

Correspondence

The Sodium-pumping Mechanism of the Toad Bladder

To the Editor:—In their article, Anesthetic Effects on Transport across Cell Membranes (ANESTHESIOLOGY 39: 126-152, 1973) Andersen and Amaranath perpetuate an error present in Andersen's other articles¹⁻³ by locating the "active sodium pumping mechanism" of the toad bladder in the serosal surface of the serosal epithelial cells. Other investigators⁴⁻⁶ describe the active sodium pumping process as located in the mucosal epithelial cell. More specifically, it has been shown that the active process is near the serosal border of the mucosal epithelial cell⁷ and may be in the serosal plasma membrane itself. The readers of ANESTHESIOLOGY should be made aware of this discrepancy, since the toad bladder preparation is not only useful for studying basic transport phenomena, but also a model from which much useful information regarding the mode of action of aldosterone and antidiuretic hormone has been obtained and extrapolated to mammalian renal physiology.

FRANK T. KALLUS, M.D., PH.D.
*Department of Anesthesiology
The University of Texas
Southwestern Medical School at Dallas
Dallas, Texas*

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To the Editor:—We appreciate Dr. Kallus' calling attention to the error in some of our later toad bladder papers. It is a general and unfortunate habit to refer to "the serosal sodium pump in toad bladder."¹ However, the error is in writing rather than concept and does not affect results nor interpretation of the studies. Please note, therefore, the following corrections to our review:

Page 129,

Paragraph 2, line 3: for *interior* read *exterior*
line 4: for *serosa* read *mucosa*;

Figure 2: for *mucosa* read *mucosal aspect of*
for *serosa* read *serosal aspect of the*
mucosa. Delete "connective
tissue."

NIKAAN B. ANDERSEN, M.D.
L. AMARANATH, M.D.
*Case Western Reserve University
School of Medicine
Cleveland, Ohio*

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