



## The most critical trait of great researcher

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What do you do research for? For reputation, pleasure of accomplishment, documentation of novel discovery, or promotion, to name but a few. The motives may vary, but there is an invariant goal of research; pattern detection.

Pattern must be identified through either observation or experiment. Replication of abnormal distribution of a specific event or new relationship between two events is worthy pattern of research. Observation or experiment on enough size of sample population is needed to detect a pattern which is repetition of phenomenon, in other words. Tools and skills for precise and accurate measurement of distribution or association are required. Sophisticated statistical analysis method for differing random pattern from signal one hidden in data set should be prepared.

Research should be planned with a clear view of limits or errors in measurement and sampling, because a pattern may be found by errors. As Chamberlin<sup>1</sup> in 1890 who wrote a landmark paper on the scientific method advocated the method of multiple working hypothesis as scientific measure to detect real facts by overcoming parental affection of researcher's hypothesis which may cause to overlook the force of errors and limits<sup>1,2</sup>. Ability to imagine and ruminate all relevant forces to pattern formation is the most important trait of great investigators.

Interest in all sorts of different disciplines rather than single specialized one is a road to develop the trait. It consumes a lot of physical and mental energy, and that's why it is not easy to be versatile. Once determined to go for it, reading

literature of diverse disciplines everyday is recommended. It obviously takes a long time to hone the great trait. Then one day, a discovery of new pattern accidentally comes, as Szent-Györgyi<sup>3</sup> who first isolated vitamin C and received a Nobel Prize wrote in 1972.

Unfortunately, we, clinician researchers, are not at ideal situation. It is hard to spare time from busy clinical and didactic schedule to indulge in diverse discipline's literature which are published like tsunami, since we are already overwhelmed with our own discipline's ones. Reduction of activities irrelevant to patient care and research may risk distancing ourselves from society. Life keeps us making hard choice. Fortunately, reminding the motive to do research may give us a help to bolster what we are willing to sacrifice; what do you do research for?

### Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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