



## Editorial

### Words and Poison

When Shakespeare wrote, “A rose by any other name...,” it was just a simile on surnames, not an encouragement to invent words. English is the richest of all languages; that is not to say it is better than any other language. If it were not for Greek, Latin and Germanic languages, there would be no English language. “Rich” means that there are so many words that it requires no new names for existing things. Often, as we have seen in outer-space programs old names are adequate for new devices. Have you noticed, most words associated with modern electronics are trademarks or old words. Other new words tend to be ephemeral.

“Nutriceuticals” has appeared as a new pseudo-word in mushroom technology. It was clearly invented with no real familiarity with the English language. It is an attempt to combine words that were familiar, but not adequately understood by the inventor(s). The original words were apparently, “nutrition” and “pharmaceuticals.” My dictionary<sup>1</sup> tells me that “nutrition” is from the same Latin root as “nurse,” and so it is that which nurtures – not a bad start. It says “pharmaceuticals” is from the Greek, *pharmakeutikos*, to practice witchcraft, or *pharmakon* a poison. So it appears that if “nutriceuticals” has any meaning at all, it means to nurture with poison or witchcraft; maybe it is appropriate for euthanasia! Let us reconsider, how that differs from the actual use of pharmaceuticals?

Real pharmaceuticals are poisons, not simply because of the meaning from the Greek, but because their purpose is to kill pathogens or to stop biological functions that are out of control. In the *Merck Index*<sup>2</sup> you will find a Lethal Dose (LD<sub>50</sub>) for most pharmaceuticals. Much has been written on the idea of differential poisoning as the basis for the design of pharmaceuticals.

It is interesting that mushrooms are one of the richest sources of the B-vitamin, niacin. In recent years, massive doses of niacin have been recommended by the American Heart Association and other medical authorities, as the best way to reduce cholesterol. Gout is far from life threatening, but it is extremely painful and it is a common side effect of massive doses of niacin. Prednisone, a corticosteroid, is sometimes given to relieve the pain. The corticosteroids suppress normal immunity. Shingles caused by zoster or chickenpox virus, has become more common as physicians prescribe more pharmaceuticals. Most adults have inactive zoster, from childhood. Shingles may be severe, with paralysis, visible scars, and even blindness. Many millions of hours of research and very large sums of money went into researching these pharmaceuticals, but it is not enough protection. Those who make claims about mushrooms, plants or animal parts curing diseases, with little research, are dangerous to us all. Yes, many very important pharmaceuticals, are derived from plants and fungi. Research should be continued, but claims reduced. It is not a field of research that can be safely pursued by mycologists, alone. It also requires extensive training in chemistry, animal physiology, and human physiology. The knowledge and experience required is beyond any individual or any one discipline.

–Ralph H. Kurtzman, Jr.

1. Neufeldt, V., Ed. 1988. *Webster's New World Dictionary*, 3<sup>rd</sup> College ed. New York. 1574 pp.  
2. O'Neil, M. J., Ed. 2001. *Merck Index*, 13<sup>th</sup> ed. John Wiley & Sons, New York. 1818 pp.