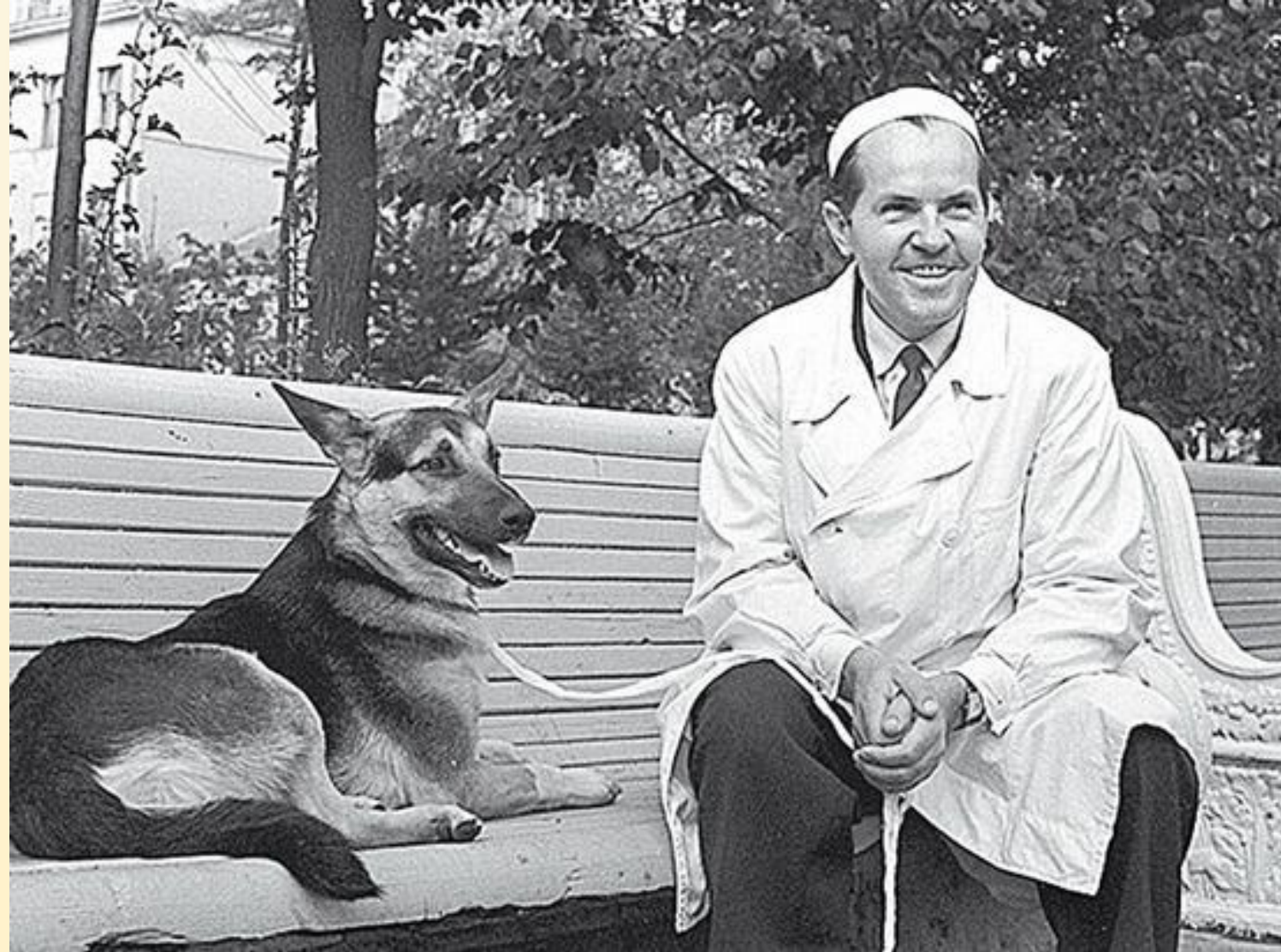


Artificial heart



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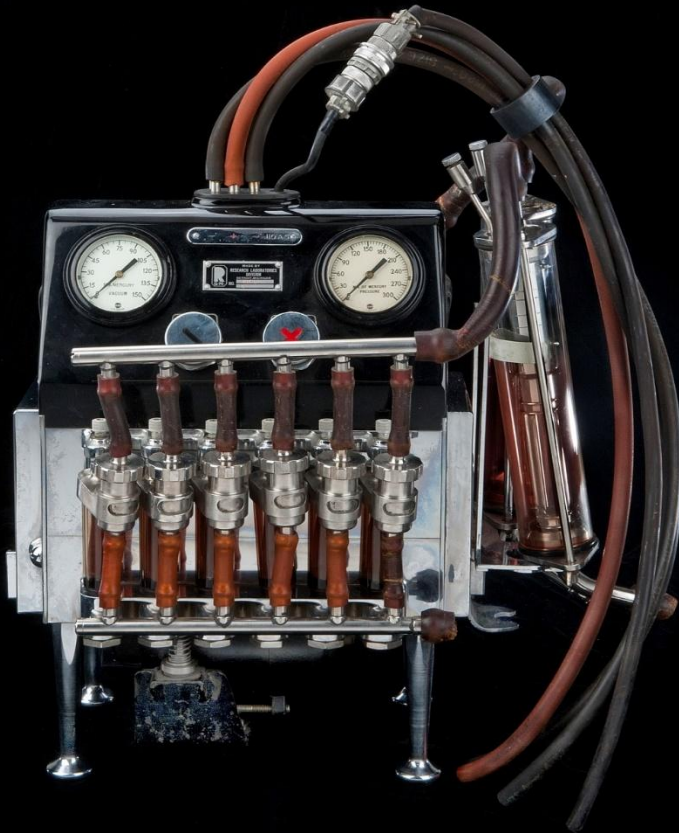
An artificial heart is a prosthetic device that is implanted into the body to replace the biological heart.



The first artificial heart was made by the Soviet scientist Vladimir Demikhov in 1937. It was implanted in a dog.

The first artificial heart for humans

On 2 July 1952, 41-year-old Henry Opitek, suffering from shortness of breath, made medical history at Harper University Hospital at Wayne State University in Michigan. The Dodrill-GMR heart machine, considered to be the first operational mechanical heart, was successfully used while performing heart surgery.



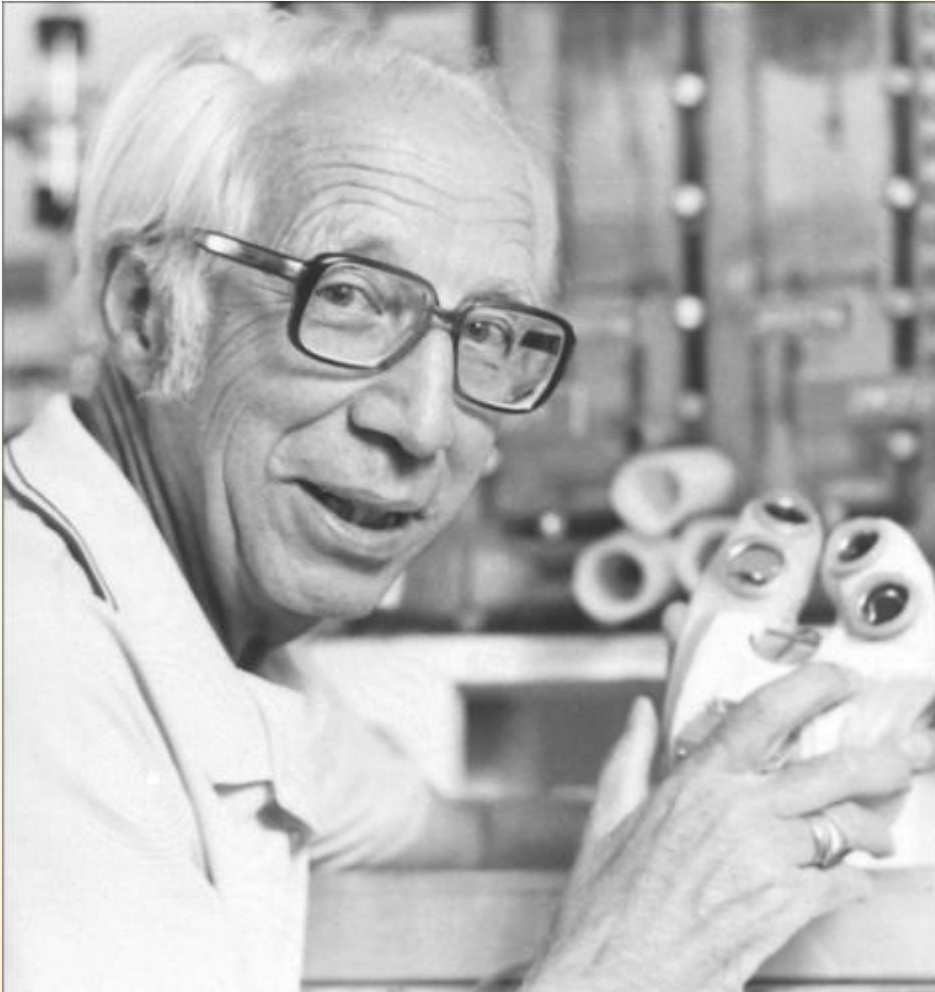
Dodrill-GMR heart machine



Paul Winchell with the assistance of Henry Heimlich and held the first patent for such a device. The University of Utah developed a similar apparatus around the same time, but when they tried to patent it, Winchell's heart was cited as prior art. The university requested that Winchell donate the heart to the University of Utah, which he did.

Paul Winchell with a doll on his own TV show

On 12 December 1957, Willem Johan Kolff, the world's most prolific inventor of artificial organs, implanted an artificial heart into a dog at Cleveland Clinic. The dog lived for 90 minutes.



On March 1961, Domingo Liotta described the implantation of three types TAHs in dogs, each of which used a different source of external energy: an implantable electric motor, an implantable rotating pump with an external electric motor, and a pneumatic pump.

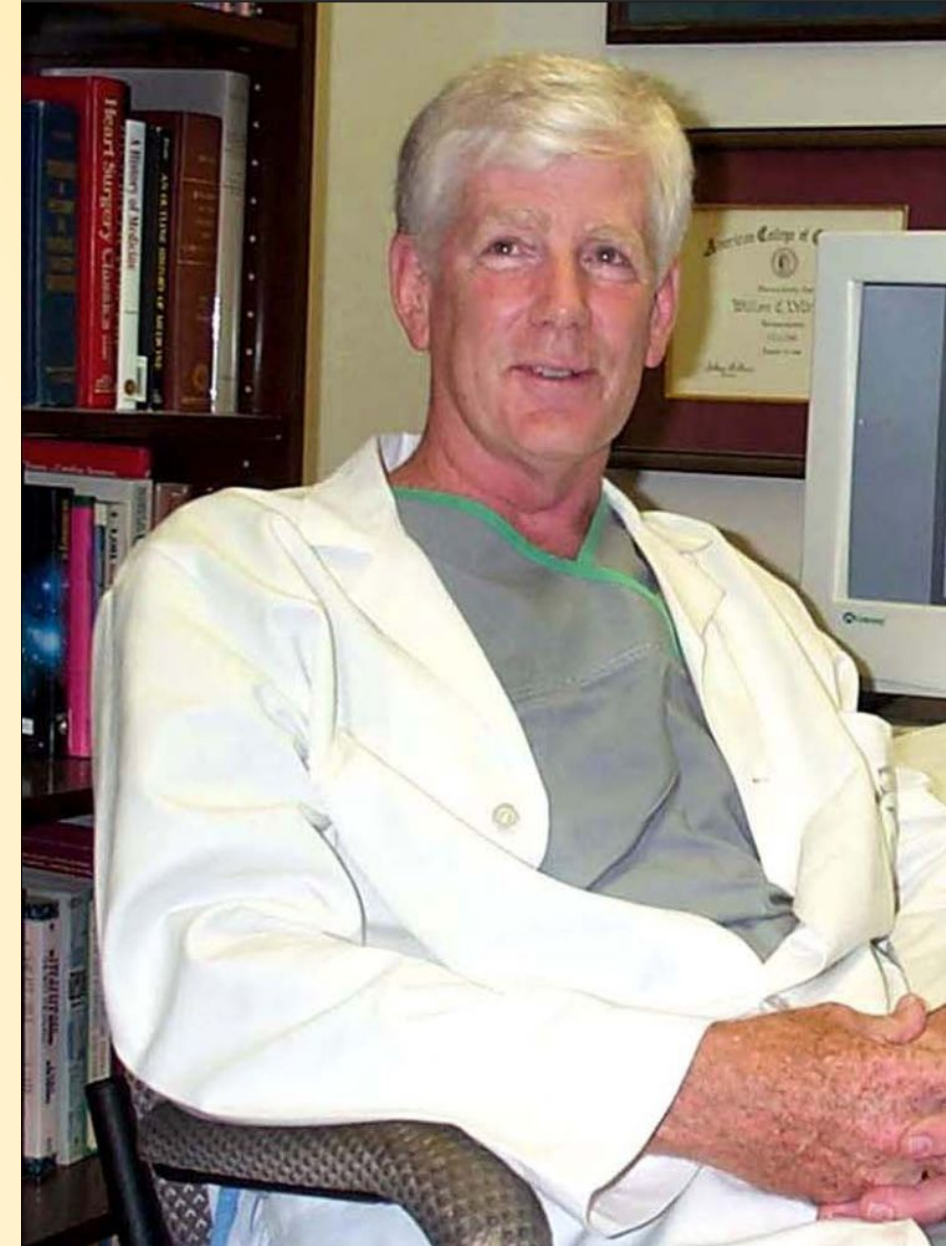
On 1971 Robert Jarvik joined the University of Utah's artificial organs program then headed by Willem Johan Kolff. Kolff assigned Jarvik to design a new heart that would overcome the problems of previous inventions, eventually culminating with the Jarvik-7 device.





Bill Schroeder with William DeVries on the cover of the magazine «LIFE» 1985

On 2 December 1982, William DeVries implanted the artificial heart into retired dentist Barney Bailey Clark, who survived 112 days with the device, dying on 23 March 1983. Bill Schroeder became the second recipient and lived for a record 620 days.



Today, the modern version of the Jarvik 7 is known as the temporary Total Artificial Heart. It has been implanted in more than 1,350 people as a bridge to transplantation.

However, despite the above achievements, the TAH problem for the clinic has not been solved.

