



ROYAL AUSTRALASIAN COLLEGE OF SURGEONS

# MEDIA RELEASE

## The first artificial heart – a remarkable moment in the history of surgery

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Delegates to the 79<sup>th</sup> Annual Scientific Congress (ASC) of the Royal Australasian College of Surgeons have been told that 28 November 1930, when the world's most famous man met the person some regarded as the world's smartest, was a remarkable moment in the history of surgery.

Sydney based general surgeon and surgical historian, Dr Philip Sharp, told delegates to the ASC that the world's most famous man was the aviator and first modern media superstar Charles Lindbergh, while arguably the smartest was the French surgeon and biologist Alexis Carrel.

Just over one hundred years ago Carrel taught us how to sew blood vessels together, for which he was awarded the 1912 Nobel Prize in Physiology and Medicine. This remarkable surgeon also performed the first limb reimplantation, attempted the first kidney and heart transplants, performed the first coronary bypass and the first cardiac valve procedure. He was also interested in the preservation of organs by means of cold storage – some sixty years before this became a reality.

In 1930, when Lindbergh met Carrel, the aviator had a sister-in-law with a diseased mitral valve, developed as a result of rheumatic fever. Wondering why a machine couldn't keep her alive while her heart was repaired, Lindbergh worked with Carrel to develop a pump with pulsatile flow that circulated oxygenated fluid around organs kept alive outside the body – effectively the first artificial heart. It would also prove fundamental to the science of organ transplantation.

“Carrel and Lindbergh thought they had built a machine that could ultimately lead to humans becoming immortal,” Dr Sharp said.

“But there was a downside to this idea – eugenics. Through their machine both men wanted superior people (like themselves presumably) to dominate and eventually eliminate inferior types.

“The controversial aspects of Carrel's forthright personality, along with his fascist leanings and Lindbergh's own admiration for the order and technology of Nazi Germany, ensured that this remarkable feat of surgical technology – which ranks as an extraordinary scientific contribution – was overshadowed by the controversy surrounding the men's obsession with producing an ethnically ‘pure’ race,” Dr Sharp said.

Dr Sharp's presentation is one of hundreds at this year's ASC, covering all surgical specialties and aspects of surgical history and education. Nearly 2,000 delegates are expected to attend the ASC, which runs from 4 to 7 May and is being held at the Perth Convention Exhibition Centre. The ASC program is available online at [www.surgeons.org](http://www.surgeons.org)

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