

Scientific Program Daily Overview

Speaker is marked by underline

* Nominee of The Louis Dienes Award

** Nominee of The Harry Morton Student Award

Monday 07/17

9:30–10:30 **Opening Ceremony and Group photo taking**

Session 1 Clinical Microbiology / Mycoplasmaology

Chair: T. Prescott Atkinson, Meghan May

10:30–11:30 **Keynote-1 Post acute sequelae of SARS Cov2: A long way to go**
Clifford J Rosen

11:30–11:45 **O-1 Challenges in Distinguishing between Mycoplasma and COVID-19 Co-infection: Two Case Reports**
Kazuhiro Matsuda

11:45–12:00 **O-2 The Association between Genital Mycoplasmas Colonization and Adverse Pregnancy Outcomes—A Population-Based Retrospective Study from China**

**Yan Xuan, Tao Yan, Xiang Hong, Xu Zhou, Jun Zhao, Bei Wang

12:00–12:15 **O-3 Diagnostic Investigation of *Mycoplasma hyorhinis* as a Potential Pathogen Associated with Neurological Clinical Signs and Central Nervous System Lesions in Pigs**

**Calvin ChengYu Ko, Maria Merodio, Ethan Spronk, James Lehman, Huigang Shen, Ganwu Li, Rachel Derscheid, Pablo Piñeyro

12:15–12:30 **O-4 Prevalence of Macrolide and Fluoroquinolone Resistance in *Mycoplasma genitalium* in Metropolitan and Overseas France in 2021**

Sabine Pereyre, Cécile Laurier-Nadalié, Nadège Hénin, Amandine Dolzy, Marie Gardette, Cécile Bébéar

12:30–12:45 **O-5 Molecular genotyping of *Mycoplasma genitalium* strains in the United States**

Joshua T. Waites, Amy E. Ratliff, Donna M. Crabb, Barbara Van Der Pol, Jodie A. Dionne, William M. Geisler, Arthur H. Totten, Ken B. Waites, Li Xiao

12:45–13:45 **IRPCM** Molecular Genetics and Cell Biology

13:45–14:45 **IRPCM** Clinical Aspects of Human Mycoplasmas

13:45–14:45 **IRPCM** Avian Mycoplasmas

Session 2 Phylogeny, Taxonomy, and Nomenclature in the Genomics Era

Chair: Mitchell F. Balish, Ana S. Ramirez

16:30–17:30 **IOM Derrick Edward Award**

Mollicutes Taxonomy: A Perspective from Evolutionary Genomics

Chih-Horng Kuo

17:30–17:45 **O-6 Identification of a novel *Mycoplasma* species from an infection caused by a cat bite**

Danielle L. Gilbert, Donna M. Crabb, Johnathon Young, Juston Meier, Michele Granada, Casey Rice, Aneesa Afroze, Amy E. Ratliff, Thomas P. Atkinson, Ken B. Waites, Li Xiao

17:45–18:00 **O-7 Phytoplasma Taxonomy: Bridging the Gap with Taxogenomics**

Amit Yadav, Bhavesh Tiwarekar, Kiran Kirdat, Shivaji Sathe

18:00–18:15 **O-8 Examining Molecular Diversity of *Ureaplasma* Species Isolated from Neonates in the Global Multi-Country Child Health and Mortality Prevention Surveillance (CHAMPS) Network**

Jessica Lindsay Waller, Eungi Yang, Vasanta Chivukula, Will A. Overholt, Mahika Kadam, Maureen H. Diaz, Jonas M. Winchell

18:15–18:30 **O-9 Revised Minimum Standards for Valid Publication of Novel Species within the Class Mollicutes**

Meghan May, Vicki Chalker, Mitchell F. Balish, Alain Blanchard, Assunta Bertaccini, Joachim Frey, Gail E. Gasparich, Ludwig Holzle, Peter Kuhnert, Chih-Horng Kuo, Lucia Manso-Silvan, Ana S. Ramirez Corbera, Joachim Spergser, O. Brad Spiller, Emma L. Sweeney, Dmitriy Volokhov, Wei Wei

18:30–19:30 **IOM Peter Hannan Award**

“If you do not know the names of things, the knowledge of them is lost” Carl Linnaeus

Vicki Chalker, Mitchell F. Balish, Assunta Bertaccini, Alain Blanchard, Gail Gasparich, Ludwig Hölzle, Peter Kuhnert, Chih-Horng Kuo, Lucia Manso-Silvan, Meghan A. May, Ana Sofia Ramirez Corbera, Joachim Spergser, O. Brad Spiller, Emma Sweeney, Dmitriy Volokhov, Wei Wei

19:30–20:30 **Poster Session (Odd numbers)(Food, Beverage provided)**

Tuesday 07/18

Session 3 Vaccinology and Immunity

Chair: Rohini Chopra-Dewasthaly, Jörg Jores

9:30–10:30 **Keynote-2 Current thoughts on Livestock *Mycoplasma* vaccines**

Andrew R Peters

10:30–10:45 **O-10 Evaluating the Dynamics and Efficacy of a Live, Attenuated *Mycoplasma anserisalpingitidis* Vaccine Candidate Under Farm Condition**

Dénes Grózner, Alexa Mitter, Dominika Buni, Katinka Bekő, Zsuzsa Kreizinger, Áron B. Kovács, Enikő Wehmann, Nikolett Belec, Karola Költő, Veronika Hrivnák, Miklós Gyuranecz

10:45–11:00 **O-11 Clinical Efficacy of an Autogenous Killed Vaccine for *Mycoplasma ovipneumoniae* Used during a Pneumonia Outbreak in Saanen Goats in Northern Italy**

Marco Bottinelli, Davide Prataviera, Verdiana Righetti, Giorgia Nai, Monica Cagiola, Giulio Severi, Veronica Conci, Annalucia Tondo, Giovanni Martini, Matteo Cornaggia, Marianna Merenda

11:00–11:15 **O-12 Efficacy of a New Inactivated *Mycoplasma hyorhinis* Vaccine in Commercial Pigs**

Jia Wang, Yuan Gan, Yuanyuan Huang, Yanna Wei, Ting Yuan, Lei Zhang, Guoqing Shao, Zhixin Feng, Qiyang Xiong

11:15–11:30 Break

11:30–11:45 **O-13 Profiling *Mycoplasma hyosynoviae* Antibodies in Dams and Piglets**

Haley Schwecke, Emily McDowell, Amanda Sponheim, Joel Nerem, Robert Valeris-Chaci, Maria Pieters

11:45–12:00 **O-14 The role of pulmonary interstitial macrophages in *Mycoplasma pneumoniae* induced inflammation**

*Arlind B. Mara, Xin Li, Kavita Rawat, William T. King, Claudia V. Jakubzick

12:00–12:15 **O-15 Synergism of bovine mammary epithelial cells and bovine peripheral blood mononuclear cells enhances immunological responses to *Mycoplasma bovis***

**Noriko Imaizumi, Satoshi Gondaira, Tomochika Sugiura, Hidetoshi Higuchi

12:15–12:30 **O-16 Insights from 16-year *Mycoplasma* Culture and PCR Data Analysis in a Canadian Provincial Laboratory**

Hugh Yuehua Cai, Pauline Nelson-Smikle, Fernando Munevar

12:45–13:45 **IRPCM** Plant and Arthropod Mycoplasmas

12:45–13:45 **IRPCM** Chemotherapy of Mycoplasma Infections

13:45–14:45 **IRPCM** New and Emerging Species

Session 4 Next Generation Vaccines and Host-Pathogen Interactions

Chair: Amir Noormohammadi, Steven J. Geary

16:30–17:30 **IOM Emmy Klieneberger-Nobel Award**

Mycoplasmas - Not That Simple, But Increasingly Understandable and Controllable

Glenn F. Browning

17:30–17:45 **O-17 Global Transcriptional Changes in the Trachea After Vaccination and Infection with *Mycoplasma gallisepticum* in Immunosuppressed Chickens**

*Sathya N. Kulappu Arachchige, Anna Kanci Condello, Nadeeka K. Wawegama, Glenn F. Browning

17:45–18:00 **O-18 Genome engineering of the major goat pathogen *Mycoplasma capricolum* subsp. *capripneumoniae* as a first step towards the rational design of improved vaccines**

Géraldine Gourgues, Lucia Manso-Silvan, Gabrielle Guesdon, Catherine Chaberland, François Thiaucourt, Pascal Sirand-Pugnet, Vincent Baby, Alain Blanchard, Carole Lartigue

18:00–18:15 Break

18:15–18:30 **O-19 Quantification of the effect of vaccination on the control of horizontal transmission of *M. synoviae* under field conditions**

Christiaan ter Veen, Inge Santman-Berends, Marieke Augustijn, Anneke Feberwee

18:30–18:45 **O-20 MyMIC: a Network for Standardization of Diagnostics, Antimicrobial Susceptibility Testing and Clinical Interpretation in Animal Mycoplasmas**

Anne V. Gautier-Bouchardon, Maryne Jaÿ, Sara M. Klose, Annet Heuvelink, Inna Lysnyansky, Miklós Gyuranecz, Ana S. Ramirez, Marco Bottinelli, Anne Ridley, Anneke Feberwee, Claire Becker, Florence Tardy

18:45–19:00 **O-21 Fever-like temperature impairs the bovine ex vivo response to *Mycoplasma bovis***

Thomas Démoulins, Thatcha Yimthin, Dorothea Lindtke, Sergi Torres-Puig, Lukas Eggerschwiler, Raphael Siegenthaler, Nicolas Ruggli, Fabien Labroussaa, Jörg Jores

19:00–19:15 **O-22 *Mycoplasma hyorhinis* Hijacks Host Plasminogen/Plasmin System via Multiple Surface Moonlighting Proteins to Enhance Its Spread Across the Extracellular Matrix Barrier**

Qiyang Xiong, Qiyang Xiong, Jia Wang, Yao Li, Longji Pan, Yanfei Yu, Guoqing Shao, Zhixin Feng

19:15–19:30 **O-23 The Secreted MbovP475 of *Mycoplasma bovis* Induces Macrophage Pro-inflammatory Response through CRYAB**

*Aizhen Guo, Shujuan Wang, Gang Zhao, Doukun Lu, Yingyu Chen, Xi Chen, Changmin Hu, Jianguo Chen

19:30–20:30 **Poster Session (Even numbers)(Food, Beverage provided)**

Wednesday 07/19

Session 5 Virulence and Pathogenesis

Chair: Arlind Mara, Christine Citti

9:30–10:30 IOM Robert F. Whitcomb award

Molecular mechanisms of plant manipulation by phytoplasmas

Kenro Oshima

10:30–10:45 **O-24 Comparative Genomic Analysis of *M. agalactiae* Strain GM1309 Unravels its Peculiar Surface Architecture and Distinct Pathogenicity Traits**

Rohini Chopra-Dewasthaly, Maysa Santos Barbosa, Joachim Spergser

10:45–11:00 **O-25 Studying Interactions between 12 *Mycoplasma* and Bovid Tissue Culture**

*Elhem Yacoub, Antonio Ruzzini, Murray Jelinski

11:00–11:15 Break

11:15–11:30 **O-26 Modulation of transcription factors involved during Phytoplasma-associated phyllody development in *Sesamum indicum* L. (Sesame) plants**

**Pratima Verma, Suman Lakhanpaul, Ramya Parakkunnel

11:30–11:45 **O-27 The *Mycoplasma genitalium* biofilm-associated exopolysaccharide is a glucosamine polymer in the furanose configuration**

James M. Daubenspeck, Prescott T. Atkinson

11:45–12:00 **O-28 The MnuA Nuclease and 5'-Nucleotidase Impact *Mycoplasma bovis* Fitness in Mastitis**

Peleg Schneider, Yaa Amoah, Christine Citti, Emilie Dordet-Frison, Nahum Yehuda Shpigel, Inna Lysnyansky

12:00–12:15 **O-29 Comprehensive search for amino acid residues involved in target recognition of a phytoplasma effector protein by random mutagenesis-based screening**

**Oki Matsumoto, Yugo Kitazawa, Nozomu Iwabuchi, Kensaku Maejima, Masato Suzuki, Juri Matsuyama, Hiroaki Koinuma, Kenro Oshima, Shigetou Namba, Yasuyuki Yamaji

12:15–12:30 **O-30 The non-canonical host proteasome utilization by a phytoplasma effector: phyllogen acts as a ubiquitin-like mediator for proteasomal degradation of target proteins**

Yugo Kitazawa, Nozomu Iwabuchi, Kensaku Maejima, Momoka Sasano, Oki Matsumoto, Hiroaki Koinuma, Ryosuke Tokuda, Masato Suzuki, Kenro Oshima, Shigetou Namba, Yasuyuki Yamaji

12:15–12:45 **O-31 Monopodial to sympodial shift in *Phalaenopsis*: phytoplasma SAP11 effector breaks repression of axillary buds**

Jun-Yi Yang, Choon Meng Tan, Swee Suak Ko, Wen-Chieh Tsai, Yi-Ching Chiu

12:45–13:45 **IRPCM** Ruminant Mycoplasmas

12:45–13:45 **IRPCM** Porcine Mycoplasmas

Session 6 Development of Research Tools
(Supported by JST CREST “Genome Programming” Project)
Chair: Chih-Horng Kuo, Pascal Sirand-Pugnet

14:45–15:45 **Keynote-3 Artificial cell reactor technology**

Hiroyuki Noji

15:45–16:00 **O-32 Minimal cell JCVI-syn3B as a chassis to investigate host-microbe interaction**

Daniela Matias de Carvalho Bittencourt, David M. Brown, Nacyra Assad-Garcia, Michaela R. Lynott, Lijie Sun, Luis Alberto M. Palhares de Melo, Marcelo Freire, John I. Glass

16:00–16:15 **O-33 Development of the Toolbox for *Mycoplasma* Genome Engineering**

Carole Lartigue, Thomas Ipoutcha, Fabien Rideau, Luis Garcia-Morales, Estelle Ruiz, Gabrielle Guesdon, Geraldine Gourgues, Alain Blanchard, Yonathan Arfi, Pascal Sirand-Pugnet

16:15–16:30 **O-34 Engineering a *Mycoplasma* Surface Display tool for Protein-Protein Interaction Screening**

**Javier Gonzalez de Miguel, Irene Rodriguez Arce, Daniel Gerngross, Ariadna Montero Blay, Luis Serrano Pubul

16:30–16:45 Break

16:45–17:00 **O-35 Generating *Mycoplasma bovis* gene knock-out mutants using the CRISPR/Cas9 system of *Mycoplasma gallisepticum***

Nadeeka Kumari Wawegama, Sara Klose, Glenn Francis Browning

17:00–17:15 **O-36 Open Genome Browser for Mollicutes: A User-friendly and Powerful Web Platform for Comparative Genomics**

Thomas Roder, Hatice Akarsu, Fabien Labroussaa, Sergi Torres-Puig, Jörg Jores, Rémy Bruggmann

17:15–17:30 **O-37 Establishment of a *Mycoplasma hyorhinis* Challenge Model in Five-Week-Old Piglets**

Dorottya Földi, Zsófia Eszter Nagym, Nikolett Belec, Levente Szeredi, József Földi, Anna Kollár, Miklós Tenk, Zsuzsa Kreizinger, Miklós Gyuranecz

17:30–17:45 **O-38 Homologous and heterologous plasmid-assisted expression of Ig cleavage systems of Mollicutes in an engineered *Mycoplasma feriruminatoris***

Sergi Torres Puig, Hatice Akarsu, Silvia Crespo-Pomar, Thatcha Yimthin,

Thomas Démoulins, Isabelle Brodard, Valentina Cippà, Bettina Trüeb,
Horst Posthaus, Nicolas Ruggli, Peter Kuhnert, Fabien Labroussaa,
Jörg Jores

17:45–18:00 **O-39 Bovine Tracheal Organoids vs 2D Cell Cultures as Models to Study *Mycoplasma bovis* Cell Invasion**

**Chintha K. Premachandre, Pin Shie Quah, Bang Manh Tran, Elizabeth Vincan,
Georgia Deliyannis, Glenn F. Browning, Paola K. Vaz, Nadeeka K. Wawegama

18:00–18:15 **O-40 The conjugative properties of *Mycoplasma agalactiae* are critically influenced by the expression of lipoprotein P48 at the surface of the recipient mating partner**

M'hamed Derriche, Laurent-Xavier Nouvel, Christine Citti, Eric Baranowski

Thursday 07/20

**Session 7 Cell Biology and Genetics
(Supported by JST CREST “Genome Programming” Project)**

Chair: Inna Lysnyansky, Steven P. Djordjevic

9:30–10:00 **Plenary**

Design, Construction, and Analysis of a Synthetic Minimal Bacterial Cell

John I. Glass

10:00–10:15 **O-41 Genomic analysis of *Mycoplasma bovis* causing bovine respiratory disease in Australian feedlot cattle**

*Veronica Maria Jarocki, Mauda Al Khallawi, Tony Batterham, Kiro Petrovski,
Darren Trott, Steven Djordjevic

10:15–10:30 **O-42 Nucleotide-Binding Sites Visualized by CryoEM Suggest Rotational Movement of the Motor for *Mycoplasma mobile* Gliding**

Takuma Toyonaga, Takayuki Kato, Akihiro Kawamoto, Tomoko Miyata,
Tasuku Hamaguchi, Keisuke Kawakami, Junso Fujita, Keiichi Namba,
Makoto Miyata

10:30–10:45 **O-43 Horizontal transfer of phytoplasma effector phylogen genes is driven by potential mobile units**

Nozomu Iwabuchi, Ryosuke Tokuda, Yugo Kitazawa, Takamichi Nijo,
Masato Suzuki, Kensaku Maejima, Kenro Oshima, Shigetou Namba,
Yasuyuki Yamaji

10:45–11:00 **O-44 Redundancy and essentiality of cytoskeleton protein components in *Spiroplasma helicity* and motility**

Yorick Dahan, Bastien Lambert, Alexandre Vilquin, Julien Pérochon,
Marie-Pierre Dubrana, Sybille Duret, Pananghat Gayathri, Jean-Paul Douliez,
Laure Béven

11:00–11:15 Break

11:15–11:30 **O-45 Essential protein P116 extracts cholesterol and other indispensable lipids for Mycoplasmas**

Jesús Martín Romero, David Vizarraga Revuelto, Lasse Sprankel

11:30–11:45 **O-46 Bioinformatic and Metabolomic Analyses Reveal the Potential Metabolic Functions of Genes Critical for Survival of *Mycoplasma bovis* in Cell Culture**

**Shijie Geng, Chintha K. Premachandre, Shukriti Sharma, David P. De Souza Sheik Nadeem Elahee Doomun, Jordi Hondrogiannis, Glenn F. Browning Kelly A. Tivendale, Nadeeka K. Wawegama, Sara M. Klose

11:45–12:00 **O-47 Inositol metabolism is the essential factor to the growth and virulence of *Mycoplasma hyopneumonia***

*Xing Xie, Fei Hao, Qiyang Xiong, Maoda Pang, Yanna Wei, Rong Chen, Zhenzhen Zhang, Wenbin Bao, Guoqing Shao, Daesub Song, Zhixin Feng

12:00–12:15 **O-48 *Mycoplasma pneumoniae* biofilms and the regulation of glycerol 3-phosphate oxidase activity by oxygen**

Mitchell F. Balish, Zoe E. Dapore, Ethan F. Boley, Davidson U. Nzenwata

12:15–12:30 **O-49 The Family of Type-II DNA-Methyltransferases of *Metamycoplasma hominis* including the first postulated type II MTase phase-variants**

Birgit Henrich, Lars Vogelgsang, Azlan Nisar, Sebastain Scharf, Anna Rommerskirchen, Dana Belick, Alexander T. Dilthey

12:30–12:45 **O-50 *Mycoplasma bovis* Nucleomodulin MbovP202 Inhibits Macrophage Proliferation by DNA methylation**

**Doukun Lu, Gang Zhao, Jiongxi Chen, Shujuan Wang, Yingyu Chen, Xi Chen, Changmin Hu, Jianguo Chen, Aizhen Guo

15:00–16:30 **General Meeting & Closing Ceremony**

Poster Presentation Overview

Category 1. Clinical Cases

P-001 *Tet44*: A New Ribosomal Protection Protein Conferring Tetracycline Resistance in Clinical Isolates of *Mycoplasma bovis*

**Alexandra M. Burne, Melanie Huhta, Mary B. Brown

P-002 Phenotypic and Genetic Characterization of an Atypical Virulent *Mycoplasma synoviae* Strain

Naola Ferguson-Noel

P-003 A Case Study of Swine Arthritis Caused by *Mycoplasma hyopharyngis*

Dorottya Földi, László Makrai, Gergely Tóth, Miklós Gyuranecz

O-3 Diagnostic Investigation of *Mycoplasma hyorhinis* as a Potential Pathogen Associated with Neurological Clinical Signs and Central Nervous System Lesions in Pigs

**Calvin ChengYu Ko, Maria Merodio, Ethan Spronk, James Lehman, Huigang Shen, Ganwu Li, Rachel Derscheid, Pablo Piñeyro

Category 2. Diseases

P-004 Genetic characterization of *Mycoplasma pneumoniae* strains isolated in Japan: Spread of p1 gene type 2c and 2j variant strains

Tsuyoshi Kenri, Tsutomu Yamazaki, Hitomi Ohya, Michio Jinnai, Yoichiro Oda, Sadasaburo Asai, Rikako Sato, Nobuhisa Ishiguro, Tomohiro Ohishi, Atsuko Horino, Hiroyuki Fujii, Toru Hashimoto, Hiroshi Nakajima, Keigo Shibayama

P-005 The identification of adhesive and proinflammatory function of MYPE6810, a membrane lipoprotein from *Mycoplasma penetrans*

Yuxin Li, Rong Li, Youyuan Ye, Yixue You, Peng Liu

P-006 Genome-Wide Association Study to Investigate Genetic Markers for Antimicrobial Resistance in *Mycoplasma cynos* and *Mycoplasma felis*

*Grazieli Maboni, Jeremy Chang, Walter Demczuk, Priyatharshini Ramesh, Irene Martin, Jeff Caswell, Michael Beeton

P-007 Advancement in the Development of a Safe and Efficacious Subunit Vaccine against *Mycoplasma gallisepticum*

**Jeremy M. Miller, Rosemary G. Ozyck, Edan R. Tulman, Steven M. Szczepanek, Jessica B. Malek, Lawrence K. Silbart, Steven J. Geary

P-008 Comparison of Next-Generation Sequencing (NGS) Protocols for Diagnosis of Phytoplasmas

**Barbaros Mulayim, Isil Tulum

P-009 Abattoirs and Herds Survey to Monitor the Occurrence and Distribution of *Mycoplasma* Infections in Ruminants in Nigeria

Isaac Dayo Olorunshola, Oluwafemi Babatunde Daodu, Issa Atanda Muraina, Owen Gunner, Anne Ridley, David Sunday Adegboye, Andy Rowland Peters, Robin A.J. Nicholas

P-010 Using Live Attenuated Vaccine, MslA 2204, Co-administered with a SiRNA Polyfunctional Nanoparticle Targeted Against Inflammatory Genes Up-regulated During *Mycoplasma gallisepticum* Infection

**Rosemary Grace Ozyck, Rachelle Canete, Jessica Rouge, Jessica Beaudet Malek, Lawrence K. Silbart, Steven J. Geary

P-011 Status of Phytoplasma Causing Diseases in the Philippines

Marita Sanfuego Pinili, Darwin Magsino Landicho, Sotaro Chiba

P-012 Abstract withdrawal

P-013 Development of Droplet Digital PCR (ddPCR) Technique for Quantitative Detection of Phytoplasmas

**Yigit Sabri Unlu, Isil Tulum

P-014 *Spiroplasma eriocheiris* entered *Drosophila* Schneider 2 cells and relied on clathrin-mediated endocytosis and macropinocytosis

Panpan Wei, Mingxiao Ning, Meijun Yuan, Xiangqian Li, Hao Shi, Wei Gu, Peng Liu, Wen Wang, Qingguo Meng

P-015 Visualization of Phytoplasma Infection in Plant Tissues

**Kadir Boztas, Hamide Deniz Kocabag, Kayhan Derecik, Mona Gazel, Hikmet Murat Sipahioglu, Kadriye Caglayan, Isil Tulum

P-016 The Detection of Avian *Mycoplasma* spp. in Fecal Matter from Poultry

Mattie Capehart, Michael Davis, Marianne Dos Santos, Naola Ferguson-Noel

P-017 The Detection of *Mycoplasma synoviae* in Fecal Matter from Poultry

Michael Rose Davis, Mattie Capehart, Marianne Dos Santos, Naola Ferguson-Noel

P-018 In Silico Analysis of The Putative Phytoplasma Effector SAP55 that Mimics the Lipidation Mechanism of G Proteins

**Kayhan Derecik, Isil Tulum

P-019 Identification of antigenic *Mycoplasma bovis* proteins using North American Bison (*Bison bison*) convalescent sera

Bryan Seth Kaplan, Danielle E. Buttke, Rohana P. Dassanayake, Eduardo Casa, John D. Lippolis, Jarlath E. Nally

P-020 Genome Comparison of Spiralin, P58, P89 Regions of Naturally Infected and in vitro Cultures of *Spiroplasma citri* from Different Hosts in Turkey

**Busra Kara, Kadriye Caglayan, Isil Tulum

O-2 The Association between Genital Mycoplasmas Colonization and Adverse

Pregnancy Outcomes—A Population-Based Retrospective Study from China

**Yan Xuan, Tao Yan, Xiang Hong, Xu Zhou, Jun Zhao, Bei Wang

O-15 Synergism of bovine mammary epithelial cells and bovine peripheral blood mononuclear cells enhances immunological responses to *Mycoplasma bovis*

**Noriko Imaizumi, Satoshi Gondaira, Tomochika Sugiura, Hidetoshi Higuchi

Category 3. Identification, Detection & Diagnosis

P-021 *Mycoplasma floridensis* sp. nov. from Cell Lines Developed for Diagnostic and Pathogen Discovery in Reptiles

Alexandra M. Burne, Robert J. Ossiboff, Mary B. Brown

P-022 Investigation on the Effects of Two Storage Methods of Diagnostic Samples on the Isolation of Avian *Mycoplasma* Strains

Veronica Conci, Marco Bottinelli, Micaela Picchi, Massimo Bottazzari, Ilenia Rossi, Salvatore Catania, Annalucia Tondo

P-023 The Development and Application of *Mycoplasma gallisepticum* Vaccine Strain Specific Quantitative PCR Protocols

Marianne Dos Santos, Naola Ferguson-Noel

P-024 The Occurrence of Infections with *Mycoplasma* spp. and *Ureaplasma* spp. in Clinical Cases of Respiratory Disorders in Polish Cattle Population

Katarzyna Dudek, Ewelina Szacawa, Dariusz Bednarek

P-025 A Visible Duplex Fluorescence-based LAMP assay for the Detection of *Mycoplasma bovis* and Infectious Bovine Rhinotracheitis Virus

Qing Fan, Zhixun Xie, Zhiqin Xie, Liji Xie, Sisi Luo, Meng Li, Yanfang Zhang, Jiaoling Huang, Tingting Zeng, Sheng Wang

P-026 Application of mucosal sIgA antibody in infection and immune evaluation of *Mycoplasma hyopneumoniae*

Zhixin Feng, Yun Bai, Yuan Gan, Yanna Wei, Ting Yuan, Lei Zhang, Li Wang, Bo Ni, Beibei Liu, Qiyan Xiong, Guoqing Shao

P-027 *Mycoplasma penetrans*, a Possible Urogenital Bystander More Frequent in HIV-Positive Men and Men Who Have Sex with Men

Marie Gardette, Arabella Touati, Cécile Laurier-Nadalié, Cécile Bébéar, Sabine Pereyre

P-028 Development and validation of three recombinase polymerase amplification (RPA) assays for direct and rapid detection of *Mycoplasma bovis*

Xiu jing Hao, Yang Han, Ying Zhang, Min Li

P-029 Comparison of Different Laboratory Techniques to Evaluate Growth Activity in vitro of Different *Mycoplasma hyopneumoniae* Strains

**Calvin ChengYu Ko, Pablo Pineyro, Chong Wang, Rachel Derscheid

P-030 Improving strain typing of *Mycoplasma ovipneumoniae* using multiplex PCR and Next Generation Sequencing

*Grazieli Maboni, Isaac Framst, Thomas Besser

P-031 *Mycoplasma wenyonii* circulates in cattle, deer and ticks

Laurent Xavier Nouvel, Marie-Claude Hygonenq, Chloé Saada, Laura Graziano, Nicolas Cèbe, Jean-Luc Rames, Vincent Bourret, Hélène Verheyden, Eric Baranowski, Renaud Maillard¹, Christine Citti

P-032 Serological and Molecular Detection of *Mycoplasma gallisepticum*, *Mycoplasma synoviae* and *Mycoplasma meleagridis* in Free Range Chickens in Nigeria

Isaac Dayo Olorunshola, Oluwafemi Babatunde Daodu, Issa Atanda Muraina, Owen Gunner, Anne Ridley, David Sunday Adegboye, Andy Rowland Peters, Robin A.J. Nicholas

P-033 Evaluation of Commercial Customized Plates for *Ureaplasma* spp. and *Mycoplasma hominis* Antimicrobial Susceptibility Testing and Determination of Resistance Prevalence in France in 2020

Sabine Pereyre, Nadège Henin, Amandine Dolzy, Jennifer Guiraud, Marie Gardette, Cécile Bébéar

P-034 *Mycoplasma synoviae* Genotyping: Discrimination Power of Multiple Locus Variable-Number Tandem Repeat Analysis for Live Vaccine and Wild Strains

Elisabetta Stefani, Marco Bottinelli, Andrea Matucci, Michele Gastaldelli, Verdiana Righetti, Giorgia Nai, Veronica Conci, Annalucia Tondo, Zsuzsa Kreizinger, Miklós Gyuranecz, Salvatore Catania

P-035 Presence of Anti-*Mycoplasma bovis* Antibodies in Polish Cattle Suspected of *Mycoplasma bovis* Infection

Ewelina Szacawa, Katarzyna Dudek, Dariusz Bednarek

P-036 Screening of Cattle for the Presence of Anti-*Mycoplasma bovis* Antibodies in Poland

Ewelina Szacawa, Katarzyna Dudek, Dariusz Bednarek

P-037 Abstract withdrawal

P-038 A Multiplex Fluorescence-based Loop-mediated Isothermal Amplification Assay for Identifying *Mycoplasma gallisepticum*, *Mycoplasma synoviae* and Avian orthoreovirus

Zhixun Xie, Qing Fan, Zhiqin Xie, Liji Xie Sisi Luo, Meng Li, Yanfang Zhang, Jiaoling Huang, Tingting Zeng, Mazhar Khan, Sheng Wang

Category 4. Epidemiology

P-039 Macrolide and Fluoroquinolone Resistance in *Mycoplasma genitalium* in Central Slovenia, 2017-2022

Darja Kese, Andreja Murnik Rauh, Mojca Maticic, Aljosa Obreza

P-040 Mollicutes study in freshwater fish

Ana Muniesa, Imanol Ruiz-Zarzuela, Juan C. Ramírez, José B. Poveda, Rubén S. Rosales, Ana S. Ramírez

P-041 Genetic Analysis of the *imp* Gene Encoding for the Immunodominant Membrane Protein of Phytoplasmas Associated with Lethal Yellowing Type Syndromes of Palms

Fabian Pilet

P-042 Detection of *Mycoplasma ovis* in Blood Samples from Small Ruminant Species in Cuba

Ana S. Ramírez, Roxana Marrero-Perera, Belkis Corona-González, Lisset Roblejo-Arias, Adrián A. Díaz-Sánchez, Rafael G. Matos-Rodríguez, Cristian Díaz-Corona, Yanet López-Dorta, Ernesto Vega-Cañizares, Evelyn Lobo-Rivero, Rubén S. Rosales, José B. Poveda

P-043 Intrauterine *Ureaplasma* is associated with small airway obstruction in extremely preterm infants

Xianya Zou, Hiroyuki Kitajima, Zhiqing Yuan, Yukiko Nakura, Itaru Yanagihara

Category 5. Chemotherapy & Resistance

P-044 Improved Antimicrobial Activity of Fatty Acylated Bovine NK-lysin-derived NK2A Peptide Against *Mycoplasma bovis*

Rohana Premachandra Dassanayake, William D. Boatwright, Bryan S. Kaplan, Erick M. Nicholson, Eduardo Casas

P-045 In Vitro Selection and Characterization of Resistance to Josamycin and Pristinamycin in *Mycoplasma genitalium*

Chloé Le Roy, Otgonjargal Byambaa, Carla Balcon³, Cécile Bébéar, Sabine Pereyre

P-046 Apigenin suppresses mycoplasma-induced alveolar macrophages necroptosis via enhancing the methylation of TNF- α promoter by PPAR γ -Uhrf1 axis

Xiuzhen Mei, Jian Wang, Zhixin Feng, Zhenzhen Zhang

P-047 Efflux transporters are involved in *Mycoplasma genitalium* tetracycline resistance

Li Xiao, Donna M. Crabb, Thomas P. Atkinson, Ken B. Waites, William M. Geisler

P-048 Antimicrobial Activity of Manuka Honey against Drug Resistant Mycoplasmas

Li Xiao, Donna M. Crabb, Melanie H. Fecanin, Thomas P. Atkinson, William M. Geisler

Category 6. Immunology & Vaccines

P-049 The Effect of Pegbovigrastim Administration on the Immune Response of

Calves Infected with *Mycoplasma bovis*

Katarzyna Dudek, Ewelina Szacawa, Magdalena Wasiak, Dariusz Bednarek, Michał Reichert

P-050 Non-replicating Vaccines for Better Control of *Mycoplasma gallisepticum* in Breeder Poultry Flocks

Kannan Ganapathy, Congriev Kumar Kabiraj

P-051 Evaluation of *Mycoplasma gallisepticum* (MG) ts-304 vaccine as a live attenuated vaccine in day-old specific pathogen-free (SPF) chicks

Anna Kanci Condello, Nadeeka K. Wawegama, Dilhani Ekanayake, Ling Zhu, Kelly A. Tivendale, Pollob K. Shil, Sameera Mohotti, Gregory J. Underwood, Philip Todhunder, Amir H. Noormohammadi, Glenn F. Browning

P-052 Identification of Vaccine Targets in Ruminant *Mycoplasma* Pathogens Using in Silico and Proteomic Approaches

Isaac Dayo Olorunshola, Stephen Fitzgerald, Kevin McLean, Tom McNeilly, Andy R. Peters

P-053 The molecular mechanism of *Mycoplasma bovis* lipid-associated membrane protein GLCP inhibiting host EBL cells apoptosis

Qiao Pan, Yujuan Zhang, Tong Liu, Qi Wu, Qingyuan Xu, Jiuqing Xin

P-054 RAMbo-V project: paving the way for the development of synthetic vaccines against *Mycoplasma bovis*

Fabien Rideau, Patrick Hogan, M'hamed Derriche, Géraldine Gourgues, Gwendoline Pot, Elisa Simon, Alain Blanchard, Renaud Maillard, Christine Citti, Laurent-Xavier Nouvel, Laure Béven, Carole Lartigue, Pascal Sirand-Pugnet¹, Yonathan Arfi, Eric Baranowski

P-055 Indigenous vaccine trials for mycoplasmosis in small ruminant of Pakistan

Muhammad Kamal Shah, Umer Sadique Khat, Shakeeb Ullah Khan, Muhammad Ijaz Ali, Hamayun Khan, Ali Zaman Paracha, Ata Ur Rehman

P-056 Glyceraldehyde-3-Phosphate Dehydrogenase (GAPDH) Activity in *Mycoplasma synoviae* and Vaccine Strain MS-H

Sahar Zare, Marc Serge Marendra, Sara Klose, Amir Hadji Noormohammadi

P-057 A secreted serine/threonine phosphatase encoded by Mbov_0725 of *Mycoplasma bovis* attenuate activation of MAPK p38 and ERK

Hui Zhang, Doukun Lu, Yiqiu Zhang, Yujia He, Shujuan Wang, Xi Chen, Yingyu Chen, Changmin Hu, Aizhen Guo

O-14 The role of pulmonary interstitial macrophages in *Mycoplasma pneumoniae* induced inflammation

*Arlind B. Mara, Xin Li, Kavita Rawat, William T. King, Claudia V. Jakubzick

O-17 Global Transcriptional Changes in the Trachea After Vaccination and Infection with *Mycoplasma gallisepticum* in Immunosuppressed Chickens

*Sathya N. Kulappu Arachchige, Anna Kanci Condello, Nadeeka K. Wawegama,

Glenn F. Browning

Category 7. Cell Biology, Physiology & Metabolism

P-058 Elucidating the Role of Fibril Protein in Spiroplasma Swimming using JCVI-syn3B

**Ali Ahsan, Hana Kiyama, Yuya Sasajima, Makoto Miyata

P-059 Elongated JCVI-syn3B Cell Caused by Expression of *Mycoplasma pneumoniae*-gliding Type Cytoadherence Regulatory Locus

**Muhammad Alqiffari, Hana Kiyama, Daisuke Nakane, Tsuyoshi Kenri, Makoto Miyata

P-060 Electron Paramagnetic Resonance (EPR) Analysis on Nobel Protein Assemblies, Dimer of Hexameric F₁-like ATPases and Fibril Helical Filament, Involved in *Mycoplasma* Gliding and *Spiroplasma* Swimming

Toshiaki Arata, Kazunobu Sato, Takuma Toyonaga, Yuya Sasajima, Taiji Kanda, Isao Suetake, Akio Inoue, Takeji Takui, Toshimichi Fujiwara, Yoh Matsuki, Makoto Miyata

P-061 Importance of MreB5 ATPase activity in *Spiroplasma citri* helicity and motility

Yorick Dahan, Bastien Lambert, Sybille Duret, Marie-Pierre Dubrana, Vani Pande, Mrinmayee Bapat, Shrikant Harne, Jean-Paul Douliez, Pananghat Gayathri, Laure Béven

P-062 In silico analysis of cytoskeleton protein sequences in *Spiroplasma* species

Yorick Dahan, Bastien Lambert, Marie-Pierre Dubrana, Laure Béven

P-063 Gliding Machinery of *Mycoplasma mobile* Visualized by Electron Tomography

**Minoru Fukushima, Takuma Toyonaga, Yuhei O. Tahara, Daisuke Nakane, Makoto Miyata

P-064 Probing Interactions Between Adhesins and Attachment Organelle Core Proteins in *Mycoplasma pneumoniae*

Kristina A. Gara, Mitchell F. Balish

P-065 Cryo-EM observation of γ -polyglutamic acid hydrogels from *Bacillus subtilis* of Firmicutes

Tasuku Hamaguchi, Daisuke Unabara, Koji Yonekura

P-066 The analysis of *Spiroplasma eriocheiris* cell division proteins

Taishi Kasai, Yuhei O. Tahara, Makoto Miyata, Daisuke Shiomi

P-067 Mutational Analyses of MreB5 Essential for *Spiroplasma* Swimming Reconstructed in JCVI-syn3B

Hana Kiyama, Shigeyuki Kakizawa, Daichi Takahashi, Yuya Sasajima, Yuhei O. Tahara, Makoto Miyata

P-068 Morphology and motility of *Spiroplasma* species differing in their

cytoskeleton gene content

Bastien Lambert, Yorick Dahan, Alexandre Vilquin, Marie-Pierre Dubrana, Sybille Duret, Jean-Paul Douliez, Jean-Christophe Baret, Nicolas Martin, Laure Béven

P-069 A new *Spiroplasma* species with a highly reduced genome discovered from a coral metagenome in Okinawa

*Yumiko Masukagami, Jinyeong Choi, Maria E. A. Santos, Filip Husnik

P-070 Structure and Function of Gli123 Involved in *Mycoplasma mobile* Gliding

Daiki Matsuike, Yuhei O. Tahara, Takahiro Nonaka, Heng Ning Wu, Tasuku Hamaguchi, Hisashi Kudo, Yuuki Hayashi, Munehito Arai, Makoto Miyata

P-071 *Haloplasma* Motility Reconstituted in JCVI-syn3B by Combination of Two MreB Proteins

**Mone Mimura, Hana Kiyama, Shingo Kato, Yuya Sasajima, Atsuko Uenoyama, Shigeyuki Kakizawa, Andre Antunes, Tomoko Miyata, Fumiaki Makino, Keiichi Namba, Makoto Miyata

P-072 Using minimized mycoplasma JCVI-Syn3 to analyze *Ureaplasma* pathogenicity factors

Fumiko Nishiumi, Yukiko Nakura, Heng-Ning Wu, Shigeyuki Kakizawa, Yo Suzuki, John I. Glass, Itaru Yanagihara

P-073 Cell division in bacteria without a cell wall: Mechanism of action of the bacterial cell division proteins FtsZ and FtsA

Gayathri Pananghat, Joyeeta Chakraborty, Soumyajit Dutta, Vaishnavi Bahulekar

P-074 Impact of spiralin deletion on *Spiroplasma citri* membrane organization and composition, morphology and motility

Julien Pérochon, Yorick Dahan, Alexandre Vilquin, Julia Guéguéniat, Sybille Duret, Fabien Moroté, Marie-Pierre Dubrana, Touria Cohen-Bouhacina, Christine Grauby-Heywang, Laure Béven

P-075 Investigating the Glyco-Proteome Landscape of Minimal Genome *Mycoplasma* spp.

**John W. Sanford, James M. Daubenspeck, Kevin Dybvig, T. Prescott Atkinson

P-076 Cryo electron microscopy of cytoskeletal 'fibril' protein involved in *Spiroplasma* swimming

*Yuya Sasajima, Takayuki Kato, Tomoko Miyata, Hana Kiyama, Akihiro Kawamoto, Fumiaki Makino, Keiichi Namba, Makoto Miyata

P-077 Structural and functional studies of antibodies halting motility in *Mycoplasma pneumoniae* reveal the dynamic nature of the adhesion complex

**Marina Marcos Silva, David Vizarraga Revuelto, Akihiro Kawamoto, Jesús Martín Romero, Fumiaki Makino, Tomoko Miyata, Makoto Miyata, Jaime Piñol Ribas, Keiichi Namba, Tsuyoshi Kenri, Ignacio Fita Rodriguez

P-078 Formation process of *Bacillus subtilis* L-form visualized by quick-freeze

deep-etch replica electron microscopy
Yuhei O. Tahara, Isil Tulum, Makoto Miyata

P-079 Assembly properties of bacterial actin MreB5 essential for *Spiroplasma* swimming

*Daichi Takahashi, Ikuko Fujiwara, Makoto Miyata

P-080 *Spiroplasma* swimming mechanism suggested by fluorescently labeled MreBs expressed in JCVI-syn3B

**Yoshiki Tanaka, Hana Kiyama, Makoto Miyata

P-081 Visualization of MreB4 and MreB5 Filaments Driving *Spiroplasma* Swimming by Using JCVI-Syn3B and Electron Microscopy

**Haruka Yuasa, Yuya Sasajima, Hana Kiyama, Daichi Takahashi, Takuma Toyonaga, Tomoko Miyata, Fumiaki Makino, Keiichi Namba, Makoto Miyata

O-46 Bioinformatic and Metabolomic Analyses Reveal the Potential Metabolic Functions of Genes Critical for Survival of *Mycoplasma bovis* in Cell Culture

**Shijie Geng, Chintha K. Premachandre, Shukriti Sharma, David P. De Souza Sheik Nadeem Elahee Doomun, Jordi Hondrogiannis, Glenn F. Browning Kelly A. Tivendale, Nadeeka K. Wawegama, Sara M. Klose

Category 8. Host-Pathogen Interaction (Virulence & Pathogenesis)

P 082 An atypical F-like ATPase is critical to the function of the antibody cleavage system MIB-MIP

Julien Berlureau, Laure Bataille, Robin Anger, Géraldine Gourgues, Carole Lartigue, Pascal Sirand-Pugnet, Yonathan Arfi

P-083 Novel In Planta Interaction of '*Candidatus* Phytoplasma solani' SAP11-like and SAP54-like Effectors With Plant Transcription Factors

Marina Drčelić, Bruno Polak, Andreja Škiljaica, Nataša Bauer, Martina Šeruga Musić

P-084 To Be or Not to Be! Complex Non-stochastic Dynamics of Variable Surface Lipoprotein Expression and Selection in *Mycoplasma agalactiae* in vivo

Reinhard Ertl, Rene Brunthaler, Melanie Stargardt, Debasmitha Mishra, Joachim Spergser, Renate Rosengarten, Rohini Chopra-Dewasthaly

P-085 Characterisation of the Transcriptional Response of the Tracheal Mucosa of Chickens to Chronic *Mycoplasma synoviae* Infection

Kanishka I. Kamathewatta, Anna Kanci Condello, Sathya N. Kulappu Arachchige, Neil D. Young, Pollob K. Shil, Amir H. Noormohammadi, Nadeeka K. Wawegama, Glenn F. Browning

P-086 NOD2 activated by Duf16 in *Mycoplasma pneumoniae*

Hai Xia Luo, Yong Yu Wang, Min Li

P-087 Genome analysis of '*Candidatus* Phytoplasma pruni' strain PR2021 associated with poinsettia

**Shen-Chian Pei, Ting-Hsuan Hung, Chih-Horng Kuo

P-088 Immune Profiling of Experimental Murine Mastitis Reveals Conserved Response to Mammary Pathogenic *Escherichia coli*, *Mycoplasma bovis*, and *Streptococcus uberis*

Peleg Schneider, Hagit Salamon, Nathalie Weizmann, Einat Nissim-Eliraz, Inna Lysnyansky, Nahum Yehuda Shpigel

P-089 A feasibility study on cell growth inhibition of *Ureaplasma* species with *Lactobacillus acidophilus*

Hengning Wu, Michinobu Yoshimura, Yukiko Nakura, Fumiko Nishiumi, Xianya Zou, Masami Sato, Naomi Kokubo, Tomio Fujita, Shinsuke Fujiwara, Itaru Yanagihara

P-090 *Mycoplasma hyopneumoniae* membrane protein Mhp271 interacts with host UPR protein GRP78 to facilitate infection

Jiuqing Xin, Qiao Pan, Qingyuan Xu, Tong Liu, Yujuan Zhang

P-091 Hijacking of Host Plasminogen by *Mesomycoplasma (Mycoplasma) hyopneumoniae* via GAPDH: A Systematic Virulence Mechanism to Promote Adhesion and Extracellular Matrix Degradation

Yanfei Yu, Jiyang Wang, Shiyang Li, Jia Wang, Qiyang Xiong, Zhixin Feng, Guoqing Shao

P-092 Abstract withdrawal

P-093 Novel Mycoplasma Nucleomodulin MbovP475 Decreased Cell Viability by Regulating Expression of CRYAB and MCF2L2

*Gang Zhao, Doukun Lu, Shujuan Wang, Aizhen Guo

O-23 The Secreted MbovP475 of *Mycoplasma bovis* Induces Macrophage Pro-inflammatory Response through CRYAB

*Aizhen Guo, Shujuan Wang, Gang Zhao, Doukun Lu, Yingyu Chen, Xi Chen, Changmin Hu, Jianguo Chen

O-25 Studying Interactions between 12 *Mycoplasma bovis* and Bovid Tissue Culture

*Elhem Yacoub, Antonio Ruzzini, Murray Jelinski

O-39 Bovine Tracheal Organoids vs 2D Cell Cultures as Models to Study *Mycoplasma bovis* Cell Invasion

**Chintha K. Premachandre, Pin Shie Quah, Bang Manh Tran, Elizabeth Vincan, Georgia Deliyannis, Glenn F. Browning, Paola K. Vaz, Nadeeka K. Wawegama

O-41 Genomic analysis of *Mycoplasma bovis* causing bovine respiratory disease in Australian feedlot cattle

*Veronica Maria Jarocki, Mauda Al Khallawi, Tony Batterham, Kiro Petrovski, Darren Trott, Steven Djordjevic

O-47 Inositol metabolism is the essential factor to the growth and virulence of *Mycoplasma hyopneumoniae*

*Xing Xie, Fei Hao, Qiyang Xiong, Maoda Pang, Yanna Wei, Rong Chen,

Zhenzhen Zhang, Wenbin Bao, Guoqing Shao, Daesub Song, Zhixin Feng

O-50 *Mycoplasma bovis* Nucleomodulin MbovP202 Inhibits Macrophage Proliferation by DNA methylation

**Doukun Lu, Gang Zhao, Jiongxi Chen, Shujuan Wang, Yingyu Chen, Xi Chen, Changmin Hu, Jianguo Chen, Aizhen Guo

Category 9. Mycoplasma Engineering & New Tools

P-094 New transformation method for JCVI-syn3B cells

Atsuko Uenoyama, Hana Kiyama, Makoto Miyata

P-095 Improved Transformation Efficiency in *Mycoplasma hominis* Allows Disruption of the MIB-MIP System Targeting Human Immunoglobulins

Jennifer Guiraud, Chloé Le Roy, Fabien Rideau, Pascal Sirand-Pugnet, Carole Lartigue, Cécile Bébéar, Yonathan Arfi, Sabine Pereyre

P-096 Adaptive laboratory evolution of JCVI-syn3.0B to low temperature

*Masaki Mizutani, Ryuichi Koga, Takema Fukatsu Shigeyuki Kakizawa

P-097 Reprogramming the synthetic cell JCVI-Syn3B for the production of active ingredients of interest to bio-based industry

Raquel Sampaio de Oliveira, Betúlia de Moraes Souto, Betania Ferraz Quirino, John I. Glass, Elibio Rech, Daniela Matias de Carvalho Bittencourt

P-098 A proposal to use ciliate *Paramecium* as a natural host model

Takashi Shimizu, Masato Tachibana, Kenta Watanabe, Masahisa Watarai

P-099 Improved efficiency of mycoplasma genome transplantation by DNA repair

Kazuhito V. Tabata, Mana Ono, Nacyra Assad-Garcia, John I. Glass, J. Craig Venter, Masayuki Su'etsugu, Hiroyuki Noji

O-34 Engineering a *Mycoplasma* Surface Display tool for Protein-Protein Interaction Screening

**Javier Gonzalez de Miguel, Irene Rodriguez Arce, Daniel Gerngross, Ariadna Montero Blay, Luis Serrano Pubul

Category 10. Omics Studies

P-100 Remarkable Abundance of Potential Mobile Group II Introns in genome of PWB Phytoplasma Strain PR34

Kiran Kirdat, Bhavesh Tiwarekar, Shivaji Sathe, Amit Yadav

P-101 Genome analyses of '*Candidatus Phytoplasma asteris*' strains highlight heterogenicity and regularities

Rafael Toth, Anna Marie Ilic, Bruno Huttel, Michael Kube

P-102 Impact of Potential Mobile Units on Genome Stability in Phytoplasma

Evolution

**Xiao-Hua Yan, Shen-Chian Pei, Chih-Horng Kuo

Category 11. Phylogeny & Taxonomy

P-103 Phylogenetic Comparison of *Mycoplasma gallisepticum* Sequenced Genomes for Relatedness to Commercial Avirulent Vaccine Strains

Spencer Leigh, Jeff Evans

P-104 New *Mycoplasma* Isolated from Portuguese Man o' War

Owen Brad Spiller, Ian C. Boostrom, Jordan A. T. Mathias, José B. Poveda, Rubén S. Rosales, Ana S. Ramírez

Category 12. Plant & Insect Mollicutes

P-105 Molecular characterizations of *Raphanus sativus* L. witches'-broom disease and the genetic status of the 'Candidatus Phytoplasma aurantifolia' strains (16SrII-V) in Yulin, Taiwan

**Yi-Ching Chiu, Pei-Qing Liao, Yuh-Kun Chen, Chih-Horng Kuo, Jun-Yi Yang

P-106 Undetectable nature of phytoplasma in Cassava witches' broom diseased leaf tissues by conventional methods

Darwin M. Landicho, Ray Jerome M. Montañez, Marita S. Pinili, Sotaro Chiba

P-107 A genomics framework to phytoplasma taxonomy: The 16SrII and 16SrXXV phytoplasmas as a case study

Bianca Rodrigues Jardim, Lucy T. T. Tran-Nguyen, Cherie Gambley, Ali M. Al-Subhi, Xavier Foissac, Hong Cai, Jun-Yi Yang, Richard Davis, Lynne Jones, Brendan Rodoni, Fiona E. Constable

P-108 A large-scale investigation into phytoplasma diversity in Australia using metagenomics

Bianca Rodrigues Jardim, Cherie Gambley, Lucy T. T. Tran-Nguyen, Craig Webster, Monica Kehoe, Samantha Bond, Richard Davis, Lynne Jones, Nandita Pathania, Fiona E. Constable, Brendan Rodoni

P-109 Towards understanding of a versatile pathogen – quest for putative effectors in 'Candidatus Phytoplasma solani' genomes

Martina Šeruga Musić, Bruno Polak, Marina Drčelić, Shen-Chian Pei, Chih-Horng Kuo

P-110 Target degradation specificity of a phytoplasma effector protein phylogen is regulated by an ability to recruit host proteasome shuttle protein

**Masato Suzuki, Nozomu Iwabuchi, Yugo Kitazawa, Kensaku Maejima, Juri Matsuyama, Oki Matsumoto, Kenro Oshima, Shigetou Namba, Yasuyuki Yamaji

O-26 Modulation of transcription factors involved during Phytoplasma-associated phyllody development in *Sesamum indicum* L. (Sesame) plants

**Pratima Verma, Suman Lakhanpaul, Ramya Parakkunnel

O-29 Comprehensive search for amino acid residues involved in target recognition of a phytoplasma effector protein by random mutagenesis-based screening

**Oki Matsumoto, Yugo Kitazawa, Nozomu Iwabuchi, Kensaku Maejima, Masato Suzuki, Juri Matsuyama, Hiroaki Koinuma, Kenro Oshima, Shigetou Namba, Yasuyuki Yamaji