

Curriculum Vitae

Personal information

First name / Family name	Gustavo Turqueto Duarte		
Address(es)			
Telephone			
Mobile			
E-mail	duarte.gst@gmail.com		
Nationality	Brazil/Italy		
Date of birth			
Gender	Male		

Personal statement

Since my graduation in the Biological Sciences course, I have dedicated my career to research, pursuing challenging opportunities which have as outcome the extension of my knowledge in Science. During my PhD at the State University of Campinas (Unicamp – Brazil), I acquired an extensive experience in molecular biology techniques, including gene expression evaluation and Arabidopsis breeding, by evaluating the importance of post-transcriptional regulations involved in glucose- and ABA-mediated responses in Arabidopsis. Part of this work consisted in analysing the role of miRNAs in glucose signalling during Arabidopsis early development. On the second part of my PhD, potential targets of mRNA decay control in response to glucose and ABA were revealed, while an experimental set up to efficiently inhibit transcription was developed. As Post-Doctorate Fellow (Unicamp – Brazil), I explored the kinetics of ABA-promoted changes in gene expression, work which served as introduction to the bioinformatics field and to the academic supervision as co-mentor of a PhD student. This leadership role has been recently recognized by the selection of this work as one of the five most relevant in the 61st Brazilian Congress on Genetics (2015). During this period, I also developed international collaborations with the Max Planck Institute in Germany, and the URGV/INRA in France. Currently, I am working as an invited researcher in the Russian Institute of Radiology and Agroecology (Obninsk – Russian Federation), developing transcriptomics studies involving Scots pine populations from the Chernobyl NPP fallout zone. In addition, I have seven years of experience as volunteer in Biology teaching for preparatory course in a NGO, as I see it as a necessity to help the neediest segment of the society to have access to high education and as an opportunity for disseminating Science.

Education and training

Location and dates	Campinas, Brazil – 2008 - 2012
Title of qualification awarded	PhD in Genetics and Molecular Biology.
Principal subjects/occupational skills covered	Evaluation of the importance of mRNA stability control in glucose and ABA-signalling and in the interaction of these signals in Arabidopsis thaliana. Skills: 1. Establishment of an experimental model for gene expression analysis under transcriptional inhibition conditions; 2. Microarray (CATMA) generation and

	analysis – collaboration with Dr. Jean-Pierre Renou (INRA/URGV – France); 3. Gene expression analysis by real-time qRT-PCR of potential transcripts under post-transcriptional control in response to glucose and ABA; 4. Phenotypic evaluation of the involvement of microRNA-related regulatory pathways in glucose and ABA signalling during Arabidopsis early development – use of wild-type and mutant lines; 5. Pri-miRNAs and miRNAs expression profiling – collaboration with Dr. Mark Stitt (Max-Planck Institute of Molecular Plant Physiology – Germany); 6. Research funded by Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP).
Name of Institute	State University of Campinas

Location and dates	Campinas, Brazil – 2005 - 2007
Title of qualification awarded	Masters in Genetics and Molecular Biology
Principal subjects/occupational skills covered	Characterization of the control regions of the mitochondrial genome in species of the family Calliphoridae (Insecta: Diptera) and phylogenetic perspectives. Skills: 1. PCR amplification, cloning and sequencing of mitochondrial genomic regions; 2. Proposal of new molecular markers for species diagnostics; 3. Definition of hot spot regions for identification of potential mitochondrial rearrangement events; 4. Laboratory teaching assistant for Biology Sciences students; 5. Research funded by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).
Name of Institute	State University of Campinas

Work experience

Location and dates	Obninsk, Russian Federation – 2016 - current
Occupation or position held	Invited Researcher
Main activities and responsibilities	Analysis of the mechanisms of adaptation of plant populations to technogenic exposure. Skills: 1. Experimental design and bioinformatics analyses of high-throughput transcriptomics, including genome-guided and de novo transcriptome profiling, and differential expression analysis of RNA-sequencing data of non-model organism; 2. Gene expression analysis by real-time qRT-PCR in pinus; 3. Research funded by the Russian Scientific Foundation.
Name of employer	Russian Institute of Radiology and Agroecology

Location and dates	Campinas, Brazil – 2013 - 2016
Occupation or position held	Postdoctoral Research Fellow
Main activities and responsibilities	Involvement of post-transcriptional regulatory pathways in ABA and glucose signalling: fast, adaptive mechanisms in response to stress conditions and developmental control. Skills: 1. Selection, crossing, and phenotypic characterization of Arabidopsis mutants (T-DNA lines); 2. Phenotypic evaluation of the effects of auxin in Arabidopsis early seedling development; 3. Gene expression analysis by real-time qRT-PCR in wild-type and mutant lines; 4. Collaborative work with bioinformaticians; 5. High-throughput (e.g. microarray; Genevestigator) gene expression analysis; 6. Co-supervision of Masters student in Genetics and molecular methods; 7. Research funded by Fundação de Amparo à Pesquisa do

	Estado de São Paulo (FAPESP).
Name of employer	Laboratory of Plant Genetics – State University of Campinas

Languages

Mother tongue(s)	Portuguese				
Other language(s) <i>European level (*)</i>	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C1
(*) Common European Framework of Reference for Languages http://europass.cedefop.europa.eu/en/resources/european-language-levels-cefr					

Academic Record

Publications	Accepted, in press and published articles / papers:
	<ol style="list-style-type: none"> Alves CS, Vicentini R, Duarte GT, Pinoti VF, Vincentz M, Nogueira FTS. 2016. Genome-wide identification and characterization of tRNA-derived fragments (tRFs) in plants. <i>Plant Molecular Biology</i>. DOI: 10.1007/s11103-016-0545-9. Duarte GT, Matioli CC, Pant BD, Schlereth A, Scheible WR, Stitt M, Vicentini R, Vincentz M. 2013. Involvement of microRNA-related regulatory pathways in the glucose-mediated control of Arabidopsis early seedling development. <i>Journal of Experimental Botany</i> 64: 4301-4312. DOI: 10.1093/jxb/ert239. Vitor SC, Duarte GT, Saviani EE, Vincentz M, Oliveira HC, Salgado I. 2013. Nitrate reductase is required for the transcriptional modulation and bactericidal activity of nitric oxide during the defense response of Arabidopsis thaliana against Pseudomonas syringae. <i>Planta</i> 238: 475-486. DOI: 10.1007/s00425-013-1906-0. Matioli CC, Tomaz JP, Duarte GT, Prado FM, Del Bem LE, Silveira AB, Gauer L, Corrêa LG, Drumond RD, Viana AJ, Di Mascio P, Meyer C, Vincentz M. 2011. The Arabidopsis bZIP gene AtbZIP63 is a sensitive integrator of transient abscisic acid and glucose signals. <i>Plant Physiology</i> 157: 692-705. DOI: 10.1104/pp.111.181743. Duarte GT, De Azeredo-Espin AM, Junqueira AC. 2008. The mitochondrial control region of blowflies (Diptera: Calliphoridae): a hot spot for mitochondrial genome rearrangements. <i>Journal of Medical Entomology</i> 45: 667-676. DOI: http://dx.doi.org/10.1093/jmedent/45.4.667
	Submitted publications:
Presentations as invited speaker	Small RNAs and the control of gene expression. II SemeBio, Federal University of São Carlos, Araras, Brazil
Authored books or book chapter(s)	
Participation in open calls for proposals as	

contributor or leader	
Graduate teaching as lecturer or training coordinator	Teaching on laboratory techniques for graduate students: Physiological and Molecular Genetics (BG380). State University of Campinas, Campinas, Brazil
Awards and prizes	<p>2015 Honorable Mention for the work in the field of Genetics, Evolution and Plant Breeding, Brazilian Genetics Society. 61st Brazilian Genetics Conference.</p> <p>2005 Honorable Mention for the work in the field of Genetics, Evolution and Animal Breeding – Scientific Initiation Award, Brazilian Genetics Society.</p> <p>2005 Award of Best Work in Biology Field – XIII Internal Conference of Scientific Initiation of UNICAMP.</p>

Collaboration and Networking

Participation in collaborative projects funded by competitive programmes	Participant of the Brazilian BIOEN programme (2008/52071-0) under the supervision of Dr. Michel Vincentz.
Partnerships or experience with industry	
University or post-graduate programme leader	
Graduate teaching as lecturer or training coordinator; PhD supervision	PhD student co-supervisor of João Guilherme Portugal Vieira (2014 – current). Participation of mRNA stability control involving the ABA core signalling pathway. Research funded by Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP).
Membership of professional bodies and committees	

Research management, Technology transfer, and Communication

Team management	
Technological platform management	
Consultancy for the public or private sector	

Other experience and skills relevant to the application	<p>2016 OpUS Summer Camp 2016 – SmartAgro BRICS + (course) Skolkovo Innovation Center, Russian Federation</p> <p>2014 Frontiers and Techniques in Plant Science (course) Cold Spring Harbor Laboratory, CSHL, USA</p> <p>2011 miRNA profiling and metabolites analysis (training) Max Planck Institute of Molecular Plant Physiology, MPIMP, Germany</p> <p>2009 Transcriptomic analysis with microarrays (training) Plant Genomics Research Unit, URGV, France</p> <p>2009 Gene Expression Analysis with Real-Time Quantitative PCR (course) Life Technologies, São Paulo, Brazil</p> <p>2008 Biotechnology in Food Production (course) Food Technology Institute, ITAL, Campinas, Brazil</p> <p>2006 Introduction to Statistical Analysis (course)</p>
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	State University of Campinas (UNICAMP), Campinas, Brazil 2005 Evolution and Molecular Phylogeny (course) Brazilian Genetics Society (SBG), Ribeirão Preto, Brazil
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Scientific References

Full name	Prof. Dr. Michel G. A. Vincentz
Position	Head of Laboratory
Institution	Laboratory of Plant Genetics, State University of Campinas (UNICAMP), Campinas, Brazil
Email address	mgavince@gmail.com

Full name	Prof. Dr. Jean-Pierre Renou
Position	Director of research INRA; Head of the Research Institute in Horticulture and Seeds (INRA/ACO/Angers Univ.), Angers France
Institution	Research Institute on Horticulture and Seeds (IRHS), Angers, France
Email address	jean-pierre.renou@angers.inra.fr

Full name	Prof. Dr. Stanislav Geras'kin
Position	Head of Laboratory
Institution	Laboratory of Ecotoxicology and Radiobiology of Plants, Russian Institute of Radiology and Agroecology, Obninsk, Russian Federation
Email address	stgeraskin@gmail.com

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