



HAL
open science

The arbuscular mycorrhizal transportome, next stop please

Pierre-Emmanuel Courty, Laurent Bonneau, Leonardo Casieri, Marine Forges, Carole Pfister, Diederik van Tuinen, Daniel Wipf

► To cite this version:

Pierre-Emmanuel Courty, Laurent Bonneau, Leonardo Casieri, Marine Forges, Carole Pfister, et al.. The arbuscular mycorrhizal transportome, next stop please. 9. International Conference on Mycorrhiza, Jul 2017, Prague, Czech Republic. hal-02784942

HAL Id: hal-02784942

<https://hal.inrae.fr/hal-02784942v1>

Submitted on 4 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

ICOM9 – FINAL DETAILED PROGRAMME

Sunday 30 July

Meridian + foyer

16:00–22:00 Registration, putting up posters

Foyer

19:00–21:00 Welcome mixer with live music

Zenit + Nadir

21:00–22:00 Opening ceremony
Chair: Jan Jansa

Monday 31 July

Zenit + Nadir

08:30–12:00 **PLENARY SESSION: Establishing and maintaining mycorrhizas: The molecular interplay**
Chair: Paola Bonfante

08:30–09:05 **Reprogramming root cells and altering lipid metabolism to accommodate arbuscular mycorrhizal fungi**
KL (ID 512)
Harrison MJ

09:05–09:25 **Effector warfare: the role of effector proteins in the establishment and maintenance of mycorrhizal interactions**
IL (ID 67)
Plett JM, Plett KL, Pereira M, Wong JWH, Hortal S, Veneault-Fourrey C, Kohler A, Martin F, Anderson IC

09:25–09:45 **Nitrogen metabolism in endomycorrhizal symbioses: is orchid mycorrhiza unique?**
IL (ID 115)
Perotto S, Fochi V, Kohler A, Girlanda M, Balestrini R

09:45–10:05 **Lipid transfer from plants to arbuscular mycorrhiza fungi**
IL (ID 310)
Gutjahr C

10:05–10:40 *Coffee break*

10:40–11:00 **Plant immunity impacting beneficial interactions**
IL (ID 511)
Zuccaro A

11:00–11:20 **The arbuscular mycorrhizal transportome, next stop please!**
IL (ID 105)
Courty PE, Bonneau L, Casieri L, Forges M, Pfister C, van-Tuinen D, Wipf D

11:20–11:40 **Plant-derived sugar efflux in ectomycorrhizas**
IL (ID 184)
Nehls U, Nintemann S, Neb D, Hintelmann A

11:40–12:00 Sweet talk with endo- and ecto-mycorrhizal symbionts: do they speak the same language?
IL (ID 64) Cope KR, Venkateshwaran M, Maeda J, Ma C, Strauss SH, Ané JM

12:00–13:30 Lunch break

Meridian + foyer

13:30–15:00 Attended poster session 1
even ID numbers (i.e. 2, 4, 6, etc.)

15:00–15:30 Coffee break

Zenit + Nadir

15:30–18:30 CONCURRENT SESSION: Mycorrhizas in agro- and agroforestry ecosystems
Chairs: Amadou Ba, Erik Verbruggen

15:30–15:45 Arbuscular mycorrhiza induces complementarity in mixtures of maize varieties resulting in overyielding
CL (ID 89) Wang XX, Hoffland E, Wang F, Feng G, Kuyper T

15:45–16:00 Field reality: short-scale soil heterogeneity impacts mycorrhizal contribution to maize P nutrition under contrasted fertilization
CL (ID 164) Campos Soriano L, Taschen E, Bach M, Erel R, Dezette D, Salvi S, San Segundo B, Hinsinger P

~~**16:00–16:15** Multi-year AMF field application on cereals and pseudocereals: a focus on micronutrients and secondary metabolites
CL (ID 242) Pellegrino E, Ciccolini V, Coccina A, Ercoli L~~ **WITHDRAWN**

16:00–16:15 Effects of nitrogen and phosphorus addition on ectomycorrhizal community composition and function
CL+P (ID 163) Almeida JP, Wallander H, Rosenstock **UPGRADED FROM SPEED TALK**

16:15–16:30 Does inoculation with introduced *Rhizoglyphus irregularis* DAOM-197198 change AMF community structure in the field?
CL (ID 273) Masse J, Lachance G, Vialle A, Hijri M

16:30–17:00 SPEED TALKS (5 minutes each)

ST+P (ID 136) **Locally diverse arbuscular mycorrhizal fungal communities differentially affect plant growth and nutrition**
Turrini A, Sbrana C, Avio L, Bonilla Looor MJ, Bedini A, Santini G, Giovannetti M

ST (ID 57) **Bamboo forest expansion increases soil organic carbon through its effect on soil arbuscular mycorrhizal fungal community and abundance**
Qin H

ST+P (ID 173) **Exploring functional applications of arbuscular mycorrhizal fungi in sweet cherry and links to fruit quality**
Barry K, Abobaker A, Mohammed R, Mohamed H, Bound S, Glen M, Swarts N, Measham P

- ST+P (ID 175) **Contribution of arbuscular mycorrhizas to crop nutrition and health in maize agroecosystems**
Larsen J, Lopez Carmona D, Sarabia M, Aguilar R, Ortiz Salgado D, Real Santillan O, Alvarado Herrejon M, Saucedo Correa E, Zitlalpopoca Hernandez G, Gutierrez Nuñez S
- ST+P (ID 318) **Both *in vivo*- and *in vitro*-produced arbuscular mycorrhizal inoculum improve performance of stressed *Malus domestica***
Racsko J, Garcia S
- ST+P (ID 98) **The potential of ‘biofertilization’ and ‘bioirrigation’ for enhancing legume-cereal intercropping yield**
 Saharan K
- 17:00–17:15
 CL (ID 28) **Under pressure: overgrazing decreases mycorrhizal colonization of preferred and unpreferred grasses in the Patagonian steppe**
Grimoldi AA, Cavagnaro RA, Pero E, Dudinszky N, Golluscio RA
- 17:15–17:30
 CL (ID 215) **Improving production of globally important crops by using AMF genetic variability and in vitro production**
Rodriguez A, Ceballos IC, Ordoñez M, Villard L, Sanders IR
- 17:30–17:45
 CL (ID 117) **Using genetic variability of arbuscular mycorrhizal fungi to improve cassava water-stress tolerance in Africa**
Peña R, Sanders I, Rodriguez A, Thuita M, Masso C
- 17:45–18:00
 CL (ID 197) **How reliable are microbial inoculants in agriculture for improving yield and nutrient use efficiency? – a meta-analysis**
Schütz L, Gattinger A, Meier MS, Müller A, Mäder P, Boller T, Natarajan M
- 18:00–18:30 **SPEED TALKS** (5 minutes each)
- ST+P (ID 299) **Linking fertility amendments, field management, and sorghum genotypes with AM fungi and grain nutritional quality**
Cobb AB, Wilson GWT
- ST (ID 159) **Conservation Agriculture – Are mycorrhizal fungi also conserved?**
Dames J, Sekgota W, Koch S
- ST+P (ID 206) **Efficiency of six AMF consortia on papaya plants from six different natural ecosystems of Mexico**
 Trejo D, Maldonado-Mendoza IE, Banuelos J
- ST+P (ID 305) **The coffee agroecosystem highlights possible non-host drivers of diversity in AMF communities**
Aldrich-Wolfe L, Black K, Shivega WG, Hartmann ELD, Johnson PG, McGlynn RD, Schmaltz LC, Asheim RJ
- ~~ST+P (ID 163) **Effects of nitrogen and phosphorus addition on ectomycorrhizal community composition and function**~~
~~Almeida JP, Wallander H, Rosenstock N~~ **UPGRADED TO FULL TALK (see above)**
- ST+P (ID 462) **Impact of trees on mycorrhizal abundance and soil fertility in low-input maize cropping systems**
Dierks J, Blaser WJ, Gamper HA, Six J **UPGRADED FROM POSTER**

- ST (ID 40) **Does rapid urbanisation pressure in Delhi also threatens biodiversity of Arbuscular Mycorrhizal fungi?**
Gupta MM
- POSTERS**
- P (ID 1) **Elemental Stoichiometry of indicates predominant influence of potassium and phosphorus limitation on arbuscular mycorrhizal symbiosis in acidic soil at high altitude**
Khan MH, Meghvansi MK, Gupta R
- P (ID 3) **The source of Arbuscular Mycorrhizal fungi inoculum improved the growth and nutrient uptake of *Faidherbia albida* (Del.) A. Chev. tree seedlings**
Hizikias EB, Hailemariam M, Araya T, Hadgu KM
- P (ID 6) **Improving growth performance of *Allanblackia floribunda* cuttings using mycorrhizal association**
Tsobeng AC, Tchinmegni FI, Ngonkeu ELM, Van Damme P, Ofori D, Tchoundjeu Z, Jamnadass R
- P (ID 8) **AM fungi development in not irrigated rice paddy field**
Abdurashytov S, Abdurashytova E, Sitnikova A, Egovceva A
- P (ID 19) **Diversity of arbuscular mycorrhizal fungi in Rhizosphere soil of undomesticated sugarcane, *Saccharum spontaneum* L. in Hainan, China**
Zhang J, Wang Q, Qin X, Bao H, Yan W, Huang J, Chen T
- P (ID 23) **Relationship between arbuscular mycorrhizal fungi and forage grasses under defoliation at different phosphorus supplies**
Cavagnaro RA, Oyarzabal M, Oesterheld M, Grimoldi AA
- ~~P (ID 24) **Effect of commercial mycorrhizal inoculum (Ectovit and Symbivit) on *Quercus suber* growth at nursery stage**~~
~~Beddiar A, Ksentini H, Meddad Hamza A~~ **WITHDRAWN**
- ~~P (ID 27) **The role of arbuscular mycorrhizal fungi on soil aggregation and crop nutrition in agro-ecosystems**~~
~~Muchane MN, Vanlauwe B, Jefwa J, Kuyper T~~ **WITHDRAWN**
- P (ID 29) **Recurrent glyphosate application reduces arbuscular mycorrhizal inoculum potential in a pampean grassland of Argentina**
Omacini M, Druille M, Guercio JP, Di Maio D, García-Parisi P
- P (ID 30) **Quantitative assay of ectomycorrhiza of *Pinus caribaea* in a nursery in Uganda**
Opiro LK
- P (ID 31) **Arbuscular mycorrhizal fungi in stockpile soils of South African coal mines**
Adeleke RA, Ezeokoli O, Nwangburuka C
- P (ID 37) **Mycorrhizal colonization affects rice gene expression of resistance traits in response to herbivore feeding**
Bernaola L, Bedre R, Stout M
- P (ID 41) **Persistence and effectiveness of *Rhizophagus irregularis* isolate IR27 on the fruit production of jujube trees in a semi-arid field condition**
Thioye B

- P (ID 44) **Historical land use determines arbuscular mycorrhizal communities regardless of decades since intensive agricultural conversion**
Faggioli VS, Cabello MN, Langarica-Fuentes A, Covacevich F, Daniell TJ
- P (ID 51) **Diversity and richness of AMF in avocado crops**
Lara Chavez MBN, Ceron Antonio R, Vargas Sandoval M, Aguirre Paleo S, Pedraza Santos ME, Espinosa Prado JM
- P (ID 69) **Bio-fertilization of pea (*Pisum sativum* L.) with arbuscular mycorrhizal fungi enhanced the seed yield and quality in organic farming**
Labidi S, Jbeli I, Dalpé Y, Ben Jeddi F
- P (ID 113) **Mycorrhizal inoculation differentially affects Touriga Nacional grapevine performance in Cu-contaminated and non-contaminated soils**
Nogales A, Santos ES, Abreu MM, Arán D, Pereira HS, Lopes CM, Viegas W
- P (ID 156) **Response of rhizosphere microbial diversity in a rotation of cucumber with *Volvariella volvacea***
Yang W, Wang X, Luo Y
- P (ID 170) **Isolates of arbuscular mycorrhizal fungi differentially impact carrot cultivars during water restriction**
Keller-Pearson M, Verhaalen K, Joachim A, Smith B, Holubets B, Peterson A, Liu Y, Pederson K, Silva EM, Ané JM
- P (ID 176) **AMF species dependency governs better tree physiology, growth and leaf nutritional quality of mulberry seedlings**
Shi SM, Chen K, Gao Y, Liu B, Yang XH, Huang XZ, Liu GX, Zhu LQ, He XH
- P (ID 209) **Mycorrhizal networks between vegetation islands naturally established in metal mine residues**
Sánchez-López AS, González-Chávez MdCA, Carrillo-Gonzalez R
- P (ID 210) **Phytoremediation assisted by mycorrhizal fungi of a Mexican defunct lead acid battery recycling site**
Carrillo-Gonzalez R, González-Chávez MdCA, Cuellar-Sanchez A, Delgado Alvarado A, Suarez Espinosa J, Solis Dominguez F, Maldonado-Mendoza I
- P (ID 221) **Comparative study of the efficacy of biofertilizers on performance of TC banana cv. Gros michel**
Kavoo AM, Kahangi E, Ateka E, Jefwa J, Onguso J THE PRESENTING AUTHOR CHANGED
- ~~P (ID 236) **Freezing effects in *Quercus faginea* and *Quercus ilex* seedlings mycorrhizated with different fungi**~~
~~Benito Matías L, Álvarez A~~ **WITHDRAWN**
- P (ID 237) **Mycorrhizal effectiveness from soils with different land-uses from tropical highlands of Colombia**
Londoño DC, Osorio NW
- ~~P (ID 245) **Arbuscular mycorrhizae structures in organic coffee leaf litter**~~
~~Díaz Ariza LA~~ **WITHDRAWN**
- P (ID 253) **Future regulation of mycorrhiza products in Europe: Biostimulant, microbial, fertilizer, improving nutrition efficiency product?**
Schneider C, Hutter I

- P (ID 254) **Influence of the Arbuscular Mycorrhizal Fungus *Rhizophagus irregularis* on Phosphorus Uptake and Growth of Sorghum and Okra Plants under Water-Deficient Conditions**
Eltigani A, Ngwene B, Müller A, George E
- P (ID 255) **Ectomycorrhizal symbionts of silver fir (*Abies alba* Mill.)**
Unuk T, Grebenc T
- P (ID 265) **Cadmium accumulation and uptake dynamics in AMF inoculated cocoa**
Jácome DM, Fernández JC, Rodríguez A
- P (ID 267) **Ectomycorrhizal hypogeous fungi at the upper timber line – recent findings and new species**
Grebenc T, Unuk T, Sulzbacher M, Jabeen S, Khalid AN, Karadelev M
- ~~P (ID 283) **Assessment of mycorrhizal functions in field: what we can learn from crop ecology**~~
~~Ciccolini V, Pellegrino E, Ercoli L~~ **WITHDRAWN**
- P (ID 315) **The project fertiledat palm – bio-inoculation and organic matter management for sustainable date palm propagation and cultivation**
Symanczik S, Bouamri R, Hafidi M, Fki L, Mäder P
- P (ID 325) **Study of an efficient DBP-degrading bacteria and its potential for reducing DBP accumulation in vegetable**
Zhao HM, Xiang L, Mo CH, Li YW, Li H, Cai QY
- P (ID 326) **Effects of Arbuscular Mycorrhizal Fungi (AMF) on the Growth, Cd accumulation and Soil Enzyme Activity of Upland rice in Cadmium Contaminated Soil**
Xiang L, Luo F, Li H, Mo C
- P (ID 327) **Diversity index of Arbuscular Mycorrhizal Fungi in Colombian Andean transect**
Ramirez M, Serralde DP, Peñaranda AM, Perez UA, Rodriguez A
- P (ID 330) **Glomaceae number of spores responds to SOC content in karst seasonal tropical forest soils of Yucatán, México**
Estrada-Medina H, Manrique-Caamal S, Jimenez-Osornio J, Allen MF
- P (ID 333) **Effect of agronomic practices on arbuscular mycorrhizal root colonisation and inoculum density in different cultivars of spelt wheat (*Triticum spelta*)**
Mohammed NS, Cooper J, Leifert C
- P (ID 343) **Growth response of four leguminous trees to native arbuscular mycorrhizal fungi from Indonesian forest soils**
Maulana AF, Cheng W, Tawaraya K
- P (ID 344) **The effect of AMF inoculum on soil physiochemical properties involved in nutrient leaching from agriculture**
Brailey P, Chapman P, Helgason T
- P (ID 349) **Improved Arbuscular Mycorrhizal Root Colonization and Root Health of Wheat by Seed Treatment with Bio-Stimulant**
Ramaskeviciene A, Sieverding E, Marsalkiene N
- ~~P (ID 351) **The growth of mycorrhiza research: a quantitative analysis and statistics of global publications**~~
~~Shankar U, Sharma R, Sankar TP~~ **WITHDRAWN**

- P (ID 353) **Cultivation of Some Ectomycorrhizal Fungi for Mycorrhizations with Seedlings of Some Fagaceae Plant**
Youpensuk S, Wanwaen S
- P (ID 357) **The Use of Mycorrhizal Inoculants in Rice Fields**
Trepanier M, Gagné S, Barraud F, Dekeister D
- P (ID 358) **Arbuscular Mycorrhizal Fungi Applied Via Seed Coating To Agricultural Crops under Abiotic Stress**
Rocha J, Ma Y, Látr A, Vosátka M, Freitas H, Oliveira R
- P (ID 361) **Effect of Plant Growth Promoting Endophytic Bacteria and Arbuscular Mycorrhizal Fungi on Rice Growth**
Chaisarn D, Youpensuk S, Lumyong S
- P (ID 363) **Abundance and diversity of arbuscular mycorrhizal fungi in cultivated versus wild grapevines**
Radic T
- P (ID 365) **Arbuscular mycorrhizal fungal abundance and composition shift over life cycle of Sorghum, differ among root, rhizosphere and soil, and were affected by drought**
Gao C, Montoya L, Xu L, Madera M, Lemaux P, Colemann-Derr D, Taylor J
- P (ID 371) **Impact of tropical land transformation on root associated fungal communities**
Ballauff J, Sahner J, Edy N, Irawan B, Polle A
- P (ID 374) **Use of soil microorganisms combined with reduced fertilization to improve bean fruit yield and quality**
Massa N, Bona E, Cantamessa S, Cesaro P, Todeschini V, Gamalero E, Lingua G, Berta G
- P (ID 376) **Effect of indigenous and introduced AM fungi on growth of *Allium fistulosum* under sterilized field**
Sato T, Cheng W, Tawaraya K
- P (ID 379) **“Bioirrigation” and biofertilizer based legume-millet intercropping as a tool to mitigate drought-induced crop yield loss in arid and semi-arid tropics**
Singh D, Mathimaran N, Boller T, Kahmen A
- P (ID 384) **Cover plants, a tool to manage arbuscular mycorrhizal fungi diversity?**
van Tuinen D, Brígido C, Brito I, Alho L, Goss MJ, Carvalho M
- P (ID 388) **Factors affecting effectiveness of arbuscular mycorrhizal fungal inoculation under field conditions**
Fukunaga A, Nishikawa M, Sasanuma M
- P (ID 389) **Commercial mineral-based and chemical fertilisers influence mycorrhizas in pasture plants**
Alsharmani A, Abbott LK, Solaiman ZM
- P (ID 390) **Mycorrhizal colonization and phosphorus absorption in maize fields prepared from grasslands using different tillage systems**
Yagi T, Matsumoto T, Sakai O
- P (ID 392) **Effect of preceding crop and weed management history on AM fungal community structure throughout the development of durum wheat**
Langarica-Fuentes A, Mitchell S, Daniell TJ, Gulden RH

- P (ID 394) **Characterisation of a truffle plantation in Burgundy**
Guérin C, Gollotte A
- P (ID 405) **Selection of tomato lines tolerant to the infection of *Meloidogyne incognita* using arbuscular mycorrhizae**
Vila A, Bernabé AJ, Torres-Vera R, Fernández F
- P (ID 409) **Infection unit density as an index for infection potential of arbuscular mycorrhizal fungi**
Ohtomo R, Kobae Y, Morimoto S, Oka N
- P (ID 413) **Inoculations of legumes with beneficial soil microorganisms**
Látr A, Rozmoš M, Masquelier S, Bouvet J, Ethevenot F, Kotyza P
- P (ID 420) **Interaction effects of Arbuscular Mycorrhizal Fungi, compost and root-knot nematode on tomato landrace's growth from Canary Islands**
Hernández Dorta A, Jaizme-Vega MC
- P (ID 421) **Re-evaluating fine root endophyte**
Orchard S, Ryan MH, Abbott LK
- P (ID 423) **AMF influence on total, ammonia oxidiser and denitrifiers bacterial communities under different wheat variety**
Qin M
- P (ID 428) **Dissecting biotic and abiotic soil factors that determine responsiveness of soybean to arbuscular mycorrhizal fungal inoculation in the field with respect to dynamics of inoculum fungus**
Koyama T, Niwa R, Adachi K, Sato S, Hirakawa H, Yoshida S, Ezawa T
- P (ID 440) **Investigation of interactions between plant biostimulant and symbiotic microbes and their effects on agricultural crops**
Baldassarre Švecová E, Mrnka L, Vosátka M
- P (ID 441) **Ericoid mycorrhizal inoculation in organic highbush blueberries: influence on yield and anthocyanins**
Caspersen S, Svensson B, Gustavsson KE, Olsson M, Khalil S, Asp H
- P (ID 442) **Effect of mycorrhizal seed coating and bacterial inoculation on maize and chickpea early growth**
Ma Y, Baldassarre Švecová E, Petružálková M, Látr A, Vosátka M
- P (ID 443) **Plants talk! – Communication via arbuscular mycorrhizal fungal networks**
Cabral CF
- P (ID 454) **The Mycorrhiza Network since 1988: a journey of progress and achievements**
Sankar TP, Singh R, Sharma R
- P (ID 459) **Indigenous isolate *Glomus mosseae* inoculation enhances fatty acid levels, elemental status of Groundnut (*Arachis hypogaea* L.) oil**
Kulkarni MV, Pawar PB, Khadilkar JP, Melo JS
- P (ID 460) **Optimum level of soil available phosphorus for AMF inoculation to Welsh onion in non-allophanic Andosol**
Suzuki T, Uno T, Tajima R, Ito T, Saito M

- P (ID 462) **Impact of trees on mycorrhizal abundance and soil fertility in low input maize cropping systems**
~~Dierks J, Blaser WJ, Gamper HA, Six J~~ **UPGRADED TO SPEED TALK (see above)**
- P (ID 476) **Enhancing arbuscular mycorrhizal fungi communities to improve drought tolerance in rooftop gardens**
 Hilbig BE
- P (ID 482) **The use of AMF to improve commercial horticulture substrate growing systems**
Robinson Boyer LP, Xu X
- P (ID 496) **Phosphorus acquisition efficiency by wheat colonized by AMF contrasting in Al tolerance growing in Andisol**
Seguel A, Campos P, Cornejo P, Borie F, Cumming J
- P (ID 497) **Biocontrol potential of different *Serendipita* species against *Fusarium* wilt in tomato**
 Ghezal Sefloo N, Wieczorek K, Steinkellner S, Hage-Ahmed K
- P (ID 498) **Mapping the mycorrhiza community distribution along natural habitat patches in an agricultural landscape**
Tauschke M, Pirhofer Walzl K
- P (ID 501) **Arbuscular mycorrhizal fungi induced acquired systemic resistance against *Botrytis cinerea* in *Cucumis sativa* via modulation of reactive oxygen species**
Algarawi AA, Hashem A, Abd_Allah EF, Akhter A, Egamberdieva D
- P (ID 502) **Combined application of biofertilizers and inorganic nutrients improves sweet potato yields**
Mukhongo RW, Tumuhairwe JB, Ebanyat P, AbdelGadir AH, Thuita M, Masso CN
- P (ID 504) **Investigations of arbuscular mycorrhiza in context with apple replant disease**
Popp C, Grunewaldt-Stöcker G, von Alten H, Maiss E
- P (ID 523) **Investigating the effect of Arbuscular Mycorrhizal Fungi (*Glomus etunicatum*) and air pollutants on growth parameters of Maize (*Zea mays* L.)**
Jamali M, Alimohamadloo N

Kepler + Tycho

- 15:30–18:30** **CONCURRENT SESSION: Soil and climate feedbacks in mycorrhizal biogeography and ecology**
Chairs: Baodong Chen, José Ignacio Querejeta
- 15:30–15:40** **Harnessing the power of mycorrhiza-enhanced mineral weathering for mitigating soil degradation and climate change**
 CL (ID 201)
Leake JR, Quirk J, Thorley RMS, Taylor LL, Epihov D, Beerling DJ
- 15:40–15:50** **Seasonal dynamics of arbuscular mycorrhizal communities in tropical dry forests**
 CL (ID 303)
 Morgan BST, Egerton-Warburton LM
- 15:50–16:00** **Environmental drivers of ectomycorrhizas at large scales**
 CL (ID 269)
Bidartondo MI, Orme D, Martinez Suz L, Cox F, Tweedie A, van der Linde S
- 16:00–16:10** **Experimental drought and soil depth interactively influence fungal community composition in piñon-juniper woodland**
 CL (ID 151)
Taylor L, Olivas E, Pockman WT, Pangle RE

- 16:10–16:20**
CL (ID 109) **Geothermic soil warming has little effect on ectomycorrhizal growth and community composition in a Sitka spruce plantation in Iceland**
Wallander H, Ellström M, Oddsdottir E, Rosenstock N
- 16:20–16:30**
CL (ID 97) **Ectomycorrhizal fungal community assembly along a latitude gradient in Chinese forest ecosystems**
Guo LD, Ji NN
- 16:30–16:40**
CL (ID 99) **A trait-based understanding of mycorrhizal fungal dynamics in Australian environments**
Powell JR, Aguilar-Trigueros C, Deveautour C, Bissett A
- 16:40–16:50**
CL (ID 59) **Multi-scale patterns and drivers of AM fungal communities**
Rasmussen PU, Hugerth L, Andersson A, Lindahl B, Tack AJM
- 16:50–17:00**
CL (ID 191) **Nitrogen fertilization decouples roots and rhizosphere microbes more in ectomycorrhizal than arbuscular mycorrhizal forests**
Brzostek ER, Carrara J, Walter C, Govindarajulu R, Hawkins J
- 17:00–17:10**
CL (ID 153) **Root traits and altered precipitation regimes effects on grassland arbuscular mycorrhizal fungal communities**
Deveautour CA, Donn S, Power S, Bennett AE, Powell JR
- 17:10–17:20**
CL (ID 92) **Three years of experimental summer drought: quantitative losses vs. qualitative stability of ectomycorrhizal community responses**
Geppert U, Weikl F, Kallenbach C, Pritsch K
- 17:20–17:30**
CL (ID 112) **Functional and phylogenetic structure responses of fungal communities to the fire regime in Mediterranean forests**
Rincón A, González-Martínez SC, Verdú M, Buée M, Pérez-Izquierdo L
- 17:30–17:40**
CL (ID 130) **Biogeography of plant root associated fungal communities in the North-Atlantic region mirrors climatic variability**
Botnen SS, Davey ML, Aas AB, Vik U, Carlsen T, Heegaard E, Thoen E, Mundra S, Taylor AFS, Kauserud H
- 17:40–17:50**
CL (ID 222) **Impacts of Long-Term Elevated Atmospheric CO₂ on AM Fungal Communities in a Temperate Grassland**
Maček I, Šibanc N, Clark DR, Moser G, Vodnik D, Müller C, Dumbrell AJ
- 17:50–18:00**
CL (ID 218) **Root vs. mycorrhizal allocation relates with nitrogen and phosphorus nutrition in grassland species**
Unger S, Friede M, Beyschlag W
- 18:00–18:30**
ST+P (ID 71) **SPEED TALKS (3 minutes each)**
Plant identity exerts stronger effect than fertilization on soil-dwelling arbuscular mycorrhizal fungi
Zheng Y, Guo LD
- ST+P (ID 181) **Arbuscular mycorrhizal fungal diversity along a precipitation gradient in coast redwood forests using next-generation sequencing**
Willing CE, Gao C, Colemann-Derr D, Taylor J, Bruns T, Dawson TE
- ST (ID 80) **AMF biogeography at regional scale in northern China**
Xu T, Veresoglou SD, Chen Y, Chen B

- ST+P (ID 90) **Vertical and seasonal patterns of AM fungal wind dispersal**
Chaudhary B, Miller ME
- ST+P (ID 132) **Mycorrhizal diversity in the tropical rainforests: feedbacks between root-fungal symbioses and soil phosphorus partitioning**
Taylor JD, Taylor A, Liu X, Johnson D, Burslem DFRP, Helgason T
- ST+P (ID 499) **The structure of arbuscular mycorrhizal fungal community in the environment contaminated with toxic organic pollutants**
Rajtor M, Magurno F, Piotrowska-Seget Z
- ST+P (ID 53) **Anthropogenic disturbance leads to the homogenization of arbuscular mycorrhizal fungal communities**
Garcia de Leon D, Davison J, Moora M, Öpik M, Jairus T, Vasar M, Koorem K, Hiiesalu I, Zobel M
- ST+P (ID 250) **Influence of soil type on oak mycorrhiza in a temperate forest: a pot experiment**
Martinović T, Mašínová T, Doreen Bahnmann B, Tomšovský M, Baldrian P
- ST+P (ID 316) **A comparative analysis of ectomycorrhizal fungal communities in Scotland and Scandinavia **NEW TITLE****
Ehrlich P, Hesling E, Kilkenny N, Holden L, Taylor AFS

POSTERS

- P (ID 16) **Why are mycorrhizal communities of wide floodplain forest ecosystems in middle Balkans (Serbia) so specific?**
Marjanovic ZS, Manojlovic D, Karadzic B, Salnjikov E, Bragato G, Oehl F
- ~~P (ID 32) **Diversity and global biogeography of mycorrhizal fungi in Mexico revealed by Next-Generation Sequencing**~~
~~Villarreal Ruiz L, Neri Luna C, Tedersoo L, Kõljalg U **WITHDRAWN**~~
- P (ID 125) **Different responses of arbuscular mycorrhizal fungi to short-term and long-term soil warming in Iceland grassland**
Zhang J, Ekblad A, Sigurðsson BD, Wallander H
- P (ID 139) **Nitrogen deposition changes ectomycorrhizal communities in Swiss beech forests**
de Witte LC, Rosenstock NP, van der Linde S, Braun S
- P (ID 198) **Nutrients affect fungal growth and specialization in orchid mycorrhizal associations**
Mujica MI, Claro A, Pérez MF
- P (ID 202) **Spatial patterns of ectomycorrhizal fungal diversity in a Mexican subtropical pine-oak forest**
Gavito ME, Leyva-Morales R, Öpik M, Ibarra-Manrique G, Arita H
- P (ID 285) **Ecological meaning of spore size variation on the arbuscular mycorrhizal symbiosis**
Aguilar-Trigueros CA, Powell JR, Cornwell WK, Rillig MC
- P (ID 306) **Response of Ectomycorrhizae to Soil Nitrogen Amendments and SNC Disease Three Years After Treatment**
Luoma D, Eberhart J
- P (ID 320) **Environmental characteristics shape the ectomycorrhizal fungal community of two varieties of *Pinus clausa***
Rúa MA

- P (ID 339) **CulturTruf: optimizing truffle orchards cultivation by recording soil mycelium dynamic, hydric regime and soil temperature**
Belmondo S, Todesco F, Tournayre M, Lheureux F, Barry D, Murat C
- P (ID 342) **Diversity and Abundance of Arbuscular Mycorrhizal Fungi (AMF) in Native and Managed Landscapes in Tasmania, Australia**
Mohammed R, Glen M, Swarts N, Doyle R, Barry K
- P (ID 345) **Soil inhabiting fungal communities in French Guiana and their relationship with phosphate**
Verbruggen E, Soong J, Janssens I
- P (ID 348) **Decomposed leaf litter suppresses arbuscular mycorrhizal symbiosis in *Salix caprea* understory**
Rydlová J, Püschel D, Janoušková M, Doubková P, Knoblochová T, Kohout P, Frouz J
- P (ID 352) **Which ectomycorrhizal fungal traits follow elevation gradient at the treeline?**
Vasutova M, Veselá P, Edwards M, Cudlin P
- P (ID 354) **Temperature-mediated local adaptation alters the symbiotic function in arbuscular mycorrhiza**
Gai J, Yang R, Zhang J, Li X
- P (ID 362) **AM fungi increase soil carbon and reduce N₂O and CH₄ emissions under warming condition**
Zhang T, Xing F, Guo J
- P (ID 364) **Molecular diversity of arbuscular mycorrhizal fungi associated with two plant species in the Tibetan Plateau**
Feng H, Wang C, Yang Z, Gai J
- P (ID 366) **Ectomycorrhizal fungal communities associated with alpine relict populations of *Pinus pumila* over Japan**
Koizumi T, Nara K
- P (ID 378) **Ectomycorrhizal fungal communities of Scots pine along a 1,300 km latitudinal gradient**
Trzebny A, Dabert M, Trocha L
- P (ID 383) **Spatial distribution of arbuscular mycorrhizal fungal spores in a hot spot field site**
Sbrana C, Njeru EM, Oehl F, Turrini A, Giovannetti M, Avio L
- P (ID 396) **Do plants actively shape arbuscular mycorrhizal fungal communities according to the environmental conditions to optimize their symbiotic benefits?**
Voříšková A, Püschel D, Jansa J, Vosátka M, Janoušková M
- P (ID 407) **Functioning of arbuscular mycorrhizal symbiosis under soil water deficiency**
Püschel D, Rydlová J, Janoušková M, Jansa J
- P (ID 415) **Effects of 15 Years of Nitrogen Fertilization on Ericoid Mycorrhizal Colonization at Whim Bog**
Kiheri H, Laiho R, Fritze H, Pennanen T, Dise N, van Dijk N, Timonen S, Larmola T
- P (ID 416) **Investigating changes to mycorrhiza-crop relationships in wheat cultivars under elevated levels of atmospheric CO₂**
Elliott AJ, Cameron DD, Field KJ

- P (ID 417) **Community structure of arbuscular and ectomycorrhizal fungi in plants grown in frost-treated soils**
Kilpeläinen J, Helgason T, Vestberg M, Repo T, Lehto T
- P (ID 419) **The role of different mycorrhizas in the drought resistance of grey alder (*Alnus incana*) seedlings**
Lehto T, Barbero-López A, Aphalo PJ, Alam Nipu S, Kilpeläinen J
- P (ID 429) **Effect of low-intensity fires on ectomycorrhizal fungal communities in a dry dipterocarp forest in Thailand**
Pachit P, Disyatat NR, Piapukiew J
- P (ID 430) **Community Structures of Ectomycorrhizal Fungi in *Abies koreana* Along Environmental Gradients**
Sim JS, Eom AH
- P (ID 437) **Where do we find the mushrooms? Spatio-temporal drivers of West African woodland ectomycorrhizal fruitbody production**
Furieux BR, Houdanon RD, Bahram M, Yorou NS, Ryberg M
- P (ID 439) **Mycorrhizal and saprotrophic sporocarp communities have contrasting responses to moth outbreak in a subarctic mountain birch forest**
Kaukonen M, Ruotsalainen AL, Huusko K, Wäli PR, Aikio S, Saravesi K, Koivuniemi H, Suominen O, Saikkonen K, Markkola AM
- P (ID 477) **How climate and edaphic controllers shape the distribution of arbuscular mycorrhizal fungi in California**
Kakouridis A, Nuccio E, Nguyen N, Firestone M
- P (ID 484) **Arbuscular mycorrhizal fungi in the arid Himalayas**
Hiiesalu I, Macek M, Kopecký M, Altman J, Liancourt P, Mudrák O, Doležal J
- P (ID 486) **Characterization of mycorrhizal potential of the soils envahed by *Nicotiana glauca* Graham in Marrakesh Safi region (Morocco)**
Dounas H, Ouahmane L, Hafidi M, Zaarawa M
- P (ID 487) **Root-associated fungal communities at a nutrient enriched arctic bird-nesting cliff**
Andrew CJ, Nadeau CD, Davey ML
- P (ID 500) **A recycling method of afforesting infertile soil using a soil amendment and incorporation of *Pisolithus tinctorius***
Yun HY, Lee KJ

Leo + Virgo

15:30–18:30

CONCURRENT SESSION: Acquisition, assimilation and transport of nutrients and carbon in mycorrhizal symbioses

Chairs: Joske Ruytinx, Katsuharu Saito

15:30–15:45

CL (ID 75)

Zn homeostasis and adaptive Zn tolerance in the ectomycorrhizal fungus *Suillus luteus*

Ruytinx J, Coninx L, Nguyen H, Colpaert J

15:45–16:00

IL (ID 213)

Influence of ectomycorrhiza on decomposition across biomes

Lindahl BD, Clemmensen KE, Kyaschenko J, Sterkenburg E

- 16:00–16:15**
CL (ID 296) **Trading carbon for nitrogen: reciprocal resource exchange in beech ectomycorrhiza at subcellular scales**
Kaiser C, Mayerhofer W, Dietrich M, Gorka S, Schintlmeister A, Reipert S, Schweiger P, Weidinger M, Richter A, Woebken D
- 16:15–16:30**
IL (ID 200) **Phosphate unloading in ectomycorrhizae: why is the *HcPT2* transporter of *Hebeloma cylindrosporium* a good candidate?**
Plassard C, Becquer A, Garcia K, Amenc L, Doré J, Gay G, Zimmermann S
- 16:30–17:10**
SPEED TALKS (5 minutes each)
- ST+P (ID 522) **On genes and mechanisms underlying metal (hyper)accumulation phenotypes in ectomycorrhizal *Amanita*, *Russula* and *Hebeloma* species**
Kotrba P, Gryndler M, Borovička J
- ST+P (ID 233) **Arbuscular mycorrhizal fungi affect legume tree uptake of trace metal from substrate with coal-mine tailings**
Santos ML, Lovato PE, Soares CRFS, Sturmer SL, Meyer E, Rampinelli EC
- ST+P (ID 144) **Exo-chitinolytic activities: phylogenetic conservatism of a functional trait in the ectomycorrhizal fungi**
Maillard F, Didion-Gency M, Bach C, Buée M
- ST+P (ID 101) **Switching from ammonium to proteins as main nitrogen source induces the Fenton reaction in ectomycorrhizal fungi**
Op De Beeck M, Persson P, Tunlid A
- ST+P (ID 241) **Mechanisms of generalist host range in the ectomycorrhizal symbiosis**
Bogar L, Peay K
- ST+P (ID 15) **Preference for mycorrhizal or direct P uptake pathways of maize plant can be adjusted by soil P levels**
Chu Q, Zhang L, Zhou J, Yuan L, Chen F, Zhang F, **Feng G** THE PRESENTING AUTHOR CHANGED
- ST+P (ID 231) **Novel functions of fungal TOK channels: putative roles in symbiotic potassium transfer**
Guerrero-Galán C, Delteil A, Garcia K, Houdinet G, Conéjéro G, Sentenac H, Zimmermann SD
- ST+P (ID 143) **Fungal necromass in soil forest: are ectomycorrhizal fungi scavengers?**
Akroume E, Maillard F, Bach C, Hossan C, Brechet C, Angeli N, Zeller B, Saint-André L, Buée M
- 17:10–17:25**
IL (ID 20) **The Ties That Bind: The Arbuscular Mycorrhizal Contribution to Plant Potassium Nutrition**
Garcia K, Chasman D, Roy S, Ané JM
- 17:25–17:40**
IL (ID 95) **Molecular mechanism of long-distance phosphorus transport in arbuscular mycorrhizas as revealed by virus-induced gene silencing**
Ezawa T, Kikuchi Y, Hijikata N, Ohtomo R, Handa Y, Kawaguchi M, Saito K, Masuta C
- 17:40–17:55**
CL (ID 5) **Beyond nutrients: A meta-analysis of the effects of arbuscular mycorrhizal fungi on plants and soils**
Delavaux CS, Smith-Ramesh L, Kuebbing SE
- 17:55–18:05**
CL (ID 76) **Root transportome in mycorrhizal *Medicago truncatula* – the sweet part**
Konečný J, Hršelová H, Bukovská P, Gryndlerová H, Hujslová M, Jansa J

18:05–18:15 A novel plant-fungus symbiosis benefiting the host without forming mycorrhizal structures
CL (ID 45)

Tibbett M, Kariman K, Barker S

18:15–18:30 A multi-element stable isotope natural abundance approach indicates partial mycoheterotrophy for Central European arbuscular mycorrhizal *Equisetum* species
CL (ID 86)

Giesemann P, Stöckel M, Gebauer G

POSTERS

P (ID 81) **Arbuscular mycorrhizal fungi improve the growth, nodulation and phosphorus uptake of beans plants fertilized with compost of rock phosphate fed dung**
Wahid F

P (ID 133) **Mobilization of goethite-bound orthophosphate and phytate by *Lycopersicum esculentum* mycorrhized with *Rhizophagus irregularis***

Andrino A, Boy J, Mikutta R, Guggenberger G

P (ID 172) **Nurturing or abusing the children? Mycorrhizal network effects on pine seedling performance and root endophytes**

Hasselquist N, Rosenstock NP, Axelsson P, Campbell C, Wallander H

P (ID 177) **Growth, nodulation and nutrient concentrations of lucerne in response to inoculation with abscurar mycorrhizal fungus and rhizobium**

Huang J, Yuan L

~~P (ID 178) **Huge differences in abilities of thirteen *Suillus* species to mobilize potassium and promote the growth of *Pinus massoniana* seedlings**~~

~~Yuan L, Huang J, Peng L **WITHDRAWN**~~

P (ID 225) **Do Horticultural Plant Species are Depending on Mycorrhizal Inoculation?**

Ortaş İ

P (ID 308) ***Rhizophagus irregularis* improves Pi acquisition by *Medicago truncatula* plantlets in presence of benzo[a]pyrene under semi-hydroponic cultivation system**

Calonne-Salmon M, Plouznikoff K, Declerck S

P (ID 337) **Allocation of nitrogen and carbon is regulated by nodulation and mycorrhizal networks in soybean/maize intercropping system**

Wang X, Wang G

P (ID 346) **Role of plant-fungal nutrient trading and host control in determining the competitive success of ectomycorrhizal fungi**

Hortal S, Plett KL, Plett JM, Cresswell T, Johansen M, Pendall E, Anderson IC

P (ID 356) **Physiological and molecular analyses of extraradical mycorrhizal mycelium produced in an in vivo whole-plant system**

Pepe A, Sbrana C, Ferrol N, Campanella B, Di Baccio D, Legnaioli S, Magnani E, Poggialini F, Giovannetti M

~~P (ID 359) **Arbuscular mycorrhizal colonization enhances organic phosphorus hydrolysis ability of watermelon root**~~

~~Ren L **WITHDRAWN**~~

P (ID 373) **Low-phosphorus conditions increase release of acid phosphatase from extraradical hyphae of *Rhizophagus clarus***

Hachiya S, Inamura N, Sato T, Ezawa T, Cheng W, Tawaraya K

- P (ID 381) ***Lycopodiella inundata*: insights into plant-fungal associations in early vascular plants**
Kowal J, Duckett J, Field K, Bidartondo M, Schornack S, Hoysted G, Rimington W, Jacob A, Pressel S
- P (ID 382) **P nutrition and AMF inoculation modulate growth and photosynthetic rate of tomato plants**
Todeschini V, Patrizia C, Massa N, Bona E, Nalin EC, Berta G, Barbato R, Lingua G
- P (ID 520) **Biomass allocation patterns in arbuscular mycorrhizal and non-mycorrhizal plants as affected by P supply**
Schweiger PF, Robson AD, Abbott LK
- P (ID 406) **Molecular basis for mycorrhizal functioning in plant survival and establishment in acidic soil**
Nakanishi N, Sugimura Y, Maruyama H, Ezawa T
- P (ID 408) **Different responses of various crop species to arbuscular mycorrhizal inoculation and P fertilization**
Karasawa T, Hayashi M, Urashima Y, Hashimoto T
- P (ID 414) **Contrasting accumulation of Ag and Cu by *Amanita strobiliformis* from two distinct sites**
Borovička J, Konvalinková T, Žigová A, Beneš V, Kotrba P
- P (ID 426) **Mycorrhiza alters the expression of phosphate-transporters without changing growth and phosphorus contents in P-starved-soybean plants**
de Andrade SAL, Bulgarelli RG, Silveira LMBA
- P (ID 432) **PHO1-type transporter of arbuscular mycorrhizal fungi mediates phosphate export in the plant-fungal interface**
Maruyama H, Yokoyama K, Kikuchi Y, Nakanishi N, Abe A, Sone T, Saito K, Masuta C, Ezawa T
- P (ID 433) **Estimation of phosphate acquisition through the mycorrhizal pathway via transcriptome responses**
Shohei M, Hayato M, Ayumi T, Atushi NJ, Tatsuhiro E
- P (ID 447) **Catalytic properties of vacuolar transporter chaperon 4 (VTC4) protein in arbuscular mycorrhizal fungus *Rhizosphagus irregularis***
Nguyen Thi C, Koide M, Ezawa T, Saito K
- P (ID 449) **Does the composition and symbiotic efficiency of AMF communities depend on species ratios in the inoculum pool?**
Janoušková M, Voříšková A, Püschel D, Vosátka M, Jansa J
- P (ID 466) **Nitrogen fertilisation effects on the form and function of arbuscular mycorrhizal fungi in barley**
Thirkell T, Cameron D, Hodge A
- P (ID 470) **Climate change impacts on carbon-for-nutrient exchange between winter wheat (*Triticum aestivum*) and arbuscular mycorrhizal fungi**
Charters MD, Sait SM, Field KJ
- P (ID 471) **The SIZRT1 Gene Encodes a Plasma Membrane-Located ZIP Transporter in the Ectomycorrhizal Fungus *Suillus luteus***
Coninx L, Thoonen A, Slenders E, Op De Beeck M, Arnauts N, Morin E, Ruytinx J, Colpaert J
- P (ID 474) **Biological markets control resource exchange in tripartite interactions of legumes**
Kafle A, Wang X, Bücking H

- P (ID 475) **Effects of Mycorrhizal Inoculation and Phosphorus fertilization on Tomato, Eggplant, Green and Bell Pepper plants yield and nutrient uptake under field conditions**
Ortaş İ, Razzaghi S
- P (ID 489) **Trehalase activity in orchid mycorrhiza tightly colocalizes with living pelotons**
Ponert J, Vosolsobě S, Čiháková K, Lipavská H
- P (ID 490) **Visualising Carbon and Nitrogen exchange at the cellular scale in the ectomycorrhizal symbiosis using NanoSIMS**
Mayerhofer W, Schintlmeister A, Dietrich M, Gorka S, Schweiger P, Reipert S, Weidinger M, Richter A, Woebken D, Kaiser C
- P (ID 505) **Mycorrhizal networks affect seedling emergence in mycorrhizal and non-mycorrhizal plants**
Edmonds-Tibbett TL, Kaciuba R, Ryan M, Tibbett M
- P (ID 510) **Photosynthesis and mycorrhizal functioning in epiphytic tropical orchids**
Vieira CA, Bocayuva MF, Silva Freitas EF, Ribeiro da Silva I, de Miranda Milagres JJ, Selosse MA, Kasuya MCM

Průhonice park

20:00–23:00 **Wines of the World**

Tuesday 1 August

Zenit + Nadir

- 08:30–12:00** **PLENARY SESSION: Diversity and biogeography of mycorrhizal symbioses**
Chair: Dirk Redecker
- 08:30–09:05** **Biogeography and evolution of ectomycorrhizal plant lineages**
KL (ID 189) Tedersoo L
- 09:05–09:25** **Functional diversity and evolutionary stability of mycorrhizal and mycorrhiza-like symbioses**
IL (ID 232) Field KJ
- 09:25–09:45** **Inbreeding, low dispersal and habitat-driven orchid mycorrhizal associations in *Tulasnella***
IL (ID 120) Linde C, Ruibal M, Triponez Y, Peakall R
- 09:45–10:05** **Symbiont switching and alternative resource acquisition strategies but not shifts to parasitism drive breakdown of the plant – arbuscular mycorrhizal mutualism**
IL (ID 252) Werner GDA, Cornwell WK, Cornelissen JHC, Soudzilovskaia NA, Kattge J, Kiers T, Maherali H, Oberle B, Peay K, McGlenn D
- 10:05–10:40** **Coffee break**
- 10:40–11:00** **Biogeography of mycorrhizal symbiosis: using plant mycorrhizal traits in space and time**
IL (ID 220) Moora M

- 11:00–11:20** **Nitrogen pollution shifts forest mycorrhizal biogeography at continental scale**
IL (ID 294) Averill C, Dietze MC, Talbot JM
- 11:20–11:40** **Mycorrhizas in a changing world: globalization effects on composition, networks, and function**
IL (ID 453) Dickie IA
- 11:40–12:00** **The global diversity and importance of mycorrhizal and nonmycorrhizal plants**
IL (ID 249) Brundrett M

12:00–13:30 **Lunch break**

Zenit + Nadir

- 13:30–15:00** **CONCURRENT SESSION: Mycorrhizas in plant and fungal invasions**
Chair: Ian Dickie
- 13:30–13:45** **The pantropically introduced Polygonaceae *Coccoloba uvifera* was followed by specific, pseudovertically transmitted *Scleroderma* spp.**
CL (ID 161) Selosse MA, Sene S, Forget M, Ba A
- 13:45–14:00** **Plant provenance vs. functional group identity: The arbuscular mycorrhizal fungal perspective on plant invasions**
CL (ID 169) Lekberg Y
- 14:00–14:15** **Reduced mycorrhizal responsiveness leads to increased competitive tolerance in an invasive exotic plant**
CL (ID 219) Waller L, Callaway R, Klironomos J, Ortega Y, Maron J
- 14:15–14:30** **Effect of plant invasion on assembly rules in arbuscular mycorrhizal fungal communities**
CL (ID 289) Kohout P, Štajerová K, Hejda M, Sudová R, Kolaříková Z, Öpik M, Pyšek P
- 14:30–15:00** **SPEED TALKS (5 minutes each)**
- ST+P (ID 62) **Fungal bio-fertilizers may suppress local plant communities**
Kokkoris V, Hart M
- ST+P (ID 174) **Arbuscular and Ectomycorrhizal Fungi in a Warmer, Fertilized Forest Colonized by an Invasive Plant**
Anthony MA, Frey SD, Stinson KA
- ST+P (ID 309) ***Suillus lakei* and *Aureoboletus projectellus* in native and invasion range**
Pietras M, Kolanowska M
- ST+P (ID 239) **Soil fungal community in grassland with and without *Fritillaria meleagris***
Eshghi Sahraei S, Scofield D, Rosling A
- ST+P (ID 301) **What do we know about mycorrhizae role in exotic conifers' invasion of Nothofagaceae forests in Patagonia, Argentina?**
Salgado Salomón ME, Barroetaveña C, Pildain MB
- ST+P (ID 461) **Is *Pennisetum setaceum* altering the arbuscular mycorrhizal fungi communities during the invasion process?**
Rodríguez-Caballero G, Caravaca F, Roldán A

POSTERS

- P (ID 367) **Invasion shifts soil fungal community composition in California chaparral**
Phillips M, [Allen EB](#)
- P (ID 328) **Effect of Arbuscular Mycorrhizal Fungi on vascular wilt control caused by *Fusarium oxysporum* in goldenberry plantlets**
[Ramirez M](#), Perez UA, Peñaranda AM, Serralde DP
- P (ID 483) **Impact of invasive plants to fungal community structure and soil characteristics**
[Krüger C](#), Petružálková M, Kohout P
- P (ID 187) **Stress acclimatization and melanin production of Dark Septate Endophytes**
[Mahmoud DAG](#), Berthelot C, Blaudez D, Kovács GM, Franken P
- P (ID 216) **Differential interaction of dark septate endophytes and fungal pathogens *in vitro* and *in planta***
[Yakti W](#), Kovács GM, Franken P
- P (ID 13) **Efficacy of arbuscular mycorrhizal fungi in different integrated disease management approaches on carnation wilt**
[Gautam HR](#), Verma S
- P (ID 171) **Remediation of degraded post-opencast mine land with tree species inoculated with arbuscular mycorrhizal fungi in Indonesia. Remediation of degraded post-opencast mine land with tree species inoculated with arbuscular mycorrhizal fungi in Indonesia**
[Tawaraya K](#), Wulandari D, Cheng W
- P (ID 157) **Two exotic plant species affect negatively the dynamic of mycorrhizal fungi in Madagascar natural forests**
[Baohanta R](#), Andrianandrasana DM, Razakatiana TA, Randriambanona H, Duponnois R, Ramanankierana H

Kepler + Tycho

- 13:30–15:00** **CONCURRENT SESSION: Population genetics/genomics/DNA polymorphism**
Chairs: Nicolas Corradi, Martina Peter
- 13:30–13:43** **Demonstrating the link between genomic variation in *Rhizophagus irregularis* and significant differences in plant growth**
IL (ID 214)
Mateus Gonzalez ID, Savary R, [Sanders IR](#)
- 13:43–13:56** **Five years investigation of female and male genotypes in Périgord black truffle (*Tuber melanosporum* Vittad.) revealed contrasted reproduction strategies**
CL (ID 186)
[De la Varga H](#), Le Tacon F, Todesco F, Barry-Etienne D, Robin C, Halkett F, Martin F, Murat C
- 13:56–14:09** **Genetic diversity and population analysis of *Cenococcum geophilum***
CL (ID 70)
[Obase K](#), Douhan GW, Matsuda Y, Smith ME
- 14:09–14:22** **Exploration of mating strategies in arbuscular mycorrhizal fungi**
CL (ID 118)
[Mathieu S](#), Corradi N
- 14:22–14:35** **Intraspecific genomic variation in the ectomycorrhizal symbiont *Laccaria bicolor* links to variation in ecosystem functioning**
CL (ID 275)
[Hazard C](#), Gemmell M, Martin F, Johnson D

14:35–14:48 Insights from the genome of symbiotic fungus *Rhizophagus proliferum*, the second species of AMF to be sequenced to date
CL (ID 192) Prasad P, Varshney D, Adholeya A

POSTERS

- P (ID 226) Investigating the intraspecific polymorphism of the nuclear ribosomal operon of arbuscular mycorrhizal strains from GINCO-CAN
Dadej K, Banchini C, Séguin S, Dalpé Y, Stefani F
- P (ID 411) Sequence-based phylogeny of Glomeromycota: from virtual taxa to phylopecies and global ecological and biogeographical patterns
Kolaříková Z, Slavíková R, Krüger C, Krüger M, Kohout P
- P (ID 131) Reproductive biology of the black truffle *Tuber melanosporum*: contrasting ecologies of the two parents
Schneider-Maunoury L, Taschen E, Richard F, Selosse MA
- P (ID 479) Comparative genomics reveals functional diversity in two dark septate endophytic (DSE) fungi of grasslands
Knapp DG, Németh JB, Johnson J, Kuo A, Lim J, Lipzen A, Nolan M, Ohm R, Hainaut M, Henrissat B, Tamás L, Barry K, Grigoriev IV, Spatafora JW, Nagy LG, Kovács GM
- P (ID 18) Molecular diversity of arbuscular mycorrhizal fungi in rhizosphere soils of sugarcane in southern China
Chen T, Zhang J, Liu Z, Long Y, Li D, Huang J, Chen B
- P (ID 494) Genome analysis of *Endogone pisiformis* and *Sphaeroceas pubescens* in Mucoromycotina
Saito K, Handa Y, Shibata TF, Yamamoto K, Kasahara M, Degawa Y, Hirose D, Nishiyama T, Kawaguchi M, Yamada A
- P (ID 39) Single nuclei sequencing on Arbuscular Mycorrhizal Fungi
Montoliu Nerin M, Bergin C, Johannesson H, Rosling A
- P (ID 287) Detecting the phylogenetic position of tropical edible Boletaceae from Thailand by an ITS-LSU combined analysis
Phosri C, Martín MP, Suwannasai N, Angda K, Wangsawat N, Thamvithayakorn P, Watling R
- P (ID 369) Phylogenetic position of ectomycorrhizal species in genus *Ramaria* from tropical Thailand
Promphet N, Phosri C, Watling R, Suwannasai N
- P (ID 347) Sieving Soil, Destroying Diversity? The Impact of Processing on Fungal Communities in CPP Degradation Studies
Miranda P
- P (ID 446) Estimating Fungal Barcode Variation Using an *in silico* Genomics Approach
Lofgren L, Uehling J, Martin F, Vilgalys R, Kennedy P

Leo + Virgo

13:30–15:00 CONCURRENT SESSION: Modelling of mycorrhizas

Chairs: Andrea Schnepf, Edward R. Brzostek

13:30–13:45 Introduction

Schnepf A

- 13:45–14:00** Including ectomycorrhizal fungi in a forest ecosystem model: importance for the P cycle
IL (ID 74) Deckmyn G, Bortier M, Grebenc T
- 14:00–14:15** Colonization-competition tradeoffs structure ectomycorrhizal diversity
IL (ID 211) Smith GR, Steidinger BS, Bruns TD, Peay KG
- 14:15–14:30** Mycorrhiza enhances substrate water holding capacity and conductivity by filling up voids and altering pore size distribution
CL (ID 108) Bitterlich M, Franken P, Vetter A, Sandmann M, Gräfe J
- 14:30–15:00** moderated discussion

POSTERS

- P (ID 155) **Mycorrhiza and Obesity, are they related**
Sharma M
- P (ID 180) **Desert truffle cultivation: A bioclimatic model for suitable management and production**
Navarro-Ródenas A, Andrino A, Marqués-Gálvez JE, Morte A
- P (ID 493) **Hundred years of mycorrhizal research**
Smits MM, Fransson P, Rosling A
- P (ID 49) **Modelling the Root Age Structure of Perennial Woody Plants**
Poppenwimer T, Gross L, Bailey J, Rúa M

15:00–15:30 *Coffee break*

Zenit + Nadir

- 15:30–17:00** **CONCURRENT SESSION: Advances in biological conservation through a better understanding of mycorrhizal ecology**
Chair: Marc-André Selosse
- 15:30–15:45** They matter! Mycorrhizal fungi in ecosystem restoration: A local and global perspective
IL (ID 26) Neuenkamp L, Moora M, Öpik M, Davison J, Standish R, Prober S, Price J, Gerz M, Männistö M, Zobel M
- 15:45–16:00** The importance of the soil context for understanding arbuscular mycorrhizae in conservation scenarios
IL (ID 281) Zabinski C, Ohsowski B, Greer M, Chaudhary B, Allen C
- 16:00–16:15** Fire effect on ectomycorrhizal symbiosis: Lessons for biological conservation
IL (ID 129) Taudière A, Carcaillet C, Bellanger JM, Moreau PA, Richard F
- 16:15–16:30** Restoration methods alter AM fungal abundance and fungal community composition
IL (ID 302) Maltz MR, Kimball S, Lulow M, Mitrovich M, Weber S, Aronson E
- 16:30–16:40** Grassland restoration: Does plant functional group influence AMF?
CL (ID 298) Wilson GWT, Todd TC
- 16:40–16:50** Isolation and characterization of arbuscular mycorrhizal and dark-septate endophytic fungi: towards their use in the phytomanagement of metal-contaminated sites?
CL (ID 148) Berthelot C, Lacercat-Didier L, Marchal C, Roy S, Foulon J, Béguiristain T, Leyval C, Chalot M, Blaudez D

16:50–17:00 **Pre-inoculation with AMF as a management tool for reintroduction of rare species**
CL (ID 126) Pánková H, Vazačová K, Svobodová M, Dostálek T, Voříšková A, Münzbergová Z

POSTERS

- P (ID 338) **Diversity of arbuscular mycorrhizal fungi (AMF) in an impacted mining tailings areas in Mariana-MG, Brazil**
Prado IGO, Silva MCS, Prado DGO, Pedrosa BG, Bitarães MV, Kasuya MCM
- P (ID 469) **Mycorrhizal Colonization in Forested Wetlands**
Griffin AM, Kernaghan G
- P (ID 17) **Plant-arbuscular mycorrhizal fungi mutualism is reinforced in soil from abandoned fields**
Pánková H, Lepinay C, Rydlová J, Voříšková A, Janoušková M, Dostálek T, Münzbergová Z
- P (ID 103) **What does limit seedling establishment of four mycoheterotrophic species?**
Kotlínek M, Těšitelová T, Kohout P, Tedersoo L, Jersáková J
- P (ID 321) **Symbiotic orchid seed germination is regulated by nitrates at extremely low concentrations**
Figura T, Ponert J
- P (ID 375) **Is the mycorrhizal fungi distribution limiting the orchid establishment in restored meadows?**
Těšitelová T, Vogt-Schilb H, Klimešová L, Sucháček P, Kotlínek M, Jersáková J
- P (ID 427) **Does forest age matter? Ectomycorrhizal communities in Mediterranean oak forests of contrasted history**
Vogt-Schilb H, Taudière A, Bellanger JM, Schatz B, Richard F
- P (ID 506) **The effect of simulated eutrofication on the growth and mycorrhizal symbiosis of Mediterranean tuberous orchids**
Baláž M, Sedmíková R, Veselá B, Boháček J
- P (ID 33) **Manipulating below ground diversity for above ground diversity: the application of arbuscular mycorrhizal fungi in vegetation restoration**
Vahter T, Öpik M
- P (ID 391) **Interaction between dark-septate-endophytes and ectomycorrhizal fungi in the context of trace-element contaminated sites**
Berthelot C, Leyval C, Chalot M, Franken P, Blaudez D
- P (ID 135) **Soil fungal mycelium species composition and biomass: ectomycorrhizal and saprotrophic guilds under the influence of forest type and environmental factors**
Pena R, Awad A
- P (ID 467) **Role of arbuscular mycorrhizal fungi in the sustainability of a green fertilization practice**
Albadran BM, Unger S, Beyschlag W
- P (ID 492) **Molecular diversity of arbuscular mycorrhizal fungi in the South American mediterranean ecoregion**
Silva-Flores P, Neira J, Jairus T, Vasar M, Bueno G, Palfner G, Öpik M
- P (ID 223) **AMF species diversity in the Three Gorges Reservoir's drawdown zone under different fertilization histories**
Luo X, Su X, Cui J, Lou Y, Li R, Luo X, Zeng Y, Xu Y, Dong J, He X

- P (ID 387) **The effect of nutritional limitation by fungicide treatment on growth of mixotrophic *Pyrola japonica***
Kawai S, Tanikawa T, Uesugi T, Matsuo N, Selosse MA, Matsuda Y
- P (ID 434) **Distribution of Arbuscular Mycorrhizal Fungi According to Salinity in Reclaimed land in Korea**
Lee HK, Eom AH
- P (ID 436) **Changes in Ectomycorrhizal Community Structure after Forest Tending**
 Kim DY
- P (ID 263) **Characterization of Mycorrhiza Fungi associated with the Genera of Borneo *Phalaenopsis* Orchid**
Chan MKY, Bin Sahari N, Binti Sahmat SS
- P (ID 36) **Evidence from soil fungal community ecology suggest that *Abies religiosa* could be nursed by *Pinus montezumae* in central Mexico**
Arguelles Moyao A, Garibay-Orijel R
- P (ID 63) **Vulnerability of soil microbial community to land use changes in a Mexican tropical rain forest**
 Flores-Rentería D, Álvarez-Sánchez J, Larsen J, Morales D, Sánchez-Gallen I
- P (ID 336) **Colonization and species richness of arbuscular mycorrhizal fungi in roots of *Cedrela odorata* and *Swietenia macrophylla***
Oros-Ortega I, Lara-Pérez LA, Sánchez-Reyes G, Yam-Cárdenas DA, Casanova-Lugo F, Díaz-Echeverría VF, Sáenz-Carbonell LA, Córdova-Lara II
- P (ID 401) **Ectomycorrhizal fungal communities in protected and managed mixed coniferous forests in Poland**
Kujawska M, Rudawska M, Stasińska M, Leski T, Karliński L
- P (ID 167) **Ectomycorrhizal functional traits mediate plant-soil feedback processes in trace elements contaminated soils**
Gil-Martínez M, López-García Á, Navarro-Fernández CM, Kjøller R, Tibbett M, Azcón-Aguilar C, Domínguez MT, Marañón T
- P (ID 457) **Global Fungal Red-listing and the contribution we need from you!**
Dahlberg A, Mueller G
- P (ID 11) **Simplified *ex vitro* symbiotic seed germination method as a tool for orchid conservation**
Mala B, Nontachaiyapoom S
- P (ID 304) **Burn, baby, burn: Soil microbial community responses to fire in alternate states of tallgrass prairie**
Mino LA, Jumpponen A
- P (ID 123) **Mycorrhizal specificity in rare and common *Caladenia* orchid species**
Oktalira FT, Whitehead M, Linde C

Kepler + Tycho

15:30–17:00 **CONCURRENT SESSION: Emerging technologies to make new discoveries in mycorrhizal physiology and ecology**

Chairs: Barbara Drigo, Ian Anderson, Petr Kohout

- 15:30–15:45**
CL (ID 165) **¹³C-tracers added to hyphae resulted in different destinations of host organelles in orchid symbiotic protocorms**
Kuga Y, Sakamoto N, Nagata K, Yurimoto H, Katsuyama C
- 15:45–16:00**
CL (ID 141) **Imaging symbiotic networks across scales**
Caldas V, van 't Padje A, Whiteside MD, Shimizu TS, Kiers T
- 16:00–16:15**
CL (ID 307) **Challenging soil fungi foraging in micro-engineered Soil Chips**
Hammer EC, Aleklett K, Arellano C, Mafla Endara PM, Ohlsson P
- 16:15–17:00**
SPEED TALKS (5 minutes each)
- ST+P (ID 207) **Nitrogen uptake capacity by ectomycorrhizal fungi as an exogeneous trait: insights from MIFE microelectrode ion flux measurements**
Hawkins BJ, Kranabetter JM, Robbins S, Ubhi R
- ST+P (ID 424) **GFP and mCherry expression in *Laccaria bicolor* – a plasmid toolkit for flexible use of fluorescent protein markers in ECM basidiomycetes**
Kemppainen M, Pardo A
- ST+P (ID 124) **Dissecting differential mycorrhizal growth responses with high throughput phenomics**
Riley RC, Cavagnaro T, Berger B, Smith S, Smith A, Powell J
- ST+P (ID 68) **Ericoid plant species shape fungal communities in boreal forest soil and plant roots**
Sietiö OM, Tuomivirta T, Santalahti M, Kiheri H, Timonen S, Sun H, Fritze H, Heinonsalo J
- ST+P (ID 140) **Transcriptional profiles of sunflower roots during mycorrhizal colonization as revealed by RNA-SEQ**
Vangelisti A, Natali L, Sbrana C, Turrini A, Hassani-Pak K, Hughes D, Giovannetti M, Cavallini A, Giordani T
- ST+P (ID 212) **New method for arbuscular mycorrhizal fungi identification based on spore-proteomic biotyping by MALDI-TOF-MS**
Crossay T, Antheaume C, Amir H, Redecker D
- ST+P (ID 509) **High-resolution community profiling of arbuscular mycorrhizal fungi**
Schlaeppli K, Bender SF, Mascher F, Russo G, Patrignani A, Camenzind T, Hempel S, Rillig MC, van der Heijden MGA
- ST+P (ID 190) **PacBio metabarcoding of fungi: biases, perspectives and analysis tool PipeCraft**
Tedersoo L, Anslan S
- POSTERS**
- P (ID 393) **Laser microdissection protocol for DNA sequence-based confirmation of trophic status of ectomycorrhizal fungi**
Mrak T, Bajc M, Kraigher H
- P (ID 386) **Development of a random mutagenesis method for *Rhizophagus irregularis* for research and sustainable agriculture**
Samlali K, Lee SJ
- P (ID 324) **Plant colonization by indigenous Arbuscular Mycorrhizal Fungi in multi-contaminated sites in the Czech Republic**
Teodoro M, Wu SL, Komárek M

P (ID 83) **Diversity of dark septate endophytes in Yunnan metal mine areas, southwest China and their functional roles in the enhanced metal tolerance of host plants**
Zhao Z, Li T

P (ID 360) **Arbuscular mycorrhizal fungal DNA that are in physiologically active colonization in roots**
Kobae Y, Ohtomo R, Oka N, Morimoto S

Leo + Virgo

15:30–17:00 **CONCURRENT SESSION: Mycorrhizal carbon fluxes, carbon sequestration**

Chairs: Iver Jakobsen, Martin Lukac

15:30–15:40 **Mucoromycotina fungi are mutualistic with vascular plants**

CL (ID 266) Hoysted GA, Jacob A, Kowal J, Rimington W, Bidartondo M, Duckett J, Pressel S, Schnornack S, Field K

15:40–15:50 **Mycorrhizal Net Primary Production and Respiration in a Tropical Rainforest: Impact of Leaf Cutter Ants**

CL (ID 224) Allen ME, Swanson AC, Harmon TC, Dierick D, Fernandez Bou AS, Chen Z, Aronson E, Botthoff JK, Johnson RF, Zelikova TJ

15:50–16:00 **Fungal regulation of organic matter accumulation along a coniferous soil fertility gradient**

CL (ID 230) Kyaschenko J, Clemmensen K, Karlton E, Lindahl B

16:00–16:10 **The impact of plant-derived C flow and mycorrhizosphere microbiology on boreal forest soil organic matter chemistry**

CL (ID 137) Heinonsalo J, Sietiö OM, Santalahti M, Sun H, Adamczyk B

16:10–16:25 **SPEED TALKS** (5 minutes each)

ST+P (ID 319) **Ectomycorrhizal community composition is a driver of mycelial biomass turnover across a *Pinus sylvestris* chronosequence**

Hagenbo A, Clemmensen KE, Kyaschenko J, Lindahl BD, Fransson P

ST+P (ID 293) **Transitions in fungal communities during the decomposition of ectomycorrhizal fine roots**

Gray L, Kernaghan G

ST+P (ID 258) **Ectomycorrhizal fungi may contribute to the formation and sorptive stabilization of soil organic matter**

Tunlid A, Wang T, Bengtson P, Persson P

16:25–16:35 **moderated discussion**

16:35–16:50 **SPEED TALKS** (5 minutes each)

ST+P (ID 107) **Stable isotopes elucidate more and more facets of mycoheterotrophic carbon gain among plants**

Gebauer G, Schiebold JMI

ST+P (ID 88) **Many ways to exploit mycorrhizas: the mycoheterotrophy continuum in orchids**

Schiebold JMI, Bidartondo MI, Gebauer G

ST+P (ID 128) **The evolution of mixotrophy in Ericaceae**

Lallemand F, Gaudeul M, Lambourdière J, Püttsepp Ü, Courty PE, Selosse MA

16:50–17:00 **moderated discussion**

POSTERS

- P (ID 468) **Ectomycorrhizae as a food source for collembola**
LeFait AM, Kernaghan G
- P (ID 150) **The contribution of genetic variability among *Rhizophagus irregularis* isolates on soil respiration in tropical soils under cassava cultivation**
Peña-Quemba DC, Rodriguez A, Sanders IR
- P (ID 455) **Reduction of C-flow to AMF by P-fertilization or shading – is it caused by plant?**
Konvalinková T, Püschel D, Řezáčová V, Gryndlerová H, Slavíková R, Hujslová M, Konečný J, Bukovská P, Gryndler M, Jansa J
- P (ID 503) **Mycorrhizal symbiosis induces plant carbon re-allocation differently in C₃ and C₄ *Panicum* grasses**
Řezáčová V, Slavíková R, Konvalinková T, Procházková V, Hujslová M, Gryndlerová H, Gryndler M, Püschel D, Jansa J
- P (ID 243) **Tillage intensification affects AMF diversity, SOC and enzymatic activities within soil aggregates at various scales**
Piazza G, Pellegrino E, Ciccolini V, Ercoli L
- P (ID 458) **A Serengeti Without Arbuscular Mycorrhizas: Quantifying Interactions Between Migratory Mammals and Fungal Symbionts**
Stevens BM, Propster J, Wilson GWT, Abraham A, Ridenour C, Doughty C, Johnson NC

Nadir

- 17:30–19:30** **WORKSHOP: *In-situ* mycorrhizal function – how do we get relevant data from a messy world?**
Chairs: Thorunn Helgason, Ylva Lekberg

Kepler + Tycho

- 17:30–19:30** **WORKSHOP: Species concept of Glomeromycota**
Chairs: Tom Bruns, Maarja Öpik, John Taylor **UPDATED WORKSHOP PROGRAMME**
- 17:30–17:45** **Introduction**
Bruns T
- 17:45–18:00** ***Rhizophagus irregularis*: what's in a name?**
IL (ID 48) Corradi N
- 18:00–18:15** **Recognition of Species**
IL Taylor J
- 18:15–18:30** **directed discussion of AM species and related biology**
- 18:45–19:00** **Molecular taxon concepts of AM fungi used in community ecology**
IL (ID 521) Öpik M
- 19:00–19:15** **Discontinuities in morphospace vs. reproductive isolation: species descriptions in the Glomeromycota**
IL (ID 280) Redecker D
- 19:15–19:30** **directed discussion of functional species used in ecological settings**

Zenit

- 17:30–19:30** **WORKSHOP: Mycorrhiza for human welfare – Past, present and future**
Chairs: Manuela Giovannetti, Joyce Jefwa
- 17:30–17:45** **Is African Agriculture Ready?**
IL (ID 517) Dames JF
- 17:45–18:00** **Prospects of mycorrhizas and their role in agroforestry systems: An analytical framework**
IL (ID 208) Asmara DH, Allaire S, Khasa DP
- 18:00–18:15** **Can designer mycorrhizal communities enhance soil carbon sequestration in forestry applications?**
IL (ID 314) Averill C
- 18:15–18:30** **Arbuscular mycorrhizal fungi and medicinal plants: prospects for the enhanced production of phytochemicals promoting human health and for sustainable agriculture**
CL (ID 55) Zubek S
- 18:30–18:45** **Arbuscular mycorrhizal fungi and the production of health-promoting foods: perspectives for the future**
IL (ID 152) Lingua G, Todeschini V, Bona E, Cesaro P, Massa N, Gamalero E, Berta G
- 18:45–19:00** **Perspectives of plant-fungal symbioses for bioremediation of metal polluted sites**
IL (ID 91) Turnau K, Rozpadek P, Wazny R, Jedrzejczyk R, Domka A, Janicka M, Ryszka P
- 19:00–19:15** **Impact of land-use intensification on arbuscular mycorrhizal fungal species abundance decay, beta-diversity and multi-trophic interaction in grasslands**
IL (ID 313) Wubet T
- 19:15–19:30** **Sustainability of habitats and AMF biogeography: a case study in Kenya**
IL (ID 312) Jefwa JM

Leo + Virgo

- 17:30–19:30** **WORKSHOP: Common mycorrhizal networks – how common and how important they are?**
Chair: Jonathan Leake
- 17:30–17:35** **Introduction**
Leake J
- 17:35–17:55** **Inter-plant signalling through common mycorrhizal networks**
IL (ID 518) Johnson D
- 17:55–18:10** **Kin recognition through mycorrhizal networks in Douglas-fir**
IL (ID 290) Gorzalak MA, Pickles BJ, Simard SW
- 18:10–18:25** **Network structure and its drivers of arbuscular mycorrhizal fungi in Chinese forest ecosystems**
IL (ID 66) Guo LD
- 18:25–18:40** **The role of intact extraradical mycelium in managing indigenous arbuscular mycorrhiza**
IL (ID 516) Brito J, Brígido C, van Tuinen D, Alho L, Goss MJ, Carvalho M
- 18:40–18:55** **AMF-network effects on seedling growth as influenced by plant type, plant community richness and succession stage**
CL (ID 138) Dassen S, van der Putten WH, De Deyn GB

- 18:55–19:10** **The interchange of arbuscular mycorrhizal fungal hyphae helped chilli pepper and cheated sweet corn in an intercropping system**
 CL (ID 122) Hu J, Li M, Liu H, Zhao Q, Zhang Y, Wang J, Lin X
- 19:10–19:30** **roundtable discussion and questions**

Aquarius + Taurus

- 17:30–19:30** **WORKSHOP: Specificity in mycorrhizal symbioses: an evolvable trait?**
 Chairs: Martin I. Bidartondo, Marcel Bucher
- 17:30–17:35** **Introduction**
 Bidartondo MI, Bucher M
- 17:35–17:45** **Partitioning host specificity of arbuscular mycorrhizal fungi reveals the independent contributions of biogeography and evolutionary history**
 IL (ID 519) Veresoglou S, Manntschke A, Powell JR, Hempel S, Rillig MC
- 17:45–17:55** **Inter- and Intraspecific Diversity in the Arbuscular Mycorrhizal Symbiosis and the Consequences for the Composition of Arbuscular Mycorrhizal Communities**
 CL (ID 473) Fellbaum CR, Mensah JA, Bücking H
- 17:55–18:05** **Host- and stage-dependent transcriptome of *Rhizophagus irregularis***
 CL (ID 47) Zeng T, Holmer R, Schijlen E, Bisseling T, Limpens E
- ~~**18:05–18:15** **The phylogenetics of mycorrhizal specificity: understanding the impacts of scale, sampling, and the ecological niche**~~
~~CL (ID 124) Shefferson RP **WITHDRAWN**~~
- 18:15–18:25** **Is specificity the rule or the exception in northern European ectomycorrhizal associations?**
 CL (ID 288) Taylor AFS, Walker J, Kritzler U, Johnson D
- 18:25–18:35** **Modification of host specificity ‘rules’ in light of forest history: the curious case of host generalism for *Suillus subaureus***
 CL (ID 238) Lofgren LA, Nguyen NH, Kennedy PG
- 18:35–18:45** **Host shift dependent diversification in ectomycorrhizal fungal genera *Strobilomyces* and *Afroboletus***
 IL (ID 127) Sato H
- 18:45–19:03** **HIGHLIGHT TALKS**
- HT (ID 181) **Arbuscular mycorrhizal fungal diversity along a precipitation gradient in coast redwood forests using next-generation sequencing**
Willing CE, Gao C, Colemann-Derr D, Taylor J, Bruns T, Dawson TE
- HT (ID 71) **Plant identity exerts stronger effect than fertilization on soil-dwelling arbuscular mycorrhizal fungi**
Zheng Y, Guo LD
- HT (ID 229) ***Arabidopsis*-mycorrhiza, an ambiguous relationship**
Fernandez Lopez II, van Wees S, van der Heijden M, Pieterse C
- HT (ID 123) **Mycorrhizal specificity in rare and common *Caladenia* orchid species**
Oktalira FT, Whitehead M, Linde C

- HT (ID 198) **Nutrients affect fungal growth and specialization in orchid mycorrhizal associations**
Mujica MI, Claro A, Pérez MF
- HT (ID 68) **Ericoid plant species shape fungal communities in boreal forest soil and plant roots**
Sietiö OM, Tuomivirta T, Santalahti M, Kiheri H, Timonen S, Sun H, Fritze H, Heinonsalo J
- HT (ID 241) **Mechanisms of generalist host range in the ectomycorrhizal symbiosis**
Bogar L, Peay K
- HT (ID 301) **What do we know about mycorrhizae role in exotic conifers' invasion of Nothofagaceae forests in Patagonia, Argentina?**
Salgado Salomón ME, Barroetaveña C, Pildain MB
- HT (ID 61) **Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?**
Cope KR, Venkateshwaran M, Maeda J, Ma C, Strauss S, Ané JM
- 19:03–19:30 moderated discussion**

Thursday 3 August

06:00–07:00 Morning jogging

Zenit + Nadir

08:30–12:00 PLENARY SESSION: Belowground diversity and ecosystem functioning
Chair: Nancy C. Johnson

08:30–09:05 Soil Biodiversity, Underground Networks and Ecosystem Functioning
KL (ID 513) van der Heijden MGA

09:05–09:25 Contrasting ecology of ectomycorrhizal and ericoid mycorrhizal symbioses as drivers of the northern carbon sink
IL (ID 277) Clemmensen KE, Bödeker ITM, Michelsen A, Finlay RD, Lindahl BD

09:25–09:45 Mycorrhizal fungi affect orchid distribution and population dynamics
IL (ID 42) McCormick MK, Whigham DF, Rock-Blake R, Brooks HEA, Taylor DL

09:45–10:05 Does genotypic and species diversity of mycorrhizal plants and fungi matter for ecosystem functioning?
IL (ID 268) Johnson D, Hazard C

10:05–10:40 Coffee break

10:40–11:00 Diverse *Sorghum bicolor* lines differ in their responsiveness to colonisation by different species of mycorrhizal fungi
IL (ID 93) Watts-Williams SJ, Harrison MJ

11:00–11:20 Suppression of the root external arbuscular mycorrhizal fungi (AMF) mycelium by the soil microbiota
IL (ID 78) Cruz-Paredes C, Watts-Williams S, Battini F, Joner EJ, Svenningsen NB, Christensen JC, Nybroe O, Dela Cruz M, Jakobsen I

- 11:20–11:40** **Mycorrhizas and plant-soil feedbacks in temperate forests**
IL (ID 52) Bennett JA
- 11:40–12:00** **Could Mycorrhiza research provide new insights for sustainability between economic and ecological systems?**
IL (ID 323) Joshi N

12:00–13:30 *Lunch break*

Meridian + foyer

- 13:30–15:00** **Attended poster session 2**
odd ID numbers (i.e. 1, 3, 5, etc.)

Leo + Virgo

- 13:30–15:00** **Genevestigator training (offered by Nebion)**

Using Genevestigator for mycorrhiza research – demo and training
Zimmermann P

15:00–15:30 *Coffee break*

Zenit + Nadir

- 15:30–18:30** **CONCURRENT SESSION: Integrating mycorrhizas into plant community ecology**
Chairs: Jeff Powell, Jim Bever
- 15:30–15:45** **Arbuscular mycorrhizal fungi can influence plant community ecology by altering herbivore parasitism via multiple mechanisms**
CL (ID 85) Bennett AE, Meikle R, Millar N, Gedrovics E, Karley AJ
- 15:45–16:00** **Small-scale spatial variability in the distribution of ectomycorrhizal fungi affects plant performance and fungal diversity**
CL (ID 84) Livne-Luzon S, Ovadia O, Weber G, Avidan Y, Migael H, Glassman SI, Bruns T, Shemesh H
- 16:00–16:15** **Unearthing mechanisms behind growth rate in Norway spruce – role of diversity of ectomycorrhizal fungi**
CL (ID 56) Pennanen T, Velmala S, Salmela M, Sievänen R, Hamberg L
- 16:15–16:30** **Arbuscular common mycorrhizal networks mediate plant intra- and interspecific interactions**
CL (ID 79) Weremijewicz J, da Silveira Lobo O'Reilly Sternberg L, Janos DP
- 16:30–16:45** **Effects of mycorrhizae abundance, richness and phylogenetic diversity on plant facilitation**
CL (ID 77) Montesinos-Navarro A
- 16:45–17:00** **Mycorrhizal allocation determines their function across varying environmental contexts**
CL (ID 65) Remke M, Johnson NC, Bowker M

- ~~17:00–17:15~~
CL (ID 274) **Linking AM fungi and pollinator interactions in agro-ecosystems: An ecological network approach**
~~Orrell P, Bennett A, Evans D, Nijnik M~~ **WITHDRAWN**
- 17:00–17:15
CL (ID 114) **Poor plant performance under simulated climate change is linked to mycorrhizal responses in a semiarid shrubland** **CHANGED TITLE, UPGRADED FROM SPEED TALK**
Querejeta JJ, León-Sánchez L, Goberna M, Prieto I, Nicolás E, Maestre FT
- 17:15–17:30
CL (ID 43) **A legume erases mycorrhizal negative effects on an endophytic grass increasing N transference**
García-Parisi PA, Grimoldi AA, Lattanzi FA, Omacini M
- 17:30–18:30
ST+P (ID 114) **SPEED TALKS (5 minutes each)**
~~**Mycorrhizal fungi exacerbate plant responses to experimental climate change in a semiarid shrubland**~~ **UPGRADED TO FULL TALK (see above)**
~~Querejeta JJ, León-Sánchez L, Goberna M, Prieto I, Nicolás E, Maestre FT~~
- ST+P (ID 82) **Dispersal and primary succession of plant and arbuscular mycorrhizal communities**
López-García Á, Frøslev TG, Kjøller R, Bruun HH, Rosendahl S
- ST+P (ID 166) **Linking Ericaceae with conifers: DNA-based prospects and in vitro hopes vs. the in natura reality**
Vohník M
- ST+P (ID 35) **Changes on soil and eucalypt ectomycorrhizal communities across a climatic gradient in south-east Australia**
Withana R, Nitschke C, Aponte C, Kasel S
- ST+P (ID 278) **Relationships between fungal soil diversity, ecosystem services and forest management in boreal forests**
Varenus K, Lindahl BD, Stendahl J, Dahlberg A
- ST+P (ID 270) **Ancient land plants and their open relationships with fungi**
Rimington WR, Pressel S, Duckett JG, Field KJ, Bidartondo MI
- ST+P (ID 183) **Soil fungal assemblages in Chilean temperate rainforests: geological history, forest mycorrhizal dominance, and altitude effects on taxonomical, functional, and phylogenetic diversity**
Marín C, Godoy R, Boy J, Öpik M
- ST+P (ID 251) **Is plant community mycorrhization decreasing along a gradient of anthropogenic pressure?**
Gerz M, Bueno G, Ozinga WA, Zobel M, Moora M
- ST+P (ID 244) **Ectomycorrhizal Fungal Communities in a Changing Boreal Forest**
DeVan R, Taylor L
- ST+P (ID 279) **Determining plant mycorrhizal types for large datasets: Comparing the phylogenetic vs the empirical approach**
Bueno G, Moora M, Gerz M, Zobel M
- ST+P (ID 257) **Tree genotype modulates nutrient cycling through its root-associated microbiota in Mediterranean pine forests**
Pérez-Izquierdo L, Zabal-Aguirre M, González-Martínez SC, Buée M, Verdú M, Goberna M, Rincón A

POSTERS

- P (ID 7) **AMF association contributes to Cr accumulation and tolerance in plants growing on Cr polluted soils**
Akhtar O
- P (ID 34) **Ectomycorrhizal fungal community hosted by Caryophyllales in a hyperdiverse Neotropical dry forest**
Alvarez-Manjarrez J, Garibay-Orijel R
- P (ID 38) **Is Above- or Below- Ground Interaction is important: A case study of an Orchid *Malaxis acuminata* D. Don**
Thakur J
- P (ID 58) **Sequestration and detoxification of metal ions by metallothioneins in ectomycorrhizal fungus *Suillus himalayensis***
Reddy SM, Kalsotra T, Khullar S, Agnihotri R
- P (ID 168) **Assessment of Indigenous Arbuscular Mycorrhizal Fungal Colonization Status in Selected Plants in Kuwait Desert**
Quoreshi AM, Kumar V, Suleiman MK, Jasmine A, Sivasdasan MT, Thomas R, Jacob S
- P (ID 193) **Contribution of mycorrhizas to plant community ecology – a commercial perspective**
Sehajpal K, Sharma A
- P (ID 205) **¹³⁷Cs transition between fungi and plants in a pine forest within a year**
Zarubina N
- P (ID 227) **From grassland to forest: Interaction between arbuscular mycorrhizal and ectomycorrhizal plants**
Knoblochová T, Kohout P, Doubková P, Frouz J, Cajthaml T, Vosátka M, Rydlová J
- P (ID 228) **Ectomycorrhizal diversity and community structure in stands of *Quercus baloot* in the dry temperate forests of Kalam, Pakistan**
Khalid AN, Naseer A, Smith ME
- P (ID 311) **Isolation and morpho-molecular identification of root plant symbionts of Quebec's arctic and alpine tundra**
Côté L, Khasa DP, Boudreault S, Beaulieu ME
- P (ID 317) ***Scleroderma areolatum* ectomycorrhiza on *Fagus sylvatica* L.**
Mrak T, Kühdorf K, Grebenc T, Štraus I, Münzenberger B, Kraigher H
- P (ID 341) **Relationship between diversity of plants and arbuscular mycorrhizal fungi in response to land-use change**
Vega-Frutis R, Lauriano-Barajas J, Fong J, Aguilar-Chama A
- P (ID 350) **Distribution characteristics of AMF and DSE in mangrove along a tide gradient**
Guo J, Xin G, Zhou Q, He C, Peng X
- P (ID 368) **Characterization of arbuscular mycorrhizal fungi along volcanic slopes with respect to disturbance tolerance**
Atunnisa R, Ezawa T
- P (ID 385) **Extreme responses to ectomycorrhizas limit geographic range size in trees**
Karst J, Burns C, Cale JA, Antunes PM, Woods M, Lamit LJ, Hoeksema JD, Zabinski C, Gehring CA, LaFleche M, Rúa MA

- P (ID 397) **Spatial-temporal variations of sporulation of arbuscular mycorrhizal fungi (AMF) in Mediterranean sand dunes**
Guillén A, Serrano FJ, Cano M, Mezquita F, Peris JB, Arrillaga I
- P (ID 399) **AM fungi enhance grassland sustainability by improving plant productivity and reducing N₂O emission under nitrogen deposition**
Zhang T, van der Heijden M
- P (ID 402) **Distribution patterns of AMF in the roots of co-occurring arbuscular mycorrhizal and non-host wetland plants**
Wang Y, Li Y, Li S, Rosendahl S
- P (ID 403) **A giant mycoheterotrophic orchid, *Erythrorchis altissima*, is associated with a wide range of wood-decaying fungi**
Ogura-Tsujita Y, Gebauer G, Xu H, Fukasawa Y, Umata H, Tetsuka K, Maki M, Yukawa T
- P (ID 418) **Root-trait responses to arbuscular mycorrhizal associations in *Brachypodium distachyon***
Delroy B, Powell JR, Donn S
- P (ID 422) **Profiling ectomycorrhizal fungal community recovery in seedlings of south China native masson pine and introduced slash pine**
Ning C, Mueller G, Egerton-Warburton L, Avis P, Wilson A
- P (ID 431) **Community Structure of Arbuscular Mycorrhizal Fungi in Post-mining Areas in Korea**
Park H, Eom AH
- P (ID 435) **Symbiotic cornucopia: Diversity of Mucoromycotina from vascular and non-vascular plants**
Jacob AS, Rimington WR, Pressel S, Duckett J, Kowal J, Hoysted G, Schornack S, Field K, Bidartondo M
- P (ID 444) **Do biotically- and abiotically-dispersed plants rely equally on mycorrhizal associations? A case study in Gorongosa-Mozambique**
Correia M, Timóteo S, Heleno RI, Rodríguez Echeverría S
- P (ID 445) **Community structure of arbuscular mycorrhizal fungi associated to *Argania spinosa* trees from Algeria**
Noui A, Mostefa Della N, Saadi A, Merouane A
- P (ID 448) **Ectomycorrhizal diversity in stands of *Quercus dilata* from Upper Dir, KPK, Pakistan**
Naseer A, Khalid AN, Smith ME
- P (ID 456) **Primary succession and functioning of arbuscular mycorrhiza in a Danish coastal dune system**
Jespersen JRP, García ÁL, Johansen J, Pereira CMR, Bruun HH, Kjølner R

Kepler + Tycho

15:30–18:30

CONCURRENT SESSION: Mycorrhiza microbiomes

Chairs: Christina Kaiser, Mika Tarkka

15:30–16:00

The intracellular microbiota of arbuscular mycorrhizal fungi

IL (ID 199)

Bonfante P

16:00–16:15

The response of plants and soil microbial communities to drought

CL (ID 259)

De Gruyter J, Elst E, Van der Heijden MGA, Weedon J, Verbruggen E

- 16:15–16:30** **Shaking up the microbiome? How field inoculations with mycorrhizal fungi affect rhizosphere communities**
CL (ID 246)
Bender FS, Schläppi KS, Bodenhausen N, Van der Heijden MGA
- 16:30–16:50** **SPEED TALKS** (5 minutes each)
- ST+P (ID 188) **The virome of the arbuscular mycorrhizal fungus *Gigaspora margarita***
Turina M, Astolfi N, Ghignone S, Bonfante P, Lanfranco L
- ST+P (ID 116) **The non-mycorrhizal control in cultivation experiments with AM symbiosis: microbiome perspective**
Gryndler M, Püschel D, Hršelová H, Hujšlová M, Gryndlerová H, Beskid O, Konvalinková T, Jansa J
- ST+P (ID 261) **SoilBioHedge: Using arable leys as highways for soil quality reconstruction by microbial soil engineer species**
Bird SM, Prendergast-Miller M, Despina B, Leake J, Helgason T
- ST+P (ID 398) **Effect of AMF inoculation and fertilization on the bacteria and AMF communities inhabiting pulse roots**
Klabi R, Lay CY, Masse J, Abram K, Hamel C, Gan Y, Li Y, Yergeau E, Greer CW, St-Arnaud M
- 16:50–17:05** **Mycorrhizal Competition Release? Fungal and bacterial communities in native and non-native productive truffle orchard soils**
CL (ID 235)
Benucci GMN, Marozzi G, Sanchez S, Murat C, Deveau A, Marco P, Le Tacon F, De Miguel A, Donnini D, Bonito G
- 17:05–17:20** **Short break**
- 17:20–17:35** **Arbuscular mycorrhiza alters the community structure of ammonia oxidizers at high fertility via competition for soil NH₄⁺**
CL (ID 46)
Veresoglou SD, Verbruggen E, Makarova O, Mansour I, Sen R, Rillig MC
- 17:35–17:50** **Nitrogen and root mycobioime in temperate forests along a biogeographic gradient**
CL (ID 149)
Nguyen DQ, Song B, Pena R, Janz D, Brinkmann N, Schneider D, Daniel R, Polle A
- 17:50–18:05** **Fructose in hyphal exudate as a signal molecule to trigger the AMF-bacteria cooperation**
CL (ID 162)
Zhang L, Declerck S, Feng G
- 18:05–18:15** **SPEED TALKS** (5 minutes each)
- ST+P (ID 73) **Mycorrhiza in association with mycorrhiza helper bacteria suppress basal stem rot in oil palm**
Sundram S, Seman IA, Meon S, Othman R
- ST+P (ID 146) **Large-scale demonstration of increased production of poplar biomass by mycorrhizal inoculation at metal-contaminated phytomanagement sites, and investigation of associated fungal communities**
Blaudez D, Ciadamidaro L, Foulon J, Zappelini C, Durand A, Girardclos O, Valot B, Bert V, Roy S, Chalot M
- 18:15–18:30** **Are Streptomycetes members of the mycorrhiza microbiome steering committee?**
CL (ID 145)
Tarkka M, Kurth F, Krüger D, Arnold N, Haid M, Scherlach K, Hertweck C, Schrey S, Herrmann S, Buscot F

POSTERS

- P (ID 355) **Phosphorus forms mediate characteristic of hyphosphere microbiome driven organic phosphorus turnover**
Wang E, Kertesz MA, Jiang R, Zhang F, Feng G
- P (ID 22) **Use of cactus microbiome for improving grapevine rootstock tolerance to abiotic stresses**
Chebaane A, Mliki A
- P (ID 106) **Formation of Mycorrhiza in Urban Trees after Transplanting to Roadsides**
Schartl A, Herrmann JV
- P (ID 182) **Accelerated reclamation of drastically disturbed Canadian mine and oil sands areas using mycorrhizal and actinorhizal plant symbioses**
Khasa DP, Nadeau MB, Callender K, Quoreshi A, Greer C
- P (ID 185) **Analysis of mycelial growth and fruit body characteristics of *Sparassis latifolia* strains**
Lee Y, Gweon H, Jeon D, Choi J, Chi J
- P (ID 234) **AMF spore microbiomes differ from those of host plant roots and rhizospheres in petroleum-contaminated soil**
Iffis B, Hijri M, St-Arnaud M
- P (ID 240) **Resolving fungal taxa using long environmental amplicons – a case study using Archaeorhizomycetes**
Kalsoom F, Sahraei SE, Urbina H, Ryberg M, Rosling A
- P (ID 297) ***Rhizophagus clarus* and *Lysinibacillus fusiformis* interaction in biochar amended soil for *Zea mays* nutrients uptake**
Rafique M, Malik IAM, Ortas I, Chaudhary HJ THE PRESENTING AUTHOR CHANGED
- P (ID 340) **Diversity and specificity of AM fungi in the rhizospheres of six common plants in Songnen grassland, China**
Bi Y, Zhu X, Zhang X, Jiang X, Chen C, Li Z, Gao Y, Zhang T, Xing F, Guo J
- P (ID 372) **Defense-related phytohormones alter the structuring of the root microbiome in Grey poplar**
Mangeot-Peter L, Deveau A, Veneault-Fourrey C
- P (ID 377) **AM fungal community associated to *Vitis vinifera* cv. Pinot Nero treated with integrated pest managements**
Cesaro P, Boatti L, Bona E, Massa N, Novello G, Todeschini V, Mignone F, Gamalero E, Lingua G, Berta G
- P (ID 380) **Community characteristics of Arbuscular mycorrhizal fungi associated with Chinese fir in different age stages**
Lu N, Ji B
- P (ID 404) **Disentangling microbial interactions upon utilization of soil organic N by arbuscular mycorrhizal fungi**
Bukovská P, Püschel D, Gryndlerová H, Konvalinková T, Hujšlová M, Jansa J
- P (ID 410) **The impact of Aridity on Microbial Diversity of *Opuntia ficus-indica***
Gargouri M

- P (ID 425) **Root mycobionts of the seagrass *Posidonia oceanica* in the central Adriatic – microscopy, culturing and 454-pyrosequencing**
Vohník M, Borovec O, Župan I, Sudová R
- P (ID 438) **Resilience of root fungal communities under experimental warming and northern light climate**
Saravesi K, Markkola A, Taulavuori E, Suominen O, Syvänperä I, Suokas M, Taulavuori K
- P (ID 450) **Ectomycorrhizal carbon allocation to soil bacteria in the mycorrhizosphere of *Fagus sylvatica***
Gorka S, Mayerhofer W, Dietrich M, Wiesenbauer J, Martin V, Schweiger P, Schintlmeister A, Richter A, Woebken D, Kaiser C
- P (ID 480) ***Geosiphon pyriformis* a unique arbuscular mycorrhizal fungus**
Krüger M, Krüger C
- P (ID 481) **Root-associated fungi respond more strongly than rhizosphere-soil fungi to N fertilisation in a boreal forest**
Marupakula S, Mahmood S, Finlay RD
- P (ID 485) **Mycorrhizal phosphate uptake pathway affects maize root-associated microbiome**
Tai H, Gerlach N, Fabianska I, Bucher M
- P (ID 488) **Fungi diversity associated to root of *Zygopetallum maxillare* (Orchidaceae)**
Mangaravite E, Veloso TGR, Cunha MB, Silva M, Vieira CA, Freitas EFS, Cruz E, Kasuya MCM
- P (ID 491) **The fine scale distribution of orchid mycorrhizal fungi of the leafless epiphytic orchid, *Dendrophylax lindenii***
Johnson L, Mueller GM

Leo + Virgo

15:30–18:30

CONCURRENT SESSION: Molecular programming of mycorrhizal symbioses

Chairs: Annegret Kohler, Pierre-Emmanuel Courty

15:30–15:50

Reprogramming root cells for arbuscular mycorrhiza

CL (ID 60) Reinhardt D, Rich MK, Courty PE

15:50–16:10

Evolutionary conservation of mycorrhiza-specific phosphate transporter gene regulation in *Lotus japonicus* by CTTC MOTIF-BINDING TRANSCRIPTION FACTOR1 (CBX1)

CL (ID 322) Bucher M, Xue L, Klinnawee L, Saridis G

16:10–16:30

Metal transport in arbuscular mycorrhizas

CL (ID 104) Ferrol N, Tamayo E, Gómez-Gallego T, Pérez-Tienda J, Valderas A, Vargas P

16:30–16:45

SPEED TALKS (3 minutes each)

ST+P (ID 61)

Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?

Cope KR, Venkateshwaran M, Maeda J, Ma C, Strauss S, Ané JM

ST+P (ID 134)

A functional approach towards understanding the mitochondrial respiratory chain role in an endomycorrhizal symbiosis

Mercy L, Lucic-Mercy E, Nogales A, Poghosyan A, Schneider C, Arnholdt-Schmitt B

- ST+P (ID 260) **How hormone interplay, carbon partitioning and plant priming affect the endomycorrhizal symbiosis: a theory**
Bedini A, Mercy L, Schneider C, Franken P, Lucic-Mercy E
- ST+P (ID 2) **Epigenetical inheritance in Plant-mycorrhizal interaction: Re-establishing the co-evolution**
Khan MH
- 16:45–17:00 **Cell wall remodeling during ectomycorrhiza development**
CL (ID 142) Chowdhury J, Felten J
- 17:00–17:15 **The role of protein methylation on the development of ectomycorrhizal symbiosis between *Pisolithus* and *Eucalyptus***
CL (ID 160) Plett KL, Raposo AE, Anderson IC, Piller S, Plett JM
- 17:15–17:30 **Mycorrhizal reprogramming affects pest resistance of poplar**
CL (ID 271) Polle A
- 17:30–17:45 ***Petunia* as model for breeding mycorrhiza-responsive crop plants**
CL (ID 110) Franken P, Behrend A, Camehl I, Kallus K
- 17:45–18:00 **Identification of *Medicago truncatula* genes involved in the arbuscular mycorrhizal symbiosis with whole genome sequencing**
CL (ID 282) Irving TB, Schultze M, Young PW
- 18:00–18:15 ***Arabidopsis*-mycorrhiza, an ambiguous relationship**
CL (ID 229) Fernandez Lopez II, van Wees S, van der Heijden M, Pieterse C
- 18:15–18:30 **Oligosaccharides as signals: a new opportunity for promoting mycorrhizal development and effectiveness in revegetation programs?**
CL (ID 262) Lucic-Mercy E, Mercy L, Lartigue J, Thongo A, Mercy L, Hutter I, Schneider C
- POSTERS**
- P (ID 10) **Quantitative RT-PCR analysis of selected genes potentially associated with orchid mycorrhiza interaction in *Dendrobium burana* Charming**
Sangkaew W, Onsiri S, Wongtalay T, Serivichyaswat P, Nontachaiyapoom S
- P (ID 21) **High phosphorus tolerant mutants of *Gigaspora sp.* induced by Gamma rays and UV irradiation**
Rini MV, Fitriana Y, Suharjo R
- P (ID 264) **Stimulation of plant growth and nutrition by arbuscular mycorrhizal fungal biomass – living or dead**
Jansa J, Šmilauer P, Püschel D, Hršelová H, Bukovská P, Konvalinková T, Gryndlerová H, Hujšlová M, Beskid O, Gryndler M
- P (ID 400) **The small secreted protein OmSSP1 is up-regulated in ericoid mycorrhiza and is involved in symbiosis**
Casarrubia S, Daghino S, Kohler A, Morin E, Daguerre Y, Veneault-Fourrey C, Martin FM, Perotto S, Martino E
- P (ID 412) **The role of auxin biosynthesis and efflux in the fungus *Laccaria bicolor* for ectomycorrhiza formation with *Populus* tree roots**
Daguerre Y, Kumari A, Chowdhury J, Sabine K, Samodelov S, Zurbriggen M, Schirawski J, Sauer U, Felten J

- P (ID 451) **Fatty acid biosynthesis partially induced by LjERM transcription factors is presumed to regulate arbuscule development**
Sugimura Y, Handa Y, Honma Y, Okazaki Y, Saito K, Kawaguchi M, Saito K
- P (ID 465) **The transcriptional landscape of *Laccaria bicolor*: Ectomycorrhiza formation, reproduction via sporocarp and impact of nutrition**
Kohler A, Ruytinx J, Miyauchi S, Wittulsky S, de Freitas Pereira M, Guinet F, Le Tacon F, Morin E, Veneault-Fourrey C, Martin F
- P (ID 472) **Impact of arbuscular mycorrhizal communities on the biomass potential of prairie cordgrass – a potential bioenergy crop**
 Monier B, Burch M, Demell A, Mercado C, Bücking H
- P (ID 478) **Re-examination of symbiotic phenotype in *Lotus japonicus* ME966 mutant**
Taguchi K, Takeda N, Sato S, Saito K
- P (ID 508) **AMF antagonism against *Arabidopsis* is unaffected by phytohormone-regulated growth-defense tradeoffs**
Cosme M, Fernandez I, van der Heijden M, Pieterse CMJ

Obecní dům

20:00–23:00 Conference dinner

Friday 4 August

Zenit + Nadir

- 08:30–12:00** **PLENARY SESSION: Genomics for understanding mycorrhizal evolution and ecology**
 Chair: Ian R. Sanders
- 08:30–09:05** **Getting to the Root of Mycorrhizal Symbioses: Impact of Fungal Genomics on Mycorrhizal Research**
 KL (ID 332)
 Martin FM
- 09:05–09:25** **Origin and evolution of genetic diversity within and between the AMF mycelia**
 IL (ID 50)
 Corradi N
- 09:25–09:45** **Comparative genomics and transcriptomics for understanding ericoid mycorrhizal fungi ecology**
 IL (ID 94)
Martino E, Morin E, Grelet GA, Kohler A, Daghino S, Murat C, Henrissat B, Grigoriev IV, Martin FM, Perotto S
- 09:45–10:05** **Streamlining the genomes of wood decay fungi for the evolution of ectomycorrhizal symbioses**
 IL (ID 196)
 Kiss E, Sanchez-Garcia M, Kuo A, Keri Z, Szollosi G, Grigoriev IV, Hibbett DS, Martin FM, Nagy LG
- 10:05–10:40** **Coffee break**

- 10:40–11:00** **Comparison of symbiotic features in two arbuscular mycorrhizal (AM) fungi**
IL (ID 507) Roux C
- 11:00–11:20** **Ectomycorrhizal ecology is imprinted in the genome of the dominant and only known mycorrhizal Dothideomycete *Cenococcum geophilum***
IL (ID 331) Peter M, Kohler A, de Freitas Pereira M, Nehls U, Veneault-Fourrey C, Murat C, Egli S, Grigoriev I, Martin F
- 11:20–11:40** **Comparative analysis of genomic data to understand the extent of variation among and within isolates of *Rhizophagus irregularis***
IL (ID 515) Masclaux FG, Wyss Lozano Hoyos T, Savary R, Rosikiewicz P, Pagni M, Sanders IR
- 11:40–12:00** **A Genome Wide Association Study to disentangle legume-specific root responses to phosphate**
IL (ID 100) Giovannetti M, Goeschl C, Satbhai S, Kopriva S, Busch W

12:00–13:30 **Lunch break**

Zenit + Nadir

- 13:30–15:00** **PLENARY SESSION: Perspectives**
Chair: Lynette Abbott
- 13:30–13:50** **Learning from the past: John Laker Harley (1911–1990)**
IL (ID 203) Koide RT, Fernandez CW
- 13:50–14:10** **Beyond ICOM8: Perspectives on Advances in Mycorrhizal Research from 2015 to 2017**
IL (ID 248) Gehring CA, Johnson NC
- 14:10–14:30** **Perspectives: Bringing different disciplines together to answer the “BIG questions” in mycorrhizal research**
IL (ID 514) Sanders IR
- 15:00–15:30** **Coffee break**

Zenit + Nadir

- 15:30–16:15** **IMS Annual General Meeting**
Chair: Tom Bruns
- 16:15–16:30** **Wines of the World – scores**
Chair: Tom Bruns
- 16:30–17:00** **Student awards ceremony**
Chairs: Jeff Powell, Joanna Weremijewicz
- 17:00–17:20** **Closing ceremony**
Chair: Jan Jansa
handling ICOM icon to ICOM10 organizers

CL = Contributed lecture, CL+P = Contributed lecture with poster, HT = highlight talk, IL = Invited lecture, KL = Keynote lecture, P = Poster, ST = Speed talk, ST+P = Speed talk with poster

Last update on 31 July 2017