# **CURRICULUM VITAE**

#### **Personal Data**

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#### **Academic Degrees**

**2007:** Scientific-Technological Course in Biotechnology - Level III at Colégio Internato dos Carvalhos – 16.40/20 values

**2010:** Degree in Biochemistry at UTAD (Universidade de Trás-os-Montes e Alto Douro) – 14.43/20 values

**2012:** Master in Biotechnology at FCT-UNL (Faculdade de Ciências e Tecnologias – Universidade Nova de Lisboa) – 16.45/20 values

#### Previous and Current Scientific and/or Professional Activities

- From 01/2010 to 06/2010: Internship at Organic Chemistry group of Chemistry Research Center at UTAD;

- From 09/2011 to 09/2012: Master student at Disease and Stress Biology laboratory – ITQB (Instituto de Tecnologia Química e Biológica).

- Since 01/2013: Researcher at Disease and Stress Biology laboratory at ITQB, member of the team of the project FP7-KBBE: "EUBerry - The sustainable improvement of European berry production, quality and nutritional value in a changing environment: Strawberries, Currants, Blackberries, Blueberries and Raspberries" funded by the European Commission.

#### Area of Scientific Activity

Biochemistry and Molecular Biology

#### Present Research Interests

Investigate the potential biomedical applications of plant secondary metabolites in degeneration cell models, implemented at the Disease and Stress Biology lab. Interest in understanding the mechanisms underlying neuroprotective effects of digested berry extracts by proteomic analysis and also evaluate the cellular redox state of biological samples, such as protein bound-HNE, 3-NT, glutathionylation and carbonylation (Immunoblot).

#### Personal skills and competences

- Mother tongue: Portuguese
- Other language(s): English (European level)

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
(C1)	Experienced user	(C1)	Experienced user	(C1)	Experienced user	(C1)	Experienced user	(C1)	Experienced user

## Other skills

## • Animal cell culture

- Neuroblastoma cell line SK-N-MC and hepatocellular carcinoma cell line Hep G2
- Cell viability, Fluorescence-activated cell sorting (FACS)

# • Protein analysis:

- Electrophoresis by SDS-PAGE, 2-DE;
- Immunoblot;
- Gel image analysis by Progenesis SameSpots software.

# • Bioinformatics knowledge:

- Gulbenkian Training Programme in Biostatistical Foundations in Bioinformatics at Instituto Gulbenkian de Ciência, Oeiras, 2012 (35 hours);
- Gulbenkian Training Programme in Bioinformatics at Instituto Gulbenkian de Ciência, Oeiras, 2011 (35 hours);
- Data Bases (NCBI (Blast), UniProt).

# Publications

# Internship Report

Gomes A (2010) Synthesis, spectroscopic characterization and evaluation of squarylium cyanine dyes in a cell line proliferation HepG-2. Internship report, UTAD, Vila Real (19/20 values).

# <u>Thesis</u>

Gomes A (2012) Proteomic analysis of a neurodegeneration cell model, treated with plant extracts with potential neuroprotective activity. Master thesis in Biotechnology, FCT-UNL, Lisbon (18/20 values).

# Participation in courses and seminars

- I UTAD Health Fair (2008), Vila Real, Portugal, 15-17 April;
- I Journeys of Biochemistry at UTAD (2008), Vila Real, Portugal, 14-15 May;
- III Journeys of Biochemistry at UTAD (2010), Vila Real, Portugal, 21-22 April;
- INFOGEST Training School entitled "Food Digestion and Human Health" (2013) held at Gdansk University of Technology, Chemical Faculty, Gdansk, Poland; 22-26 April.

## Oral communications

- Gomes A (2012) Proteomic analysis of a neurodegenerative cell model, treated with plant extracts with potential neuroprotective activity, Journey of annual Masters dissertations of Chemical Department and Life Sciences Department from FCT-UNL, Monte da Caparica, Portugal, 25 January;
- Gomes A (2013) *Portuguese endemic plant species: characterization of phenolics compounds, bioactivities and strategies for plant* in vitro *propagation,* Workshop Plant Natural Products & Biotechnology, Porto, Portugal, 26-27 February.

# Posters in conferences

- <u>Gomes A</u>, Silva, AM, Reis, LV (2010) *Evaluation of the effect of squarylium cyanine dyes on the proliferation and viability of HepG-2 cells in culture*, XVII National Congress of Biochemistry, Porto, Portugal, 15-17 December;
- <u>Gomes A</u>, Alves M, Tavares L, McDougall GJ, Stewart D, Ferreira RB, Santos CN (2012) *The effect of blackberries in the protein pattern of human cells*, IV National Conference of Small Fruits Production, Faro, Portugal, 20-21 April.

# Participation in research projects

Research fellow at EU project EUBerry: "The sustainable improvement of European berry production, quality and nutritional value in a changing environment". (EUBerry FP7-KBBE-2010-265942).

#### Member of Collaborative Network

- Member of the Portuguese Society of Biochemistry since 2010.
- Early Stage Researcher participating in working group 2 of Action FA1005- Improving health properties of food by sharing our knowledge on the digestive process (INFOGEST), since 2013;

#### Science and Society

- Participation on "Fascination of Plants Day 2012" promoted by European Plant Science Organisation (EPSO) by organizing the itinerary "Berry fruits". Target: people from Oeiras town Municipality, May 2012, Oeiras.
- Participation in study visits promoted by Disease and Stress Biology Laboratory to demonstrate the work developed by our team. Target: people from Universities, 2012/2013.

# Papers in international scientific periodicals with referees

Submitted papers

<u>Gomes, A</u>., Fortalezas, S., Pimpão, R., Figueira, I., Maroco, J., Aguiar, C., Ferreira, R. B., Miguel, C., & Santos, C. N. (2013). *Valuing the endangered species* Antirrhinum lopesianum: *characterization of bioactive compounds and strategies for* in vitro *propagation*.

## In preparation

- Alminger, M., A.-M., A., Bohn, T., Dufour, C., El, S. N., <u>Gomes, A.</u>, Karakaya, S., Martínez-Cuesta, M. C., McDougall, G., Requena, T., & Santos, C. N. (2013). In vitro *models for studying digestion and bioaccessibility of secondary plant metabolites.*
- <u>Gomes, A</u>., Pimpão, R., Fortalezas, S., Figueira, I., Miguel, C., Aguiar, C., Salgueiro, L., Cavaleiro, C., Gonçalves, M. J., Clemente, A., Costa, C., Martins-Loução, M. A., Ferreira, R. B., & Santos, C. N. (2013). *Phytochemicals of* Santolina semidentata: *Chemical composition and associated bioactivities. Establishment of an* ex situ *conservation protocol*.