Charles-Édouard Brown-Séquard
1817-1894

- Born April 8, 1817, Port Louis, Mauritius
- American father, French mother, born British
- Edward Brown sea captain, lost at sea before Édouard’s birth
- Charlotte Séquard, born Port Louis (French)
- Grew up poor, poorly educated
- 1838 1st Paris visit with his mother
  - Wanted to be a poet!-burned his manuscripts but enrolled at Faculty Medicine of Paris
- Changes name to Édouard Brown-Séquard
- 1846 Graduated/Thesis: Researches and Experiments on the Physiology of Spinal Cord
- 1850 – Demonstrated crossed sensory paths when cut cord in animals - Brown-Séquard Syndrome!
- Mother died 1848, very poor; just did research and saw patients
  - Depressed/psychosomatic symptoms
Éduoard Brown-Séquard

To America

- 1852 – Moved to American and learned English
  - Saw patients, delivered babies, co-wrote obstetrics book
    - Letters of introduction by Broca and others
  - Lectured and experimental demonstrations in NY, Boston, Philadelphia
- 1853 – Married Ellen Fletcher (American), returned to Paris/Mauritius
- 1854 - Professor of Physiology at New Medical College of Virginia in Richmond
  - Bored and disillusioned
- 1855 – Returned to Paris, visited London/Cambridge
- 1856 – Son born, to USA to see family and lecture – Boston, NY, Baltimore, Charleston, returned NY to lecture 1857
- 1858 – London lectures, Royal Society
- 1859 – Edinburgh, Glasgow, London, Dublin
- 1860 – Queen Square, National Hospital for Nervous Diseases – Brown-Séquard one of 2 founding physicians
  - Friends with Darwin, Huxley, Jackson
- 1860 – Published: Course Lectures on the Physiology and Pathology of the Central Nervous System
Éduoard Brown-Séquard

- 1864 – Harvard – Professor Physiology and Pathology of the Nervous System; wife dies
  - Resigns 3 times, meets Weir Mitchell
- 1867 – Returned to Paris – with Charcot
- 1871 – to NY due to Franco-Prussian War
  - Remarried – woman 30 yrs younger – Maria
- 1873 – Boston, lectured with Agassiz, OW Holmes, Putnam in audience
  - Clinical practice in NYC
  - with Edward Sequin (Columbia) started Archives of Scientific and Practical Medicine
- 1874 – 2nd wife dies, post partum
- 1876 – returned to Paris
- 1877 – 3rd marriage; lectured Cambridge, NYC
- 1878 – Claude Bernard dies and Edward Brown-Séquard assumes Professor and Chair of Medicine College de France (Magendie old chair) and his lab
  - Close to L. Pasteur, Gustave Eiffel
- 1894 – 3rd wife dies, Emma
  - Edward Brown-Séquard dies several months later, age 77
- 577 publications
  - First in 1846 – Doctoral Thesis; 6 in 1894
Éduoard Brown-Séquard & Endocrinology

- 1855 – Addison reported disease of the adrenal glands caused anemia, weakness, bronzing of skin and other changes
- 1856 – Brown-Séquard reported excision of both adrenal glands in cats, dogs, guinea pigs, rabbits and mice led to death within 24 hours
- Many initially disputed Addison and Brown-Séquard
  - Their experiments and observations initiated modern endocrinology
- Age 72 - Brown-Séquard noticed decline of strength, concentration, fatigue, increase of insomnia, worsening constipation
  - created solution of testicular blood, seminal fluid and testicular extract from healthy dogs and guinea pigs and injected in himself 10 X over 3 weeks.
  - Reported his observation to Société de Biologie
  - Noticed increased mental concentration, physical endurance, stream of urine, bowel habits and increased power in his forearm by 5-6 kgs
- Very controversial but many including W Hammond confirmed findings
- Brown-Séquard used adrenal extracts for Addison’s Disease and others used thyroid extracts for myxedema
  - Generally no benefit until fat solvents used in 1930, but Brown-Séquard started the field of hormone replacement