

Visit to the British Society of Plant Pathology Presidential Meeting, University of Bristol 14 September 2015

I opened an e-mail from Dr Phil Smith M.B.E on Wednesday 9 September inviting students to attend a mini-conference on plant pathology on the 14 September at the new Life Sciences building at the University of Bristol.

For those readers who are not sure what plant pathology is about then it is all about the bacteria viruses and fungi that cause disease in plants. This is a serious business with millions of pounds lost every year to plant diseases (not to mention the environmental impact). If cures can be found for the plant diseases then many thousands of people would not starve and people would be better off.

With fantastic support from Wadham's own "Rapid Response Team", Sheila Taylor, Adrienne Harle, Sue McElroy and Cathy Bailey and with the blessing of Henry McNulty (Head of KS5 learning) and Mathew Gardner (Deputy Head) we were able to depart from school at 3.20pm on the 14 September with 8 Year 11 students, one Year 12 AS Biology student one Year 13 A2 Biology student, myself and biology teacher Emma Davies.

Time was tight. Driving over the Clifton Suspension bridge was a sight to behold. We got there a little bit late nothing to do with navigational errors by the driver. Me.

What came next was a thrill. There were just 10 of our students invited to a rather more informal classroom sized space where our students were given a lecture by a Columbian PhD student, Barbara Franco, speaking about *Rhynchosporium secalis* or leaf-blotch of barley. Barbara did her undergraduate degree in South America and she was presently conducting her research in Dundee, Scotland. She gave a detailed lecture on the fungus that infects barley and its mechanism of attack on barley leaves - the fungus 'steals' the nutrients from the leaves and so the leaves die. Fungi that infect their hosts, but don't kill them, living off them while they grow are called biotrophic. This fungus is a hemi-biotroph as some of its life-cycle actually kills the plant. Barbara also described the mechanism for its transmission through rain drop splashes.

The lecture that followed came from Professor Jonathan DG Jones F.R.S from the Sainsbury Laboratory, Norwich (a world leader in late blight). The

Professor was very “down-to-earth” (no pun intended) and opened his mini-lecture with a picture by Van Gogh juxtaposed to a picture of a prairie with a single crop stating (words to the effect) that the prairie type scenario was an “accident waiting to happen”. A lack of biodiversity is a serious threat to crop production. So variety really is the “spice of life.”

What fascinated me was when Professor Jonathon Jones went on to describe the mechanisms by which fungi attack plants, the resourcefulness of plants in a counter attack and then of the fungus counter attacking the counter attack.

Following these two stimulating lectures our students were invited down to the atrium in the Life Sciences building to attend a one-on-one discussion with post-graduate Ph.D. students on their doctoral research. Dr Phil Smith explained that this was a good opportunity for many of the overseas students to practice articulating their work to our students (presumably in preparation for their vivas) and generally improving their science communication skills (an area scientists are often criticised for)

Time flew by and before we knew it was time to go home. This time we drove under the Clifton suspension bridge to admire its magnificence (I.K. Brunel must have studied science before engineering!).

To close this article I am very grateful to Phil Smith and his colleagues who made us feel so welcome, their interesting lectures and the opportunity to marvel at the world of plant science and for some of our students to re-think their career path. The impact on them was that profound!

Chris Farmer
Acting Head of Science

Vacancies at Wadham

We currently have the following vacancies:

Cleaners—10 hours a week, 3 pm—5 pm, term time only.

Parent Governor, voluntary.

For both positions please contact Mrs Saunders, PA to Headteacher