

BUCHLER GENERATION II PERISTALTIC PUMPS



IN THE LONG RUN, THE ACCURACY DOESN'T VARY.

These advanced, peristaltic pumps provide extremely accurate and reproducible control of flow rates. Like all the new Buchler Generation II Instruments, they're designed for reliability and operational convenience in a variety of laboratory, medical, and industrial applications.

Mono-, Duo, and 4 channel Multi-staltic models will accommodate most standard tubing sizes for a wide range of flow rates—from 1.8 to 2620 ml/hr, depending on the pump. The Polystaltic model will achieve accurate flow rates from 1.5 to 237 ml/hr in up to four channels, simultaneously.

UNIQUE DISC DESIGN MINIMIZES CREEP AND SPLICING.

Buchler's patented pumping disc and pressure bar design lets you easily insert tubing without splicing. Each disc has ten precision steel bearings, five of which are always in contact with the tubing through the nylon ribbon to minimize creep, pulsation and tubing wear. And for priming, there's a maximum speed switch that does not affect the pre-set speed setting.

PRECISE, SOLID STATE CONTROL.

Every Buchler pump features precision, solid state electronics for continuously variable flow rate control—forward and reverse—and dependable flow rate stability, even over extended periods of use. Their high torque motors easily handle high viscosity solutions containing solutes such as sucrose. Motor and electronics are enclosed in a solvent and impact resistant polypropylene case for long-life durability.

For more information or a demonstration of these versatile, extremely reliable peristaltic pumps, call or write Buchler.

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“rapidly diminishing,” at least not in the farm milieu, where penicillin and the tetracyclines retain their effectiveness as feed ingredients for farm animals after many years (2). There have been incidents, of course, in which prolonged use of antibiotics in clinical medicine has been followed by intractable resistance to pathogens. The disparity between the two sets of observations has not been explained.

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References

1. T. H. Jukes, E. L. R. Stokstad, R. R. Taylor, T. J. Cunha, H. M. Edwards, G. B. Meadows, *Arch. Biochem.* **26**, 324 (1950).
2. V. W. Hayes, in *The Use of Drugs in Animal Feeds* (Publication 1679, National Academy of Sciences, Washington, D.C., 1969), p. 11; T. MacAuliffe, A. Pietraszek, J. McGinnis, *Poult. Sci.* **55**, 183 (1976).

Coca, Not Cocoa

In the issue of 12 September, a letter of mine appeared protesting the confusion in a previous article (News and Comment, 11 July, p. 256) of coca leaf with isolated cocaine. However, you turned “coca” into “cocoa” in the text of the letter, the title, and the table of contents.

Cocoa is what some people drink for breakfast. It is a product of the cacao tree, *Theobroma cacao* L. Coca is the leaf of several species of *Erythroxylum*. *Erythroxylum* is unrelated to *Theobroma* botanically, chemically, and pharmacologically.

I do not advocate research on the therapeutic use of cocoa, although I consider it a pleasant and innocuous substance in moderation. I do urge research on coca, starting with an understanding of what it is and is not.

ANDREW T. WEIL

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Kidney Transplants

The Research News article by Jean L. Marx on improving the success of kidney transplants (8 Aug., p. 673) greatly emphasizes the benefit of transfusions in reducing the risk of kidney graft rejection. Yet there is no mention that Gerhard Opelz and Paul Terasaki were the first to report (1), in 1973 and 1974, the beneficial effect of transfusion in kidney graft