

Microbiology – failing by degrees?

Janet Hurst

● A recent article in the *Independent* analysed the popularity of the different science first degree courses with this year's applicants for university places. The bad news is that applications for microbiology were down by 16.5%, whereas molecular biology applications rose by a staggering 26%. These data from the Universities and Colleges Admissions Service (UCAS) came as no surprise to staff in the SGM External Relations Office. All summer we have been receiving phone calls from academics bewailing the lack of interest in their courses, usually followed by a demand to know 'what the SGM is doing about it'.

In fact the SGM is doing all it can to raise the profile and public understanding of microbiology through an extensive and constantly evolving programme of activities. You can read about them every quarter in *Microbiology Today*. The inference from members is that these measures are failing to promote microbiology to school students, but is it true? Surely a range of factors influence university admissions? Here are some of our thoughts on this very controversial issue.

Microbiology is a mandatory subject in the UK National Curriculum at Key Stages 2, 3 and 4. There are several options to study it in depth at post-16. SGM produces a range of resources to support microbiology teaching in schools (see p. 202). Council has allocated considerable funding to projects such as a research assistant to develop exciting practicals and the publication of a pack for primary schools. Our training courses for teachers and technicians in basic techniques, which start this term, are all virtually 'sold out'. The new category of Schools Membership is already proving popular. SGM staff know what's in the curriculum and post-16 specifications, but do you? Do your undergraduate courses match students' knowledge? To check, look at the SGM website where we have posted a summary of the microbiology content of all the GCSE and A2/AS/AVE courses (www.sgm.ac.uk/pa/edu_car/ed_car.htm).

But on the topic of first degree course content, is yours designed to be interesting and relevant to modern life? How do you market your course? A hard sell is required today when you are competing with subjects perceived to be more 'sexy', such as forensic science, physiotherapy or sports science. Do you go out to careers fairs and talk to young people? Your help would be very welcome on the SGM stand at events around the country in 2002. Have you revised your prospectus entry lately? Have you compared the material on your website with that of other courses and institutions? Maybe it's time for a makeover!

The SGM produces free careers information – leaflets and posters – which are available in bulk. We send copies out to schools and individuals all over the country, but admissions tutors are welcome to a supply. Going out to schools is very important, not just to sell your courses directly, but to raise the awareness of microbiology. You can join the Science Ambassadors (see p. 201) or follow

the example of members like Joy Perkins or Reg England who hold hands-on microbiology events in their labs for local kids. Any activity which makes microbiology seem relevant and exciting is well received. We can give advice and you can look at Liz Sockett's 'Going Public' factsheets at www.sgm.ac.uk/pa/edu_car/g_p.htm

The image of subjects is all important to school students. Molecular biology and genetics appeal because of high profile success stories like the Human Genome Project. These areas are seen as a power for good whereas currently microbiology projects failure – foot-and-mouth disease has wreaked havoc in the UK and no-one seems to be able to control it; doom and gloom stories like BSE/vCJD, TB and food poisoning are always in the headlines. We have to accept this.

Named microbiology courses don't seem to be attracting students, but many school-leavers are hedging their bets and going for a general bioscience degree. Does this matter? In practice they will study some microbiology and could well end up specializing in the subject. How many SGM members actually started out their careers on a named microbiology course? I know I didn't.

Students also follow fashions which are then taken up by the universities – has your institution started a forensic science course this year? There's nothing like a bit of competition from your own department! The extra places on expanded and new medical courses are probably also taking potential microbiologists from the available pool of aspiring bioscientists.

Where do we go from here? SGM will continue to put energy and funding into initiatives for schools. These will take time to work through the system, but hopefully they will make a difference. We are reviewing our careers promotion policy but we can only speculate how bad the recruitment figures would be without our past efforts. You must go out there and evangelize. Look at your course content in relation to the specifications, re-write your prospectuses and web pages. Improve your 'sales technique' by going to the Education Group symposium on careers for microbiologists next April to update your knowledge. A strong partnership between the SGM and its members offers the best way forward.

We also have to recognize that the world changes. Maybe there is no future for named microbiology degree courses – so be flexible, work round it and popularize microbiology by other means, for there's one certainty. In a world threatened by infectious diseases, pollution and even, currently, biological warfare, the need for trained microbiologists has never been greater.

What do you think? Please send your opinions to *Microbiology Today* (mtoday@sgm.ac.uk).

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These are personal opinions and do not represent the view of SGM Council.