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## Uses of error

### A word of advice

Henry Gans

In research, chance observations are not uncommon. In 1958, when studying the effect of endotoxin on haemostasis in the dog, I happened to notice that in the presence of fibrinolysis a decline in the fibrinogen didn't always mean it was consumed or broken down. If I repeated the procedure on plasma samples that by the clotting technique contained little or no fibrinogen I would find, to my great surprise, that it was present if I used the salting-out technique instead. I was mystified. I pursued this strange finding for months. Since I was new to the field, I tried to learn all I could but couldn't find anything on it. I talked to my advisor but he was involved in other matters and since I had just started to work in his lab, ascribed my findings to errors in technique. Subsequently he raised other objections that took a lot of time to refute. I had the feeling that he thought I was suffering from some kind of delusion. I became sidetracked and never got down to really study the problem in earnest. However, after some time I collected all the data and wrote them up. I called this phenomenon cryptofibrinogenaemia. My advisor barely looked at the

paper. It just didn't fit in with anything known at the time.

The next spring, my advisor helped to organise a continuation course in haematology for general practitioners. He invited me to lunch at the Campus Club, where he introduced me to the two visiting haematology professors and urged me to tell them about my findings.

After a brief outline, one of the visitors exclaimed laughing: "Crypto-fibrinogenaemia, my foot! You have discovered a phenomenon that has been described by two Polish investigators. What you have demonstrated is the anticoagulant or anti-thrombin effect of the fibrinogen breakdown products released during fibrinolysis. Their presence interferes with the clotting of fibrinogen!"

Sure enough, the phenomenon I had observed had recently been described and we had missed it because it had been initially published in French. This taught me to think for myself. Had I done so from the start and pursued the problem singlemindedly, I might well have come up with the right answer.

1. Niewiarowski S, Kowalski E. Un nouvel anticoagulant derive du fibrinogene. *Revue Hemat* 1958; 13: 320.

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