CARDIAC TRANSPLANTATION
SHARP MEMORIAL HOSPITAL
1985-2015
Rob Adamson, M.D.
Surgical Director of Transplantation
Silver Anniversary Celebration

- 55 yo male with an acute heart attack while playing tennis
  - Admitted to UCSD, inotrope dependent, IABP placed, EF 15%
  - 1 month later received a heart transplant 1988

- 54 yo male heart attack 10 years earlier and had CABG
  - Developed severe arrhythmias and CHF
  - Underwent successful heart transplant 1988
News and Events 1985

• World population 4.85 billion .... 7 billion
• More Barbie dolls than people in America
• US federal debt $1,817 billion ...... Almost 17 trillion
• Rock Hudson dies of AIDS
• Hole in the ozone layer over Antarctica first noted
• Gallon of gas $1.20, new home $100,800
1985
History of Transplantation

• December 23, 1954, Dr. Joseph E. Murray accomplished the impossible. He transplanted a kidney from Ronald Herrick into identical twin brother Richard, the victim of fatal kidney disease.
Twins salute 40 years won by transplant

By Richard Saltnes
GLOBE STAFF

Twins, particularly identical ones, are said to have a special bond that mere siblings can’t hope to experience.

That closeness can extend to their immune systems: Skin and other tissues can be freely transplanted between twins, which is why Edith Helms of Chandler, Okla., did not die 40 years ago of kidney disease.

Instead, Helms came to Boston with her twin sister, Wanda Foster, and became the first woman, and the third person, to receive a successful kidney transplant, on May 24, 1966. She is now the world’s longest-living recipient of a donor kidney.

Dr. Joseph Murray, who had performed the first two transplants, led the team at Peter Bent Brigham Hospital that removed a kidney from Foster and im-

With the help of Wanda Foster, Edith Helms (left) is the longest-living recipient of a donor kidney.
Pioneers of Cardiac Transplantation
On December 3, 1967, 53-year-old Lewis Washkansky receives the first human heart transplant at Groote Schuur Hospital in Cape Town, South Africa. Washkansky, a South African grocer dying from chronic heart disease, received the transplant from Denise Darvall, a 25-year-old woman who was fatally injured in a car accident. Surgeon Christiaan Barnard, who trained at the University of Cape Town and in the United States, performed the revolutionary medical operation. The technique Barnard employed had been initially developed by a group of American researchers in the 1950s. American surgeon Norman Shumway achieved the first successful heart transplant, in a dog, at Stanford University in California in 1958. After Washkansky's surgery, he was given drugs to suppress his immune system and keep his body from rejecting the heart. These drugs also left him susceptible to sickness, however, and 18 days later he died from double pneumonia.
History Of Heart Transplantation

1. December 2, 1967 Christian Bernard transplanted a 57 year old man with CAD.... Died on POD 18 of pneumonia
2. January 6, 1968 Norman Shumway first transplant at Stanford
3. 1971 146/170 transplanted patients had died
4. >100 transplant programs decreased to 4
“We made it!”
Obstacles/Opportunities for Transplant Success

- Immunosuppression
- Rejection
- Infection
- Malignancy
- Renal failure

- Organ availability
Good transplant candidate?
We all change …. but still love tomorrow?
Such a simple procedure ........
Size Matters

The heartmate-VE left ventricular assist device

Figure 2

Outflow

Pump

Inflow
Natural History of a mechanically supported patient

• 50 yo male unable to exit CPB after emergent CABG at outside hospital

• Transferred on open chest ECMO March 2002
Natural History of a mechanically supported patient

- 50 yo male unable to exit CPB after emergent CABG
- Transferred on ECMO March 2002
- HM I placement
- Bearing failure, native aortic valve deterioration CHF
- HM I exchange native aortic closure April 2004
- Bearing failure October 2005
Natural History of a mechanically supported patient

- 50 yo male unable to exit CPB after emergent CABG
- Transferred on ECMO March 2002
- HM I placement
- Bearing failure, native aortic valve deterioration CHF
- HM I exchange native aortic closure April 2004
- Bearing failure October 2005
- HM II implant/exchange
Natural History of a mechanically supported patient
Smart Car
The Smustang
Transplant Compared to LVAD Volumes

[Graph showing Heart Transplants and Heart Pumps volumes over years from 1985 to 2011.]

- Heart Transplants (grey line)
- Heart Pumps (red line)

The graph illustrates the comparison between heart transplants and LVAD volumes from 1985 to 2011.
Five Year Cost Comparison

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<td>2009</td>
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HeartMate II vs. Transplant Survival Comparison

HMII vs. Tx Survival

P (log-rank) = 0.016
Hazard Ratio (LVAD) = 2.9 (1.8 - 7.3)
P (adjusted for age) = 0.059

At Risk

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CLINICAL STRATEGIES AND OUTCOMES IN ADVANCED HEART FAILURE PATIENTS OVER 70 YEARS OF AGE RECEIVING THE HEARTMATE II LEFT VENTRICULAR ASSIST DEVICE: A COMMUNITY HOSPITAL EXPERIENCE

Robert M. Adamson, MD, Marcia Stahovich, RN, Suzanne Chillcott, BSN, Sam Baradarian, MD, Joseph Chammas, MD, Brian Jaski, MD, Peter Hoagland, MD, Walter Dembitksy, MD

Presented at the 29th annual meeting and scientific sessions of the International Society for Heart and Lung Transplantation, April 2009, Paris, France.
Looking forward on the backs of others
“It’s been a pleasure to be able to help people and maybe you folks learned something” 1982
“I just want to see my baby grow up and be a mom for all three of my kids” 2004
“I want to go off road racing” 10/2006
“The batteries are heavy and don’t last long enough... on a scale of 10 my quality of life has been an 8”
No longer an isolated event
How Cheney was next in line for a new heart...

They said I had a shot at it...

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