

- 1 **Medicine: Past, Present & Future**
Impact on us and our Industry
William Camm, MD
FALU, FLMI, CLU, ARA, ACS
- 2
- 3
- 4 **Medicine: Past**
 - Anesthesia
 - Germ Theory
 - Antibiotics
 - Discovery of DNA
- 5 **Dr. William Morton and Ether Anesthesia: 1846**
- 6 **Anesthesia**
 - Rapid development of surgery
 - Regional anesthesia
 - Pain management
 - Hospice
- 7 **Dr. Joseph Lister and Antiseptic Surgery: 1880**
- 8 **Germ Theory**
 - Bacteria cause disease
 - Sterilization
 - Hand washing
 - Antiseptic surgery
- 9 **Antibiotics**
 - Sulfa
 - Penicillin
- 10 **DNA**
 - The double helix: 1953
 - Science of genetics
 - Disease at the cell level
- 11 **Original Double Helix built by Watson and Crick**
- 12 **The Cavendish Lab**
- 13 **The Eagle Pub: Cambridge**
- 14
- 15
- 16 **Medicine: Present**
 - Diagnostics

- Major therapeutic advances
- Human Genome
- Minimally invasive surgery

17 Diagnostics

- CT
- MRI
- PET
- Endoscopy

18 CT scanning

Sir Godfrey Hounsfield: 1973

19 CT Scan

20 3 Dimensional CT Scan

21 MRI

22 MR Scan

23 Endoscopy

24 Therapeutics

- Tagamet
- TPA
 - Impact on heart disease
- Biologicals

25 Ulcers

26 TPA

- Dissolves acute clots
- Aborts heart attacks and strokes
- Stents

27

28 Heart Stents

29 Human Genome

- Complete gene mapping
- Diagnosis
 - Sickle cell disease
 - Huntington's disease
- Tailored therapy

30 DNA

31 Human genome

32 Minimally Invasive Surgery

- Laparoscopic

- Robotic
 - Fetal Surgery
- 33 Laparoscopic surgery
- 34 Robotic surgery
- 35 Fetal Surgery
- 36
- 37 Medicine: Future
- Genetics
 - Diagnosis
 - Therapy
 - Prediction and prevention
 - Stem cells
 - Cloning
 - Bloodless testing
 - Aging diseases
 - Alzheimer's
 - Parkinson's
 - Reduced invasive surgery
 - Natural Orifice transluminal endoscopic surgery: NOTES
- 38 Issues
- Healthcare access and costs
 - Primary Care
 - Do we need more MD's?
 - Cloning and stem cells
 - Health Issues
- 39 Healthcare
- Access
 - Delivery
 - Costs and reimbursement
 - Rationing
 - Both ends of life
 - EMR
 - Prescription Drug Databases
 - Privacy
- 40 Primary Care
- Insufficient numbers of physicians?
 - Specialty vs primary care
 - Cost of physician training

- RN's and PA's delivering primary care

41 Cloning

- Stem cell research
- Limitations
- Moral issues

42 Health Issues

- Pandemics
- Drug resistance
- Regulation
- Research

43 Questions?

44 Thank you