Amélia Pilar Rauter

Departamento de Química e Bioquímica (DQB) e Centro de Química e Bioquímica (CQB), Faculdade de Ciências, Universidade de Lisboa (FCUL)
Rua Ernesto de Vasconcelos, Campo Grande, Edifício C8, 5º Piso, 1749-016 Lisboa, Portugal
Telephone: +351 217500075; Mobile:+351 964408824;
E-mail: aprauter@fc.ul.pt; Skype name: amelia.pilar.rauter
URL: http://webpages.ciencias.ulisboa.pt/~aprauter/

Academic degrees: Habilitation (Agregação), FCUL, 2002; Doktor der Technischen Wissenschaft, Technische Universität Graz – Austria, 1982, stated equivalent to "Ph.D. in Chemistry", UTL, 1984; Graduation in Chemical Engineering, UTL, 1974.
Professional positions: Full Professor, FCUL (since 26-02-2018); Associate Professor, FCUL, (2003-2018); Invited professor: Universidad de Valladolid, June 2016; Université Pierre et Marie Curie (UPMC – Paris VI), France, October 2013; Polish Academy of Sciences, August 2009, Warshaw, Poland; Université Paris Sud 11, Orsay, France, June 2009; Lecturer (1984-2002) of DQB-FCUL; Assistant Professor of Organic Chemistry, Institut für Organische Chemie,Technischen Universität Graz - Austria (1983-1975); Student teacher, Instituto de Física e Matemática (1974-1972);
President of Department of Chemistry and biochemistry, FCUL (2018-2020); Founder member and Senior Researcher of Center of Chemistry and Biochemistry (CQB-FCUL) (2001-); Member of CQB-FCUL Executive Committee (2013-2018) and Coordinator of CQB-FCUL in 2018); Founder and Leader of CQB Carbohydrate Chemistry Group (2001-); Founder (1992) and Leader of the Portuguese Society of Chemistry Carbohydrate Chemistry Group (1992-2001); Researcher of the Centre of Mass Spectrometry, IST-UTL (1994-2001); Founder and Coordinator of the Portuguese Carbohydrate Chemistry Group of the Portuguese Society of Chemistry (2001-1995); Coordinator of DQB-FCUL Graduation in Chemistry (2004-2003); Coordinator of the Graduation in Chemistry and of the Euromaster in Chemistry and its specializations in Chemistry, Health and Nutrition, Green Chemistry, Analytical Chemistry, Applied Electrochemistry (2011-2009).

1. ACHIEVEMENTS, HONORARY APPOINTMENTS and AWARDS

At the International level

I**n Europe**

- **Fellow of the Royal Society of Chemistry** since October 2017;

- ***Member*** of the **European Innovation Partnership on Active and Healthy Ageing (EIP AHA) Action Group 3** – Prevention of functional decline and frailty, established for the implementation

of its strategic plan for 2012-2015 and leader of its Faculty of Sciences-University of Lisbon Consortium;
- ***Member*** **of the COST Action CM1102 entitled "Multivalent Glycosystems for Nanoscience MultiGlycoNano"** 2013 -2016

- ***Founder*** of the Iberian Carbohydrate Meetings, starting in 1999.
- ***European Chemist***, title given by the European Chemist registration Board, established in 1992 by the European Communities Chemistry Council, 1998.

Networks

1. Member of the delegates participating in Metrology of Carbohydrates for Enabling European BioIndustries - 'CarboMet' , CSA – Coordination & Support Action, Horizon 2020 FET-Open program, starting 2016.
2. Member of the European Innovation partnership on Active and Healthy Ageing – Action Group A3, since 2012.
3. Member of the steering committee of the ESF funded network Euroglycoforum, and Executive of the network interest group Glycochemistry (2009-2014);
4. Member of PCBNet - Stem Cells, Prion Proteins and Alzheimer's Disease: A Prion Chemical Biology Network, Sheffield, UK (2011-2013);
5. Member of the research network entitled "Valuation of Portuguese Salvia species in terms of food quality and funcional food production", approved by The British Council Convenium/Fundação para a Ciência e Tecnologia with The University of Sheffield (2008-2009).

European and other International Organizations

- National representative at the European Carbohydrate Organisation since 1997, President of this Organization (2001-2003) and its Secretary since 2013.
- President-Elect and National Representative at the Internacional Carbohydrate Organisation and Founder of the International Carbohydrate Organization Young Researcher Award, 2014.

Editorial board membership and editorial activities

As Editor:
1**.** Editor of the Royal Society of Chemistry Book Series Carbohydrate Chemistry – Chemical and biological approaches – invited by the RSC to relaunch the series, since 2008;
2. Associate Editor of
Mediterranean Journal of Chemistry since 2012;
3. Guest editor of Topics in Current Chemistry for volumes 294 and 295 dedicated to Carbohydrates in Sustainable Development, 2010;
4. Guest editor of the European Journal of Organic Chemistry for the publication of the contributions dedicated to the centenary of the Portuguese Society of Chemistry, 2013.

5. Guest editor of Pure and Applied Chemistry for the publication of the contributions dedicated to the 19th European Symposium of Organic Chemistry, 2015.
6. Guest editor of Pure and Applied Chemistry for the publication of the contributions dedicated to the XXVIII International Carbohydrate Symposium, 2016.

As member of editorial/advisory boards:
1. Member of the editorial board of Pure and Applied Chemsitry since 2016;
2. Member of the editorial board of the International Journal of Bioorganic Chemistry &

Molecular Biology since 2016;
3. Member of the editorial board of Medicinal Chemistry since 2017;
4. Member of the advisory board of European Journal of Organic Chemistry, starting 2013;
5. Member of the editorial board of Carbohydrate Research until 2005;
6. Member of the editorial board of the Journal of Carbohydrate Chemistry since 1998;
7. Member of the editorial board of the Journal Natural Products – an Indian Journal, since 2006;

IUPAC

- Secretary of IUPAC Organic and Biomolecular Division (III) (since 2016)
- Secretary of the Subcommittee on Biomolecular Chemistry of IUPAC Organic and Biomolecular Division (III) (2012-2015)
Titular member of IUPAC Division (VIII) of Chemical Nomenclature and Structure Representation (2011-2015) and national representative (2016-2018)
- Associate member of IUPAC Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS) until 2014 and Division VIII representative in ICTNS (2014-2015);
- Associate member of IUPAC Division (III) of Organic and Biomolecular Chemistry, starting 2014

AWARDS

- Prémio Hispano-Português Madinaveitia-Lourenço, 2017, given by Real Sociedad Española de Química for her scientific international projection.
- 1º Prémio given by Fundação para a Ciência e a Tecnologia/União Latina, for the translation, in co-authorship with Bernardo Herold, of the Book *"Organikum – Organisch-Chemisches Grundpraktikum, 19th Ed., Deutscher Verlag der Wissenschaften*, Barth, 1993, titled "ORGANIKUM – Química Orgânica Experimental", 2nd Ed., edited by Fundação Calouste Gulbenkian, Lisboa, 1997.

At the national level

-**Awarded** with the **Mention of Excellency** (Menção Excelente) by curricular ponderation in all evaluations since 2008.
- Member of the LisbonLiving+ Consortium Executive Committee (2013-Sept.2014). This consortium was established for the application to a EIT KIC on Healthy Life and Active Ageing;
- Member of the UL Network on Health (2014 -);
- Member of the research core team of the FCT-Ph.D. Program entitled Catalysis and Sustainability (CATSUS), 2013;
- Member of the Steering Committee of the Technology Transfer Unit of the University of Lisbon UL-INOVAR (2009-2013)
-Member of the Executive committee of Pedagogic Matters of Colegio de Quimica da UL
- Member of the Executive Committee of CQB-FCUL since Feb. 2014.

2. RESEARCH INTERESTS

Design and synthesis of new leads based on carbohydrate structures with new mechanisms of action or alternatively their isolation from natural resources and structure elucidation. Some promising molecules for metabolic (diabetes), degenerative diseases (Alzheimer´s and Prion diseases, cancer) and infection are currently under investigation.

3. RESEARCH PROJECTS AND OTHER EUROPEAN FUNDED PROGRAMS

Has coordinated/participated as PI of FCUL in projects sponsored by EU, IUPAC, NATO, FCT, QREN, FLAD, CRUP, among other funding agencies and programs and with national and international companies (42 projects). The projects funded by EU and IUPAC are highlighted below:

Projects approved by the European Union

1. "Diagnostic and Drug Discovery Initiative for Alzheimer's Disease", Industry-Academia Partnerships and Pathways (IAPP), FP7-PEOPLE-2013-IAPP, Project Nr. 612347, 2014-2018, PI from FCUL.
2. "PERsonalised ICT supported Service for Independent Living and Active Ageing", Small or medium-scale focused research project (STREP), FP7-ICT-2013-10, Project Nr. 610359, 2013-2016, PI from FCUL.
3. "Healthy ageing with innovative functional foods/leads for degenerative and metabolic diseases (INNOVAFUNAGEING)", approved in the "Invitation for Commitments to the Strategic Implementation Plan of the European Innovation Partnership on Active and Healthy Ageing (EIP AHA) - Action A3", 2012-2015, Coordinator and renewal approved in 2016.
4. "11th. European Carbohydrate Symposium", European Commission -Accompanying Measure, Quality of Life and Management of Living Resources, 2001, Coordinator.
5. "EuroConferences on Carbohydrates in Drug Research", Commission of the European Communities - Training and Mobility Research Programme, 1997, Coordinator from FCUL.
6. "EuroConferences on Carbohydrate Mimics", Commission of the European Communities – Human Capital and Mobility Programme, 1999, Coordinator from FCUL.
7. "Synthese de Molecules Biologiquement Importantes a partir des Glucides", EEC Science Program, 1991–1994, PI-FCUL.

IUPAC Projects

8. "Recommendations on Nomenclature of Flavonoids", IUPAC project No. 2009-018-2-800 (2010-), Chair.
9. "Rules for Abbreviation of Protecting Groups", IUPAC Project No. 2011-044-1 (2012-2013), team member.
10. "Revision and extension of IUPAC Recommendations on Carbohydrate Nomenclature", IUPAC Project No. 2012-039-1 (2013-), team member.
11. "Revision and extension of IUPAC Recommendations on Carbohydrate Nomenclature", Project No 2015-035-2-800 (2015-), team member.
12. "Healthy life and active ageing – the contribution of functional food ingredients", Project No. 2013-054-2-300 (2013 -), Chair.

4. ORGANISATION OF INTERNATIONAL CONFERENCES

Chairperson of the International Conferences:
29th International Carbohydrate Symposium, July 15-19, 2018; 19th European Symposium on Organic Chemistry, 2015; 6th Spanish-Portuguese-Japanese Organic Chemistry Symposium, 2012; Glycosciences in the International Year of Chemistry – Applications to Human Health and Disease, 2011; Carbohydrates as Organic Raw Materials V – Building a Sustainable Future, 2009; 11th. European Carbohydrate Symposium, 2001; 2nd Euroconference on Carbohydrates in Drug Research, 2000; Phytochemical Society of Europe Meeting entitled "Natural Products from the Plants and Marine Organisms of the Mediterranean and Atlantic Seaboard: Isolation, Synthesis and Industrial Applications", 2000; 1st International Meeting of the Portuguese Carbohydrate Chemistry Group, 1995, and has been member of the scientific and organizing committees of a number of International and National Meetings.

5. TEACHING ACTIVITIES

- Initiative to create the EuroMaster in Chemistry with specialization in Chemistry, Health and Nutrition of DQB-FCUL, structured this course and was responsible for its implementation (2006).
- Responsible for Organic Drug Synthesis and Molecular Glycobiology, optional courses of the EuroMaster in Chemistry with specialization in Chemistry, Health and Nutrition of DQB-FCUL since 2006.
- Responsible for the course Organic Chemistry I (1st year, Graduation in Chemistry and Technological Chemistry) since 2002.
- Responsible for Carbohydrate Chemistry (3rd year, Graduation in Chemistry, optional), lectured since its implementation in 2002.
- Responsible for the organization of the following post-graduation 3 day courses:
  1. "Structure and Conformation of Carbohydrates. NMR and Molecular Recognition", lectured by Jesus Jiménez Barbero, Filipa Marcelo e Ana Arda (Centro de Investigaciones Biológicas, CSIC, Spain, in 2011;
  2. "Industrial Drug Research" lectured by Dr. Hans Peter Wessel, Hoffmann-La Roche, Basel, Switzerland, 2010;
  3. "Molecular Mechanisms of Drugs" lectured by Prof. Beat Ernst, Universidade de Basel, Switzerland, in 2009.

6. SUPERVISION OF PH.D. AND MASTER THESIS

Supervisor of 20 Ph.D. theses, and of five additional Ph.D.students, who are currently carrying out their research. Also supervised 19 Master thesis and 10 Post-Doc fellowships granted by Fundação para a Ciência e a Tecnologia (FCT).

Supervisor of the following Ph.D. theses (when acting as co-supervisor, this will be mentioned case by case):

1. Catarina Vizetto Duarte, "Antitumoural activity of Cystoseira species: insights into the mechanism of action", SFRH/BD/81425/2011, supervision of Prof. Joao Varela (Universidade do Algarve), co-supervision of Prof. Amélia Rauter (FCUL), Universidade do

Algarve, 2016.

2. Ana Rita Xavier de Jesus, “Chemoenzymatic synthesis of sodium-glucose co-transporters sugar-based inhibitors for the treatment of diabetes”, SFRH/BD/78236/2011, co-supervision of Prof. Jian Liu (University of North Caroline, USA) and Prof. Timothy Dore (New York University of Abu Dhabi), Faculdade de Ciências, Universidade de Lisboa, 2015.
3. "The first synthesis of glycosylflavanones catalysed by praseodymium triflate: a straightforward approach to potential antidiabetic agents", Rui Miguel Galhano dos Santos Lopes, SFRH/BD/30699/2006, co-supervision of Prof. Jorge Justino (Instituto Politecnico de Santarem/Escola Superior Agraria), Universidade de Lisboa, 2013.
4. “Study of the bioactive extracts of Salvia sclareoides Brot. and Asteriscus vogelii (Webb.) Walp. and research on their bioactive principles”, Isabel Maria Martins Horta Branco, Universidade de Lisboa, 2011.
5. “Synthesis of new sugar derivatives containing an α,ß-unsaturated carbonyl system in their structure and biological evaluation”, Nuno Manuel Ribeiro Martins Xavier, SFRH/BD/39251/2007, co-supervision of Dr. Yves Queneau (Université de Lyon, France), Universidade de Lisboa, 2011.
6. “Polyfunctionalized carbohydrate-derived scaffolds for the production of libraries of bioactive compounds”, Ana Catarina de Araújo Silva, SFRH/BD/17815/2004, co-supervision of Prof. Francesco Nicotra (Università degli Studi di Milano-Bicocca, Italy), Universidade de Lisboa, 2010, European Ph.D.
7. “Selective Anchoring of Cyclic Thionocarbamates on Ketohexoses”, Ana Catarina Simão, SFRH/BD/25891/2005, co-supervision of Prof. Patrick Rollin (Université d´Orléans, France) and Prof. Jorge Justino (Instituto Politecnico de Santarem/Escola Superior Agraria), Université d’Orléans, 2009.
8. "Carbohydrate-based 1,3-oxazoline-2-thiones as original bioactive structures. Synthesis and reactivity", Sandrina Isabel Ribeiro Martins da Silva, SFRH/BD/16937/2004, co-supervision of Prof. Jorge Justino (Instituto Politecnico de Santarem/Escola Superior Agraria) and Prof. Patrick Rollin (Université d´Orléans, France), Universidade de Lisboa, 2009.
9. “Total Synthesis and Stereochemical Assignment of Miharamycins”, Filipa Margarida Barradas de Morais Marcelo, SFRH/BD/17775/2004, co-supervision of Prof. Pierre Sinaÿ (Universite Pierre et Marie Curie, Paris, France), and of Prof. Jorge Justino (Instituto Politecnico de Santarem/Escola Superior Agraria), Universidade de Lisboa, 2009.
10. “Synthesis of gem-difluorocarbasugars”, João Carlos Falcão Sardinha, SFRH/BD/17839/2004, co-supervision of Prof. Pierre Sinaÿ (Universite Pierre et Marie Curie, Paris, France), Universidade de Lisboa, 2009.
11. "Oxetane delta-Amino Acids: Synthesis and Derivatization", Susana Dias Lucas, SFRH/BD/16592/2004, co-supervision of Dr. Hans Peter Wessel (Hoffmann-La Roche, Switzerland), Universidade de Lisboa, 2009.
12. "Synthetic approaches for the condensation of sugars with O-, N- and S-nucleophiles", Tânia Vanessa Santos de Almeida, SFRH/BD/3306/2000, Universidade de Lisboa, 2006.
13. "Contribution to the phytochemical study of plants endemic to Madeira Island: Flavonoids and alkaloids from Genista tenera", Alice Martins, co-supervision of Prof. Jorge Justino (Instituto Politécnico de Santarém) and of Prof. Carlos Borges (DQB-FCUL), Universidade de Lisboa, 2006.
14. "Nitrenium ion chemistry: Investigation of the intramolecular cyclization of ethyl omega-(azidophenil)-2-phenylalcanoates", Orlando da Silva Pinto, Universidade de Lisboa, 2003.
15. "Synthesis of sugars containing butenolides in their structure", Tana Lukeba Canda, Universidade de Lisboa, 2002.
16. "Polen characterization by phenolics profile and bioactivity studies", Maria da Graça Ribeiro Campos, supervision of Prof. Dout. Proença da Cunha (Faculdade de Farmácia, Universidade de Coimbra) and co-supervision of Prof. Amelia Pilar Rauter, 1997.

17. "Synthesis of unsaturated bioactive moieties in carbohydrates", Maria Isabel Ismael, Universidade da Beira Interior, 1997.
18. "Synthesis of Pseudo-C-Nucleosides", José Albertino Figueiredo, Universidade da Beira Interior, 1997.
19. "Synthesis of the hexopyranosidic sugar moiety analogues of Miharamycin", Maria João Dias Rua Ferreira, Universidade de Lisboa, 1996.
20. "Synthesis of the branched hexopyranosidic moiety of Amipurimycin. Development of novel methods for deoxygenation and for acetonation", Ana Cristina da Silva Fernandes, Universidade de Lisboa, 1996.

7. Ph.D. STUDENTS CURRENTLY UNDER MY SUPERVISION

1. João Manuel Ventura Cardoso de Barros, "Macrophage ligands type lectine-galactose (MGL): chemical synthesis and molecular recognition studies by NMR", co-supervised by Dr Filipa Marcelo (UNL), started in 2015.
2. Vasco Miguel Candeias Cachatra, "New synthetic strategies and structural optimisation of the sugar moiety from a selective butyrylcholinesterase inhibitor ", SFRH/BD/90359/2012.
3. Catarina Alexandra dos Santos Dias, "New molecular entities for multitarget therapy: infectious and neurodegenerative diseases", BDE Grant, co-supervision of Dr. Dália Barbosa (CIPAN), SFRH/BDE/51998/2012.
4. João Pedro Almeida Pais, "Development of new antibiotics eficiente against Bacillus anthracis", BDE Grant, co-supervision of Dr. Dália Barbosa (CIPAN) and Dr. Ricardo Dias (BIOFIG-FCUL), SFRH/BDE/51957/2012.
5. Ana Marta de Jesus Gomes de Matos, "From a multitarget antidiabetic glycosyl isoflavone towards new molecular entities against Diabetes and Alzheimer's disease: generation of lead series and target assessment", co-supervision of Prof. Paula de Macedo (FCM-UNL), SFRH/BD/93170/2013.

8. PUBLICATIONS

Author of over 150 publications and 12 published/8 granted patents. Some of the peer reviewed publications and book chapters in the last ten years are listed below. Most of the published papers fall within the areas of organic chemistry, medicinal chemistry, multidisciplinary chemistry and applied chemistry, and are listed by decreasing order of year published.

Papers (2018-2008)

2018

1. C. Dias, J. P. Pais, R. Nunes, M.-T. Blázquez-Sánchez, J. T. Marquês, A. F. Almeida, P. Serra, N. M. Xavier, D. Vila-Viçosa, M. Machuqueiro, A. S. Viana, A. Martins, M. S. Santos, A. Pelerito, R. Dias, R. Tenreiro, M. C. Oliveira, M. Contino, N. A. Colabufo, R. F. M. de Almeida, A. P. Rauter, Sugar-Based Bactericides Targeting Phosphatidylethanolamine-Enriched Membranes, Nature Commun. 2018, 9, 4857 (DOI: 10.1038/s41467-018-06488-4).

2. A. M. Matos, M. P. Macedo, A. P. Rauter, Bridging type 2 diabetes and Alzheimer's disease: assembling the puzzle pieces in the quest for the molecules with therapeutic and preventive potential, Med. Res. Rev., 2018, 38(1), 261-324.

3. Nomenclature of Flavonoids (IUPAC Recommendations 2017), A. P. Rauter, M. Ennis, K.-H. Hellwich, B. J. Herold, D. Horton, G. P. Moss, I. Schomburg, Pure Appl. Chem. 2018, 90(9), 1429-1486.

4. Broad bean (Vicia faba L.) pods: a rich source of bioactive ingredients with antimicrobial, antioxidant, enzyme inhibitory, anti-diabetic and health-promoting properties, F. Mejri, S. Selmi, A. Martins, H. Benkhoud, T. Baati, H. Chaabane, L. M. L. Serralheiro, A. P. Rauter, K. Hosni, Food & Function 2018, 9(4), 2051 – 2069.

5. Membrane Targeting Antibiotics: Recent Developments Outside the Peptide Space, C. Dias, A. P. Rauter, Future Med. Chem. 2018, in press.

6. A. R. Jesus, D. Vila-Viçosa, M. Machuqueiro, A. P. Marques, T. M. Dore, A. P. Rauter, Targeting Type 2 Diabetes with C-Glucosyl Dihydrochalcones as Selective Sodium Glucose Co-Transporter 2 (SGLT2) Inhibitors: Synthesis and Biological Evaluation J. Med. Chem. 2017, 60, 568−579.

7. M. T. Blazquez-Sanchez, A. M. de Matos, A. P. Rauter, Exploring Anti-Prion Glyco-Based and Aromatic Scaffolds: A Chemical Strategy for the Quality of Life, Molecules 2017, 22(6), 864, DOI: 10.3390/molecules22060864

8. D. Batista, P. L. Falé, M. L. Serralheiro, M.-E. Araújo, C. Dias, I. Branco, C. Grosso, J. Coelho, A. Palavra, P. J. A. Madeira, A. Martins, A. P. Rauter, Phytochemical Characterization and Biological Evaluation of the Aqueous and Supercritical Fluid Extracts from Salvia sclareoides Brot., Open Chem. 2017, 15, 82–91

9. M. J. Rodrigues, L. Custodio, A. Lopes, M. Oliveira, N. R. Neng, J. M. F. Nogueira, A. Martins, A. P. Rauter, J. Varela, L. Barreira, Unlocking the in vitroanti- inflammatory and antidiabetic potential of Polygonum maritimum, Pharm. Biol. 2017, 55(1), 1348-1357

2016

10. M. J. Rodrigues, V. Neves, A. Martins, A. P. Rauter, N. R. Neng, J. M. F. Nogueira, J. Varela, L. Barreira, L. Custodio, In vitro antioxidant and anti-inflammatory properties of Limonium algarvense flowers' infusions and decoctions: A comparison with green tea (Camellia sinensis), Food Chemistry, 2016, 200, 322-329

11. P. Dias, A. C. Figueiredo, A. Martins, A. P. Rauter. Flower colour and essential oil composition in Erica australis L. grown in Portugal. Journal of Essential Oil Bearing Plants, 2016, 19(4), 1013-1018.

12. A. R. Jesus, A. P. Marques, A. P. Rauter, An easy approach to dihydrochalcones via chalcone in situ hydrogenation, Pure and Applied Chemistry, 2016, 88(4), 349-361

13. C. Vizetto-Duarte, L. Custodio, K. Gangadhar, J. H. G. Lago, C. Dias, A. M. Matos, N. Neng, J. M. F. Nogueira, L. Barreira, F. Albericio, A. P. Rauter, J. Varela, Isololiolide, a carotenoid metabolite isolated from the brown alga Cystoseira tamariscifolia, is cytotoxic and able to induce apoptosis in hepatocarcinoma cells through caspase-3 activation, decreased Bcl-2 levels, increased p53 expression and PARP cleavage, Phytomedicine, 2016, 23(5), 550-557

14. C. Vizetto-Duarte, L. Custodio, G. Acosta, J. H. G. Lago,T. R. Morais, C. B. de Sousa, K. Gangadhar, M. J. Rodrigues, H. Pereira, R. T. Lima, M. H. Vaconcelos, L. Barreiro, A. P. Rauter, F. Alberício, J. Varela, Can macroalgae provide promising anti-tumoral compounds? A closer look at Cystoseira tamariscifolia as a source for antioxidant and anti-hepatocarcinoma compounds. PEERJ, 2016, 4, article e1704, DOI:10.7717/peed.1704

15. C. Vizetto-Duarte, L. Custodio, L. Barreira, M. M. da Silva, A. P. Rauter, F. Albericio, J. Varela, Proximate biochemical composition and mineral content of edible species from the genus Cystoseira in Portugal, Bot. Mar., 2016, 59(4), 251-257

16. M. Illario, A. S. Maione, M. R. Rusciano, E. Goessens, A. Rauter, N. Braz, H. Jager-Wittenaar, C. Di Somma, M. Soprano, L. Vuolo, P. Campiglia, M. A. Succi, H. Griffiths, T. Hartman, A. Colao, R. Roller-Wirnsberger, An integrated nutritional approach as a sustainable tool to prevent malnutrition in older people and promote active and healthy ageing. The EIP on AHA Nutrition Action Group, Advances in Public Health, 2016, ID 5678782, 9 pages (http://dx.doi.org/10.1155/2016/5678782)

17. A. P. Rauter, The Molecules of Life. In: Horizon 2020 Projects: Portal, 2016, vol 10, 194-195. (www.horizon2020publications.com/H10/194).

2015

18. V. Cachatra, A. Almeida, J. Sardinha, S. D. Lucas, A. Gomes, P. D. Vaz, M. H. Florencio, R. Nunes, D. Vila-Viçosa, M. J. Calhorda, A. P. Rauter, Wittig Reaction: Domino Olefination and Stereoselectivity DFT Study. Synthesis of the Miharamycins' Bicyclic Sugar Moiety, Org. Lett., 2015, 17(22), 5622-5625, DOI: 10.1021/acs.orglett.5b02849

19. S. Schwarz, B. Siewert, R. Csuk, A. P. Rauter, New antitumor 6-chloropurine nucleosides inducing apoptosis and G2/M cell cycle arrest, Eur. J. Med. Chem. 2015, 90, 592-602, DOI: 10.1016/j.ejmech.2014.11.019

20. L. Unione, B. X. Xu, D. Diaz, S. Martin Santamaria, A. Poveda, J. Sardinha, A. P. Rauter, Y. Blériot, Y. M. Zhang, F. J. Cañada, M. Sollogoub, J. Jiménez-Barbero, Conformational Plasticity in Glycomimetics: Fluorocarbamethyl-l-idopyranosides Mimic the Intrinsic Dynamic Behaviour of Natural Idose Rings, 2015, Chem. Eur. J. 21(29), 10513-10521, DOI: 10.1002/chem.201501249

21. C. Vizetto-Duarte, H. Pereira, C. Bruno de Sousa, A. P. Rauter, F. Alberício, L. Custódio, L. Barreira, J. Varela, Fatty acid profile of different species of algae of the Cystoseira genus: a nutraceutical perspective. Natural Product Research, 2015, 29(13), 1264-1270, DOI: 10.1080/14786419.2014.992343

22. L. Custódio, F. H. Pereira, M. J. Rodrigues, L. Barreira, A. P. Rauter, F.Alberício, J. Varela, Botryococcus braunii and Nannochloropsis oculata extracts inhibit cholinesterases and protect human dopaminergic SH-SY5Y cells from H2O2-induced cytotoxicity, J. Appl. Phycology, 2015, 27 (2), 839-848, DOI: 10.1007/s10811-014-0369-4

23. P. Dias, P. L. Falé, A. Martins, A. P. Rauter, Digestibility and Bioavailability of the Active Components of Erica australis L. Aqueous Extracts and Their Therapeutic Potential as Acetylcholinesterase Inhibitors, Evidence-Based Complementary and Alternative Medicine 2015, Article ID 854373, 7 pages, DOI: 10.1155/2015/854373

24. D. Batista. P. L. Fale´,M. L. Serralheiro, M. E. Araujo, P. J. A. Madeira, C. Borges, I. Torgal, M. Goulart, J. Justino, A. Martins, A. P. Rauter, New In Vitro Studies on the Bioprofile of Genista tenera Antihyperglycemic Extract, Nat. Prod. Bioprospect., 2015, 5(6), 277-285

25. M. J. Rodrigues, A. Soszynski, A. Martins, A. P. Rauter, N. R. Neng, J. M. F. Nogueira, J. Varela, L. Barreira, L. Custódio, Unravelling the antioxidant potential and the phenolic composition of different anatomical organs of the marine halophyte Limonium algarvense, Ind. Crops Prod. 2015, 77, 315-322

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