

## Curriculum vitae

Postgraduate student

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### PERSONAL INFORMATIONS

Surname: ELLOUZE

Name: Walid

Date and place of Birth: March 07, 1976. Sfax, Tunisia

Permanent address: Département de Biologie, Faculté des Sciences de Tunis Campus Universitaire, 1060 Tunis - Tunisie

### LANGUAGES

Arabic: native

French: very good spoken and written

English: very good spoken and written

### EDUCATIONAL BACKGROUND

#### DIPLOMAS:

- Philosophy doctorate major Biological Sciences.
- Master Degree major Genetic and Bio resources.
- Bachelor's Degree of natural sciences
- High school Diploma of experimental sciences.

#### UNIVERSITY (POSTGRADUATE):

University of Montreal:

- January 2007 to present: Philosophy doctorate major Biological Sciences.

Object of the research: DIVERSITY OF MYCORRHIZAL FUNGI AND CLASS II FUNGAL ENDOPHYTES IN CHICKPEA, AND INFLUENCE OF THE PLANT GENOTYPE. with the supervision of Doctor Marc St-Arnaud, Botanist and adjunct professor at the University of Montreal, Professor Sadok Bouzid of the University Tunis El Manar and the co-supervision of Doctor Chantal Hamel, soil microbiologist at Agriculture and Agri-Food Canada and adjunct professor in the Department of Soil Science of the University of Saskatchewan.

#### UNIVERSITY (GRADUATE):

Faculty of Sciences of Tunis (FST):

- September 2002 to March 2004: Master Thesis major Genetic and Bio resources.

Object of the research: THE EVALUATION OF SOME IMPROVED LINES OF *VICIA FABAE* L. FOR THE GENETIC RESISTANCE TO CHOCOLATE SPOT CAUSED BY *BOTRYTIS FABAE*, TO *ASCOCHYTA FABAE* AND TO THE PARASITIC *OROBANCHE*. (Training at Field Crop Research Laboratory "Pulse Crops Program" of the National

Institute of Agricultural Research of Tunis with the supervision of Professor Sadok BOUZID and the co-supervision of Doctor Mohamed KHARRAT).

- June 2002: First year in master research degree major Genetic and Bio resources.

### **UNIVERSITY (UNDERGRADUATE):**

Faculty of Sciences of Tunis (FST):

- June 2001: Bachelor's of Natural Sciences.
- June 1999: First Cycle University Studies Degree of Natural Sciences.

### **HIGH SCHOOL**

Secondary school Ibn Rachik, Ezzahra, Tunisia:

- June 1996: High school Diploma of Experimental Sciences.

### **TRAINING AND COURSES**

- June 10<sup>th</sup> to September 10<sup>th</sup> 2008: Assessment of soil microbial structure using Fatty Acid Methyl Esters (FAME) Analysis. Training at Agriculture and Agri-Food Canada: Semiarid Prairie Agricultural Research Centre, soil microbiology laboratory, Swift Current, Saskatchewan.
- February 1<sup>st</sup> to March 31<sup>st</sup> 2008: Identification of the biologically active compounds present in the root extracts of chickpea cultivars with contrasting phenotypes. Training at the Graduate School of Agriculture, Kyoto Prefectural University, Kyoto, Japan.
- September 5<sup>th</sup> to December 5<sup>th</sup> 2008: Quantitative analysis of biological data (BIO 6077). Graduate course offered at Université de Montréal and supervised by Professor Pierre Legendre.
- April 1<sup>st</sup> to August 25<sup>th</sup> 2008: Special Topics 2 (PLNT 770). Graduate course offered at McGill University supervised by Professor Donald L. Smith.
- June 15<sup>th</sup> to October 9<sup>th</sup> 2006: Management of Soil Microbial Quality Using Genotypic Variation in Chickpea. Training at Agriculture and Agri-Food Canada: Semiarid Prairie Agricultural Research Centre, soil microbiology laboratory, Swift Current, Saskatchewan.
- November 18<sup>th</sup> – 20<sup>th</sup> 2005: Pioneering Research in Plant Science Using Synchrotron Light. Training at the University of Saskatchewan, Saskatoon SK, Canada.
- November 18<sup>th</sup> – 20<sup>th</sup> 2005: Applications of Micro-Tomography in Science. Training at the University of Saskatchewan, Saskatoon SK, Canada.
- October 2<sup>nd</sup> 2005: Training on Microbiology Techniques at the University of Saskatchewan, Saskatoon SK, Canada.
- May 12<sup>th</sup> 2005: Orientation to Workplace Hazardous Materials Information System. Training at Agriculture and Agri-Food Canada: Semiarid Prairie Agricultural Research Centre
- May 9<sup>th</sup> to November 24<sup>th</sup> 2005: Assessment of Arbuscular Mycorrhizal Fungi Impact on Soil Microbial Composition, the Growth and Rhizobium Symbioses Development in Kabuli and Desi Chickpeas Grown Under Drought Stress Conditions. Training at Agriculture and Agri-Food Canada: Semiarid Prairie Agricultural Research Centre, soil microbiology laboratory, Swift Current, Saskatchewan.
- March 21<sup>st</sup> – 24<sup>th</sup> 2005: Participation at the “XV<sup>emes</sup> Journées Nationales de Biologie” Organised by the Tunisian Society of Natural Sciences. Hammamet, Tunisia.

- May 01<sup>st</sup> to 07<sup>th</sup>, 2004 : Participation in Practices courses on «Interactions Leguminous–Micro organisms» at the “Institut Nationale de la Recherche Scientifique et de la technologie”, Tunisia.

## PROFESSIONAL EXPERIENCES

- January 2007 to present: Ph.D. Student Researcher at the Molecular Biology of Plants-Microorganisms Interactions Laboratory - Plant Biology Research Institute, – Department of Biological Sciences, University of Montréal.  
**Referee:** Dr. Marc ST-ARNAUD, Botanist and adjunct professor at the University of Montreal, Jardin botanique de Montreal and Institut de recherche en biologie végétale, 4101 Rue Sherbrooke est, Montreal, Québec, Canada H1X 2B2.  
Tel. 514-872-1439; Fax: 514-872-9406; E-mail: [marc.st-arnaud@umontreal.ca](mailto:marc.st-arnaud@umontreal.ca)
- September 2007 to December 2007: Assistant Professor (Plant Physiology) – Department of Biological Sciences, Faculty of Arts and Science, University of Montréal.  
**Referee:** Dr. Jean RIVOAL, Professor, Plant Biology Research Institute, Department of Biological Sciences, Faculty of Arts and Science, University of Montréal.  
Tel. + 514.872.8096- Fax: + 514-872-9406; E-mail: [jean.rivoal@umontreal.ca](mailto:jean.rivoal@umontreal.ca)
- October 10<sup>th</sup> to December 22<sup>nd</sup>, 2006 : Research affiliate work term at Agriculture and Agri-Food Canada (Semiarid Prairie Agricultural Research Centre, Swift Current, Saskatchewan) through the Federal Student Work Experience Program.  
**Referee:** Dr. Chantal HAMEL, Research Scientist, Semiarid Prairie Agricultural Research Centre, Agricultural and Agri-Food Canada, Box 1030, 1 Airport Rd., Swift Current, Saskatchewan, Canada  
Tel. 306-778-7264 ; Fax: 306-778-3188; E-mail: [hamelc@agr.gc.ca](mailto:hamelc@agr.gc.ca)
- May 9<sup>th</sup> to November 24<sup>th</sup> 2005 and June 15<sup>th</sup> to October 9<sup>th</sup> 2006: Ph.D. Student Researcher at Soil Microbiology laboratory, Agriculture and Agri-Food Canada: Semiarid Prairie Agricultural Research Centre, Swift Current, Saskatchewan.  
**Referee:** Dr. Chantal HAMEL, Research Scientist, Semiarid Prairie Agricultural Research Centre, Agricultural and Agri-Food Canada, Box 1030, 1 Airport Rd., Swift Current, Saskatchewan, Canada  
Tel. 306-778-7264 ; Fax: 306-778-3188; E-mail: [hamelc@agr.gc.ca](mailto:hamelc@agr.gc.ca)
- September 2004 to August 2006: Contractual Assistant Professor (Botany and Plants Biology) – Department of Biology, University of Tunis El Manar, Faculty of Sciences Tunis.  
**Referee:** General Secretary of the Faculty of Sciences Tunis, University of Tunis El Manar, Campus Universitaire – 2092 Tunis.  
Tel. +216 71872600 - Fax: +216 71871666
- March - July 2004: full time work with the Tunisian Ministry of Agriculture, Environment and water resources: Contribution to elaborate a virtual library with the coordination of the Direction of planning and conservation of agricultural lands.  
**Referee:** Mr. Mohamed Chedly DEROUICHE Vice-Director of soil cartography, DGACTA, 17 rue Hédi Karray 2080 Ariana – TUNISIA.  
Tel. +216 71718901 - Fax: +216 71718208; E-mail: [Derouiche.mch@topnet.tn](mailto:Derouiche.mch@topnet.tn)
- September 2002 to March 2004: M.Sc. Student Researcher at Field Crop Research Laboratory “Pulse Crops Program” of the National Institute of Agricultural Research of Tunis.

**Referee:** Dr Mohamed KHARRAT Head of Pulse Crops Program, Field Crop Research Lab., INRAT, Rue Hédi Karray 2080 Ariana – TUNISIA.  
Tel. +216 71230024/71230024 – Fax: +216 71752897; E-mail: [kharrat.mohamed@iresa.agrinet.tn](mailto:kharrat.mohamed@iresa.agrinet.tn)

## AWARDS

- **Mybatec-Biotisa Prize:** Presented by Camilo Gianinazzi (Mybatec) and Gerard Catroux (Biotisa) for a poster dealing with applications of mycorrhizas by a graduate student at the 6<sup>th</sup> International Conference on Mycorrhiza, Belo Horizonte, Brazil, 2009.
- **Merit Scholarship for High Technology:** Presented in January 2007 by The Islamic Development Bank and obtained based on academic excellences to conduct a 3 years Ph.D. at the University of Montréal.
- **Jacques-Rousseau grant:** Presented in summer 2007 and summer 2008 by the Plant Biology Research Institute to participate in scientific events relevant to my research at the IRBV.
- **National scholarship:** Presented in 2005 and 2006 by the Tunisian Ministry of Higher Education and obtained based on academic excellences to conduct a 6 months research training each year in Canada.

## RECOGNITION

- **Invitation to write a book chapter in 2010 for Nova Science Publishers** by Susanne M. Fulton (editor) for my expertise with Mycorrhizosphere interactions and their application in sustainable agriculture.
- **Invitation to write a book chapter in 2010 for Springer-Verlag** by Solaiman Z.M., Abbott L.K., Varma A.K (editors) for my expertise with Managing AM fungi in sustainable crop production.
- **Invitation to write a book chapter in 2006 for Springer-Verlag** by Ajit Varma (editor) for my expertise with plant symbiotic fungi in agricultural soils.
- **Invitation to write a book chapter in 2005 for NRC** (National Research Council, Canada) by Khasa D, Piché Y, Coughlan A (editors) for my expertise with mycorrhizae in dry lands agriculture.
- **Teaching Assistant in Botany and Plants Biology.** Given by University Tunis El Manar and obtained based on academic excellences and special leadership skills in 2004-2005 and 2005-2006.

## MEMBERSHIP IN SCIENTIFIC/PROFESSIONAL ORGANIZATIONS

- Member in the Tunisian Society of Natural Sciences, Tunis, Tunisia.
- Member in the Canadian Society of Plant Physiologists, Regina, Saskatchewan, Canada.
- Member in the Canadian Society of Soil Science, Pinawa, Manitoba, Canada.
- Member in the Southwest Naturalists, Swift Current, Saskatchewan, Canada.
- Member in the Canadian Society of Agronomy, Pinawa, Manitoba, Canada.
- Member in the Canadian Society for Microbiologists, Vancouver, British Columbia, Canada.
- Member in the International Mycorrhiza Society, L'assomption, Québec, Canada.

## PUBLICATIONS

### Journal articles and book chapters published:

- **Ellouze W.**, Chantal H., Bouzid S., St-Arnaud M. (2011) Mycorrhizosphere interactions mediated through rhizodepositions and arbuscular mycorrhizal hyphodeposition and their application in sustainable agriculture, in: S. M. Fulton (Ed.), *Mycorrhizal Fungi: Soil, Agriculture and Environmental Implications*, Nova Science Publishers, Hauppauge, NY. pp. In press.
- Yang C., **Ellouze W.**, Navarro-Borrell A., Esmaili Taheri A., Klabi R., Dai M., Kabir Z., Hamel C. (2011) Management of the arbuscular mycorrhizal symbiosis in sustainable crop production, in: Z. M. Solaiman, et al. (Eds.), *Mycorrhizal Fungi: Use in Sustainable Agriculture and Forestry*, Springer, Berlin Heidelberg. pp. In press.
- Fraser T, Nayyar A, **Ellouze W**, Perez JC, Hanson K, Germida J, Bouzid S, Hamel C. 2009. Arbuscular mycorrhiza: where nature and industry meet. Pages 71-86 in Khasa D, Piché Y, Coughlan AP, eds. *Advances in Mycorrhizal Science and Technology*. Canada: NRC Research Press and CABI Publishing.
- **Ellouze W**, Hanson K, Nayyar A, Perez JC, Hamel C. 2008. Intertwined Existence: The Life of Plant Symbiotic Fungi in Agricultural Soils. Pages 507-528 in Varma A, ed. *Mycorrhiza: State of the Art, Genetics and Molecular Biology, Eco-Function, Biotechnology, Eco-Physiology, Structure and Systematics*. Berlin Heidelberg: Springer.
- **Ellouze, W.**, Kharrat, M., Bouzid, S. 2005. Évaluation de quelques lignées améliorées de *Vicia faba* L., pour la résistance génétique au parasite *Orobanche foetida*. *Revue de la Société des Sciences Naturelles de Tunisie*. 31:85-93.

### Journal articles in preparation:

- **Ellouze, W.**, Hamel, C., Vujanovic, V., Gan, Y., Bouzid, S., St-Arnaud, M.: Plant genotype modifies the abundance and species composition of the soil microbial community associated with field-grown chickpea. Submitted to PloS One.
- **Ellouze, W.**, Hamel, C., Cruz, A. F., Bouzid, S., Ishii, T., St-Arnaud, M.: Phytochemicals and spore germination: at the root of AMF host preference? In preparation for *Journal of Applied Soil Ecology*.
- **Ellouze, W.**, Hamel, C., Hanson, K., Bouzid, S., St-Arnaud, M.: Endophyte symbiosis benefits chickpea plants and seeds germination of subsequent wheat crops. In preparation for *Canadian Journal of Botany*.

### Article in farmer-oriented newsletters:

- Hamel, C., **Ellouze, W.** 2006. The dimension of chickpea-soil interface. *Pulse Crop News*. Winter 2006. p.30.

### Invited conference speaker:

- Hamel, C., **Ellouze, W.**, Ishii, T., Cruz, A. F., St-Arnaud, M. 2010. Communication between plants and Arbuscular mycorrhizal fungi. Presented at the XVII International Scientific Congress of the "Instituto Nacional de Ciencias Agrícolas (INCA)", San Jose de las Lajas, La Habana, Cuba.
- **Ellouze, W.**, Hamel, C., Bouzid, S., St-Arnaud, M. 2010. Influence du choix du cultivar de pois chiche et de l'inoculation par des endophytes sur la productivité de la culture subséquente de blé dur. Presented at Plante-Microbe-Environnement, INRA Dijon, Université de Bourgogne, as part of the Research Seminar Series on March 30<sup>th</sup>, 2010.

- **Ellouze, W.**, Hamel, C., Pérez, J.C., Bouzid, S., St-Arnaud, M. 2009. Influence du choix du cultivar de pois chiche et de l'inoculation par des endophytes sur la productivité de la culture subséquente de blé dur. Presented at the "Institut de recherche en biologie végétale" as part of the Research Seminar Series.
- **Ellouze, W.**, Hamel, C., Cruz, A.F., Vujanovic, V., Gan, Y., Bouzid, S., Ishii, T. and St-Arnaud, M. 2008. Influence du pois chiche sur la culture subséquente de blé dur par modification de la communauté microbienne du sol. Presented at the "Institut de recherche en biologie végétale" as part of the Research Seminar Series.

**Papers and posters presented at conferences and meetings:**

- **Ellouze, W.**, St-Arnaud, M., Hamel, C., Gan, Y., Cruz, A.F., Ishii, T. 2011. Phytochemicals and spore germination: at the root of AMF host preference? Poster presented at the Soil Ecology Society meeting, May 24-27, 2011, University of British Columbia (Okanagan Campus) Kelowna, B.C., Canada
- **Ellouze, W.**, Hamel, C., Pérez, J.C., Bouzid, S., St-Arnaud, M. 2009. Management of soil microbial quality using chickpea cultivars and endophytic inoculation to improve the productivity of subsequent wheat crops. Poster presented at the 6<sup>th</sup> International Conference on Mycorrhiza, August 9-14 2009, Belo Horizonte, Brazil.
- **Ellouze, W.**, Hamel, C., Cruz, A.F., Vujanovic, V., Gan, Y., Bouzid, S., Ishii, T. and St-Arnaud, M. 2008. HPLC analysis of root extracts of five chickpea cultivars and relationship with rhizosphere fungal community structure. Poster presented at the 58<sup>th</sup> Annual Conference of the Canadian Society of Microbiologists, June 9-12 2008, University of Calgary, Calgary, Canada.
- **Ellouze, W.**, Hanson, K., St-Arnaud, M., Bouzid, S. And Hamel, C. 2007. Effect of different chickpea cultivars on fungal diversity in field soils. Poster presented at the 57<sup>th</sup> Annual Conference of the Canadian Society of Microbiologists, June 17-20 2007, Université Laval, Quebec City, Quebec, Canada.
- **Ellouze, W.**, Y. Gan, S. Bouzid, M. St-Arnaud & C. Hamel. 2007. Effect of different chickpea cultivars on fungal biodiversity in field soils. Poster presented at "Colloque Mycorhize", Montréal, August 29, 2007.
- **Ellouze, W.**, Hamel, C., Hanson, K., Selles, F., and Bouzid, S. 2006. Impact of Chickpea Residues, Root Exudates and Arbuscular Mycorrhizal Fungi on the Emergence of Durum Wheat. Poster presented at the 1<sup>st</sup> Mediterranean Congress on Biotechnology, March 25-29, 2006, Yasmine Hammamet – Tunisia.
- **Ellouze, W.**, Nayyar, A., Hanson, K., Bouzid, S. and Hamel, C. 2006. Impact of arbuscular mycorrhizal fungi on the growth and Rhizobium symbioses development in Kabuli and Desi chickpeas grown under drought stress conditions. *In: Proceedings of Soils and Crops 2006*, University of Saskatchewan, March 2-3, 2006, Saskatoon SK, Canada.
- **Ellouze, W.**, Kharrat, M., Bouzid, S., Khalil, Ch. and Bayaa, B. 2004. Evaluation des Lignées de Féverole Introduites de l'ICARDA et Sélectionnées pour leur Résistance à l'*Orobanche crenata* vis-à-vis d'Ecotypes Tunisiens d'*Orobanche* sp. Poster presented at the « 11<sup>èmes</sup> Journées Scientifiques sur les Résultats de la Recherche Agricoles » Organised by the Institute of Research and High Agricultural Education (IRESA), December the 9-10, 2004, Hammamet, Tunisia.
- **Ellouze, W.**, Kharrat, M., Bouzid, S., Khalil, Ch. and Bayaa, B. 2004. Appréciation de la résistance génétique de quelques lignées améliorées de *Vicia faba* L., introduites de l'ICARDA, à la maladie des taches chocolatées causée par *Botrytis fabae* Sard. Poster presented at the « 1<sup>er</sup> séminaire de Microbiologie » Organised by the Tunisian Association of Biotechnology, December the 19-22, 2004, Hammamet, Tunisia.

- **Ellouze, W.**, Kharrat, M., Bouzid, S. 2004. Évaluation de quelques lignées améliorées de *V. faba* L., pour la résistance génétique au parasite *O. foetida*. In: Proceedings of the « XIV<sup>èmes</sup> Journées Nationales de Biologie» Organised by the Tunisian Society of Natural Sciences. March the 19-22, 2004, Tunis Gammart, Tunisia.

**Reports:**

- **Ellouze, W.**, Hamel, C. and Bouzid, S. 2005. Rapport de stage effectué au Canada dans le cadre des travaux de thèse de doctorat pour l'année universitaire 2004-2005. Préparé pour Mission Universitaire Tunisienne à Montréal.
- Hamel, C., T. Fraser, **W. Ellouze**, K. Hanson, J. Clapperton, F. Selles, B. McConkey, J. Germida, S. Bouzid, and V. Vujanovic. 2005. Impact of Pulse Crops on Soil Biological Quality. 2<sup>nd</sup> Annual Report Prepared for Alberta Pulse Growers.
- Hamel, C., T. Fraser, **W. Ellouze**, D.C. Mavragani, K. Hanson, B.G. McConkey, Y. Gan, J. Germida, S. Bouzid, J. Clapperton and V. Vujanovic. 2006. Impact of Pulse Crops on Soil Biological Quality. 3<sup>rd</sup> Annual Report Prepared for Alberta Pulse Growers.
- Hamel C, Cruz A F, McConkey B, Layzell D, Mavragani D, Selles F, Clapperton J, Germida J, Hanson K, St-Arnaud M, Horii S, Bouzid S, Ishii T, Fraser T, Vujanovic V, **Ellouze W**, Cen Y and Gan Y. 2007. Impact of Pulse Crops on Soil Biological Quality. In Final Report Prepared for Alberta Pulse Growers, pp. 214, Alberta, Canada.  
URL:<http://www.pulse.ab.ca/Portals/0/pdfs/Impact%20of%20Pulse%20Crops%20on%20Soil%20Biological%20Quality%20-%20Hamel.pdf>