In most western countries our Parliament are desperately short of people with any scientific background. The challenge to us all is how to change that by encouraging the science community to reach out to Parliaments and vice versa.

To ensure that you don't end the day too depressed I will describe what is happening to remedy the situation.

Firstly I will describe the work of the Parliamentary & Science Committee <u>http://www.vmine.net/scienceinparliament/sip.asp</u> and its sister organisation The Parliamentary IT Committee <u>http://www.pitcom.org.uk/</u>.

Then I will cover the Royal Society pairing scheme within which I spent some time helping Dr Nguyen TK Thanh to understand the role of an MP and also spent time with her improving my understanding of her research programme, which even today could be written on the surface of a nanoparticle.

Your colleague Dr Thanh is one of six North West scientists who have been partnered with me covering fields as diverse as animal husbandry to black holes!

My contention is that we should put more resource into this approach as I believe that we will see a more and more irrational response towards scientific endeavour on the part of parliamentarians if there is not a system of continuous education targeted at our legislators.

Let us start at that point

Just last week the Guardian published a letter signed by an official of the Soil Association.

I raise this not to be disparaging, but to illustrate the problem faced by a Parliament where very few members have had any scientific training and therefore are reliant on advise they receive.

## Nanotechnology means big trouble

- The Guardian, Tuesday 1 September 2009
- <u>Article history</u>

I note that your supplement detailing the latest developments in <u>nanotechnology</u> (27 August) made no mention of recent research from China on the subject. Seven women working in a factory where nanoparticles were used in paint fell ill with serious lung disease and two died. Researchers, whose paper was published in the European Respiratory Journal, found nanoparticles deep in the lungs of the women who fell ill. The workers had a build-up of liquid around their hearts and lungs which could not be treated. A chemical in the paint, the patients' lung tissue and the liquid surrounding the lungs were all found to contain nanoparticles.

Numerous organisations including the most eminent scientific bodies have called for action to address the uncertainties and regulatory gaps surrounding the use of nanotechology, but governments around the world are failing to act. There should be an immediate freeze on the commercial release of nanomaterials until there is a sound body of scientific research into all the health impacts. The Soil Association was so concerned about this issue that we developed the first standards in the world which ban nanoparticles. This move follows the precautionary approach, in line with organic principles.

Emma Hockridge

Policy coordinator, Soil Association

I will guarantee that MP's up and down the country will be getting letters about this as we do with every scare story how ever well based it may be.

The letter seems to be both authoritative and from a respectable source

Now a little research will show that the author has apparently little expertise in the field – her biography says, she has an MA in Sustainable Development Advocacy, which focused on rural land use.

Prior to this she worked for HSBC and Defra, and carried out conservation in the Peruvian jungle after completing her degree in Geography and Environmental Studies.

So it would be easy to dismiss the story based upon her lack of qualifications but one cannot find anything about it on the SA website.

Then you just have to look at some of the politicians who seek to represent you. I don't know if any of you will admit to voting for the UK Independence Party in the Euro elections led by Nigel Farrage

"Science has a role to play in guiding virtually every aspect of policy, and yet a survey of the main political parties' attitudes to key scientific issues reveals a startling lack of clarity". Again I quote from the Guardian but I have to say they were very generous in the use of the words "lack of clarity" when they should have said "remarkable ignorance"



UKIP leader Nigel Farage.

How many would register protest votes with the party if they knew key members believe the idea of manmade climate change to be a conspiracy?

Therein lays the problem facing you. How can we help to balance the equation and ensure that Parliamentarians are faced with the most accurate peer reviewed science in your own area of expertise?

That seems like a simple task but if my two examples are anything to go by – and I can assure you I could list many others - there is a real challenge.

This is where the two bodies I mentioned Parliamentary & Scientific Committee and PITCOM the IT body come in.



The P&S has been around for 70 years and its prime purpose is to help to inform Parliament through expert meetings and through its journal, Science in Parliament.



Similarly PITCOM which is essentially the younger sister of the P&S came into being 27 years ago as IT started to impact upon society.



I am sure that if I had started off with these two examples you would have been encouraged that the task in hand has been achieved and we would have a well informed Parliament. The trouble is with the model as it currently operates is that, one has a self selecting body that creates a well informed minority.

The challenge is to spread the enthusiasm within bodies like these amongst a wider audience – ideally a significant majority of MP's taking an interest. The reality is that contrary to popular belief MP's are very busy and adding to their diaries a suggestion that they engage in learning about scientific matters, where they are outside of their comfort zone is a real challenge.

I wouldn't want to wish upon the world even more Nigel Farage's representing us, but if we are not careful that is what we will end up with!

Now this is where you come in:

As I said, I first met Dr Nguyen TK Thanh as part of the Royal Society pairing scheme. This scheme came about after a series of meetings between a group of MP's and the Royal Society and has been running for since 2001



We are gradually getting more engagement with a wider group of MP's and I want to suggest to you how you can help drive that forward. Those of you from other countries may have better ideas that you can share with the audience, but in truth there are few countries that do not face the same problem.

Even if you are not part of a formal scheme such as this one you should still seek to engage with your own MP. He or she will probably be unaware of the work you are doing and almost certainly has not visited your laboratory. Invite them in and after explaining the importance of the work you are doing pose the question, "How can we work together to improve public understanding of this field?" My one simple message to you all at the end of this long day is that public understanding and that of your elected representatives of your work including a proper understanding of risk, lies in your hands.

So when you get back I would like you to contact your MP.



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<ul> <li>Parliament Labs blog</li> <li>Twitter</li> </ul>
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And with your help we will gradually develop a better informed legislature and many of the debates that stem from issues around the desirability or risk or ethics of particular lines of research can be conducted in a more sophisticated way.

So it's over to you!

Thankyou