

Minutes

International Committee on Systematics of Prokaryotes

XIth International (IUMS) Congress of Bacteriology and Applied Microbiology

David P. Labeda, *Secretary*
Aharon Oren, *Chairman*

Minutes of the meetings, 23, 24, 26 and 28 July 2005, San Francisco, CA, USA

Session 1

Minute 1. Call to order. Chairman A. Oren called the meeting to order at 18:00 on 23 July 2005 in the Moscone Convention Center.

Minute 2. Record of attendance. Present were D. R. Brown (USA), C. Bull (USA), H.-J. Busse (Austria), J. Chun (Korea), P. De Vos (Belgium), G. M. Garrity (USA), P. A. D. Grimont (France), P. Kämpfer (Germany), D. P. Labeda (USA), K. Lindström (Finland), C. D. Litchfield (USA), A. Oren (Israel), K. Suzuki (Japan), B. J. Tindall (Germany), H. G. Trüper (Germany), A. Ventosa (Spain), S. Ventura (Italy), A. C. Ward (UK) and K. Wolske (Poland). Guests present were R. Dunford (UK) and Y. Nakagawa (Japan). Apologies for absence were received from L. M. T. Dicks (South Africa), J. P. Euzéby (France), M. Goodfellow (UK), P. Green (UK), D. Harmsen (Germany), D. T. Jones (New Zealand), K. Khurseda (Uzbekistan), S. B. Kim (Korea), R. Rosselló-Mora (Spain), G. S. Saddler (UK), M. Soubes (Uruguay), E. Talsep (Estonia) and J. M. Young (New Zealand).

Minute 3. Agenda. The circulated agenda was adopted.

Minute 4. Paris meetings. The minutes of the meetings held in Paris in 2002 were approved as published [*Int J Syst Evol Microbiol* 55 (2005), 533–537] with minor corrections. In Minute 8, correct spelling to van Niel. In Minute 10, the chairman of the Subcommittee on the taxonomy of *Halomonadaceae* is A. Ventosa. In Minute 17, correct spelling to *Nitrococcus*.

Minute 5. Matters arising. The plenary session discussed the ad hoc committee's recommendation that DNA G+C content determinations are not required for closely related species. There was no agreement among ICSP members, but subcommittees may make a recommendation that this should be done for the taxa under their jurisdiction.

An ad hoc committee consisting of P. De Vos (Belgium), P. Kämpfer (Germany), D. P. Labeda (USA), K. Suzuki (Japan), B. J. Tindall (Germany) and A. C. Ward (UK) has been appointed to deal with the matter of higher taxa and the International Code of Nomenclature of Prokaryotes (the Code) and will report at the IUMS Congress in Istanbul in 2008.

The Executive Committee of ICSP expressed their appreciation of the efforts of B. J. Tindall and C. D. Litchfield in organizing the session entitled 'Genomics and Systematics: Molecules and More' during this Congress. The Executive Committee hopes that the Organizing Committees for future Congresses will follow suit and keep systematics in the forefront. FEMS will organize another systematics session for the next IUMS Congress.

Statutes of the ICSP will be updated to be approved by the ICSP at the IUMS Congress in Istanbul in 2008.

Minute 6. Nominating committee. The following individuals were appointed members of a nominating committee for Executive Board and Judicial Commission vacancies: D. P. Labeda, A. Oren and B. J. Tindall.

Minute 7. Report of the Chairman. Chairman A. Oren summarized his activities during the past 3 years. A letter to the editor of *Nature* was drafted with E. Stackebrandt on the challenges ahead for the taxonomy of prokaryotes online, which has been published [Oren & Stackebrandt, *Nature* 419 (2002), 15]. The Royal Society invited him to participate in a group considering the biodiversity on the Earth and he co-drafted (with E. Stackebrandt, W. B. Whitman and M.-A. Lachance) comments for discussion. A major focus of the chairman's activities dealt with nomenclature of cyanobacteria under the International Code of Botanical Nomenclature and the International Code of Nomenclature of Prokaryotes. He was invited to a meeting of botanical taxonomists of cyanophyta/cyanobacteria in Luxembourg and explained the International Code of Nomenclature of Prokaryotes and implications related to cyanobacterial nomenclature. The presentation was published in the proceedings of the meeting [Oren & Tindall, *Algol Stud* 117 (2005), 39–52]. He afterwards participated in a roundtable discussion in which the different aspects of the nomenclature problems were discussed [Hoffmann, *Algol Stud* 117 (2005), 13–29]. An attempt was made to obtain a consensus to establish a dialogue between the two sides of the issue with the goal of a unified nomenclature that is acceptable to botanists and microbiologists.

Minute 8. Report of the Executive Secretary-Treasurer. Letters soliciting appointment of a representative to ICSP

were sent to the 116 member societies of IUMS early in 2004. Responses were received from 22 member societies with regard to the request for designation of representatives for this meeting, which is a small number, but I had indicated in my initial letter that if no response was received the representative designated for the Paris IUMS Congress would be retained. Five of the solicitation letters were returned undelivered because the contact information provided by IUMS was incorrect. The second mailing was also sent to all society representatives. It has become increasingly difficult to obtain representative appointments, particularly from large scientific societies such as the American Society for Microbiology or the Society for Industrial Microbiology, where there appears to be a great degree of administrative inertia.

The University of Queensland did not provide notification to the Executive Secretary-Treasurer regarding the recommendation of a recipient for the van Niel Prize in time for this Congress.

The current financial status of ICSP was given. B. J. Tindall has expended considerable energy attempting to identify funds held on behalf of ICSP by IUMS and these funds will be transferred to the ICSP Executive Secretary-Treasurer by the IUMS Treasurer soon after the Congress.

Minute 9. IJSEM Editor's report. The *International Journal of Systematic and Evolutionary Microbiology* (IJSEM) had a very successful year, with a rising impact factor, increased number of submissions and a decrease in time from submission to publication. Appreciation was expressed to all Associate Editors, who have handled increasing numbers of manuscripts.

There has been one change to the Editorial Board: Lindsay Sly (Queensland, Australia) retired from the Editorial Board and was replaced by Jean-François Bernardet (Paris, France), who will cover manuscripts on the family *Flavobacteriaceae*.

The number of submissions has increased to 525 (+16% compared with the previous year) and, of these, 31 (6%) were on unicellular eukaryotes. The number of accepted papers in the Editorial Office waiting to be published has decreased from a high of 142 in 2004 to 48 (as of 16 March 2005). This decrease has been achieved in large part through the increased use of a team of freelance copy-editors to clear the backlog. The average time that each accepted paper spends in the Editorial Office has also decreased, from a high of 140 days in 2004 to 67 days (as of 1 March 2005).

A total of 335 papers (up from 120) were mounted in Papers in Press (PiP) during 2004 and 385 papers (up 13% from 334 in 2003) in 2444 pages (up from 2118) were published (280 notes and 77 full-length papers).

IJSEM published 48 new combinations (up from 42 in 2003), 68 new genera (down from 75), 345 new species (up from 333), 7 new subspecies (up from 3), no new classes

(down from 1), 1 new order (no change) and 12 new families (up from 3). No new phyla (down from 1) were proposed in 2004. A total of five sets of ICSB/ICSP subcommittee minutes were published in 2004.

The first List of Changes in Taxonomic Opinion was published in January 2005 with the aim of making the scientific community aware of taxonomic opinions resulting from the creation of synonyms or emended descriptions published outside the IJSEM. The List of Changes in Taxonomic Opinion is to be considered as a service to bacteriology and it has no official character, other than providing a centralized point for registering/indexing such changes in a way that makes them easily accessible to the scientific community.

The journal impact factor for 2003 was 3.187 (up from 2.873).

The most active laboratories submitting papers in 2004 were located in Korea (64), China (54), the USA (54), Japan (45), Germany (39), Spain (37), the UK (31), Russia (21), Belgium (19) and France (18) (lists excluded).

As in 2003, the majority of manuscripts published in 2004 covered Gram-positive bacteria (147) followed by proteobacteria (115). Eight papers on archaea and 16 on eukaryotes were published.

Lesley Hoyles, who served as Senior Staff Editor of the IJSEM, left the SGM in 2004. The Editorial Board gratefully acknowledged the outstanding work of Lesley and the excellent collaboration with her over the last year. Karen Rowlett will replace Lesley and has 16 years experience at CABI as an abstractor and proofreader.

The Editorial Board gratefully acknowledges the excellent work of Tobias Allinson, Marianne Asbury, Ian Atherton, Sarah Ferris, Ashreena Osman, Jane Perugia, Melanie Scourfield, Stefan Sidorowicz, Julia Trusler, Kendra Waite and Natalie Wilder at Marlborough House, and the freelance copy-editors and proofreaders Susan Andrews, Kathryn Bayly, Ann Cracknell, Penny Bowers, Jane Hoyle, Sally Livitt, Aidan Parte, Jenny Pickup, Patrick Smith, Helen Ure and Jenny Wheeler.

In summary, the IJSEM is in a healthy state and will be published monthly beginning in 2006. This will have implications in terms of workload at the Editorial Office, the Lists, the subscription cost and also authors' expectations of processing speeds.

Minute 10. Report of the Secretary for Subcommittees.

J. Chun reported that there are currently 25 subcommittees that exhibit a range of levels of activity. The subcommittee on *Brucella* has been reactivated (Chairperson A. P. Macmillan). Reactivation of the subcommittee on the *Enterobacteriaceae* has been suggested by J. J. Farmer III and was discussed during this Congress. Since the Paris IUMS Congress, a total of 15 sets of minutes from meetings of various subcommittees have been published. Only one minimal descriptive standards paper, on anoxygenic phototrophic bacteria, has been published since the Paris

Congress. A total of 13 subcommittees were scheduled to meet during the IUMS Congress in San Francisco, whereas others planned to meet in conjunction with specialist meetings.

The ICSP subcommittee web pages were provided by the Society for General Microbiology at <http://www.the-icsp.org> to provide information on membership, meetings, minutes and taxa covered. The site has been maintained by R. Dunford and, at present, information on 12 subcommittees is available. All subcommittees were contacted twice regarding providing information for this website, but not everyone had provided information. The Subcommittee for the genera *Agrobacterium* and *Rhizobium* maintains its own website (<http://www.biocenter.helsinki.fi/groups/lindstrom/taxonomyll/taxonomy.htm>). The ICSP website will play a central role in activities of taxonomic subcommittees in the future.

Minute 11. Report of the Judicial Commission. H. G. Trüper, Chairman of the Judicial Commission (JC), presented the report of the activities of the JC since the 2002 IUMS Congress in Paris. A total of nine opinions of the Judicial Commission have appeared in print in IJSEM. Three opinions had been decided but had not yet appeared in print. One pending Opinion requires reconsideration and six other Requests for an Opinion will be decided by the JC during the present Congress. Five Requests for an Opinion that have been received were published within the last year and will be decided by the JC at a later date.

The status of and changes to the Code was reported by JC Vice-Chairman B. J. Tindall. A major update of the Code was prepared in 1999 and a number of minor changes need to be completed. These include cross-referencing, updates of examples in the text of the Code and a systematic attempt to remove confusing terminology. As a consequence of changes made to the Code in 1999 at the Sydney IUMS Congress, deposit of the type strain in recognized collections in two different countries is required for the epithet to be legitimate, and there are some names for which this must be corrected. There is potential for priority problems in the Validation Lists because the author has the right to choose to remove pagination from the citation. Cross-referencing is needed in Rule 17. The submission of a description of a new taxon published outside the IJSEM for validation is primarily the responsibility of the author. Issues related to validation of published names are being discussed in the JC proceedings and proposed changes to the Code will be presented to the ICSP plenary meeting later during this Congress for approval.

It is proposed that we publish all Opinions, even those reporting Requests rejected by the JC, since currently only accepted Opinions are published, leaving some uncertainty regarding those rejected.

Some general considerations must be introduced into the Code regarding the use of geographical names in

nomenclature to prevent controversies in the future. These proposed changes will be presented later in these proceedings for approval by the ICSP plenary meeting. Appendix 9 of the Code on orthography and etymology has been completely rewritten and emended by H. G. Trüper and accepted by the JC. The first draft of the appendix on the category *Candidatus* has been prepared. The Chairman and Vice-Chairman have both been active in publishing articles related to taxonomy and participating in meetings and workshops relevant to taxonomy. In this regard, H. G. Trüper presented a lecture on the use of Neo-Latin in biological nomenclature at the International Congress of Neo-Latinists and made a request that individuals willing to assist microbiologists in generating new epithets contact him. It is proposed that this list be published in IJSEM so that this information would be available to anyone considering the description of new taxa.

Minute 12. Patent strains as type strains. B. J. Tindall raised the issue that problems exist in using patent strains as type strains because of the conflict between US and WIPO policies. Patents are published on date of issue in the US and one year prior to issue under WIPO rules. Confidentiality agreements in Europe make it impossible to obtain strains. There is some question regarding the status of a taxon if the type strain is no longer available. Under the Budapest Treaty, International Depositary Authorities only agree to maintain patent strains for 30 years, and it is uncertain what will happen to these strains after this time in the various collections. Another issue is that, when a patent application is abandoned, the strains involved may never be released. A Request for an Opinion may be necessary to decide the status of any taxon for which the patented type strain is no longer available. A taxonomic note will be drafted for IJSEM by G. M. Garrity, D. P. Labeda and B. J. Tindall providing updated guidance regarding why patent strains should not (cannot) be used as type strains for the description of new taxa.

Minute 13. Adjournment. The session was adjourned at 20:24 on 23 July 2005.

Session 2

Minute 14. Call to order. Chairman A. Oren called the meeting to order at 12:33 on 24 July 2005 in the Moscone Convention Center.

Minute 15. Record of attendance. Present were S. Amidou (Cameroon), D. R. Brown (USA), C. Bull (USA), H.-J. Busse (Austria), J. Chun (Korea), P. De Vos (Belgium), T. Ezaki (Japan), G. M. Garrity (USA), P. A. D. Grimont (France), D. Gutnick (Israel), P. Kämpfer (Germany), M. Krichevsky (USA), D. P. Labeda (USA), K. Lindström (Finland), C. D. Litchfield (USA), A. Oren (Israel), F. A. Rainey (USA), K. Suzuki (Japan), B. J. Tindall (Germany), H. G. Trüper (Germany), M. Trujillo (Spain), A. Ventosa (Spain), S. Ventura (Italy), A. C. Ward (UK) and K.

Wolske (Poland). Guests present were R. S. S. Fraser (UK), R. Dunford (UK) and Y. Nakagawa (Japan).

Minute 16. List of culture collections that are acceptable to satisfy the requirements of the Code.

The question raised is what constitutes a publicly recognized culture collection, should a list of acceptable collections be generated and who should be responsible for this. B. J. Tindall stated that we must be careful of imposing too much regulation on culture collections since they are increasingly regulated by outside agencies throughout the world. He stated that accessibility of type strains is the key issue. From the point of view of the Editorial Board of the IJSEM, a list of acceptable culture collections is desirable to assist in making certain that authors are fulfilling Rule 27 (3). Culture collections are not absolutely permanent and vary in their abilities to handle and distribute strains. P. Kämpfer suggested that there should be agreements among culture collections to exchange type materials to help assure that these strains will be available. The World Federation of Culture Collections (WFCC) has a registry of culture collections, but D. R. Brown stated that some collections are not very responsive. The Editorial Board of the IJSEM can refer potential authors to the WFCC database, but B. J. Tindall pointed out that the journal cannot control the quality of culture collections. The new IJSEM submission declaration (P. Kämpfer) will include a statement that the type strain(s) has been deposited. One problem anticipated is that the strains are held in the collection, but are not readily available. Individual culture collections cannot hold everything and some collections do not have a policy of exchanging type holdings with other collections. It was generally agreed that the certificates of deposit for type strains are very useful, but do not guarantee the quality of the type material or that it is actually readily available to the public. This matter will require further debate at future meetings.

Minute 17. Cyanobacteria under the International Code of Nomenclature of Prokaryotes.

A. Oren stated that Stanier and others proposed the placement of cyanobacteria under the Bacteriological Code in 1978, but the Cyanophyta have always been covered by the Botanical Code. This problem has been discussed by cyanobacterial systematists for years. There are several main issues in this regard. The International Code of Nomenclature of Prokaryotes is not independent of the International Code of Botanical Nomenclature (Principle 2), but the latter is independent of all other codes (Principle 1). Type specimens under the International Code of Botanical Nomenclature are non-living herbarium specimens, while the International Code of Nomenclature of Prokaryotes requires living type strains. The International Code of Nomenclature of Prokaryotes requires indexing and registration of taxa, while botanists are opposed to registration and one must go back to 1753 to check for valid descriptions. Exceptions are heterocystous and non-heterocystous filamentous

cyanobacteria, for which the nomenclature starts in 1886 and 1892, respectively [International Code of Botanical Nomenclature, Article 13(e)].

A. Oren was invited to a botanical meeting on Cyanobacteria/Cyanophyta in Luxembourg in September 2004 to participate in a roundtable contrasting the International Code of Botanical Nomenclature, the International Code of Nomenclature of Prokaryotes and a proposed Cyano-Guide. During the discussion that followed, it appeared that it could be relatively easy to resolve this situation. If bacteriologists will agree to reciprocate Article 45.4 of the International Code of Botanical Nomenclature, names validly published in the botanical literature may become valid under the International Code of Nomenclature of Prokaryotes as well. Many botanists are opposed to registration of names, but the participants at the Luxembourg meeting were not totally opposed. Jiri Komárek encouraged (or rather promised) the development of a list of approved names of genera, but a year has passed and no new information has become available. It was proposed by A. Oren that Lucien Hoffmann should be co-opted as a member of the IC to aid with this process, and this was unanimously approved by the ICSP plenary. Only a few cyanobacterial taxa have living type cultures, and only few culture collections, notably the collection of the Institut Pasteur, maintain cyanobacteria in axenic culture. In most cases, it is not possible to define a living type strain because they will be heterotypic synonyms of the botanical non-living herbarium type material. Indexing and lists of valid taxa of cyanobacteria are essential. This endeavour will be a long-term, slow process because the bacterial systematists meet every 3 years and the botanists every 5 years, but this is the only way that progress can be made on the issue. S. Ventura stated that the bacteriologists and botanists represent very large groups, but only a small number of each actively work on cyanobacteria, so it should not be that difficult for these workers to reach a compromise. It is currently necessary to publish under the Botanical Code and it will take some time for the change to occur.

A. Oren suggested that new cyanobacterial species described under the Botanical Code could be published in IJSEM, but this would require a policy decision by the IJSEM Editorial Board. A footnote could be placed in the published paper indicating that it was published in accordance with the Botanical Code but not the International Code of Nomenclature of Prokaryotes. B. J. Tindall indicated that new cyanobacterial taxa could be validly published under the International Code of Nomenclature of Prokaryotes in IJSEM providing that they have not been published elsewhere before. H. G. Trüper stated that IJSEM had been opened to papers on yeast and protozoan systematics, so this should not be a problem. Papers describing comparative work without naming new species could also be acceptable. The cyanobacterial systematics community relies heavily on

morphology, so appropriate referees familiar with these methods would be required.

Minute 18. Amendment of Rule 27(3) for groups of micro-organisms for which deposition in culture collections in two different countries is not feasible.

The change to Rule 27 of the Code made during the 1999 IUMS Congress in Sydney required deposition of type strains in culture collections in two different countries for validation. It has become apparent that this is not feasible for the type strains of all taxa including barophiles, mycoplasmas and biosafety level 3 (BL-3) strains. D. R. Brown, representing the International Organization for Mycoplasma, spoke to the plenary and indicated that his colleagues did not understand why this rule change was implemented but that it has been a major impediment to mycoplasma for the past 5 years because it has been impossible to publish new names in the IJSEM. There is only one culture collection [the American Type Culture Collection (ATCC)] able to accept and preserve their strains, even though they are not particularly difficult to culture. Other collections have not been willing to accession mycoplasma strains. A. Oren stated that the change had been made with the goal of making type strains available, since there had been documented problems obtaining cultures only deposited with certain culture collections. The impact of this rule change on the mycoplasma community, among others, was an unintentional consequence. It was agreed that deposit of type strains in two culture collections, even if in the same country, would still be most desirable but, after some discussion, it was proposed that the decision to waive the requirement for type strain deposits in two countries be decided on a case-by-case basis. It was decided that the ICSP should not wait to correct this situation since there is some indication that authors might be publishing descriptions of new taxa outside the IJSEM because of this issue. It was recommended that the JC emend Rule 27 (3) to accommodate the intervention of a committee consisting of the Chairman of ICSP, the Chairman of the JC and the Editor of IJSEM in providing a waiver from the two collection–two country provision on a case-by-case basis. It is the authors' responsibility to inform IJSEM that attempts to deposit their type material in more than one collection had been unsuccessful. The proposal to permit exceptions to the current Rule 27 (3) under special circumstances was accepted by a unanimous vote.

Minute 19. Can publication of names in online-only journals be considered effective publication under Rule 25a?

The issue of valid publication of names in electronic journals was discussed, with participation by most members present. Permanence and editorial quality of 'online-only' journals was a major concern. Several possible solutions for permanence were discussed including use of DOIs for tracking descriptions, establishing electronic archives at major libraries in multiple countries and planning for continued updating of electronic media to

assure accessibility. G. M. Garrity suggested that the key to assuring editorial quality is that the 'online-only' journals must be published by a commercial or scientific society publishing house, and R. S. S. Fraser indicated that online publications definitely require replicated repositories. G. M. Garrity indicated that, when publishing houses holding DOIs go out of business, these are transferred to other publishers, and that several thousand DOIs have been transferred to Elsevier. The proposal to limit valid publication to printed publications only was defeated. The proposal to permit both printed and electronic publications for valid publication of new names was passed by the majority. The request that the JC should propose a revised text for Rule 25a to permit effective publication of new taxa in electronic journals was voted on and carried by a majority of the members present. The JC will prepare the revision for presentation and approval by the ICSP.

Minute 20. The International Code of Nomenclature of Prokaryotes – copyright matters.

B. J. Tindall, Vice-Chairman of the JC, reported that IUMS has now transferred copyright ownership of the Code to ICSP. Prior to this transfer, ICSP could not do anything with the Code without approval of IUMS, and now ICSP will be able to negotiate for publication of an updated version.

Minute 21. The ICSP website. The ICSP website is hosted by the Society for General Microbiology and R. Dunford reported to the plenary on the state of the site. The site currently lists the ICSP officers and the members of the JC as well as providing information on the taxonomic subcommittees that have responded to the request for information (as mentioned in Minute 10). The incoming Secretary for Subcommittees should contact the remaining subcommittees to obtain information for the site. In the past, L. Hoyles and R. Dunford have made an effort to have ICSP and subcommittee minutes published in IJSEM linked on the website.

Minute 22. Three-letter abbreviations for all prokaryote genera.

A proposal had been made that a series of three-letter abbreviations be developed for all prokaryote genera, and two subcommittees have already adopted a three-letter abbreviation code because most of the taxa that they cover start with the same letter. M. Krichevsky indicated that three-letter abbreviations will not work because of the increasing number of taxa and that a four-letter code would be required. H. G. Trüper expressed reservations about the use of abbreviations because they could become outmoded very quickly. G. M. Garrity indicated that the use of abbreviations can introduce ambiguity, and this is why only full names were used in *Bergey's Manual*. A concern was raised that, if subcommittees each generate their own abbreviations, there will be conflicts, but the opposing argument was made that names of taxa should always be spelled out in full the first time they appear in journal articles. A vote by the plenary rejected the proposal

for the ICSP to generate a universal list of three- or four-letter abbreviations for all prokaryote genera.

Minute 23. Adjournment. The session was adjourned at 14:30 on 24 July 2005.

Session 3

Minute 24. Call to order. Chairman A. Oren called the meeting to order at 18:00 on 26 July 2005 in the Moscone Convention Center.

Minute 25. Record of attendance. Present were S. Amidou (Cameroon), D. R. Brown (USA), C. Bull (USA), H.-J. Busse (Austria), J. Chun (Korea), P. De Vos (Belgium), T. Ezaki (Japan), G. M. Garrity (USA), P. A. D. Grimont (France), P. Kämpfer (Germany), M. Krichevsky (USA), D. P. Labeda (USA), K. Lindström (Finland), C. D. Litchfield (USA), A. Oren (Israel), F. A. Rainey (USA), K. Suzuki (Japan), B. J. Tindall (Germany), H. G. Trüper (Germany), M. Trujillo (Spain), A. Ventosa (Spain), S. Ventura (Italy), A. C. Ward (UK) and K. Wolske (Poland). Guests present were R. Dunford (UK) and Y. Nakagawa (Japan).

Minute 26. Election of the 23rd class of the Judicial Commission. A. Oren, for the nominating committee, presented a slate of seven candidates for the 23rd class of the JC to replace the retiring 20th class, including P. De Vos (Belgium), L. Hoyles (UK), E. Ivanova (Australia), E. R. B. Moore (Sweden), K. Suzuki (Japan), H. G. Trüper (Germany) and S. Ventura (Italy). The four commissioners elected to the 23rd class by a majority vote were P. De Vos, K. Suzuki, H. G. Trüper and S. Ventura.

Minute 27. Election of officers for the ICSP. A. Oren, for the nominating committee, presented a full slate of candidates for election as follows: for Vice-Chairman (G. S. Saddler retiring), H.-J. Busse (elected unanimously); for Secretary for Subcommittees (J. Chun retiring), A. Ventosa (elected unanimously); for Editorial Secretary (P. De Vos retiring), S. B. Kim (elected unanimously). A. Oren (Chairman) and D. P. Labeda (Executive Secretary-Treasurer) were both eligible for re-election for one additional term and were elected unanimously. Both of the current members at large of the Executive Board, K. Suzuki and A. Ventosa, were retiring and were not eligible for re-election. The nominating committee's candidates for the two members at-large of the Executive Board, D. Harmsen and D. R. Brown, were elected unanimously. The full Executive Board of the ICSP for the next 3 years comprises A. Oren (Chairman), H.-J. Busse (Vice-Chairman), D. P. Labeda (Executive Secretary-Treasurer), A. Ventosa (Secretary for Subcommittees), S. B. Kim (Editorial Secretary), D. Harmsen (Member-at-Large), D. R. Brown (Member-at-Large) and B. J. Tindall (Chairman of the Judicial Commission).

Minute 28. Approval for electronic meetings of subcommittees. K. Lindström (Finland), on behalf of the

Subcommittee on the taxonomy of *Agrobacterium* and *Rhizobium*, spoke to the committee about the possibility of online subcommittee meetings. Their Subcommittee attempted to arrange a meeting to discuss current important issues such as strains to be included in genome sequencing, and found that it was much easier to have an online meeting than to have all members meet in a common location. J. Chun (Secretary for Subcommittees) indicated that, in practice, this is already happening with several of the subcommittees. B. J. Tindall indicated that a revision of the ICSP statutes would make this acceptable. The committee unanimously approved the acceptance of electronic subcommittee meetings; subcommittee secretaries should submit the minutes of electronic meetings to the ICSP Secretary for Subcommittees to report this activity.

Minute 29. Culture collection material transfer agreements (MTAs) for type strains. The contentious issue of culture collections requiring MTAs on type strains was the subject of considerable debate. This policy is making it increasingly difficult to obtain and exchange type strains. Many collections, including the ATCC, will no longer freely exchange type strains with other recognized collections. A major reason for MTAs on type material is the Convention on Biodiversity (CBD), which has not been signed by the USA. Tracking of the original country of origin of germplasm is a key issue of the CBD, and MTAs are used to assure that this information is maintained. Maintenance of intellectual property (IP) rights by the original depositor of the strain for future use in biotechnological development is another reason that some collections issue MTAs, and some collections (i.e. the ATCC) assume that they have ownership of all materials deposited. In most cases, IP rights to strains are actually held by the investigator's employer or funding agency. It is not always clear who is the authorized signatory for MTAs in any organization. It was agreed that this is a political problem and it is the responsibility of the ICSP to communicate with governments that type materials should be exempt from MTAs to guarantee exchange between national collections and ready access by investigators. It was proposed that C. Bull would draft a position paper on this subject, assisted with information provided by B. J. Tindall, that could be circulated among the ICSP and then the final version provided to relevant scientific societies and governments.

Minute 30. The Universal Biocode. B. J. Tindall, the ICSP representative to the committee studying the reconciliation of codes of nomenclature (i.e. the Universal Biocode), reported on the state of this process. The goal is make it easier to find names of taxa and to prevent introduction of homonyms. There is little agreement between the botanists, zoologists and microbiologists regarding this process and, at the present, progress is limited to attempts to maintain a dialogue. He stated his opinion that a unified code of nomenclature for all living organisms will not happen in our lifetime.

Minute 31. Any other business. S. Amidou spoke briefly regarding the plight of researchers in Africa, where it has been increasingly difficult to perform research because of difficulty in obtaining strains for study. The lack of funding makes it hard to purchase strains and, if MTAs become prevalent and further limit the availability of strains, this type of research may end in many African nations.

Minute 32. Adjournment. The session was adjourned at 20:15 on 26 July 2005.

Session 4

Minute 33. Call to order. Chairman A. Oren called the meeting to order at 15:00 on 28 July 2005 in the Moscone Convention Center.

Minute 34. Record of attendance. Present were D. R. Brown (USA), H.-J. Busse (Austria), G. M. Garrity (USA), P. A. D. Grimont (France), P. Kämpfer (Germany), D. P. Labeda (USA), H.-C. Lai (Taiwan), K. Lindström (Finland), A. Oren (Israel), F. A. Rainey (USA), K. Suzuki (Japan), B. J. Tindall (Germany), H. G. Trüper (Germany), M. Trujillo (Spain), A. Ventosa (Spain), S. Ventura (Italy) and K. Wolske (Poland). Guest present was Y. Nakagawa (Japan).

Minute 35. Approval of changes to the Code proposed by the JC. B. J. Tindall, as Chairman of the JC, provided a

summary of changes to the Code proposed and approved in the meetings of the JC. All changes were approved by unanimous vote.

Minute 36. ICSP membership for the next triennial. The secretaries of all member societies will be contacted by the Executive Secretary within a year for designation of their society's representative to the ICSP.

Minute 37. Co-opted members. T. Kudo (Japan), Y. Nakagawa (Japan), A. Willems (Belgium) and D. R. Arahall (Spain) were approved as co-opted members of the ICSP for the next triennial.

Minute 38. Any other business. The Chairman acknowledged the service of the retiring Executive Board officers G. S. Saddler, J. Chun, P. De Vos, H. G. Trüper and K. Suzuki. The next meeting of the ICSP will take place during the next IUMS Congress of Bacteriology and Applied Microbiology in Istanbul, Turkey, during 4–8 August 2008. The IUMS council has approved the transfer of \$20 000 held on behalf of ICSP for many years to the ICSP Treasurer. The plenary approved a proposal that there should be no link between the travel expenses of the recipient of the van Niel Prize and the funds transferred to ICSP.

Minute 39. Final adjournment. The Chairman adjourned the meeting at 15:54 on 28 July 2005.