## EDITOR'S CORNER

### MPN and the Value of Journal Publications

I am an advocate of publishing important scientific information so that other scientists can benefit by the new research data or useful information. That is one of the reasons why I started the *Journal of Rapid Methods and Automation in Microbiology* almost 10 years ago.

I have published many papers in many journals. Some of them were well quoted and used, and some of them received very little attention. I still believe if a good work is published, one day it may be useful. I tell my students that unpublished data is as good as ZERO since no one can make use of it.

Such is the case of one of my early papers: FUNG, D.Y.C. and KRAFT, A.A. 1969. Rapid evaluation of viable cell counts by using the microtiter system and MPN technique. J. Milk Food Technol. *32*(10), 408-409.

This 2-page paper described the use of Microtiter loops to pick up microbiological specimen and serially diluting (1:10) the sample in triplicate in nutrient broth in a sterile Microtiter plate. After overnight incubation, turbidity in the wells were read manually. By use of a modified MPN (Most Probable Number) Table 1 calculated MPN of the liquid samples in a miniaturized system. This procedure saves much time in operation, materials, incubation space and provided accurate results compared with the conventional agar plate viable cell count method. In one Microtiter plate, I could perform four (4) liquid samples in triplicate (3X) to the 8th dilution since the Microtiter plate comes in a 12 × 8 format. It was a great idea (according to me, of course) and I published the paper. Through the years, a few attempts by other laboratories were made to miniaturize the MPN system for some specific applications with varying degrees of success.

Recently, I was pleased to receive two manuscripts submitted to this *Journal* which directly dealt with the theoretical and practical application of the miniaturized MPN system.

One paper described the use of a modified Gauss-Newton algorithm and a ninety-six well microtechnique for calculating MPN using EXCEL spreadsheets and the other paper described the use of the Microtiter plate technology for the automation of microbiological testing of drinking water. Both papers utilized miniaturized liquid volume and the Microtiter plate for cultivation of the microbial samples. I was delighted since I was the first one to miniaturize the MPN system and now others are exploring the efficiency of the system in detail. These authors were kind enough to cite my original contribution in this field. The two articles are published as the second and third papers in this issue.

  

Several major improvements occurred in this field compared to my work in 1969.

(1) Automated instruments are now available in many laboratories to dispense liquid into the Microtiter plate. Automated dilution instruments are also available to facilitate rapid and aseptic dilutions of samples. These were not available in 1969.

(2) Automated readers of Microtiter wells are now common place to efficiently read turbidity, color, and fluorescence of the liquid in the wells for calculation of MPN. Such instruments were not available in 1969.

(3) Elegant mathematic models, computer interpretations and analysis, and printout of data are now available which I could not have envisioned back in 1969.

I feel fortunate that I published my MPN paper as a graduate student in 1969. If I had not done that these developments might not have occurred or that someone else could have come up with the same idea and received the credit! In conclusion, I highly recommend that scientists publish their work as soon as the task is done.

You never know, 30 years later it may be of great importance to the field.

DANIEL Y.C. FUNG
Editor