

Annual report 2007-08

Summary

MiSAC continued to be used as an authoritative source of advice by schools and colleges and a range of other organisations. There was a good response to the 2008 MiSAC annual competition, sponsored by the British Mycological Society. Members contributed to a range of meetings, courses and exhibitions in various parts of the UK including events organised by the Society for General Microbiology, the Institute of Biology Scottish Branch and the Royal Botanic Gardens, Kew. After careful reconsideration of the financial implications, MiSAC did not participate as an exhibitor at the 2008 Annual Conference of the Association for Science Education in Liverpool but co-sponsored a talk at the conference in the 'Biology in the Real World' programme. Several new products in the *MiSAC briefings* and *MiSAC activities* series are being developed and a new series *MiSAC helps* is planned. The National Centre for Biotechnology Education became a sponsor. The Committee held four meetings including its 100th. Preparations are being made to celebrate the 40th anniversary of MiSAC in 2009.

Advisory work

The customary range of enquiries was received from school teachers and technicians on aspects of health and safety, e.g. disinfectants and safe disposal, but there appeared to be more emphasis than previously on the use of micro-organisms in practical work, perhaps reflecting a greater prominence given to microbiology in the new GCSE specifications. Included were questions about sources of equipment and suitable cultures as well as technical questions on culture media, culture methods and assessment of growth. The list of cultures held by the various schools suppliers that MiSAC has collated in draft form (see 'Other activities') has already been used on several occasions. The need for clarification of protocols for practical work arising from poor

support for the specifications and associated textbooks is still very much in evidence although it was heartening to receive a few requests for comment from writers and publishers. Some enquiries from schools were in connection with post-16 project work and also at that level there were requests for clarification of theoretical background information. As the responses to some enquiries were necessarily long and detailed it would be valuable to make them widely available through the MiSAC web site (see 'Other activities').

Enquiries come either directly to MiSAC or more usually via the Society for General Microbiology (SGM) and CLEAPSS, two of our sponsors. This opportunity for readily available exchanges of expertise with sponsors demonstrates the great mutual benefit of this relationship. Another very valuable opportunity for receiving queries is during the SGM programme of courses on practical microbiology for teachers and technicians co-delivered by the Chairman (see 'Other activities') which give time for

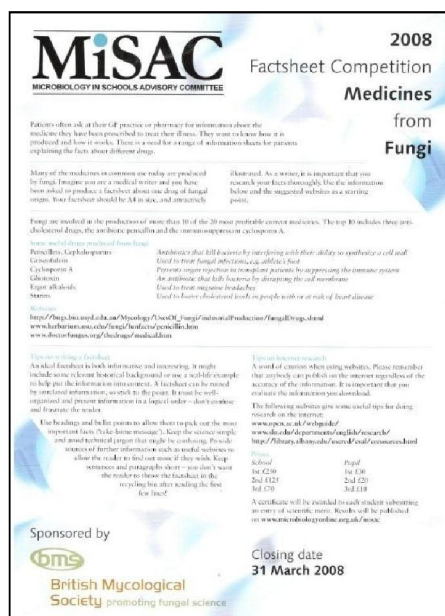
discussion of the points raised.

MiSAC Competition 2008

The objective of the 20th annual MiSAC competition, "Medicines from fungi", was to produce a factsheet as might be prepared by a medical writer about one drug of fungal origin for patients visiting a GP practice or pharmacy. The aim was to raise understanding of the role of fungi in the production of medicines and in the treatment of disease. As usual, the competition was open to two age groups, Key Stage 3 and Key Stage 4 (GCSE). We are most grateful to the British Mycological Society (BMS) for providing special sponsorship for the competition in addition to its support as one of the main sponsors of MiSAC. The competition was publicised by mail to all secondary schools, on the MiSAC web site, in the national educational press, at the Association for Science Education (ASE) Annual Conference, the Scottish Teachers' Conference at Stirling, and to participants in SGM training courses. Judging took place in London at the headquarters of the Institute of Biology (IoB), another of our sponsors. Professor Maurice Moss, University of Surrey and Professor Anthony Whalley, Liverpool John Moores University, both leading members of the competition sponsors, joined the Chairman and other MiSAC members on the judging panel.

Administration of the competition takes an immense amount of time and effort for which we are again grateful to SGM for providing facilities through the MiSAC secretariat.

The interest shown in the competition was particularly encouraging because despite the unquestionable importance of fungi, particularly in medicine, food and agriculture, their study is poorly represented in examination board specifications. We received some 590 entries involving almost 800 students from nearly 80 schools and colleges drawn from England, Wales, Scotland and Northern Ireland - and one from Romania. It



was particularly pleasing to see a continuing increase in support from the Key Stage 4 age group which this year provided about 30% of the entries. Many entries impressed the judges with a high quality of scientific understanding and presentation including a good grasp of the purposes and nature of a fact sheet, possibly aided by the guidance given to entrants. It was also very pleasing to see an excellent level of adherence to the rules of entry.

Competition winners

Money prizes totalling more than £1,000 were awarded to winning students and to their schools. The values of the prizes to students were First Prize £50, Second Prize £30 and Third Prize £20, and to their establishments £250, £125 and £70 respectively. Prizes and commendations were awarded to students from the following schools:

- **Key Stage 3 Age Group:** First Prize - Housedown School, Southampton; Second Prize - Sheffield High School; Third Prize - Diss High School, Norfolk; Commended - The Mount School, York, Kirkham Grammar School, Preston, and Edgbaston High School, Birmingham.
- **Key Stage 4 Age Group:** First Prize - The King's School, Ely; Second Prize - St Nicholas School, Fleet, Hampshire; Third Prize - Rugby High School; Commended - King Henry VIII School, Coventry and George Heriot's School, Edinburgh; Commended for Creative Design - Rugby High School.

In addition, each entrant was awarded a certificate, a provision that is always much appreciated, and all participating schools received a pack of support materials for teaching microbiology. Each school also received a critique of the competition entries. We make visits to winning schools whenever feasible to present prizes and certificates as a way of bringing microbiology closer to the students. This year visits were made to two schools, by a member of the SGM education team and by the MiSAC Chairman who also took two Year 9 classes. The results of the competition were announced on the MiSAC web site and reports of the competition were published in *Mycological News*, *Microbiologist* and *Microbiology Today*, the house magazines of, respectively, BMS, Society for Applied Microbiology and SGM.

ASE Annual Conference 2008

In recent reports reference has been made to the constant review that MiSAC makes of the value for money of being an exhibitor at the Association for Science Education (ASE) Annual Conference in view of the increasing



MiSAC 100th meeting celebrations. From left to right: John Schollar (NCBE); Sue Hunt (RBG Kew); John Grainger (chairman); John Tranter (partially hidden); Margaret Whalley (BMS); and Janet Hurst (SGM)

costs of taking part and the apparent decrease in numbers of practising teachers attending the conferences. In reviewing these considerations for the conference in Liverpool in January 2008 and bearing in mind previous experience at that venue, we decided not to participate as an exhibitor. SGM with whom we share a stand took the same view.

However, it was decided to continue with the lesser commitment of jointly sponsoring with SGM a talk in the full-day lecture programme 'Biology in the Real World' organised by NUCLEUS of which MiSAC is a member. In the event, the MiSAC-SGM sponsored lecturer had to withdraw at short notice and the Chairman of MiSAC gave the talk on the scheduled topic 'Antibiotics: production, uses and problems'. Dr Margaret Whalley, MiSAC Treasurer who lives locally, also attended and distributed MiSAC materials outside the lecture theatre. In this way MiSAC had an unexpected but cost-effective presence at the conference.

Committee meetings

The main business of MiSAC was conducted at three meetings of the Committee and there was an additional meeting for judging the annual competition. Two of the business meetings were held at the headquarters of the IoB. The other meeting was the 100th meeting of the Committee which, in celebration, was arranged by Mrs Sue Hunt in the Jodrell Laboratories, RBG Kew. Mrs Hunt also provided lunch following the meeting and a chocolate cake covered with (at least) 100 M&M chocolate buttons. She also arranged an interesting afternoon programme consisting of a talk by Professor Monique Simmonds on aspects of the commercial plant work undertaken by her section and a presentation followed by an extensive tour of the Mycology

Section led by its head Dr Brian Spooner.

Members' activities

Members continued to promote the work of MiSAC through their various roles on a wide range of organisations as members of their councils, boards and specialist committees. Such involvements, together with their own professional activities, also enable members to remain informed about and contribute to discussions on current trends and future developments in primary and secondary education. Valuable links were also maintained with biological suppliers and publishers.

Many contributions were made in support of other organisations throughout the UK. Dr Margaret Whalley again presented and offered advice on the use of MiSAC materials at the annual IoB Scottish Teachers' Conference in Stirling, an event that provides an invaluable opportunity for consultation with and promoting the work of MiSAC to Scottish teachers. While overseas, Dr Whalley also distributed packs of MiSAC materials to microbiology societies in Thailand and Malaysia where they are highly regarded as examples of good practice.

Dr John Grainger took part in the judging for the British Association Young Scientists and Engineers Fair Awards, represented MiSAC at meetings of NUCLEUS to discuss arrangements for the 'Biology in the Real World' programme for the 2009 ASE Annual Conference, and wrote an account of the SGM basic microbiology courses for the Schoolzone feature in SGM's *Microbiology Today*. As part of activities organised by Mrs Hunt, he manned a MiSAC stand at Biotech Evenings at Royal Botanic Gardens Kew at Richmond and Wakehurst Place. He continued to deliver with Dr John Schollar

(National Centre for Biotechnology Education, NCBE) courses on behalf of SGM on basic practical microbiology for teachers, technicians and PGCE students held during the year in Belfast, Kingston, Leeds (twice), Reading, York (twice) and the East Midlands Regional Science Learning Centre, Leicester (thrice including an advanced course). During the year the landmark of 60 courses was passed.

MiSAC materials

MiSAC materials were distributed in the information packs for participants on the SGM basic practical microbiology courses and those run by CLEAPSS, through SGM mailings, and at the ASE Annual Conference and the IoB Scottish Teachers' Conference, and in Thailand and Malaysia. Work continued on *MiSAC matters 2* and developing new titles in the *MiSAC briefings* and *MiSAC activities* series, i.e. 'Sourcing, maintaining and using cultures' which is at the design stage, 'Using protists in biology teaching', 'Culture media: suppliers, uses and recipes' and 'Microbial cultures available from some major suppliers'. It was decided to institute a *MiSAC helps* series for the last two mentioned titles and for the detailed responses to enquiries referred to in 'Advisory work'. These will probably be made available only on the MiSAC web site to save costs and to allow ready updating. A design for *MiSAC helps* was commissioned and approved.

Finance

The financial position of MiSAC has reached a sound position thanks entirely to the generosity of our sponsors through their annual contributions and their further generosity in ways that cannot be seen from the accounts. These include additional special sponsorship in turn to cover the full costs of



the annual competition, travel costs of sponsor representatives to committee meetings, provision of meeting rooms, and additional support from SGM for provision of time and facilities for the MiSAC Secretariat, management of the website and inclusion of MiSAC materials in SGM mailings. In this connection we are pleased to announce that NCBE has become a MiSAC sponsor.

For our part, we take a very cautious approach to attending conferences and exhibitions by being discriminating in terms of cost effectiveness. Expenditure during this year has been unusually low because of our decision not to exhibit at the 2008 ASE Annual Conference at Liverpool and the costs of reprinting materials, and design and printing of new ones that are in train have not fallen within the financial year. The balance carried over will be expended in 2009 including those associated with marking our 40th anniversary year.

The annual return was made to the Charity Commissioners.

Future activities

Much thought is being given to ways of marking the 40th anniversary of MiSAC which was founded in July 1969. In view of this event and the ASE Annual Conference being held in Reading in January 2009 which always attracts a large number of delegates, MiSAC decided to have an exhibition stand and give a series of hands-on microbiology workshops for the new GCSEs. There will also be a celebration reception during the conference which SGM has generously offered to sponsor. The Chairman will write a history of MiSAC for publication in the first place in the May 2009 issue of SGM's *Microbiology Today*. Other events are being considered.

The topic for the 21st annual MiSAC competition for 2009 will be Microbes and climate change wholly funded by special sponsorship from SGM. MiSAC will co-sponsor a talk with SGM on TB vaccines in the 'Biology in the Real World' programme at the ASE Annual Conference in Reading in January 2009. MiSAC will be an exhibitor again at the IoB Scottish Branch Teachers' Conference and continue to be involved in delivery of the SGM programme of training courses on basic and advanced practical microbiology as it enters its 8th year.

Work on producing, developing and extending the series of MiSAC briefings and MiSAC activities will continue and the proposed MiSAC helps will be launched. For the next reprinting of existing materials it was decided to give each one a number for clarity and to have them redesigned to incorporate the number in the title. The reprint of 'Microbial life on a leaf' in the MiSAC activities series will be dedicated to the memory of Dr

Committee membership 2007-08 (with sponsor representation)

Chairman:

Dr John Grainger

Vice-Chairman:

Mr Peter Fry (IoB)

Secretary:

Mrs Janet Hurst

Treasurer:

Dr Margaret Whalley

Assistant Secretary:

Mrs Dariel Burdass

Lay members:

Professor Martin Adams (SfAM)

Dr Susan Assinder (SGM)

Mr Phil Bunyan (CLEAPSS)

Mrs Kath Crawford (SSERC)

Dr Eleanor Landy (BMS)

Dr John Schollar (NCBE)

Mr John Tranter

Mrs Sue Hunt (by invitation)

Muriel Rhodes-Roberts who served MiSAC so diligently for 19 years and died in 2007.

Acknowledgements

MiSAC is most grateful to all sponsors for their continued support. The generous amount of voluntary time willingly given by MiSAC Officers and the other Committee members is gratefully acknowledged. We give special thanks to Mrs Janet Hurst for adding to her role in the absence on sick leave of Mrs Dariel Burdass, Assistant Secretary. We also thank Mrs Sue Hunt for her valuable contributions while an invited member of the committee during her tenure as RBG Kew/SAPS R&D Education Officer. We are also greatly appreciative of the work of the Honorary Auditor.

The Committee was pleased to welcome Dr John Schollar as the representative of the new sponsor NCBE and Mr Phil Bunyan as the new CLEAPSS representative on the retirement of Mr John Tranter whose membership in a personal capacity we are fortunate to retain.

Dr John Grainger, Chairman