

Candidate supervisor's information summary form
maximum 2 pages – it should be a summary of most important achievements

Name and surname, degree, title: Wojciech Wakulinski, prof. dr hab.	
Discipline/ disciplines of science	Agriculture and Horticulture
Professional development (degrees and titles) in chronological order	Dr 1991 Dr hab. 2004 Profesor 2014
Most important publications/patens over the last 3 years (maximum 10)	<p>Wit, M., Leng, Y., Du, Y., Cegiełko, M., Jabłońska, E., Wakuliński, W., & Zhong, S. (2021). Genome sequence resources for the maize pathogen <i>Fusarium temperatum</i> isolated in Poland. <i>Molecular Plant-Microbe Interactions</i>, 34(2), 214–217. http://doi.org/10.1094/MPMI-09-20-0266-A</p> <p>Jabłońska, E., Piątek, K., Wit, M., Mirzwa-Mróż, E., & Wakuliński, W. (2020). Molecular diversity of the <i>Fusarium fujikuroi</i> species complex from maize. <i>European Journal of Plant Pathology</i>, 158(4), 859–877. http://doi.org/10.1007/s10658-020-02121-7</p> <p>Wit, M., Jabłońska, E., Mirzwa-Mróż, E., Ochodzki, P., Warzecha, R., Lewandowska, A., & Wakuliński, W. (2020). Variability of carotenoid biosynthesis in meiotic offspring of <i>Fusarium temperatum</i> strains. <i>International Journal of Sciences: Basic and Applied Research</i>, 50(1), 156–166.</p> <p>Wit, M., Ochodzki, P., Warzecha, R., Żurek, M., Mirzwa-Mróż, E., Jabłońska, E., ... Wakuliński, W. (2020). <i>Fusarium temperatum</i> - znaczenie i szkodliwość w uprawie kukurydzy, poszukiwanie i charakterystyka źródeł odporności. <i>Biuletyn Instytutu Hodowli i Aklimatyzacji Roślin</i>, 291(supl. 1), 107–109. http://doi.org/10.37317/biul-2020-PB37</p> <p>Wit, M., Sierota, Z., Żółciak, A., Mirzwa-Mróż, E., Jabłońska, E., & Wakuliński, W. (2020). Phylogenetic relationships between <i>Phlebiopsis gigantea</i> and selected Basidiomycota species inferred from partial DNA sequence of elongation factor 1-alpha gene. <i>Forests</i>, 11(5), 1–10. http://doi.org/10.3390/f11050592</p> <p>Cegiełko, M., Wit, M., Kiecana, I., Wakuliński, W., & Mielniczuk, E. (2019). Structure of Polish isolates of <i>Bipolaris sorokiniana</i> and effect of different pathotypes on spot blotch severity of selected spring barley cultivars. <i>Cereal Research Communications</i>, 47(2), 314–323. http://doi.org/10.1556/0806.47.2019.07</p> <p>Mirzwa-Mróż, E., Kukuła, W., Kuźma, K., Wit, M., Jabłońska, E., Wakuliński, W., & Paduch-Cichal, E. (2019). First report of downy mildew caused by <i>Plasmopara muralis</i> on Boston ivy (<i>Parthenocissus tricuspidata</i>) in Poland. <i>Plant Disease</i>, 103(7), 1793. http://doi.org/10.1094/PDIS-01-19-0034-PDN</p> <p>Wit, M., Ochodzki, P., Warzecha, R., Zawadzka, A., Żurek, M., Mirzwa-Mróż, E., ... Wakuliński, W. (2019). <i>Fusarium temperatum</i> — znaczenie i szkodliwość w uprawie kukurydzy, poszukiwanie i charakterystyka źródeł odporności. <i>Biuletyn Instytutu Hodowli i Aklimatyzacji Roślin</i>, (286), 227–230. http://doi.org/10.37317/biul-2019-0051</p> <p>Mirzwa-Mróż, E., Kukuła, W., Frydrych, I., Wit, M., & Wakuliński, W. (2018). First report of of alternaria black spot caused by <i>Alternaria alternata</i> on blue honeysuckle in Poland. <i>Plant Disease</i>, 102(4), 820. http://doi.org/10.1094/PDIS-09-17-1452-PDN</p> <p>Wit, M., Ochodzki, P., Warzecha, R., Goliński, P., Waśkiewicz, A., Mirzwa-Mróż, E., & Wakuliński, W. (2018). The risks of sweet corn and popcorn contamination by fumonisin FB1 produced due to <i>Fusarium verticillioides</i> infection. <i>Acta Scientiarum Polonorum Hortorum Cultus Horticulture</i>, (17 (5)), 145–155. http://doi.org/10.24326/asphc.2018.5.13</p>
Experience in work with doctoral students (defended doctoral dissertations, doctoral programmes opened) in chronological order	<p>Significance of <i>Fusarium verticillioides</i> (Saccardo) Nirenberg in etiology of <i>Fusarium</i> ear rot, (defense date: 27-09-2012)</p> <p>Mating type characteristic and factor analysis affected perfect stage development of <i>Fusarium fujikuroi</i> species complex. (defense date: 25-06-2019)</p>

<p>Project/grants achievements (from the last 10 years)</p>	<p>MNiSW (N N310 440038); lata 2010 – 2013 (25.06.2010 – 24.06.2013). Biological activity of hiperparasite and epifitic bacteria against rust fungi, main contractor</p> <p>Warsaw Plant Health Initiative. UE 7Framework Programme, REGPOT Grant (No286093), 2011 – 2014, leader of work package</p> <p>NCBiR (Wniosek Nr 178857); 2012 – 2015. Dewelopment of molecular markers devoted to efective selection of comon rye (<i>Secale cereale</i> L.) with resistance to diseases and pre-harvest sprouting, cotractor</p> <p>MRiRW 2015 – 2019 <i>Fusarium temperatum</i> significance and harmfulnes in maize production, <i>F. temperatum</i> searching for sources of resistance and their characteristic, leader (2015-2016), main contractor (2017-2019)</p> <p>NCN 2018/31/B/NZ9/00439; 2019 -2022, Identification, characterization and mapping of rye (<i>Secale cereale</i> L.) genes related to resistance to brown rust caused by <i>Puccinia recondita</i> f. Sp. <i>Secalis</i>, contractor</p>
<p>Topic – research problem – for which the candidate supervisor seeks a doctoral student</p>	<p>Transgression in fungi, occurrence and significance the phenomenon among selected Ascomycota species.</p> <p>The phenomenon of transgressive segregation is results of sexual crossing. Individuals created in this process may achieved the features that go beyond the range of variability of the parent phenotypes. Moreover the acquired features are stable over time. Persistence of the acquired new traits significantly distinguishes this process from heterosis.</p> <p>The transgression phenomenon is common in plants and animals, and it has been recognized to a very limited extent in microorganisms, including fungi. Phenotypes with extreme traits arising from transgression may play an important role in evolution. The aim of the research work will be generation of hybrid generation isolates for selected Ascomycota species and their phenotypic and molecular characteristics in terms of the transgression of selected traits.</p>
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