

Curriculum Vitae

1. Personal data

Full name: Ana Sofia Pereira Moreira

Name under which you publish: Ana S. P. Moreira

Birth date: 09-02-1988

Gender: Female

National of: Portugal

Work address: Departamento de Química, Campus Universitário de Santiago, 3810-193 Aveiro

E-mail: ana.moreira@ua.pt

Phone number: +351 234370696

Orcid: <http://orcid.org/0000-0003-4745-0984>



2. Education

2012-2016: Ph.D. program (3rd cycle degree) in Biochemistry

Degree granting institution: University of Aveiro (UA) - Portugal

Number of curricular years: 4; **Overall classification:** Approved

Thesis title: Study of modifications induced by thermal and oxidative treatment in oligo and polysaccharides of coffee by mass spectrometry

Supervisor: Professor Maria do Rosário Gonçalves dos Reis Marques Domingues

Co-supervisor: Professor Manuel António Coimbra Rodrigues da Silva

2009-2011: Master (2nd cycle degree) in Chemistry, specialization in Analytical Chemistry and Quality

Degree granting institution: UA

Number of curricular years: 2; **Overall classification:** 18/20

Thesis title: Study of structural changes in models of coffee galactomannans

Supervisor: Professor Maria do Rosário Gonçalves dos Reis Marques Domingues

Co-supervisor: Professor Manuel António Coimbra Rodrigues da Silva

2006-2009: Biochemistry (1st cycle degree)

Degree granting institution: UA

Number of curricular years: 3; **Overall classification:** 17/20

Project title: Study of the effect of fetal malformations in the composition of the amniotic fluid by Fourier transform infrared spectroscopy

Supervisor: Professor Ana Maria Pissarra Coelho Gil

Co-supervisor: Doctor Iola Melissa Fernandes Duarte

3. Previous activity and current status

3.1. Research fellowships

2017: Post-doctoral fellowship (BDP/UI51/5041/2017)

Fellowship title: Biochemical characterization of macroalgae biomass

Funding: Project “GENIALG - GENetic diversity exploitation for Innovative macro-ALGal biorefinery”, funded by European Union’s Horizon 2020

Start date: 1/5/2017

2016: Post-doctoral fellowship (BPD/DQ/5041/2016)

Fellowship title: Structure of polysaccharides and other biomolecules: applications in nutrition and health

Funding: Protocol “IFOODTECH – Prof. Manuel Coimbra – DP.Q”

Start date: 1/7/2016; **End date:** 30/4/17

2016: Research fellowship (BI/DQ/5041/2016)

Fellowship title: Structural characterization of coffee melanoidins and evaluation of their biological properties

Funding: Protocol “YOLP – Prof. Manuel Coimbra”

Start date: 2/1/2016; **End date:** 1/4/2016

2012-2015: PhD studentship (SFRH/BD/80553/2011)

Fellowship title: Study of structural modifications induced by thermal and oxidative treatments in oligo and polysaccharides of coffee by mass spectrometry

Funding: Foundation for Science and Technology (FCT)

Start date: 1/1/2012; **End date:** 31/12/2015

2010-2011: Research fellowship

Project title: Study of structural modifications induced by thermal and oxidative degradation in oligo and polysaccharides by advanced mass spectrometry

Funding: Project FCT (PTDC/QUI-QUI/100044/2008)

Start date: 1/10/2010; **End date:** 31/12/2011

2008-2009: Scientific initiation studentship

Title: Study of the effect of fetal malformations in the composition of the amniotic fluid by Fourier transform infrared spectroscopy

Funding: FCT

Start date: 1/12/2008; **End date:** 31/11/2009

3.2. Extracurricular internships in companies

2010: Laboratório Virgílio Roldão

Laboratory address: Avenida Dr. José Henriques Varela, N.º 24-A, 2430-307 Marinha Grande

Activity sector: Clinical analyses

Start date: 6/7/2010; **End date:** 14/8/2010

2008: Sumolis - Gestão de Marcas, S.A.

Factory address: Zona Industrial da Formiga, 3100-517 Pombal

Activity sector: Food industry

Start date: 21/7/2008; **End date:** 22/8/2008

3.3. Other internships and additional training courses

2015: Institute of Food Science, Technology and Nutrition (ICTAN-CSIC)

Institute address: Calle José Antonio Novais, 10, 28040 Madrid

Research theme: Study of the effects of melanoidins recovered from instant coffee and espresso coffee capsule samples in Caco-2 colon cancer cells

Research group: Metabolism and bioactivity of phytochemicals (BIOCELL)

Supervisors: Dr. Laura Bravo and Dr. Beatriz Sarriá

Start date: 1/10/2015; **End date:** 31/10/2015

4. Current research interests

Marine lipidomics, lipids in health and disease, glycomics

5. Participation in R&D projects as team member (4)

2010-2013: Project PTDC/QUI-QUI/100044/2008

Project title: Study of structural modifications induced by thermal and oxidative degradation in oligo and polysaccharides by advanced mass spectrometry

Funding: FCT (160 944,00 €)

Institutions:

- Main contractor: University of Aveiro (UA)
- Participating institution: University of Trás-os-Montes e Alto Douro (UTAD)
- Main research unit: Organic Chemistry, Natural Products and Food Stuffs research unit (QOPNA), Department of Chemistry, UA

Team: M. Rosário M. Domingues (Principal investigator, UA), Manuel A. Coimbra (UA), Dmitry V. Evtyugin (UA), Fernando M. Nunes (UTAD), and Ana S. P. Moreira (UA)

Start date: 5/2/2010; **End date:** 4/8/2013

2016-2018: Project POCI-01-0247-FEDER-010887

Project title: “ESSENCE - a aplicação da essência do café expresso para o desenvolvimento de produtos de café de nova geração”

Funding: COMPETE 2020 - Programa Operacional Competitividade e Internacionalização (401 219,50 €)

Institutions:

- Main contractor: Novadelta
- Participating institution: UA, University of Minho, Catholic University of Porto, and Institute for Molecular and Cell Biology (IBMC)/Institute for Research and Innovation in Health (I3S)

Team(UA): Manuel A. Coimbra, Cláudia P. Passos, Ana S. P. Moreira, and Guido R. Lopes

Start date: 1/4/2016; **End date:** 31/3/2018

2018-2021: Project POCI-01-0145-FEDER-030962

Project title: Omics4Algae - Lipidomic tools for chemical phenotyping, traceability and valorisation of seaweeds from aquaculture as a sustainable source of high added-value compounds

Funding: FCT (total funding 237358.13 €)

Team(UA): M. Rosário Domingues (PI), Ana I. Lillebø, Ana S. P. Moreira, Elisabete da Costa, Elisabete Maciel, Paulo Cartaxana, Ricardo Calado, and Sónia Cruz

Start date: 1/7/2018; **End date:** 30/6/2021

2018-2021: Project POCI-01-0145-FEDER-029560

Project title: PulManCar - Microparticles design for active compounds pulmonary delivery using insulin as model

Funding: FCT (total funding 239963 €)

Team: Cláudia Pereira Passos (PI, UA), Manuel A. Coimbra (Co-IR, UA), Carlos Manuel Santos Silva (UA), Francisco Avelino da Silva Freitas (UA), Guido Rocha Lopes (UA), Dulce Helena Ferreira Martins (UA), Ana S. P. Moreira (UA), and M. Rosário Domingues (UA)

Start date: 1/7/2018; **End date:** 30/6/2021

6. Experience as scientific supervisor of 1st (5) cycle degree students

2017-2018

- 1) Main supervisor of Inês Guerra, student of the 1st cycle in Biochemistry at the UA, with the project title “Avaliação da estabilidade dos lípidos do sangue colhido em cartões de Guthrie submetidos a diferentes condições de armazenamento”.
- 2) Co-supervisor of Eva Vilhena, student of the 1st cycle in Biochemistry at the UA, with the project title “Caracterização dos hidratos de carbono da alga castanha *Saccharina latissima*”.

2016-2017

- 1) Main supervisor of Helena Ferreira, student of the 1st cycle in Biochemistry at the UA, with the project title “Analysis of the lipid profile in children with phenylketonuria”.
- 2) Co-supervisor of Marta Margarido, student of the 1st cycle in Biochemistry at the UA, with the project title “Exploratory study of the analysis of volatile metabolites of blood in Guthrie cards: application in children with phenylketonuria”
- 3) Co-supervisor of Maria João Vieira, student of the 1st cycle in Biochemistry at the UA, with the project title “Amino acid analysis in dairy products for patients with phenylketonuria”.

7. Prizes and awards received (6)

2009: Award “Águas São Cristovão”

Award funded by “Foliowaters - Exploração de águas naturais, Lda.” for the best student of science and engineering courses, fellow of the social services of the UA.

2013: Best Poster Award

Award attributed during the 2nd International Congress on Cocoa Coffee and Tea” (Naples, Italy) for the work “Hydroxyl radical-induced oxidation of arabinotriose, a model of coffee arabinogalactan side chains” of M. Domingues, **A. Moreira**, E. Costa, D. Evtugin, F. Nunes and M. Coimbra.

2014: Best Poster Award

Award attributed during the XXVIII International conference on challenges in chemistry and biology of carbohydrates (Dehradun, India) for the work “Sequential microwave assisted extraction of arabinogalactans and galactomannans from spent coffee grounds” of C. Passos, **A. Moreira**, M. Domingues, D. Evtugin and M. Coimbra.

2015: Award for the best 3rd cycle degree student of the Chemistry Department

Award attributed during the 2nd Gala Dinner organized by “Núcleo de Estudantes de Química (NEQ-AAUAv)”.

2017: Second Best Poster Award

Award attributed during the “Chemical Reactions in Foods VIII (CRF 2017)” (Prague) for the work “Understanding roasting-induced modifications in coffee polysaccharides using mass spectrometry” of **A. S. P. Moreira**, F. M. Nunes, M. R. M. Domingues and M. A. Coimbra.

2017: Bio-entrepreneur Talent Award

Award attributed during the “Microbiotec’17” for the work “Nonenzymatic production of honey-like oligosaccharides” of S. P. Silva, **A. S. P. Moreira**, M. R. M. Domingues, D. Evtugin, E. Coelho and M. A. Coimbra.

8. Published works

8.1. Theses (2)

Moreira, A. S. P. (2011). *Study of structural changes in models of coffee galactomannans*. Master thesis, University of Aveiro, Aveiro.

Moreira, A. S. P. (2016). *Study of modifications induced by thermal and oxidative treatment in oligo and polysaccharides of coffee by mass spectrometry*. PhD thesis, University of Aveiro, Aveiro.

8.2. Book chapters in international and national publishers by invitation (4)

1) **Moreira, A. S. P.**, Nunes, F. M., Domingues, M. R. M., & Coimbra, M. A. (2015). Galactomannans in coffee. In V. R. Preedy (Ed.), *Coffee in Health and Disease Prevention* (pp. 173-182). San Diego: Academic Press.

- 2) **Moreira, A. S. P.**, Domingues, M. R. M., Coimbra, M. A. (2017). Os benefícios dos compostos castanhos de alto peso molecular do café. In M. A. Coimbra (Ed.), *Bioquímica e bem-estar: Edições Afrontamento*.
- 3) **Moreira, A. S. P.**, Simões, J., Passos, C. P., Nunes, F. M., Domingues, M. R. M., & Coimbra, M. A. (2019). Melanoidins. In A. Farah (Ed.), *Coffee: Chemistry, Quality and Health*: Royal Society of Chemistry, in press.
- 4) Simões, J., **Moreira, A. S. P.**, Passos, C. P., Nunes, F. M., Domingues, M. R. M., & Coimbra, M. A. (2019). Polysaccharides and other carbohydrates. In A. Farah (Ed.), *Coffee: Chemistry, Quality and Health*: Royal Society of Chemistry, in press.

8.3. Articles in international journals with referees (30)

- 1) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., Simões, J., & Domingues, M. R. M. (2011). Evaluation of the effect of roasting on the structure of coffee galactomannans using model oligosaccharides. *Journal of Agricultural and Food Chemistry*, *59*, 10078-10087 (IF 2.906).
- 2) da Costa, E. V., **Moreira, A. S. P.**, Nunes, F. M., Coimbra, M. A., Evtuguin, D. V., & Domingues, M. R. M. (2012). Differentiation of isomeric pentose disaccharides by electrospray ionization tandem mass spectrometry and discriminant analysis. *Rapid Communications in Mass Spectrometry*, *26*, 2897-2904 (IF 2.846).
- 3) **Moreira, A. S. P.**, Nunes, F. M., Domingues, M. R., & Coimbra, M. A. (2012). Coffee melanoidins: structures, mechanisms of formation and potential health impacts. *Food & Function*, *3*, 903-915 (IF 2.694; Q1).
- 4) Azenha, C. S. R., Coimbra, M. A., **Moreira, A. S. P.**, Domingues, P., & Domingues, M. R. M. (2013). Differentiation of isomeric β -(1-4) hexose disaccharides by positive electrospray tandem mass spectrometry. *Journal of Mass Spectrometry*, *48*, 548-552 (IF 3.268; Q1).
- 5) Graça, G., **Moreira, A. S.**, Correia, A. J. V., Goodfellow, B. J., Barros, A. S., Duarte, I. F., Carreira, I. M., Galhano, E., Pita, C., Almeida, M. d. C., & Gil, A. M. (2013). Mid-infrared (MIR) metabolic fingerprinting of amniotic fluid: A possible avenue for early diagnosis of prenatal disorders? *Analytica Chimica Acta*, *764*, 24-31 (IF 4.517, Q1).
- 6) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., & Domingues, M. R. M. (2013). Roasting-induced changes in arabinotriose, a model of coffee arabinogalactan side chains. *Food Chemistry*, *138*, 2291-2299 (IF 3.259, Q1).
- 7) Andrea-Silva, J., Cosme, F., Ribeiro, L. F., **Moreira, A. S. P.**, Malheiro, A. C., Coimbra, M. A., Domingues, M. R. M., & Nunes, F. M. (2014). Origin of the pinking phenomenon of white wines. *Journal of Agricultural and Food Chemistry*, *62*, 5651-5659 (IF 2.912).
- 8) **Moreira, A. S. P.**, da Costa, E. V., Evtuguin, D. V., Coimbra, M. A., Nunes, F. M., & Domingues, M. R. M. (2014). Neutral and acidic products derived from hydroxyl radical-induced oxidation of arabinotriose assessed by electrospray ionisation mass spectrometry. *Journal of Mass Spectrometry*, *49*, 280-290 (IF 2.379).
- 9) **Moreira, A. S. P.**, Simões, J., Pereira, A. T., Passos, C. P., Nunes, F. M., Domingues, M. R. M., & Coimbra, M. A. (2014). Transglycosylation reactions between galactomannans and arabinogalactans during dry thermal treatment. *Carbohydrate Polymers*, *112*, 48-55 (IF 4.074, Q1).

- 10) Passos, C. P., **Moreira, A. S. P.**, Domingues, M. R. M., Evtuguin, D. V., & Coimbra, M. A. (2014). Sequential microwave superheated water extraction of mannans from spent coffee grounds. *Carbohydrate Polymers*, *103*, 333-338 (IF 4.074, Q1).
- 11) Silva, D. M., Nunes, C., Pereira, I., **Moreira, A. S. P.**, Domingues, M. R. M., Coimbra, M. A., & Gama, F. M. (2014). Structural analysis of dextrans and characterization of dextrin-based biomedical hydrogels. *Carbohydrate Polymers*, *114*, 458-466 (IF 4.074, Q1).
- 12) Campos, A. M., Maciel, E., **Moreira, A. S. P.**, Sousa, B., Melo, T., Domingues, P., Curado, L., Antunes, B., Domingues, M. R. M., & Santos, F. (2015). Lipidomics of mesenchymal stromal cells: Understanding the adaptation of phospholipid profile in response to pro-inflammatory cytokines. *Journal of Cellular Physiology*, *231*, 1024-1032 (IF 4.155, Q2).
- 13) da Costa, E., Melo, T., **Moreira, A. S. P.**, Alves, E., Domingues, P., Calado, R., Abreu, M. H., & Domingues, M. R. (2015). Decoding bioactive polar lipid profile of the macroalgae *Codium tomentosum* from a sustainable IMTA system using a lipidomic approach. *Algal Research*, *12*, 388-397 (IF 4.694).
- 14) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., Passos, C. P., Santos, S. A. O., Silvestre, A. J. D., Silva, A. M. N., Rangel, M., & Domingues, M. R. M. (2015). Chlorogenic acid–arabinose hybrid domains in coffee melanoidins: evidences from a model system. *Food Chemistry*, *185*, 135-144 (IF 4.052).
- 15) Ricardo, F., Pimentel, T., **Moreira, A. S. P.**, Rey, F., Coimbra, M. A., Rosário Domingues, M., Domingues, P., Costa Leal, M., & Calado, R. (2015). Potential use of fatty acid profiles of the adductor muscle of cockles (*Cerastoderma edule*) for traceability of collection site. *Scientific Reports*, *5*, 11125 (IF 5.078; Q1).
- 16) Coelho, E., Rocha, M. A. M., **Moreira, A. S. P.**, Domingues, M. R. M., & Coimbra, M. A. (2016) Revisiting the structural features of arabinoxylans from brewers' spent grain. *Carbohydrate Polymers*, *139*, 167-176.
- 17) Nunes, F. M., Lopes, E. S., **Moreira, A. S. P.**, Simões, J., Coimbra, M. A., & Domingues, M. R. M. (2016) Formation of type 4 resistant starch and maltodextrins from amylose and amylopectin upon dry heating: A model study. *Carbohydrate Polymers*, *141*, 253-262 (IF 4.219, Q1).
- 18) **Moreira, A. S. P.**, Simões, J., Nunes, F. M., Evtuguin, D. V., Domingues, P., Coimbra, M. A., & Domingues, M. R. M. (2016) Non-enzymatic transglycosylation reactions induced by roasting: new insights from models mimicking coffee bean regions with distinct polysaccharide composition. *Journal of Agricultural and Food Chemistry*, *64*, 1831-1840 (IF 2.857).
- 19) Rey, F., **Moreira, A. S. P.**, Ricardo, F., Coimbra, M. A., Domingues, M. R. M., Domingues, P., Rosa, R., Queiroga, H., & Calado, R. (2016) Fatty acids of highly-packed embryos of *Carcinus maenas* reveal homogenous maternal provisioning and no within-brood variation at hatching. *The Biological Bulletin*, *230*, 120-129 (IF 1.638).
- 20) Simões, J., **Moreira, A. S. P.**, da Costa, E., Evtuguin, D., Domingues, P., Nunes, F. M., Coimbra, M. A., & Domingues, M. R. M. (2016) Oxidation of amylose and amylopectin by hydroxyl radicals assessed by electrospray ionisation mass spectrometry. *Carbohydrate Polymers*, *148*, 290-299 (4.219, Q1).
- 21) Sousa, B., Melo, T., Campos, A., **Moreira, A. S. P.**, Maciel, E., Domingues, P., Carvalho, R. P., Rodrigues, T. R., Girão, H., & Domingues, M. R. M. (2016). Alteration in phospholipidome

- profile of myoblast H9c2 cell line in a model of myocardium starvation and ischemia. *Journal of Cellular Physiology*, 231, 2266-2274 (IF 4.155).
- 22) Alves, E., Melo, T., Rey, F., **Moreira, A. S. P.**, Domingues, P., & Domingues, M. R. (2016) Polar lipid profiling of olive oils as a useful tool in helping to decipher their unique fingerprint. *LWT - Food Science and Technology*, 74, 371-377 (IF 2.711).
- 23) **Moreira, A. S. P.**, Nunes, F. M., Simões, C., Maciel, E., Domingues, P., Domingues, M. R. M., & Coimbra, M. A. (2017). Transglycosylation reactions, a main mechanism of phenolics incorporation in coffee melanoidins: Inhibition by Maillard reaction. *Food Chemistry*, 227, 422-431 (IF 4.052).
- 24) Ricardo, F., Pimentel, T., Maciel, E., **Moreira, A. S. P.**, Rosário Domingues, M., & Calado, R. (2017). Fatty acid dynamics of the adductor muscle of live cockles (*Cerastoderma edule*) during their shelf-life and its relevance for traceability of geographic origin. *Food Control*, 77, 192-198 (IF 3.388).
- 25) Maciel, E., Felgueiras, J., Silva, E. M. P., Ricardo, F., **Moreira, A. S. P.**, Melo, T., Campos, A., Fardilha, M., Domingues, P., & Domingues, M. R. (2017). Lipid remodelling in human melanoma cells in response to UVA exposure. *Photochemical & Photobiological Sciences* (IF 2.235).
- 26) da Costa, E., Melo, T., **Moreira, A. S. P.**, Bernardo, C., Helguero, L., Ferreira, I., Cruz, M. T., Rego, A. M., Domingues, P., Calado, R., Abreu, M. H., & Domingues, M. R. (2017). Valorization of lipids from *Gracilaria* sp. through lipidomics and decoding of antiproliferative and anti-inflammatory activity. *Marine Drugs*, 15 (IF 3.345).
- 27) Rocha-Rodrigues, S., Rodríguez, A., Gonçalves, I. O., **Moreira, A.**, Maciel, E., Santos, S., Domingues, M. R., Frühbeck, G., Ascensão, A., Magalhães, J. (2017). Impact of physical exercise on visceral adipose tissue fatty acid profile and inflammation in response to a high-fat diet regimen. *The International Journal of Biochemistry & Cell Biology*, 87, 114-124 (IF 2016: 3.505).
- 28) **Moreira, A. S. P.**, Nunes, F. M., Simões, C., Maciel, E., Domingues, P., Domingues, M. R. M., Coimbra, M. A. (2017) Data on coffee composition and mass spectrometry analysis of mixtures of coffee related carbohydrates, phenolic compounds and peptides, *Data in Brief* 13, 145-161 (open access).
- 29) Alves, E., Rey, F., da Costa, E., **Moreira, A. S. P.**, Pato, L., Pato, L., Domingues, M. R. M., Domingues, P. (2018) Olive (*Olea europaea* L. cv. *Galega vulgar*) seed oil: major lipid composition of a promising agro-industrial by-product as influenced by fruit ripeness. *European Journal of Lipid Science and Technology*. 120, 1700381.
- 30) Ribeiro, T., Cardoso, V., Ferreira, L. M. A., Lordelo, M. M. S., Coelho, E., **Moreira, A. S. P.**, Domingues, M. R. M., Coimbra, M. A., Bedford, M. R., Fontes, C. M. G. A. (2018). Xylo-oligosaccharides display a prebiotic activity when used to supplement wheat or corn-based diets for broilers. *Poultry Science*, pey336-pey336.

15. Communications in scientific meetings

15.1. Oral communications by invitation (7)

- 1) **Moreira, A. S. P.**, Coimbra, M. A., Domingues, M. R. M. Efeito do tratamento térmico na estrutura de oligossacarídeos de manose: uma abordagem por espectrometria de massa, *Análise de Carbo-hidratos e Espectrometria de Massa - fundamentos e aplicações de interesse industrial (Workshop)*, Aveiro, Portugal, 4 May 2011.
- 2) **Moreira, A. S. P.**, Coimbra, M. A., Domingues, M. R. M. MS and structural changes promoted by roasting in model coffee arabinogalactans, *I Workshop of MS and carbohydrates*, Aveiro, Portugal, 18 April 2012.
- 3) **Moreira, A. S. P.**, da Costa, E. V., Evtuguin, D. V., Coimbra, M. A., Nunes, F. M., Domingues, M. R. M. Hydroxyl radical-induced oxidation of arabinotriose, a model of coffee arabinogalactan side chains. *3rd Workshop – Mass spectrometry and carbohydrates*. Aveiro, Portugal, 23 April 2014.
- 4) **Moreira, A. S. P.**, Domingues, M. R. M., Coimbra, M. A. Coffee polysaccharides and changes induced by roasting: an overview. *International workshop and mini-conference - Development of mitigation strategies for acrylamide in diabetic bakery products (Collaboration between Portugal and Slovakia)*. Aveiro, Portugal, 3 December 2014.
- 5) **Moreira, A. S. P.**, Domingues, M. R. M., Coimbra, M. A. Melanoidinas do café: estrutura e potenciais efeitos na saúde humana. *Biochemistry Day - Bioquímica e bem-estar*. Aveiro, Portugal, 29 April 2015.
- 6) **Moreira, A. S. P.**, Simões, J., Coimbra, M. A., Domingues, M. R. M. Mass spectrometry-based analytical strategies for the structural analysis of glycans. *5th Workshop – Mass spectrometry and carbohydrates*. Aveiro, Portugal, 18 May 2016.
- 7) **Moreira, A. S. P.**; Domingues, M. R. M.; Coimbra, M. A. Understanding coffee melanoidins formation using model systems and MS-based approaches, *6th Workshop Mass spectrometry and carbohydrates*, Aveiro, Portugal, 24 May 2017.

15.2. Other oral communications (20)

- 1) Costa, E. V., **Moreira, A. S. P.**, Coimbra, M. A., Evtuguin, D. V., Domingues, M. R. Mass spectrometry assessment of xylo-oligosaccharides oxidation by hydroxyl radicals: understanding pulp bleaching degradation of xylans. *II Workshop of MS and carbohydrates*, Aveiro, Portugal, 15 May 2013.
- 2) Lopes, E, **Moreira, A. S. P.**, Nunes, F. M., Coimbra, M. A., Domingues, M. R. M. Structural modifications of glucosyl oligo and polysaccharides during dry roasting. *II Workshop of MS and carbohydrates*, Aveiro, Portugal, 15 May 2013.
- 3) Coimbra, M. A., **Moreira, A.**, Nunes, F. M., Domingues, M. R. M. Structural features of coffee melanoidins and their potential health impacts. *EuroFoodChem XVII*, Istanbul, Turkey, 7-10 May 2013.
- 4) Domingues, M. R. M, Lopes, E., **Moreira, A. S. P.**, Nunes, F. M., Coimbra, M. A. Structural modifications of glucosyl oligo and polysaccharides during dry roasting. *XXIII Encontro Nacional da Sociedade Portuguesa de Química*, Aveiro, Portugal, 12-14 June 2013.
- 5) Coimbra, M. A., Moreira, A., Passos, C., Simões, J., Nunes, F. M., Domingues, M. R. Structure and potential health benefits of coffee carbohydrate polymers. *2nd International Congress on Cocoa Coffee and Tea*, Naples, Italy, 9-11 October 2013.
- 6) Domingues, M. R. M., **Moreira, A. S. P.**, Nunes, F. M., Evtuguin, D. V., Costa, E. V., Coimbra, M. A. Understanding oligosaccharides free radical oxidation using mass spectrometry.

- Glupor 10 - 10th International Meeting of the Portuguese Carbohydrate Chemistry Group & 1^o Workshop do Grupo da Química dos Glúcidos. Covilhã, Portugal, 1 December 2013.
- 7) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., Domingues, M. R. M. Transglycosylation reactions between coffee polysaccharides during roasting: a model study. Glupor 10 - 10th International Meeting of the Portuguese Carbohydrate Chemistry Group & 1^o Workshop do Grupo da Química dos Glúcidos. Covilhã, Portugal, 1 December 2013.
 - 8) Silva, L., **Moreira, A. S. P.**, Domingues, M. R. M., Palma, A., Ferreira, J. A., Coimbra, M. A. *Helicobacter pylori* cell-surface glycans: Occurrence and structural insights towards development of a novel pathogen microarray. Glupor 10 - 10th International Meeting of the Portuguese Carbohydrate Chemistry Group & 1^o Workshop do Grupo da Química dos Glúcidos. Covilhã, Portugal, 1 December 2013.
 - 9) Coimbra, M. A., **Moreira, A. S. P.**, Passos, C. P., Simões, J., Nunes, F. M., Domingues, M. R. The challenging chemistry of coffee carbohydrates: structural features and potential biological properties. International conference on challenges in chemistry and biology of carbohydrates (CARBO-XXVIII). Dehra Dun, India, 20-22 January 2014.
 - 10) da Costa, E., Melo, T., **Moreira, A.**, Alves, E., Domingues, P., Calado, C., Abreu, H., Domingues, R. Deciphering the lipidomic profile of the seaweed *Codium tomentosum* toward the bioprospection of phytochemicals. 4th Workshop in lipidomics. University of Aveiro, Portugal, 6 May 2015.
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 - 12) Simões, J., **Moreira, A. S. P.**, Passos, C. P., Nunes, F. M., Domingues, M. R. M., Coimbra, M. A. Transglycosylation reactions between galactomannans and arabinogalactans during coffee roasting. 3rd International Congress on Cocoa Coffee and Tea. Aveiro, Portugal, 22-24 June 2015.
 - 13) Nunes, F. M., **Moreira, A. S. P.**, Cruz, A. C. S., Simões, J., Coelho, C., Passos, C. P., Domingues, M. R. M., Coimbra, M. A. Coffee melanoidins: an update. 3rd International Congress on Cocoa Coffee and Tea. Aveiro, Portugal, 22-24 June 2015.
 - 14) Coimbra, M. A., **Moreira, A. S. P.**, Passos, C. P., Simões, J., Nunes, F. M., Domingues, M. R. M. Chemical changes induced by roast in polysaccharides-rich foods. Euro Food Chem XVIII. Madrid, Spain, 13-16 October 2015.
 - 15) Coimbra, M. A., **Moreira, A. S. P.**, Passos, C. P., Simões, J., Nunes, F. M., Domingues, M. R. Roasting induced chemical changes in starch and coffee polysaccharides and their implications in food composition and health. 4th EPNOE International Polysaccharide Conference. Warsaw, Poland, 19-22 October 2015.
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- 19) Silva, S.P., **Moreira, A.S.P.**, Domingues, M.R.M., Evtugin, D., Coelho, E., Coimbra M.A. Honey oligosaccharides – What is the bees’ role? 6th Workshop of Mass Spectrometry and Carbohydrates, Aveiro, Portugal, 24 May, 2017.
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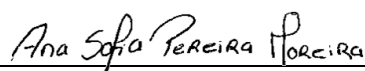
15.2. Communications in poster (26)

- 1) Graça, G., Duarte, I. F., Goodfellow, B. J., Barros, A. S., Diaz, S. O., Pinto, J., **Moreira, A. S. P.**, Carreira, I. M., Galhano, E., Pita, C., Gil, A. M. Metabolic profiling of second trimester human amniotic fluid for the study of prenatal disorders. Select Biosciences Conference on Advances in Metabolic Profiling. Florence, Italy, 9-10 November 2010.
- 2) **Moreira, A. S. P.**, Coimbra, M. A., Domingues, M. R. M. Effect of dry thermal processing on the structure of mannosyl oligosaccharides. XVI Encontro Luso-Galego de Química, Aveiro, 10 a 12 de Novembro de 2010.
- 3) **Moreira, A. S. P.**, Domingues, M. R. M., Nunes, F. M., Coimbra, M. A. Transglycosylation reactions during dry thermal processing of a mixture of mannotriose and arabinotriose mimicking coffee roasting conditions, Glupor 9 - 9th International Meeting of the Portuguese Carbohydrate Chemistry Group/ 5th Iberian Carbohydrate Meeting, Vila Real, Portugal, 4-7 September 2011.
- 4) **Moreira, A. S. P.**, Domingues, M. R. M., Nunes, F. M., Coimbra, M. A. Effect of dry thermal processing on the structure of mannosyl and galactomannosyl oligosaccharides using mass spectrometry. 1st International Congress on Cocoa Coffee and Tea. Novara, Italy, 13-16 September 2011.
- 5) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., Domingues, M. R. M. Roasting-induced changes in side chains of coffee arabinogalactans: a model study to evaluate changes in arabinose residues. 26th International Carbohydrate Symposium (ICS). Madrid, Spain, 22-27 July 2012.
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- 7) Costa, E. V., **Moreira, A. S. P.**, Coimbra, M. A., Evtugin, D. V., Domingues, M. R. M. The assessment of xylo-oligosaccharides oxidation with hydroxyl radicals by mass spectrometry: a way to understand the degradation of xylans in pulp bleaching. XXIII Encontro Nacional da Sociedade Portuguesa de Química. Aveiro, Portugal, 12 a 14 Junho 2013.

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- 10) Passos, C. P., **Moreira, A. S. P.**, Domingues, M. R. M., Evtugin, D. V., Coimbra, M. A. Sequential microwave assisted extraction of arabinogalactans and galactomannans from spent coffee grounds. International conference on challenges in chemistry and biology of carbohydrates (CARBO-XXVIII). Dehra Dun, India, 20-22 January 2014.
- 11) Andrea-Silva, J., Cosme, F., Filipe-Ribeiro, L., **Moreira, A. S. P.**, Malheiro, A. C., Coimbra, M. A., Domingues, M. R. M., Nunes, F. M. Origin of the pinking phenomenon of white wines. XII Encontro de Química dos Alimentos. Instituto Superior de Agronomia, Portugal, 10 a 12 de Setembro de 2014.
- 12) **Moreira, A. S. P.**, Coimbra, M. A., Nunes, F. M., Domingues, M. R. M. Chlorogenic acid-arabinose derivatives as part of coffee melanoidin structures. XX Encontro Luso-Galego de Química. Complexo FFUP/ICBAS, Porto, Portugal, 26 a 28 de Novembro de 2014.
- 13) Domingues, M. R. M., **Moreira, A. S. P.**, Simões, J., Pereira, A. T., Passos, C. P., Nunes, F. M., Coimbra, A. C. Galactomannan-arabinogalactan hybrid polysaccharides formed during coffee roasting. XX Encontro Luso-Galego de Química. Complexo FFUP/ICBAS, Porto, Portugal, 26 a 28 de Novembro de 2014.
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- 19) **Moreira, A. S. P.**, Maciel, E., Domingues, P., Nunes, F. M., Domingues, R. M., Coimbra, M. A., Non-enzymatic transglycosylation reactions in roasted foods: occurrence, catalysts and inhibitors. XIII Encontro de Química dos Alimentos. Porto, Portugal, 14-16 September 2016.

- 20) **Moreira, A. S. P.**, Passos, C. P., Simões, J., Maciel, E., Nunes, F. M., Domingues, P., Domingues, M. R., Coimbra, M. A. The relevance of non-enzymatic transglycosylation reactions for coffee melanoidins formation. The 26th International Conference on Coffee Science. Kunming, China, 13-19 November 2016.
- 21) **Moreira, A. S. P.**, Nunes, F. M., Domingues, M. R. M., Coimbra, M. A. Understanding roasting-induced modifications in coffee polysaccharides using mass spectrometry. The 8th international conference Chemical Reactions in Foods VIII (CRF 2017). Prague, Czech Republic, 15-17 February, 2017.
- 22) Vieira, M. J., Ferreira, H., Margarido, M., **Moreira, A. S. P.**, Domingues, M. R. M, Rocha, S. M., Coimbra, M. A. Phenylketonuria: a metabolomic and nutritional approach. Biochemistry day@UA, Aveiro, Portugal, 18 April, 2017.
- 23) Bastos, R., Coelho, E., **Moreira, A. S. P.**, Domingues, M. R., Evtyugin, D., Coimbra, M. A. Towards unveiling the structural features of *Saccharomyces pastorianus* cell wall glucans. 12^a Reunião do grupo dos glúcidos – Glupor 12, Aveiro, Portugal, 11-13 September, 2017, P43, pp. 125.
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- 26) Silva, S. P.; **Moreira, A. S. P.**; Domingues, M. R. M.; Evtyugin, D.; Coelho, E.; Coimbra M. A.; “Nonenzymatic production of honey-like oligosaccharides”, Microbiotec’17, Porto, Portugal, 7-9 December, 2017, P-256, pp.374.

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Ana Sofia Pereira Moreira