

Curriculum Vitae

Nuno Manuel Xavier, b. 2. Nov. 1982, Vila Real, Portugal

Institutional Address: Centro de Química Estrutural, Departamento de Química e Bioquímica, Faculdade de Ciências, Universidade de Lisboa, Campo Grande, Ed. C8, 5º Piso, 1749-016 Lisboa

E-mail: nmxavier@fc.ul.pt

Researcher unique identifiers: ORCID ID: 0000-0001-8739-8768 ; Ciência ID: 5C1B-445A-46A3 ;

ResearcherID: B-4040-2011 ; Scopus Author ID: 55971690900 ; Loop profile: 777020

URL: <http://webpages.fc.ul.pt/~nmxavier/>

<https://ciencias.ulisboa.pt/en/perfil/nmxavier>

<https://cqe.tecnico.ulisboa.pt/members/12758>

Academic Formation

05/2011 Ph.D. degree in Organic Chemistry from the University of Lisbon (UL) Lisbon, Portugal, and Ph.D. degree in Chemistry (Speciality Chemistry) from the National Institute of Applied Sciences of Lyon (INSA Lyon), France.

Supervisors: Prof. Dr. Amélia P. Rauter (UL), Dr. Yves Queneau (INSA Lyon).

09/2007 – 12/2007 Visiting Research Student at the Institute of Organic Chemistry, University of Hamburg, Germany. Supervisor: Prof. Dr. Joachim Thiem.

2005 Graduated in Chemistry, Faculdade de Ciências, Universidade de Lisboa (FCUL).

Academic Employments / Post-doctoral Experience / Affiliation to Research Units

Since 09/2020 Invited Assistant Professor at Faculdade de Ciências, Universidade de Lisboa (FCUL), Portugal.

Since 07/2020 Assistant Researcher at Centro de Química Estrutural (CQE), FCUL, selected under the 2018 Individual Call to Scientific Employment Stimulus by the Portuguese Foundation for Science and Technology (FCT).

Since 12/2017 Integrated Member of CQE, FCUL.

01/2014 – 12/2018 Researcher (*FCT Investigator*) at FCUL, contracted under the 2013 FCT Investigator Programme with a FCT Investigator Starting Grant.

01/2013 to 12/2019 Integrated Member of the Center of Chemistry and Biochemistry, UL.

06/2012 – 12/2013 Postdoctoral Research Fellow at FCUL (with Prof. Dr. Amélia P. Rauter).

06/2011 – 06/2012 Postdoctoral Researcher at the University of Natural Resources and Life Sciences of Vienna (with Prof. Dr. Paul Kosma), Austria.

Scientific Interests: Organic Chemistry; Medicinal Chemistry; Glycosciences

He has been dedicated to the development of efficient synthetic approaches and methodologies towards new bioactive carbohydrate-containing molecules (*e.g.* sugar enones; sugar lactones; thio- and iminosugars; C- and N-glycosyl compounds, phosphorylated sugars; nucleosides; nucleotides and nucleos(t)ide analogs). The lines of research in which he has been focussed included the development of molecules of potential therapeutic interest for diseases such as cancer, Alzheimer's disease or bacterial infections, as inhibitors of relevant disease-associated enzymes or exhibiting innovative mechanisms of action. He has been particularly focused on medicinal chemistry of nucleos(t)ides.

Publications: 41 (30 journal articles, 9 chapters, 2 published patent applications).

Peer-Reviewed Articles in Journals: 30

[16 as first author, 9 as corresponding author, 20 in journals belonging to the first quartile (Q1) of the SCImago Journal Rank (SJR), namely *Nat. Commun.* (Top 5%), *Org. Lett.* (Top 5%), *Pharmaceuticals* (Top 10%), *Top. Curr. Chem.* (Top 10%), *Eur. J. Med. Chem.* (Top 15%), *Adv. Carbohydr. Chem. Biochem.*, *Bioorg. Med. Chem.*, *ChemPlusChem*, *J. Mol. Cat. A: Chemical*, *Eur. J. Org. Chem.*, *Org. Biomol. Chem.*, *Synthesis*].

30. “Synthesis of triazole-containing furanosyl nucleoside analogs and their phosphate, phosphoramidate or phosphonate derivatives as potential sugar diphosphate or nucleotide mimetics”, A. Fortuna, P. J. Costa, M. F. M. Piedade, M. C. Oliveira, N. M. Xavier, *ChemPlusChem* **2020**, 85, 1676-1691. DOI: 10.1002/cplu.202000424.

29. “Special Issue "Carbohydrates 2018"”, A. P. Rauter, N. M. Xavier, *Pharmaceuticals* **2020**, 13(1), 5. DOI: 10.3390/ph13010005 (*Editorial*).

28. “Synthesis and biological evaluation of structurally varied 5’-/6’-isonucleosides and theobromine-containing *N*-isonucleosidyl derivatives”, N. M. Xavier, E. C. de Sousa, M. P. Pereira, A. Loesche, I. Serbian, R. Csuk, M. C. Oliveira, *Pharmaceuticals* **2019**, 12(3), 103. DOI: 10.3390/ph12030103.

27. “Novel dodecyl-containing azido and glucuronamide-based nucleosides exhibiting anticancer potential”, N. M. Xavier, R. Goncalves-Pereira, R. Jorda, D. Hendrychová, M. C. Oliveira, *Pure Appl. Chem.* **2019**, 91, 1085-1105. DOI: 10.1515/pac-2019-0106.

26. “Sugar-based bactericides targeting phosphatidylethanolamine-enriched membranes”, 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. Colabufo, R. F. M. Almeida, A. P. Rauter, *Nat. Commun.* **2018**, 9, 4857, 1-12. DOI: 10.1038/s41467-018-06488-4.

25. “Furanosyl nucleoside analogs embodying triazole or theobromine units as potential lead molecules for Alzheimer's disease”, R. G. Pereira, M. P. Pereira, S. G. Serra, A. Loesche, R. Csuk, S. Silvestre, P. J. Costa, M. C. Oliveira, N. M. Xavier, *Eur. J. Org. Chem.* **2018**, 2018, 2667-2681. DOI: 10.1002/ejoc.201800245 (*Included in the Special Issue celebrating the EurJOC 20th Anniversary*).

24. “Synthesis of 1,5-anhydro-D-glycero-D-gluco-heptitol derivatives as potential inhibitors of bacterial heptose biosynthetic pathways”, M. Blaukopf, D. Atamanyuk, N. M. Xavier, V. Gerusz, P. Kosma, *Synthesis* **2017**, 49(24), 5320-5334. DOI: 10.1055/s-0036-1591518.

23. “Liquid crystalline glycosteroids and acyl steroid glycosides (ASG)”, Z. Yang, R. Xu, F. Ali-Rachedi, N. M. Xavier, S. Chambert, L. Soulère, M. Ahmar, G. Mackenzie, E. J. Davis, J. W. Goodby, S. J. Cowling, Y. Queneau, *Liq. Cryst.* **2017**, 44, 2089–2107. DOI: 10.1080/02678292.2017.1346211.

22. “Exploitation of new structurally diverse D-glucuronamide-containing *N*-glycosyl compounds: synthesis and anticancer potential”, N. M. Xavier, A. Porcheron, D. Batista, R. Jorda, E. Řezníčková, V. Kryštof, M. C. Oliveira, *Org. Biomol. Chem.* **2017**, 15, 4667-4680. DOI: 10.1039/C7OB00472A.

21. "Synthesis and antiproliferative evaluation of novel azido nucleosides and their phosphoramidate derivatives", N. M. Xavier, R. G. Pereira, R. Jorda, E. Řezníčková, V. Kryštof, M. C. Oliveira, *Pure Appl. Chem.* **2017**, 89(9), 1267–1281. DOI: 10.1515/pac-2016-1218.
20. "Synthesis of glucopyranos-6'-yl purine and pyrimidine isonucleosides as potential cholinesterase inhibitors. Access to pyrimidine-linked pseudodisaccharides through Mitsunobu reaction", D. Batista, S. Schwarz, A. Loesche, R. Csuk, P. J. Costa, M. C. Oliveira, N. M. Xavier, *Pure Appl. Chem.* **2016**, 88(4), 363-379. DOI: 10.1515/pac-2016-0102.
19. "Synthesis and evaluation of the biological profile of novel analogs of nucleosides and of potential mimetics of sugar phosphates and nucleotides", N. M. Xavier, S. D. Lucas, R. Jorda, S. Schwarz, A. Loesche, R. Csuk, M. C. Oliveira, *Synlett*, **2015**, 26, 2663–2672. DOI: 10.1055/s-0035-1560591.
18. "Self-organizing behaviour of glycosteroidal bolaphiles: insights into lipidic microsegregation", R. Xu, F. Ali-Rachedi, N. M. Xavier, S. Chambert, F. Ferkous, Y. Queneau, S. J. Cowling, E. J. Davis, J. W. Goodby, *Org. Biomol. Chem.*, **2015**, 13, 783–792. DOI: 10.1039/C4OB02191F.
17. "Enantioselective synthesis in carbohydrate-based drug discovery: imino sugars, alkaloids and macrolide antibiotics", N. M. Xavier, A. P. Rauter, *Curr. Top. Med. Chem.*, **2014**, 14(10), 1235–1243. DOI: 10.2174/1568026614666140423103848.
16. "Synthesis of purine nucleosides from D-glucuronic acid derivatives and evaluation of their cholinesterase inhibitory activities", N. M. Xavier, S. Schwarz, P. D. Vaz, R. Csuk, A. P. Rauter, *Eur. J. Org. Chem.* **2014**, 2014, 2770–2779. DOI: 10.1002/ejoc.201301913.
15. "A "natural" approach: synthesis and cytotoxicity of monodesmosidic glycyrrhetic acid glycosides", S. Schwarz, B. Siewert, N. M. Xavier, A. R. Jesus, A. P. Rauter, R. Csuk, *Eur. J. Med. Chem.* **2014**, 72, 78–83. DOI: 10.1016/j.ejmech.2013.11.024.
14. "Efficient and first regio- and stereoselective direct C-glycosylation of a flavanone catalysed by Pr(OTf)₃ under conventional heating or ultrasound irradiation", R. G. Santos, N. M. Xavier, J. C. Bordado, A. P. Rauter, *Eur. J. Org. Chem.* **2013**, 2013, 1441–1447. DOI: 10.1002/ejoc.201201518.
13. "Environmentally friendly approaches to the synthesis of new antibiotics from sugars", N. M. Xavier, A. P. Rauter, *Pure Appl. Chem.* **2012**, 84(3), 803–816. DOI: 10.1351/PAC-CON-11-11-11.
12. "Exploitation of furanoid 5-azido-3-C-branched-chain sugars towards highly functionalized nitrogen-containing carbohydrate derivatives", N. M. Xavier, Y. Queneau, A. P. Rauter, *Eur. J. Org. Chem.* **2011**, 2011, 713–720. DOI: 10.1002/ejoc.201001119.
11. "Synthesis of sugars embodying conjugated carbonyl systems and related triazole derivatives from carboxymethyl glycoside lactones. Evaluation of their antimicrobial activity and toxicity", N. M. Xavier, M. Goulart, A. Neves, J. Justino, S. Chambert, A. P. Rauter, Y. Queneau, *Bioorg. Med. Chem.* **2011**, 19, 926–938. DOI: 10.1016/j.bmc.2010.11.060.
10. "Carbohydrate-based lactones: synthesis and applications", N. M. Xavier, A. P. Rauter, Y. Queneau, *Top. Curr. Chem.* **2010**, 295, 19–62. DOI: 10.1007/128_2010_61.
9. "Zeolites and other silicon-based promoters in carbohydrate chemistry", A. P. Rauter, N. M. Xavier, S. D. Lucas, M. Santos, *Adv. Carbohydr. Chem. Biochem.* **2010**, 63, 29–99. DOI: 10.1016/S0065-2318(10)63003-X.

8. "Furanose C-C-linked γ -lactones: a combined ESI FT-ICR MS and semi-empirical calculations study", P. J. A. Madeira, N. M. Xavier, A. P. Rauter, M. H. Florêncio, *J. Mass Spectrom.* **2010**, *45*, 1167–1178. DOI: 10.1002/jms.1806.
7. "Electrospray ionization mass spectrometry analysis of newly synthesized α,β -unsaturated γ -lactones fused to sugars", P. J. A. Madeira, A. M. Rosa, N. M. Xavier, A. P. Rauter, M. H. Florêncio, *Rapid Comm. Mass Spectrom.* **2010**, *24*, 1049–1058. DOI: 10.1002/rcm.4490.
6. "Zeolites as efficient catalysts for key transformations in carbohydrate chemistry", N. M. Xavier, S. D. Lucas, A. P. Rauter, *J. Mol. Cat. A: Chemical* **2009**, *305*, 84–89. DOI: 10.1016/j.molcata.2009.01.003.
5. "Synthetic approaches to novel thiosugar scaffolds containing α,β -unsaturated carbonyl groups", N. M. Xavier, P. J. A. Madeira, M. H. Florêncio, A. P. Rauter, *Eur. J. Org. Chem.* **2009**, *2009*, 4983–4991. DOI: 10.1002/ejoc.200900573.
4. "Sugars containing α,β -unsaturated carbonyl systems: synthesis and their usefulness as scaffolds in carbohydrate chemistry", N. M. Xavier, A. P. Rauter, *Carbohydr. Res.* **2008**, *343*, 1523–1539. DOI: 10.1016/j.carres.2008.04.033.
3. "Synthesis and biological evaluation of sugars containing α,β -unsaturated γ -lactones", N. M. Xavier, S. Silva, P. J. A. Madeira, M. H. Florêncio, F. V. M. Silva, J. Justino, J. Thiem, A. P. Rauter, *Eur. J. Org. Chem.* **2008**, *2008*, 6134–6143. DOI: 10.1002/ejoc.200800763.
2. "Easy and stereoselective approach to α,β -unsaturated- γ -lactones fused to pyranoses from furanose scaffolds", N. M. Xavier, A. P. Rauter, *Org. Lett.* **2007**, *9*, 3339–3341. DOI: 10.1021/ol071351m.
1. "Acid zeolites as efficient catalysts for *O*- and *S*-glycosylation", A. P. Rauter, T. Almeida, N. M. Xavier, F. Siopa, A. I. Vicente, S. D. Lucas, J. P. Marques, F. Ramôa-Ribeiro, M. J. Ferreira, M. Guisnet, *J. Mol. Cat. A: Chemical* **2007**, *275*, 206–213. DOI: 10.1016/j.molcata.2007.06.002.

Chapters in Books/Reference Module: 9 (7 as first author, 7 as corresponding, 2 as sole author).

9. "Microwave-assisted synthesis of *N*-substituted 1-azido glucuronamides", N. M. Xavier, R. Gonçalves-Pereira, R. Balo, In *Carbohydrate Chemistry: Proven Synthetic Methods* (P. Kosma, T. Wrodnigg, A. Stütz, eds), **2021**, vol. 5, chapter 4, CRC Press, Taylor & Francis, Boca Raton, Florida, USA. ISB: N9781351256087. DOI: 10.1201/9781351256087-4.
8. "Recent developments in synthetic methods for sugar phosphate analogs", A. Fortuna, N. M. Xavier, In *Recent Trends in Carbohydrate Chemistry, Vol. 1, Synthesis, Structure and Function of Carbohydrates* (A. P. Rauter, B. E. Christensen, L. Somsák, P. Kosma, R. Adamo, eds), **2020**, chapter 8, pp 301–329, Elsevier. ISBN: 9780128174678. DOI: 10.1016/B978-0-12-817467-8.00008-6
7. "Synthesis and biological properties of D-glucuronamide-containing compounds", N. M. Xavier, A. Fortuna, In *Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering* (J. Reedijk, ed.), Waltham, MA: Elsevier. **2019**, DOI: 10.1016/B978-0-12-409547-2.11098-4.

6. "Recent advances in the synthesis of *N*-glycosyl compounds", N. M. Xavier, R. Nunes, In *Advances in Organic Synthesis* (Atta-ur-Rahman, ed.), **2018**, vol. 10, chapter 3, pp 99-138, Bentham Science Publishers, Sharjah, UAE. ISBN: 978-1-68108-744-3. DOI: 10.2174/9781681087436118100005.
5. "Recent advances on nucleotide analogs and mimetics: synthesis and biological properties", N. M. Xavier, In *Elsevier Reference Module in Chemistry, Molecular Sciences and Chemical Engineering* (J. Reedijk, ed.), Waltham, MA: Elsevier. **2017**, 1-15. DOI: 10.1016/B978-0-12-409547-2.12655-1.
4. "Preparation of a tosylhydrazidyl *N*-glycosyl derivative of D-glucuronic acid via tosylhydrazone formation and intramolecular ring closure", N. M. Xavier. In *Comprehensive Organic Chemistry Experiments for the Laboratory Classroom* (C. A. M. Afonso, N. R. Candeias, D. P. Simão, A. F. Trindade, J. A. S. Coelho, B. Tan, R. Franzén, eds), **2016**, chapter 72, pp 282-284, Royal Society of Chemistry, London, UK. ISBN: 978-1-84973-963-4.
3. "Triazole-containing carbohydrate mimetics: synthesis and biological applications", N. M. Xavier, S. D. Lucas. In *Targets in Heterocyclic Systems: Chemistry and Properties* (O. Attanasi, R. Noto, D. Spinelli, eds), **2014**, 18, 214-235, Italian Society of Chemistry, Royal Society of Chemistry books, Rome, Italy. ISBN: 978-88-86208-98-7.
2. "Triterpene/steroid glycoconjugates: natural occurrence, synthesis and biological activities", S. Schwarz, N. M. Xavier, R. Csuk, A. P. Rauter. In *Specialist Periodical Reports: Carbohydrate Chemistry* (A. P. Rauter, T. Lindhorst, eds.), **2012**, 37, 326-373, Royal Society of Chemistry, London, UK. ISBN: 978-1-84973-154-6. DOI: 10.1039/9781849732765-00326.
1. "Pyranose-fused butenolides: an expedient preparation from furanose synthons", N. M. Xavier, S. Kopitzki, A. P. Rauter. In *Carbohydrate Chemistry: Proven Synthetic Methods* (P. Kováč, ed.), **2011**, vol. 1, chapter 15, pp. 137-157, CRC Press, Taylor & Francis, Boca Raton, Florida, USA. ISBN: 9781439866931. DOI: 10.1201/b11261-21.

Published Patent Applications

1. "(*N*-Alkylcarbamoil)methyl enulosides and related pyranoside containing an $\alpha,\beta,\gamma,\delta$ -unsaturated ester, their preparation and their efficacy as antibacterial agents", A. P. Rauter, N. M. Xavier, J. Justino, A. Neves, M. Goulart, Y. Queneau, WO2012095793-A2, international application nr. PCT/IB2012/050125, submitted in 10.01.2012, published in 19.07.2012.
- re-entitled as "New compound comprising *e.g.* (*N*-dodecylcarbamoil)methyl 3,6-di-*O*-acetyl-4-deoxy- α -D-glycero-hex-3-enopyranosid-2-ulose, useful for inhibition in vivo of the growth of *Bacillus cereus*" A. P. Rauter, N. M. Xavier, J. Justino, A. Neves, M. Goulart, Y. Queneau, published in 23-05-2013.
2. "(*N*-Alquilcarbamoil)metil enulósidos e piranosida relacionada contendo um éster $\alpha,\beta,\gamma,\delta$ -insaturado, sua preparação e sua eficácia como agentes antibacterianos, A. P. Rauter, J. Justino, N. M. Xavier, A. Neves, M. Goulart.
PT105476-A1, submitted in 11.01.2011, published in 11.07.2012.

Book (Guest Editor)

1. "Carbohydrates 2018", A. P. Rauter, N. M. Xavier (eds.), Pharmaceuticals, MDPI, Basel, Switzerland, ISBN 978-3-03928-316-3 (Pbk); ISBN 978-3-03928-317-0 (PDF). DOI: 10.3390/books978-3-03928-317-0.

Participation in Meetings/Symposia

18 Invited Lectures, including at the 7th *National Carbohydrate Symposium* (Canada, 2011), the 7th *Spanish-Portuguese-Japanese Organic Chemistry Symposium* (Spain, 2015), the 6th *Iberian Carbohydrate Meeting* (Portugal, 2015), the 3rd and the 4th *Glycobiology World Congress* (UK 2017, Italy 2018), the 12th and the 13th *Meeting of the Portuguese Carbohydrate Group* (2017, Plenary Lecture and 2019, Keynote Lecture) or the 29th *International Carbohydrate Symposium* (2018, Young Scientist Invited Lecture).

36 Selected Oral Communications in conferences such as the 24th and the 28th *International Carbohydrate Symposium*, the 16th and the 17th *European Carbohydrate Symposium*, the 43rd and the 46th *IUPAC World Chemistry Congress*.

69 Poster Communications in conferences such as the 25th and the 26th *International Carbohydrate Symposium*, the 14th and the 15th *European Carbohydrate Symposium*, the XXIII *International Symposium on Medicinal Chemistry* or the 19th *European Symposium on Organic Chemistry*.

Participation in R&D Projects

He was the member of the research teams of 3 R&D projects funded by the Portuguese Foundation for Science and Technology (FCT), of one project funded by the German Science Foundation (DFG), of an EU-funded project and of one project funded by the pharmaceutical company MUTABILIS. He was the Principal Investigator (PI) of a FCT-funded R&D exploratory project and currently he is the Co-PI of a FCT-funded SR&TD project.

Scientific Awards and Honours

2018 *J. Pereira da Cruz Innovation Award*, delivered at the 29th *International Carbohydrate Symposium (ICS 2018)*, Lisbon, Portugal.

2015 Selected by the Portuguese Chemical Society as the Portuguese Speaker at the 7th *Young Investigators Workshop* of the EuCheMS Division of Organic Chemistry.

2012 Poster Award at the 6th *Spanish-Portuguese-Japanese Symposium*, attributed by the Portuguese Chemical Society.

2011 2011 *Alberta Ingenuity Centre for Carbohydrate Science (AICCS) Young Investigator Award* (Canada).

2011 Recipient of a *WCC IUPAC 2011 Young Scientists Award* from the organizers of the 43rd *IUPAC World Chemistry Congress* (WCC, IUPAC).

2010 *Scientific Award of the Groupe Lyonnais des Glycosciences* (France).

2009 *Young Researcher Award*, attributed by the scientific committee of the international meeting *Carbohydrate as Organic Raw Materials V*, Portugal.

Guest Editor and Reviewer for Scientific Journals

- Topic Editor for *Antibiotics* (MDPI, ISSN 2079-6382), since November 2019.
- Guest Associate Editor for *Frontiers in Chemistry* (ISSN: 2296-2646), section Medicinal and Pharmaceutical Chemistry, since September 2019.
 - Topic Editor of the Research Topic “*Carbohydrate-Based Molecules in Medicinal Chemistry*”.
- Guest Editor for *Pharmaceuticals* (MDPI, ISSN 1424-8247),
 - Special Issue “*Glycomimetics and Glycoconjugates in Drug Discovery*” (since March 2020)
 - Special issue “*Carbohydrates 2018*” (2018/2019)
- Reviewer for: *Molecules*, *Eur. J. Med. Chem.*, *J. Enzyme Inhib. Med Chem.*, *J. Org. Chem.*, *Pure Appl. Chem.*, *Int. J. Mol. Sci.*, *Antibiotics*, *Arab. J. Chem.*, *An. Acad. Bras. Ciênc.*, *Bioconjugate*

Chem., Biomolecules, Bioorg. Chem., Bioorg. Med. Chem., Carbohydr. Res., Chem Biodivers., ChemistrySelect, Curr. Org. Synthesis, Energy & Fuels, J. Braz. Chem. Soc., J. Func. Foods, Mediterr. J. Chem., Mini-Rev. Med. Chem., Org. Lett., Pharmaceuticals, Plants.

Reviewer profile at: <https://publons.com/author/954188/nuno-manuel-xavier#profile>

Lecturing Activities

2016/2017 – 2018/2019; 2020/2021 Lecturer of Medicinal Chemistry of Nucleosides and Nucleotides, Faculdade de Ciências, Universidade de Lisboa (FCUL). He created this course for the MSc Programmes in Chemistry.

2014/2015 – 2017/2018 Lecturer of Organic Chemistry I, BSc Programmes in Chemistry, FCUL.

Other Activities

- Scientific advisor of the international e-learning course *Glycobiology and Glycochemistry* (since 2015, FCUL & New University of Lisbon).
- Member of the IUPAC Task Group on Carbohydrate Nomenclature (IUPAC Project Nr. 2015-035-2-800).
- Acted as project evaluator for the National Science Center of Poland (2016 – 2018).
- Acted as member of the organizing committees of 6 international scientific symposia.

Supervision of Students and Research Fellows

At FCUL: he supervised 2 Master thesis, 8 Bachelor thesis, 8 research projects of foreign exchange students (all in Chemistry), 1 Research Grantee (possessing a MSc degree) and 1 Postdoctoral Fellow within a FCT-funded project of which he was the PI. Currently he is the supervisor of a Post-doctoral Researcher, a Master Student in Chemistry, 2 BSc Students in their final year's projects and acts as co-supervisor of a PhD Student in Chemistry.

Languages: Portuguese, English, French and German.