



AGRICULTURAL UNIVERSITY - PLOVDIV

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The Agricultural University – Plovdiv is interested in participating as a host organization in the actions under the Marie Sklodowska-Curie Individual Fellowships, Call (H2020-MSCA-IF-2016).

The Agricultural University was established in 1945. The major structural units are the four faculties (Faculty of Agronomy, Faculty of Horticulture with Viticulture, Faculty of Plant Protection and Agroecology, Faculty of Economics) offering 20 Bachelor's degree programmes, 34 Master's degree courses and 28 doctoral programmes.

We are interested in developing collaborative funding proposals with post-doctoral researchers for submission under Marie Sklodowska-Curie Individual Fellowships programme in the following research areas:

Topic 1. Plant-heavy metals interactions (mechanisms of uptake, accumulation, tolerance and phytotoxicity; ecological risk assessment and phytoremediation). **Main Supervisor: Prof. Dr. Andon Vassilev** (CV enclosed), E-mail: vassilev@au-plovdiv.bg

Topic 2. Abiotic stress impact on agricultural plants (plant responses, mechanisms of tolerance, possibilities to enhance recovery by plant growth regulators, biostimulants and leaf fertilizers). **Supervisor: Prof. Dr. Malgozhata Berova**, Dean, Faculty of Agronomy, E-mail: malberova@abv.bg

Topic 3. Biological control of invasive weeds. **Supervisor: Prof. Dr. Vili Harizanova**, Dean, Faculty of Plant Protection and Agroecology, Head of the Centre for Biological Testing, E-mail: vili.harizanova@gmail.com

Topic 4. Efficacy evaluation of Plant Protection Products. **Supervisor: Prof. Dr. Vili Harizanova**, Dean, Faculty of Plant Protection and Agroecology, Head of the Centre for Biological Testing, E-mail: vili.harizanova@gmail.com

Applicants interested in preparing a project proposal for H2020-MSCA-IF-2016 Call are advised to contact the main supervisor of the Agricultural University and the supervisor in the concrete thematic area.

ASSOC. PROF. DR. SVETLA YANCHEVA
VICE-RECTOR
INTERNATIONAL RELATIONS

May 2016

CURRICULUM VITAE

Andon Vassilev

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A. Education

Institution	Degree	Year	Field of study
Agricultural University of Plovdiv	Ph.D.	1997	Plant Physiology
Timiryazev Agricultural Academy in Moscow	Masters	1988	Agronomy

B. Professional positions

Period	Position	Place
2008 - current	Head of the Department of Plant Physiology and Biochemistry	Agricultural University of Plovdiv
2012 - current	Professor at the Department of Plant Physiology and Biochemistry	Agricultural University of Plovdiv
2004-2012	Associate Professor at the Department of Plant Physiology and Biochemistry	Agricultural University of Plovdiv
1992-2004	Assistant Professor at the Department of Plant Physiology and Biochemistry	Agricultural University of Plovdiv
1988-1991	Research Assistant	Crop Experimental Station of Yanbol

C. Research interests

- Plant stress responses and mechanisms of tolerance
- Heavy metals uptake, phytotoxicity and phytoremediation
- Herbicide detoxification in plants
- Physiological aspects of crop improvement
- Leaf fertilizers and biostimulants

D. Research grants received

- Six months grant (1999/2000), funded by European Scientific Foundation, GPoll Programme. Project title: Use of chlorophyll fluorescence for monitoring of water pollution by heavy metals, New University of Lisbon, Portugal.
- Twelve months grant (2001/2002), founded by NATO research programme. Phytoremediation potential of *Salix* for heavy metals, Limburgs University Centrum, Belgium (presently Hasselt University).
- Twelve months grant (2004/2005), founded by Federal Belgian Administration for Scientific, Technical and Cultural Affairs (DWTC). Project title: Sustainable management of metal polluted soils: plant biology aspects, Limburgs University Centrum, Belgium (presently Hasselt University).

- One month grant (2006) in USDA - BARC, USA, Norman Borlaug programme for agricultural science and technology. Project title: “Evaluation of environmental risk created by soil pollution by heavy metals using plant test systems”.

E. Funded research projects

Coordinator

- 2003-2005. Improving Cd phytoextraction by optimized sulfur supply. The project is supported by NATO Science Programme (Collaborative Linkage Grant).
- 2005-2007. Development and application of plant test system for evaluation of the toxicity of metal-polluted soils. The project was funded by Bulgarian National Science Fund.
- 2007-2008. Screening and physiological characterization of genotypes of durum wheat (*Triticum durum*) and rice (*Oriza sativa*) with low Cd accumulation in grain. The project was funded by Bulgarian National Science Fund.
- 2009-2011. Studies on stress responses and screening for tolerant genotypes within major agricultural crops. The project was funded by Bulgarian National Science Fund.

Member

- 2009-2011. Desiccation induced damages and ecological sustainability of plants evaluated in terms of open system thermodynamics model derived from noninvasive biophysical tests. The project was funded by Bulgarian National Science Fund.
- 2009-2011. Phytostabilization of metal contaminated soils. The project was funded by Bulgarian National Science Fund.
- 2009-2011. Intraspecies diversity, biologically active substances, selection of perspective habitats, cultivation and sustainable use of *Tribulus terrestris* L. for the pharmaceutical industry. The project was funded by Bulgarian National Science Fund.
- 2009-2011. Evaluation of soil monitoring indicators and environmental risk assessment for development of programs to sustainable land use in contaminated and anthropogenic impacted zones. The project was funded by Bulgarian National Science Fund.
- 2011-2013. Complex evaluation of new herbicides against weeds in the major agricultural plants. The project was funded by Bulgarian National Science Fund.

F. Memberships in Editorial Boards

- Member of the Editorial Board of Journal of Applied Agricultural Research (2005 – current)
- Member of the Editorial Board of Acta Agrobotanica (2012 – current)
- Member of the Editorial Board of Journal of Agronomy and Crop Science (2013 – current)

G. Scientific publications (95; in English – 53; citations >500, H=10)

1. Vassilev, A., I. Yordanov, E. Chakalova, V. Kerin, 1995. Effect of cadmium stress on growth and photosynthesis of young (*H. vulgare* L.) plants. II. Structural and functional changes in photosynthetic apparatus. *Bulg. J. Plant Physiol.*, 21, 12-21.
2. Vassilev, K. Georgieva, I. Yordanov, 1995. Influence of cadmium stress on temperature sensitivity of chlorophyll fluorescence parameters of two barley cultivars. *Compt. Rend. Acad. Bulg. Sci.*, 49, 2, 85-88.
3. Vassilev, A., V. Kerin, P. Atanasov, 1996. Effect of cadmium pollution of soil upon productivity and seedling qualities of two winter barley cultivars. *Bulg. J. Agri. Science*, 2, 333-340.
4. Vassilev, A., I. Yordanov, T. Tsonev, 1997. Effect of Cd²⁺ on the physiological state and photosynthetic activity of young barley plants. *Photosynthetica*, 34 (2), 293-302.

5. Vassilev, A., I. Yordanov, 1997. Reductive analysis of factors limiting growth of Cd-treated plants: a review. *Bulg. J. Plant Physiol.*, 23 (3-4), 114-133.
6. Vassilev, A., I. Yordanov, T. Tsonev, 1998. Physiological response of barley plants (*Hordeum vulgare*) to cadmium contamination in soil during ontogenesis. *Environmental Pollution*, 103, 287-293.
7. Vassilev, A., M. Berova, Z. Zlatev, 1998. Influence of Cd²⁺ on growth, chlorophyll content, and water relations in young barley plants. *Biologia Plantarum* 41 (4), 601- 606.
8. Atanasova, L., A. Vassilev, M. Pisarska, I. Yordanov, 1999. Cd-induced changes of root cytokinins from two barley cultivars. *Compt. Rend. Acad. Bulg. Sci.*, 53, 6, 91-94.
9. Vassilev, A., P. Manolov, 1999. Chlorophyll fluorescence of barley (*H. vulgare* L.) seedlings grown in excess of Cd. *Bulg. J. Plant Physiol.*, 25 (3-4), 67-76.
10. Vassilev, A., P. Zaprianova, 1999. Removal of Cd by winter barley (*H. vulgare* L.), grown in soils with Cd pollution. *Bulg. J. Agri. Sci.*, 5, 131-136.
11. Dimitrova, L., B. Bojinov, A. Vassilev, 2000. The effect of Mezaphyt and Greenstim on the photosynthesis of rainfed cotton plants. Proceedings of the inter-regional cooperative research network on cotton, 20-24 September 2000, Adana-Turkey, 117-120.
12. Vassilev A, T. Georgieva, 2000. Growth and photosynthesis responses of young oats (*Avena sativa*) plants to excess of cadmium and copper. *J. Environm. Protection and Ecology*, 2 (1), 134-140.
13. Vassilev, A., 2002. Metal phytoextraction: state of the art and perspectives. *Bulg. J. Agri. Sci.*, 8, 125-140.
14. Vassilev, A., J. Vangronsveld, I. Yordanov, 2002. Cd phytoextraction: present state, biological backgrounds and prospects. *Bulg. J. Plant Physiol.*, 28 (3-4), 68-95.
15. Vassilev, A., 2002. Use of chlorophyll fluorescence for phytotoxicity testing. I. Use of parameters in dark-adapted leaves. *J. Environm. Protection and Ecology*, 2002, 3 (4), 901-906.
16. Vassilev, A., 2002. Use of chlorophyll fluorescence for phytotoxicity testing. II. Use of parameters at steady-state photosynthesis. *J. Environm. Protection and Ecology*, 2002, 3 (4), 907-912.
17. Vassilev, A., Fernando C. Lidon, Maria do Céu Matos, José C. Ramalho, Ivan Yordanov, 2002. Photosynthetic Performance and Some Nutrients Content in Cd and Cu-treated Barley (*Hordeum vulgare* L.) plants. *J. Plant Nutrition*, 25 (11), 2343-2360.
18. Vassilev, A., 2003. Physiological and agroecological aspects of cadmium interactions with barley plants: an overview. *J. Central European Agriculture*, 4 (1), 65-75.
19. Vassilev, A., 2003. Barley seedlings as bio-indicators for water contamination by cadmium. *J. Environm. Protection and Ecology*, 4 (2), 354-361.
20. Vassilev, A., Fernando C. Lidon, Maria do Céu Matos, José C. Ramalho, Maria da Graca, 2003. Sensitivity of barley photosynthesis to excess copper: implications for screening test. *J. Central European Agriculture*, 4 (3), 227 - 235.
21. Ivanova, V., A. Vassilev, 2003. Biometrics and physiological characteristics of chrysanthemum plants grown on different rates of nitrogen fertilization. *J. Central European Agriculture*, 4 (1), 1-6.
22. Stoeva, N., Z. Zlatev, M. Berova, A. Vassilev, V. Kerin, 2003. Possibilities for biological test application for the purpose of monitoring the contamination of the irrigation waters with arsenic. *J. Environm. Protection and Ecology*, 4 (1), 24-30.
23. Zlatev Z., M. Berova, N. Stoeva, A. Vassilev. 2003. Use of physiological parameters as stress indicators. *Journal of Environmental Protection and Ecology*, 4 (4), 841-849.

24. Sapundjieva, Kr., Y. Kartalska, A. Vassilev, St. Krastev, Y. Kuzmanova, 2003. Effects of EDTA on metal solubility in the soil, metal uptake and performance of maize plants, and soil microorganisms. *Bulg. J. Agri. Sci.*, 9, 1-5.
25. Roichev, V., A. Vassilev, 2003. The effect of girdling on leaf gas exchange and potential bud crop indexes of table grape cultivars. *Bulg. J. Agri. Sci.*, 9, 229-235.
26. Vassilev, A., F. Lidon, P. S. Campos, J. C. Ramalho, M. G. Barreiro, I. Yordanov, 2003. Cu-induced changes in chloroplast lipids and photosystem 2 activity in barley plants. *Bulg. J. Plant Physiol.*, 29 (1-2), 33-43.
27. Vassilev, A., Schwitzguebel, J-P., Thewys, T., van der Lelie, D., and Vangronsveld, J., 2004. The use of plants for remediation of metal-contaminated soils. *TheScientific World JOURNAL*, 4, 9-34.
28. Vassilev, A., Fernando C. Lidon, Maria do Céu Matos, José C. Ramalho, Maria da Graca, 2004. Shoot cadmium accumulation and photosynthetic performance of barley at high Cd treatments. *J. Plant Nutr.*, 27 (5), 773-793.
29. Vassilev, A., F. Lidon, P. Scotti, M. da Graca, I. Yordanov, 2004. Cadmium-induced changes in chloroplast lipids and photosystem activities of barley plants. *Biol. Plant.*, 48 (1), 153-156.
30. Vassilev, A., A. Perez-Sanz, B. Semane, R. Carleer, J. Vangronsveld, 2005. Cadmium accumulation and tolerance of two *Salix* genotypes, hydroponically grown in presence of cadmium. *J. Plant Nutr.*, 28 (12), 2159-2177.
31. Vassilev, A., M. Berova, N. Stoeva, Z. Zlatev, 2005. Chronic Cd toxicity of bean plants can be partially reduced by supply of ammonium sulphate. *J. Central European Agriculture*, Vol. 6 (3), 397-404.
32. Stoeva N., M. Berova, A. Vassilev, Z. Zlatev. 2005. Effect of exogenous polyamine diethylenetriamine on oxidative changes and photosynthesis in As-treated maize plants (*Zea mays* L.). *J. Central European Agriculture*. Vol.6, No 3, 367-374.
33. Vassilev, A., I. Yordanov, J. Vangronsveld, 2006. Cadmium phytoextraction from contaminated soils. In: Cadmium toxicity and tolerance in plants (Eds. Knah and Samuilah, Narosa Publ. House; 103-115; ISBN 81-7319-737-7)
34. Vassilev, A., A. Perez-Sanz, A. Cuypers, J. Vangronsveld, 2007. Tolerance of two hydroponically grown *Salix* genotypes to excess Zn. *J. Plant Nutr.* 30, 1472 – 1482.
35. Vassilev, A., L. Koleva, M. Berova, N. Stoeva, 2007. Development of a plant test system for metal toxicity evaluation. I. Sensitivity of plant species to heavy metal stress. *J. Central European Agriculture*, 8 (2), 135-140.
36. Schroder, P., R. Herzig, B. Bojinov, A. Ruttens, E. Nehnevajova, S. Stamatidis, A. Memon, A. Vassilev, M. Caviezel, J. Vangronsveld, 2008. Bioenergy to save the world. Producing novel plants for growth on abandoned land. *Environm. Science and Pollution Research*. Vol. 15, 3, 196-204.
37. Koleva, L., D. Staneva, I. Yordanova, Ts. Bineva, A. Vassilev, 2008. Characterization of cadmium uptake by roots of durum wheat plants. *J. Central European Agriculture*, Vol. 9 (3), 533-538.
38. Vangronsveld, J., R. Herzig, N. Weyens, J. Boulet, K. Adriaensen, A. Ruttens, T. Thewys, A. Vassilev, E. Meers, E. Nehnevajova, D. van der Lelie, M. Mench, 2009. Phytoremediation of contaminated soils and groundwater: lessons from the field. *Environm. Science and Pollution Research*, 16, 765–794.
39. Vangronsveld J., Weyens N, Ruttens A, Vassilev A, Mench M., 2009. Land revitalisation. In: Vanek T (Ed) Phytotechnologies solutions for sustainable land management, Encyclopedia of Life Support Systems, Eolss Publishers, Oxford UK.

40. Maneva, V., I. Lecheva, A. Vassilev, I. Semerdjieva, 2009. Changes in the photosynthetic performance of infested leaves of two barley cultivars to aphids. *Proceedings of 46th Croatian and 6th International Symposium on Agriculture*, 831-836.
41. Koleva, L., A. Nikolova, I. Semerdjieva, A. Vassilev, 2010. Comparative morphological and histological study on zinc- and cadmium-treated durum wheat plants with similar growth inhibition. *General and Applied Plant Physiology*, 36 (1-2), 8-11.
42. Zlatev, Z., M. Berova, N. Stoeva, A. Vassilev, 2010. Drought-induced changes in chlorophyll fluorescence of vigna plants. *Scientific reports of Agricultural University of Plovdiv, LV*, (2), 417-420.
43. Vassilev, A., A. Nikolova, 2010. Studies on terrestrial herbaceous plants tolerance to excess heavy metals: methodological approach. *Ecologia Balkanica*, 2, 65-74.
44. Zlatev, Z., A. Vassilev, V. Goltsev, G. Popov, 2010. Drought-induced changes in chlorophyll fluorescence of young bean plants. *Agricultural Sciences (Journal of Agricultural University of Plovdiv)*, 4, 75-79.
45. Vassilev, A., F. Lidon, 2011. Cd-induced membrane damages and changes in soluble protein and free amino acid contents in young barley plants. *Emirates Journal of Food and Agriculture* 23 (2), 130-136.
46. Tonev, T., M. Tityanov, A. Vassilev, 2011. Guide to integrated weed management and proficiency in agriculture. *Biblioteka Zemedelsko Obrazovani*. ISBN 978-954-90762-5-7.
47. Nikolova, A., A. Vassilev, 2011. Study on *Tribulus terrestris* L. anatomy and ecological adaptation. *Biotechnology and Biotechnological Equipment*, 25 (2), 2369-2372.
48. Vassilev, A., A. Nikolova, L. Koleva, F. Lidon, 2011. Effects of excess Zn on growth and photosynthetic performance of young bean plants. *Journal of Phytology*, 3 (6) 58-62.
49. Koleva-Valkova, L., A. Vassilev, A. Cuypers, J. Vangronsveld, 2012. Comparative study of cadmium and zinc toxic effects on the cell redox status in durum wheat plants. *Agricultural Sciences*, 8, 39 - 46.
50. Berova, M., T. Stoilova, K. Kuzmova, N. Stoeva, A. Vassilev, Z. Zlatev, 2012. Changes in the leaf gas exchange, leaf water potential and seed yield of cowpea plants (*Vigna unguiculata* L.) under soil drought conditions. *Agricultural Sciences*, 8, 29 – 34.
51. Stoeva, N., M. Berova, A. Vassilev, Z. Zlatev, M. Kaymakanova, D. Ganeva, V. Petkova, 2012. Study on some enzyme activity in tomato plants during drought and recovery periods. *Agricultural Sciences*, 8, 61 – 64.
52. Cuypers, A., T. Remans, N. Weyens, J. Colpaert, A. Vassilev, J. Vangronsveld, 2012. Soil plant relationships of metals and metalloids (Chapter 6), 161 - 195. In: *Heavy metals in soils (3rd edition): Trace Metals and Metalloids in Soils and their Bioavailability*. Ed. by B. Alloway. Springer Verlag, Environmental Pollution Series. ISBN 978-94-007-4469-1.
53. Vercampt, H., L. Koleva, A. Vassilev, N. Horemans, J. Vangronsveld, A. Cuypers, 2016. The functional role of the photosynthetic apparatus in the recovery of *Brassica napus* plants from recovery from pre-emergent metazachlor exposure. *J. Plant Physiology*, 196 (in print)