

List of scientific or artistic achievements which present a major contribution to the development of a specific discipline

Information contained herein should clearly refer to two different periods, i.e. the period prior to the award of the PhD degree and the period between the conferment of the PhD degree and the award of the post-doctoral degree of doctor habilitated.

I. INFORMATION ON SCIENTIFIC OR ARTISTIC ACHIEVEMENTS SET OUT IN ART. 219 PARA 1. POINT 2 OF THE ACT

1. Scientific monograph, pursuant to art. 219 para 1. point 2a of the Act; or
2. Cycle of scientific articles related thematically, pursuant to art. 219 para 1. point 2b of the Act; or

Impact of host tree genotype and environmental conditions on the soil microbial community of poplars

- **Karliński L**, Rudawska M, Kieliszewska-Rokicka B, Leski T. 2010. Relationship between genotype and soil environment during colonization of poplar roots by mycorrhizal and endophytic fungi. *Mycorrhiza* 20, 315-324.

(IF₂₀₁₀ = 2,571, MNiSW₂₀₁₀ = 32 points.)

My contribution to this work consisted of participation in the development of the study concept, development of the final model of studies, collection of samples and laboratory analyzes, preparation of the results, preparation of the original version of the manuscript and correction of the manuscript after reviews. I estimate my participation in this work at 82%.

- **Karliński L**, Rudawska M, Leski T. 2013. The influence of host genotype and soil conditions on ectomycorrhizal community of poplar clones. *European Journal of Soil Biology* 58, 51-58.

(IF₂₀₁₃ = 2,146, punktacja MNiSW₂₀₁₃ = 25 points)

My contribution to this work consisted of planning the research, collecting samples and performing all laboratory analyzes, processing the results, preparing the original version of the manuscript and revising the manuscript after reviews. I estimate my participation in this work at 90%.

- **Karliński L**, Ravnskov S, Rudawska M. 2020. Soil microbial biomass and community composition relates to poplar genotypes and environmental conditions. *Forests* 11, #262.

(IF₂₀₂₀ = 2,633, punktacja MNiSW₂₀₂₀ = 100 points.)

My contribution to this work consisted of planning the research, collecting samples and performing all laboratory analyzes, processing the results, preparing the manuscript and revising the manuscript after reviews. I estimate my participation in this work at 88%.

- **Karliński L.** 2021a. Biomass of external mycelium of mycorrhizal fungi associated with poplars – the impact of tree genotype, tree age and soil environment. *Applied Soil Ecology* 160, #103847.

(IF₂₀₂₀ = 4,046, punktacja MEiN₂₀₂₁ = 140 points)

- **Karliński L.** 2021b. The arbuscular mycorrhizal symbiosis of trees. Structure, function and regulating factors. W: Shrivastava N., Mahajan S., Varma A. (red.) *Symbiotic Soil Microorganisms. Biology and Applications*. Springer. 117-128.

(IF₂₀₂₀ = - , punktacja MEiN₂₀₂₁ = 20 points)

3. List of completed original project, engineering and design, technological or artistic achievements, pursuant to art. 219 para 1. point 2c of the Act.

In the case of co-authored works, it is recommended that the applicant and his/her collaborators present a declaration of their substantive (expressed NOT as a percentage) contribution to every work [e.g. author of a research hypothesis, research initiator, performed specific research (e.g. performed specific experiments, designed and compiled questionnaires etc.), performed result analysis, prepared a manuscript of an article and other]. The author's contribution, including the applicant's contribution, should be described in detail so as to make it possible to precisely assess his/her contribution and role in the creation of each of the works.

II. INFORMATION ON SCIENTIFIC OR ARTISTIC ACTIVITY

1. List of published scientific monographs (including the monographs not mentioned in section I.1).

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2. List of published chapters in scientific monographs.

- **Karliński L.** 2021b. The arbuscular mycorrhizal symbiosis of trees. Structure, function and regulating factors. In: Shrivastava N., Mahajan S., Varma A. (eds.) *Symbiotic Soil Microorganisms. Biology and Applications*. Springer. 117-128.

3. Information about membership in editorial boards preparing scientific monographs for publication.

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4. List of articles published in scientific journals (including the articles not mentioned in section I.2).

Articles published in scientific journals before obtaining a doctoral degree:

- **Karliński L**, Ravnskov S, Kieliszewska-Rokicka B, Larsen J. 2007. Fatty acid composition of various ectomycorrhizal fungi and ectomycorrhizas of Norway spruce. *Soil Biology & Biochemistry* 39, 854-866. <https://doi.org/10.1016/j.soilbio.2006.10.003>
- Ravnskov S, Jensen B, Knudsen IMB, Bødker L, Funck Jensen D, **Karliński L**, Larsen J. 2006. Soil inoculation with the biocontrol agent *Clonostachys rosea* and the mycorrhizal fungus *Glomus intraradices* results in mutual inhibition, plant growth promotion and alteration of soil microbial communities. *Soil Biology & Biochemistry* 38, 3453-3462. <https://doi.org/10.1016/j.soilbio.2006.06.003>
- **Karliński L**, Kieliszewska-Rokicka B. 2004. Diversity of spruce ectomycorrhizal morphotypes in four mature forest stands in Poland. *Dendrobiology* 51, 23-33.
- Kieliszewska-Rokicka B, Rudawska M, Staszewski T, Kurczyńska E, **Karliński L**, Kubiesa P. 2003. Ectomycorrhizal associations in Norway spruce stands influenced by long lasting air pollution (Silesian Beskid Mountains, Poland). *Ekologia*, Bratislava, 22 (suppl. 1/2003), 156-163.
- **Karliński L**, Larsen J, Ravnskov S, Kieliszewska-Rokicka B. 2003. The effect of inoculation with ectomycorrhizal fungi and mycorrhiza helper bacteria on the response of Norway spruce seedlings to lead. *Proceedings - XXXIII Annual Meeting of ESNA, Viterbo, Italy, WG 3, Soil-Plant-Relationships. Fachhochschule Ravensburg-Weingarten, Germany*, 68-73.
- Urbaniak L, **Karliński L**, Popielarz R. 2003. Variation of morphological needle characters of Scots pine (*Pinus sylvestris* L.) populations in different habitats. *Acta Societatis Botanicorum Poloniae*, 72, 1, 37-44. <https://doi.org/10.5586/asbp.2003.005>
- Urbaniak L, **Karliński L**. 2001. Populations of Scots pine (*Pinus sylvestris* L.) under different abiotic environments: similarities and differences in the expression of phenotypic needle characters. *Proceedings - Third Balkan Scientific Conference, Sofia, Bulgaria*, 199-207.
- Urbaniak L, Ślósarz M, **Karliński L**. 2001. Description of the relict Scots pine (*Pinus sylvestris* L.) populations in the Tatra and Pieniny mountains by needle characters. *Proceedings - Third Balkan Scientific Conference, Sofia, Bulgaria*, 191-198.
- Urbaniak L, **Karliński L**, Kubis A, Grzebyta J. 2000. Zróżnicowanie sosny zwyczajnej (*Pinus sylvestris* L.) w Wielkopolskim Parku Narodowym na podstawie cech morfologicznych igieł. [Differentiation of Scots pine (*Pinus sylvestris* L.) in the Wielkopolska National Park on the basis of the needles morphological characters]. (summary, figs. and tabs. in English) *Morena* 7, 41-52.

Articles published in scientific journals after obtaining a doctoral degree:

- Frymark-Szymkowiak A, **Karliński L**. 2022. Impacts of hydrological conditions on the activities of soil enzymes in temperate floodplain forest sites. *Soil Research*. <https://doi.org/10.1071/SR21156>
- **Karliński L**. 2021. Biomass of external mycelium of ectomycorrhizal fungi associated with poplars – The impact of tree genotype, tree age and soil environment. *Applied Soil Ecology* 160, #103847. <https://doi.org/10.1016/j.apsoil.2020.103847>

- **Karliński L**, Ravnskov S, Rudawska M. 2020. Soil microbial biomass and community composition relates to poplar genotypes and environmental conditions. *Forests* 11, #262, <https://doi.org/10.3390/f11030262>
- Wilgan R, Leski T, Kujawska M, **Karliński L**, Janowski D., Rudawska M. 2020. Ectomycorrhizal fungi of exotic *Carya ovata* (Mill.) K. Koch in the context of surrounding native forests on Central European sites. *Fungal Ecology* 44, #100908. <https://doi.org/10.1016/j.funeco.2019.100908>
- **Karliński L**. 2019. Peatlands – Threats and Protection. (summary in English) *Aura Ochrona Środowiska* 10, 6-10. <https://10.15199/2.2019.10.1>
- Szuba A, Marczak Ł, **Karliński L**, Mucha J, Tomaszewski D. 2019. Regulation of the leaf proteome by inoculation of *Populus × canescens* with two *Paxillus involutus* isolates differing in root colonization rates. *Mycorrhiza* 29, 503-517. <https://doi.org/10.1007/s00572-019-00910-5>.
- Leski T, Rudawska M, Kujawska M, Stasińska M, Janowski D, **Karliński L**, Wilgan R. 2019. Both forest reserves and managed forests help maintain ectomycorrhizal fungal diversity. *Biological Conservation* 238, #108206. <https://doi.org/10.1016/j.biocon.2019.108206>
- Janowski D, Wilgan R, Leski T, **Karliński L**, Rudawska M. 2019. Effective molecular identification of ectomycorrhizal fungi: revisiting DNA isolation methods. *Forests* 10, #218. <https://doi.org/10.3390/f10030218>
- Rudawska M, Kujawska M, Leski T, Janowski D, **Karliński L**, Wilgan R. 2019. Ectomycorrhizal community structure of the admixture tree species *Betula pendula*, *Carpinus betulus*, and *Tilia cordata* grown in bare-root forest nurseries. *Forest Ecology and Management* 43, 113–125. <https://doi.org/10.1016/j.foreco.2019.01.009>
- Rudawska M, Leski T, Wilgan R, **Karliński L**, Kujawska M, Janowski D. 2018. Mycorrhizal associations of the exotic hickory trees, *Carya laciniosa* and *Carya cordiformis*, grown in Kórnik Arboretum in Poland. *Mycorrhiza* 28, 549–560. <https://doi.org/10.1007/s00572-018-0846-8>
- Rudawska M, Leski T, Aučina A, **Karliński L**, Skridaila A, Ryliškis D. 2017. Forest litter amendment during nursery stage influence field performance and ectomycorrhizal community of Scots pine (*Pinus sylvestris* L.) seedlings outplanted on four different sites. *Forest Ecology and Management* 395, 104-114. <https://10.1016/j.foreco.2017.04.002>
- Szuba A, **Karliński L**, Krzesłowska M, Hazubska-Przybył T. 2017. Inoculation with a Pb-tolerant strain of *Paxillus involutus* improves growth and Pb tolerance of *Populus × canescens* under *in vitro* conditions. *Plant and Soil* 412, 253-266. <http://10.1007/s11104-016-3062-3>
- Moscatelli CM, Bonifacio E, Chiti T, Cudlin P, Dinca L, Gömöryova E, Grego S, La Porta N, **Karliński L**, Pellis G, Rudawska M, Squartini A, Zhiyanski M, Broll G. 2017. Soil properties as indicators of treeline dynamics in view of anthropogenic pressure and climate change. *Climate Research* 73, 73-84. <https://doi.org/10.3354/cr01478>
- Bojarczuk K, **Karliński L**, Hazubska-Przybył T, Kieliszewska-Rokicka B. 2015. Influence of mycorrhizal inoculation on growth of micropropagated *Populus × canescens* lines in metal-contaminated soils. *New Forests* 46, 195-215. <http://10.1007/s11056-014-9455-3>
- **Karliński L**, Rudawska M, Leski T, Kieliszewska-Rokicka B. 2015. Biomass of external mycelium of ectomycorrhizal fungi in Norway spruce stands in Poland. *Acta Mycologica* 50, 1063, 1-9.
- Kujawa A, Gierczyk B, Domian G, Wrzosek M, Stasińska M, Szkodzik J, Leski T, **Karliński L**, Pietras M, Dynowska M, Henel A, Ślusarczyk D, Kubiak D. 2016. Preliminary studies of

fungi in the Biebrza National Park. Part IV. Macromycetes – New data and the synthesis. *Acta Mycologica* 50, 1070, 1-28.

- **Karliński L**, Jagodziński AM, Leski T, Butkiewicz P, Brosz M, Rudawska M. 2014. Fine root parameters and mycorrhizal colonization of horse chestnut trees (*Aesculus hippocastanum* L.) in urban and rural environments. *Landscape and Urban Planning* 127, 154-163. <https://doi.org/10.1016/j.landurbplan.2014.04.014>
- **Karliński L**, Rudawska M, Leski T. 2013. The influence of host genotype and soil conditions on ectomycorrhizal community of poplar clones. *European Journal of Soil Biology* 58, 51-58. <https://doi.org/10.1016/j.ejsobi.2013.05.007>
- Gugerli F, Brandl R, Castagnyrol B, Franc A, Jactel H, Koelewijn H-P, Martin F, Peter M, Pritsch K, Schroder H, Smulders MJM, Kremer A, Ziegenhagen B and EVOLTREE JERA3 CONTRIBUTORS: Augustin S, Brandle M, Burban C, Burczyk J, Cavers S, Chybicki I, Conord C, Cremer E, DeWoody J, Donges K, Fady B, **Karliński L**, Kerdelhue C, Kieliszewska-Rokicka B, Kost G, Kulczyk-Skrzeszewska M, Lakatos F, Lefevre F, Liepelt S, Oddou-Muratorio S, Rexer K-H, Rudawska M, Schadler M, Taylor G, Tuba K, Viger M, Villani F, Villar M. 2013. Community genetics in the time of next generation molecular technologies. *Molecular Ecology* 22, 3198-3207. <https://doi.org/10.1111/mec.12300>
- Pietras M, Rudawska M, Leski T, **Karliński L**. 2013. Diversity of ectomycorrhizal fungus assemblages on nursery grown European beech seedlings. *Annals of Forests Science* 70, 115-121. <https://doi.org/10.1007/s13595-012-0243-y>
- Kujawa A, Wrzosek M, Domian G, Kędra K, Szkodzik J, Rudawska M, Leski T, **Karliński L**, Pietras M, Gierczyk B, Dynowska M, Ślusarczyk D, Kałucka I, Ławrynowicz M. 2012. Preliminary studies of fungi in forests and inland dunes of the Biebrza National Park. Part II. Macromycetes. - *Acta Mycologica* 47, 215-240.
- **Karliński L**, Rudawska M, Kieliszewska-Rokicka B, Leski T. 2010. Relationship between genotype and soil environment during colonization of poplar roots by mycorrhizal and endophytic fungi. *Mycorrhiza* 20, 315-324. <https://doi.org/10.1007/s00572-009-0284-8>

5. List of project, engineering and design as well as technological achievements (including the achievements not mentioned in section I.3).

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6. List of public realizations of works of art (including the works not mentioned in section I.3).

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7. Information on presentations given at national or international scientific or arts conferences, including a list of lectures delivered upon invitation and plenary lectures.

National scientific conferences – before obtaining a doctoral degree:

- Kieliszewska-Rokicka B, **Karliński L**, Welc M, Zielińska K. - Ocena ilościowa grzybów i bakterii glebowych na podstawie wskaźników biochemicznych. 41 Sympozjum Mikrobiologiczne. Nowoczesne metody badania mikroorganizmów gleby i innych środowisk. 2007, Toruń-Ciechocinek. (poster presentation)

- Trocha L, **Karliński L**, Rudawska M. - Techniki identyfikacji grzybów ektomikoryzowych. 41 Sympozjum Mikrobiologiczne. Nowoczesne metody badania mikroorganizmów gleby i innych środowisk. 2007, Toruń-Ciechocinek. (poster presentation)
- **Karliński L**, Kieliszewska-Rokicka B. - Ektomikoryzy świerka *Picea abies* (L.) Karst. oraz struktura i biomasa mikroorganizmów glebowych w dwóch dorosłych drzewostanach. 53 Zjazd Polskiego Towarzystwa Botanicznego, 2004, Toruń. (poster presentation)
- Urbaniak L, **Karliński L**, Perz R. – Zmienność cech morfologicznych igieł sosny zwyczajnej (*Pinus sylvestris* L.) w zróżnicowanych ekologicznie środowiskach. Toruńskie Seminarium Ekologiczne „Zmiany a zmienność”, Uniwersytet Mikołaja Kopernika, 23-25.06.2000, Toruń. (oral presentation)
- Urbaniak L, **Karliński L**, Myczko Ł. – Cechy morfologiczne i izoenzymatyczne w badaniach nad zróżnicowaniem sosny zwyczajnej (*Pinus sylvestris* L.) na terenie Wielkopolskiego Parku Narodowego. IV Przegląd Działalności Kół Naukowych Przyrodników, Pomorska Akademia Pedagogiczna, 20-22.10.2000, Słupsk. (poster presentation)
- Urbaniak L, **Karliński L**, Myczko Ł. – Zróżnicowanie genetyczne sosny zwyczajnej na terenie Wielkopolskiego Parku Narodowego, II Krajowe Seminarium „Mapowanie genomów roślinnych i poszukiwanie markerów cech użytkowych, IGR, 7.11.2000, Poznań. (poster presentation)
- Urbaniak L, Kubis A, **Karliński L**, Grzebyta J. – Zmienność liczby aparatów szparkowych w igłach sosny zwyczajnej (*Pinus sylvestris* L.) z terenu Wielkopolskiego Parku Narodowego, Ogólnopolska Konferencja „Genetyka a taksonomia roślin”, Instytut Genetyki Roślin PAN, 25.10.1999, Poznań. (poster presentation)

International scientific conferences – before obtaining a doctoral degree:

- **Karliński L**, Kieliszewska-Rokicka B, Staszewski T, Kubiesa P. - Biomass of external mycelium in mycorrhizosphere of mature Norway spruce in mountain and lowland forests in Poland, 09.2006, Rovaniemi, Finland (oral presentation)
- **Karliński L**, Larsen J, Kieliszewska-Rokicka B. - Signature fatty acids composition of ectomycorrhizal fungi. XXXV ESNA Conference, 2005, Amiens, France. (oral presentation)
- **Karliński L**, Larsen J, Ravnskov S, Kieliszewska-Rokicka B, Ślusarz A. – The effect of inoculation with ectomycorrhizal fungi and mycorrhizal helper bacteria on the response of Norway spruce seedlings to lead. XXXIII ESNA Conference, 27-31.08.2003. Viterbo, Italy. (poster presentation)
- Kieliszewska-Rokicka B, Rudawska M, Staszewski T, Kurczyńska E, **Karliński L**, Kubiesa P. - Ectomycorrhizal associations in Norway spruce stands influenced by long lasting air pollution (Silesian Beskid Mountains, Poland). IUFRO Conference “Long term air pollution effect on forest ecosystems”, 30.08-1.09.2002, Zvolen, Slovakia. (poster presentation)
- **Karliński L**, Kieliszewska-Rokicka B. – Diversity of spruce ectomycorrhizal morphotypes in mature forests in Poland. XXXII ESNA Conference, SGGW, 10-14.09.2002, Warszawa, Poland. (poster presentation)
- Urbaniak L, **Karliński L**. – Diversity of Scots pine (*Pinus sylvestris* L.) populations in the Tuchola Forest on the basis of needle morphological characters. IUFRO Conference, 27-29.08.2002 Stara Lesna, Slovakia. (oral presentation)

- Urbaniak L, **Karliński L.** - Populations of Scots pine (*Pinus sylvestris* L.) under different abiotic environments: similarities and differences in the expression of phenotypic needle characters. Third Balkan Scientific Conference, 2001, Sofia, Bulgaria. (oral presentation)
- Urbaniak L, Ślósarz M, **Karliński L.** - Description of the relict Scots pine (*Pinus sylvestris* L.) populations in the Tatra and Pieniny mountains by needle characters. Third Balkan Scientific Conference 2001, Sofia, Bulgaria. (oral presentation)

National scientific conferences – after obtaining a doctoral degree:

- **Karliński L.** – Środowisko i genotyp drzew a mikrobiom topoli. Konferencja naukowa „Drzewa i lasy w zmieniającym się środowisku”, 11-13.10.2021, Kórnik. (online oral presentation)
- Rudawska M, Stasińska M, Leski T, Kujawska M, **Karliński L**, Wilgan R. – Od owocników poprzez ektomykoryzy do metagenomiki – porównanie różnych metod w badaniach zbiorowisk grzybów w kontynentalnym borze mieszanym (*Querceto roboris-Pinetum*), Konferencja naukowa „Drzewa i lasy w zmieniającym się środowisku”, 11-13.10.2021, Kórnik. (online oral presentation)
- Leski T, Wilgan R, **Karliński L**, Pietras M, Rudawska M. – Grzyby ektomykoryzowe Puszczy Białowieskiej, Konferencja naukowa „Drzewa i lasy w zmieniającym się środowisku”, 11-13.10.2021, Kórnik. (online oral presentation)
- Kujawska M, Rudawska M, Stasińska M, **Karliński L**, Wilgan R, Leski T. – Różnorodność grzybów ektomykoryzowych w rezerwatach i drzewostanach gospodarczych – od gleby, poprzez ektomykoryzy, po owocniki, Konferencja MycoRise Up! Młodzi w mykologii, 23-25.04.2021. (online oral presentation)
- **Karliński L.** - Wpływ genotypu i wieku topoli oraz warunków glebowych na biomasę grzybni ekstramatrykalnej grzybów mykoryzowych. 58 Zjazd Polskiego Towarzystwa Botanicznego, Botanika bez granic, 1-7.07.2019, Kraków. (oral presentation)
- Rudawska M, Leski T, Kujawska M, Stasińska M, **Karliński L**, Wilgan R. - Zarówno drzewostany gospodarcze jak i drzewostany objęte ochroną rezerwatową przyczyniają się do utrzymania różnorodności grzybów ektomykoryzowych. 58 Zjazd Polskiego Towarzystwa Botanicznego, Botanika bez granic, 1-7.07.2019, Kraków. (oral presentation)
- Leski T, Wilgan R, Rudawska M, Pietras M, **Karliński L.** - Różnorodność grzybów tomentelloidalnych Puszczy Białowieskiej. 58 Zjazd Polskiego Towarzystwa Botanicznego, Botanika bez granic, 1-7.07.2019, Kraków. (oral presentation)
- Wilgan R, Leski T, Rudawska M, **Karliński L.** - Rodzaj orzesznik (*Carya* sp.) i jego symbionty ektomykoryzowe w Europie. 58 Zjazd Polskiego Towarzystwa Botanicznego, Botanika bez granic, 1-7.07.2019, Kraków. (oral presentation)
- Wilgan R, Leski T, Rudawska M, Pietras M, **Karliński L.** - To czego nie widać – nowe spojrzenie na grzyby ektomykoryzowe Puszczy Białowieskiej. VII edycja Ogólnopolskiej Konferencji Młodych Naukowców Przyroda-Las-Technologia, 05.04.2019, Poznań. (oral presentation)
- Wilgan R, Leski T, Rudawska M, Pietras M, **Karliński L.** - Ukryte bogactwo Puszczy Białowieskiej - grzyby zidentyfikowane na podstawie analiz molekularnych mykoryz i owocników. Konferencja MycoRise Up!, 12-13.04.2019. Spała. (oral presentation)
- Rudawska M, Leski T, Kujawska M, Stasińska M, **Karliński L**, Wilgan R, Janowski D. – Species diversity patterns of ectomycorrhizal fungi in protected and managed mixed coniferous

forests? Walne Zgromadzenie Członków Polskiego Towarzystwa Mykologicznego, 8.12.2018, Łódź. (poster presentation)

- **Karliński L.** – Wpływ genotypu i wieku topoli oraz warunków glebowych na biomasę grzybni ekstrapatrykalnej grzybów mykoryzowych. Konferencja naukowa „Biologia i ekologia roślin drzewiastych”, 11-15.06.2018, Kórnik – Poznań. (oral presentation)
- Rudawska M, Leski T, Kujawska M, Stasińska M, **Karliński L.** - Gospodarować czy chronić? Zróżnicowanie zbiorowisk grzybów ektomykoryzowych w rezerwach i drzewostanach gospodarczych. Konferencja naukowa „Biologia i ekologia roślin drzewiastych”, 11-15.06.2018, Kórnik – Poznań. (oral presentation)
- Szuba A, Marczak Ł, **Karliński L.** – Ektomykoryza: nie zawsze mutualistyczne oddziaływanie pomiędzy grzybem a rośliną – molekularna analiza *Populus ×canescens* inokulowanych *Paxillus involutus*. Konferencja naukowa „Biologia i ekologia roślin drzewiastych”, 11-15.06.2018, Kórnik – Poznań. (oral presentation)
- Wilgan R, Kujawska M, Leski T, **Karliński L**, Janowski D, Rudawska M. – Porównanie zbiorowisk grzybów ektomykoryzowych obcego w Europie orzesznika *Carya ovata*, rosnącego na stanowiskach leśnych w Polsce, ze zbiorowiskami występującymi w otaczającym drzewostanie. Konferencja naukowa „Biologia i ekologia roślin drzewiastych”, 11-15.06.2018, Kórnik – Poznań. (oral presentation)
Kujawska M, **Karliński L**, Rudawska M, Leski T. – Struktura zbiorowisk grzybów ektomykoryzowych na sadzonkach brzozy, graba i lipy, w polskich szkółkach leśnych. Konferencja naukowa „Biologia i ekologia roślin drzewiastych”, 11-15.06.2018, Kórnik – Poznań. (poster presentation)
- **Karliński L**, Rudawska M. – Zbiorowiska mikroorganizmów glebowych a genotyp drzew. II Ogólnopolskie Sympozjum Mikrobiologiczne „Metagenomy różnych środowisk”. 29-30.06.2017, Lublin. (oral presentation)
- Rudawska M, Leski T, **Karliński L**, Pietras M. – Metagenomy grzybów glebowych w szkółkach leśnych i odnowieniu naturalnym. II Ogólnopolskie Sympozjum Mikrobiologiczne „Metagenomy różnych środowisk”. 29-30.06.2017, Lublin. (oral presentation)
- **Karliński L**, Rudawska M. – Genotyp drzew i środowisko glebowe jako czynniki kształtujące zbiorowiska mikroorganizmów glebowych w ryzosferze topoli. Konferencja Naukowa Drzewa i Lasy w zmieniającym się środowisku. 17-19.10.2016, Kórnik – Poznań. (oral presentation)
- Kowalska M, Rudawska M, Stasińska M, Leski T, **Karliński L.** – Czy gospodarka leśna wpływa na różnorodność biologiczną grzybów mykoryzowych? Konferencja Naukowa Drzewa i Lasy w zmieniającym się środowisku. 17-19.10.2016, Kórnik – Poznań. (poster presentation)
- **Karliński L**, Rudawska M, Leski T. – Wpływ genotypu gospodarza, wilgotności gleby i jej skażenia metalami ciężkimi na wczesną kolonizację korzeni topoli przez grzyby mikoryzowe. 57 Zjazd Polskiego Towarzystwa Botanicznego, Botanika – tradycja i nowoczesność, 27.06. – 3.07.2016, Lublin. (oral presentation)
- Leski T, Rudawska M, Aučina A, Wilgan R, **Karliński L**, Pietras M. – Struktura zbiorowisk grzybów mykoryzowych w układzie bór sosnowy – ekoton – torfowisko wysokie na terenie Państwowego Rezerwatu Przyrodniczego Čepkeliai (Litwa). 57 Zjazd Polskiego Towarzystwa Botanicznego, Botanika – tradycja i nowoczesność, 27.06. – 3.07.2016, Lublin. (oral presentation)
- Rudawska M, Leski T, **Karliński L**, Stasińska M, Kowalska M. – Zbiorowiska grzybów ektomykoryzowych w kontynentalnych borach mieszanych objętych ochroną rezerwatową i w

- drzewostanach gospodarczych. 57 Zjazd Polskiego Towarzystwa Botanicznego, Botanika – tradycja i nowoczesność, 27.06. – 3.07.2016, Lublin. (oral presentation)
- Szuba A, **Karliński L**, Hazubska-Przybył T, Mucha J. - In vitro cultures of *Populus x canescens* inoculated with various strains of ectomycorrhizal *Paxillus involutus* fungi under lead ion stress. XIV Ogólnopolska konferencja kultur in vitro i biotechnologii roślin – “Strukturalne, fizjologiczne i molekularne podstawy różnicowania roślin”, 14-17.09.2015, Poznań. (poster presentation)
 - Leski T, Rudawska M, **Karliński L**, Pietras M. - Badania ektomykoryz jako narzędzie do poznania bogactwa gatunkowego grzybów symbiotycznych. XI Konferencja z cyklu Aktywne metody ochrony przyrody w zrównoważonym leśnictwie - Grzyby i porosty w lasach- ochrona i użytkowanie. 24-25.03.2015, Rogów. (oral presentation)
 - Rudawska M, Leski T, Pietras M, **Karliński L**. - Zróżnicowanie zbiorowisk grzybów ektomykoryzowych: od pierwszych opisów mykoryz przez Kamińskiego i Franka do ery badań molekularnych. Konferencja i warsztaty Polskiego Towarzystwa Mykologicznego pt. Grzyby – organizmy kluczowe dla życia Ziemi. 23-28.09.2014, Łódź – Spała. (oral presentation)
 - Leski T, Rudawska M, **Karliński L**, Pietras M. - Grzyby tomentelloidalne Polski widziane z perspektywy badań podziemnych zbiorowisk grzybów ektomykoryzowych. Konferencja i warsztaty Polskiego Towarzystwa Mykologicznego pt. Grzyby – organizmy kluczowe dla życia Ziemi. 23-28.09.2014, Łódź – Spała. (oral presentation)
 - **Karliński L**, Rudawska M, Leski T. - Udział genotypu topoli i środowiska glebowego w kształtowaniu zbiorowisk grzybów mykoryzowych i mikroorganizmów glebowych. Konferencja i warsztaty Polskiego Towarzystwa Mykologicznego pt. Grzyby – organizmy kluczowe dla życia Ziemi. 23-28.09.2014, Łódź – Spała. (oral presentation)
 - Szkodzik J, Ruszkiewicz-Michalska M, Kujawa A, Wrzosek M, Bałazy S, Chełkowski J, Domian G, Dynowska M, Gierczyk B, Kałucka I, **Karliński L**, Kędra K, Kubiak D, Leski T, Ławryniewicz M, Pawłowska J, Pietras M, Rudawska M, Stasińska M, Sucharzewska E, Ślusarczyk D, Tkaczuk C, Wilk M. - Nowy mykologiczny hotspot w Polsce? Biebrzański Park Narodowy w badaniach członków PTMyk. Konferencja i warsztaty Polskiego Towarzystwa Mykologicznego pt. Grzyby – organizmy kluczowe dla życia Ziemi. 23-28.09.2014, Łódź – Spała. (oral presentation)
 - Leski T, Rudawska M, **Karliński L**, Pietras M. - Bioróżnorodność zbiorowisk grzybów ektomykoryzowych w szkółkach leśnych i ekosystemach leśnych. Konferencja Naukowa Biologia i Ekologia Roślin Drzewiastych, 21-23.10.2013, Kórnik-Poznań. (oral presentation)
 - Bojarczuk K, Kieliszewska-Rokicka B, Kwaśna H, Hazubska-Przybył T, **Karliński L**. - Wpływ grzybów mykoryzowych na proces aklimatyzacji sadzonek topoli i brzozy z kultur *in vitro* w podłożach o różnym stopniu skażenia miedzią i ołowiem. Konferencja Naukowa Biologia i Ekologia Roślin Drzewiastych, 21-23.10.2013, Kórnik-Poznań. (oral presentation)
 - **Karliński L**, Jagodziński AM, Rudawska M. – Charakterystyka korzeni drobnych i mikoryz kasztanowca zwyczajnego (*Aesculus hippocastanum* L.) w środowisku o różnym stopniu antropopresji, 56 Zjazd Polskiego Towarzystwa Botanicznego, 24-30.06.2013, Olsztyn. (oral presentation)
 - Urbaniak L, **Karliński L**, Kowalczyk D. - Charakterystyka genetyczna sosny zwyczajnej z terenów zróżnicowanych edaficznie, IV Warsztaty Naukowe Instytutu Biologii Eksperymentalnej Uniwersytetu im. A. Mickiewicza, Ogród Botaniczny UAM, 14.06.2013, Poznań. (poster presentation)

- **Karliński L**, Jagodziński AM, Rudawska M. - Charakterystyka korzeni drobnych i mikoryz kasztanowca zwyczajnego (*Aesculus hippocastanum* L.) w środowisku miejskim i pozamiejskim. XIII Toruńskie Seminarium Ekologiczne Ogólnopolska Konferencja Naukowa - Ekologia Miasta, 25 – 26.05. 2012, Toruń. (oral presentation)
- **Karliński L**. - Kolonizacja mikoryzowa kasztanowca zwyczajnego (*Aesculus hippocastanum* L.) w środowisku miejskim i pozamiejskim. Seminarium Sekcji Mykologicznej PTB Oddziału Poznańskiego, 23.02.2011. (oral presentation)
- **Karliński L**, Rudawska M. - Wpływ genotypu gospodarza i warunków glebowych na symbiozę mikoryzową topoli. 55 Zjazd Polskiego Towarzystwa Botanicznego "PLANTA IN VIVO, IN VITRO ET IN SILICO", 2010, Warszawa. (oral presentation)

International scientific conferences – after obtaining a doctoral degree:

- Wilgan R, Leski T, Rudawska M, Pietras M, **Karliński L**. - Diversity of ectomycorrhizal fungi in Białowieża Forest with special emphasis of tomentelloid and hypogeous fungi. IV Sympozjum: Perspektywy w ochronie bioróżnorodności, 7-8.11.2019, Białowieża, Poland. (oral presentation)
- Rudawska M, Leski T, Kujawska M, Stasińska M, **Karliński L**, Wilgan R, Janowski D. – Do forest and environmental variables driver diversity patterns of ectomycorrhizal fungi in mixed coniferous forests? Konferencja „Ecology of soil microorganisms”, 17-21.06.2018, Helsinki, Finland. (poster presentation)
- Wilgan R, Kujawska M, Leski T, **Karliński L**, Rudawska M. – *Carya ovata* trees on old plantations outside of natural range are a rich reservoir of ectomycorrhizal fungi. COST Action FP1305 BioLink: Soil Biodiversity and European Woody Agroecosystems, 14-16.03.2018, Grenada, Spain. (poster presentation)
- Kujawska M, Leski T, **Karliński L**, Stasińska M, Rudawska M. - How forest management influence ectomycorrhizal community in continental mixed coniferous forests? 7th International Symposium on Physiological Processes in Roots of Woody Plants (Woody Root 7), 25.06-29.06.2017, Tartu, Estonia. (poster presentation)
- Kujawska M, Rudawska M, Stasińska M, Leski T, **Karliński L**. - Ectomycorrhizal fungal communities in protected and managed mixed coniferous forests in Poland. ICOM9 - 9th International Conference on Mycorrhiza, 30.07. - 4.08.2017, Praha, Czechia. (poster presentation)
- Kujawska M, Stasińska M, Leski T, **Karliński L**, Rudawska M. - Ectomycorrhizal fungal communities in forest reserve "Bażantarnia" and adjacent managed mixed coniferous forests. *Flora & Funga Pomeranica* – the Third Symposium on Flora, Fungi, Vegetation and Landscape of Pomerania, 13.09-15.09 2017, Szczecin, Poland. (poster presentation)
- Rudawska M, Leski T, Aučina A, Wilgan R, **Karliński L**, Kowalska M, Pietras M. – Composition of ectomycorrhizal fungal community along the moisture gradient between peat bogs and coniferous forest In Čepkeliai Nature Reserve, Lithuania. COST Action FP1305 BioLink: Linking belowground biodiversity and ecosystem function in European forests. 24-26.10.2016, Praha - Průhonice, Czechia. (poster presentation)
- Rudawska M, Leski T, **Karliński L**, Stasińska M, Kowalska M. – Preliminary studies of ectomycorrhizal fungal communities in protected and manager mixed coniferous forests. COST Action FP1305 BioLink: Linking belowground biodiversity and ecosystem function in European forests. 12-14.04.2016, Sofia, Bulgaria. (poster presentation)

- Devetaković J, **Karliński L**, Pietras M, Leski T, Rudawska M. - Mycorrhizal status of European white elm from Veliko Ratno Ostrvo island, Belgrade (Serbia). 3rd Annual Meeting “Soil Biological Communities and Aboveground Resilience” COST Action FP1305 BioLink: Linking belowground biodiversity and ecosystem function in European forests. 17-19.11.2015, Roma, Italy. (e-poster presentation)
- **Karliński L**, Rudawska M, Leski T. – Early effect of host genotype, soil moisture and soil pollution on mycorrhizal colonization of poplar roots. 8th International Conference on Mycorrhiza – “Mycorrhizal Integration Across Continents & Scales”, 3-7.08.2015, Flagstaff, Arizona, USA. (poster presentation)
- Szuba A, **Karliński L**, Marczak Ł. – Effect of ectomycorrhizal symbiosis on the features of *Populus x canescens* seedlings under lead ion stress. XVII Congress of European Mycologists, 21-25.09.2015, Funchal, Madera, Portugal. (poster presentation)
- Szuba A, **Karliński L**, Marczak Ł. – How symbiosis with ectomycorrhizal *Paxillus involutus* influenced leaf proteome of *Populus x canescens*’ The 9th Central and Eastern European Proteomics Conference, 15-18.06.2015, Poznań, Poland. (poster presentation)
- Szuba A, **Karliński L**, Marczak Ł. 2015. ‘Effect of ectomycorrhizal symbiosis with two different strains of *Paxillus involutus* on the features of *Populus x canescens* seedlings’ Joint 7th Conference of the Polish Society for Experimental Plant Biology and the Intercollegiate Faculty of Biotechnology UG & MUG, 8-11.09.2015. Gdańsk, Poland. (poster presentation)
- Szuba A, **Karliński L**, Marczak Ł. - Leaf proteomics of ectomycorrhizal poplars. 1st INPPO World Congress on Plant Proteomics: Methodology to Biology. 31.08.-4.09.2014, Hamburg, Germany. (poster presentation)
- Szuba A, **Karliński L**, Hazubska-Przybył T. - Ectomycorrhizal fungi under lead (Pb⁺²) stress – *in vitro* experiment. Konferencja Plant-Associated Microorganisms: An important key to a successful application of phytoremediation, 28-30.05.2014, Warszawa, Poland. (poster presentation)
- Wrzosek M, Domian G, Dynowska M, Gierczyk B, Kałucka I, Kędra K, **Karliński L**, Leski T, Ławryniewicz M, Pietras M, Ruszkiewicz-Michalska M, Kujawa A, Rudawska M, Sucharzewska E, Szkodzik J, Ślusarczyk D, Tkaczuk C. - Mycobiota of The Biebrza National Park. Polish Mycological Society Inventory. 10th International Mycological Congress, 3-8.08.2014, Bangkok, Thailand. (poster presentation)
- **Karliński L**, Ravnskov S, Leski T, Rudawska M. - The influence of host genotype and soil conditions on fungal and microbial community of poplars. ICOM7 (7th International Conference on Mycorrhiza „*Mycorrhiza for All: An Under-Earth Revolution*”), 6-11.01.2013, New Delhi, India. (poster presentation)
- **Karliński L**. - Effect of soil environment and host genotype on mycorrhizal symbiosis of poplars. Seminarium Aarhus University, Faculty of Agricultural Sciences, Department of Integrated Pest Management, Research Center Flakkebjerg, 19.05.2011. Flakkebjerg, Denmark. (oral presentation)
- **Karliński L**, Rudawska M, Rexer K-H, Smulders MJM. - Relationship between host-genotype diversity and ectomycorrhizal community structure in a 6-month-old black poplar (*Populus nigra* L.) common garden experiment. Konferencja “Forest ecosystem genomics and adaptation”, 8-11.06.2010, San Lorenzo de El Escorial, Spain. (oral presentation)
- Tuba K, Lakatos F, Augustin S, Denux O, Villar M, Villani F, Kieliszewska-Rokicka B, **Karliński L**, Brandle M, Kunkler N, Smulders MJM. - The effect of the local environmental conditions on associated organisms of Lombardy poplar (*Populus nigra* cv "Italica").

- Konferencja “Forest ecosystem genomics and adaptation”, 8-11.06.2010. San Lorenzo de El Escorial, Spain. (oral presentation)
- Augustin S, Denux O, Castagneyrol B, Jactel H, **Karliński L**, Kieliszewska-Rokicka B, Lakatos F, Smulders MJM, Tuba K, Villani F, Villar M. - Insect herbivory response to *Populus nigra* genetic diversity. Fifth International Poplar Symposium, 2010. Orvieto, Italy. (oral presentation)
 - Tuba K, Lakatos F, Augustin S, Denux O, Villar M, Villani F, Kieliszewska-Rokicka B, **Karliński L**, Brandle M, Kunkler N, Smulders MJM. - The effect of the local environmental conditions on associated organisms of Lombardy poplar (*Populus nigra* cv "Italica"). Fifth International Poplar Symposium, 2010. Orvieto, Italy. (oral presentation)
 - **Karliński L**. – Activities 2009. JERA 3 Meeting, Evoltree, , 26-29.01.2010. Orlean, France (oral presentation)
 - **Karliński L**, Rudawska M, Kieliszewska-Rokicka B, Leski T. - Effect of industrial pollution and host genotype on fine root abundance and mycorrhizal colonization of poplar trees. Evotree Annual Meeting, 2-5.02.2009. Baden, Austria. (oral presentation)
 - Kieliszewska-Rokicka B, Welc M, **Karliński L**, Rachwał L, Figaj J. - Effect of pesticide-contaminated soil on growth and mycorrhizal colonization of *Populus* species and hybrids. Woody roots and Ecosystem services COST Action E38, 16-20.05.2008, Lisbon, Portugal. (poster presentation)
 - Rudawska M, **Karliński L**, Leski T. - Fine root production and mycorrhizal colonization in poplar clonal collections. Woody roots and Ecosystem services, COST Action E38, 16-20.05.2008, Lisbon, Portugal. (poster presentation)
 - Kieliszewska-Rokicka B, Welc M, Zielińska K, **Karliński L**, Larsen J. - Soil microbial community structure and activity in the rhizosphere of 1-year-old clonal poplars: responses to soil type, pesticides and the poplar hybrids. PLANT-MICROBIAL INTERACTIONS. International Conference on Plant Microbial Interactions. 2008, Kraków, Poland. (poster presentation)
 - **Karliński L**, Kieliszewska-Rokicka B. - Ectomycorrhizal colonization of Norway spruce and soil microbial communities in forest sites with different environmental conditions. Air Pollution and Climate Change At Contrasting Altitude and Latitude. 23rd IUFRO Conference for Specialists in Air Pollution and Climate Change Effects on Forest Ecosystems. 2008, Murten, Switzerland. (poster presentation)
 - Rudawska M, **Karliński L**, Kieliszewska-Rokicka B, Leski T. - Effect of industrial pollution and host genotype on fine root production and mycorrhizal colonization of poplar trees. Air Pollution and Climate Change At Contrasting Altitude and Latitude. 23rd IUFRO Conference for Specialists in Air Pollution and Climate Change Effects on Forest Ecosystems. 2008, Murten, Switzerland. (poster presentation)
 - **Karliński L**. - Mycorrhiza species diversity in Poplar clonal collections (P20c) EVOLTREE Meeting of JERA 3 and IA 2.3, 14-16.11.2007, WSL Birmensdorf, Switzerland. (discussion)
 - **Karliński L**, Rudawska M, Kieliszewska-Rokicka B. - Biodiversity and biomass of ectomycorrhizas of Norway spruce (*Picea abies* (L.) Karst.) in mature forests in Poland, Fourth International Symposium on Dynamics of Physiological Processes in Roots of Woody Plants. University of Wales, 15-22.09.2007, Bangor, England. (poster presentation)

8. Information on participation in organizational and scientific committees at national or international conferences, including the applicant's function.

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9. Information on participation in the works of research teams realizing projects financed through national and international competitions, including the projects which have been completed and projects in progress, and information on the function performed in the team.

Projects in Progress

- 2021-2024 (NCN, PRELUDIUM, 2020/37/N/NZ9/01915) - Struktura mykobiomu towarzyszącego korzeniom *Ulmus laevis* w siedliskach leśnych i nieleśnych [Fungal communities and functional guilds accompanying roots of *Ulmus laevis* in forest and non-forest habitats]. (support in root samples collection, the teaching of root staining technique, fungal structures recognition and estimation of fungal root colonization)

Projects completed

National projects – completed before obtaining a doctoral degree:

- 2005-2006 (MNiSW, supervisors project, 2 P04F 033 28) - Biomasa i struktura zbiorowisk mikroorganizmów związanych z mikoryzosferą świerka pospolitego: ocena na podstawie zawartości ergosterolu i specyficznych kwasów tłuszczowych [Biomass and community composition of microorganisms associated with the mycorrhizosphere of Norway spruce: assessment based on ergosterol and specific fatty acid contents]. (investigator)
- 2001-2003 (KBN, 6P04F 003 20) Bioróżnorodność grzybów ektomikoryzowych i ektomikoryz w dojrzałych drzewostanach świerkowych o różnym stopniu oddziaływania antropogenicznego [Biodiversity of ectomycorrhizal fungi and ectomycorrhizas in mature Norway spruce forests under different degrees of anthropogenic pressure]. (investigator)

National projects – competed after obtaining a doctoral degree:

- 2009-2013 (MNiSW, N N309 115137) - Wpływ genotypu gospodarza i środowiska na zbiorowiska mikoryzowe u topoli [The influence of tree genotype and environment on mycorrhizal communities of poplars]. (head of the project – principal investigator)
- 2017-2020 (Dyrekcja Generalna Lasów Państwowych, OR.271.3.17.2017) Różnorodność gatunkowa grzybów w drzewostanach Puszczy Białowieskiej, z uwzględnieniem zamierających drzewostanów świerkowych [Diversity of fungi in Białowieża Forest with special regard to declining Norway spruce stands]. (investigator)
- 2015-2019 (NCN, OPUS, 2014/13/B/NZ9/01992) W poszukiwaniu centrów różnorodności gatunkowej grzybów ektomikoryzowych w ekosystemach leśnych: badania zbiorowisk grzybów ektomikoryzowych w borach mieszanych objętych ochroną rezerwatową i w drzewostanach gospodarczych [Studies of ectomycorrhizal fungal communities in protected and managed mixed coniferous forests – seeking for hot-spots of mycorrhizal fungi]. (investigator)
- 2012-2015 (Dyrekcja Generalna Lasów Państwowych, OR-2717/12) Określenie czynników determinujących obfitość i różnorodność mikoryz naturalnych w celu poprawy jakości i

wydajności produkcji materiału sadzeniowego w polowych szkółkach leśnych [Identification of the factors determining the abundance and diversity of natural mycorrhizae to improve the quality and efficiency of production of planting material in the field forest nurseries]. (wykonawca)

- 2012-2016 (NCN, SONATA, 2011/03/D/NZ9/05500) Analiza wpływu ektomikoryz na tolerancję topoli *Populus x canescens* na ołów wykonana metodami proteomicznymi i metabolomicznymi [Analysis of the impact of ectomycorrhizal fungi on the tolerance of poplar *Populus x canescens* to the lead - the proteomic and metabolomic approach]. (investigator)
- 2011-2014 (MNiSW, N N303 799540) Analiza biologicznych adaptacji olszy szarej i czarnej do wzrostu w glebie zanieczyszczonej metalami ciężkimi [Analysis of biological adaptation of gray and black alder to growth in soil contaminated with heavy metals]. (investigator)
- 2008-2011 (MNiSW, N N309 296534) - Wpływ grzybów mikoryzowych na proces aklimatyzacji sadzonek topoli i brzozy, z kultur in vitro w podłożach o różnym stopniu skażenia metalami ciężkimi [Influence of mycorrhizal fungi on the acclimatization process of poplar and birch seedlings from in vitro cultures in substrates of varying degrees of heavy metal contamination]. (investigator)

International project – completed after obtaining a doctoral degree

- 2007-2010 and 2011-2014 (EU project) - Tree community genetics - Understanding the impact of host genotypes on the diversity of associated mycorrhiza and insects (COMMUNI-TREE). Zadania realizowane w ramach projektu EVOLTREE (EVOLution of TREEs as drivers of terrestrial biodiversity). (investigator)

10. Membership in international or national organizations and scientific societies, including the functions performed by the applicant.

- Polskie Towarzystwo Botaniczne, Sekcja Mykologiczna [Polish Botanical Society, Mycology Section] (membership)
- Polskie Towarzystwo Mykologiczne [Polish Mycological Society] (membership)
- European Society for New Methods in Agriculture (membership)

11. Information on internships completed in scientific or artistic institutions, also abroad, including the place, time and duration of the internship and its character.

Scientific experience gained abroad before obtaining a doctoral degree

DENMARK

- 21.01.-18.07.2003 Danish Government Scholarship, Danish Institute of Agricultural Sciences, Department of Integrated Pest Management, Research Centre Flakkebjerg. Realization of the project "The effect of inoculation with ectomycorrhizal fungi and mycorrhizal helper bacteria on the response of Norway spruce seedlings to lead" and studies of fatty acids of ectomycorrhizas and sporocarps of mycorrhizal fungi.
- 29.07.-13.08.2004 Scientific visit (financed by the host) in Danish Institute of Agricultural Sciences, Department of Integrated Pest Management, Research Centre Flakkebjerg.

Studies on the influence of the age of in vitro cultures of mycorrhizal fungi on the qualitative and quantitative composition of fatty acids.

Scientific experience gained in Poland and abroad after obtaining a doctoral degree

POLAND

- 26-28.10.2008 Coarse – Molecular Phylogenetics, organizer: MBS Serwis dla Biologii Molekularnej, Warszawa
- 27.08-1.09.2012 1st Polish Mycological Society Workshops in Biebrzański National Park, Osowiec-Twierdza
- 25-29.08.2013 2nd Polish Mycological Society Workshops - Mycobiota of Biebrzański National Park, Osowiec-Twierdza
- 9.04.2014 Coarse LC-MS/MS. Organizer: AB Sciex, Poznań
- 23-28.09.2014 3rd Polish Mycological Society Workshops – Fungi – key organisms for life of the Earth, Łódź – Spała
- 17-19.03.2015 COST Action FP1305 BioLink: Linking soil biodiversity and ecosystem function in European forests. Belowground biodiversity in changing environment. Jagiellonian University, Kraków
- 24.04.2015 Lectures on molecular biology ("Reverse transcription and Real-Time PCR - technique, sources of the most common problems and solutions" and "Molecular cloning - optimization of the technique"). Organizer: Thermo Scientific Molecular Biology Products and ABO Sp. z o.o., Adam Mickiewicz University, Faculty of Biology, Poznań
- 20-21.05.2015 SENSFOR COST ACTION ES 1203 Enhancing the resilience capacity of SENSitive mountain FOReSt ecosystems under environmental change. Earth System Science and Environmental Management (ESSEM), University of Agriculture, Faculty of Forestry, Kraków
- 17-23.08.2015 4th Polish Mycological Society Workshops – Fungal diversity in well-preserved unprotected forests. Polanów
- 18-24.08.2016 5th Polish Mycological Society Workshops, The Stołowe Mountains National Park, Karlów
- 21-26.08.2017 6th Polish Mycological Society Workshops, Narwiański National Park, Rzędziany
- 20-25.08.2018 7th Polish Mycological Society Workshops, Borecka Forest, Kruklanki

SWITZERLAND

- 14-16.11.2007 EVOLTREE Meeting of JERA 3 and IA 2.3, participation in the work of the group COMMUNI-TREE, organizer: WSL Birmensdorf
- 2-4.07.2008 Training Course Meta-Analysis, organizer: WSL Birmensdorf, Ecological Genetics and Evolution and Network of Excellence EVOLTREE, Zurich

AUSTRIA

- 3-6.02.2009 EVOLTREE 3rd Annual Meeting, participation in work of the group COMMUNI-TREE and EVOLTREE Mycorrhiza 3rd Annual Meeting - Mycorrhiza Workshop, Baden

FRANCE

- 26-29.01.2010 EVOLTREE JERA 3 Meeting, participation in the work of the group JERA 3/ COMMUNI-TREE and in the workshop "Understanding the evolution of communities – the genetic basis of species interaction", organizer: INRA Orlean

BELGIUM

- 31.05-4.06.2010 International Training on In Vitro Culture of Arbuscular Mycorrhizal Fungi. UCL Universite catholique de Louvain, Louvain la Neuve

SPAIN

- 7-8.06.2010 EVOLTREE Final Annual Meeting, participation in the work of the group COMMUNI-TREE, San Lorenzo de El Escorial

DENMARK

- 30.03.-29.07.2011 Danish Government Scholarship, postdoc in Aarhus University, Faculty of Agricultural Sciences, Department of Integrated Pest Management, Slagelse. Realization of the project "Community characterization and identification of bacteria associated to hyphae of pathogenic fungi growing in different soil conditions"

ROMANIA

- 3-4.09.2014 SENSFOR COST ACTION ES 1203 Enhancing the resilience capacity of SENSitive mountain FORest ecosystems under environmental change, MC/WG Meeting, Brasov

ITALY

- 17-19.11.2015 COST Action FP1305 BioLink: Linking belowground biodiversity and ecosystem function in European forests, 3rd Annual Meeting "Soil Biological Communities and Aboveground Resilience", Roma

BULGARIA

- 10-11.02.2016 SENSFOR COST ACTION ES 1203 Enhancing the resilience capacity of SENSitive mountain FORest ecosystems under environmental change. Sofia

12. Membership in editorial committees and scientific boards of journals, including the functions performed by the applicant (e.g. editor-in-chief, chairman of scientific board etc.).

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13. Information on scientific or artistic works reviewed, in particular those published in international journals.

- Applied Soil Ecology (3) IF: 4,046
- Frontiers in Microbiology (3) IF: 5,640
- Microbial Ecology (3) IF: 4,552
- Microorganisms (3) IF: 4,128
- Chemosphere (2) IF: 7,086
- Dendrobiology (2) IF: 1,089
- Genes (2) IF: 4,096
- International Journal of Environmental Research and Public Health (2) IF: 3,390
- Polish Journal of Ecology (1) IF: 0,431
- Acta Mycologica (1) IF: 0
- Acta Physiologie Plantarum (1) IF: 2,354
- Ekologija (1) IF: 0
- Forests (1) IF: 2,634
- International Journal of Molecular Sciences (1) IF: 5,924
- Proceedings of the National Academy of Sciences, India Section B: Biological Sciences (1) IF: 0,95

14. Information on participation in European or other international programmes.

- EVOLTREE (EVOLution of TREEs as drivers of terrestrial biodiversity), EU project
- BioLink (FP1305 - Linking belowground biodiversity and ecosystem function in European forests), COST project
- SENSFOR (ES1203 - Enhancing the resilience capacity of SENSitive mountain FORest ecosystems under environmental change), COST project

15. Information on participation in research teams realizing projects other than those defined in section II.9.

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16. Information on membership in the teams assessing applications for financing of research projects, applications for scientific awards, applications in other competitions of scientific or didactic character.

Twice in 2021 and 2022 participation in the commission evaluating projects for research tasks of young scientists, implemented under the own research fund of the Institute of Dendrology of the Polish Academy of Sciences.

III. INFORMATION ON COOPERATION WITH SOCIAL AND ECONOMIC ENVIRONMENT

1. List of technological works.

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2. Information on cooperation with economic sector.

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3. Obtaining the right of industrial property, including the national or international patents granted.

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4. Information on implemented technologies.

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5. Information on performed expert analyses or other studies prepared on request of public institutions or entrepreneurs.

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6. Information on participation in expert and competition teams.

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7. Information on artistic projects realized in non-artistic environment.

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IV. SCIENTOMETRIC INFORMATION

1. Information on the Impact Factor (in the fields and disciplines in which this parameter is commonly used as a scientometric index).

Impact Factor (according to the date of publication) = 80.614

2. Information on the number of citations of the applicant's publications, including a separate list of self-citations.

Number of citations (excluded self-citations/total number) = 273/293 (according to Clarivate Web of Sciences)

3. Information on *h*-index held.

h-index = 10 (according to Clarivate Web of Sciences)

4. Information on the number of the points awarded by the Ministry of Science and Higher Education. *Information included in section IV should also indicate the database, which was the source of information. When selecting this database specific character of the scientific field and discipline in which the candidate applies for the conferment of the post-doctoral degree of doctor habilitated should be considered as an important factor.*

The Council of Scientific Excellence informs that in its opinion it is recommended to provide the scientometric data; it is also a widespread practice applied by the applicants seeking academic promotion. It should be stressed, however, that scientometric data included in the applications for the commencement of promotion procedures cannot serve as a criterion for evaluation of the Candidate's scientific work for the entities awarding the PhD and post-doctoral degrees and for the Council of Scientific Excellence itself, or for the bodies running procedures for the award of a degree or title. The primary goal of these entities is expert evaluation of the scientific work of the Candidate seeking academic promotion. The decision on the conferment of the degree or title should not depend on the fact that such data is included.

Number of points according to the date of publication = 1477



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(Applicant's signature)