

CROCUSBANK AGRI GEN RES 018 ACTION

OUTPUTS AND DISSEMINATION

I.) International seminars and workshops

- *2nd International Symposium on Saffron Biology and Technology (2nd ISSBT), October 28-30 2006, Mashhad (Iran).* Conference: J.A. Fernandez. Genetic Resources of Saffron and Allies (*Crocus* spp). *Acta Hort.* (ISHS) 739:167-185.
- *3rd Global Botanic Gardens Congress (3GBGC), April 16-29 2007, Wuhan (China).* J.A. Fernandez. Genetic Resources of Saffron and Allies. The CrocusBank Project. P105 (<http://www.crocusbank.org/Index101En.htm>).
- *International Workshop on Aromatic and Medicinal Plants, November 7-8 2007, Chefchaouen (Morocco).* J.A. Fernandez. Conservation of Genetic Resources of Saffron: a Sustainable Crop with Potential Medicinal Applications. Book of Abstracts pp.13. (<http://www.crocusbank.org/Index105En.html>).
- *International Symposium "Underutilized Plant Species for Food, Nutrition, Income and Sustainable Development", March 2-8 2008, Arusha (Tanzania).* J.A. Fernandez. Saffron, a sustainable crop with potential medicinal and industrial applications. (<http://www.crocusbank.org/Tanzania.html>).
- *XVII EUCARPIA General Congress, Valencia (Spain) in September 2008.* O. Santana. "Conservation and documentation of genetic resources of saffron and *Crocus* spp." (<http://www.comav.upv.es/congreso/html/Posters.pdf>).
- *3rd INTERNATIONAL SYMPOSIUM ON SAFFRON, "Forthcoming Challenges in Cultivation, Research and Economics"* that took place in Krokos-Kozani (Greece), 20-23 May 2009. Organized and hosted by Dr. Maria Tsimidou (P03 AUTH). The following communication were presented:
 - Fernández, JA. Preserving biodiversity in saffron: The CROCUSBANK project and the world saffron and crocus collection (**Keynote speech**).
 - Halvorson SJ., and Fernández, JA. Biocultural complexity of saffron cultivation in Spain. (**Poster**).
 - De-los-Mozos, M. *Preserving biodiversity in saffron: The World Saffron and Crocus Collection* (**Keynote speech**).
 - De-los-Mozos, M. *A preliminary characterization of saffron germplasm from the CROCUSBANK collection* (**Oral presentation**).

- De-los-Mozos, M. *Current Status of the Germplasm Spanish Collection of Saffron and wild relatives (Oral presentation)*.
- Santana-Méridas, O., De-los-Mozos, M. and Fernández, JA. *Public Disclosure, Interpretation and Displaying the World Saffron & Crocus Collection through the CROCUSBANK Website (Poster)*.
- Ordoudi S., Tsionga K. and Tsimidou MZ. *Detection of erythrosine in saffron using spectrophotometric techniques (Oral presentation)*.
- Ordoudi S., Nenadis N., Tsimidou MZ., Sarigianni M., and Paletas K. *A manual procedure to assess pro-/antioxidant imbalance in human plasma based on the crocin bleaching assay (CBA) (Poster)*.
- Tsaftaris AS., Pasentzis K., and Argiriou A. *Differences in the molecular mechanism controlling crocus flowering season between spring and autumn species (Oral presentation)*.
- Tsaftaris AS., Pasentzis K., Polidoras A., and Kalyvas A. *The family of MADS-box transcription factors controlling flower formation in Crocus sativus L. (Poster)*.
- De-Los-Mozos-Pascual, M., Santana-Méridas, O., Rodríguez-Conde, MF, Sánchez-Vioque R., Pastor-Férriz, T., Fernández, JA.; Santaella, M., Sánchez, RA., Renau-Morata, B., Sanchís, E., García-Luis, A., Guardiola, JL, and Molina, RV. *A Preliminary Characterization of Saffron Germplasm from the CROCUSBANK Collection. Book of Abstracts of the 3rd International Symposium on Saffron. (Oral presentation)*.
- Molina, R.V.; Renau-Morata, B.; Nebauer, S.G.; García-Luis, A. y J.L. Guardiola. 2009. *Greenhouse saffron culture. Temperature effects on flower emergence and vegetative growth of the plants. Book of Abstracts of the 3rd International Symposium on Saffron. (Poster)*.
- Branca, F. and Argento, S. *Evaluation of saffron polyannual growing cycle in central Sicily. (Oral presentation)*.
- Argento S., Branca F., Siracusa L., Strano T., Napoli EM., and Ruberto G. *Re-evaluation of saffron floral wastes: analysis of saffron flowers defatted hydro-alcoholic extracts (Poster)*.
- Mathe C., Demeter Z., Vasas G., Molnar A. and Suranyi, G. *The establishing of tissue cultures from Crocus species originated from the Carpathian Basin and their use in the search for economically important products (Poster)*.

- Tsoktouridis G., Krigas N., Karamplianis T., Constantinidis Th., and Maloupa E. *Genetic differences among wild Greek Crocus taxa and cultivated saffron (Crocus sativus L.) (Poster)*.
- Sharaf-Eldin MA., Hanafy MS., Bailey JP., Piqueras A., Heslop-Harrison JSP., and Fernández, JA. *In vitro production of callus and microcorms in saffron (Crocus sativus L.) (Poster)*.
- *Symposium towards establishment of genetic reserve for crop wild relatives and land races in Europe, University of Madeira. Funchal, Portugal. 2010.* Argento S., Branca F., Fernández J.A., Santaella M., Roldan M., De-Los-Mozos M., Santana O., Molina R.V., Thiercelin J.M., Suranyi G., Talou T., Heslop-Harrison J, Maloupa E., Vurdu H., Gasimov K., Polissiou M., Tsimidou M., Sharaf-Eldin, M. Saffron and the wild relatives world collection. (http://www.ecpgr.cgiar.org/networks/in_situ_and_on_farm/symposium.html).
- 2nd International Symposium on Genomics of Plant Genetic Resources. Bologna, Italy. 2010. Santaella Marcella, Sánchez Rosa-Ana, Tendero Marla-Paz, Verwulgen Torn, de-los-Mozos Marcelino, Santana Omar, Guardiola José-Luis, Molina Rosa V., García Amparo, Thiercelin Jean-Marie, Branca Ferdinando, Suranyi Gyula, Talou Thierry, Heslop-Harrison John, Maloupa Eleni, Rigas Nikos, Fernández José-Antonio. Implementation of AFLP and SNPs to characterize the CrocusBank World Collection of Saffron and Crocus Genetic Resources, CROCUSBANK. (<http://www.gpgr2.com/>).
- 12th Scientific Congress of the Hellenic Botanical Society. Rethimno, Grecia. 2011. Maloupa E., Krigas N., Constantinidis Th., Karamplianis Th., Polyssiou M., Tsimidou M., Fernández J. A., De-los-Mozos-Pascual M., Santana Méridas O., Molina-Romero R.V., Sanchís E., Branca F., Borbely G., Heslop-Harrison S. J., Vurdu H., Gasimov K. Phylogenetic resources of genus Crocus (Iridaceae) in the frame of the European Network CROCUSBANK: collections, documentation and ex situ conservation. (http://www.hbs.gr/index.php?option=com_content&task=view&id=65&Itemid=107)-

II.) Publications

- *The Parliament Magazine*, 10 December 2007, Issue 258: 65. Advertisement: J.A. Fernández. Conservation of Genetic Resources of Saffron: a sustainable Crop with Potential Medicinal Applications.
- *Research Review, European Research & Innovation*. December 2007, Issue 3: 12. Advertisement: J.A. Fernández. Conservation of Genetic Resources of Saffron: a sustainable Crop with Potential Medicinal Applications.
- Ordoudi, S.A., Nenadis N., Tsimidou M.Z. 2009. *Further examination of antiradical properties of Crocus sativus stigmas extract rich in crocins*. *Journal of Agricultural and Food Chemistry*, 57, 3080-3086. Partial funding of this work is acknowledged by the co-authors STELLA A. ORDOUDI, NIKOLAOS NENADIS AND MARIA Z. TSIMIDOU.
- Kravkaz, Inci Seviç. August 2008. *Phenological properties of Crocus spp. in Kastamonu Region*. M.Sc. Thesis, Gazi University, Institute of Science and Technology.

Several contributions to the 3rd International Symposium on Saffron (Krokos-Kozani, Greece, 2009) were published on the book: "Proceedings of the Third International Symposium on Saffron: Forthcoming Challenges in Cultivation, Research and Economics", and can be found at: <http://www.actahort.org/books/850/>. Publications from members of the CROCUSBANK consortium are listed below:

- M De-los-Mozos, JA Fernández, M Roldán. 2010. Preserving Biodiversity in Saffron: The Crocusbank Project and the World Saffron and *Crocus* Collection. *Acta Horticulturae* 850: 23-28.
- M De-los-Mozos, O Santana, MF Rodríguez, R Sánchez, T Pastor, JA Fernández, M Santaella, RA Sánchez, T Verwulgen, M Palacios, B Renau, E Sanchís, A García, JL Guardiola, RV Molina. 2010. A Preliminary Characterisation of Saffron germplasm from the CROCUSBANK Collection. *Acta Horticulturae* 850: 35-40.
- YM Agayev, E Zarifi, JA Fernández. 2010. A Study of Karyotypes in the *Crocus sativus* L. Aggregate and Origin of Cultivated Saffron. 2010. *Acta Horticulturae* 850: 47-54.
- A Kalivas, A Argiriou, K Pasentsis, AS Tsiftaris, O Ahrazem. 2010. Differences in the Molecular Mechanism Controlling *Crocus* Flowering Season between Spring and Autumn Species. *Acta Horticulturae* 850: 55-60.

- I Sevinç Kravkaz, H Vurdu. 2010. Botany of *Crocus ancyrensis* through Domestication. *Acta Horticulturae* 850: 61-65.
- RV Molina, B Renau, SG Nebauer, A García, JL Guardiola. 2010. Greenhouse Saffron Culture – Temperature Effects on Flower Emergence and Vegetative Growth of the Plants. *Acta Horticulturae* 850: 91-94.
- O Santana, M De-los-Mozos, JA Fernández. 2010. Public Disclosure, Interpretation and Displaying the World Saffron and Crocus Collection through the CROCUSBANK Website. *Acta Horticulturae* 850: 95-98.
- AS Tsaftaris, K Pasentsis, A Kalivas, A Argiriou, A Polidoras. 2010. The Family of MADS-Box Transcription Factors Controlling Flower Formation in *Crocus sativus* L. *Acta Horticulturae* 850: 107-111.
- F Branca, S Argento. 2010. Evaluation of Saffron Pluriannual Growing Cycle in Central Sicily. *Acta Horticulturae* 850: 153-158.
- LM Poggi, AJ Portela, MA Pontin, RV Molina. 2010. Corm Size and Incubation Effects on Time to Flowering and Threads Yield and Quality in Saffron Production in Argentina. *Acta Horticulturae* 850: 193-198.
- SA Ordoudi, N Nenadis, MZ Tsimidou, M Sarigianni, K Paletas. 2010. Manual Procedure to Assess Pro-/Antioxidant Imbalance in Human Plasma Based on the Crocin Bleaching Assay (CBA). 2010. *Acta Horticulturae* 850: 211-215.
- CD Kanakis, PA Tarantilis, MG Polissiou, HA Tajmir-Riahi. Antioxidant Saffron Constituents Bind DNA and tRNA. *Acta Horticulturae* 850: 217-221.
- SA Ordoudi, K Tsioga, MZ Tsimidou. 2010. Detection of Erythrosine in Saffron. *Acta Horticulturae* 850: 225-230.
- S Argento, F Branca, L Siracusa, T Strano, EM Napoli, G Ruberto. 2010. Re-Evaluation of Saffron Floral Wastes: Analysis of Saffron Flowres Defatted Hydro-Alcoholic Extracts. *Acta Horticulturae* 850: 251-259.
- M De-los-Mozos, O Santana, MF Rodríguez, R Sánchez, T Pastor, JL Guardiola, A García, RV Molina, E Sanchís, J Medina, JA Fernández. Current Status of the Germplasm Spanish Collection of Saffron and Wild Relatives. *Acta Horticulturae* 850: 303-307.

More recently advances in progress and outcomes of CROCUSBANK AGRI GEN RES 018 Action have been included in the following collaborative paper.

- José-Antonio Fernández, Omar Santana, José-Luis Guardiola, Rosa-Victoria Molina, Pat Heslop-Harrison, George Borbely, Ferdinando Branca, Eleni Maloupa, Thierry Talou, Jean-Marie Thiercelin, Khalil Gasimov, Hasan Vurdu, Marta Roldán, Marcela Santaella, Enrique Sanchís, Amparo García-Luis, Gyula Suranyi, Attila Molnár, Gabor Sramko, Gergely Gulyas, Luckacs Balazs, Orsolya Horvat, María-Fernanda Rodríguez, Raúl Sánchez-Vioque, Miguel-Ángel Escolano, José-Vicente Reina, Nikos Krigas, Teresa Pastor, Begoña Renau, Christine Raynaud, Oruc Ibadli, Moschos Polissiou, Maria Z. Tsimidou, Athanasios Tsaftaris, Mahmoud Sharaf-Eldin, Joaquin Medina, Theophanis Constantinidis, Theophanis Karamplianis and Marcelino-De-Los Mozos-Pascual. **The World Saffron and Crocus Collection. Strategies for establishment, Management, characterisation and utilisation.** *Genet. Resour. Crop Evol.* 2011. 58: 125-137.