

# *Curriculum vitae*

## ***1. Personal and professional data***

**Full name:** Patrícia Alexandra Bogango Ramos

**Birth date and place:** June 3rd 1983, Viana do Alentejo, Portugal

**Institutional address:** CICECO – Aveiro Institute of Materials and Department of Chemistry, University of Aveiro, 3810-193 Aveiro, Portugal

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## ***2. Academic degrees***

**2006:** Degree in Biochemistry (University of Évora, Portugal).

**2015:** Ph.D. in Chemistry (University of Aveiro), under the supervision of Dr. Armando J. D. Silvestre (CICECO and Department of Chemistry, University of Aveiro) and Dr. Fátima Duarte (CEBAL – Centro de Biotecnologia Agrícola e Agro-Alimentar do Alentejo, Portugal). Title of thesis: “Chemical characterization and evaluation of biological activity of *Cynara cardunculus* extractable compounds”.

## ***3. Relevant scientific activity and current status***

**From December 11th 2008 to February 14th 2010:** Participation in 2 national R&D projects funded by national institutes, including FCT, at CEBAL.

**From February 15th 2010 to February 28th 2011:** Fellowship position at CEBAL, in the scope of the project “RefinOlea: Integrated valorisation of residues and by-products of olive oil” (FCOMP-01-0202-FEDER-005450), under the supervision of Dr. Fátima Duarte (CEBAL).

**From March 1st 2011 to February 28th 2015:** FCT-funded PhD studentship position at CICECO and CEBAL, under the supervision of Dr. Armando J. D. Silvestre (CICECO, Department of Chemistry, University of Aveiro) and Fátima Duarte (CEBAL).

**Since January 2nd 2017:** Post-doctoral fellowship position at CICECO and QOPNA, Department of Chemistry, University of Aveiro, in the scope of the project “MultiBiorefinery – Multi-purpose strategies for broadband agro-forest and fisheries by-products valorisation: a step forward for a truly integrated biorefinery” (POCI-01-0145-FEDER-016403), under the supervision of Dr. Armando J. D. Silvestre (CICECO, Department of Chemistry, University of Aveiro), Dr. Artur M. S. Silva (QOPNA, Department of Chemistry, University of Aveiro) and Dr. Carmen S. R. Freire (CICECO, Department of Chemistry, University of Aveiro).

Member of the Portuguese Society of Biochemistry since 2005.

#### 4. Scientific interests

Agro-food and forestry by-products bioprospecting; GC-MS, HPLC-UV-MS<sup>n</sup> and NMR chemical analysis; lipophilic and phenolic compounds; bioactivity assessment of natural extracts, fractions and compounds.

#### 5. Publications

##### 5.1 Papers in international scientific journals

1. Tinoco, M. T.; **Ramos, P.**; Candeias, M. F. (2009) – Effects of a hexane extract from *Laurus novocanariensis* leaves on the ethanol metabolism of Wistar rats, *Fitoterapia*, 80: 130-133.
2. Velez, Z.; Campinho, M. A.; Guerra, A. R.; García, L.; **Ramos, P.**; Guerreiro, O.; Felício, L.; Schmitt, F.; Duarte, M. (2012) – Biological characterization of *Cynara cardunculus* L. methanolic extracts: antioxidant, anti-proliferative, anti-migratory and anti-angiogenic activities. *Agriculture*, 2: 472-492.
3. **Ramos, P.**; Santos, S. A. O.; Guerra, A. R.; Guerreiro, O.; Felício, L.; Jerónimo, E.; Silvestre, A. J. D.; Pascoal Neto, C.; Duarte, M. (2013) – Valorization of olive mill residues: Antioxidant and breast cancer antiproliferative activities of hydroxytyrosol-rich extracts derived from olive oil by-products, *Industrial Crops and Products*, 46: 359-368.
4. **Ramos, P. A. B.**; Guerra, A. R.; Guerreiro, O.; Freire, C. S. R.; Silva, A. M. S.; Duarte, M. F.; Silvestre, A. J. D. (2013) – Lipophilic extracts of *Cynara cardunculus* L. var. *altilis* (DC): a source of valuable bioactive terpenic compounds, *Journal of Agricultural and Food Chemistry*, 61: 8420-8429.
5. **Ramos, P. A. B.**; Santos, S. A. O.; Guerra, A. R.; Guerreiro, O.; Freire, C. S. R.; Rocha, S. M.; Duarte, M. F.; Silvestre, A. J. D. (2014) – Phenolic composition and antioxidant activity of different morphological parts of *Cynara cardunculus* L. var. *altilis* (DC), *Industrial Crops and Products*, 61: 460-471.
6. **Ramos, P.**; Guerra, A.; Guerreiro, O.; Santos, S.; Oliveira, H.; Freire, C.; Rocha, S.; Silvestre, A.; Duarte, M. F. (2014) – Antitumoral and antioxidant activities of lipophilic and phenolic extracts from *Cynara cardunculus* L. var. *altilis* (DC), *Planta Medica*, 80 – P1L16. DOI: 10.1055/s-0034-1394674.
7. Guerra, A.; Soares, B.; Guerreiro, O.; **Ramos, P.**; Oliveira, H.; Silvestre, A.; Freire, C.; Duarte, M. F. (2014) – Anti-tumoral activity of lipophilic *Eucalyptus* bark extracts, enriched on triterpenic acids, against breast cancer cells. *Planta Medica*, 80 – SL41. DOI: 10.1055/s-0034-1394529.
8. Guerreiro, O.; Dentinho, M. T. P.; Moreira, O. C.; Guerra, A. R.; **Ramos, P. A. B.**; Bessa, R. J. B.; Duarte, M. F.; Jerónimo, E. (2016) – Potential of *Cistus ladanifer* L. (rockrose) in small ruminant diets – effect of season and plant age on chemical composition, *in vitro* digestibility and antioxidant activity, *Grass and Forage Science*, 71(3): 437-447.
9. **Ramos, P. A. B.**; Guerra, A. R.; Guerreiro, O.; Santos, S. A. O.; Oliveira, H.; Freire, C. S. R.; Silvestre, A. J. D.; Duarte, M. F. (2017) – Antiproliferative effects of *Cynara*

*cardunculus* L. var. *atilis* (DC) lipophilic extracts, International Journal of Molecular Sciences, 18(1): 63.

10. Ferro, A. M.; **Ramos, P.**; Guerreiro, O.; Jerónimo, E.; Pires, I.; Capel, C.; Capel, J.; Lozano, R.; Duarte, M. F.; Oliveira, M. M.; Gonçalves, S. (2017) – Impact of novel SNPs identified in *Cynara cardunculus* genes on functionality of proteins regulating phenylpropanoid pathway and their association with biological activities, BMC Genomics, 18: 183.
11. Ferro, A. M.; **Ramos, P.**; Guerra, A.; Parreira, P.; Brás, T.; Guerreiro, O.; Jerónimo, E.; Capel, C.; Capel, J.; Yuste-Lisbona, F. J.; Duarte, M. F.; Lozano, R.; Oliveira, M. M.; Gonçalves, S. (2018) – Haplotype analysis of the *germacrene A synthase* gene and association with cynaropicrin content and biological activities in *Cynara cardunculus*, Molecular Genetics and Genomics, 293: 417-433.

## 5.2 Book chapters:

1. Parreira, P.; Brás, T.; **Ramos, P. A.**; Duarte, M. F. (2015) – *Bioactives against Superbugs: using phytotherapy to counteract the drug-resistance burden in the 21<sup>st</sup> century*. In: *The battle against microbial pathogens: basic science, technological advances and educational programs*, vol. 1, Méndez-Vilas, A. (editor), Formatex Research Center, p. 109-116.

## 6. Communications

### 6.1 Oral communications (2012-2018 – 3 selected of 8)

1. **Ramos, P.**; Villaverde, J.; Santos, S.; Bohm, M.; Guerra, A.; Guerreiro, O.; Freire, C.; Pascoal Neto, C.; Duarte, M.; Silvestre, A. Lipophilic composition of different parts of *Cynara cardunculus* L. var. *atilis* (DC). VIII International Symposium on Artichoke, Cardoon and their wild relatives, p. 20. Viterbo, Italy; April 10-13th 2012.
2. **Ramos, P. A. B.**; Guerra, A. R.; Guerreiro, O.; Oliveira, H.; Freire, C. R. S.; Silvestre, A. J. D.; Duarte, M. F., Antitumoral potential of *Cynara cardunculus* L. var. *atilis* (DC) terpenic extracts on MDA-MB-231 cells. SINAL 2013 – 7<sup>th</sup> National Meeting on Cell Signalling, p. 27. Aveiro, Portugal; December 6-7th 2013.
3. **Ramos, P. A. B.**; Santos, S. A. O.; Freire, C. S. R.; Silva, A. M. S.; Silvestre, A. J. D. Unveiling the chemical composition of willow added-value lipophilic extractives by gas chromatography-mass spectrometry. 10<sup>th</sup> National Meeting of Chromatography, p. 60. Bragança, Portugal; December 4-6th 2017.

### 6.2 Poster communications (2006-2018 – 4 selected of 31)

1. **Ramos, P. A. B.**, Tinoco, M. T.; Cruz-Morais, J. M. Effect of extract from *Laurus novocanariensis* leaves on ethanol metabolism of Wistar rat. XV<sup>th</sup> National Congress of Biochemistry – Clinic Biochemistry Simposy, vol. 2, p. 157. Aveiro, Portugal; December 8-10th 2006.
2. **Ramos, P.**; Santos, S.; Felício, L.; Guerreiro, O.; Guerra, A.; Velez, Z.; Jerónimo, E.; Pascoal Neto, C.; Silvestre, A. J. D.; Duarte, M., Antioxidative and

- antiproliferative potential of olive oil by-products. 1<sup>st</sup> Iberian Meeting on Natural Bioactives Entrapment for the Food Industry. Lisbon, Portugal; May 12-13th 2011.
3. **Ramos, P.;** Villaverde, J. J.; Guerra, A.; Guerreiro, O.; Pereira, H.; Freire, C. S. R.; Duarte, M.; Silvestre, A. J. D. Antitumor potential of terpene rich-leaves extract from *Cynara cardunculus* L. var. *altilis* (DC). 3<sup>rd</sup> National Meeting on Medicinal Chemistry and 1<sup>st</sup> Portuguese-Spanish-Brazilian Meeting on Medicinal Chemistry, p. 149. Aveiro, Portugal; November 28-30th 2012.
  4. **Ramos, P. A.;** Santos, S. A.; Freire, C. S.; Silva, A. M.; Silvestre, A. J. A detailed study of added-value phenolic compounds in *Salix* species bark, by mass spectrometry hyphenated chromatographic analysis. 42nd International Symposium on Capillary Chromatography and 15th GCxGC Symposium. Riva del Garda, Italy; May 13th-18th 2018.

### **6.3 Proceedings**

1. **Ramos, P. A. B.;** Santos, S. A. O.; Guerra, A. R.; Guerreiro, O.; Freire, C. S. R.; Duarte, M. F.; Silvestre, A. J. D. Phenolic composition and antioxidant activity of *Cynara cardunculus* L. var. *altilis* (DC) extracts. 13th European Workshop on Lignocellulosics and Pulp – Proceedings book, p. 699-702. Seville, Spain; June 24-27th 2014.
2. **Ramos, P. A. B.;** Santos, S. A. O.; Freire, C. S. R.; Silva, A. M. S.; Silvestre, A. J. D. Prospecting bark of three Portuguese endogenous *Salix* species as raw source of valuable lipophilic extractives. 15th European Workshop on Lignocellulosics and Pulp, p. 339-342. Aveiro, Portugal; June 26th-29th 2018.

### **7. Prizes**

**2012:** Best Poster Prize, IX CICECO Meeting: “Lipophilic composition and biological activity of different parts of *Cynara cardunculus* L. var. *altilis* (DC)”.

Aveiro, November 2018