



APSA Presidential Address

Try again. Fail again. Fail better.

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Members and Guests of APSA, colleagues and friends.

I am deeply grateful for the privilege of serving as your 45th President. There are probably a hundred others in the audience equally or more deserving of this honor, and I fully understand the role of chance and good fortune in such awards. Again, my profound thanks.

In its very generous introduction Dr. Albanese graciously omitted the many missteps, mistakes and flat out screw-ups that do not show up on one's CV; nonetheless they form an equally and perhaps more important component of a career, and the inspiration for this address.

I feel very much like the proverbial "turtle on a fence post"; when you see one, you know that the turtle didn't get there on its own. As such, I owe deep debts of gratitude both professionally and personally to many, I will enumerate a few.

Over a professional career of 40 years spanning five institutions, I am indebted to the students, residents, fellows and faculty at the Medical College of Wisconsin, the Medical College of Virginia, Children's Hospital

of Pittsburgh, Penn State and the Hershey Medical Center, and Stanford University and Packard Children's Hospital. Those countless interactions and friendships have all made an imprint. I am grateful for many lessons from professional colleagues and friends at APSA and broadly throughout the surgical organizations I've been privileged to serve. Finally to my patients and their families, I am grateful for your lessons and for your demonstration of courage.

There's one guy who spans both the personal and professional—Arnold M. Salzberg, MD, HB and an early member of APSA. Arnie was an icon, a mentor, and a friend. I'm one of Arnold's 12 disciples who were inspired to pediatric surgery. Salzberg and the 12 disciples! Arnie's laughing up there someplace (Fig. 1).

True story. I'm a junior resident on Pediatric Surgery at MCV in 1979. It had been a terrible week. We had fixed diaphragmatic hernias on two beautiful 4 kg babies and then sat around and watch them die. Nothing to do. The following week a young hotshot, Bob Bartlett, shows up and gives a research conference on a new-fangled technology—ECMO. After the talk, Arnie rivets me with his gaze and says: "hey Krummel, how many more kids are we going to watch die before you do something?" With the full support of Dr. Salzberg and Dr. Lazar Greenfield we put together a ragtag ECMO team. Eighteen months into it we reported some real successes at the Surgical Section of the AAP. Arnie was quick to point out "Bartlett proved ECMO could be done, Krummel proved anybody could do it." The AAP Surgical Section offers the Salzberg Award for Mentorship, there's a good reason for that.

Next is that young hotshot Robert H. Bartlett—RHB (Fig. 2). Dr. Bartlett has been a role model and a friend for almost 35 years. He graciously hosted a very young and not very bright PG2 resident at the University of California, Irvine in 1980. I camped out in the NICU at the Children's Hospital of Orange County and tried to be a sponge. Learning from two patients on ECMO, Dr. Bartlett introduced me to the intersection of surgical science and engineering which has remained a foundation and a passion for the rest of my career.

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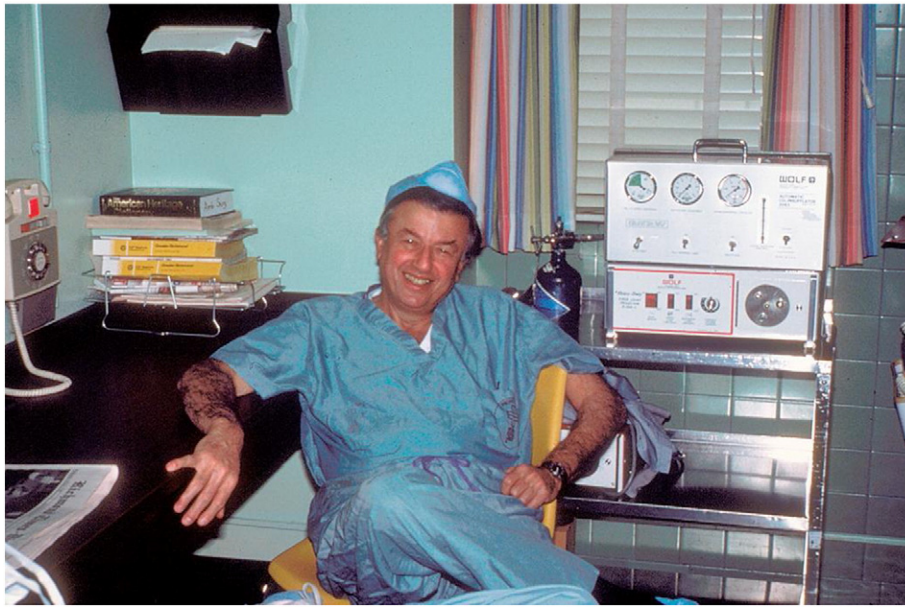


Fig. 1. Arnold M. Salzberg, MD.

While there are many I would specifically like to acknowledge two ‘big brothers’, Michael R. Harrison, MD and Joseph P. Vacanti, MD (Fig. 3). The two of them created entire new fields—fetal intervention and tissue engineering—through thought and action, and at the beginning, single handedly. Fundamentally, they built things we never thought of, or acted on before. Each of them authored the definitive papers and textbooks. Both have been of enormous service to the field of Pediatric Surgery and the patients whom we serve. I count them amongst my closest friends. Each knows something about failure as well.

John and Marian Waldhausen, shown here during Dr. Francis D. Moore’s Waldhausen Lectureship, made a huge impact (Fig. 4). John was the founding Chair of the Department of Surgery at Penn State; he recruited me as Division Chief and little did I know he was quietly grooming me to succeed him as the Department Chair. He truly taught me the art and science of leading a department, priceless lessons for the journey West to a troubled Department of Surgery at Stanford in 1998.

While in Silicon Valley I’ve been privileged to learn from two master physician inventors/innovators, Rodney Perkins and Tom Fogarty.



Fig. 2. Robert H. Bartlett, MD.

Between them they are singularly responsible for 50 successful medical technology startups. More than 10 million patients have been treated with their inventions. They epitomize the exploration of new therapies and the expectations of failure along the way.

My parents, Jim and Helen, taught me everything about what is important, long before I went to school. They taught me that you don’t need much to have a lot and that scarcity and necessity drive innovation. I am privileged to have two terrific brothers and one terrific sister.

Finally I am blessed with an extraordinary family, my wife, Susie, and three spectacular children, all of whom are here. They all help me to keep it real and make everything worthwhile. These family foundations are a daily reminder of both my blessings and my responsibilities to others less fortunate. With them I believe everything is possible.

Marrying Susie has been the best decision of my life.

The most famous painting ever depicting a physician is this one executed by Sir Luke Fields (Fig. 5). Appropriately for all of us in APSA, it depicts a physician puzzling over a sick child. There are many interpretations of this painting: some see the light of dusk and despair, others see the light of dawn and hope. What do you see?

Regardless of those interpretations no one can miss the look of care and concern for this child’s problem. What was the state of surgical care at the time of the painting? If this child had an intussusception, appendicitis, or even an incarcerated hernia death was likely.

Roughly at the same time, Sir John Ericksen, the then “surgeon-extraordinaire” to Queen Victoria, declared “The abdomen, the chest and the brain will forever be shut from the intrusion of the wise and humane surgeon”. Times have changed. Why? How?

Throughout the history of surgery, progress is always about innovation whether in diagnostics, supportive care, monitors, tools, devices, technologies or surgical procedures but progress is inevitably also about failure. Often, to discover ‘what works’, one must plow through an awful lot of ‘what doesn’t work’.

Entire fields were created out of serial failures. Solid organ transplantation, surgery of the heart and great vessels and laparoscopy were all developed through a series of fits and starts, a series of mistakes and adaptations. The development of surgical devices such as staplers, cardiac valves and the pulse oximeter all painfully evolved after discovering what didn’t work. It is these lessons of failure that inform subsequent success and indeed are essential.

A brief word about the title. Samuel Beckett was an Irish playwright who was awarded the Nobel Prize in literature in 1969. A profound

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