain. But the history also demonstrates rapid change. As a historian, I refuse to make predictions, and suggest we leave this to a new cadre of young, unjailed thinkers.

#### Learning Objectives:

1. Contrast the social, political, and professional environment of American medicine in 1971 with those of today, forty years after the publication of *American Medicine and the Public Interest*
2. Discuss the effects of specialization on the medical profession and the delivery of medical care
3. Name at least three recurring themes in the organization of American medicine and health care delivery

## Osler's Somersault on Malaria

### Marvin J. Stone

*Marvin J. Stone directs the internal medicine clerkship and medical oncology fellowship program at Baylor University Medical Center in Dallas. Dr. Stone has received the distinguished service award from the University of Chicago and the lifetime achievement award from the International Society for the Study of Waldenström's Macroglobulinemia. He is a past president of the American Osler Society. In 2008 he received the Alpha Omega Alpha Volunteer Clinical Faculty Award from the University of Texas Southwestern Medical School.*

Laveran first described the pigmented inclusions in the erythrocytes of patients with malaria in 1880 and authored a monograph on the subject four years later. At the first meeting of the Association of American Physicians in 1886, Osler ("speaking out of the fullness of my ignorance") was skeptical about Laveran's results despite supportive findings from others. Osler's view was based on inspection of fresh preparations rather than fixed, stained blood smears which the other physicians used. After the meeting, Osler returned to Philadelphia and, with his colleague George Dock, inspected both fresh and stained blood smears. They were promptly convinced of the validity of Laveran's description of the *Plasmodium* in the blood of malaria patients. Osler rapidly sent communications to several journals reversing his position and acknowledging he had been wrong about Laveran's claims. Later he remarked, "Happy those who had agility and wit sufficient for the summersault!" Osler's influence proved important in the acceptance of Laveran's work. Moreover, in Philadelphia and later in Baltimore, blood films were examined in patients with fever and subsequently in all patients.

"One swallow does not make a summer, but one tophus makes gout and one crescent malaria."

### Learning Objectives:

1. Explain why Osler did not initially agree with Laveran about the diagnosis of malaria
2. Discuss Osler's reaction to realizing he was wrong
3. Evaluate the consequences of Osler's somersault

## **Twitter MD: Physicians and Social Media**

### **Rob Stone**

*Rob Stone is a producer, writer and director at Vienna Productions, which specializes in documentary films and specials for television. Projects have included Blue Angels: Around the World at the Speed of Sound, One Vision: Great Film Directors, and Sir William Osler: Science and the Art of Medicine.*

Note: I plan to show examples of social media (Facebook, tweets, youtube, etc) during this presentation.

For centuries, physicians have turned to their colleagues for help and opinions regarding their patients. Increasingly, however, this sharing of information is not taking place in the doctor's lounge but rather on a myriad of social networking sites such as Sermo.com, a website where over 25,000 licensed physicians regularly visit to consult with fellow members specializing in areas ranging from plastic surgery to oncology.

Popularized by teens sharing information with their friends online, social networking has evolved into a niche market where those in the medical profession can learn from one another in real time, creating an immediate global dialogue. And although social media can benefit physicians and expand the ways in which they help their patients, it raises many questions as well.

Of Facebook's 500 million users worldwide, more and more physicians are utilizing the site every day. Almost 1300 physicians have registered on twitterdoctors.net, a listing of doctors using twitter. Additionally, widgets, smart phone apps, and online tools are growing rapidly.

According to a 2009 study in the Journal of the American Medical Association, more than 60% of U.S. medical schools reported incidents of students posting inappropriate and unprofessional content such as photos displaying inebriation, illegal drug use, or posts featuring offensive language. Such online discoveries can undermine a patient's trust. Additionally, a physician's pledge never to violate patients' privacy remains a troubling concern online. Formal ethical guidelines on how medical students and physicians should properly maintain professional standards online is scarce, and doctors are left to determine the ethical boundaries themselves.

In the 21<sup>st</sup> century, whether a doctor is in the hospital or in cyberspace, the challenge is to find the right balance between professional and personal interaction. Physicians need to discover the most productive and proactive ways to use social media in their daily lives, where the primary objective should always be improved patient care.

### **Learning Objectives:**

1. Explain how physicians and medical students are currently using social media
2. Identify various social media tools and services that are being utilized by doctors.
3. Integrate social media examples such as twitter posts, youtube clips, and facebook entries to illustrate how those in the medical community use these online tools in both productive and potentially destructive ways.

## Osler in the West: Dr. Earle Strain, the Wood Tick and Rocky Mountain Spotted Fever

Herbert M. Swick

*Dr. Swick is Research Professor at the University of Montana and Clinical Associate Professor at the University of Washington School of Medicine. Though retired, he continues to teach at UM and in the WWAMI program.*

William Osler never traveled to Montana, but his influence was nevertheless felt there. Dr. Earle Strain, one of his students at the University of Pennsylvania, was the first physician to suggest that Rocky Mountain Spotted Fever (RMSF) might be transmitted by a tick.

At the turn of the last century, in frontier Montana, every spring heralded outbreaks of 'black measles' (now known as RMSF). The cause of this often fatal disease remained a mystery. People wondered if it came from drinking melted snow water from the nearby canyons, or breathing sawdust during timber operations in the dense forests. Dr. Earle Strain, a physician in Great Falls, had suspected for several years that the disease might be transmitted by a tick. He had once visited another physician who happened to be seeing a young man with spotted fever. The physician was removing several ticks from the man's back, and Strain immediately recalled a lecture he had heard in medical school about mosquitoes being the possible carriers of yellow fever, so he postulated that the tick could be the vector for spotted fever. In March 1901, governor Joseph K. Toole charged Dr. A.F. Longeway, director of the Board of Health, with solving the "black measles" problem. Strain suggested his idea about ticks not only to his good friend, Albert Longeway, but also to two early pathologists studying the disease. They all agreed that there might be a possible causal relationship, but considerable controversy ensued -- the idea of a tick-borne disease met vocal and vehement resistance from entrepreneurs, land speculators and powerful mining interests, because of concern that news of a disease carried by insects would scare away homesteaders and settlers and investors. In 1906, the U.S. Public Health Service sent Howard Ricketts to Montana, with a mission to discover the cause of RMSF, and by 1909, he had isolated the responsible organism and firmly established the tick as a vector.

Earle Strain, the physician who recalled a medical school lecture, was born and raised in Flesherton, Ontario, quite near the Osler family home in Bond Head. He began medical school at University of Toronto, but then transferred to the University of Pennsylvania, expressly so that he could study with William Osler. We do not know whether the lecture he heard on yellow fever was given by Osler, but it is certain that Strain attended clinical ward rounds and bedside teaching sessions with him, where he would have learned the importance of acute clinical observation and reasoning. These skills were to serve him well when, some years later, he linked ticks and 'black measles.' Following graduation in 1890, Strain briefly set up practice in Minot, North Dakota, to pay back his medical school debts. Then he spent two years studying in Europe, including time with Rudolf Virchow and Friedrich Kovacs in Vienna. In 1896, he moved to Great Falls, Montana, to become a camp physician for Anaconda Copper Company. Several years later, he entered private practice in Great Falls, where he died in 1953 at the age of 87.

### Learning Objectives:

1. Understand the contributions of Earle Strain to establishing the transmission of RMSF
2. Understand the widespread influence of William Osler and his teaching on medicine in the early American west
3. Gain some appreciation for the controversial and complex factors that can affect acceptance of disease etiology



## **Abraham Louis Levin: Demystifying the Duodenum**

### **Jun Tashiro**

*Jun Tashiro is a fourth-year medical student at the University of Medicine and Dentistry of New Jersey - New Jersey Medical School, where he has also completed a Master's degree in Public Health in a dual-degree program. Prior to enrolling in medical school, he received a bachelor's degree in History at New York University. After graduation, he will continue on to a residency in general surgery.*

Abraham Louis Levin (1880 – 1940) of New Orleans, Louisiana, is credited as the inventor of the Levin nasogastric tube, one of the most ubiquitous devices in modern medicine. The Levin tube holds a critical role in trauma surgery in the initial assessment of the patient, preparation for possible laparotomy, and treatment of abdominal distention secondary to ileus in the postoperative period. A native of Poland, Levin served as a decorated soldier in the Boxer Rebellion prior to his immigration to the United States. After attending medical school, he established himself as a gastroenterologist at the Touro Infirmary in New Orleans. He later volunteered as a U.S. Army medical officer during World War I, where he learned of a newly introduced technique called “duodenal lavage.” In an era prior to the advent of antibiotics, physicians had popularized lavage as a treatment for many "gastrointestinal infections," including those afflicting the gallbladder. Dissatisfied with preceding instruments, Levin designed his own tube; his simple design was met with wide approval due to its practicality and ease in everyday use. While his modified technique, "non-surgical drainage of the gallbladder," is no longer performed, the Levin tube remains a vital instrument for gastric decompression in the trauma setting, and in medicine as a whole.

### **Learning Objectives:**

1. Compare the initial purpose of the Levin nasogastric tube with its modern usage, particularly in general and trauma surgery
2. Explain the development of the "duodenal lavage" treatment technique for digestive disease, and its replacement with modern modalities
3. Discuss the evolution of diagnosis and treatment of biliary tract pathology, beginning with the foundations of gastroenterology as an accepted subspecialty of internal medicine

## Boerhaave, The Osler of the 18<sup>th</sup> Century

**Robert P. Turk**

*Dr Turk graduated from the Medical College of Alabama. He is retired from the Air Force with 24 years of service. For the following 20 years he was a Clinical Professor in Wright State University's Integrated Program in General Surgery, and for the past 10 years he has been the Surgery Clerkship Director.*

The title refers to Osler's fame as a bedside teacher, but this paper should probably be entitled, "Osler, the Boerhaave of the 19<sup>th</sup> Century" since it was Boerhaave who re-introduced clinical bedside teaching into medical education. Hermann Boerhaave (1668-1738), the son of a minister in the Dutch Reformed Church, was born on 31 December in a village near Leiden. After his usual course of studies in philosophy & theology he received his PhD from Leiden in 1690 and then traveled to Harderwijk where he was awarded his M.D. in 1693. He was a scholar of distinction and spoke all the European languages as well as being an elegant Latinist. In 1701, he was appointed the lecturer in Medicine and Chemistry at Leiden and rapidly gained the reputation as an outstanding teacher. When he was just 32 years old he wrote two Latin books entitled, 'The Institutes of Medicine' and the "Aphorisms Concerning the Knowledge and Cure of Disease." These were subsequently translated into several languages and were used in universities continually for 50 years after his death. Boerhaave was also appointed a professor of Botany in 1709 and he devoted much of his time to the study of medicinal plants and greatly improved the contents of the famous Physic Garden of the University of Leiden. Linnaeus, MD Harderwijk- 1735, father of binomial nomenclature, worked with Boerhaave until 1738 and was appointed the Chair of Medicine at Uppsala in 1741. In 1714, Boerhaave became the clinical teacher at the St. Cecilia Hospital and with the 12 beds allotted to him, initiated the modern method of bedside teaching. His classes were attended by large numbers, usually 100 or more students. His case report of the rupture of the esophagus of the Grand Admiral of the Dutch Navy, led to the eponymic title of this disease. This eponym has recently been challenged to change the name to that of the patient, van Wassenauer. This case was the first to be published in the modern form in which history was followed by physical exam, a diagnosis, the course and the autopsy. The modern medical curriculum with the sequence of natural science, anatomy, physiology and pathology is derived from Boerhaave, and it was his pupils who spread this doctrine throughout Europe. One of his students, Albrecht Von Haller, founder of the medical school in Gottingen, gave him the appellation of "the teacher of the whole of Europe". Another of his famous students, Gerard Van Swieten, founded the Vienna Medical School. Boerhaave even influenced American education by the fact that John Monroe, who first conceived the Edinburgh Medical School, was an undergraduate student with Boerhaave at Leiden. Monroe sent his son, Alexander, to be tutored by Boerhaave at Leiden. On his return to Edinburgh, Alexander Monroe was appointed as the new Chair of Anatomy and six years later, with 4 other chairs, established the medical school at Edinburgh. It is also significant that 9 of the young men who were the first professors at Edinburgh Medical School were, without exception, students of Boerhaave. The first medical school in the United States was the University of Pennsylvania in Philadelphia and all the physicians who were prominent in the early years of that school had been trained in Edinburgh. So Boerhaave's influence, even after his death, was important in the establishing of medical education in the New World. The city of Leiden has maintained many of the landmarks associated with Boerhaave's life and it is easy to follow in his footsteps even in the present day. However, it is Osler's comment which describes Boerhaave best; "He was much greater than his published works would indicate, and, as is the case with many teachers of the first rank, his greatest contribution were his pupils."

### **Learning Objectives:**

1. List the medical schools established by Boerhaave's former students
2. Describe the format of case presentations as first established by Boerhaave
3. Discuss the methods of attributing appropriate eponyms

## **Not Without Honor: Thomas Eakins and Samuel D. Gross**

**Joseph B. VanderVeer, Jr.**

*Dr. VanderVeer is a retired general surgeon who served on the faculties of the Oregon Health Sciences University and the University of Arizona. He divides his time between Philadelphia and Phoenix, Arizona. He is editor of the AOS newsletter The Oslerian.*

Philadelphia's greatest artist, Thomas Eakins produced his masterpiece *The Gross Clinic* in 1875, hoping to display it in the Art Gallery of the 1876 Centennial Exposition in Philadelphia. It was rejected for the Gallery but did get displayed as part of a mockup of a U.S. Army Post Hospital on the Centennial grounds. The painting was not well received by most critics at the time and was sold in 1878 for \$200 to the Alumni Association of Jefferson University. Samuel D. Gross, who graduated from Jefferson in 1828, was at the pinnacle of his career in 1876 and was the doyen of American surgery.

"A prophet is not without honor, save in his own country," goes the Biblical proverb (Matthew 13:57), and Thomas Eakins was not entirely well received in Philadelphia. His forced resignation as director of the Pennsylvania Academy of the Fine Arts (PAFA) occurred in 1886, after he removed the loin cloth from a male model when female students were present. Eakins was clearly ahead of his time.

In the mid twentieth century Jefferson University turned down an offer of five million dollars for *The Gross Clinic*. But to raise money in 2006, the University agreed to sell the painting for \$68 million to a consortium that included the National Gallery in D.C. and Wal-Mart heiress Alice Walton. During a 45-day grace period of the sale, Philadelphia rallied and met the price, so this treasure of American art remained in the city and is now jointly owned by the Philadelphia Museum of Art and the Pennsylvania Academy of the Fine Arts.

This paper briefly sketches the lives of Eakins and Gross and describes the production and provenance of *The Gross Clinic*.

### **Learning Objectives:**

1. Briefly describe the life and work of the artist Thomas Eakins
2. Explain why Samuel D. Gross was an important American surgeon
3. Tell why *The Gross Clinic* caused such controversy in 1876

## **Thomas West (1777-1857)**

### **John W.K. Ward**

*John Ward is a retired family doctor with a lifelong interest in medical history. A past president of both the Osler Club of London and the British Society for the History of Medicine, he is a fellow of the Royal College of Physicians of Edinburgh and of the Royal College of General Practitioners. He has lectured widely in Britain and North America on medical history, family medicine and Johnsonian topics.*

In the study of puerperal fever three names stand out - Alexander Gordon, Ignaz Semmelweiss and Oliver Wendell Holmes. However in 1815 Thomas West, a surgeon-apothecary in Abingdon, Oxfordshire, wrote an article in the *London Medical Repository and Review* entitled "Observations on some diseases, particularly puerperal fever, which occurred in Abingdon and its vicinity in 1813-1814". In this he made the perspicacious comment that "I know not of any instance of puerperal fever occurring in a village where there were not cases of erysipelas". There is no reason to assume that he knew of Gordon's work. We must remember that 1815 was long before bacterial studies indicated a shared infective organism.

My long search to find Thomas West revealed a man of great enterprise who rose from being a charity boy at the ancient Roysse's School, Abingdon to being a master surgeon, Mayor of Abingdon, Master of the charity Christ's Hospital, Abingdon and ultimately head of the manor in Sutton Courtenay.

This presentation seeks to set a historical perspective on a two century old rags to riches story and to examine the training and role of the surgeon-apothecary and others providing care to the rural public in the early nineteenth century. It also provides biographical and incidental details of a hitherto ignored life and of the institutions in which West was involved. The multiple sources both local and general used for this historical analysis are examined.

### **Learning Objectives:**

1. List some of the sources available for researching individuals in eighteenth and nineteenth century Britain.
2. Outline the position and role of the early nineteenth century surgeon-apothecary.
3. Discuss the reasons for considering a little known practitioner worthy of our historical attention.

## **Osler's Martha: The Role of the Doctor's Wife in Historical and Contemporary Medical Practice**

**Margaret P. Wardlaw**

*Margaret P. Wardlaw is an MD/PhD candidate currently doing her dissertation research on spirituality and religion in hospital childbirth at the Institute for Medical Humanities at the University of Texas Medical Branch at Galveston. Her research interests include childbirth, disability, and the priestly role of the physician. Margaret is honored to have received a John P. McGovern Student Scholarship in Oslerian Medicine.*

In his biography, *William Osler: A Life in Medicine*, Michael Bliss tells us: “Osler once wrote to a medical graduate on the subject of marriage: ‘A doctor needs a woman who will look after his house and rear his children, a Martha whose first care will be for the home.’” Osler’s advice falls on modern ears as antiquated at best and at worst offensive, but at the time it was good advice. Our traditional narrative of the good doctor, whose ultimate responsibility is always to his patients, is a classic heroic masculine ideal. In its narration, this ideal often obscures an important corollary: the ideal doctor typically existed in partnership with a conversely idealized female, an Osler’s Martha.

As a professor at Johns Hopkins, Osler taught several of the first women medical students in the United States, including one of his more infamous drop-outs, the bohemian feminist Gertrude Stein. But when he penned a letter of advice to his young doctor friend, he never could have anticipated a graduating class of medical students with over fifty-percent women, or a world in which the majority of men had significant domestic responsibilities. Today, family structure has changed so significantly that it is the rare male student whose wife is a true Martha. Needless to say, the prospects for procuring a long standing attachment to an Osler’s Martha are significantly worse for the majority of the other half of the class. The historic attachment of a physician to a wife who singularly managed the domestic sphere is germane to a discussion of physician duties. In the near future, the majority of physicians will be either men who do not have a wife to manage all domestic responsibilities, or women. This means that physician duties to patients will increasingly have to be balanced with domestic duties and duties to children.

### **Learning Objectives**

1. Analyze the critical role of Osler’s Martha, the doctor’s wife, in medical history
2. Assess Osler’s views on the importance of the domestic life to a physician
3. Apply Osler’s advice on marriage to the changing demographics in contemporary medical practice

## **Isaac Ray's Jefferson Lectures: America's First Psychiatry Curriculum**

**Kenneth J. Weiss**

*Dr. Weiss is Clinical Associate Professor of Psychiatry, University of Pennsylvania School of Medicine, where he is Associate Director of the Forensic Psychiatry Fellowship Program. A Distinguished Fellow of the American Psychiatric Association and a member of the executive committee of the Section on Medical History of the College of Physicians of Philadelphia, Dr. Weiss has studied and written about the life and work of Isaac Ray, the founder of American forensic psychiatry.*

Though Benjamin Rush of the Pennsylvania Hospital had lectured on insanity in late 18<sup>th</sup> and early 19<sup>th</sup> centuries, there was little in the way of an organized body of knowledge fit for a medical school curriculum. After a 20-year tenure as the first medical superintendent of the Butler Hospital in Providence, Isaac Ray moved to Philadelphia in 1867. He was a prolific writer, vocal advocate for reform at the Philadelphia Almshouse, and forensic practitioner. Jefferson Medical College invited him to deliver a series of lectures on “insanity” for the 1870-71 academic year. Ray's handwritten notes, located at Butler Hospital, were transcribed by Dr. Jacques Quen. To date, 9 lectures have been identified: Introductory Lecture; Brain, Mind and Insanity; Dementia; Epilepsy; General Paralysis; Mental Inequalities; Moral Insanity; Seduced or Deserted Women; and Treatment of Insanity. The lectures were never published and are essentially unknown. Their content reflects that state of the art in the medical education on insanity and is a clear departure from Rush's antiquated and idiosyncratic ideas.

### **Learning Objectives:**

1. Explore medical education in psychiatry in late 19<sup>th</sup> century
2. Define the leading themes and theories of mental illness during Isaac Ray's time
3. Contrast these ideas with the prevailing theories of Ray's predecessors

## **Dr. Castle's Little Secret and Self Experimentation in Medical Research**

**Allen B. Weisse**

*Allen Weisse retired from his full time professor of medicine position at the New Jersey Medical School in 1997 in order to devote himself more fully to his work as a medical writer/historian with an emphasis on cardiovascular and 19<sup>th</sup>-20<sup>th</sup> century medicine. The endowed annual Weisse Lecture on the History of Medicine was initiated at the medical school by Dr. Weisse and his wife, Laura Weisse, in 2004. His most recent book, "Notes of a Medical Maverick" will appear in 2010 or 2011.*

Although experimentation involving human volunteers has attracted intense study the question of self-experimentation among medical researchers has received much less attention. Many questions are unanswered or only partly addressed. How common is this practice? Is it more common among some nations than among others? What have been the predominant areas of exploration? How many deaths have been documented? What kinds of individuals put themselves at such potential risks? What have been the trends of all these considerations over time? What does the future hold?

From the available literature 540 documented instances of this practice were identified, all but 50 of these within the last two centuries. In order to detect trends those performed during the 19<sup>th</sup> and 20<sup>th</sup> centuries were examined in some detail with data from four 50 year intervals. Among these 490 cases most occurred within the United States (33%) with the greatest number of self-experiments conducted in the first half of the 20<sup>th</sup> century (n=193) a precipitous decline being observed in the second half of the 20<sup>th</sup> century (n=86). When the types of questions addressed by such experiments were evaluated those in the fields of physiology and infectious diseases predominated. Eight deaths were reported between 1817 and 1928, all but one related to infectious disease. Although practitioners of self-experimentation have, at times, been considered as either naïve or foolhardy, among those uncovered by this investigation there were 13 winners of a Nobel Prize. What really motivated such individuals might be gleaned from their own recollections of their acts, notable among these that of Dr. William B. Castle (1897-1990) and his discovery of the "intrinsic factor" related to vitamin B12 metabolism. Rather than simply naïve or foolhardy, Dr. Castle and those like him proved both dedicated and caring.

### **Learning Objectives:**

1. Evaluate risks of self-experimentation
2. Determine the value of self-experimentation in medicine
3. Discuss the motivation for self-experimentation.

## Osler's Pervasive Influence on Modern Continuing Medical Education

Dennis K. Wentz

*Dennis Wentz is a retired gastroenterologist and physician-executive/educator residing in Bozeman, MT. He is on the board of the modern music ensemble eighthblackbird, and is editor of a new book: Continuing Medical Education: Looking Back, Planning Ahead published by Dartmouth College Press.*

In Teaching and Thinking, Osler observed: "Man has an inborn craving for medicine...the desire to take medicine is one feature, perhaps, the great feature, which distinguishes man, the animal, from his fellow creatures". We can surmise that Osler believed that "man's craving for medicine" required continued learning; to him, "keeping up" was not only a professional obligation but also a moral one. His beliefs are revealed in his many speeches and writings:

- Reading is the basis for one's lifelong learning
- One's continued education must relate to a doctor's real work
- Relying on one's experience alone is fallacious
- Belonging to medical societies, discussions with colleagues and attending courses and conferences is key
- Medicine is a profession that has a unique global dimension

This paper will relate these principles to modern approaches to continuing medical education (CME). Would Osler have approved of what constitutes certified CME today, including the move to digital forms of delivery? Key is the fact that what practicing physicians want and do for their CME has never wandered far from Osler's thoughts. Phil Manning MD states: "The strategies that physicians most often use in carrying out their CME activities -- and this pattern has not changed appreciably over the years -- are: reading professional journals and the literature, attending courses and conferences, and participating in discussions with colleagues."

The field of formal CME has clearly endorsed Osler's opinion about the need to relate one's education to one's real work. But it has become complicated. Keeping up presents a different challenge than what Osler knew and wrote about. CME is now a field of work, a discipline, with scholarly research, complete with certification of those who work in it. It is no longer as simple as a professional and moral obligation. Evidence of participation in CME has become mandatory for hospital privileges, re-licensure and for recertification. The field of CME is now a huge enterprise, with annual industry support for certified CME alone exceeding 1.1 billion dollars. Osler would have been astonished and stunned. He was not charitable about the involvement of the pharmaceutical industry in medicine. He wrote: "I would protest against the usurpation on the part of these men (purveyors of pharmaceuticals) of our function as teacher.... For years the profession has been exploited in this way until the evil has become unbearable....Far too large a section of the treatment of disease is today controlled by the big manufacturing pharmacists, who have enslaved us in a plausible pseudo-science."

The field of CME today is in turbulent times. Most physicians do not know (or perhaps care) about the differences between certified CME and promotional CME. Our concepts of CME are mired in confusion, attacked by news reports that confuse meaningful continuing education with promotion and gifts to doctors, perpetuating the myth that doctors learn *only* because they are being fed biased information by companies and their shills. Such a message has not been lost on legislators in our statehouses and in Washington.

But it is also an exciting time for formal CME as it transforms into a new entity. The field has re-discovered Osler's beliefs and extended them using modern technology, but has gone further: collaborating with health system programs in quality assessment and improvement, fostering inter-professional education, and developing new global linkages and global cooperation. And a new term for CME is here: the continuing professional development (CPD) of an individual doctor over a lifetime. I surmise that Osler would have approved.

### Learning Objectives:

1. Recognize how Osler's principles for continued learning are influencing modern CME
2. Understand how the potential intrusiveness of industry into education has been altered
3. Discuss how a new paradigm for CME and CPD has developed and is being applied globally



## **John P. McGovern Lectureship Awards**

1986	Albert Rupert Jonsen
1987	Edward Janavel Huth
1988	Joanne Trautmann Banks
1989	John Nicholas Walton
1990	E. A. Vastyan
1991	Daniel Michael Fox
1992	William C. Beck
1993	Anne Hudson Jones
1994	David Hamilton
1995	Sherwin B. Nuland
1996	David J. Rothman
1997	Roger James Bulger
1998	Paul Potter
1999	John David Stobo
2000	Gert Henry Brieger
2001	Kenneth M. Ludmerer
2002	James K. Cassedy
2003	Sir Richard Doll
2004	William F. Bynum
2005	Karen Hein
2006	Joseph Jack Fins
2007	Abraham Verghese
2008	Charles E. Rosenberg
2009	Patrick A. McKee
2010	Nuala P. Kenny
2011	Rosemary A. Stevens

## **Lifetime Achievement Awards**

2005	Earl F. Nation
2006	Charles G. Roland
2007	Lawrence D. Longo
2008	Richard L. Golden
2009	W. Bruce Fye
2010	Charles S. Bryan
2011	Michael Bliss

## Presidents of the American Osler Society

\* Deceased

WILLIAM B. BEAN*	1970-1971	PAUL D. KLIGFIELD	1991-1992
GEORGE T. HARRELL*	1971-1972	ALVIN E. RODIN*	1992-1993
THOMAS M. DURANT*	1972-1973	ROBERT E. RAKEL	1993-1994
JOHN P. McGOVERN*	1973-1974	KENNETH M. LUDMERER	1994-1995
EDWARD C. ROSENOW, JR.*	1974-1975	CHARLES F. WOOLEY*	1995-1996
A. McGEHEE HARVEY*	1975-1976	BILLY F. ANDREWS	1996-1997
RAYMOND D. PRUITT*	1976-1977	EUGENE H. CONNER	1997-1998
MARTIN M. CUMMINGS	1977-1978	RICHARD J. KAHN	1998-1999
EARL F. NATION*	1978-1979	DEE J. CANALE	1999-2000
IRVING A. BECK*	1979-1980	MARK E. SILVERMAN*	2000-2001
PETER D. OLCH*	1980-1981	JOHN C. CARSON	2001-2002
WILLIAM C. GIBSON*	1981-1982	LAWRENCE D. LONGO	2002-2003
R. PALMER HOWARD*	1982-1983	MARVIN J. STONE	2003-2004
JEREMIAH A. BARONDESS	1983-1984	CHESTER R. BURNS*	2004-2005
K. GARTH HUSTON*	1984-1985	CLAUS A. PIERACH	2005-2006
WILLIAM B. SPAULDING*	1985-1986	T. JOCK MURRAY	2006-2007
CHARLES G. ROLAND*	1986-1987	FRANCIS A. NEELON	2007-2008
ROBERT P. HUDSON	1987-1988	JOSEPH W. LELLA	2008-2009
W. BRUCE FYE	1988-1989	JOHN NOBLE	2009-2010
RICHARD L. GOLDEN	1989-1990	CHARLES S. BRYAN	2010-2011
JACK D. KEY	1990-1991		

William Osler with doctors, nurses, and patients during the summer of 1887 at the University of Pennsylvania Orthopedic Hospital and Infirmary for Nervous Diseases



*Photo courtesy of Osler Library of the History of Medicine – McGill University*

# Living Members of the American Osler Society

## Honorary Members

THOMAS G. BENEDEK  
*Pittsburgh, Pennsylvania*

SHIGEAKI HINOHARA  
*Tokyo, Japan*

JOHN D. STOBO  
*Galveston, Texas*

GERT H. BRIEGER  
*Baltimore, Maryland*

MARIAN FRANCIS KELEN  
*Ormstown, Quebec*

JOHN N. WALTON  
*Detchant, Belford*  
*Northumberland, England*

## Charter Members

\* Emeritus

MARTIN M. CUMMINGS\*  
*Sarasota, Florida*

FRED B. ROGERS\*  
*Trenton, New Jersey*

ILZA VEITH\*  
*Tiburon, California*

ALFRED R. HENDERSON\*  
*Bethesda, Maryland*

## Elected Members

\* Emeritus \*\* Associate

JACK B. ALPERIN (2004)  
*Galveston, Texas*

JOHN S.G. BLAIR\* (2003)  
*Perth, Scotland*

WALTER R. CHITWOOD, JR. (1989)  
*Greenville, North Carolina*

CHARLES T. AMBROSE (1998)  
*Lexington, Kentucky*

RICHARD K. BLAISDELL\* (1973)  
*Honolulu, Hawaii*

CLIFTON R. CLEAVELAND (1999)  
*Signal Mountain, Tennessee*

BILLY F. ANDREWS (1972)  
*Floyds Knobs, Indiana*

MICHAEL BLISS (1996)  
*Toronto, Ontario*

EUGENE H. CONNER\* (1980)  
*Thomasville, Tennessee*

STANLEY M. ARONSON\* (1987)  
*Providence, Rhode Island*

CHRISTOPHER J. BOES (2010)  
*Rochester, Minnesota*

BARRY COOPER (2002)  
*Dallas, Texas*

JAMES O. BALLARD (2006)  
*Hummelstown, Pennsylvania*

W. BRYANT BOUTWELL (2005)  
*Houston, Texas*

DAVID K. C. COOPER (2006)  
*Pittsburgh, Pennsylvania*

JEREMIAH A. BARONDESS\* (1975)  
*New York, New York*

CHARLES S. BRYAN (1994)  
*Columbia, South Carolina*

CHRISTOPHER CRENNER (2005)  
*Kansas City, Kansas*

R. DENNIS BASTRON (2003)  
*Tucson, Arizona*

JOHN D. BULLOCK (2008)  
*Kettering, Ohio*

JOHN H. CULE\* (1973)  
*Ceredigion, Llandysul, Wales*

GEORGE S. BAUSE (2010)  
*Cleveland, Ohio*

LEONARD H. CALABRESE (2008)  
*Cleveland Heights, Ohio*

BURKE A. CUNHA (2002)  
*Mineola, New York*

STEVEN L. BERK (1988)  
*Lubbock, Texas*

DEE J. CANALE (1985)  
*Memphis, Tennessee*

MARTIN L. DALTON\* (2000)  
*Macon, Georgia*

PAUL E. BERMAN (2002)  
*Amherst, Massachusetts*

RICHARD M. CAPLAN\* (1988)  
*Iowa City, Iowa*

PETER E. DANS\* (2002)  
*Cockeysville, Maryland*

KERSTIN BETTERMANN (2010)  
*Hershey, Pennsylvania*

JOHN C. CARSON (1987)  
*La Jolla, California*

SAKTI DAS (1998)  
*Lafayette, California*

DARRYL BINDSCHADLER (2007)  
*Cheyenne, Wyoming*

MICHAEL W. CATER\*\* (2001)  
*Santa Ana, California*

ANAND P. DATE (2002)  
*Muscat, Oman*

# Living Members of the American Osler Society (continued)

## Elected Members

\* Emeritus \*\* Associate

ALLAN J. DENNIS, JR. (2005)  
*Augusta, Georgia*

NICHOLAS DEWEY\* (1981)  
*Santa Barbara, California*

LAUREL E. DREVLOW (2006)  
*Minneapolis, Minnesota*

JACALYN M. DUFFIN (1998)  
*Kingston, Ontario*

PAUL G. DYMENT\* (1982)  
*Topsham, Maine*

GEORGE C. EBERS (1985)  
*Oxford, England*

RICHARD EIMAS (1986)  
*Reston, Virginia*

ARNOLD EINHORN (2002)  
*Chevy Chase, Maryland*

MICHAEL EMMETT (2003)  
*Dallas, Texas*

LYNN C. EPSTEIN (1999)  
*Bristol, Rhode Island*

JONATHON ERLIN (2002)  
*Pittsburgh, Pennsylvania*

WILLIAM N. EVANS (2010)  
*Las Vegas, Nevada*

WILLIAM H. FEINDEL\* (1977)  
*Montreal, Quebec*

ANDREW Z. FENVES (2005)  
*Dallas, Texas*

GARY B. FERNGREN (1996)  
*Corvallis, Oregon*

JOSEPH J. FINS (2009)  
*New York, New York*

REGINALD H. FITZ\* (1981)

EUGENE S. FLAMM (1998)  
*New York, New York*

THOMAS W. FRANK (2010)  
*El Paso, Texas*

HERBERT L. FRED\* (1984)  
*Houston, Texas*

ABRAHAM FUKS (1999)  
*Montreal, Quebec*

GORDON FRIERSON (2009)  
*Palo Alto, California*

CONRAD C. FULKERSON (2001)  
*Durham, North Carolina*

J. MICHAEL FULLER (2009)  
*Greenville, South Carolina*

W. BRUCE FYE (1975)  
*Rochester, Minnesota*

CHRISTOPHER G. GOETZ (2000)  
*Chicago, Illinois*

JOHN T. GOLDEN\*\* (1999)  
*Roseville, Michigan*

RICHARD L. GOLDEN\* (1980)  
*Centerport, New York*

JAMES T. GOODRICH (1982)  
*Grandview New York*

RALPH C. GORDON (1998)

JOHN L. GRANER (1997)  
*Rochester, Minnesota*

STEPHEN B. GREENBERG (1997)  
*Houston, Texas*

DAVID R. HABURCHAK (2002)  
*Augusta, Georgia*

JAMES F. HAMMARSTEN\* (1981)  
*Melrose, Minnesota*

WILLIAM HAUBRICH\* (1994)  
*La Jolla, California*

H. ALEXANDER HEGGTVEIT\* (1982)  
*Hamilton, Ontario*

PERRY HOOKMAN (1999)  
*Boca Raton, Florida*

JOEL D. HOWELL (1987)  
*Ann Arbor, Michigan*

ROBERT P. HUDSON\* (1970)  
*Olathe, Kansas*

J. WILLIS HURST\* (1985)  
*Atlanta, Georgia*

GARTH HUSTON, JR. (1992)  
*Leucadia, California*

EDWARD J. HUTH\* (1988)  
*Bryn Mawr, Pennsylvania*

BRUCE J. INNES (2001)  
*Macon, Georgia*

WILLIAM H. JARRETT, II (1998)  
*Atlanta, Georgia*

H. MICHAEL JONES (2006)  
*Chapel Hill, Carolina*

ROBERT J. T. JOY\* (1981)  
*Chevy Chase, Maryland*

RICHARD J. KAHN (1981)  
*Tenants Harbor, Maine*

ANAND B. KARNAD (1998)  
*San Antonio, Texas*

JOHN A. KASTOR (2004)  
*Baltimore, Maryland*

JENNIFER KEAM (2002)

ELTON R. KERR (1989)  
*Pasco, Washington*

JACK D. KEY\* (1979)  
*Sandia Park, New Mexico*

PAUL D. KLIGFIELD (1980)  
*New York, New York*

ROBERT A. KYLE (2007)  
*Rochester, Minnesota*

S. ROBERT LATHAN (2002)  
*Atlanta, Georgia*

JOSEPH W. LELLA (1998)  
*London, Ontario*

PHILIP W. LEON (1996)  
*Charleston, South Carolina*

ROBERT I. LEVY (2007)  
*Baltimore, Maryland*

LAWRENCE D. LONGO (1976)  
*Redlands, California*

KENNETH M. LUDMERER (1983)  
*St. Louis, Missouri*

# Living Members of the American Osler Society (continued)

## Elected Members

\* Emeritus \*\* Associate

CHRYSSA N. K. McALISTER (2009)  
*Toronto, Ontario*

VIVIAN C. McALISTER (2010)  
*London, Ontario*

PAUL R. McHUGH (1990)  
*Baltimore, Maryland*

NEIL McINTYRE (1995)  
*Woodford Green, Essex, England*

WILLIAM O. McMILLAN, JR. (1995)  
*Wilmington, North Carolina*

ROBERT L. MARTENSEN (1997)  
*Bethesda, Maryland*

ROBERT G. MENNEL (1999)  
*Dallas, Texas*

M. ALAN MENTER (2004)  
*Dallas, Texas*

PAMELA J. MILLER (2003)  
*Montreal, Canada*

J. MARIO MOLINA (2008)  
*Long Beach, California*

MICHAEL E. MORAN (2004)  
*Palm City, Florida*

DANIEL D. MORGAN (2000)  
*Fremont, California*

ROBERT H. MOSER\* (1974)  
*Green Valley, Arizona*

SANDRA W. MOSS (2002)  
*Metuchen, New Jersey*

PAUL S. MUELLER (2003)  
*Rochester, Minnesota*

SEAN B. MURPHY\* (2002)  
*Montreal, Quebec*

T. JOCK MURRAY (1992)  
*Halifax, Nova Scotia*

ANDREW T. NADELL (1986)  
*Burlingame, California*

FRANCIS A. NEELON (1992)  
*Durham, North Carolina*

ROBERT R. NESBIT, JR. (2003)  
*Augusta, Georgia*

JOHN NOBLE (1993)  
*Boston, Massachusetts*

ROBERT K. OLDHAM (1982)  
*Cape Girardeau, Missouri*

MICHAEL F. O'ROURKE (1996)  
*Sydney, Australia*

BRUCE R. PARKER\* (1995)  
*Houston, Texas*

CLYDE PARTIN, JR. (1999)  
*Atlanta, Georgia*

STEVEN J. PEITZMAN (2002)  
*Philadelphia, Pennsylvania*

EDMUND D. PELLEGRINO\* (1975)  
*Bethesda, Maryland*

CLAUS A. PIERACH (1991)  
*Minneapolis, Minnesota*

CYNTHIA D. PITCOCK (1992)  
*Memphis, Tennessee*

SCOTT H. PODOLSKY (2010)  
*Boston, Massachusetts*

BETH PREMINGER (2002)  
*New York, New York*

MABEL L. PURKERSON (2003)  
*St. Louis, Missouri*

TONSE N. K. RAGU (1999)  
*Gaithersburg, Maryland*

ROBERT E. RAKEL (1983)  
*Houston, Texas*

MICHAEL A. E. RAMSAY (2006)  
*Dallas, Texas*

P. PRESTON REYNOLDS (1998)  
*Charlottesville, Virginia*

C. JOAN RICHARDSON (2008)  
*Galveston, Texas*

CHARLES S. ROBERTS (2004)  
*Winchester, Virginia*

WILLIAM C. ROBERTS (2000)  
*Dallas, Texas*

LOREN A. ROLAK (1995)  
*Marshfield, Wisconsin*

GEORGE SARKA (2009)  
*Laguna Hills, California*

OM PRAKASH SHARMA\* (1985)  
*Alhambra, California*

CHRISTOPHER B. SHIELDS (1989)  
*Louisville, Kentucky*

BARRY D. SILVERMAN (1997)  
*Atlanta, Georgia*

RUSSELL L. SILVERSTEIN (2005)  
*Dallas, Texas*

WILLIAM A. SMITH, JR. (2000)  
*Fulton, Kentucky*

WILLIAM A. SODEMAN, JR. (1998)  
*Toledo, Ohio*

R. TED STEINBOCK (1994)

MARVIN J. STONE (1990)  
*Dallas, Texas*

ROB H. STONE (2008)  
*West Hills, California*

HERBERT M. SWICK (2000)  
*Missoula, Montana*

JAMES E. TOOLE\* (1976)  
*Winston-Salem, North Carolina*

JOHN T. TRUMAN\* (2000)  
*New York, New York*

ROBERT P. TURK (2008)  
*Dayton, Ohio*

JOSEPH B. VANDER VEER, JR. (2003)  
*Devon, Pennsylvania*

HECTOR O. VENTURA (1999)  
*Metairie, Louisiana*

FERNANDO G. VESCIA\* (1986)  
*Palo Alto, California*

JOHN W. K. WARD (2003)  
*Abingdon, Oxfordshire, England*

C. PETER W. WARREN (1996)  
*Winnipeg, Manitoba*

ALLEN B. WEISSE\* (1997)  
*Springfield, New Jersey*

## Living Members of the American Osler Society (continued)

### Elected Members

\* Emeritus    \*\* Associate

MARC E. WEKSLER (2004)  
*Tenafly, New Jersey*

DENNIS K. WENTZ\* (2003)  
*Bozeman, Montana*

JOHN B. WEST\* (1995)  
*La Jolla, California*

THORNE D. WINTER (2010)  
*Atlanta, Georgia*

W. CURTIS WORTHINGTON (1999)  
*Charleston, South Carolina*

BENJAMIN CODY WRIGHT (2000)

JAMES R. WRIGHT  
*Calgary, Alberta*

JAMES B. YOUNG (1992)  
*Cleveland, Ohio*

## Deceased Members of the American Osler Society

### Honorary Members

WILBURT C. DAVISON  
*(1892-1972)*

WILDER G. PENFIELD  
*(1891-1976)*

EMILE F. HOLMAN  
*(1890-1977)*

GEORGE W. CORNER  
*(1899-1981)*

TRUMAN G. BLOCKER, JR.  
*(1908-1984)*

LLOYD G. STEVENSON  
*(1918-1988)*

HAROLD N. SEGALL  
*(1897-1990)*

EDWARD H. BENSLEY  
*(1906-1995)*

H. ROCKE ROBERTSON  
*(1912-1998)*

ALASTAIR H. T. ROBB-SMITH  
*(1908-2000)*

### Charter Members

PAUL DUDLEY WHITE  
*(1886-1973)*

THOMAS M. DURANT  
*(1905-1977)*

WALTER C. ALVAREZ  
*(1884-1978)*

CHAUNCEY D. LEAKE  
*(1896-1978)*

EARLE P. SCARLETT  
*(1896-1982)*

SAMUEL X. RADBILL  
*(1901-1987)*

HOWARD L. HOLLEY  
*(1914-1988)*

WILLIAM B. BEAN  
*(1909-1989)*

R. PALMER HOWARD  
*(1912-1990)*

RAYMOND D. PRUITT  
*(1912-1993)*

THOMAS F. KEYS  
*(1908-1995)*

CECILE DESBARATS  
*(1907-1998)*

A. McGEHEE HARVEY  
*(1911-1998)*

WILLARD E. GOODWIN  
*(1915-1998)*

GEORGE T. HARRELL  
*(1908-1999)*

EDWARD C. ROSENOW, JR.  
*(1909-2002)*

WILLIAM K. BEATTY  
*(1926-2002)*

PALMER H. FUTCHER  
*(1910-2004)*

JOHN P. McGOVERN  
*(1921-2007)*

EARL F. NATION (1910-2008)  
*(1910-2008)*

VICTOR A. McKUSICK  
*(1921-2008)*

CHARLES G. ROLAND  
*(1933-2009)*

WILLIAM C. GIBSON  
*(1914-2009)*

# Deceased Members of the American Osler Society

## Elected Members

ARTHUR D. KELLY  
(1901-1976)  
MARSHALL N. FULTON  
(1899-1977)  
I. N. DUBIN  
(1913-1981)  
GEORGE E. GIFFORD, JR.  
(1930-1981)  
LAWRENCE C. McHENRY, JR.  
(1929-1985)  
GEORGE E. BURCH  
(1910-1986)  
K. GARTH HUSTON  
(1926-1987)  
GORDON W. JONES  
(1915-1987)  
CHARLES S. JUDD, JR.  
(1920-1987)  
ROBERT J. MOES  
(1905-1988)  
S. GORDON ROSS  
(1899-1990)  
MAURICE A. SCHNITKER  
(1905-1990)  
JAMES V. WARREN  
(1959-1990)  
NICHOLAS E. DAVIES  
(1926-1991)  
PETER D. OLCH  
(1930-1991)  
JOHN Z. BOWERS  
(1913-1993)  
WILLIAM B. SPAULDING  
(1922-1993)  
LEWIS THOMAS  
(1913-1993)  
RODERICK K. CALVERLEY  
(1938-1995)  
DYKES CORDELL  
(1944-1996)  
LUTHER C. BECK  
(1909-1996)  
HASKELL F. NORMAN  
(1915-1996)  
JOHN W. SCOTT  
(1915-1997)  
IRVING A. BECK  
(1911-1997)  
THOMAS A. WARTHIN  
(1909-1997)  
EDWARD W. HOOK, JR.  
(1924-1998)

JAMES A. KNIGHT  
(1918-1998)  
NORMAN SCHAFFTEL  
(1914-1998)  
DANIEL B. STONE  
(1925-1998)  
ALVIN E. RODIN  
(1926-1999)  
GARFIELD J. TOURNEY  
(1927-1999)  
R. CARMICHAEL TILGHMAN  
(1904-1999)  
STANLEY W. JACKSON  
(1920-2000)  
SAUL JARCHO  
(1906-2000)  
LLOYD W. KITCHENS, JR.  
(1946-2001)  
ROBERT E. BEAMISH  
(1916-2001)  
ARNOLD G. ROGERS  
(1925-2001)  
FREDERICK W. BARNES  
(1909-2001)  
WALTER D. HANKINS  
(1910-2001)  
ROY SELBY  
(1930-2002)  
E. CARWILE LEROY  
(1933-2002)  
ROBERT M. KARK  
(1911-2002)  
CARLETON B. CHAPMAN  
(1915-2002)  
DAVID M. MUMFORD  
(1927-2003)  
ALEX SAKULA  
(1917-2003)  
FREDERICK B. WAGNER, JR.  
(1916-2004)  
CLARK T. SAWIN  
(1934-2004)  
A. BENEDICT SCHNEIDER  
(1914-2004)  
STEWART G. WOLFE  
(1914 - 2005)  
G. S. T. CAVANAGH  
(1923-2005)  
G. R. PATERSON  
(1919-2005)  
W. WATSON BUCHANAN  
(1930-2006)

CHESTER R. BURNS  
(1937-2006)  
ROBERT AUSTRIAN  
(1916-2007)  
CHARLES F. WOOLEY  
(1930-2008)  
M. GEORGE JACOBY  
(1920-2008)  
MARK E. SILVERMAN  
(1939-2008)  
ROBERT U. MASSEY  
(1922-2008)  
ARTHUR GRYFE  
(1935-2009)  
LEON Z. SAUNDERS  
(1920-2009)  
HOWARD B. BURCHELL  
(1908-2009)  
HARRIS D. RILEY, JR.  
(1924-2010)  
D. GERAINT JAMES  
(1922-2010)  
ROBERT C. KIMBROUGH, III  
(1941-2010)



**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.**

