Letters to the Editor

The Editor welcomes submissions for possible publication in the Letters to the Editor section that consist of commentary on an article published in the Journal or other relevant issues. Authors should:

- Include no more than 500 words of text, three authors, and five references
- Type with double-spacing
- See <http://jtcvs.ctsnetjournals.org/misc/ifa.htm> for detailed submission instructions.
- Submit the letter electronically via jtcvs.editorialmanager.com.

Letters commenting on an article published in the JTCVS will be considered if they are received within 6 weeks of the time the article was published. Authors of the article being commented on will be given an opportunity to offer a timely response (2 weeks) to the letter. Authors of letters will be notified that the letter has been received. Unpublished letters cannot be returned.

Tubular heart valves

To the Editor:

Cox and associates¹ recently presented in vitro testing results on the 3F Aortic Bioprosthesis. Unfortunately, Cox and colleagues chose not to give authorship to any of the engineers who performed this work, nor even give them the courtesy of an acknowledgment. Due to the lack of input from these engineers, of whom I am one, the article contains several technical and interpretive errors that should be corrected. They are as follows:

- The text gives the impression that a laser micrometer was used to measure aortic chamber compliance during flow testing. Those measurements were actually made on valveless chambers in a separate test system before flow testing.
- The paper states, "Five milliliters of corn starch was . . . injected into the flow loop to act as an acoustic scattering agent." This is nonsensical since laser-based flow visualization does not employ acoustic scatter in any way. The statement refers to a technique used during in vitro Doppler studies and is presumably a "copy and paste" error.
- Wear testing of the valve was not conducted at 700 to 900 Hz as implied. The test rate was 700 to 900 rpm, which is about 12 to 15 Hz.
- Wear testing was not conducted on valve sizes 19-, 21-, 23-, 25-, and 27-mm valves, 2 of each size, as stated. Testing was conducted on 19-, 25-, and 29-mm valves, 10 of each size.
- The authors state, "This nonturbulent flow was characteristic of . . . all valve sizes . . ." Since flow visualization testing was only conducted on 19-mm valves, this is conjecture being stated as fact.
- The authors state, "The distribution of stress on the leaflets of the 3F Aortic Bioprosthesis shows the greatest degree of stress to be in the belly of the

valve leaflets, with less stress at the commissural posts (Figure 6)." This statement is actually in direct contradiction to Figure 6. The figure clearly shows the largest stresses to be along the leaflet edge and at the commissural attachment point.

These corrections are not intended to be petty or esoteric. As the clinical use of the 3F aortic valve continues to grow, it is important to have accurate literature reports of how the valve has been tested, as well as sound technical analyses of its performance features. Rather than relying on ill-conceived theories of "tubular" geometry or "form follows function," the valve's excellent performance can be attributed to more straightforward design features (ie, the leaflet design, the small, unobstructive sewing ring, the lack of rigid supports structures, and the mechanical durability of pericardium). An intellectually and scientifically rigorous paper with a description of these features and how they translate to the observed performance would have been much more useful.

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Reference

1. Cox JL, Ad N, Myers K, Gharib M, Quijano RC. Tubular heart valves: a new tissue prosthesis design—preclinical evaluation of the 3F aortic bioprosthesis. *J Thorac Cardiovasc Surg.* 2005;130:520-7.
doi:10.1016/j.jtcvs.2005.08.038

Effectively treating ischemic mitral regurgitation with chordal cutting in combination with ring annuloplasty and a left ventricular reshaping approach

To the Editor:

I read with great interest the case reported by Yamamoto and colleagues¹ in the August 2005 issue of the *Journal*. In the article the authors presented a patient in whom they repaired chronic ischemic mitral re-