Letters

The Pharmacist and Poison Control

As a pharmaceutical educator and research worker I was delighted to read the editorial "Middle ground" [*Science* **132**, 1221 (28 Oct. 1960)] concerning the excellent outcome of the poison control center concept, which has now spread throughout the United States. I feel, however, that you have left out a very important group of people who must daily supply information on poisons and whose acts, even though not documented, have contributed materially to saving many lives. These dedicated public health workers are the pharmacists in retail practice, hospital pharmacy, and industry. In fact, in many communities it has been the drive of the community pharmacist that has led to the setting up of an adequate center.

Furthermore, because of the pharmacist's particular background in the physical and biological sciences, which includes an exhaustive course in pharmacology, he seems well equipped to initiate and guide in the establishment and operation of a poison control center.

Schools of pharmacy are now including subject matter associated with poison control centers as a further service that the pharmacist can perform for his community in conjunction with the medical practitioner. Also, it should be kept in mind that many of the ingredients needed for poison control are part of the stock of drugs and chemicals that a well-organized pharmacy carries.

I do not wish to detract from the recognition accorded any other group in this very important public health service, but I do want to have it known that pharmacy is contributing materially to the over-all program.

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Nomenclature of Biological Devices

Without wishing to detract from the importance of van Bergeijk's ingenious proposal for naming devices that simulate biological functions [*Science* **132**, 1248 (28 Oct. 1960)], I would like to point out one serious fault in his proposal. This is that it confuses two quite different classes of such devices. On the one hand there are those devices whose purpose is chiefly prosthetic, while on the other there are those which are of interest in scientific or technological investigation. The latter are often made to have a type of isomorphism with natural biological systems, while the former must replace such systems to some extent in function.

Devices that are used to replace biological systems, either temporarily or permanently, are truly artificial organs and should be named as such. A natural way to name these devices is to use the Latin prefix *art-* (or *arti-*), which suggests artifice or something fashioned, together with the Latin name of the organ replaced. Thus, *articor, artipulmocor,* and *artiren* are suggestive of the purposes of the devices that they might name. (Let us hope that some day there will be an *artoculus.*)

One need not insist on the full nominative singular of the Latin name of the organ. Rather, one can construct a modified form, as the Romans themselves might have done—for example, *artiman* instead of *artimanus* and *artihep* for a possible artificial liver.

In case a Latin name is not available or the use of one would be forced, the Greek name would have to be used. However, sometimes a way out of the unpleasant necessity of compounding Latin and Greek roots may be found. Thus in the case of the larynx, for which there is no Latin term, the word *vox* may sometimes be used quite precisely. An artificial larynx like that recently announced by the Bell System, for example, does not truly replace the larynx; rather it replaces the voice. Hence it is an "artivox" and should be so termed.

For naming those devices that are intended as analogs of biological systems rather than as replacements for them, van Bergeijk's proposal seems excellent. For consistency and euphony, the Greek word for the organ simulated should be used as the stem of the name of the simulating device when this is possible. Thus, euphony would be better served if the Perceptron were called an ophthalmomime rather that an oculomime.

To point up the difference between the two types of device and the presently suggested rules for naming them, let us consider the hand. A *chiromime* might be a computer program or a complicated device which imitates and illustrates the functions of the hand; in any case one would expect a considerable degree of sophistication in a device that truly simulates this organ. In contrast, an *artiman* might be only a steel claw serving an unfortunate amputee; with present technology it would have to be fairly simple. Sometime in the future, however, this same amputee might well be able to extend an artiman of friendship, in which case his artiman would also be a chiromime.

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