

International Committee on Systematics of Prokaryotes, Subcommittee on the taxonomy of *Bifidobacterium, Lactobacillus* and related organisms. Minutes of open and closed meetings, 19 July 2016, Dublin, Ireland

Paola Mattarelli,^{1,*} Giovanna E. Felis,² Wilhelm H. Holzapfel³ and Charles M. A. P Franz⁴

Abstract

The meeting of International Committee on Systematics of Prokaryotes, Subcommittee on the taxonomy of *Bifidobacterium*, *Lactobacillus* and related organisms was held within the frame of the FoodMicro 2016 Congress in Dublin (FoodMicro 2016, 19–22 July 2016, Dublin, Ireland). The meeting comprised an open session with a workshop entitled 'Research and networking taxonomy in food with an emphasis on LAB' and a closed session on issues related to ICSP Subcommittee activities.

SESSION 1 – OPEN MEETING

Minute 1. Call to order

The open meeting was called to order as part of the Food-Micro 2016 Symposium in Dublin, Ireland at 14:00 on 19 July 2016 by Acting Chairman W. H. Holzapfel.

Minute 2. Record of attendance

The members present were: W. H. Holzapfel (Acting Chairman; Republic of Korea), C. M. A. P. Franz (Germany), G. E. Felis (Italy), P. Mattarelli (Italy) and K. Watanabe (Taiwan). Apologies for absence were received from J. Björkroth (Finland), C. Bonaparte (Germany), B. Biavati (Malta), F. Dellaglio (Chairman) (Italy), A. Endo (Japan), L. M.T. Dicks (South Africa), G. Klein (Secretary), P. Lawson (USA), G. Reuter (Germany) and B. Pot (Beligium). The guests present were Erko Stackebrandt (Germany), Elisa Salvetti (Italy) and Giorgio Giraffa (Italy).

Minute 3. Call for research reports

Research reports on topics related to the taxonomy of *Lacto-bacillus* and related organisms and bifidobacteria were presented within the workshop 'Research and networking taxonomy in food with an emphasis on LAB'. The workshop took place with the support of the ICFMH. The invited speaker, Erko Stackebrandt, presented a key lecture entitled 'Changing the data-availability bottleneck in research: the MIRRI approach'. Other presentations were: 'Species description and technological applicability of *Lactococcus* *hircilactis* sp. nov. and *Lactococcus laudensis* sp. nov., isolated from milk' (Giorgio Giraffa); 'The next step in *Lactobacillus* taxonomy: the reclassification of the genus' (Elisa Salvetti); '*Lactobacillus casei*: chaotic state in the classification of the species' (Koichi Watanabe); and 'Characterization of Lactic Acid Bacteria from Tajikistan fermented goat milk' (Paola Mattarelli).

The meeting was very successful with numerous participants. A brief discussion followed each presentation.

Minute 4. Adjournment

The Acting Chairman thanked the presenters for their contributions. The open meeting was adjourned at 16:15 on 19 July 2016.

SESSION 2 – CLOSED MEETING

Minute 5. Call to order

The closed meeting was a called to order at 16:15 on 19 July 2016 by Acting Chairman W. H. Holzapfel.

Minute 6. Record of attendance

The members present were: W. Holzapfel (Acting Chairman; Republic of Korea), C. M. A. P. Franz (Germany), G. E. Felis (Italy), P. Mattarelli (Italy) and K. Watanabe (Taiwan). Apologies for absence were received from J. Björkroth (Finland), C. Bonaparte (Germany), B. Biavati (Italy), F. Dellaglio (Chairman) (Italy), A. Endo (Japan), L. M. T. Dicks (South Africa), G. Klein (Secretary) (Germany),

Author affiliations: ¹Department of Agriculture and Food Sciences, University of Bologna, Bologna, Viale Fanin 44, 40127 Bologna, Italy; ²Department of Biotechnology, University of Verona, Strada Le Grazie 15, 37134 Verona, Italy; ³School of Life Sciences, Handong Global University, Pohang, Gyeongbuk 791-798, Republic of Korea; ⁴Department of Microbiology and Biotechnology, Max Rubner-Institut, Federal Research Institute for Nutrition and Food, Hermann-Weigmann-Str. 1, D-24103 Kiel, Germany.

*Correspondence: Paola Mattarelli, paola.mattarelli@unibo.it

IP: 195.37.32.174

P. Lawson (USA), G. Reuter (Germany) and B. Pot (Belgium). The guests present were Erko Stackebrandt (Germany), Elisa Salvetti (Italy) and Giorgio Giraffa (Italy).

Minute 7. Approval of the agenda

The proposed agenda was approved.

Minute 8. Minutes of the previous meetings

The minutes of the meetings of the Subcommittee in Nantes, France, on 1 September 2014 (*Int J Syst Evol Microbiol* 2015;65:1090–1092) were approved.

Minute 9. Scope of the Subcommittee

The status quo of genera within the purview of the Subcommittee is as follows: *Lactobacillus*, *Carnobacterium*, *Catellicoccus*, *Desemzia*, *Fructobacillus*, *Isobaculum*, *Jeotgalibaca*, *Lactosphaera*, *Leuconostoc*, *Oenococcus*, *Pediococcus*, *Sharpea*, *Tetragenococcus*, *Vagococcus*, *Weissella*, *Bifidobacterium*, *Aeriscardovia*, *Alloscardovia*, *Bombiscardovia*, *Gardnerella*, *Metascardovia*, *Parascardovia*, *Pseudoscardovia* and *Scardovia*.

Minute 10. New Chairman and Secretary

The decision of F. Dellaglio (by correspondence) to step down from his post after having served as Chairman from 1999 was expressed. At the next Subcommittee meeting the election of the new Chairman will take place and the Secretary will take care of this. Each member can propose him or herself to take on this responsibility. The importance to attend the meeting regularly has been strongly emphasized, and it was noted that the output and visibility of the committee was low.

Minutes 11. Call for new business

The creation of a new website for the Subcommittee was discussed; so far the limiting factor was the cost. Wilhelm proposed that the Subcommittee should apply to the ICFMH to create a new workgroup on 'LAB in foods' for which the Subcommittee is responsible and which will hold workshops at the food microbiology conferences, as it was the case for the conferences in Nantes and in Dublin. Funds for maintaining a website could be then requested from the ICFMH.

Following the presentation of Elisa Salvetti during the workshop in the open meeting about a possible reclassification of the genus *Lactobacillus* based on a genetic approach clustering them in different genera, a discussion was started. The participants agreed about this interesting approach in the taxonomy of the genus *Lactobacillus*, but some aspects are critical. Professor Stackebrandt underlined the difficulty to utilize routinely these methods in the lab; it would be necessary to suggest some easy methods to cluster the new putative genera.

Minute 12. Review of novel species and subspecies

Bifidobacterium eulemuris sp. nov. (Michelini et al. Int J Syst Evol Microbiol 2016;663:1567-1576); Bifidobacterium aquikefiri sp. nov. (Laureys et al. Int J Syst Evol Microbiol 2016;663:1281-1286); Bifidobacterium myosotis sp. nov., Bifidobacterium tissieri sp. nov. and Bifidobacterium hapali sp. nov. (Michelini et al. Int J Syst Evol Microbiol 2016;66:255-265); Bifidobacterium commune sp. nov. (Praet et al. Antonie Van Leeuwenhoek 2015;107:1307-1313); Bifidobacterium lemurum sp. nov. (Modesto et al. Int J Syst Evol Microbiol 2015;65:1726-1734); Lactobacillus insicii sp. nov. (Ehrmann et al. Int J Syst Evol Microbiol 2016;66:236-242.]; Lactobacillus wasatchensis sp. nov. (Oberg et al. Int J Syst Evol Microbiol 2016;66:158-164); Lactobacillus herbarum sp. nov. (Mao et al. Int J Syst Evol Microbiol 2015; 65:4682-4688); Lactobacillus vespulae sp. nov. (Hoang et al. Int J Syst Evol Microbiol 2015;65:3326-3332); Lactobacillus plajomi sp. nov. and Lactobacillus modestisalitolerans sp. nov. (Miyashita et al. Int J Syst Evol Microbiol 2015;65:2485-2490); Lactobacillus mixtipabuli sp. nov. (Tohno et al. Int J Syst Evol Microbiol 2015;65:1981–1985); Lactobacillus formosensis sp. nov. (Chang et al. Int J Syst Evol Microbiol 2015;65:101–106); Lactobacillus gorillae sp. nov. (Tsuchida et al. Int J Syst Evol Microbiol 2014;64:4001-4006]; Leuconoctoc gelidum subsp. gasicomitatum comb. nov., Leuconostoc gelidum subsp. aenigmaticum subsp. nov., Leuconostoc gelidum subsp. gelidum subsp. nov. (Rahkila et al. Int J Syst Evol Microbiol 2014;64:1290-1295]; Leuconostoc rapi sp. nov. (Lyhs et al. Int J Syst Evol Microbiol 2015; 65:2586-2590).

Minutes 13. Review of novel orders, families and genera

Neoscardovia arbecensis gen. nov., sp. nov. (García-Aljaro et al. Syst Appl Microbiol 2012;35:374–379).

Minute 14. Current membership

The following individuals are currently members of the Subcommittee on *Bifidobacterium*, *Lactobacillus* and related organisms: Bruno Biavati (Malta); Johanna Björkroth (Finland); Christine Bonaparte (Germany); Franco Dellaglio (Italy); Leon M. T. Dicks (South Africa); Akihido Endo (Japan); Giovanna E. Felis (Italy); Charles M. A. P. Franz (Germany); Guenter Klein (Germany); Wilhelm H. Holzapfel (Republic of Korea); Paul Lawson (USA); Paola Mattarelli (Italy); Bruno Pot (Belgium); G. Reuter (Germany); and Koichi Watanabe (Taiwan).

Minutes 15. Date and place of the next meeting

The next meeting of the Subcommittee was suggested to take place at the FoodMicro 2018 conference in Berlin.

Minutes 16. Adjournment

The closed meeting was adjourned at at 17:15 on 19 July 2016.

Paola Mattarelli (Member), Wilhelm H. Holzapfel (Acting Chairman), Giovanna E. Felis (Member) and Charles M. A. P. Franz (Member)