



Curriculum vitae Europass

Dr. DORINA PODAR

Associate Professor

Faculty of Biology and Geology, Babeş-Bolyai University, Cluj-Napoca, Romania

Director of Research Centre for Systems Biology, Biodiversity and Bioresources (3B)
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Personal information

Mother name / name **PODAR DORINA**
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Nationality Romanian

Occupation and work

Associate Professor
2018 - present

Work experience

Period 2012 - 2018
Position **Lecturer**
Activities and responsibilities Teaching and research
Company Babeş-Bolyai University, Cluj-Napoca, 1 M. Kogălniceanu St., Romania
Type of activity Education - Academia

Period 2004 - 2012
Position **Assistant lecturer**
Activities and responsibilities Teaching and research
Company Babeş-Bolyai University, Cluj-Napoca, 1 M. Kogălniceanu St., Romania
Type of activity Education - Academia

Period 2000 - 2001
Position **Science teacher**
Activities and responsibilities Teaching and tutorials
Company Framlingham College, College Road, Framlingham, Woodbridge IP13 9EY, UK
Type of activity Education

Period 1998 - 2001
Position **Biology and Chemistry teacher**
Activities and responsibilities Teaching and tutorials
Company School no. 3, 4 Retezat St., Cluj-Napoca, Romania
Type of activity Education

Education and formation

Period 2007 – 2009 (31 months)
Qualification Postdoctoral researcher
Research Cation Diffusion Facilitators (CDFs) in *Hordeum vulgare* cv. Golden Promise as part of EU-PHIME project: Public Health Impact of long-term, low-level Mixed Element Exposure in susceptible population strata, in Prof. Dale Sanders' laboratory.
Institution University of York, York, UK
Level of classification Level 6 postdoctoral

Period 2005 – 2006 (12 months)
Qualification Postdoctoral researcher
Research Postdoctoral Fellowship from Belgian Federal Science Policy Office - Characterization of HMA4, a pump possibly implicated in the hyperaccumulation of Cd and Zn in plants, in Prof. Nathalie Verbruggen's laboratory. .
Institution Université Libre de Bruxelles, Brussels, Belgium
Level of classification Level 6 postdoctoral

Period 1999 - 2005
Qualification PhD – Biology, distinction *Cum laude*
Research PhD thesis The influence of heavy metals on physiological aspects to some plant species important for phytoremediation, under Prof. Mihai Trifu's supervision.
Institution Babeş-Bolyai University, Cluj-Napoca, Romania
Level of classification Level 6 post-graduate

During PhD studies

Period 2004
Research project - director
Research grant from the Romanian Ministry of Research and Education for PhD Students Uptake of Cd by plants. Implications for human health risk assessment, (CNCSIS Td 46 as director).
Babeş-Bolyai University, Cluj-Napoca, Romania
Level 6 post-graduate

Period 2002 – 2003 (12 months)
PhD fellow (PhD Fellow - Marie Curie Fellowship)
Marie Curie Fellowship Processes controlling the mobility, persistence and availability of toxic substances in soil and aquatic systems (EC Contract: HPMT-CT-2000-00181), under Prof. Michael H. Ramsey's supervision.
Sussex University, Brighton, UK
Level 6 post-graduate

Period 2000 (4 months)
PhD Fellow
Research project The influence of heavy metals and elevated CO₂ concentration on *Zea mays* and *Helianthus annuus* plants, under Prof. Zoltan Tuba's supervision.
Szent István University, Gödöllő, Hungary
Level 6 post-graduate

Period	1998-1999
Qualification / diploma	M.Sci
Specialization	Cellular and Molecular Biology
Institution	Babeş-Bolyai University, Cluj-Napoca, Romania
Level of classification	Level 6 post-graduate
Period	1994-1998
Qualification / diploma	Batchelor
Specialization	Biology and Chemistry
Institution	Babeş-Bolyai University, Cluj-Napoca, Romania
Level of classification	Level 5 – Batchelor degree
Formation courses	<p>Professional formation</p> <p>2015 “DNA Metabarcoding” Universitatea Babeş-Bolyai, Cluj-Napoca, RO</p> <p>2007 “Confocal Microscopy Course - beyond simple optical imaging” University of York, UK.</p> <p>2007 “Working safely with ionising radiation: general introductory session and open source session” University of York, UK.</p> <p>2004 “Antioxidants in health, disease and food safety – practical assessment” FEBS/VLAG International Advanced Course, Wageningen, Olanda.</p> <p>2002 “Environmental Geochemistry Course” – Centre of Environmental Research, University of Sussex, UK.</p> <p>2000 “Current aspects of the ecotoxicology of heavy metals in soil” - International Seminar, Szent Istvan University, Gödöllő, Hungary.</p> <p>Teaching formation</p> <p>2021 ”Advanced Academic Teaching Skills Course” Babeş-Bolyai University, Cluj-Napoca, RO</p> <p>2021 ”Future Course” Sykes, Cluj-Napoca, RO</p> <p>2019 “Gamification in teaching” Babeş-Bolyai University, Cluj-Napoca, RO</p> <p>2017 “Using computational resources for teaching” Babeş-Bolyai University, Cluj-Napoca, RO</p> <p>2017 “Teaching trainer” Babeş-Bolyai University, Cluj-Napoca, RO</p> <p>2015 “Evaluator of professional competences”, Babeş-Bolyai University, Cluj-Napoca, RO, RO</p> <p>2013 “Biology didactics”, Ministry of Education, Neptun, RO</p> <p>2008 “How to give a scientific conference presentation” University of York, UK</p>
Certificates	Evaluator of professional competences – expert (Certificate by National Authority for Qualification)

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- Prizes** **2021** - 1st Prize – poster - 4th International Symposium Young Researcher in Sciences, Cluj-Napoca, Romania (Grimm Mihai – student, Dorina Podar – coordinator).
- 2021** – Medalie de bronz - International Conference of Young Scientists (ICYS), eleva Ioana Mihacea (Liceul Gh. Șincai, Cluj).
- 2019** –Excellentia Award, Babeș-Bolyai University Student Council
- 2018** – Short list nominalization BELMA Frankfurt for Biology for 5th form [tps://www.news.ro/cultura-media/un-manual-romanesc-de-geografie-editat-de-art-klett-a-fost-premiat-la-targul-international-de-carte-de-la-frankfurt-1922402011002018101718575022](https://www.news.ro/cultura-media/un-manual-romanesc-de-geografie-editat-de-art-klett-a-fost-premiat-la-targul-international-de-carte-de-la-frankfurt-1922402011002018101718575022)
- 2017** – 3rd Prize – poster - Biogeography of the Carpathians (2nd Interdisciplinary Symposium), Cluj-Napoca, Romania (Balazs Zoltan – student, Dorina Podar – coordinator).
- 2017** – 1st Prize – poster - 4th International Symposium Young Researcher in Biosciences, Cluj-Napoca, Romania (Galea Diana – student, Dorina Podar – coordinator).
- 2016** – 3rd Prize – poster - 8th National Congress with International Participation of RSCB, Oradea, Romania (Podar și colab.).
- 2014** – 1st Prize- Best presentation award- 1st International Symposium Young Researcher in Biosciences, Cluj-Napoca, Romania (Veres Dorottya – masterand, Dorina Podar – coordonator).
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Personal skills

Mother tongue **Romanian**

Foreign languages Common European Framework of Reference for Languages

Autoevaluation

European level ()*

Understanding

Listening Reading

Speaking

Spoken interaction Spoken production

Writing

Writing

English

C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user C1 Proficient user

French

B2 Independent user B2 Independent user B2 Independent user B2 Independent user A2 Basic user

Communication skills

Efficient communication, team working, initiative, adaptive.

Organisational / managerial skills

Director and member in research projects.

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- Job-related skills**
- **Plant physiology** and **ecophysiology** general techniques: chlorophyll fluorescence; CO₂-gas exchange techniques; stomata conductance; determination of carbohydrates, proteins and pigments; mineral analysis of plants material, aqueous two phases partitioning for membrane proteins extraction.
 - **Plant transformation:** *Arabidopsis*, *Thlaspi*, *Hordeum*, *Oryza*.
 - **Cellular Biology** *in vitro* culture of bacteria, yeasts, plant cells and tissues; preparation of bacterial and yeast competent cells and their transformation using various plasmid vectors.
 - **Molecular biology** techniques: DNA, RNA and proteins extraction and purification; site-directed mutagenesis; cloning; chimeric construction; heterologous expression of proteins in bacteria, yeast, protoplast, protein expression and purification from bacterial systems by affinity chromatography; production of fusion proteins; PCR (RT-PCR, semi-quantitative PCR, PCR screening), RNAi silencing; Western blot analysis; 1D-electrophoresis; transformation of plants via *Agrobacterium*; *in silico* analysis of DNA and amino acid sequences.
 - **Microscopy:** use of optical microscope, confocal microscope: use of different fluorescent probes, basic imaging, spectral unmixing/imaging, colocalization, FRAP, FRET.
 - **Geochemistry** general methods: soil and water sampling; soil characterisation; determination of CEC; organic matter content; uses of Eh-pH diagrams.
 - **Analytical techniques:** spectrometry; ICP-AES; ICP-MS; AAS; gas chromatography..

Computer skills Basic knowledge in Microsoft Office software packages

- Teaching professional skills**
- 2018 – present Associate Prof.**
Babes-Bolyai University, Cluj-Napoca, Romania
- 2009- 2012 Lecturer**
Babeş-Bolyai University, Cluj-Napoca, Romania
Lecturer of Histology and Anatomy of Plants
Biochemistry and Molecular Biology of Plants
Plant Physiology and Molecular Biology
- 2008 - 2010** Postdoctoral researcher - University of York, York, UK
- Supervision of two undergraduate students in Biochemistry and Applied Biology and of a PhD Student in Plant Membrane Transport
- 2004 – 2006** Assistant lecturer
Babeş-Bolyai University, Cluj-Napoca, Romania
- Lecturer of Histology and Anatomy of Plants
 - Organised teaching content for laboratories in: Plant Physiology and Ecophysiology.
 - Set and marked assignments & exams.
 - Managed and supervised B.Sc. theses;
 - Involved in various administrative activities.
- 2001 – 2002 – Science teacher**
Framlingham College, Framlingham, UK
- Science assistant teacher (K4 and A level).
- 1998 – 2001** Biology and Chemistry teacher
Middle School No. 3, Cluj-Napoca, Romania
- Teaching Biology and Chemistry.
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- Projects for students, faculty and institutions**
- 2020** – DBU Fellowship for my student Emanuela Dana Tiodar
 - 2020** – SciFest – Plant colours (plenary presentation)
 - 2019**- Workshop for students "Searching the information in the databases" (27th of March)
Plant immunity – presentation for students (16th of April)
 - 2016-2019** – Organizing student internship in Terapia Company (4 students in 2016, 12 students in 2017, 10 students in 2018, 2019)
 - 2017-2019** – Supervising high school student Ioana Mihacea (Gh. Sincai, High school, Cluj-Napoca) for International Conference of Young Scientists (ICYS), Malaysia.
Member in the National jury – in Life Sciences section for the selection of students for International Conference of Young Scientists (ICYS).
 - 2017- 2018** – Excellence fellowship for research for my students (Galea Diana and Balázs Zoltan)
 - 2016**- Member of Jury - Life Science (ICYS) International Conference of Young Scientists_16-22 April_2016
 - 2015**- *** Vice-president in the National Committee for Biology Olympiad
 - 2015**- Interviews with alumni – journal BIOME
 - 2014**- Relating employers with student Programme (Cord Blood Centre, Terapia, XPE Pharma)
 - 2010**-*** Faculty admission concurs Emil Racoviță
 - 2010**-*** National Biology Olympiad training

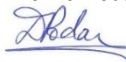
Research projects	<p>Director:</p> <p>2020-2022 "Decontamination of heavy metal polluted soils by exploiting plant rhizosphere interactions"; National grant PN-III-P2-2.1-PED-2019-5254; contract no.: 390PED/2020; budget: 600.000 lei = 120.000 EUR)</p> <p>2020-2024 "Trace metal metabolism in plants" EU COST Action CA19116; without budget for salaries; project director: Prof Hendrik Küpper, Czeck Republic</p> <p>2015-2017 "Remediation potential of native facultative metallophytes and the associated rhizosphere microbiota", national grant CNCSIS-UEFISCSU PN-II-RU-TE- 2014-4-2727 (550 000 Lei = 125.000 EUR)</p> <p>2010-2012 "Plant Cation Diffusion Facilitator Transporter Family – investigation of metal recognition, binding and transport sites." National grant CNCSIS-UEFISCSU PNII – PD 424/125/2010.</p> <p>2004-2005 Influence of zinc and pH of soil on uptake of Cd by lettuce. Implications on human health risk assessment models. National grant Td 46/2004 -CNCSIS.</p> <p>Member:</p> <p>2018-2021 "<i>Partnership for the transfer of innovative technologies and advanced materials in visual art domain (production, conservation, restauration.</i>" UBB-TeMATIC-Art project co-financed by FEDR through the Operational Programme for Competitivity, project ID P_40_374, beneficiar: Babeş-Bolyai University.</p> <p>2015-2016 "<i>Methodological guide for monitoring antibiotics and antibiotic resistance in the environment as a support instrument for better management of the quality of surface waters [EnviroAMR]</i>", Project ID 66230 director Dr. Cristian Coman, National Institute for Biological Research.</p> <p>2015-2017 "<i>Biodiversity and adaptation mechanisms to saline stress of native plants in Romania</i>", national grant CNCSIS-UEFISCSU PN-II-RU-TE- 2014-4-831. Director Dr. Szekely Gyongyi.</p> <p>2014-2016 "<i>Opening new avenues to model the DYNamics of Species aSsemblages by integrating Ecology and Evolution a case study from the mountain ecosystems of the Alps and the Carpathians (ODYSSEE)</i>", international grant PN-II-ID-JRP-RO-FR-2012, no. 15/01.01.2014, director Dr. Mihai Puşcaş, Botanical Garden "Alexandru Borza", Babeş-Bolyai University.</p> <p>2012-2014 "<i>Comparative study of genes expressed under osmotic stress in Arabidopsis thaliana and phytoplankton communities from saline lakes in Romania</i>", national grant PN-II-CT-RO-H-2012, director Dr. Gyongyi Szekely, Babeş-Bolyai University.</p> <p>2006-2008 "<i>Research planning and upgrading green spaces in Romania with favourable impact on the environment.</i>" 2006-2008 CEEX Agral no.29/2006, director Dr. Cristina Dobrotă, Babeş-Bolyai University.</p> <p>2006-2008 "<i>Evaluation of ecophysiological and cyto-genotoxic effects of some xenobiotic present in the polluted aquatic ecosystems.</i>" 2006-2008 CEEX, no. 06-11-61/2006, director Dr. Adela Hamagyi, National Institute for Biological Research, Partner Babeş-Bolyai University coordinated by Dr. Anca Keul.</p> <p>2004-2006 "The effect of ground magnetic anomalies on biodiversity and on preservation of extinct forms of life", national grant PNCDI, director Reader Dr. Cristina Dobrotă, Babeş-Bolyai University.</p>
Reviewer	Plant Cell, Nature Scientific Report, BMC-Plant Biology, Physiologia Plantarum, Flora, American Journal of Botany, Journal of Waste Management, Geostandards and Geanalytical Research, Studia Biology, Studia Geologia, Annals Biology Iasi

Professional affiliations Society of Experimental Biology (SEB)
Romanian Society of Biochemistry and Molecular Biology (RSBMB) – FEBS
Federation of European Societies of Plant Biology (FESPB)
European Plant Science Organization (EPSO)
Romanian Society of Bioinformatics

Annexes **Annex 1:** Publication and conference list

27.09.2021

Dr. Dorina Podar



ANEXA 1

PUBLICATIONS (PODAR DORINA, previous SABĂU DORINA)

ISI Papers as principal author:

1. **Podar D, Maathuis. FJM. 2021.** The role of roots and rhizosphere in providing tolerance to toxic metals and metalloids. *Plant, Cell & Environ.* accepted
2. **Văcar CL, Covaci E, Chakraborty S, Li B, Weindorf DC, Frențiu T, Pârvu M, Podar D. 2021.** Heavy Metal-Resistant Filamentous Fungi as Potential Mercury Bioremediators. *J. Fungi*, 7(5), 386. <https://doi.org/10.3390/jof7050386>
3. **Tiodar ED, Văcar CL, Podar D. 2021.** Phytoremediation and Microorganisms-Assisted Phytoremediation of Mercury-Contaminated Soils: Challenges and Perspectives. *Int. J. Environ. Res. Public Health*, 18, 2435. <https://doi.org/10.3390/ijerph18052435>
4. **Podar D, Macalik K, Réti KO, Martonos I, Török E, Carpa R, Weindorf DC, Csiszár J, Székely G 2019** Morphological, physiological and biochemical aspects of salt tolerance of halophyte *Petrosimonia triandra* grown in natural habitat. *Physiol. Mol. Biol. Plants*, 25(6):1335-1347. <https://doi.org/10.1007/s12298-019-00697-x>
5. **Menguer P, Vincent T, Miller AJ, Brown JKM, Vincze E, Borg S, Preben BH, Sanders D, Podar D. 2018** Improving zinc accumulation in barley endosperm using HvMTP1 transition metal transporter. *Plant Biotechnol. J.*, 16(1): 63-71. <https://doi.org/10.1111/pbi.12749>
6. **Podar D, Scherer J, Noordally Z, Herzyk P, Nies D, Sanders D. 2012** Metal selectivity determinants in a family of transition metal transporters. *J. Biol. Chem.* 287: 3185-3196.
7. **Podar D, Sanders D. 2010** Biofortification of barley grains by cell-type-specific expression of a vacuolar metal transporter, *Romanian Biotechnol. Lett.*, 15(2): 117-119.
8. **Podar D, Ramsey MH. 2005** Effect of alkaline pH and associated Zn on the concentration and total uptake of Cd by lettuce: comparison with predictions from the CLEA model, *Sci. Tot. Environ.*, 347: 53-63.
9. **Podar D, Ramsey MH, Hutchings MJ. 2004** The effect of cadmium, zinc and substrate heterogeneity on yield, shoot metal concentration and metal uptake by *Brassica juncea*: implications for human health risk assessment and phytoremediation, *New Phytol.*, 163: 313-324.

ISI Papers as co-author:

10. **Balázs HE, Schmid CAO, Cruzeiro C, Podar D, Szatmari P-M, Buegger F, Hufnagel G, Radl V, Schroeder P. 2021** Post-reclamation microbial diversity and functions in hexachlorocyclohexane (HCH) contaminated soil in relation to spontaneous HCH tolerant vegetation, *Sci. Tot. Environ.*, 144653. <https://doi.org/10.1016/j.scitotenv.2020.144653>
11. **Gargiulo R, Pironon S, Zheleznyaya E. Sanchez MD, Balázs ZR, Podar D, Wilkinson T, Jäkäläniemi A, Kull T, Väre H, Fay MF. 2019** Phylogeography and post-glacial dynamics in the clonal-sexual orchid *Cypripedium calceolus*. *Journal of Biogeography*, 46(3): 526-538. <https://doi.org/10.1111/jbi.13528>
12. **Butiuc-Keul A, Carpa R, Podar D, Szekeres E, Muntean V, Iordache D, Farkas A. 2021.** Antibiotic Resistance in *Pseudomonas* spp. Through the Urban Water Cycle. *Curr Microbiol* <https://doi.org/10.1007/s00284-021-02389-w>
13. **Turtureanu PD, Bec S, Hurdu B, Saillard A, Šibík, J, Balázs ZR, Barros C, Novikov A, Renaud J, Podar D, Thuiller W, Pușcaș M, Choler P. 2020** Biogeography of intraspecific trait variability in matgrass (*Nardus stricta*): high phenotypic variation at the local scale exceeds large scale variability patterns. *Perspectives in Plant Ecology, Evolution and Systematics*, 46:125555. <https://doi.org/10.1016/j.ppees.2020.125555>
14. **Farkas A, Mereuti F, Butiuc-Keul A, Podar D, Roba C, Bălc R. 2020** Effects of Long-Term exposure to Heavy Metals upon Rhizosphere Bacteria from Baia Mare Area (Maramureș County, Romania). *Geomicrobiology Journal* 37(9): 867-876 <https://doi.org/10.1080/01490451.2020.1795319>

15. Balázs HE, Schmid CAO, Podar D, Hufnagel G, Radl V, Schroeder P. 2020 Development of microbial communities in organochlorine pesticide contaminated soil: a post-reclamation perspective. *Applied Soil Ecology*, 150:103467. <https://doi.org/10.1016/j.apsoil.2019.103467>
16. McGladdery C, Weindorf DC, Chakraborty S, Li B, Paulette L, Podar D, Pearson D, Kusi NYO, Duda B. 2018. Elemental assessment of vegetation via portable X-ray fluorescence (PXRF) spectrometry, *Journal of Environmental Management*, 210: 210-225. <https://doi.org/10.1016/j.jenvman.2018.01.003>
17. Balázs EH, Schmid CAO, Feher I, Podar D, Szatmari P-M, Marincea O, Balázs ZR, Schröder P. 2018. HCH phytoremediation potential of native plant species from a contaminated urban site in Turda, Romania, *Journal of Environmental Management*, 223: 286-296. <https://doi.org/10.1016/j.jenvman.2018.06.018>
18. Mot AC, Puscas C, Miclea C, Naumova-Letia G, Dorneanu S, Podar D, Dissmeyer N, Silaghi-Dumitrescu R. 2018. Redox control and autooxidation of class 1, 2 and 3 phytooglobins from *Arabidopsis thaliana*. *Scientific Reports*, 13714. <https://doi.org/10.1038/s41598-018-31922-4>
19. Farkas A, Butiuc-Keul A, Ciatarăș D, Crăciunaș C, Podar D, Dragan-Bularda M. 2013 Microbiological contamination and resistance genes in biofilms occurring during the drinking water treatment process, *Science of the Total Environment*, 443: 932-938.
20. Naszradi T, Badacsonyi A, Keresztényi I, Podar D, Csintalan Zs, Tuba Z. 2007 Comparison of two metal surveys by moss *Tortula ruralis* in Budapest, Hungary, *Environmental Monitoring and Assessment*, 134(1-3): 279-285.

Romanian Journals:

21. Fábrián I, Török E, Podar D, Székely Gy. 2018 Plant ascorbate peroxidase: molecular phylogeny and role in oxidative stress. *Studia Universitatis Babeș-Bolyai, Biologia*, LXIII(2): 153-168.
22. Balázs ZR, Roman A, Balázs HE, Căpraș D, Podar D. 2016 Rediscovery of *Cypripedium calceolus* L. in the vicinity of Cluj-Napoca (Romania) after 80 years. *Botanical Contribution*, LI: 43-53.
23. Rigo G, Szekely G, Podar D, Ayaydin F, Zsigmond L, Kovacs H, Kiraly A, Szabados Lz, Koncz Cs, Cseplo A. 2014 The role of *Arabidopsis* genes involved in abiotic (osmotic, oxidative and gravitropic) stress response regulations. *Studia Universitatis Babeș-Bolyai, Biologia*, LIX: 63-70.
24. Lung I, Podar D, Soran ML, Stan M. 2013 Quantification of Total Flavonoids and Phenolic Acids from Microwave Irradiated and Non-irradiated Plants, *Advances in Research* 1(1): 1-10.
25. Podar D, 2010 Plant transporters involved in heavy metal homeostasis. *ELBA Bioflux* 2(2):82-87.
26. Podar D, Dobrota C, Trifu M. 2004 Uptake of heavy metals by maize (*Zea mays*) plants cultivated on mine spoils, *Studia Universitatis Babeș-Bolyai, Biologia*, 49(1): 45-60.
27. Dobrota C, Sabau D. 2000 Plants as heavy metals hyperaccumulators and their role in phytoremediation, microbiology, mineral exploration and phytomining, *Evolution and Adaptation*, T.6: 143-147

Other journals:

28. Podar D, Dobrota C, Gadea S, Macovei L. 2000 The accumulation of carbohydrates and heavy metals in the vegetative organs of *Zea mays*. In: Abstracts of the Annual International Session of Scientific Debates, Timisoara, 32(2): 691-696.
29. Macovei L, Gadea S, Dobrota C, Podar D. 2000 The influence of biological active substance “crossing” on some physiological processes and on respiratory enzymes at beans. In: Abstracts of the Annual International Session of Scientific Debates, 32(3): 813-818.
30. Dobrota C, Sabau-Podar D, Macovei L, Gadea S. 2000 The influence of heavy metals on growth and development of maize plants, In: *Papers of the Symposium Agriculture and alimentation – now and in future*, Vol. I, pp: 6-9, Ed. Academic Pres, Cluj-Napoca.
31. Dobrota C, Sabau-Podar D, Macovei L, Gadea S. 2000 The influence of low temperatures on carnation (*Dianthus sp.*) cell culture, In: *Papers of the Symposium Agriculture and alimentation – now and in future*, Vol. I, pp: 10-14, Ed. Academic Pres, Cluj-Napoca.
32. Macovei L, Gadea S, Tamas E, Dobrota C, Sabau-Podar D, Dragos-Faragau M. 2000 Influence of biological active substance “crossing” to the physiological processes at three types of leguminous plants, In: *Papers of the Symposium Agriculture and alimentation – now and in future*, Vol. I, pp: 21-24, Ed. Academic Pres, Cluj-Napoca.

33. **Gadea S, Macovei L, Tamas E, Dobrota C, Sabau-Podar D, Dragos-Faragau M. 2000** The influence of the hormone balance on the organogenetic reaction *in vitro* of hop minicuttings, In: *Papers of the Symposium Agriculture and alimentation – now and in future*, Vol. I, pp: 25-27, Ed. Academic Pres, Cluj-Napoca.

Chapters:

34. **Podar D. 2012** Chapter 2: Plant Growth and Cultivation, in *Plant Mineral Nutrients: Methods and Protocols*, Ed. Maathuis, FJM., Vol. **953**: 23-45, Humana Press, Springer Science + Business Media, LLC, New York, USA (due 31 October 2012). DOI: 10.1007/978-1-62703-152-3_2. Methods in Molecular biology. (<http://www.springer.com/life+sciences/plant+sciences/book/978-1-62703-151-6>)
35. **Maathuis FJM, Podar D. 2011** Chapter 13 – Efficient uptake and utilization of cations: K/Ca/Mg in *The Molecular Basis of Nutrient Use Efficiency in Crops*, Eds Hawkesford MJ. & Barraclough PD., Wiley-Blackwell doi:10.1002/9780470960707.ch13.

Books:

36. **Pop-Păcurar I, Podar D, Domi D. 2018.** Caiet de lucrări practice Biologie cls a VI-a, Editorial ART Group, București, ISBN 978-606-003-112-3.
37. **Pop-Păcurar I, Podar D. 2017.** Biology cls a V-a, Editorial ART Group, București, ISBN 978-606-710-357-1.