



CURRICULUM VITAE

Ana Maria Loureiro da Seca

December - 2015

PERSONAL DATA

Full name Ana Maria Loureiro da Seca
Seca, A.M.L.

Name under which you publish Ana M. L. Seca
Da Seca, A. M. L.

Birth date 20-07-1969

Nationality Portuguese

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ACADEMIC DEGREES

From Mars of 1995 to January of 2000 PhD on Chemistry
University of Aveiro
Thesis title: "Kenaf (*Hibiscus cannabinus*): extracção e caracterização estrutural de constituintes alifáticos, fenólicos simples e macromoleculares"
Supervision: Prof J. A. S. Cavaleiro and Carlos Pascoal-Neto

From September of 1992 to April of 1994 Master degree on Science and Technology of Pulp and Forest Products
University of Aveiro
Thesis title: "HPLC e produtos de oxidação de lenhinas pelo nitrobenzeno"

Supervision: Prof J. A. S. Cavaleiro

**From October of 1987 to
July of 1991**

Degree on Chemistry – Analytical Chemistry
University of Aveiro (4-years study).

PROFESSIONAL POSITIONS

From September of 2011

Assistant Professor

Teaching: General chemistry; Natural product chemistry

University of Azores

**From November of 2009 to
August of 2011**

Invited Professor

Teaching: Medicinal organic chemistry; Chemistry; Bioorganic
chemistry

University of Aveiro

**From February of 2000 to
August of 2009**

Assistant Professor

Teaching: Analytical chemistry; Methods on instrumental
analysis; Biochemistry

University of Azores

**From Mars of 1999 to
January of 2000**

Instructor

Teaching: Analytical chemistry

University of Azores

Graduate teaching assistant

**From April of 1994 to
August of 1994**

Teaching: Chemistry

University of Aveiro

**From September of 1994 to
February of 1995
and**

Teacher

Teaching: Mathematic; Physic-chemistry

**from September of 1991 to
August 1992**

Middle school

RESEARCH ACTIVITY

**PRESENT
RESEARCH
INTEREST**

Chemistry of natural compounds:

- Extraction and characterization of natural compounds from terrestrial and marine species with potential biologic activity;
- Taxonomic differentiation of species and subspecies based on volatile metabolites analysis;
- Analysing changes in the metabolite profile caused by different life cycle and environmental stress;
- New routes for the synthesis of analogues natural compounds using the microwave irradiation with potential pharmacological applications;

PUBLICATIONS

Dissertations

- "Kenaf (*Hibiscus cannabinus*): Extraction and structural characterization of aliphatic and phenolic (small molecules and macromolecules) constituents", PhD thesis, University of Aveiro, 2000
- "HPLC and products of lignin nitrobenzene oxidation", MSc Thesis, University of Aveiro, 1994

Book Chapters

- 1- Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. (2015) "The Current Status of Bioactive Metabolites from the Genus *Juniperus*" in: Bioactive Phytochemicals: Perspectives for Modern Medicine Vol. 3. M/S Daya Publishing House, New Delhi. Chapter 15, pg 365- 408.
- 2- Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. (2014), "An overview of *Salicornia* genus: the phytochemical and pharmacological profile" in: Natural Products: Research Review, Vol 2., Daya Publishing House, New Delhi. Chapter 7, pg 145-164.
- 3- Seca A.M.L., Silva A.M.S. (2006), "The chemical composition of the genus *Juniperus* (1970-2004)" in: Recent Progress in Medicinal Plants, Vol 16- Phytomedicines, Govil J.N. and Singh V.K. (Ed.), Studium Press, LLC Texas, Cap 20, pg. 401-522.
- 4- Silva, A.M.S.; Seca, A.M.L.; Vasconcelos, J.M.J.; Cavaleiro, J.A.S.; Silvestre, A.J.D.; Domingues, F.M.J.; Pascoal-Neto, C. (2002). "Chemical Composition of *Artemisia campestris* and *Hibiscus cannabinus*" in: Natural products in the new millennium: prospects and industrial application, A.P. Rauter et al. Eds, Kluwer Academic Publishers, Netherlands, pg. 47-57.

Papers

- 1 Cardoso, S. M.; Pereira, O. R.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. Seaweeds as preventive agents for cardiovascular

- diseases: from nutrients to functional foods. *Mar. Drugs* **2015**, *13*, 6838 - 6865.
- 2 Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, H.; Silva, A. M. S. Saliramophenol, an unprecedented natural *t*-butylphenol derivative from *Salicornia ramosissima* J. Woods, *RSC Adv.* **2015**, *5*, 61380 - 61382. doi: 10.1039/C5RA10893D
 - 3 Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. Metabolomic profile of the genus *Inula*. *Chem. Biodiver.* **2015**, *12*, 859 - 906. doi: 10.1002/cbdv.201400080
 - 4 Silva, B.; Seca, A. M. L.; Barreto, M. C.; Pinto, D. C. G. A. Recent breakthroughs in the antioxidant and anti-inflammatory effects of *Morella* and *Myrica* species", *Int. J. Mol. Sci.* **2015**, *16*, 17160 - 17180. doi: 10.3390/ijms160817160
 - 5 Oliveira, N.; Medeiros, S.; Rosa, J. S.; Seca, A. M. L.; Barreto, M. C. Anti-acetylcholinesterasic, antioxidant and antibacterial activities of *Juniperus brevifolia* extracts. *Integr. Pharm. Toxicol. Genotoxicol.* **2015**, *1*, 57 - 60. doi: 10.15761/IPTG.1000111
 - 6 Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, H.; Silva, A. M. S. Lipophilic profile of the edible halophyte *Salicornia ramosissima*. *Food Chem.* **2014**, *165*, 330 - 336. doi: 10.1016/j.foodchem.2014.05.117
 - 7 Seca, A. M. L.; Grigore, A.; Pinto, D. C. G. A.; Silva, A. M. S. The genus *Inula* and their metabolites: From ethnopharmacological to medicinal uses. *J. Ethnopharm.* **2014**, *154*, 286 - 310. doi: 10.1016/j.jep.2014.04.010
 - 8 Seca, A. M. L.; Leal, S.; Pinto, D. C. G. A.; Barreto, M. C.; Silva, A. M. S. Xanthenedione derivatives, new promising antioxidant and acetylcholinesterase inhibitor agents. *Molecules* **2014**, *19*, 8317 - 8333. doi: 10.3390/molecules19068317
 - 9 Gouveia, V.; Seca, A. M. L.; Barreto, M. C.; Pinto, D. C. G. A. Di- and sesquiterpenoids from *Cystoseira* genus: Structure, intra-molecular transformations and biological activity, *Mini-Rev. Med. Chem.* **2013**, *13*, 1150 - 1159. doi: 10.2174/1389557511313080003
 - 10 Gouveia, V. L.; Seca, A. M. L.; Barreto, M. C.; Neto, A. I.; Kijjoa, A.; Silva, A. M. S. Cytotoxic meroterpenoids from the macroalga *Cystoseira abies-marina*. *Phytochem. Letters* **2013**, *6*, 593 - 597. doi: 10.1016/j.phytol.2013.07.012

- 11 Silva, M.; Vieira, L. M.; Almeida, A. P.; Silva, A. M. S.; Seca, A. M. L.; Barreto, M. C.; Neto, A. I.; Pedro, M.; Pinto, E.; Kijjoa, A. Chemical study and biological activity evaluation of two Azorean Macroalgae: *Ulva rigida* and *Gelidium microdon*. *Oceanography: open access* **2013**, 1, 102 - 109. doi: 10.4172/2332-2632.1000102
- 12 Barreto, M. C.; Mendonça, E.; Gouveia, V.; Anjos, C.; Medeiros, J. S.; Seca, A. M. L.; Neto, A. I. M. A. Macroalgae from S. Miguel Island as a potential source of antiproliferative and antioxidant products. *Arquipelago: Life and Marine Sciences*, **2012**, 29: 53 - 58.
- 13 Pinto, D. C. G. A.; Seca, A. M. L.; Leal, S. B.; Silva, A. M. S.; Cavaleiro, J. A. S. A novel short-step synthesis of new xanthenedione derivatives from the cyclization of 3-cinnamoyl-2-styrylchromones. *Synlett*. **2011**, 14, 2005-2008;
- 14 Moujir, L. M.; Seca, A. M. L.; Araujo, L.; Silva, A. M. S.; Barreto, M. C. A new natural spiro heterocyclic compound and the cytotoxic activity of the secondary metabolites from *Juniperus brevifolia* leaves. *Fitoterapia*. **2011**, 82, 225-229;
- 15 Seca, A. M. L.; Silva, A. M. S. A new 4',7-epoxy-8,3'-oxyneolignan from acetone extract of *Juniperus brevifolia* leaves. *Phytochem. Lett.* **2010**, 3, 126-128;
- 16 Moujir, L. M.; Seca, A. M. L.; Silva, A. M. S.; Barreto, M. C. Cytotoxic activity of diterpenes and extracts of *Juniperus brevifolia*. *Planta Med.* **2008**, 74, 751-753;
- 17 Seca, A. M. L.; Pinto, D. C. G. A.; Silva, A. M. S. Structural elucidation of pimarane and isopimarane diterpenoids: the ¹³C NMR contribution. *Nat. Prod. Comm.* **2008**, 3, 399-412;
- 18 Seca, A. M. L.; Silva, A. M. S.; Bazzocchi, I. I.; Jimenez, I. A. Diterpene composition of leaves from *Juniperus brevifolia*. *Phytochemistry*, **2008**; 69, 498-505;
- 19 Seca, A. M. L.; Silva, A. M. S. The chemical constituents of hexane extract from bark of *Juniperus brevifolia*. *Nat. Prod. Res.* **2008**, 22, 975-983.
- 20 Moujir, L. M.; Seca, A. M. L.; Silva, A. M. S.; López, M. R.; Padilla, N.; Cavaleiro, J. A. S.; Neto, C. P. Cytotoxic activity of lignans from Kenaf (*Hibiscus cannabinus*). *Fitoterapia* **2007**, 78, 385-387.
- 21 da Seca, A. M. L.; Domingues, F. M. J. Basic density and pulp yield relationship with some chemical parameters in *Eucalyptus* trees.

Brazilian J. Agric. Res. **2006**, 41, 1687-1691.

- 22 Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Pascoal Neto C. Lignanamides derivatives and other constituents from the bark of kenaf (*Hibiscus cannabinus*). *Phytochemistry* **2001**, 58, 1219-1223;
- 23 Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Neto, C. P. Phenolic constituents from the core of kenaf (*Hibiscus cannabinus*). *Phytochemistry* **2001**, 56, 759-767;
- 24 Seca, A. M. L.; Silva, A. M. S.; Silvestre, A. J. D.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Neto, C. P. Chemical composition of light petroleum extract of *Hibiscus cannabinus* bark and core. *Phytochem. Anal.* **2000**, 11, 345-350;
- 25 Seca, A. M. L.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Silvestre, A. J. D.; Evtuguin, D.; Neto, C. P. Structural characterization of the lignin from nodes and internodes of *Arundo donax*. *J. Agric. Food Chem.* **2000**, 48, 817-824;
- 26 Seca, A. M. L.; Cavaleiro, J. A. S.; Domingues, F. M. J.; Silvestre, A. J. D.; Evtuguin, D.; Neto, C. P. Structural characterization of the bark and core lignins from kenaf (*Hibiscus cannabinus*). *J. Agric. Food Chem.* **1998**, 46, 3100-3108;
- 27 Pascoal Neto, C.; Seca, A.; Nunes, A. M.; Coimbra, M. A.; Domingues, F.; Evtuguin, D.; Silvestre, A.; Cavaleiro, J. A. S. Variations in chemical composition and structure of macromolecular components in different morphological regions and maturity of *Arundo donax*. *Ind. Crops Prod.* **1997**, 6, 51-58;
- 28 Pascoal Neto, C.; Seca, A.; Fradinho, D.; Coimbra, M. A.; Domingues, F.; Evtuguin, D.; Silvestre, A.; Cavaleiro, J. A. S. Chemical composition and structural features of the macromolecular components of *Hibiscus cannabinus* grown in Portugal. *Ind. Crops Prod.* **1996**, 5, 189-196;
- 29 Pascoal Neto, C.; Cordeiro, N.; Seca, A.; Domingues, F.; Gandini, A.; Robert, D. Isolation and characterization of lignin-like polymer of cork of *Quercus suber* L. *Holzforschung* **1996**, 50, 563-568.

Proceedings

- 1 Isca, V. M. S.; Seca, A. M. L.; Pinto, D. C. G. A.; Silva, H.; Silva, A. M. S. *Salicornia ramosissima* an edible halophyte with nutritional value and a source of a unique natural compound. Proceedings of 2nd International Symposium Profiling (ISPROF) 2015, Caparica, Lisboa,

21 a 24 Setembro, **2015**, O 2B, pg. 113.

- 2 Rodrigues, N.; Almeida, A.; Silva, H.; Pinto, D.; Seca, A.; Pereira, M. L. Potential anti-inflammatory effects of *Artemisia gorgonum* on rat liver injury induced by CCl₄. 4th Joint Congress of Portuguese and Spanish Microscopy Societies. 9-11 Setembro **2015**, Porto, Life Sciences, Poster session B, pg. 116-117.
- 3 Seca, A.; Leal, S.; Pinto, D.; Barreto, MC.; Silva, A. *Xanthenedione derivatives, new promising acetylcholinesterase inhibitor agentes*. 62th Annual Meeting of the Society for Medicinal Plant Research, Guimarães, Portugal, 31 Agosto a 4 Setembro de 2014, *Planta Medica*, **2014**, 80, 16 1417-1418, P1L20, DOI:10.1055/s-0034-1394678.
- 4 Silva, B.; Seca, A. M. L.; Moreno-Rodriguez, L.; Barreto, M. C. Antioxidant and anticholinesterasic activities of *Morella faya* (Afton) Wilbur extracts. . 62th Annual Meeting of the Society for Medicinal Plant Research, Guimarães, Portugal, 31 Agosto a 4 Setembro de 2014. *Planta Medica*, **2014**, 80, 16, 1433-1433, P1L69, DOI: 10.1055/s-0034-1394726.
- 5 Ana M. L. Seca, Carlos Pascoal Neto, José A. S. Cavaleiro, Fernando M. J. Domingues, Armando J. D. Silvestre, Dmitry V. Evtuguin. Complementary structural information about kenaf bark and core lignins", *Proceedings of 5th European Workshop on Lignocellulosics and Pulp: Advances in Lignocellulosics chemistry for ecologically friendly pulping and bleaching technologies*, **1998**, 349-352.
- 6 Ana Seca, José Cavaleiro, Fernando Domingues, Armando Silvestre, Dmitry Evtuguin, Carlos Pascoal Neto. Structural characteristics of the bark and core kenaf lignin (variety Salvador). *Proceedings of 9th International Symposium on Wood and Pulping Chemistry*. **1997**, Vol 2, pp 131-132;

Oral communications More than 15 invited oral presentations in national and international scientific meetings.

Posters More than 90 posters in national and international meetings.

Languages English

Reading: Good

Writing: Good

Conversation: Good