

Personal data

Lucélia Rodrigues Tavares
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Academic degrees

2006- Degree in Engenharia Agronómica (Agricultural sciences) by Instituto Superior de Agronomia, Universidade Técnica de Lisboa (17 values)

Previous and current scientific and/or professional activities

- February 2006 to July 2006- Training in molecular biology applied to fruit species at Secção de Horticultura, Instituto Superior de Agronomia, Universidade Técnica de Lisboa
- January 2007 to October 2007- Research student at Disease and Stress Biology Laboratory, ITQB, Universidade Nova de Lisboa
- October 07 until the moment- PhD student at Disease and Stress Biology Laboratory, ITQB, Universidade Nova de Lisboa
- 10th to 23rd August 2008- Short-Term Scientific Mission sponsored by COST Office at PPFQ, Scottish Crop Research Institute, Dundee, Scotland, UK

Area of scientific activity

Plant biochemistry, recovery of Portuguese endemic plants by use of their bioactive compounds in human health

Antioxidant activity of Portuguese endemic plants extracts (*Rubus* sp. and *Juniperus* sp.)

Polyphenols biosynthesis pathway

Genome profiling of Parkinson's-induced neuroblastoma cells treated with antioxidant polyphenols

Present research interests

Recovery of endemic plants by use of their bioactive compounds in human health

Phytochemicals

Portuguese endemic plants

Polyphenolic plant extracts

Total polyphenols content

Antioxidant capacity

Molecular biology (transcript analysis)

Polyphenols biosynthesis pathway

Parkinson disease

Other skills/activities

DNA and RNA extractions of fruit tree species

PCR, RT-PCR, Real time RT-PCR

Nucleic acid electrophoresis

Cloning

Nucleotide sequences analysis

Animal cell culture

Member of collaborative network:

-Action 863: Euroberry Research: from Genomics to Sustainable Production, Quality & Health since 2007

Publications

Thesis

1. TAVARES, L. R. 2006. Caracterização molecular de alelos S em pereira 'Rocha'. Relatório de final de curso de Engenharia Agronómica. ISA. Lisboa.

Papers in international scientific periodicals with referees

1. MOTA, M., L. Tavares, M. C. M. Oliveira. 2007. Identification of S-alleles in pear (*Pyrus*

communis L.) cv. Rocha and other European cultivars. *Scientia Horticulturae*. 113, 13-19.

2. FORTALEZAS, S., L. Tavares, C. Santos, R. Pimpão, M. Tyagi, V. Pontes, R. Ferreira. 2010. Antioxidant properties and neuroprotective capacity of strawberry tree fruit (*Arbutus unedo*). *Nutrients*. 2, 214-229
3. TAVARES, L., S. Fortalezas, C. Carrilho, G.J. McDougall, D. Stewart, R. B. Ferreira, C. Santos. 2010. Antioxidant and antiproliferative properties of strawberry tree tissues. *Journal of Berry Research*. 1, 1-10
4. TAVARES, L., D. Carrilho, M. Tyagi, D. Barata, A.T. Serra, C.M.M. Duarte, R.O. Duarte, R. Feliciano, M.R. Bronze, P. Chicau, M.D. Espirito-Santo, R.B. Ferreira, C.N. Santos. 2010. Antioxidant Capacity of Macaronesian Traditional Medicinal Plants. *Molecules*. 15(4), 2576-2596
5. SANTOS, C., L. Tavares, D. Carrilho, D. Barata, T. Serra, C. Duarte, R. Feliciano, R. Bronze, R. Duarte, D. Espirito-Santo, A. Teixeira, R. Ferreira. 2010. Screening for antioxidant activities in Portuguese endemic plants with medicinal use (in preparation).

Papers in conference proceedings

1. TAVARES, L. R., M. Mota, M. C. Oliveira, 2009. Análise da expressão dos alelos S em pereira 'Rocha'. *Actas portuguesas de Horticultura- 1º Simpósio Nacional de Fruticultura 12-13 Outubro de 2006*, 11, pp 2-9;
2. MOTA, M., L. Tavares, M. C. M. Oliveira. 2009. Identificação de alelos S em diferentes cultivares de pereira presentes nos pomares do Oeste e avaliação da compatibilidade gametofítica com a 'Rocha'. *Actas portuguesas de Horticultura- 1º Simpósio Nacional de Fruticultura 12-13 Outubro de 2006*, 11, pp 29-35;
3. MOTA M, Tavares L, Oliveira CM (2008) Identification of S-Alleles in the Pear cv. Rocha and Other European Pear Cultivars. In AD Webster, CM Oliveira, eds, *Proceedings of the Xth International Pear Symposium*, Vols 1 and 2. International Society Horticultural Science, Leuven 1, pp 431-437;
4. SANTOS, L. Tavares, D. Duarte, S. Esteves, V. Pontes, A. Teixeira, R. Ferreira. 2008. Poder antioxidante dos pequenos frutos e seus efeitos benéficos para a saúde humana. *III Colóquio Nacional da Produção de Pequenos Frutos*. Sever do Vouga. de 26 a 27 de Junho (in press);
5. TAVARES, L., D. Barata, C. Santos, D. Carrilho, T. Serra, R. Feliciano, C. Duarte, R. Bronze, P. Oliveira, R. Ferreira. 2008. Phytochemical characterization of leaf and root tissues from raspberry, including antioxidant activity evaluation. *Proceedings of the XXIVth International Conference on polyphenols*. Salamanca, Spain. 407-409pp;
6. CARRILHO, D., L. Tavares, D. Barata, C. Santos, T. Serra, R. Duarte, C. Duarte, D. Espirito-Santo, A. Teixeira, R. Ferreira. Antioxidant properties and phytochemical analysis of an uncharacterized Portuguese endemic aromatic herb, *Thymus capitellatus*. *Proceedings of the XXIVth International Conference on polyphenols*. Salamanca, Spain. 467-469pp;
7. SANTOS, C., D. Duarte, D. Barata, L. Tavares, D. Carrilho, T. Serra, A. Teixeira, C. Duarte, P. Alves, R. Ferreira. Phytochemical evaluation of *Quercus* species- Antioxidant properties of *Q. suber* leaves in a neurodegeneration cell model. *Proceedings of the XXIVth International Conference on polyphenols*. Salamanca, Spain. 789-791pp.

Abstracts in international journals with referees:

1. TAVARES, L., R.C. Pimpão, C. Santos, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Phytochemical characterization of *Juniperus* spp. leaves. 57th International Congress and Annual Meeting of the GA. August 16 – 20, Geneva, Switzerland. *Planta Med* 2009. 75: PA73, 923.
2. SANTOS, C., L. Tavares, S. Fortalezas, D. Carrilho, V. Pontes, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Neuroprotective and MMP-9 inhibitory activity of hydroethanolic extract of *Arbutus unedo* leaves. 57th International Congress and Annual Meeting of the GA. August 16 – 20, Geneva, Switzerland. *Planta Med* 75: PA76, 924.

Gene Bank accessions

51 sequences deposited in NCBI Gene Bank

Communications

Other oral communications

1. TAVARES, L. R., M. Mota, M. C. Oliveira, 2009. Análise da expressão dos alelos S em pereira 'Rocha'. Actas portuguesas de Horticultura- 1º Simpósio Nacional de Fruticultura 12-13 Outubro de 2006, 11, pp 2-9;
2. SANTOS, C., L. Tavares, D. Duarte, S. Esteves, V. Pontes, A. Teixeira, R. Ferreira. 2008. Poder antioxidante dos pequenos frutos e seus efeitos benéficos para a saúde humana. III Colóquio Nacional da Produção de Pequenos Frutos. Sever do Vouga. de 26 a 27 de Junho.
3. TAVARES, L.R., C.N. Santos, G.J. McDougall, D. Stewart, R. B. Ferreira. 2008. Portuguese endemic wild blackberries as an alternative source of polyphenols and antioxidant activity. COST863 WG1 + WG4 Joint Meeting Bioactive compounds in berry fruits: genetic control, breeding, cultivar, analytical aspects and human health. Zurich. 3rd-5th December 2008.
4. SANTOS, C., L. Tavares, V. Pontes, P. Alves, R. Ferreira. 2008. Antioxydant capacity of portuguese endemic *Rubus* fruits in a neurodegeneration cell model. COST863 WG1 +WG4 Joint Meeting Bioactive compounds in berry fruits:genetic control, breeding, cultivar, analytical aspects and human health. Zurich. 3rd - 5th December 2008.
5. TAVARES, L.R., C.N. Santos, G.J. McDougall, S. Fortalezas, D. Carrilho, D. Stewart, R. B. Ferreira. 2009. Phytochemical profiling of different tissues from portuguese endemic *Rubus* species, COST863 Management Committee and Workshop on Defining needs of berry industries, Lisbon, 19th - 21st March 2009.

Posters in conferences

1. MOTA, M., L. Tavares, M. C. M. Oliveira. 2009. Identificação de alelos S em diferentes cultivares de pereira presentes nos pomares do Oeste e avaliação da compatibilidade gametofítica com a 'Rocha'. Actas portuguesas de Horticultura- 1º Simpósio Nacional de Fruticultura 12-13 Outubro de 2006, 11, pp 29-35;
2. MOTA, M., L. Tavares, M. C. M. Oliveira. 2007. Identification of S-alleles in pear cv. 'Rocha' and other European cultivars. X International Pear Symposium. Poster PO 41.
3. SANTOS, C., D. Barata, L. Tavares, D. Carrilho, T. Serra, A. Teixeira, C. Duarte, P. Alves, R. Ferreira. 2008. Antioxidant activity of *Quercus suber* leaf extracts. NutriGenomics2008. Abstracts book. 69-70pp.
4. TAVARES, L., D. Barata, C. Santos, D. Carrilho, T. Serra, R. Feliciano, C. Duarte, R. Bronze, P. Oliveira, R. Ferreira. 2008. Phytochemical characterization of leaf and root tissues from raspberry, including antioxidant activity evaluation. XXIVth International Conference on Polyphenols. Polyphenols Communications 2008. 407-409pp.
5. CARRILHO, D., L. Tavares, D. Barata, C. Santos, T. Serra, R. Duarte, C. Duarte, D. Espírito-Santo, A. Teixeira, R. Ferreira. Antioxidant properties and phytochemical analysis of na uncharacterized Portuguese endemic aromatic herb, *Thymus capitellatus*. XXIVth International Conference on Polyphenols. Polyphenols Communications 2008. 467-469pp.
6. SANTOS, C., D. Duarte, D. Barata, L. Tavares, D. Carrilho, T. Serra, A. Teixeira, C. Duarte, P. Alves, R. Ferreira. Phytochemical evaluation of *Quercus* species- Antioxidant properties of *Q. suber* leaves in a neurodegeneration cell model. XXIVth International Conference on Polyphenols. Polyphenols Communications 2008. 789-791pp.
7. FORTALEZAS, S., L. Tavares, C. Santos, R. Pimpão, M. Tyagi, V. Pontes, R. Ferreira. 2009. Antioxidant properties and neuroprotective capacity of strawberry tree fruit (*Arbutus unedo*). International Conference on FoodOmics. Cesena, Italy, from 28 to 29 May. Abstract book. 61pp.
8. PIMPÃO, R., L. Tavares, C. Santos, R. M. Tyagi, S. Fortalezas, R. Feliciano, R. Bronze, M. Silva, V. Várzea, R. Ferreira. 2009. Coffee production wastes are rich sources in high antioxidant phenolic compounds. International Conference on FoodOmics. Cesena, Italy, from 28 to 29 May. Abstract book. 96pp.
9. TYAGI, M., L. Tavares, C. Santos, R. Pimpão, S. Fortalezas, R. Feliciano, R. Bronze, R. Ferreira. 2009. *Armeria rouyana*: a rich source of vitamin C for nutraceuticals. International Conference on FoodOmics. Cesena, Italy, from 28 to 29 May. Abstract book. 115pp.

10. TAVARES, L., R.C. Pimpão, C. Santos, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Phytochemical characterization of *Juniperus* spp. leaves. 57th International Congress and Annual Meeting of the GA. August 16 – 20, Geneva, Switzerland. *Planta Med* 2009. 75: PA73, 923.
11. SANTOS, C., L. Tavares, S. Fortalezas, D. Carillho, V. Pontes, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Neuroprotective and MMP-9 inhibitory activity of hydroethanolic extract of *Arbustus unedo* leaves. 57th International Congress and Annual Meeting of the GA. August 16 – 20, Geneva, Switzerland. *Planta Med* 75: PA76, 924.
12. SANTOS, C.N., L. Tavares, D. Carrilho, M. Tyagi, D. Barata, A.T. Serra, C.M.M. Duarte, R.O. Duarte, R. Feliciano, M.R. Bronze, D. Espirito-Santo, R.B. Ferreira. 2009. Antioxidant properties of endemic plants from Macaronesia with traditional medicinal use. 2º Congresso Iberoamericano de Fitoterapia. October 8-10. Lisbon, Portugal. Abstract book P83, 132.
13. TAVARES, L., C. Santos, S. Fortalezas, D. Carrilho, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Antioxidant and antiproliferative properties of strawberry tree tissues. 4th International Conference on Polyphenols and Health. December 7-11. Harrogate, UK. Abstract book. P39, 185.
14. SANTOS, C., L. Tavares, V. Pontes, P. Alves, G.J. McDougall, D. Stewart, R.B. Ferreira. 2009. Portuguese crowberry (*Corema album*), an interesting antioxidant white berry. 4th International Conference on Polyphenols and Health. December 7-11. Harrogate, UK. Abstract book. P40, 186.
15. PIMPÃO, R.C., C.N. Santos, L. Tavares, D. Carrilho, M. Tyagi, D. Barata, A.T. Serra, C.M.M. Duarte, R.O. Duarte, R. Feliciano, M.R. Bronze, R.B. Ferreira, D. Espirito-Santo. 2009. Medicinal plants endemic from Macaronesia: polyphenolic profile and its antioxidant properties. 4th International Conference on Polyphenols and Health. December 7-11. Harrogate, UK. Abstract book. P303, 333.