



Europass Curriculum Vitae

Personal information

First name / Surname

Ana Vieira

Address

Rua Maria José Cardo, nr 6 5C. Colinas do cruzeiro, lote 22, Zona 4

Telephone

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E-mail

yanavieira1@gmail.com

Nationality

Portuguese

Date of birth

24-7-1987

Gender

Female

Desired employment / Occupational field

Work experience

Evolutionary Biology

1-6-2013 - 1-6-2017

Dates

phD fellowship

Occupation or position held

RAD sequencing of *C. kahawae* populations and close taxa UG1/UG2

Associate SNP markers to different aggressiveness classes of *C. kahawae*

Expression studies of selected candidate genes putatively involved on the pathogenicity of *C. kahawae*

Main activities and
responsibilities

Name and address of employer

Coffee Rust Research Center (CIFC) /Tropical Scientific Research Institute (IICT)/ Cobig2- CBA/
Faculdade de Ciências da Universidade de Lisboa(FCUL)

Work experience

Proteomics

Dates

1-7-2011 – 30-3-2013

Occupation or position held

Fellowship

Main activities and responsibilities	Fungal replication (<i>H. vastatrix</i>) and plant inoculation Microscopic observation of the plant and pathogen interaction (HR responses, fungal development) Proteomics Extraction and purification of the proteins 2-D electrophoresis and analysis 2D- DIGE application
Name and address of employer	Coffee Rust Research Center (CIFC) /Tropical Scientific Research Institute (IICT) / Instituto de quimica biologica (ITQB)- Universidade nova de lisboa (UNL)
Work experience	Proteomics
Dates	1-3-2011 – 31-6-2011
Occupation or position held	Internship
Main activities and responsibilities	Fungal replication (<i>H. vastatrix</i>) and plant inoculation Microscopic observation of the plant and pathogen interaction (HR responses, fungal development) Proteomics Extraction and purification of the proteins 2-D electrophoresis and analysis
Name and address of employer	Coffee Rust Research Center (CIFC) /Tropical Scientific Research Institute (IICT) / Instituto de quimica biologica (ITQB)- Universidade nova de lisboa (UNL)
Work experience	Molecular Biology
Dates	30-10-2010 – 29-2-2011
Occupation or position held	Internship
Main activities and responsibilities	Plant evolutionary biology DNA extraction, amplification, sequencing and sequencing analysis Phylogenetic analysis
Name and address of employer	Computational Biology & Population Genomics Group (CoBiG ²) / Faculty of Science University of Lisbon (FCUL)
Work experience	Molecular Biology
Dates	1-10-2009 – 30-10-2010
Occupation or position held	Master student
Main activities and responsibilities	Molecular biology Expression studies Microscopic studies Fungi and bacteria replication Genes regulation and function Plant diseases and plant pathogen interaction
Name and address of employer	Coffee Rust Research Center (CIFC) /Tropical Scientific Research Institute (IICT) / Computational Biology & Population Genomics Group (CoBiG ²) / Faculty of Science University of Lisbon (FCUL)
Education: Academic Degrees	

Dates	15 September 2008 - 2 December 2010
Title of qualification awarded	Master's degree
Principal subjects/occupational skills covered	Human Biology and Environment (Biologia Humana e Ambiente)
Name and type of organisation providing education and training	Faculty of Science University of Lisbon
Level in national or international classification	18/20

Dates	15 September 2005 – 5 September 2008
Title of qualification awarded	Graduation
Principal subjects/occupational skills covered	Molecular Genetics and Biology (Biologia Molecular Genética)
Name and type of organisation providing education and training	Faculty of Science University of Lisbon
Level in national or international classification	14/20

Dates	15 September 2002 – 10 July 2005
Title of qualification awarded	High school
Principal subjects/occupational skills covered	Natural Sciences
Name and type of organisation providing education and training	Colégio de São Gonçalo Amarante
Level in national or international classification	17/20

Education: Advanced formation

Dates	May 2014
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	R advanced course
Name and type of organisation providing education and training	We Value

Dates	May 2012
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	Python 101

Name and type of organisation providing education and training	Faculty of Science University of Lisbon
Dates	December 2011
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	Introduction to Bioinformatics
Name and type of organisation providing education and training	Instituto Gulbenkian de Ciência
Dates	October 2011
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	Trainin Course in Diffential Gel Electrophoresis Ettan DIGE
Name and type of organisation providing education and training	Instituto de Tecnologia Quimica e Biológica/ UNL
Dates	February 2010
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	Practical Course in Phylogenetics
Name and type of organisation providing education and training	Faculty of Science University of Lisbon
Dates	January 2010
Title of qualification awarded	Workshop
Principal subjects/occupational skills covered	Practical Course in Phylogeography
Name and type of organisation providing education and training	Faculty of Science University of Lisbon
Dates	March 2009
Title of qualification awarded	Training courses
Principal subjects/occupational skills covered	Scientific Writing Techniques (Técnicas de Escrita Cientifica)

Name and type of organisation providing education and training	Faculty of Science University of Lisbon					
Dates	February 2009					
Title of qualification awarded	Training courses					
Principal subjects/occupational skills covered	Introduction to Animal Cells Culture (Introdução à Cultura de Células Animais)					
Name and type of organisation providing education and training	Faculty of Medical Sciences, New University of Lisbon					
Other language(s)	English and Spanish					
Self-assessment	Understanding	Speaking		Writing		
	Listening	Reading	Spoken interaction	Spoken production		
	English	Very good	Excellent	Very good	Very good	Good
	Spanish	Good	Good	Good	Good	Elementary
	Frances	Elementary	Elementary	Elementary	Elementary	Elementary
<i>European level (*)</i>	(*) Common European Framework of Reference for Languages					
Social skills and competences	Team spirit (acquired over a professional context) Good communication skills Good ability to adapt to new situations and environments High motivation and scientific interest					
Organisational skills and competences	Good organization in laboratory, data analysis and personal life.					
Technical skills and competences	Extensive knowledge of optical microscopy; Development of culture media; Fungal and bacteria replication; Rust multiplication (<i>in vivo</i> and <i>in vitro</i>). Some knowledge in molecular biology, primer design (Degenerated primer; Specific primer and Specific primer for Real time quantitative PCR), DNA extraction (Fungal and plant), PCR, manual and kit Clonning, Sanger Sequencing, RNA extraction and Real time – quantitative PCR. Some knowledge in proteomics, Extraction and Purification of the proteins (Membrane Fraction, Apoplasic Fraction and Total Fraction), 2-D electrophoresis, 2D- DIGE electrophoresis, spot analysis and protein analysis.					

Computer skills and competences	<p>Computer Skills- Good knowledge of Microsoft Office (Word, Excel and Power Point) and some knowledge of graphics applications (Paint, PhotoShop, Inskape);</p> <p>Phylogenetic- Some knowledge in sequence analysis (DNA Star, Sequencer, Bio-edit, Clustal, MAFFT) and phylogenetic analyses (MEGA, PAUP*, MrBayes, RAxML).</p> <p>Functional analysis - I have knowledge in data expression analysis (Bio- Rad program (IQ5 and CFX), LinReg, NormFinder, GeNorm and Bestkeeper).</p> <p>Proteomics: - I have knowloged in spot analysis using the Redfin program developed by LUDESI or Progenesis SameSpot developed by nonlinear Dynamics. As well as, in several databases, in order to characterize the function, family, biological processes and Transmembrane domains present in the protein under study.</p> <p>Statistic - I have some knowledge on statistic software like R and Statistica.</p>
Artistic skills and competences	Musical ability (piano)
Other skills and competences	Swimming; Volleyball; Cinema; Reading
Driving licence	22-09-2006; Category B and B1
Additional information:	
Publications	
Papers under submission	Romeiras, M; Vieira, A ; Silva, D; Moura, M; Santos-Guerra, A; Batista, D; Duarte, C; Paulo, O.S; Evolutionary and biogeographic insights on the Macaronesian <i>Beta-Patellifolia</i> species (Amaranthaceae) from a Time-Scaled Molecular Phylogeny. Paper under submission. (2014).

**Papers in international
scientific periodicals with
referees**

Guerra - Guimarães, L; **Vieira, A**; Chaves, I; Queiroz, V; Pinheiro, C; Renaut, J; Silvia, L; Zambolim, L; Ricardo, C; Silva, M. C. Effect of greenhouse conditions on the leaf apoplastic proteome of Coffea arabica plants. **Journal of Proteomics**. 2014, **104**:128 – 139

Pinheiro, C; Guerra-Guimarães, L; David, T; **Vieira, A**. Proteomics of Mediterranean woody species under stress: agronomical perspective and systematic review. **Environmental and Experimental Botany**. 2014, **103**:117 – 127.

Vieira, A; Talhinhos, P; Loureiro, A; Duplessis, S; Fernandez, D; Silva, M.C; Paulo, O.S; Azinheira, H. Expression analysis of genes involved in signaling, establishment of biotrophy, transport and metabolism in Hemileia vastatrix, the causal agent of coffee leaf rust. **European Journal of Plant Pathology**. 2012, **133**: 261.

Fernandez, D; Tisserant, E; Talhinhos, P; Azinheira, H; **Vieira, A**; Petitot, A; Loureiro, A; Poulain, J; Silva, C; Silva, M.C; Duplessis, S. 454-pyrosequencing of Coffea arabica leaves infected by the rust fungus Hemileia vastatrix reveals in planta-expressed pathogen-secreted proteins and plant functions in a late compatible plant-rust interaction. **Molecular Plant Pathology**. 2012, **13**:17–37.

Vieira, A; Talhinhos, P; Loureiro, A; Duplessis, S; Fernandez, D; Silva, M.C; Paulo, O.S; Azinheira, H. Validation of RT-qPCR reference genes for in planta expression studies in the obligate biotrophic pathogen Hemileia vastatrix, the causal agent of coffee leaf rust. **Fungal Biology**. 2011: **115**:891-90.

Conference proceedings

Vieira, A; Cabral, A; Pires, A.S; Fino, J; Talhinhos, P; Azinheira, H.G; Várzea, V; Moncada, P; Oliveira, H; Silva, M.C; Paulo, O.S; Batista, D. Validation of RT-qPCR reference genes for expression data analysis in *Colletotrichum kahawae*. **25rd ASIC Conference in Colombia**. 8-13 September 2014.

Guerra - Guimarães, L; Tenente, R; Chaves, I; **Vieira, A;** Pinheiro, C; Silva, M. C; Barros, D; Renaut, J; Ricardo, C; coffee leaf apoplastic proteins: possible involvement of proteases in the resistance to *Hemileia vastatrix*. **25rd ASIC Conference in Colombia**. 8-13 September 2014.

Guerra - Guimarães, L; **Vieira, A;** Chaves, I; Queiroz, V; Pinheiro, C; Renaut, J; Silvia, L; Zambolim, L; Ricardo, C; Silva, M. C. Integrated Cytology and Proteomics analysis of *Coffea arabica*- *Hemileia vastatrix* interaction. **24rd ASIC Conference in Costa Rica**. 11-16 November 2012

Silva, D; **Vieira, A;** Talhinhos, P; Azinheira, H; Silva, M.C; Fernandez, D; Duplessis, S; Paulo, O.S; Batista, D. Phylogenetic analysis of *Hemileia vastatrix* and related taxa using a Genome – Scale approach. **24rd ASIC Conference in Costa Rica**. 11-16 November 2012

Vieira, A; Talhinhos, P; Loureiro, A; Duplessis, S; Fernandez, D; Silva, M; Paulo, O; Azinheira, H. *Hemileia vastatrix* gene expression during the infection process of coffee leaves. Paper publication on the proceedings of **23rd ASIC Conference in Bali (Indonesia)**. October 3-8, 2010.

Batista, D; Guerra-Guimarães, L; Talhinhos, P; Loureiro, A; Silva, D; Gonzalez, L; Pereira, A; **Vieira, A;** Azinheira, H; Struck, C; Silva, M; Paulo, O.S, Várzea, V. Analysis of population genetic diversity and differentiation in *H. vastatrix* by molecular markers. Paper publication on the proceedings of **23rd ASIC Conference in Bali (Indonesia)**. October 3-8, 2010.

Thesis

Vieira, A. Identification and expression analysis of genes putatively involved in pathogenicity of *Hemileia vastatrix*. (2010). **Mestrado em Biologia Humana e Ambiente. Faculdade de Ciências da Universidade de Lisboa.**

Oral communication

Guerra - Guimarães, L; Tenente, R; Chaves, I; **Vieira, A**; Pinheiro, C; Silva, M. C; Barros, D; Renaut, J; Ricardo, C; coffee leaf apoplastic proteins: possible involvement of proteases in the resistance to *Hemileia vastatrix*. **25rd ASIC Conference in Colombia**. 8-13 September 2014.

Guerra - Guimarães, L; **Vieira, A**; Chaves, I; Queiroz, V; Pinheiro, C; Renaut, J; Silvia, L; Zambolim, L; Ricardo, C. Apoplast proteome of coffee leaves reveals the complex function of this cellular compartment. **XIII Congresso Luso- Espanhol de Fisiologia Vegetal, Lisbon**. 24-28 July 2013

Loureiro, A; **Vieira, A**; Talhinhos, P; Azinheira, H.G; Vieira, B; Paulo, O.S; Duplessis, S; Fernandez, D; Silva, M.C. Expression profiles of *Hemileia Vastatrix* genes involved in the biotrophic interaction with coffee plants. **Meeting on plant-microbe interaction**. 2-14th October; 2011.

Guerra-Guimarães, L; Chaves, I; **Vieira, A**; Pinheiro, C; Calmeiro, T; Renaut J; Pereira A; Loureiro, A; Zambolim, L; Ricardo; C.P; Silva, M.C. Análise celular e proteomica de folhas de coffee arabica sãs e infectadas com hemileia vastatrix. **44º Congresso Brasileiro de Fitopatologia** (Bento Gonçalves). 14-19th Agosto; 2011.

Gil Azinheira H., Talhinhos P., Loureiro A., **Vieira A.**, Batista D., Vieira B., Pina-Martins F., Tisserant E., Morin E.,Petitot A., S. Paulo O., Fernandez D., Duplessis S., Silva M.C. Transcriptomic analysis of *Hemileia vastatrix* differentiation and infection of *Coffea arabica* (coffee leaf rust). **9th Conference of the European Foundation for Plant Pathology and 6th Congress of the Sociedade Portuguesa de Fitopatologia**. 15-18th of November; 2010.

Poster presentation

Vieira, A; Cabral, A; Pires, A.S; Fino, J; Talhinhas, P; Azinheira, H.G; Várzea, V; Moncada, P; Oliveira, H; Silva, M.C; Paulo, O.S; Batista, D. Validation of RT-qPCR reference genes for expression data analysis in *Colletotrichum kahawae*. **25rd ASIC Conference in Colombia.** 8-13 September 2014.

Pôssa, K; Tenente, R; **Vieira, A;** Pinheiro, C; Chaves, I; Renaut, J; Resende, M; Ricardo, C; Guerra-Guimarães, L. Going deeper in *Coffea arabica* leaf proteome. **1st INPPO World Congress in Germany.** August 31st - September 4th 2014

Cardoso, F; Tenente, R; Pinheiro, C; Pinto, M; **Vieira, A;** Silva, M.C; Chaves, I; Pinheiro, C; Renaut, J; Várzea, V; Pereira, A. P; Loureiro, A; Barros, D; Ricardo, C; Guerra-Guimarães, L. Highly specific antibodies against differentially expressed proteins of *Coffea arabica*-*Hemileia vastatrix* interactions. **1st INPPO World Congress in Germany.** August 31st - September 4th 2014

Chaves, I; Cardoso, F; Tenente, R; Barros, D; Pinheiro, C; **Vieira, A;** Queiroz, V; Várzea, V; Renaut, J; Loureiro, A; Silva, M.C; Ricardo, C.P; Guerra-Guimarães, L. An interdisciplinary approach to identify candidate biomarkers of *Coffea arabica* resistance to *Hemileia vastatrix*. **32nd New Phytologist Symposium, Buenos Aires, Argentina.** 20 – 22 November 2013

Vieira, A; Silva, D.N; Várzea, V; Silva, M.C; Paulo, O.S; Batista, D. Unraveling the genomics of adaptation of *Colletotrichum kahawae* to *Coffea arabica*. **14th Congress of the European Society for Evolutionary Biology, FCUL, Lisbon.** 19-25 August 2013

Romeiras, M; Duarte, M.C; Santos-Guerra, A; Moura, M; Batista, D; **Vieira, A;** Paulo, O.S. Evolutionary and biogeographic history of the Macaronesian Beta-Patellifolia species (Amaranthaceae): combining phylogenetic and ecological studies. **14th Congress of the European Society for Evolutionary Biology, FCUL, Lisbon.** 19-25 August 2013

Silva, D.N; **Vieira, A;** Talhinhas, P; Azinheira, H.G; Silva, M.C; Fernandez, D; Duplessis, S; Batista, D; Paulo, O.S. Phylogenomics unravels major evolutionary trends of the Basidiomycota. **14th Congress of the European Society for Evolutionary Biology, FCUL, Lisbon.** 19-25 August 2013

Queiroz, V; **Vieira, A;** Chaves, I; Pinheiro, C; Renaut, J; Ricardo, C; Guerra-Guimarães, L. A fractionation/enrichment method for assessing membrane proteins from *Coffea arabica* leaves. **3rd International Congress on Analytical Proteomics, Brazil.** 28-31 July 2013

Cardoso, F; **Vieira, A;** Várzea, V; Guerra - Guimarães, L. Development of monoclonal antibodies for the detection of candidate protein biomarkers of *coffea arabica* resistance to *Hemileia vastatrix*. **XIII Congresso Luso- Espanhol de Fisiologia Vegetal, Lisbon.** 24-28 July 2013

Azinheira, H; Gorgulho, R; Vieira, A; Talhinhas, P; Batista, D; Silva, M.C; Guerra-guimarães, L. An integrative analysis of proteomic and transcriptomic data to understand *Coffea arabica* responses to *Hemileia vastatrix*. **XIII Congresso Luso-Espanhol de Fisiologia Vegetal, Lisbon.** 24-28 July 2013

Queiroz, V; **Vieira, A**; Silva, L; Chaves, I; Pinheiro, C; Renaut, J; Almeida, H; Silva, M.C; Zambolim, L; Ricardo, C; Guerra-Guimarães, L. An Exploratory METHOD FOR the study OF MEMBRANE PROTEINS OF *Coffea arabica* LEAVES. **Lux** November 2012

Guerra - Guimarães, L; **Vieira, A**; Chaves, I; Queiroz, V; Pinheiro, C; Renaut, J; Sílvia, L; Zambolim, L; Ricardo, C; Silva, M. C. Integrated Cytology and Proteomics analysis of *Coffea arabica*- *Hemileia vastatrix* interaction. **24rd ASIC Conference in Costa Rica**. 11-16 November 2012

Silva, D; **Vieira, A**; Talhinhas, P; Azinheira, H; Silva, M.C; Fernandez, D; Duplessis, S; Paulo, O.S; Batista, D. Phylogenetic analysis of *Hemileia vastatrix* and related taxa using a Genome – Scale approach. **24rd ASIC Conference in Costa Rica**. 11-16 November 2012

Vieira, A; Romeira,s M; Veloso³, M; Moura, M; Batista, D; Paulo, O.S; Duarte, M.C. Phylogenetic patterns in Beta section (Subfamily Betoideae, Amaranthaceae) as inferred from chloroplast and nuclear DNA sequences. Poster presentation in ESEB 2011 - **13th Congress of the European Society of Evolutionary Biology (Tubingen)**. August 20-25, 2011.

Vieira, A; Talhinhas, P; Silva, D.N; Azinheira, H; Silva, M.C; Fernandez, D; Duplessis, S; Baptista, D; Paulo, O. A transcriptome-based phylogenetic analysis of Pucciniales within the Basidiomycota. Poster presentation in ESEB 2011 - **13th Congress of the European Society of Evolutionary Biology (Tubingen)**. August 20-25, 2011.

Vieira, A; Talhinhas, P; Loureiro, A; Duplessis, S; Fernandez, D; Silva, M; Paulo, O; Azinheira, H. *Hemileia vastatrix* gene expression during the infection process of coffee leaves. Poster presentation in **23rd ASIC Conference in Bali (Indonesia)**. October 3-8, 2010.

Batista, D; Guerra-Guimarães, L; Talhinhas, P; Loureiro, A; Silva, D; Gonzalez, L; Pereira, A; **Vieira, A**; Azinheira, H; Struck, C; Silva, M; Paulo, O.S, Várzea, V. Analysis of population genetic diversity and differentiation in *H. vastatrix* by molecular markers. Poster presentation in **23rd ASIC Conference in Bali (Indonesia)**. October 3-8, 2010.

Romeiras, B; **Vieira, A**; Loureiro, M; Castro, S; Pina-Martins, F; Veloso, M; Moura, M; Batista, D; Paulo, O.S; Duarte, M.C. Genetic diversity of the Portuguese wild Beta-Patellaria species complex using DNA barcoding and flow cytometry. Poster communication in: **What do we know about the macaronesian flora, ten years into the 21ST Century?** 23-25 September 2010.

Romeiras, M; **Vieira, A**; Veloso, M; Moura, M; Batista, D; Pina-Martins, F; Paulo, O.S; Duarte, M. Testing a DNA barcode application on the Portuguese wild relatives of Beta species. Poster presentation in **European consortium for the barcode of Life**. 2-4 June 2010.

Vieira, A; Talhinhas, P; Loureiro, A; Duplessis, S; Fernandez, D; Silva, M; Paulo, O; Azinheira, H. Germinated Uredospores Identification of coffee leaf rust (*Hemileia vastatrix*) genes expressed during the first steps of the differentiation process. Poster presentation in **XXXV Jornadas Portuguesas de Genética (Braga)**. 31May to 2 June 2010.

- Participation in Congresses**
- 2014 - 12th European Conference on Fungal Genetics , Seville, Spain
 - 2013 - 14th Congress of the European Society for Evolutionary Biology, FCUL, Lisbon
 - 2011 - 7th National Meeting of Evolutionary Biology, University of Coimbra, Portugal.
 - 2011 – 13th Congress of the European Society for Evolutionary Biology, University of Tübingen, Germany.
 - 2010 – 9th Conference of the European Foundation for Plant Pathology, University of Évora, Portugal.
 - 2010 – 6th Congress of the Portuguese Society of Phytopathology, University of Braga, Portugal.
 - 2010 – Conference Cycle in Biodiversity and Society. “Biodiversity and Conservation Genetics”, by Prof. Dr. Craig Moritz, Lisbon, Portugal.
 - 2010 – XXXV Portuguese Genetics Journeys, University of Braga, Portugal
 - 2009 – 5th National Meeting of Evolutionary Biology, Applied Psychology Institute, Lisbon, Portugal.
 - 2009 – 12th Edition of Portugalizæ Genetica “From genomes to organisms: An Evolutionary Perspective”, at the Institute of Molecular Pathology and Immunology of the University of Porto, Portugal.
 - 2009 –Darwin Conferences: In the path of Evolution. “Discovering the tree of life” by Prof. Niles Eldredge, Calouste Gulbenkian Foundation, Lisbon, Portugal.