STICKY WICKET 3067

An occasional column, in which Caveman and other troglodytes involved in cell science emerge to share their views on various aspects of life-science research. Messages for Caveman and other contributors can be left at caveman@biologists.com. Any correspondence may be published in forthcoming issues.

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Let's talk! Different ways to communicate science in the lab

You don't need to be a talkshow host like Joan Rivers, who inveigled her guests with 'let's talk', to be able to communicate with members of the lab about science. However, it is interesting to look around and see how different people in the lab and those in other labs choose to communicate their progress.

Lab meetings are de rigor in most labs, the weekly coming together to hear a colleague discuss their progress during the period that has elapsed since their last meeting. For a small lab, this can be a little painful, because each person's turn comes around so frequently: only a few gels run, a small mouse litter genotyped, a screen established, progress slowed by the necessity to complete a mid-term in a course or the unexpected arrival of friends from a distant land. For someone in a big lab, the problems are different but no less difficult: the infrequency of the talk and the constant turnover of personnel requires a long regurgitation of the purpose of the project ('it sounded so promising and well defined!'), the recitation of the early results ('they were

so portentous!'), and the culmination in the latest problems ('still not much advance even after all this time!').

Formal lab meetings provide, in my opinion, several important lessons in communication. First, for the presenter, this is a chance to learn how to present his/her science formally. My advice to new students is that they should treat this like a seminar but one that is given to a friendly, but hopefully critical, audience. They should prepare a short introduction of the importance of the biological problem that they are addressing, then a short summary of the purpose of the experiments that they are going to present, followed by a careful rendition of the approach, results and conclusion of experiments, and finally discuss how the results/conclusions reflect on the original purpose of the experiments. In other words, get into the habit of formulating the telling of your ideas, experimental approach and findings - all forms of science communication follow this format (publications, grant applications, seminars/posters, discussions with a colleague). You might think that I take this too seriously, but I think that it is important to learn and entrain these habits early.

Second, it is important that the presenter

gets used to showing experiments that failed, data that are not photogenically perfect, and plain, stupid bone-headed mistakes. After all, for some of us, this is the way science goes, and it is sometimes useful to show everyone where mistakes were made ('Don't go down this path') and that are you are not infallible ('Thank goodness, I'm not the only klutz in the lab'). I will admit here that I used to avoid this part of the lab meeting when I was a postdoc - to the extent that I postponed my lab talk until I had all the data in publication-quality format - later I realized that I was missing out on an important part of lab culture, and I now readily admit to experimental clangers (much to the amusement of my students).

This brings me to the third important part of a formal lab meeting: looking to your immediate colleagues for advice. The audience at a lab meeting has no doubt heard about the success of your latest experiment (you'd had to have been deaf not to have heard the shouts, or blind not to have seen the fists

punching the air!) or the demise of yet another attempt to perform a simple ligation (the persistent grouchiness and despair of ever graduating!). But this is the time to show their ability to be constructively critical, sympathetic in their assessment of the problem, and collegial. It is important to be able to acknowledge publicly someone else for performing a great experiment, and in the case of a problem it is likely that you will either have come across the same one or will do so in the future.

But lab meetings aren't the only format for communicating science in a lab. I know of colleagues who have regular sessions with each member of the lab one-on-one in their office. I have to admit that this seems to work for some people, but I feel that everyone is missing out on the communal nature of the discussion of science. This format, in my opinion, definitely has the overtone of the Novice asking for advice from the Master. I tried a voluntary format of this meeting that I called 'Surgery Hour', after the way that some GPs (doctors)

have a period of time when you can turn up at their office without an appointment. Well, it seemed that everyone in my lab was very healthy because my 'Waiting Room' was always empty, and so I abandoned this approach.

For me, the most intellectually stimulating discussions with lab members are in the lab, whether this is a general stroll around the lab, dallying at a chalk-board, or a communal wait for a gel to run or centrifuge spin to finish. Spontaneity is key - some of the freshest and most rewarding ideas have come from these interactions. It is also interesting to see how many others will come up to join the discussion. There is no need to force a person to sit in front of you and say: 'Let's Talk!' No need to coax, use peer-pressure or threat. This is when the sharing of ideas flows freely, without the need for cues - that's Science Talk!

Caveman

Cell Science at a Glance

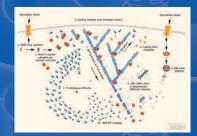
Cell Science at a Glance is included as a poster in the paper copy of the journal and available in several downloadable formats in the online version, which we encourage readers to download and use as slides. Future contributions to this section will include signalling pathways, phylogenetic trees, multiprotein complexes, useful reagents . . . and much more.



A myosin tree (October 2000)



Paxillin interactions (December 2000)



Actin dynamics (January 2001)

We would like to encourage readers to submit ideas for future contributions to this section. Potential Cell Science at a Glance articles should be addressed to the Executive Editor and sent to

Journal of Cell Science, 140 Cowley Rd, Cambridge, CB4 0DL, UK.