Historic Alliance
Two Titans of the 20th Century

Robert M. Sade, MD
Distinguished University Professor
Medical University of South Carolina
- 1903 Lourdes
- 1904 Montreal
- 1904-1906 Chicago/Guthrie
  - Refined vascular suture technique
  - Replaced carotid artery with jugular vein
  - Transplanted kidney, heart, thyroid, ovaries dog → dog
  - Published 21 papers in 22 months
- 1906 New York, Rockefeller Institute
  - Preserved and transplanted arteries and veins
  - Transplanted adrenal, spleen, intestine, heart-lung
  - Reimplanted leg (thigh)
  - Operations in and on heart: mitral valve, coronary artery
Mitral valvotomy: 1948

Kidney transplant: 1954

Nobel Prize in Physiology or Medicine 1912
- Alexis Carrel (France)
- Work on vascular suture and the transplantation of blood vessels and organs

50-70 years ahead of his time

Great events in history of transplantation
Limb replantation: 1962

Heart transplant: 1967

Coronary artery bypass: 1968

Heart-lung transplant 1981
Development of Extracorporeal Pump

- 1910-1929 Carrel pioneers tissue culture
- 1929 Carrel builds glass perfusion/pump
  - Carrel’s perfusion apparatus infected
- 1930 Carrel-Lindbergh meet
  - Lindbergh builds first pump; carotid artery
  - Whole organs \(\rightarrow\) infection
  - Lindbergh designs, re-designs

- 1935 Lindbergh builds pulsatile pump
  - Glass, compressed air
  - Cat thyroid: 18 days
  - Heart beating (several days)
  - Fallopian tube peristalsis
  - Pancreas insulin
  - Ovary, kidney, spleen
- 1935-38 dozens pumps, thousands expts
Dear Sir!

Have 50,000s ready with 25,005s in 106 bills. 150,005s in 106 bills and 100,005s in 55 bills. After 2-3 days we will inform you we were to deliver the Mony.

We warn you for making anything public or notify the police the child is in safe care.

Indication for all letters are signature and 3 holes.
Human beings are equal...But individuals are not.
Man the Unknown
Alexis Carrel

“The democratic principle has contributed to the collapse of civilization in opposing the development of an elite. Indeed human beings are equal. But individuals are not. The equality of their of their rights is an illusion. The feeble minded and the man of genius should not be equal before the law. The stupid, the unintelligent, those who are dispersed, incapable of attention, of effort...[should not have] the same electoral power as the fully developed individuals. Sexes are not equal.”

“Why should more years be added to the life of persons who are unhappy, stupid, selfish, and useless?”