

CURRICULUM VITAE

Ana Maria Loureiro da Seca

February - 2024



PERSONAL DATA

Full name	Ana Maria Loureiro da Seca
	Seca, A.M.L.
Name under which you publish	Seca, A.
	Da Seca, A. M. L.
Birth date	20-07-1969
Nationality	Portuguese
Work address	University of Azores
	Rua Mãe de Deus
	9501-801 Ponta Delgada
	Portugal
Work phone	+351 296650174
Email	ana.ml.seca@uac.pt
Research Identifiers	http://orcid.org/0000-0002-7709-2375
	http://www.scopus.com/authid/detail.url?authorId=6603279232
	http://www.researcherid.com/rid/E-5475-2013
	https://scholar.google.pt/citations?hl=pt-PT&user=kl8jc-AAAAAJ&view_op=list_works&sortby=pubdate

ACADEMIC DEGREES

May of 2023	Habilitation in Chemistry
	University of Beira Interior
	Lesson: "Research into natural products with applications in

health”

January of 2000

PhD on Chemistry

University of Aveiro

Thesis title: “Kenaf (*Hibiscus cannabinus*): extração e caracterização estrutural de constituintes alifáticos, fenólicos simples e macromoleculares”

Supervision: Profs J. A. S. Cavaleiro and Carlos Pascoal-Neto

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

July of 1991

Degree on Chemistry – Analytical Chemistry

University of Aveiro (4-years study).

PROFESSIONAL POSITIONS

**From August of 2023 to
present**

Associate Professor

Teaching: General chemistry; Biochemistry; Natural Product and Health

University of Azores

**From September of 2011 to
July of 2023**

Assistant Professor

Teaching: General chemistry; Biochemistry; Natural Product and Health

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 from September of 1991 to August 1992	Teacher Teaching: Mathematic; Physic-chemistry Middle school

RESEARCH ACTIVITY

PRESENT RESEARCH INTEREST	Chemistry of natural compounds and its applications <ul style="list-style-type: none"> - Extraction of secondary metabolites by greener methods from terrestrial and marine species; - Purification by chromatographic techniques, and structural elucidation, by spectroscopic methods, of natural compounds; - Valorization of natural compounds from Azorean species by assessing their bioactivity - Synthesis of analogues natural compounds with potential pharmacological applications.
RESEARCH PROJECTS	MACBIOPEST - Biopesticidas botánicos de la Macaronesia: investigación y saber popular” European Commission, INTERREG (Bruxels, Belgium) 2019-10 to 2022, MAC2/1.1a/289) 3B-vent - Biodiversity, Biological interactions and Biotechnological products of coastal hydrothermal vents in Azores. DRPFE - Direcção Regional do Planeamento e Fundos Estruturais. 2019-2021. ACORES-01-0145-FEDER-

000112

MACBIOBLUE – Demonstration and technology transfer project to help companies develop new products and processes in the field of Blue Biotechnology of Macaronesia. European Commission, INTERREG (Bruxels, Belgium) 2016-11 to 2020-3, MAC/1.1b/086

ASPAZOR - Ecosystem impacts and socioeconomic benefits of *Asparagopsis armata* in the Azores. Regional Direction for Science, Technology (Ponta Delgada, Azores, Portugal) 2016-11 to 2020-6, ACORES-01 -0145-FEDER-000060

AZOALG - Bioactive products in marine algae of Azores, Fundação para a Ciência e a Tecnologia, I.P. (Lisbon, Portugal) 2010-06 to 2013-11, Grant: PTDC/MAR/100482/2008.

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 (<http://hdl.handle.net/10773/27511>)

Book Editor and Book Chapters

11- Pinto, D. C. G. A.; Seca, A. M. L.; Cardoso, S. M.; Silva, A. M. S. (2024). "Seaweed metabolites with benefit effects against cardiovascular diseases" in: Seaweed Bioactives: Health Benefits and Potential Applications, A. Jaiswal (Ed.). Nutraceuticals: Basic Research/Clinical Applications Series, CRC Press, Boca Raton, Florida, USA (ISBN: 978-1-4987-9698-9), Vol 1, chapter 15. *in press*.

10- Rosa, G.P.; Barreto, M.C.; Seca, A.M.L.; Pinto, D.C.G.A. (2022). Chemical composition and phytopharmaceuticals: An overview of the Caulerpa and Cystoseira genera. In: Sustainable global resources of seaweeds: Industrial perspectives. Ravishankar G.A. and Rao, A.R. (Eds.). Food, pharmaceutical and health applications. Springer, Cham. 2022, Vol. 2, Chapter 26, pp 473–493 Print ISBN: 978-3-030-92173-6. Doi: 10.1007/978-3-030-92174-3_26.

9- Biological activity and applications of natural compounds. Seca, A.M.L.; Moujir, L.M.; Sharopov, F. (Eds.), MDPI - Multidisciplinary Digital Publishing Institute, 2020, 208 pp. Print ISBN: ISBN 978-3-03936-617-0 (Hbk), doi: 10.3390/books978-3-03936-618-7.

8- Biological potential and medical use of secondary metabolites. Seca, A. M. L.; Pinto, D. C. G. A. (Editors), MDPI - Multidisciplinary Digital Publishing Institute, 2019, 284 pg, ISBN-10: 3039211870; ISBN-13: 978-3039211876, doi: 10.3390/books978-3-03921-

7- Pinto, D. C. G. A.; Seca, A. M. L.; Silva, A. M. S. (2017). Insight approaches of medicinal plants for the discovery of anticancer drugs. in: Anticancer Plants Clinical Trials and Nanotechnology, M. S. Akhtar and M. K. Swamy (Eds.), Springer Verlag, Singapore. Vol 3, chapter 4. pg. 105-151. doi: 10.1007/978-981-10-8216-0_4

6- Ferreira, D.; Pinto, D. C. G. A.; Silva, A. M. S.; Seca, A. M. L. (2017). "Olea europaea: Facts and myths regarding cardiovascular health" in Herbal Medicine: Back to the Future, F. Atta-ur-Rahman, F. Murad and K. Bian (Ed.), Bentham Science Publishers, Vol 1, chapter 3, pg. 57-128. doi: 10.2174/97816810848931170101

5- Seca, A. M. L.; Silva, A. M. S.; Pinto, D. C. G. A. (2017). "Parthenolide and parthenolide-like sesquiterpene lactones as multiple targets drugs: current knowledge and new developments" in: Studies in Natural Products Chemistry (Bioactive Natural Products), Atta-Ur-Rahman (Ed.). Elsevier Science Publishers - Amsterdam, The Netherlands. Vol 52. Chapter 9, pg. 337-372.

4-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. V. K. Gupta (Ed.) Vol. 3. M/S Daya Publishing House, New Delhi. Chapter 15, pg. 365- 408.

3- 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.

2- 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.

1- 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 60- Tavares, W.R.; Jiménez, I.A.; Oliveira, L.; Kuhtinskaja, M.; Vaher, M.; Rosa, J.S.; Seca, A.M.L.; Bazzocchi, I.L.; Barreto, M.C. Macaronesian plants as promising biopesticides against the crop pest *Ceratitidis capitata*. *Plants*, 2023, 12, e4122.; doi: 10.3390/plants12244122

- 59-** Rosa, G.P.; Peixoto, A.F.; Barreto, M.C.; Seca, A.M.L.; Pinto, D.C.G.A. Bio-guided optimization of *Cystoseira abies-marina* cosmeceuticals extraction by advanced technologies. *Marine Drugs*, **2023**, *21*, e35; doi: 10.3390/md21010035
- 58** - Viveiros, M.M.; Barreto, M.C.; Seca, A.M.L. Laurus azorica: Valorization through its phytochemical study and biological activities. *Separations* **2022**, *9*, e211; doi: 10.3390/separations9080211
- 57** - Ponte, J.M.S.; Seca, A.M.L.; Barreto, M.B. *Asparagopsis* Genus: What We Really Know About Its Biological Activities and Chemical Composition. *Molecules* **2022**, *27*, e1787; doi: 10.3390/molecules27061787
- 56** - Gallardo, E.; Seca, A.M.L. Secondary Metabolites and Their Applications. *Applied Sciences* **2022**, *12*, 2317; doi: 10.3390/app12052317
- 55** - Pinto, D.C.G.A.; Lesenfants, M.L.; Rosa, G.P.; Barreto, M.C.; Silva, A.M.S.; Seca, A.M.L. GC- and UHPLC-MS profiles as a tool to valorize the red alga *Asparagopsis armata*. *Applied Sciences*, **2022**, *12*, 892; doi: 10.3390/app12020892
- 54** - Seca, A.M.L.; Trendafilova, A. Secondary metabolites in edible species: Looking beyond nutritional value. *Foods* **2021**, *10*, 1131; doi: 10.3390/foods10051131
- 53-** Tavares, W.R.; Barreto, M.d.C.; Seca, A.M.L. Aqueous and ethanolic plant extracts as bio-insecticides—Establishing a bridge between raw scientific data and practical reality. *Plants* **2021**, *10*, 920; doi: 10.3390/plants10050920
- 52** - Trendafilova, A.; Moujir, L.M.; Sousa, P.M.C.; Seca, A.M.L. Research advances on health effects of edible *Artemisia* species and some sesquiterpene lactones constituents. *Foods* **2021**, *10*, 65; doi: 10.3390/foods10010065
- 51** -Rosa, G.P.; Barreto, M.C.; Pinto, D.C.G.A.; Seca, A.M.L. A Green and simple protocol for extraction and application of a peroxidase-rich enzymatic extract. *Methods and Protocols*, **2020**, *3*, 25. doi: 10.3390/mps3020025
- 50** - Rosa, G.P.; Silva, B.J.C.; Seca, A.M.L.; Moujir, L.M.; Barreto, M.C. Phytochemicals with added value from *Morella* and *Myrica* species. *Molecules*, **2020**, *25*, 6052; doi: 10.3390/molecules25246052
- 49** - Zárata, R., Portillo, E., Teixidó, S., Carvalho, M.A.A.P., Nunes, N., Ferraz, S., Seca, A.M.L., Rosa, G.P., Barreto, M.C. Pharmacological and cosmeceutical potential of seaweed beach-casts of Macaronesia. *Applied Sciences*, **2020**, *10*, 5831; doi: 10.3390/app10175831

48 - Seca, A.M.L.; Moujir, L.M. Natural compounds: A dynamic field of applications. *Applied Sciences*, **2020**, *10*, 4025; doi: 10.3390/app10114025

47 - Moujir, L.M.; Callies, O.; Sousa, P.M.C.; Sharopov, F.; Seca, A.M.L. Applications of sesquiterpene lactones: A review of some potential success cases. *Applied Sciences*, **2020**, *10*, e3001. doi: 10.3390/app10093001

46 - Rosa, G.P.; Sousa, P.; Tavares, W.R.; Pagès, A.K.; Seca, A.M.L.; Pinto, D.C.G.A. Seaweeds secondary metabolites with beneficial health effects: An overview of successes in in vivo studies and clinical trials. *Marine Drugs*, **2020**, *18*, 8. doi: 10.3390/md18010008

45 - Tavares, W.R.; Barreto, M.C.; Seca, A.M.L. Uncharted source of medicinal products, the case of the *Hedychium* genus. *Medicines*, **2020**, *7*, 23; doi: 10.3390/medicines7050023

44 - Salehi, B.; Sharifi-Rad, J.; Seca, A.M.L.; Pinto, D.C.G.A.; Michalak, I.; Trincone, A.; Mishra, A. P.; Nigam, M.; Zam, W.; Martins, N. Current trends on seaweeds: Looking at chemical composition, phytopharmacology, and cosmetic applications. *Molecules*, **2019**, *24*, 4182. doi: 10.3390/molecules24224182.

43 - Silva, P.T.M.; Silva, M.A.F.; Silva, L.; Seca, A.M.L. Ethnobotanical knowledge in Sete Cidades, Azores archipelago: First ethnomedicinal report. *Plants*, **2019**, *8*, 256. doi: 10.3390/plants8080256

42 - Salehi, B.; Iriti, M.; Vitalini, S.; Antolak, H.; Pawlikowska, E.; Kręgiel, D.; Sharifi-Rad, J.; Oyeleye, S. I.; Ademiluyi, A. O.; Czopek, K.; Staniak, M.; Custódio, L.; Coy-Barrera, E.; Segura-Carretero, A.; Cádiz-Gurrea, M. da L.; Capasso, R.; Cho, W. C.; Seca, A.M.L. Euphorbia-derived natural products with potential for use in health maintenance. *Biomolecules*, **2019**, *9*, 337. doi: 10.3390/biom9080337

41 - Rosa, G.P.; Seca, A.M.L.; Barreto, M.C.; Silva, A.M.S.; Pinto, D.C.G.A. Chalcones and flavanones bearing hydroxyl and/or methoxyl groups: Synthesis and biological assessments. *Applied Sciences*, **2019**, *9*, 2846. doi: 10.3390/app9142846

40 - Tavares, W.R.; Seca, A.M.L. *Inula* L. secondary metabolites against oxidative stress-related human diseases. *Antioxidants*, **2019**, *8*, 122; doi: 10.3390/antiox8050122

39 - Rosa, G.P.; Barreto, M.C.; Seca, A.M.L. Pharmacological effects of *Fucus spiralis* extracts and phytochemicals: a comprehensive review. *Botanica Marina*, **2019**, *62*, 167-178. doi: 10.1515/bot-2018-0047.

38 - Tavares, W.R.; Seca, A.M.L. The current status of pharmaceutical potential of

Juniperus L. metabolites. *Medicines*, **2018**, 5, e81. doi: 10.3390/medicines5030081

37 - Rocha, D.H.A.; Seca, A.M.L.; Pinto, D.C.G.A. Seaweed secondary metabolites *in vitro* and *in vivo* anticancer activity. *Marine Drugs*, **2018**, 16, 410, doi: 10.3390/md16110410

36 - Seca, A.M.L.; Gouveia, V.L.M.; Barreto, C.; Silva, A.M.S.; Pinto, D.C.G.A. Comparative study by GC-MS and chemometrics on the chemical and nutritional profile of *Fucus spiralis* L. juvenile and mature life-cycle phases. *Journal of Applied Phycology*, **2018**, 30, 2539-2548. doi: 10.1007/s10811-018-1447-9

35 - Seca, A.M.L.; Pinto, D.C.G.A. Overview on the antihypertensive and anti-obesity effects of secondary metabolites from seaweeds. *Marine Drugs*, **2018**, 16, 237. doi: 10.3390/md16070237.

34 “**Highly Cited Papers**” - Seca, A.M.L.; Pinto, D.C.G.A. Plant secondary metabolites as anticancer agents: Successes in clinical trials and therapeutic application. *International Journal of Molecular Sciences*, **2018**, 19, 263. doi: 10.3390/ijms19010263

33- Ferreira, D.; Isca, V.M.S.; Leal, P.; Seca, A.M.L.; Silva, H.; Pereira, M.L.; Silva, A.M.S.; Pinto, D.C.G.A. *Salicornia ramosissima*: Secondary metabolites and protective effect against acute testicular toxicity. *Arabian Journal of Chemistry*, **2018**, 11, 70–80. doi: 10.1016/j.arabjc.2016.04.012

32 - Faustino, M.; Seca, A.M.L.; Silveira, P.; Silva, A.M.S.; Pinto, D.C.G.A. Gas chromatography–mass spectrometry profile of four *Calendula* L. taxa: A comparative analysis. *Industrial Crops and Products*, **2017**, 104, 91–98. doi: 10.1016/j.indcrop.2017.04.029

31 - Rosa, G.P.; Seca, A.M.L.; Barreto, M.C.; Pinto, D.C.G.A. Chalcone: A valuable scaffold upgrading by green methods. *ACS Sustainable Chemistry and Engineering*, **2017**, 5, 7467–7480. doi: 10.1021/acssuschemeng.7b01687

30 - Ferreira, D.; Seca, A.M.L.; Pinto, D.C.G.A.; Silva, A.M.S. Targeting human pathogenic bacteria by siderophores: A proteomics review. *Journal of Proteomics*, **2016**, 145, 153-166. doi: 10.1016/j.jprot.2016.04.006

29 - 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. *Marine Drugs*, **2015**, 13, 6838-6865. doi: 10.3390/md13116838

28 - 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. *International*

Journal of Molecular Sciences, **2015**, *16*, 17160-17180. doi: 10.3390/ijms160817160

27 - Seca, A.M.L.; Pinto, D.C.G.A.; Silva, A.M.S. Metabolomic profile of the genus *Inula*. *Chemistry and Biodiversity*, **2015**, *12*, 859-906. doi: 10.1002/cbdv.201400080

26 - 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 Advances*, **2015**, *75*, 61380-61382. doi: 10.1039/C5RA10893D

25 - 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 Chemistry*, **2014**, *165*, 330-336. doi: 10.1016/j.foodchem.2014.05.117

24 - 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. *Journal of Ethnopharmacology*, **2014**, *154*, 286-310. doi: 10.1016/j.jep.2014.04.010

23 - 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

22 - Seca, A.; Leal, S.; Pinto, D.; do Carmo Barreto, M.; Silva, A. Xanthenedione derivatives, new promising acetylcholinesterase inhibitor agents. Book Abstract of 62th Annual Meeting of the Society for Medicinal Plant Research. *Planta Medica*, **2014**, *80*, 1417-1418. doi: 10.1055/s-0034-1394678

21 - Silva, B.; Seca, A.M.L.; Moreno-Rodriguez, L.; Barreto, M.C. Antioxidant and anticholinesterasic activities of *Morella faya* (Aiton) Wilbur extracts. Book Abstract of 62th Annual Meeting of the Society for Medicinal Plant Research. *Planta Medica*, **2014**, *80*, 1433. doi: 10.1055/s-0034-1394726

20 - 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-Reviews in Medicinal Chemistry*, **2013**, *13*, 1150-1159. doi: 10.2174/1389557511313080003

19 - Gouveia, V.; Seca, A.M.L.; Barreto, M.C.; Neto, A.; Kijjoa, A.; Silva, A.M.S. Cytotoxic meroterpenoids from *Cystoseira abies-marina*. *Phytochemistry Letter*, **2013**, *6*, 593-597. doi: 10.1016/j.phytol.2013.07.012

18 - 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. doi: 10.1055/s-0030-

1261172

17 - 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. doi: 10.1016/j.fitote.2010.10.001

16 - Seca, A.M.L.; Silva, A.M.S. A new 4',7-epoxy-8,3'-oxyneolignan from acetone extract of *Juniperus brevifolia* leaves. *Phytochemistry Letters*, **2010**, *3*, 126–128. doi: 10.1016/j.phytol.2010.04.002

15 - Moujir, L.M.; Seca, A.M.L.; Silva, A.M.S.; Barreto, M.C. Cytotoxic activity of diterpenes and extracts of *Juniperus brevifolia*. *Planta Medica*, **2008**, *74*, 751-753. doi: 10.1055/s-2008-1074529

14 - Seca, A.M.L.; Pinto, D.C.G.A.; Silva, A.M.S. Structural elucidation of pimarane and isopimarane diterpenoids: The ¹³C NMR contribution. *Natural Product Communication*, **2008**, *3*, 399-412. doi: 10.1177/1934578X0800300317

13 - Seca, A.M.L.; Silva, A.M.S. The chemical constituents of hexane extract from bark of *Juniperus brevifolia*. *Natural Product Research*, **2008**, *22*, 975-983. doi: 10.1080/14786410701654602

12 - Seca, A.M.L.; Silva, A.M.S.; Bazzocchi, I.L.; Jimenez, I.A. Diterpene composition of leaves from *Juniperus brevifolia*. *Phytochemistry*, **2008**, *69*, 498-505. doi: 10.1016/j.phytochem.2007.07.026.

11 - Moujir, L.; 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. doi: 10.1016/j.fitote.2007.03.010.

10 - Seca, A.M.L.; Silva, A.M.S. The chemical composition of the genus *Juniperus* (1970-2004). *Phytomedicines - Recent Progress in Medicinal Plants*. **2007**, Vol. 16, pp. 401-522. ISBN: 0-9761849-8-2

9 - Loureiro da Seca, A.M.; Domingues, F.M.J. Basic density and pulp yield relationship with some chemical parameters in *Eucalyptus* trees. *Pesquisa Agropecuaria Brasileira*, **2006**, *41*, 1687-1691. doi: 10.1590/S0100-204X2006001200001

8 - Seca, A.M.L.; Silva, A.M.S.; Silvestre, A.J.D.; Cavaleiro, J.A.S.; Domingues, F.M.J.; Neto, C.P. Lignanamide derivatives and other constituents from the bark of kenaf (*Hibiscus cannabinus*). *Phytochemistry*, **2001**, *58*, 1219-1223. doi: 10.1016/S0031-9422(01)00311-9

7 - 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. doi: 10.1016/S0031-9422(00)00473-8

6 - 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. *Phytochemical Analysis*, **2000**, *11*, 345-350. doi: 10.1002/1099-1565(200011/12)11:6<345::AID-PCA540>3.0.CO;2-T

5 - Seca, A.M.L.; Cavaleiro, J.A.S.; Domingues, F.M.J.; Silvestre, A.J.D.; Evtuguin, D.; Pascoal-Neto, C. Structural characterization of the lignin from nodes and internodes of *Arundo donax*. *Journal of Agricultural and Food Chemistry*, **2000**, *48*, 817-824. doi: 10.1021/jf9910988

4 - Seca, A.M.L.; Cavaleiro, J.A.S.; Domingues, F.M.J.; Silvestre, A.J.D.; Evtuguin, D.; Pascoal-Neto, C. Structural characterization of the bark and core lignins from kenaf (*Hibiscus cannabinus*). *Journal of Agricultural and Food Chemistry*, **1998**, *46*, 3100-3108. doi: 10.1021/jf9801320

3 - 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*. *Industrial Crops and Products*, **1997**, *6*, 51-58. doi: 10.1016/S0926-6690(96)00205-1

2 - Pascoal-Neto, C. Seca, A.; Fradinho, A.; 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. *Industrial Crops and Products*, **1996**, *5*, 189-196. doi: 10.1016/0926-6690(96)89448-9

1 - 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. doi: 10.1515/hfsg.1996.50.6.563

Proceedings

14- Rosa, G.P.; Seca, A.M.L.; Barreto, M.C.; Pinto, D.C.G.A. Cosmeceutical potential of the green macroalga *Caulerpa prolifera*. Meeting Report of 14th Edition of the National Organic Chemistry Meeting and 7th Edition of the National Therapeutic Chemistry Meeting. Pereira, F.; Lourenço, A.; Aires-de-Sousa, J.; Ferreira, L.M.; Marques, M.M.B.; Sousa, E.; Branco, P.S. *Chemical Proceedings* **2022**, *11*, e1, (pp. 117-118). <https://doi.org/10.3390/chemproc2022011001>

13- Tavares, W.R.; Barreto, M.C.; Seca, A.M.L. Kaempferol derivatives from *Hedychium gardnerianum*—Unveiling the potential of an invasive plant. Meeting

- Report of 14th Edition of the National Organic Chemistry Meeting and 7th Edition of the National Therapeutic Chemistry Meeting. Pereira, F.; Lourenço, A.; Aires-de-Sousa, J.; Ferreira, L.M.; Marques, M.M.B.; Sousa, E.; Branco, P.S. *Chemical Proceedings* **2022**, 11, e1, (pp. 98-99). <https://doi.org/10.3390/chemproc2022011001>
- 12- Seca, A.M.L.; Faustino, L.M.M.; Viveiros, M.M.; Rosa, G.P.; Barreto, M.C. Valorization of Macaronesia beach-cast seaweeds: Secondary metabolites and antiaging activity. Meeting Report of 14th Edition of the National Organic Chemistry Meeting and 7th Edition of the National Therapeutic Chemistry Meeting. Pereira, F.; Lourenço, A.; Aires-de-Sousa, J.; Ferreira, L.M.; Marques, M.M.B.; Sousa, E.; Branco, P.S. *Chemical Proceedings* **2022**, 11, e1, (pp. 95-96). <https://doi.org/10.3390/chemproc2022011001>
- 11- Viveiros, M.M.; Barreto, M.C.; Seca, A.M.L. *Laurus azorica* leaves: Sesquiterpene lactones and antiaging activity. Meeting Report of 14th Edition of the National Organic Chemistry Meeting and 7th Edition of the National Therapeutic Chemistry Meeting. Pereira, F.; Lourenço, A.; Aires-de-Sousa, J.; Ferreira, L.M.; Marques, M.M.B.; Sousa, E.; Branco, P.S. *Chemical Proceedings* **2022**, 11, e1, (pp. 67-68). <https://doi.org/10.3390/chemproc2022011001>
- 10- Lesenfants, M.L. Seca, A.M.L.; Silva, A.M.S.; Pinto, D.C.G.A. GC- and UHPLC-MS profiles as a tool to valorize the red alga *Asparagopsis armata*. Conference Report XVI International Symposium on Marine Natural Products XI European Conference on Marine Natural Products. *Mar. Drugs* **2020**, 18, 40, pg. 72-73; <https://doi.org/10.3390/md18010040>.
- 9- Rosa, G.P.; Costa, A.; Medeiros, D.; Seca, A.M.L.; Barreto, M.C. Anti-aging activity of *Lobophora variegata* ethanolic and methanolic extracts and their fractions. Conference Report XVI International Symposium on Marine Natural Products|XI European Conference on Marine Natural Products. *Mar. Drugs* **2020**, 18, 40, pg.149; <https://doi.org/10.3390/md18010040>.
- 8- Barreto, M. C.; Gouveia, V. L.; Rosa, G. P.; Seca, A. M. L. Searching for molecules against cancer in the Azores: plants, macroalgae and synthetic compounds. *Proceedings*, **2019**, 22, e61. Doi: 103390/proceedings2019022061.
- 7- Silva, B. J. C., Barreto, M. C., Silva, A. M. S., Seca, A. M. L., *Morella faya* (Aiton) Wilbur leaves and bark: bioactivities and isolated compounds, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. *Pharmaceuticals* **2016**, 9, 30. P3. doi:10.3390/ph9010015 2015
- 6- Bettencourt, A., Pereira, J. M., Costa, A. C., Seca, A. M. L., Barreto, M. C., Antitumor activities of invasive alien species from the Azores, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. *Pharmaceuticals* **2016**, 9, 31-32. P6. doi:10.3390/ph9010015 2015.
- 5- Faustino, M.; Seca, A. M. L.; Silveira, P.; Pinto, D. C. G. A. Determination and comparison of the chemical composition of *Calendula* L. species growing in

Continental Portugal, 11th National Meeting of Organic Chemistry and 4th Meeting of Therapeutic Chemistry. *Pharmaceuticals* **2016**, 9, 40-41. doi:10.3390/ph9010015 2015.

- 4- Rodrigues, N.; Almeida, A.; Silva, H.; D. Pinto, D. C. G. A.; Seca, A. M. L.; Pereira, M. L.. Potential anti-inflammatory effects of *Artemisia gorgonum* on rat liver injury induced by CCl₄. *Microsc. Microanal.* **2016**, 22 (Suppl. 4), pp 26-27. doi:10.1017/S1431927616000325
- 3- Silva, B.; Seca, A. M. L.; Moreno-Rodriguez, L.; Barreto, M. C. Antioxidant and anticholinesterasic activities of *Morella faya* (Aiton) 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.
- 2- 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
- 1- 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 20 invited oral presentations in national and international scientific meetings.

Posters More than 100 posters in national and international meetings.

PROFESSIONAL EXPERIENCE

Conferences Member of Organization Committee of 4 international and 2 national Scientific Meetings. Member of Scientific Committee of 3 international and 1 national Scientific Meetings. Participation on more than 70 national and international Scientific conferences.

Participation on peer review processes and editor decisions More than 200 verified reviewer reports prepared on last 5 years to international and SCI journals and 14 verified editor records (see my profile on Publons platform (<https://publons.com/researcher/981695/ana-m-l-seca>)).

Participation on projects Participation on 2 projects to experimental sciences implementation on High school (CV/PVI/1568; PV-0381).

Participation in juries Member of International Panel to evaluate Research Projects on 5 different calls from 3 different countries (6 reviewer reports prepared).

Member of 2 national panel to select the best candidate to a project scholarship.

Member of 10 MSc Juries on different national institutions.

Member of 1 PhD Jury on national institutions

Scientific Supervisor **Supervisor of PhD student**

3. (2023-2027) – Mariana Moniz Viveiros, PhD in Biology, University of Azores. “Desenvolvimento de Produtos Cosméticos com Efeito Antienvhecimento a partir de extratos de *Morella faya* e *Laurus azorica*”. DRCT Funding (M3.1.a/F/008/2023).Co-advisor. Ongoing

2. (2022-2026) – Wilson R. Tavares, PhD in Biology, University of Azores. “New products with agricultural and health applications: bringing value to the invasive plants *Gunnera tinctoria* and *Hedychium gardnerianum*”. DRCT Funding ().Co-advisor. Ongoing

1. (2020- 2024) - Gonçalo P. Rosa, PhD in Chemistry, Universidade de Aveiro. “Valorização eco-sustentável de *Cystoseira abies-marina* e *Caulerpa webbiana*”. FCT funding (SFRH/BD/144446/2019). Co-advisor. Ongoing.

Supervisor of MSc students

7. (2020-2021) – “Development of a mobile health condition enhancer tool for chronic patients in Azores”. Carolina Madeira Ramos do Carmo, MSc in Biomedical Sciences. University of the Azores. Waiting for the public test date to be scheduled.

6.(2020-2021) – “Potencial antienvhecimento do extrato etanólico de *Laurus azorica* e seus constituintes químicos”. Mariana Moniz Viveiros, MSc in Biomedical Sciences. University of the Azores.

5. (2016-2018) - To what extent acute exposure to volcanic gases affects cells of the respiratory epithelium, peripheral oxygen saturation and lung function?”. Wilson Rodrigues Tavares, MSc in Biomedical Sciences. University of the Azores. <http://hdl.handle.net/10400.3/4825>

4. (2016-2017) – “Chalcones: Synthesis, bioactivities and biotransformation”. Gonçalo Pereira da Rosa, MSc in Biomedical Sciences. University of the Azores. <http://hdl.handle.net/10400.3/4617>

3. (2013-2015) - “Actividades biológicas e metabolitos secundários de espécies marinhas exóticas dos açores”. Ana Margarida Lemos Bettencourt, , MSc in Biomedical Sciences. University of the Azores. <http://hdl.handle.net/10400.3/3620>

2. (2011-2013) - “*Salicornia ramosissima* J. Woods: estudo fitoquímico das partes aéreas”. Vera Mónica Sousa Isca, MSc in Chemistry – Organic chemistry and Natural Products. University of Aveiro. <http://hdl.handle.net/10773/11818>

1. (2011-2012) - “Avaliação do Potencial Farmacológico de Metabolitos Secundários

de *Cystoseira abies-marina*". Vera Lúcia Mendes Gouveia, MSc in Biomedical Sciences. University of the Azores. <http://hdl.handle.net/10400.3/1615>

Supervisor of professional internships including Eurodyssey internships.

1. (2020- 2023) – Wilson Rodrigues Tavares, research fellow hired under the project MacBioPest - Biopesticidas botánicos de la Macaronesia: investigación y saber popular (MAC/1.1a/289). February 2020 to January 2023.
2. (2021) – Mariana Moniz Viveiros, research fellow hired under the project MacBioBlue - Nuevos Productos y Procesos en el Ambito de la Biotecnología Azul de la Macaronesia (MAC/1.1b/086). June 2021 to November 2021.
3. (2017-2020) – Gonçalo Rosa Pereira, research fellow hired under the project MacBioBlue - Nuevos Productos y Procesos en el Ambito de la Biotecnología Azul de la Macaronesia (MAC/1.1b/086). September 2017 to March 2020.
4. (2011-2012) – Vera Lúcia Mendes Gouveia, research fellow hired under the project AzoAlg - Produtos com Potencial Actividade Biológica Extraídos de Algas do Mar dos Açores (FCT PTDC/MAR/100482/2008). December 2011 to June 2012.
5. (2010-2011) - Alexandra Maria da Costa Pacheco, research fellow hired under the project AzoAlg Produtos com Potencial Actividade Biológica Extraídos de Algas do Mar dos Açores (FCT PTDC/MAR/100482/2008). October 2010 to September 2011.
6. (2019) – Aida Pagès Kane. Eurodyssey Program. Internship Title "Assessment chemical composition and biological activities of *Lobophora variageta*". June-December 2019.
7. (2017) - Marie Lesenfants. Eurodyssey Program. Internship Title "Assessment of macroalgae chemical biodiversity". June-December 2017.
8. (2003) – Flávia Cristina Sousa Freitas - Professional internship included in the Estagiar L Program, financed by the Regional Government (project 57/2003). Project entitled "Natural Compound Isolation Techniques". January-June 2003.

Editorial Board Member of editorial board of 6 different international journal, one of them is Associate Editor.

Guest Editor of 4 special issues on 3 international journals, 3 of them SCI journals.

Erasmus Missions Participation on 8 ERASMUS missions (2 teaching and 6 training missions) in last 10 years.

Linguistic skills Mother tongue: Portuguese

English: Understand, Talk, Write – B2

Spanish: Understand – B2; Talk – B2; Write – C2.

Computer skills Office 365 (MS Forms, Word, Excel, Powerpoint); Outlook, Teams; Zoom (colibri) from the user's perspective. Own computer and internet access.

