

Halsted Society 2021

**“The Prince of Surgery”
The Life and Times of Sir Astley
Paston Cooper, Bart.**



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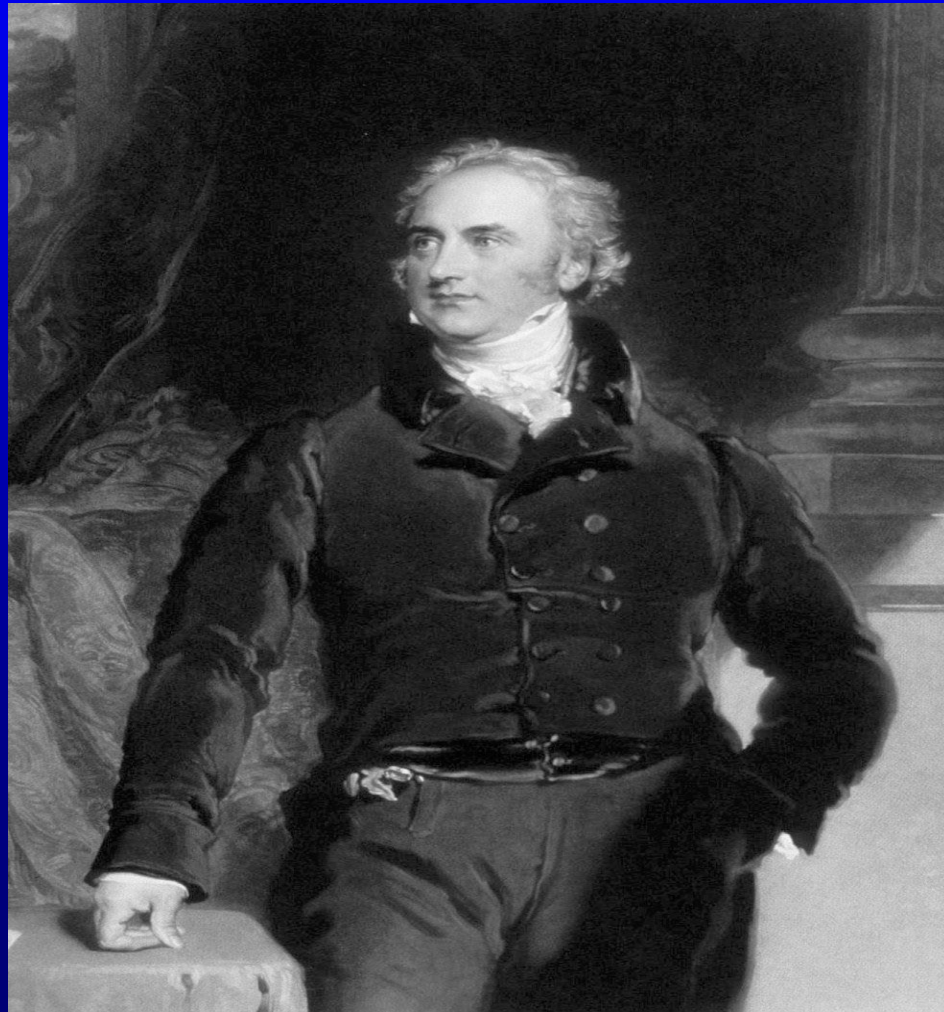


DISCLOSURES

- **None**
- **I'm open to offers as long as it won't lead to a felony conviction;
talk to me at the break**

The Life and Times of Sir Astley Paston Cooper, Bart

1768 -1841



The Barber Surgeons

- Date back to 1000 AD
 - Monastic connections
- Sharp instruments and safety nets
- Trained by apprenticeships (at best!)
- Menial uneducated tradesmen compared to University trained physicians: “Doctors”
Call me “Mister”
- Hippocratic Oath: **No Surgery**



Barber Surgeons



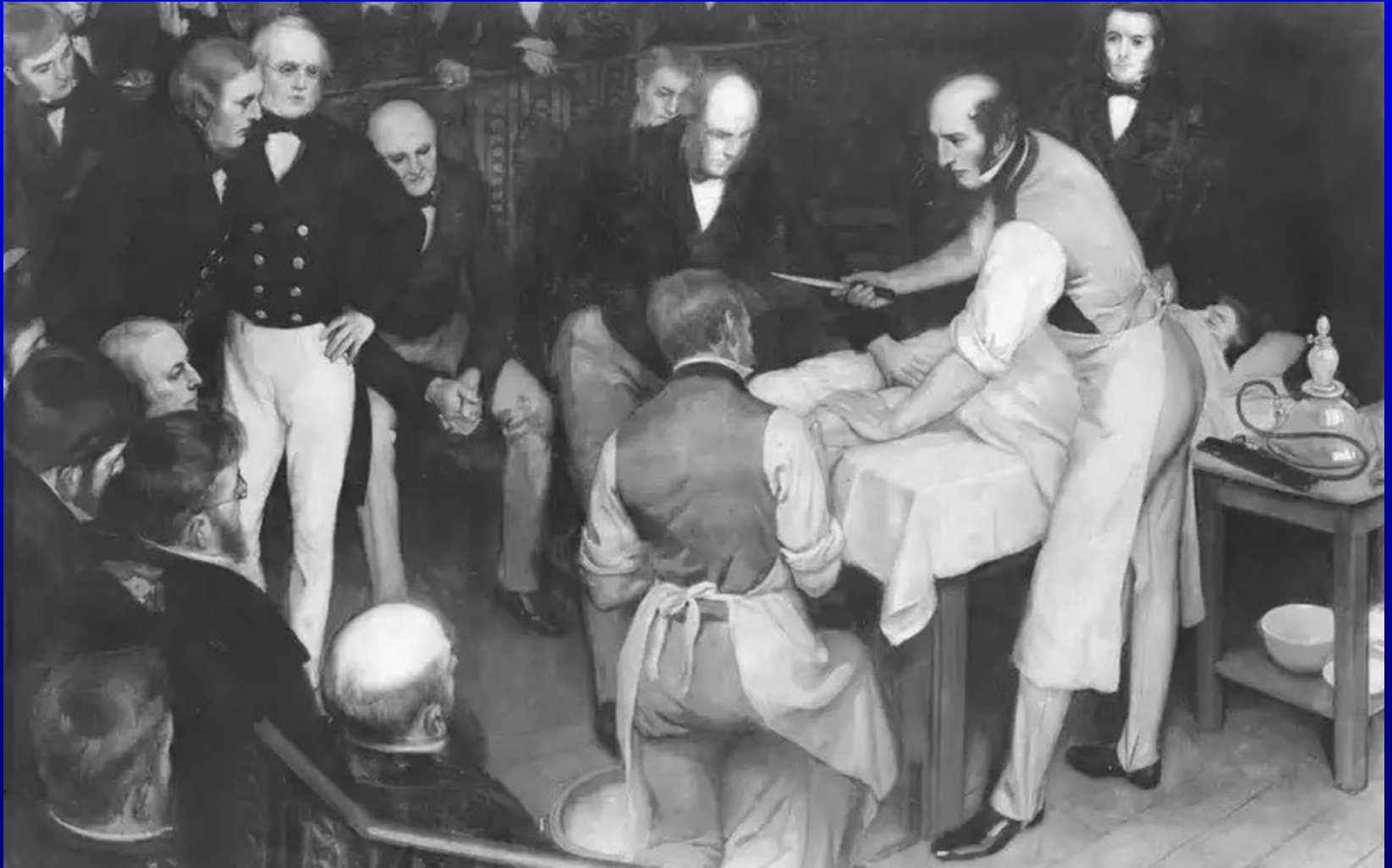
The Royal College of Surgeons

- Guild of Surgeons of London (1368)
- Worshipful Company of Barbers (1462)
- Guild of Surgeons
- Company of Barber Surgeons (1540)
by Henry VIII
- Company of Surgeons (1740)
- Royal College of Surgeons (1800)
 - Medical degree required after 1830
 - Mister .> Doctor > Mister

Cooper's Surgical Personality

- **Athletic and Charismatic**
- **Charming and Handsome**
- **“Relished Cutting”**
 - Vs. Hunter and Lister
- **Emotionally Unaffected by Physical Pain and Suffering of Patients**
- **Committed and Compassionate**
 - Sought out difficult operations
 - Operated without permission or warning as it was the “Surgeon's Duty” to get the Job done”

“Surgical Brilliance”



The Most Accomplished and Successful Surgeon and Anatomist of his Day

- **Anatomic Discoveries**

- Cooper's fascia (spermatic cord)
- Cooper's pubic ligament
- Cooper's ligaments (breast)

- **Diseases**

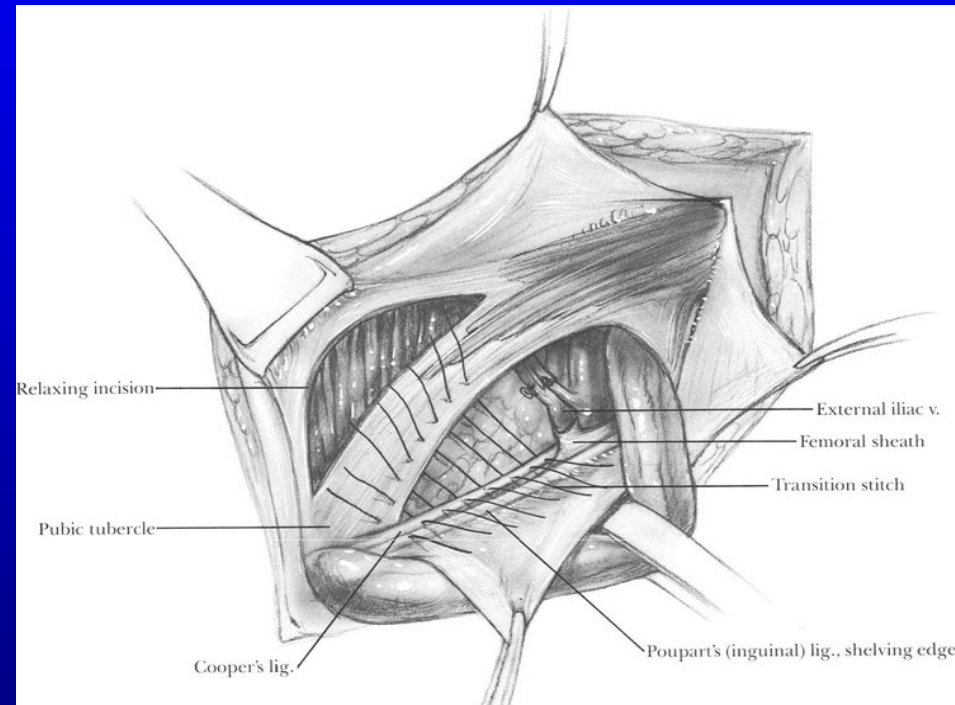
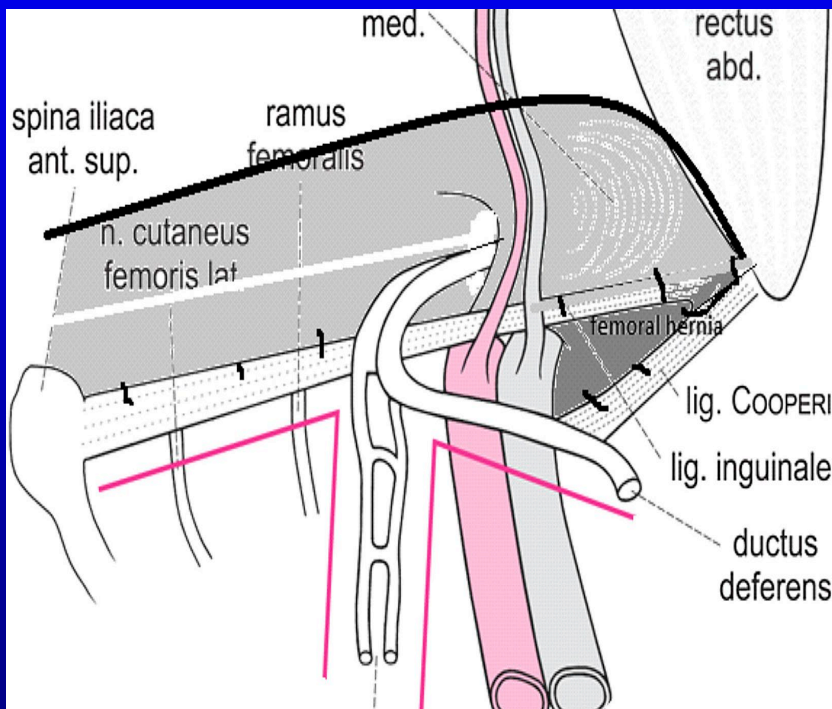
- Cooper's neuralgia (testis)
- Cooper's disease (benign breast cysts)
- Cooper's hernia (femoral hernia with 2 sacks)
- Cooper's neuralgia (breast)
- Cooper's Contracture: Dupuytren's disease

The Most Accomplished and Successful Surgeon and Anatomist of his Day

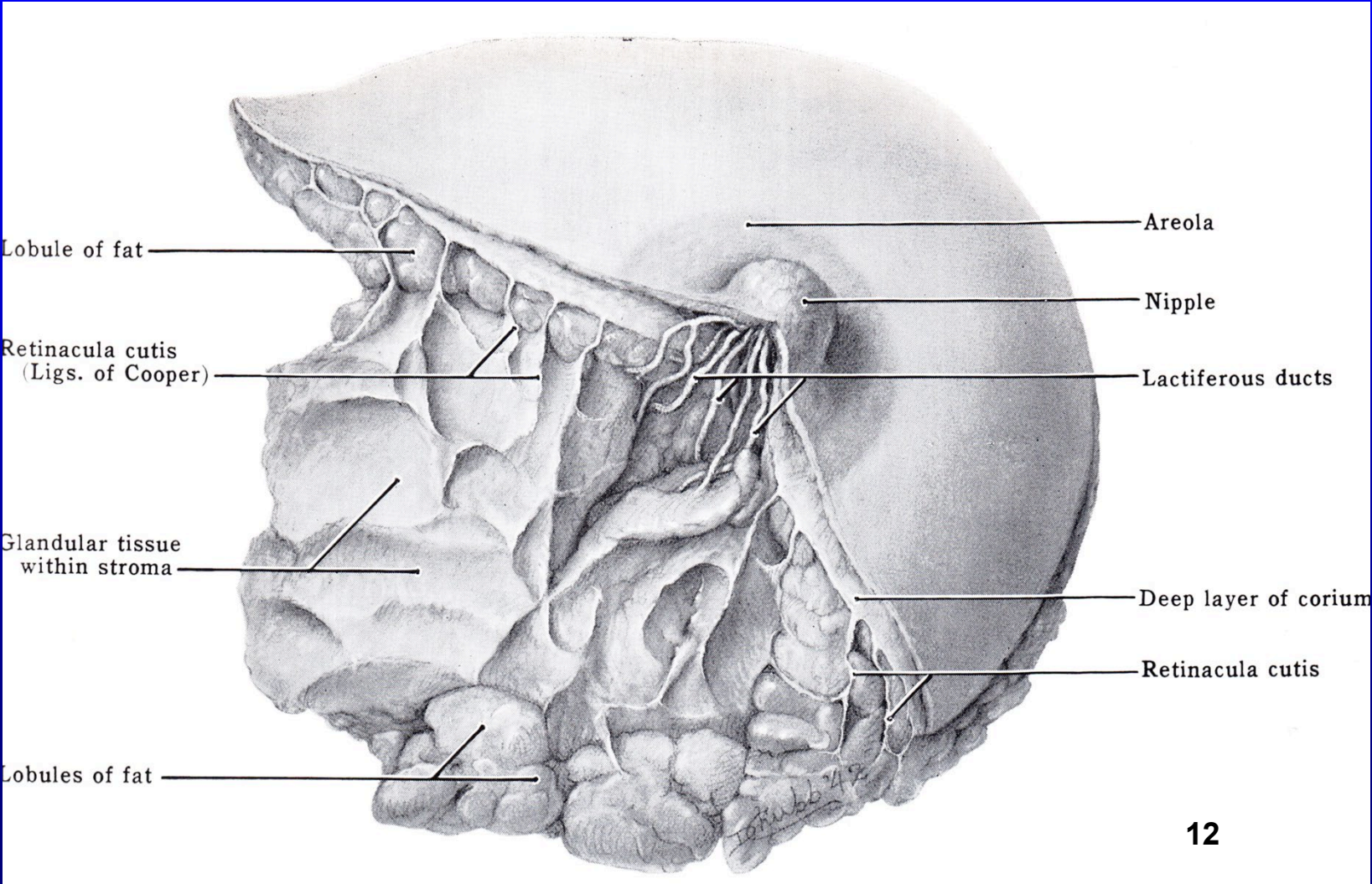
- **Publications**

- Anatomy and Surgical Treatment of Hernia (1804 – 1807)
- Dislocations and Fractures (1822)
- Lectures on Surgery (1824 – 1827)
- Illustrations of Diseases of the Breast (1829)
- Anatomy of the Thymus Gland (1832)
- Anatomy of the Breast (1840)
- Medico-Chirurgical Transactions
 - Contributor

McVay (Cooper's Ligament) Herniorrhaphy



Cooper's Ligaments of the Breast



Cooper's Early Life

- Born 23 Aug 1768, Brooke, Norfolk, Eng.
 - Conservative, affluent family
 - Father, Samuel Cooper, Clergyman
 - Mother, Maria Susanna Bransby
 - Successful novelist
 - Descendent of Sir Isaac Newton
- “A wild but charismatic child”
- A poor and undisciplined student
- Not destined for a University education
- Equestrian, Outdoorsman
 - Desired a Military Career

Cooper's Early Life

- **Early Tragedy**
 - **Six of 10 Cooper siblings died at an early age of tuberculosis**
- **Cooper was sent to live on a farm with a foster family to avoid disease**
- **What will we do with this unmotivated child? Let's apprentice him to his Uncle William!**
 - **Cooper had little interest in the trade that he was to enter.**

Epiphany or Myth ?

- **Epiphany ?**: Foster brother crushed by a cart causing an open femur fracture and femoral artery injury. Cooper rushed to the boy, compressed the artery and saved his life. A career in surgery resulted
- **Myth !**: Cooper witnessed the event, but did not intervene. All local surgeons declined to respond. The boy exsanguinated.

Cooper's Surgical Career

- **1784:** At age 16, apprenticed to his uncle, William Cooper, Surgeon at Guy's Hospital
 - **A lazy, unmotivated apprentice**
- **1785:** Apprenticed to Henry Cline, Surgeon at St. Thomas Hospital
 - **The actual epiphany!**
 - **Neighborhood pets and fresh corpses went missing!**
 - **Lifelong obsession with Anatomy and Surgery**
- **Attended John Hunter's lectures, twice**

Cooper's Surgical Career

- **1787:** Studied Anatomy, Surgery and Politics in Edinburgh
- **1789:** Head of Cline's dissecting room
- **1791:** Co-lecturer with Cline
 - **Widely acclaimed and subscribed**
- **1791:** Married Ann Cock and received a large dowry that paid for continued study and travel
- **1792:** A trip to France *

Cooper's Surgical Career

- **1793:** Appointed as Lecturer in Anatomy at the Royal College of Surgeons
 - **Legal public dissections of executed criminals**
- **1800:** Succeeded his uncle William as Surgeon at Guy's Hospital
- **1813:** Appointed Professor of Comparative Anatomy at the Royal College of Surgeons
- **1827 and 1836:** President, of the Royal College of Surgeons

The Anatomists



The Resurrectionists



The Resurrectionists

- Britain (1506 – 1752): Severely restricted human dissection, based on religious taboos
- Murder Act (1752)
 - Permitted the public dissection of executed criminals
- Insufficient legal cadavers to meet the needs of education and research
- Body snatching was a cottage industry
 - Cooper longitudinally employed a network of “Resurrection Men”

The Resurrectionists

- **Select Committee (1828)**
 - In response to the Burke and Hare murders
 - Emphasized the importance of anatomical science
 - Suggested that the bodies of paupers be made available for dissection
- **Anatomy Act (1832)**
 - Cadavers from workhouse dead were made available for anatomic investigations
 - Cooper was an advisor to Parliament

The “Woke” Cooper

- **Henry Cline, Mentor**
 - **Radical politics and dissenting religion**
 - **Meeting place for leading liberals**
- **Cooper became enamored with liberal politics before his surgical epiphany**
- **Astley and Ann chose to honeymoon in France during “The Terror”**
 - **Abundant patient material for a dedicated young surgeon and anatomist**
 - **Both were fascinated by the democratic politics of the French Revolution**

The “Woke” Cooper

- The Coopers barely escaped with their lives and a trove of French anatomic specimens
- Uncle William’s position at Guy’s Hospital
 - Appointment at a charity hospital was essential for success in 19th century London
 - William Cooper did not support his nephew’s election due to his “radical” beliefs
- The Political Pendulum swings
 - Cooper renounced radical (democratic) politics
- Elected surgeon at Guy’s in 1800

The Copley Medal

- Awarded to Cooper in **1801**
- Two brief communications regarding the tympanic membrane and deafness
 - **Observed that a perforated tympanic membrane did not cause deafness (n=2)**
 - **“Further observations on the effects which take place from the destruction of the Membrana Tympani of the ear: with an account of the operation for the removal of a particular species of deafness” (n=20)**
- **Myringotomy**

The Copley Medal

Anatomy of the Ear



...ssicular chain or chorda tympani.



Figure 7. myringotomy surgery



The Copley Medal

- Awarded by the Royal Society of London
- Established: 1731
- Contribution of 100 pounds from Sir Godfrey Copley
- The oldest award recognizing scientific achievement
- Alternates between the physical and biological sciences
- Fifty-two recipients have received the **Nobel Prize**

The Copley Medal

- **Notable Recipients**
 - Benjamin Franklin
 - Captain James Cook
 - John Hunter
 - Charles Darwin
 - Louis Pasteur
 - Joseph Lister
 - Albert Einstein
 - Watson and Crick
 - Stephen Hawking



Vascular Surgery “Firsts”

- Extensive knowledge of the vascular system through human dissection and animal vivisection
 - Collateral circulation
- Ligation of the carotid artery for aneurysm (1805)
 - Previous ligations in the setting of trauma
- Ligation of the abdominal aorta for aneurysm (1817)

Surgeon to the Rich and Famous

- By the early 1800s, Cooper was the most renowned surgeon in England
- Patients included:
 - King George IV, King William IV, Queen Victoria and the Duke of Wellington
 - Sergeant Surgeon to the Courts
- A Baronetcy for a sebaceous cyst
 - “The Prince of Surgery”
- Incredible Wealth: The richest professional in England at the time

Quotes From Cooper

- **“ If I laid my head on my pillow at night without having dissected something in the day, I should think that I had lost the day”**
- **“You must think for yourselves, only do not rest contented with thinking, make observations and experiments for without them your thinking will be of little use”**

The End

- **1840**: Declining Health
- **February, 1841**: Collapsed while walking to church with the Duke of Wellington
- Expired, **February 12, 1841**: Last words “ God bless you and goodbye to you all”
- Autopsy as specified in his Will
 - **Cardiomegaly, nutmeg liver, bilateral inguinal herniae, umbilical hernia, healed phthisis (TB)**

Observations

- **Surgical Giants: Historical Relativism vs. Moral Absolutism**
- **A Career in Medicine for late bloomers?**
- **Overregulation of scientific investigations: Alternate paths**
- **Surgeons and Politics**
 - **The pendulum swings**
- **Seemingly trivial observations can lead to great discoveries**