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**RENÉ FAVALORO AND
THE FATHERHOOD OF
THE CORONARY
BYPASS OPERATION:
LEST WE FORGET**
To the Editor:

*Lest thou forget the things which thine eyes have seen,
and lest they depart from thy heart all the days of thy
life: but teach them thy sons, and thy son's sons.*

—Deuteronomy 4:9

I read with great interest an excellent article of Bakaeen and colleagues.¹ A few comments appear to be appropriate. I am very privileged to have known Dr René G. Favaloro and will always cherish memories of our friendship. In my opinion, by his admirable integrity, honesty, humility, ultimate commitment to his patients, selflessness, and compassion, Dr Favaloro set an example that every surgeon should emulate. Dr Favaloro's tragic death made him more of a hero in my eyes than ever before. For the sake of truth and my memories of Dr Favaloro, I felt compelled to write this comment.

For the sake of truth, it should be emphasized that the first clinical successful coronary artery bypass grafting (CABG) operation was performed by Dr Robert G. Goetz on May 2, 1960, when he anastomosed internal thoracic artery (ITA) to coronary artery with a tantalum ring. On February 25, 1964, Dr Vasilii I. Kolesov performed the first successful CABG procedure, anastomosing ITA to coronary artery by suture technique. Thus, from February 25, 1964, until May 9, 1967, the department of surgery headed by Dr Kolesov was the only place in the world where CABG operations were performed. Dr Kolesov's success was based on the experimental work of Dr Vladimir P. Demikhov. Dr Kolesov's seminal article, published in this *Journal* in 1967,

resembled the tip of the iceberg of the preceding experimental and clinical research done by Drs Demikhov and Kolesov. Both Dr Donald Effler and Dr George Green were aware of Dr Kolesov's 1967 article. On May 9, 1967, Dr Favaloro performed the first successful CABG with saphenous vein. On February 29, 1968, Dr Green performed his first successful CABG anastomosing the ITA to the coronary artery. Similar to Dr Kolesov's fatherly work on the CABG procedure, Dr Goetz's pioneering effort was remarkable as it took almost 4 years until Dr Kolesov performed a successful CABG operation in Russia, 7 years before Dr Favaloro and 8 years before Dr Green did so in the United States.² I have previously given a detailed account of the events that lead to this remarkable pioneering efforts by Drs Demikhov, Goetz, and Kolesov.²⁻⁵ On April 4, 1962, Dr David Sabiston performed the first CABG procedure with the venous graft (the patient died 3 days later), but he did not report this until 1974. On November 23, 1964, Drs Edward Garrett, Jimmy Howell, and Michael DeBakey performed successful CABG surgery with vein graft as a bailout for a complicated endarterectomy, but they did not report this until 1973. What, then, is the landmark from which the count for "the 50th anniversary of the coronary bypass operation" should begin?

For the sake of my memories of Dr Favaloro, it should be mentioned that he, as Dr Denton Cooley eloquently put it, "was always hesitant to carry the moniker "father" of coronary artery bypass surgery."⁶ Dr Favaloro always stressed the importance of teamwork and expressed this remarkably well in his biographic book (Figure 1). In my opinion, this book must be read by everyone interested in the history of coronary surgery. Reading Dr Favaloro's personal account of the events that led him to join the Cleveland Clinic team and to perform his first CABG there makes one feel the true humble greatness of his personality. Dr Favaloro always gave credit to the work of his predecessors. Would Dr Favaloro be happy to have bestowed upon him a somewhat pompous title of "the father of coronary artery bypass grafting"? I cannot help but wonder what Dr Favaloro's personal view on this would be. What about Dr Goetz, Dr Kolesov, or other pioneers? Are they less fatherly figures to CABG? Do we need to establish the fatherhood of this surgical procedure? Dr Favaloro wrote to me on April 23, 1997, "Medicine depends on evolution, and big accomplishments in the field are reached by means of the work of many contributors. I could claim many 'firsts.' I never did, because to me 'we' is more important than 'I.' The merit of the team of the Cleveland Clinic was our complete devotion to coronary revascularization since 1962. Perhaps the most important year, after our early experience in 1967, was 1968." Indeed, it was an explosive introduction of CABG with venous grafts in 1968 by the Cleveland Clinic team that finally convinced the world. It is much later that the ITA was demonstrated to be a graft of choice in CABG, with a

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THE CHALLENGING DREAM OF HEART SURGERY

From the Pampas to Cleveland

René G. Favaloro, M.D.

*to Igor Konstantinov
with all my respect.*

R. Favaloro

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FIGURE 1. Title page of Dr Favaloro's book.

long-term patency rate unsurpassed by any other graft. Interestingly, the research continues to demonstrate a histologic basis of the remarkable resistance of the ITA intima to atherosclerosis.⁷

Many surgeons contributed to the development of the clinical CABG procedure. As it often happens in medicine, a personal success is, more often than not, the result of teamwork and, as a rule, relies on the preceding pioneering work of others. Lest we forget.

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References

1. Bakaeen FG, Blackstone EH, Pettersson GB, Gillinov AM, Svensson LG. The father of coronary artery bypass grafting: René Favaloro and the 50th anniversary of coronary artery bypass grafting. *J Thorac Cardiovasc Surg.* 2018;155:2324-8.
2. Konstantinov IE, Robert H. Goetz: the surgeon who performed the first successful clinical coronary artery bypass operation. *Ann Thorac Surg.* 2000;69:1966-72.
3. Konstantinov IE, Vasilii I. Kolesov: a surgeon to remember. *Tex Heart Inst J.* 2004;31:349-58.

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4. Konstantinov IE. At the cutting edge of the impossible: a tribute to Vladimir P. Demikhov. *Tex Heart Inst J*. 2009;36:453-8.
5. Konstantinov IE. The first coronary artery bypass operation and forgotten pioneers. *Ann Thorac Surg*. 1997;64:1522-3.
6. Cooley DA. In memoriam. Tribute to René Favaloro, pioneer of coronary bypass. *Tex Heart Inst J*. 2000;27:231-2.
7. Buratto E, Shi WY, Konstantinov IE. An intima affair adds to the dominion of the internal thoracic artery in coronary artery bypass grafting. *J Thoracic Cardiovasc Surg*. 2016;151:1709-10.

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