

CURRICULUM VITAE

Miloš Faltus

Education:

1988 -1993 South Bohemian University in České Budějovice, MSc. (Gene Engineering and Plant Breeding)

1994 - 2001 Charles University in Prague, Ph.D. (Plant Physiology)

Languages:

Czech, English

Employment:

since 1993 - Crop Research Institute Prague, Team of Plant Physiology and Cryobiology
(team-leader since 2018)

Post-doc courses:

The Use of Calorimetric and Thermoanalytical Methods in Chemical Research and Technical Practice, 2001-2002, University of Pardubice

CRYMCEPT Workshop, the Katholieke Universiteit Leuven, Laboratory of Tropical Crop Improvement, (Leuven, Belgie); 12th-22nd September 2005

Short-term scientific visits:

IPK Gatesleben, *In vitro* Storage and Cryopreservation Department, Germany, Project KONTAKT, 2003-2005

National Clonal Germplasm Repository, Corvallis, Oregon, USA, 18.10. 2006 – 27.10. 2006

Grants in the field of cryopreservation:

Principal investigator of 3 research projects of Agricultural Grant Agency, 1 project of Technological Grant Agency, 2 national projects in the frame of international programs (COST)

Membership:

Society for Low Temperature Biology (SLTB)

Federation of European Societies for Plant Physiology (FESPP)

International Society for Horticultural Science (ISHS)

Management committee member and national representative of the COST Action 871 and FA1003 (WG4 leader)

Special interest:

plant physiology, plant water relations, plant stresses: low- and ultra-low temperature stress, thermal analysis, physiology of low temperature adaptation, plant tissue culture, strategy of plant diversity conservation, cryopreservation methods

Responsibility for plant germplasm cryoconservation in the Czech Republic, head of a national plant cryobank.

Award:

2006 - Minister of Agriculture Award – the best application of R&D – The Cryobank

WOS: Total Publications 13, h-index 5, Sum of Times Cited 61

Relevant references:

- FALTUS, Milos; BILAVCIK, Alois; ZAMECNIK, Jiri. Vitrification Ability of Combined and Single Cryoprotective Agents. *Plants*, 2021, 10.11: 2392.
- BILAVCIK, Alois; FALTUS, Milos; ZAMECNIK, Jiri. The Survival of Pear Dormant Buds at Ultra-Low Temperatures. *Plants*, 2021, 10.11: 2502.
- HAMMOND, S. D. H., VIEHMANNOVA, I., ZAMECNIK, J., PANIS, B., & FALTUS, M. (2021). Droplet-vitrification methods for apical bud cryopreservation of yacon [*Smallanthus sonchifolius* (Poepp. and Endl.) H. Rob.]. *Plant Cell, Tissue and Organ Culture (PCTOC)*, 147(2), 197-208.
- ZAMECNIK, Jiri; FALTUS, Milos; BILAVCIK, Alois. Vitrification solutions for plant cryopreservation: Modification and properties. *Plants*, 2021, 10.12: 2623.
- ZÁMEČNÍK, J., FALTUS, M., BILAVČÍK, A., & KOTKOVÁ, R. (2012). Comparison of cryopreservation methods of vegetatively propagated crops based on thermal analysis. *Current Frontiers in Cryopreservation*; 333-58.

PANIS Bart (Bartholomeus Jozefus)
CURRICULUM VITAE

° Diest (Belgium), 3 June 1963 (Belgian citizenship)

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1. University Education and Additional Training

- Agricultural Engineer, Plant Sciences at KU Leuven: with distinction (1982-1986)
- Certificate in Biotechnology at KU Leuven: with distinction (1986-1987)
- Ph.D. in Applied Biological Sciences at KU Leuven (1989-1995)
- Coaching leadership organized by Assess (2008)
- Advanced Science Communications Training Course, Organized by EU (2009)
- Course on Creativity and Innovation organized by Streetwize (2011)
- Course on Project Management organized by Propellor (2012)
- Coaching Clinic course organized by Noordeloos (2016)

2. Positions Held

- Assistant at Laboratory of Tropical Crop Improvement (LTCI)(KU Leuven)(1989-1994)
 - Responsibilities: Research on plant biotechnology, thesis supervision, teaching practical courses on biotechnology and plant physiology
- Post-doc position at the LTCI (KU Leuven) (1994-1996)
 - Responsibilities: Development of transformation protocols for bananas
- Post-doc fellowship of 'Onderzoeksfonds, KU Leuven (1996-1998)
 - Responsibilities: Development of cryopreservation protocols.
- Senior Scientist in the framework of various INIBAP projects (1998-2008)
 - Responsibilities: Project writing, cryopreservation of the world banana collection, world-wide promoting the use of cryopreservation for the conservation of vegetatively propagated species
- Research Manager at the LTCI (KU Leuven) (2008-May 2013)
 - Responsibilities: Project writing, research on proteomics, plant stress physiology (drought) and cryopreservation
- Senior Scientist at Bioversity International (ITC, Leuven) (Since May 2013)
 - Responsibilities: Long term storage of the Musa collection, research on drought

- stress, conservation of crop wild relative (wild *Musa*), tissue culture, Crop phenotyping, cryopreservation research
- Representative of the Alliance of Bioversity International and CIAT in Belgium (Since 2019)
 - Responsibilities: Management of the Alliance office in Belgium
 - Team leader for conservation of genetic resources of the Alliance of Bioversity International and CIAT (Since 2020)
 - Responsibilities: Management of research linked to the conservation of *Musa* genetic resources
 - Voluntary Scientific staff of KU Leuven (Since 2013)
 - Responsibilities: Management of research linked to the conservation of *Musa* genetic resources linking up KU Leuven and Bioversity activities.

3. Main achievements

As a manager

- Research Manager at the LTCI, head of the plant physiology group at the LTCI (between 5 and 10 persons including technical staff, PhD students and Post-docs).
- Chair of the EU COST action 871 CRYOPLANET (2006-2010) that involved more than 60 partners from 21 EU and 3 non-EU countries. I was responsible for the budget, organization of 9 symposia in different EU member countries, yearly reporting and main link with the COST office in Brussels (<http://www.agr.kuleuven.ac.be/dtp/tro/cost871/Home.htm>)
- Member of the Executive Committee of the EU COST action FA0603 EUPP (2007-2011) that deals with plant proteomics (<http://www.costfa0603.eu/>).
- Manager of the banana cryo-bank. 1100 accessions of *Musa* spp. are stored in liquid nitrogen making it one of the largest cryo-collections in the world. This achievement was possible through financial support of the Gatsby Foundation, the World Bank, The Global Crop Diversity Trust, Bioversity International and the Belgian development cooperation.
- Initiator and co-coordinator of the FP5 EU research project CRYMCEPT (Establishing Cryopreservation Methods for Conserving European Plant Germplasm Collections) (<http://www.biw.kuleuven.be/dtp/tro/crymcept/CRYMCEPT.htm>) involving 5 countries and 6 partners. In this context I created a proteomics platform at the Laboratory for Tropical Crop Improvement.
- Belgian Representative of the Alliance of Bioversity International and CIAT (2019 - now)

As an organizer of scientific events and trainer

- Organizer of 12 international workshops and symposia and 4 national symposia. I organized the 1st International Symposium on Cryopreservation of Horticultural Crops (<http://www.agr.kuleuven.ac.be/dtp/tro/ISHSplancryo/index.htm>) where we welcomed 149 participants from 43 countries making it worldwide the first big international gathering of cryobiologist solely dealing with plants
- Trainer of about 100 researchers from 45 countries on plant cryopreservation techniques in Leuven (individual as well as group trainings of up to 5 people)
- Resource person and organiser of 15 international hands-on workshops in India (NBPGR in collaboration with Bioversity), Peru (CIP), Brazil (University of Lavras), Malaysia (University of Malaya and Malaysian Institute for Nuclear Technology), Tunisia (University

of Sfax), France (IRD), Fiji (SPC), Belarus (Institute for Fruit Growing) and Belgium (KU Leuven).

- Involvement in 34 PhD studies as scientific coordinator, co-promotor, jury member or evaluator (at Universities in Belgium, France, South Africa, Spain, Australia and Brazil)
- Guidance of 80 Master thesis (KU Leuven, Groep T Leuven, UGent, Erasmus Hogeschool, Universiteit Gembloux, Universiteit Wageningen).

As a networker

- Member of the editorial board of the peer reviewed journal CryoLetters (2004 - now)
- Associate Editor of the peer reviewed journal Plant Cell Tissue and Organ Culture (2006-now)
- Board member General Secretary of the SLTB (Society for Low Temperature Biology, London) (2013-2017)
- Council member for Belgium of the ISHS (International Society for Horticultural Science)(2017-now)
- Vice-chair of the Commission of biotechnology of the ISHS (International Society for Horticultural Science) (2014-2018)
- Member of pool of reviewers for ESF (European Science Foundation).
- Board member BPBA (Belgian Plant Biotechnology Association) and former president of the BPTCg (Belgian Plant Tissue Culture group)(2004-2016)
- Took the initiative to develop the world cryovault in Leuven to back up cryopreserved crop collection (similar to the global seed vault in Svalbard). The Treaty in Rome has approved this initiative in November 2019.
- Member of the Belgian Biosafety Advisory Council (Sciensano) (2017-2021)
- Honorary Scientist and Advisor on Agricultural Science and Technology for the Rural Development Administration (Republic of Korea) (2022-2024)

As a Scientist

- Development of a regeneration system for banana (somatic embryogenesis) that formed the basis for genetic engineering in banana (this was subject of a patent application (1998): WO1998036636A3- Method for generating embryogenic cell cultures for the production of bananas (*Musa* spp.)
- Development of a protoplast regeneration system for banana
- Co-developer of world's first transgenic banana in 1994
- Development of a novel cryopreservation protocol (i.e. droplet-vitrification), that was lateron applied to meristems, callus, somatic and zygotic embryos of more than 40 plant species. Thanks to this work, KU Leuven obtained in 2005 the status of Centre of Excellence in Plant Cryobiology.
- Robust and efficient cryopreservation techniques were developed for sweet potato, yam, cassava, taro and other edible aroids in an international project funded by the Global Crop Diversity Trust. The partners were CIP (Peru), IITA (Nigeria), SPC (Fiji) and CIAT (Colombia). These research centers all want to apply the K.U.Leuven cryopreservation techniques to their large germplasm collections (see <http://www.cgiar.org/>)
- Development of an efficient cryopreservation protocol for tropical nematodes
- Development of seed germination and storage protocols for wild bananas and involved population genetic studies

- Development of the first protocol for vegetative propagation of coconut through shoot-tip culture (this is subject of a patent application (2020) ; WO2020152366 (A1) - Clonal propagation of coconut tree)

This research resulted in scientific publications and invited talks at international congresses. In total, I am authoring / co-authoring 436 Scientific contributions including 131 journal articles resulting in an **h-factor of 31**.

4 Additional skills

- Plant tissue culture
- Language skills: (5=excellent; 1=basic)

	Reading	Speaking	Writing
Dutch	5	5	5
French	4	4	4
English	5	5	5
German	1	1	1

5 List of peer reviewed publications

- Thi, L.L., Mertens, A., Toan Vu, D., Tuong Vu, D., Le Anh Minh, P., Nguyen Duc, H., De Backer, S., Swennen, R., Vandelook, F., Panis, B., Amalfi, M., Gomes, S.I F., Merckx, V.S F T., Janssens, S. with Janssens, S. (corresp. author) (2022). Diversity of Fusarium associated banana wilt in Northern Viet Nam. MycoKeys, 87, 53-76. doi: 10.3897/mycokeys87.72941 Open Access
- Kallow, S., Garcia Zuluaga, M., Nugraha, B., Mertens, A., Janssens, S.B., Gueco, L., Lyka V. Descalsota, M., Tuong, V.D., Toan, V.D., Vandelook, F., Dickie, J., Verboven, P., Swennen, R., Panis, B. with Kallow, S. (corresp. author) (2022). Drying banana seeds for ex situ conservation. Conservation Physiology, 10 (1), 1-16. doi: 10.1093/conphys/coab099 Open Access
- Kong, E.Y Y., Biddle, J., Foale, M., Panis, B., Adkins, S.W. with Kong, E.Y Y. (corresp. author) (2021). The potential to propagate coconut clones through direct shoot organogenesis: A review. Scientia Horticulturae, 289, Art.No. 110400. doi: 10.1016/j.scienta.2021.110400
- Kallow, S., Mertens, A., Janssens, S., Vandelook, F., Dickie, J., Swennen, R., Panis, B. (2021). Banana seed genetic resources for food security: status, constraints, and future priorities. Food And Energy Security, Art.No. e345. doi: 10.1002/fes3.345 Open Access
- Kallow, S., Quaghebeur, K., Panis, B., Janssens, S.B., Dickie, J., Gueco, L., Swennen, R., Vandelook, F. (2021). Using seminatural and simulated habitats for seed germination ecology of banana wild relatives. ECOLOGY AND EVOLUTION, 11 (21), 14644-14657. doi: 10.1002/ece3.8152 Open Access
- Wilms, H., De Bièvre, D., Longin, K., Swennen, R., Rhee, J., Panis, B. with Panis, B. (corresp. author) (2021). Development of the first axillary in vitro shoot multiplication protocol for coconut palms. Scientific Reports, 11, Art.No. 18367. doi: 10.1038/s41598-021-97718-1 Open Access
- Kallow, S., Panis, B., Vu, D.T., Vu, T.D., Paofa, J., Mertens, A., Swennen, R., Janssens, S.B. with Kallow, S. (corresp. author) (2021). Maximizing genetic representation in seed collections from populations of self and cross-pollinated banana wild relatives. Bmc Plant Biology, 21, Art.No. 415. doi: 10.1186/s12870-021-03142-y Open Access

- Mertens, A., Bawin, Y., Vanden Abeele, S., Kallow, S., Dang, T.V., Loan, T.L., Tuong, D.V., Swennen, R., Vandeloek, F., Panis, B., Janssens, S.B. (2021). Genetic diversity and structure of *Musa balbisiana* populations in Vietnam and its implications for the conservation of banana crop wild relatives. *PLOS ONE*, 16 (6), Art.No. ARTN e0253255. doi: 10.1371/journal.pone.0253255 Open Access
- Hammond, S.D H., Viehmannova, I., Zamecnik, J., Panis, B., Faltus, M. (2021). Droplet-vitrification methods for apical bud cryopreservation of yacon [*Smallanthus sonchifolius* (Poepp. and Endl.) H. Rob.]. *PLANT CELL TISSUE AND ORGAN CULTURE*, 147 (2), 197-208. doi: 10.1007/s11240-021-02116-0
- Hill, R., Llewellyn, T., Downes, E., Oddy, J., MacIntosh, C., Kallow, S., Panis, B., Dickie, J.B., Gaya, E. (2021). Seed Banks as Incidental Fungi Banks: Fungal Endophyte Diversity in Stored Seeds of Banana Wild Relatives. *FRONTIERS IN MICROBIOLOGY*, 12, Art.No. ARTN 643731. doi: 10.3389/fmicb.2021.643731 Open Access
- Mertens, A., Swennen, R., Ronsted, N., Vandeloek, F., Panis, B., Sachter-Smith, G., Dang, T.V., Janssens, S. with Mertens, A. (corresp. author) (2021). Conservation status assessment of banana crop wild relatives using species distribution modelling. *Diversity And Distributions*, 1-18. doi: 10.1111/ddi.13233 Open Access
- Kallow, S., Davis, R., Panis, B., Janssens, S., Vandeloek, F., Mertens, A., Swennen, R., Binti Tahir, M., Dickie, J. with Kallow, S. (corresp. author) (2021). Regulation of seed germination by diurnally alternating temperatures in disturbance-adapted banana crop wild relatives (*Musa acuminata*). *Seed Science Research*, 1-11. doi: 10.1017/S0960258520000471 Open Access
- Eyland, D., Breton, C., Sardos, J., Kallow, S., Panis, B., Swennen, R., Paofa, J., Tardieu, F., Welcker, C., Janssens, S.B., Carpentier, S.C. with Carpentier, S.C. (corresp. author) (2021). Filling the gaps in gene banks: Collecting, characterizing and phenotyping wild banana relatives of Papua new guinea. *Crop Science*, 61 (1), 137-149. doi: 10.1002/csc2.20320 Open Access
- Ochatt, S., Lambardi, M., Panis, B., Pathirana, R., Revilla, M.A., Wang, Q-C. (2021). Cryopreservation and In Vitro banking: a cool subject - Preface from the editors. *PLANT CELL TISSUE AND ORGAN CULTURE*, 144 (1), 1-5. doi: 10.1007/s11240-020-01985-1
- Panis, B., Nagel, M., van den Houwe, I. (2020). Challenges and Prospects for the Conservation of Crop Genetic Resources in Field Genebanks, in In Vitro Collections and/or in Liquid Nitrogen. *PLANTS-BASEL*, 9 (12), Art.No. ARTN 1634. doi: 10.3390/plants9121634 Open Access
- Salaj, T., Klubicova, K., Panis, B., Swennen, R., Salaj, J. (2020). Physiological and Structural Aspects of In Vitro Somatic Embryogenesis in *Abies alba* Mill. *FORESTS*, 11 (11), Art.No. ARTN 1210. doi: 10.3390/f11111210 Open Access
- De Kort, H., Panis, B., Deforce, D., Van Nieuwerburgh, F., Honnay, O. (2020). Ecological divergence of wild strawberry DNA methylation patterns at distinct spatial scales. *Molecular Ecology*. doi: 10.1111/mec.15689 Open Access
- Zorrilla-Fontanesi, Y., Pauwels, L., Panis, B., Signorelli, S., Vanderschuren, H., Swennen, R. (2020) Strategies to revise agrosystems and breeding for Fusarium wilt control of banana. *Nature Food*, Accepted
- Kong, E.Y.Y., Biddle, J., Sudarma, S., Panis, B., Adkins, S.W. (2020) Effect of BAP and TDZ on Direct Shoot Organogenesis in Coconut (*Cocos nucifera* L.). *In Vitro Cellular & Developmental Biology-Animal* 56 SUPPL 1: 28-28
- Kallow, S., Longin, K., Slezak, N.F., Janssens, S.B., Vandeloek, F., Dickie, J., Swennen, R., Paofa, J., Carpentier, S., Panis, B. (2020) Challenges for Ex Situ Conservation of Wild

- Bananas: Seeds Collected in Papua New Guinea Have Variable Levels of Desiccation Tolerance. *Plants* 9 (9), 1243. <https://doi.org/10.3390/plants9091243>
- Wilms, H., Slezak, N.F., Van der Auweraer, M., Brands, M., Verleije, M., Hardeman, D., Andre, E., Panis, B. (2020) Development of a fast and user-friendly cryopreservation protocol for sweet potato genetic resources. *Scientific Reports* 10 (1), 1-12. <https://doi.org/10.1038/s41598-020-70869-3>
- De Kort, H., Panis, B., Helsen, K., Douzet, R., Janssens, S.B., Honnay, O. (2020) Pre-adaptation to climate change through topography-driven phenotypic plasticity. *Journal of Ecology* 108: 1465-1474. DOI: 10.1111/1365-2745.13365
- Wang, M.R., Lambardi, M., Engelmann, F., Pathirana, R., Panis, B., Volk, G.M., Wang, Q.C. (2020). Advances in shoot tip cryopreservation techniques and the use of alternative in vitro-derived explants for cryopreservation. *Plant Cell tissue and Organ Culture*. DOI: 10.1007/s11240-020-01770-0
- Hammond, S. D. H., Viehmannova, I., Zamecnik, J., Panis, B., & Cepkova, P. H. (2019). Efficient slow-growth conservation and assessment of clonal fidelity of *Ullucus tuberosus* Caldas microshoots. *Plant Cell Tissue and Organ Culture* 138: 559-570. doi:10.1007/s11240-019-01653-z
- Prudente, D. D. O., Paiva, R., Domiciano, D., de Souza, L. B., Carpentier, S., Swennen, R., Panis, B. (2019). The cryoprotectant PVS2 plays a crucial role in germinating Passiflora ligularis embryos after cryopreservation by influencing the mobilization of lipids and the antioxidant metabolism. *Journal of Plant Physiology* 239: 71-82. doi:10.1016/j.jplph.2019.05.014
- Sinnesael, A., Leroux, O., Janssens, S. B., Smets, E., Panis, B., & Verstraete, B. (2019). Is the bacterial leaf nodule symbiosis obligate for *Psychotria umbellata*? The development of a Burkholderia-free host plant. *PLoS One*, 14(7). doi:10.1371/journal.pone.0219863
- Panis, B. (2019). Sixty years of plant cryopreservation: From freezing Hardy mulberry twigs to establishing reference crop collections for future generations. *Acta Horticulturae* 1234: 1-8. doi:10.17660/ActaHortic.2019.1234.1
- Wilms, H., Rhee, J. H., Rivera, R. L., Longin, K., & Panis, B. (2019). Developing coconut cryopreservation protocols and establishing cryo-genebank at RDA; a collaborative project between RDA and Bioversity International. *Acta Horticulturae* 1234: 343-348. doi:10.17660/ActaHortic.2019.1234.45
- Folgado, R., & Panis, B. (2019). Cryopreservation of Ashe magnolia shoot-tips by droplet vitrification. *Acta Horticulturae* 1234: 233-240. doi: 10.17660/ActaHortic.2019.1234.31
- Bawin, Y., Panis, B., Van den Abeele, S., Li, Z., Sardos, J., Paofa, J., Ge, X.J., Mertens, A., Honnay, O., Janssens, S.B. (2019). Genetic diversity and core subset selection in ex situ seed collections of the banana crop wild relative *Musa balbisiana*. *Plant genetic resources* 17: 536-544. DOI: 10.1017/S1479262119000376
- Sinnesael, A., Eekhout, S., Janssens, S.B., Smets, E., Panis, B., Leroux, O., Verstraete, B. (2018) Detection of Burkholderia in the seeds of *Psychotria punctata* (Rubiaceae) - Microscopic evidence for vertical transmission in the leaf nodule symbiosis. *PLOS ONE*: 13 (12) e0209091. DOI: 10.1371/journal.pone.0209091
- Campos, N.A., Panis, B., Carpentier, S.C. (2017) Somatic Embryogenesis in Coffee: The Evolution of Biotechnology and the Integration of Omics Technologies Offer Great Opportunities. *Frontiers in Plant Science*. doi: 10.3389/fpls.2017.01460
- Al-Idrus, A., Carpentier, S.C., Ahmad, M.T., Panis, B., Mohamed, Z. (2017) Elucidation of the compatible interaction between banana and *Meloidogyne incognita* via high-throughput proteome profiling. *PloS one* 12 (6), e0178438

- Schouteden, N., Lemmens, E., Stuer, N., Curtis, R., Panis, B., De Waele, D. (2017) Direct nematicidal effects of methyl jasmonate and acibenzolar-S-methyl against *Meloidogyne incognita*. Natural product research 31 (10), 1219-1222
- de Oliveira Prudente, D., Paiva, R., Carpentier, S., Swennen, R., Nery, F.C., Coutinho Silva, L., Panis, B. (2017) Characterization of the formation of somatic embryos from mature zygotic embryos of *Passiflora ligularis* Juss. Plant Cell, Tissue and Organ Culture (PCTOC) 131: 97-105. 1-9 DOI 10.1007/s11240-017-1266-8
- Panis, B., Swennen, R., Rhee, J., Roux, N. (2016) Securing plant genetic resources for perpetuity through cryopreservation. Indian Journal of Plant Genetic Resources 29 (3), 300-302
- Panis, B., Hvoslef-Eide, T.A.K., Drew, R., Lane, V. (editors) (2016) XXIX International Horticultural Congress on Horticulture: Sustaining Lives, Livelihoods and Landscapes (IHC2014): III International Genetically Modified Organisms in Horticulture Symposium-Past, Present and Future, Brisbane, Australia. Acta Horticulturae issue 1124, 114 pages
- Carimi, F., Carra, A., Panis, B., Pathirana, R. (2016). Strategies for conservation of endangered wild grapevine (*Vitis vinifera* L. subsp. *sylvestris* (C.C. Gmel.) Hegi). Acta Horticulturae: Vol. 1115. XXIX IHC – Proc. IV Int. Symp. on Tropical Wines and Int. Symp. on Grape and Wine Production in Diverse Regions (pp. 81-86) International Society for Horticultural Science.
- Panis, B. (2016). GMOs in horticulture - exciting opportunities or a dead end? A case study on banana. Acta Horticulturae: Vol. 1124 (pp. 49-58) International Society for Horticultural Science.
- Lane, V., Hvoslef-Eide, A., Drew, R., Knight, J., Panis, B. (2016). Exploitation and progress of GMOs - past, present and future: exciting opportunities or a dead end?. Acta Horticulturae: Vol. 1124 (pp. 101-114) International Society for Horticultural Science.
- Kissel, E., Vanhove A., Garcia, S., Panis, B., Rouard, M., Zorrilla, J., Swennen, R., Carpentier, S. (2016). Abiotic stress research in crops using -omics approaches: drought stress and banana in the spotlight. Acta Horticulturae: Vol. 1114 (pp. 81-90) International Society for Horticultural Science.
- Therezan de Freitas, R., Paiva, R., Campos, N., Coutinho Silva, L., Swennen, R., Panis, B. (2016). In vitro culture of *Annona emarginata*: A rootstock for commercial annonaceae species. Plant Cell Culture & Micropropagation, 12 (1), 1-6.
- Salaj, T., Matusova, R., Swennen, R., Panis, B., Salaj, J. (2016) Tissue regeneration of *Abies* embryogenic cell lines after 1 year storage in liquid nitrogen. Biologia 71 (1), 93-99
- Maslanka, M., Panis, B., Malik, M. (2016) Cryopreservation of *Narcissus* L.'Carlton'somatic embryos by droplet vitrification. Propagation of Ornamental Plants 16 (1), 28-35
- Campos, N.A., Paiva, L.V., Panis, B., Carpentier, S.C. (2016) The proteome profile of embryogenic cell suspensions of *Coffea arabica* L. Proteomics 16(6):1001-1005
- Pathirana, R., McLachlan, A., Hedderley, D., Panis, B., Carimi, F. (2016) Pre-treatment with salicylic acid improves plant regeneration after cryopreservation of grapevine (*Vitis spp.*) by droplet vitrification. Acta Physiologiae Plantarum 38 (1), 1-11
- Folgado, R., Panis, B., Sergeant, K., Renaut, J., Swennen, R., and Hausman, J.F. (2015). Unravelling the effect of sucrose and cold pretreatment on cryopreservation of potato through sugar analysis and proteomics. Cryobiology 71 (3), 432-441
- Gisbert, C., Dabauza, M., Correal, E., Swennen, R. and Panis, B. (2015) Cryopreservation of *Bituminaria bituminosa* varieties and hybrids. Cryobiology 71 (2), 279-285
- Putman, A., Martin-Creuzburg, D., Panis, B. and De Meester, L. (2015) A comparative analysis of the fatty acid composition of sexual and asexual eggs of *Daphnia magna* and its plasticity as a function of food quality. Journal of Plankton Research 37 (4): 752-763.

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- Pathirana, R., McLachlan, A., Hedderley, D., Carra, A., Carimi, F., and Panis, B. (2015) Removal of leafroll viruses from infected grapevine plants by droplet vitrification. *Acta Horticulturae*, 1083, 491-498.
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