

CURRICULUM VITAE

PATRÍCIA MANUELA RIBEIRO PEREIRA

1. PERSONAL INFORMATION

Name	Patrícia Manuela Ribeiro Pereira
Date and place of birth	October 05 1989, Amarante (Portugal)
Nationality	Portuguese
Work address	Universidade de Aveiro (QOPNA) Caixa de Correio 2.39, Departamento de Química, Campus Universitário de Santiago 3810-193 Aveiro, Portugal
Contact	patriciamanuela@ua.pt (+351912135928)

2. PRESENT RESEARCH INTEREST

Galactodendritic-conjugates and immuno-conjugates for photodynamic therapy of bladder cancer: from synthesis to *in vitro* and *in vivo* studies.

Photophysical properties of new photosensitizers.

3. ACADEMIC DEGREES

- Since 2013, PhD course in Medicinal Chemistry, Universidade de Aveiro, Aveiro, Portugal.
- 2010-2012, Master in Biochemistry with specialization in Biomolecular Methods, Universidade de Aveiro, Aveiro, Portugal (final mark: 18 out of 20).
- 2007-2010, Degree on Biotechnology, Universidade de Aveiro, Aveiro, Portugal (final mark: 16 out of 20).
- 2004-2007, Secondary Education in Science and Technologies, Escola Secundária de Amarante, Porto, Portugal (final mark: 17 out of 20).

4. INTERNATIONAL TRAINEESHIPS

- Since January 5th 2016: PhD work on the synthesis of glycoporphyrinoids and their evaluation as photodynamic agents against tumor spheroids, in Hunter College of CUNY, New York, United States.

Department of Chemistry, Working group Supramolecular Photonics Laboratory; under the supervision of Charles Michael Drain.

- July 16-September 16, 2011: Participation in a traineeship from The International Association for the Exchange of Students for Technical Experience (IAESTE): “The development and characterization of photoconjugates for Photodynamic Therapy”, in Federal Institute for Materials Research and Testing (BAM), Berlin, Germany.

Department I – Analytical Chemistry and Reference Material, Division I.5. Bioanalytics, Working group Immunochemical Methods; under the supervision of Rudolf J. Schneider.

5. SUPERVISING EXPERIENCE

7.1 Participation

- Since August 2015: Participation on the supervision of José Carlos Pereira, master biology student in IBILI, Faculty of Medicine at University of Coimbra.
- September 2014-October 2015: Participation on the supervision of Mafalda Bispo, master biochemistry student. Master’s project: “Galactodendritic silicon phthalocyanines for bladder cancer treatment”, in Universidade de Aveiro, Aveiro, Portugal (final mark: 19 out of 20).
- March-July 2014: Participation on the supervision of students in *Investigação III do Mestrado Integrado em Medicina*, at IBILI.
- Summer 2009: Participation on the orientation of secondary school students on the Summer Academy about Organic Chemistry at Chemistry Department of the University of Aveiro.

5.2 Co-supervisor

- February-July 2013: Co-supervisor of Mafalda Bispo, undergraduate biochemistry student. Licenciatura’s project: “Síntese de fotossensibilizadores da 3^a geração para o tratamento do cancro da bexiga”, in Universidade de Aveiro, Aveiro, Portugal (final mark: 18 out of 20).

6. PARTICIPATION ON EXPERIMENTAL RESEARCH WORK AS COLLABORATOR

2015-2016: Participation on the postdoctoral research work of Catarina Ramos helping in the *in vitro* assays to determine the activity of cationic porphyrinoids as inhibitors of telomerase.

2015-2016: Participation on the PhD research work of Wioleta Borzęcka helping in the *in vitro* assays to determine the potential of nanoparticles containing glycoconjugated porphyrins as photodynamic agents.

2014-2015: Participation on the PhD research work of Stephanie Lo helping in the photophysical and *in vitro* assays to determine the potential of porphyrins conjugated with sugars as photodynamic agents.

2014: Participation on the PhD research work of Kelly Castro helping in the synthesis of galactodendritic porphyrinoids.

2014-2015: Participation on the postdoctoral research work of Venkatramaiah Nutalapati helping in the photophysical and *in vitro* biological assays to determine the potential of phosphonate appended phthalocyanines as photodynamic agents and inhibitors of urokinase plasminogen activator.

2014-2015: Participation on the postdoctoral research work of Bernardo Iglesias helping in the photophysical and *in vitro* photobiological assays to determine the ability of Pt(II)-corrole complexes to interact with DNA.

2013-2014: Participation on the PhD research work of Barbara Korsak helping in the synthesis on new porphyrinoids to be coupled with monoclonal antibodies.

2012-2014: Participation on the PhD research work of Leandro Lourenço helping in photophysical and *in vitro* photobiological assays to determine the potential of 1) phthalocyanines conjugated with cyclodextrins as photosensitizers; 2) Pt(II)-porphyrins in the photocleavage of DNA.

7. SKILLS AND COMPETENCES

7.1 Instrumental techniques and methods

- *In vitro* and *in vivo* photodynamic therapy.
- Cellular and Molecular Biology: Cell culture of human cancer cell lines as monolayers and spheroids, Cell lines transfection with siRNA, Cellular viability and uptake assays, TUNEL assay, immunocytochemistry, immunohistochemistry, DNA electrophoresis, Western Blotting, Gelatin Zymography, Flow cytometry, Tumor sphere-forming assays for cancer stem cells, Development of xenograft mouse models, Organotypic cultures of bladder cancer, bioluminescent imaging, biodistribution and *in vivo* photodynamic assays.
- UV-Vis spectroscopy to evaluate antioxidant enzymes activity after PDT.
- Fluorescence spectroscopy and fluorescence microscopy to determine the intracellular levels of ROS after PDT.
- Fluorescence microscopy for kinetic studies of cellular uptake and subcellular distribution of photosensitizers.
- UV-Vis and fluorescence spectroscopy for interaction of porphyrinoids with DNA or proteins.

- UV-Vis and fluorescence spectroscopy for photostability and aggregation studies, singlet oxygen and fluorescence quantum yields.
- Capillary Electrophoresis for photoconjugates separation, Capillary Zone - 2 months experience.
- ELISA indirect assay detection – 2 months experience.
- Bioconjugation techniques for production and purification of photoconjugates, using the NHS method – 2 months experience.
- Mass spectrometry with electrospray ionization (ESI) for interaction studies of cationic porphyrins with a short poly(dGdC) duplex – 1 year experience.
- Organic Chemistry: Experience in porphyrinoids synthesis and structural characterization by Mass Spectrometry (MS) and Resonance Magnetic Nuclear (NMR).

7.2 Computer skills and competences

Competent with almost all Microsoft Office programs. User of Microsoft Windows 7.

Some knowledge of Statistical software: SPSS.

Management of laboratory software including ACD/ChemSketch, Quantity One, Softmax Pro, Photoshop.

7.3 Interests and activities

- Sports (swimming, jogging and acrobatic gymnastics), Classical Guitar.
- Voluntary Service: (2013-2014) voluntary service at Medicina III, Hospital Infante D. Pedro (Aveiro). (2009-2011) helping a paraplegic boy, João Paulo Fernandes, in the lunch time at University of Aveiro. (2010-2011) helping Canha Nan with Portuguese language at University of Aveiro. (2006-2007) helping a tetraplegic boy, Márcio Martins, with Mathematic exercises. (2004-2008) catholic catechist at Igreja Matriz de Louredo, Amarante.
- 2010-2011: Member of “Comissão de Faina Académica de Química da Universidade de Aveiro”.
- Christian activities, Reader (action, adventure, romance, humor), Cooking, Travelling.
- Member of American Chemical Society
- Member of European Society for Photobiology.
- Member of Sociedade Portuguesa de Química (SPQ).
- Member of Sociedade Portuguesa de Bioquímica.
- Member of European Association for Cancer Research (EACR).
- EACR Ambassador.

8. FELLOWSHIPS

- Since 2013: PhD fellowship “Design of novel Galacto-Dendritic-Photosensitizers: selectively targeting and killing cancer cells” financed by Fundação para a Ciência e Tecnologia – FCT (Grant reference: SFRH/BD/85941/2012). Department of Chemistry Universidade de Aveiro, Aveiro, Portugal – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA); under the supervision of João P.C. Tomé. Institute of Biomedical Research in Light and Image (IBILI), Faculty of Medicine, Universidade de Coimbra – Working group Laboratory of Pharmacology and Experimental Therapeutics; under the supervision of Rosa Fernandes.
- 2012 - 2013: Research Grant “Sensores ópticos e nanomateriais para reconhecimento de aniões”, Universidade de Aveiro, Aveiro, Portugal; financed by Fundação para a Ciência e Tecnologia - FCT. Department of Chemistry – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA); under the supervision of João P.C. Tomé.
- 04 July - 31 December, 2011: Research Grant “Nanocages e bio-polímeros para reconhecimento e solubilização de nanotubos de carbono”, Universidade de Aveiro, Aveiro, Portugal; financed by Fundação para a Ciência e Tecnologia - FCT.
Department of Chemistry – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA); under the supervision of João P.C. Tomé.
- 2008-2009: Integration into Research Grant "Síntese, caracterização e estudo das reacções em fase gasosa de porfirinas catiónicas", Universidade de Aveiro, Aveiro, Portugal; financed by Fundação para a Ciência e Tecnologia – FCT.
Department of Chemistry – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA); under the supervision of M. Graça Santana-Marques and M. Graça P. M. S. Neves.

9. PUBLICATIONS AND COMMUNICATIONS

9.1 Thesis

- 2011-2012: Master thesis: “Conjugados fotoativos para tratamento do cancro da bexiga”, Portugal (final mark: 19 out of 20).
Universidade de Aveiro – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA) in Department of Chemistry under the supervision of João Paulo Costa Tomé.

Faculdade de Medicina da Universidade de Coimbra – Working group Pharmacology and Experimental Therapeutics Department in IBILI under the supervision of Rosa Cristina Simões Fernandes.

- February-July, 2010: Licenciatura's project: “Estudo dos aductos não covalentes de oligonucleótidos de cadeia dupla e porfirinas catiónicas com potencial aplicação terapêutica”, in Universidade de Aveiro, Aveiro, Portugal (final mark: 18 out of 20).
Department of Chemistry – Working group Química Orgânica, Produtos Naturais e Agro-alimentares (QOPNA); under the supervision of M. Graça Santana-Marques and M. Graça P. M. S. Neves.

9.2 Papers in international scientific periodicals with referees

1. Patrícia M.R. Pereira, Henrique Girão, Carlos A.F. Ribeiro, João P.C. Tomé, Rosa Fernandes, Role of clathrin- and caveolae-mediated pathways in galactodendritic conjugated phthalocyanine uptake by bladder cancer cells, *under final preparation*.
2. Patrícia M. R. Pereira, Sandrina Silva, Mafalda Bispo, Mónica Zuzarte, Célia Gomes, Henrique Girão, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes, Repeated photodynamic therapy with a galactodendritic chlorin to induce cell death of resistant cancer cells, *under final preparation*.
3. Patrícia M. R. Pereira, Sandrina Silva, José S. Ramalho, Célia M. Gomes, Henrique Girão, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes, The role of galectin-1 in in vitro and in vivo photodynamic therapy with a galactodendritic porphyrin, *submitted*.
4. Bernardo A. Iglesias, Joana F.B. Barata, Patrícia M.R. Pereira, Henrique Girão, Rosa Fernandes, João P.C. Tomé, Maria G.P.M.S. Neves, José A.S. Cavaleiro, Synthesis, characterization of the first peripheral platinum(II) complexes coordinated by 5,15-bis(pentafluorophenyl)-10-{3/4-[2-(pyridin-4-yl)vinyl]phenyl}corroles and its binding ability with biomolecules, *Journal of Inorganic Biochemistry*, **2015**, 153, 32-41.
5. N. Venkatramaiah,† Patrícia M. R. Pereira,† Filipe A. Almeida Paz, Carlos A. F. Ribeiro, Rosa Fernandesc, João P. C. Tomé, Dual functionality of phosphonic acid appended phthalocyanines: inhibitors of urokinase plasminogen activator and anticancer photodynamic agents, *Chem. Commun.*, **2015**, 51, 15550-15553.
† These authors contributed equally to this work.
6. Castro K. A. D. F., Silva S. I. R. M., Pereira P. M. R., Simões M. M. Q., Neves M. G. P. M. S., Cavaleiro J. A. S., Wypych F., Tomé J. P. C., Nakagaki S., Galactodendritic porphyrinic

- conjugates as new biomimetic catalysts for oxidation reactions, *Inorganic Chemistry*, **2015**, 54, 4382-4393.
7. Patrícia M. R. Pereira, Barbara Korsak, Bruno Sarmento, Rudolf J. Schneider, Rosa Fernandes and João P. C. Tomé, “Antibodies armed with photosensitizers: from chemical synthesis to photobiological applications”, *Org. Biomol. Chem.*, **2015**, 13, 2518-2529.
 8. Leandro M. O. Lourenço, Bernardo A. Iglesias, Patrícia M. R. Pereira, Henrique Girão Rosa Fernandes, Maria G. P. M. S. Neves, José A. S. Cavaleiro and João P. C. Tomé, “Synthesis, characterization and biomolecule-binding properties of novel tetra-platinum(II)-thiopyridyl porphyrins”, *Dalton Transactions*, **2015**, 44, 530-538.
 9. Leandro M. O. Lourenço, Patrícia M. R. Pereira, Elisabete Maciel, Maria R. M. Domingues, Rosa Fernandes, Maria G. P. M. S. Neves, José A. S. Cavaleiro and João P. C. Tomé, “Amphiphilic phthalocyanine–cyclodextrin conjugates for cancer photodynamic therapy”, *Chem. Commun.*, **2014**, 50, 8363-8366.
 10. Patrícia M. R. Pereira, Sandrina Silva, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé and Rosa Fernandes, “Galactodendritic phthalocyanine targets carbohydrate-binding proteins enhancing photodynamic therapy”, *PLOS ONE*, **2014**, 9, e95529.
 11. Catarina I. V. Ramos, Patrícia M. R. Pereira, M. G. Santana-Marques, Rodrigo de Paula, Mário M.Q. Simões, M. G. P. M. S. Neves and J. A. S. Cavaleiro, “Imidazole and imidazolium porphyrins: gas-phase chemistry of multicharged ions”, *Journal of Mass Spectrometry*, **2014**, 49, 371-379.
 12. Patrícia M. R. Pereira, José João Carvalho, Sandrina Silva, José A. S. Cavaleiro, Rudolf J. Schneider, Rosa Fernandes, João P. C. Tomé, “Porphyrin conjugated with serum albumins and monoclonal antibodies boosted efficiency in target-directed destruction of a human bladder cancer cell line”, *Org. Biomol. Chem.*, **2014**, 12, 1804-1811.
**In February 2014, this paper appeared in the news of “Associação Portuguesa de Investigação em Cancro” (<http://www.aspic.pt/pt-pt/noticias/fotosensibilizador-conjugado-com-anticorpo-para-tratamento-do-cancro-da-bexiga#.VK0apfmsXRN>).*
 13. Flávio Figueira, Patrícia M. R. Pereira, Sandrina Silva, José A. S. Cavaleiro and João P. C. Tomé, “Porphyrins and Phthalocyanines decorated with dendrimers: Synthesis and biomedical applications”, *Current Organic Synthesis*, **2014**, 11, 110-126.
 14. Sandrina Silva, Patrícia M. R. Pereira, Maria A. F. Faustino, João P. C. Tomé, José A. S. Cavaleiro, “Porphyrin and phthalocyanine glycodendritic conjugates: synthesis, photophysical and photochemical properties”, *Chem. Commun.*, **2012**, 48, 3608-3610.

15. Eduarda M. P. Silva, Catarina I. V. Ramos, Patrícia M. R. Pereira, Francesca Giuntini, Maria A. F. Faustino, João P. C. Tomé, Augusto C. Tomé, Artur M. S. Silva, M. Graça Santana-Marques, M. Graça P. M. S. Neves, José A. S. Cavaleiro, "Cationic beta-vinyl substituted *meso*-tetraphenylporphyrins: synthesis and non-covalent interactions with a short poly(dGdC) duplex", *Journal of Porphyrins and Phthalocyanines*, **2011**, 1-13.

9.3 Papers in national scientific periodicals with referees

1. Patrícia M.R. Pereira, Lourenço L. M. O., Iglesias B. A., Girão H., Fernandes R., Neves M. G. P. M. S., Cavaleiro J. A. S. and Tomé J. P. C. "DNA binding and photocleavage properties of platinum-porphyrins", 2015, *Revista Portuguesa de Pneumologia* 21(Esp Cong 1):6-26.
2. Patrícia M.R. Pereira, Sandrina Silva, Célia M.F. Gomes, Henrique Girão, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. "Galacto-conjugated porphyrin: The expression of galectin-1 and ABCG2 transporter affects the phototoxic response of bladder cancer cells to photodynamic therapy", 2014, *Revista Portuguesa de Pneumologia* 19(Esp Cong 2):9-36.
3. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. "Galactose-appended photocytotoxic phthalocyanine for target carbohydrate receptors overexpressed in bladder cancer cells", 2013, *Revista Portuguesa de Pneumologia* 20(Esp Cong 2):8-32.

9.4 Peer-reviewed conference proceedings papers

1. Pereira, Patrícia M. R.; Lourenço, Leandro M. O.; Bispo, Mafalda A. F.; Silva, Sandrina; Cavaleiro, José A. S.; Ribeiro, Carlos A. F.; Fernandes, Rosa; Tomé, João P. C.; "Glyco-Porphyrins and -Phthalocyanines for Cancer Photodynamic Therapy", p. 239 . In: In *Blucher Chemistry Proceedings*, São Paulo, v. 1, n. 2, Dezembro.2013. São Paulo: Blucher, 2013. ISSN 2318-4043, DOI 10.5151/chempro-15bmos-BMOS2013_2013913233524

9.5 Podium presentation as presenting author

1. "Galactodendritic photosensitizers for photodynamic therapy of non-muscle invasive bladder carcinomas", European Society for Photobiology 2015 Congress, August 31 – September 4, **2015**, Aveiro, Portugal, OC 149.
2. "The dual functionality of phosphonate-appended phthalocyanines: inhibitors of urokinase plasminogen activator and anticancer photodynamic agents", II Simposio de Jóvenes

Investigadores de la Sociedad Española de Química Terapéutica, June 12, **2015**, Madrid, Spain, OC 8.

3. “Photophysical and photobiological approaches for in vitro characterization of new photosensitizers for photodynamic antitumor therapy”, 1st Caparica Christmas Conference on Sample Treatment, December 8-10, **2014**, Lisbon, Portugal, SG 2.
4. “Carbohydrate receptors as targets for a novel photodynamic therapy agent able to induce apoptotic cell death in bladder cancer cells”, XLIV Reunião anual da sociedade portuguesa de farmacologia, XXXII Reunião de farmacologia clínica, XIII Reunião de toxicologia, February 05-07, **2014**, Coimbra, Portugal, OP S2C3.
5. “Carbohydrate-driven porphyrinoids to induce cell demise by photodynamic therapy”, Portuguese Congress of Microbiology and Biotechnology' 2013, December 06-08, **2013**, Universidade de Aveiro, Aveiro, Portugal.
6. “Albumin and monoclonal antibody conjugated porphyrin: synthesis, characterization and biological potential against human bladder cancer cell line”, 3rd National Meeting on Medicinal Chemistry and 1st Portuguese-Spanish-Brazilian Meeting on Medicinal Chemistry, November 28-30, **2012**, Universidade de Aveiro, Aveiro, Portugal.
7. “Estudo dos aductos não covalentes de oligonucleótidos de cadeia dupla e porfirinas catiónicas com potencial aplicação terapêutica”, XVI Encontro Luso-Galego de Química, November 10-12, **2010**, Universidade de Aveiro, Aveiro, Portugal.

9.6 Podium presentation as co-author

1. Barbara Korsak, Patrícia M.R. Pereira, Carla Oliveira, Bruno Sarmento, Rudolf Schneider, João P. C. Tomé. “Synthesis and Biological Evaluation of Photosensitizers for Targeted Photodynamic Therapy of Gastric Cancer”, XX Encontro Luso-Galego de Química, November 26-28, **2014**, Porto, Portugal, OP BQ1.
2. Leandro M. O. Lourenço, Patrícia M. R. Pereira, Elisabete Maciel, Maria R. M. Domingues, Rosa Fernandes, Maria G. P. M. S. Neves, José A. S. Cavaleiro, João P. C. Tomé. “Synthesis, photophysical and photodynamic activities of amphiphilic phthalocyanine-cyclodextrin conjugates”, 10^o Portuguese National Meeting of Organic Chemistry and the 1st Portuguese-Brazilian Organic Chemistry Symposium, September 4-6, **2013**, Lisbon, Portugal.
3. Sandrina Silva, Patrícia M. R. Pereira, Maria A. F. Faustino, João P. C. Tomé, José A. S. Cavaleiro. “Functionalization of Photosensitizers by Dendritic Units and their potential therapeutic applications”, XXII Encontro Nacional da Sociedade Portuguesa de Química, July 3-6, **2011**, Braga, Portugal.

9.7 Poster presentation

1. Patrícia M. R. Pereira, N. V. S. Dinesh K. Bhupathiraju, Rosa Fernandes, João P. C. Tomé, Charles M. Drain. “Establishment and characterization of tumor spheroids for evaluating photodynamic efficiency of new glyco-photosensitizers”, 29th Annual International Symposium – Current Advances in Prostate Cancer Health Disparities, May 5, **2016**, The Kaye Playhouse at Hunter College of CUNY, New York, United States, P22.
2. Patrícia M. R. Pereira, Sandrina Silva, José S. Ramalho, Célia M. Gomes, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes. “The role of galectin-1 in *in vitro* and *in vivo* photodynamic therapy with a galactodendritic porphyrin”, VII Annual Meeting of IBILI, December 3-December 4, **2015**, Coimbra, Portugal, P 4.
3. José C. Pereira, Patrícia M. R. Pereira, Henrique Girão, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes. “Role of cytoskeletal changes in phototoxicity induced by a galactodendritic porphyrin in bladder cancer cells”, VII Annual Meeting of IBILI, December 3-December 4, **2015**, Coimbra, Portugal, Rapid Fire Poster 1.
4. Mafalda Bispo, Patrícia M. R. Pereira, Francesca Setaro, M. Salomé Rodriguez-Morgade, Tomás Torres, Rosa Fernandes, João P. C. Tomé. “Novel galactodendritic silicon phthalocyanines”, XXIV Encontro Nacional da Sociedade Portuguesa de Química, July 1-July 3, **2015**, Departamento de Química da Universidade de Coimbra, Coimbra, P 34.
5. Patrícia M. R. Pereira, Sandrina Silva, Mafalda Bispo, José Ramalho, Célia Gomes, Henrique Girão, Leandro M. O. Lourenço, Bernardo, A. Iglesias, Venkatramiah Nutalapati, Catarina Ramos, Filipe A. Paz, Maria G. P. M. S. Neves, José A. S. Cavaleiro, Carlos A. F. Ribeiro, Rosa Fernandes, João P. C. Tomé. “In vitro and in vivo screening for design of new photodynamic agents”, Research Day **2015**, 20 May, **2015**, Universidade de Aveiro, Aveiro.
6. Patrícia M.R. Pereira, Henrique Girão, Carlos A.F. Ribeiro, João P.C. Tomé and Rosa Fernandes. “Role of clathrin- and caveolae-mediated pathways in galactodendritic conjugated phthalocyanine uptake by bladder cancer cells”, EACR-OECI Conference on Precision Medicine for Cancer, March 1-March 5, **2015**, Neumünster Abbey, Luxembourg, P 43.
7. Patrícia M.R. Pereira, Leandro, M.O. Lourenço, Bernardo A. Iglesias, Henrique Girão, Rosa Fernandes, Maria G.P.M.S. Neves, José A.S. Cavaleiro and João P.C. Tomé. “DNA binding and photocleavage properties of platinum-porphyrins”, Atualizações Em oncologia 2015, 29^a Reunião 4^o Congresso do CIMAGO, January 29-January 30, **2015**, Coimbra, Portugal, P 17.
8. Catarina Marques, Andreia Gonçalves, Patrícia Pereira, Daniela Almeida, Carlos F. Ribeiro, Flávio Reis and Rosa Fernandes. “Effect of sitagliptin on renal oxidative stress of type 1 diabetic

- animals”, XVIII Congress of the Portuguese Biochemical Society, December 17-December 20, **2014**, Coimbra, Portugal, K.49.
9. Patrícia M.R. Pereira, Sandrina Silva, Carlos A.F. Ribeiro, José A.S. Cavaleiro, João P. C. Tomé and Rosa Fernandes. “Role of GLUT1 in bladder cancer photodynamic therapy”, XVIII Congress of the Portuguese Biochemical Society, December 17-December 20, **2014**, Coimbra, Portugal, K.07.
 10. Catarina Marques, Andreia Gonçalves, Patrícia Pereira, Daniela Almeida, Carlos F. Ribeiro, Flávio Reis and Rosa Fernandes. “Effect of sitagliptin on renal oxidative stress of type 1 diabetic animals”, VI Annual Meeting of IBILI, December 11-December 12, **2014**, Coimbra, Portugal, P 95.
 11. Patrícia M.R. Pereira, Leandro, M.O. Lourenço, Bernardo A. Iglesias, Henrique Girão, Rosa Fernandes, Maria G.P.M.S. Neves, José A.S. Cavaleiro and João P.C. Tomé. “DNA-binding photocleavage properties of novel platinum-porphyrins”, VI Annual Meeting of IBILI, December 11-December 12, **2014**, Coimbra, Portugal, P 48.
 12. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Enhanced photodynamic efficacy towards bladder cancer cells by conjugating a phthalocyanine with dendrimers of galactose”, 1st Young Medicinal Chemist Symposium, September 12, **2014**, Lisbon, Portugal, P 50.
 13. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Development of a Third-Generation Photosensitizer able to Target Galactose-Binding Proteins Overexpressed in Bladder Cancer Cells”, XXIII EFMC International Symposium on Medicinal Chemistry, September 7-September 11, **2014**, Lisbon, Portugal, P V029.
 14. Iglesias B. A., Barata J. F. B., Pereira P. M. R., Tome J. P. C., Neves M. G. P. M. S., Cavaleiro J. A. S. “Síntese, caracterização de novos piridil-corróis contendo complexos periféricos de [Pt(bpy)Cl]⁺ e estudos de interação com biomoléculas”, 37^a Reunião Anual da Sociedade Brasileira de Química, May 26-May 29, **2014**, Natal, Brazil, P 51.
 15. Castro K. A. D. F., Silva S. I. R. M., Pereira P. M. R., Simões M. M. Q., Cavaleiro J. A. S., Tomé J. P. C., Nakagaki S., Neves M. G. P. M. S. “Síntese, caracterização e investigação da atividade catalítica de novas ferroporfirinas contendo como substituintes dendrímeros de açúcar.” 37^a Reunião Anual da Sociedade Brasileira de Química, May 26-May 29, **2014**, Natal, Brazil, P 76.
 16. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Galectin-1 as a promising target on the development of photosensitizers”, 4th Portuguese Young Chemists Meeting, April 29-May 1, **2014**, Coimbra, Portugal, P 6.

17. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Galactose-appended photocytotoxic phthalocyanine for target carbohydrate receptors overexpressed in bladder cancer cells”, *Atualizações em oncologia 2014*, 28^a Reunião - 3^o Congresso do CIMAGO, January 30-31, **2014**, Coimbra, Portugal, P 53.
18. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Photodynamic therapy for bladder cancer: Targeting and killing cancer cells by a novel galacto-dendritic phthalocyanine”, *IBILI Meeting 2013*, December 12-13, **2013**, Coimbra, Portugal.
19. Patrícia M. R. Pereira, Leandro M. O. Lourenço, Mafalda A. F. Bispo, Sandrina Silva, José A. S. Cavaleiro, Carlos A. F. Ribeiro, Rosa Fernandes, João P. C. Tomé. “Glyco-Porphyrins and - Phthalocyanines for Cancer Photodynamic Therapy”, 15th BMOS - Brazilian Meeting on Organic Synthesis, November 10-13, **2013**, Campos do Jordão Convention Center, Brazil.
20. Patrícia M. R. Pereira, Leandro M. O. Lourenço, Maria G. P. M. S. Neves, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes, “Cyclodextrins as phthalocyanines-delivery systems to target and kill cancer cells”, 4th PF2MUC Symposium, October 25, **2013**, Coimbra, Portugal.
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22. Patrícia M.R. Pereira, Sandrina Silva, José A.S. Cavaleiro, Carlos A.F. Ribeiro, João P. C. Tomé and Rosa Fernandes. “Galactodendritic photosensitizers for target carbohydrate receptors and trigger phototoxicity in bladder cancer cells”, 10^o Portuguese National Meeting of Organic Chemistry and the 1st Portuguese-Brazilian Organic Chemistry Symposium, September 4-6, **2013**, Lisbon, Portugal.
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24. Mafalda A.F. Bispo, Patrícia M.R. Pereira, Sandrina Silva, Carlos A.F. Ribeiro, José A.S. Cavaleiro, Rosa Fernandes and João P. C. Tomé. “Galactodendritic chlorin: from photophysical to photobiological studies”, XXIII Encontro Nacional da Sociedade Portuguesa de Química, June 12-14, **2013**, Aveiro, Portugal.

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27. Patrícia M R Pereira, Sandrina Silva, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes. “Porphyrin and phthalocyanine galacto-dendritic conjugates: powerful generators of reactive oxygen species to kill cancer cells”, *2nd RedCat meeting “Natural Products and related Redox Catalysts: Basic Research and Applications in Medicine and Agriculture”*, November 25-27, **2012**, Aveiro, Portugal.
28. Patrícia M R Pereira, Sandrina Silva, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes. “Phthalocyanine galacto-dendritic conjugate: decreases the galectin-1 protein levels and induces phototoxicity in bladder cancer cells”, *A one day symposium with Carlos Caldas sponsored by EACR*, October 26, **2012**, Porto, Portugal.
29. Patrícia M R Pereira, Sandrina Silva, José A. S. Cavaleiro, Carlos A. F. Ribeiro, João P. C. Tomé, Rosa Fernandes. “Phthalocyanine galacto-dendritic conjugate: decreases the galectin-1 protein levels and induces phototoxicity in bladder cancer cells”, *2nd PF2MUC Symposium*, October 26, **2012**, Coimbra, Portugal.
30. Flávio Figueira, Clara Gomes, Dora Costa, João Rodrigues, Sandrina Silva, Patrícia Pereira, Andreia Farinha, José Cavaleiro, João Tomé. “Synthesis of Porphyrins and Analogues for Photomedicinal and Environmental Applications”, *Dia da investigação «made in» UA: «Research Day»*, June 13, **2012**, Aveiro, Portugal.
31. Patrícia M R Pereira, Sandrina Silva, Maria A. F. Faustino, José A. S. Cavaleiro, Rosa Fernandes, João P. C. Tomé. “Glycodendritic-phthalocyanines as potential photosensitizers”, *IBILI Meeting 2011*, December 06-07, **2011**, Coimbra, Portugal.
32. Clara F.A.C. Gomes, Sandrina Silva, Patrícia M. R. Pereira, José A. S. Cavaleiro, Adelaide Almeida, Ângela Cunha, João P. C. Tomé. “Glycosylated Porphyrinoids for PDT applications”, *4th International Symposium on Advances in Synthetic and Medicinal Chemistry*, August 21-25, **2011**, St. Petersburg, Russia.

33. Patrícia M R Pereira, Sandrina Silva, Maria A. F. Faustino, José A. S. Cavaleiro, Rosa Fernandes, João P. C. Tomé. "Water soluble glycodendritic-phthalocyanines for bladder cancer treatment", XXII Encontro Nacional da Sociedade Portuguesa de Química, July 3-6, **2011**, Braga, Portugal.
34. Patrícia M. R. Pereira, Catarina IV Ramos, MGO Santana-Marques, Rodrigo de Paula, M. Graça PMS Neves, JAS Cavaleiro. "Unexpected gas-phase behaviour of H₂-TDMImP in ESI negative and positive ion mode", 2nd Portuguese Young Chemists Meeting, April 21-23, **2010**, Universidade de Aveiro, Aveiro, Portugal.
35. Catarina IV Ramos, Patrícia M. R. Pereira, MGO Santana-Marques, Rodrigo de Paula, M. Graça PMS Neves, JAS Cavaleiro. "Unexpected gas-phase behaviour of H₂-TDMImP", 8th National Meeting of Organic Chemistry, July 1-3, **2009**, Universidade de Aveiro, Aveiro, Portugal.
36. Patrícia M. R. Pereira, Catarina IV Ramos, MGO Santana-Marques, Rodrigo de Paula, M. Graça PMS Neves, JAS Cavaleiro "Reduction of H₂-TDMImP in positive ion mode electrospray", 8th National Meeting of Organic Chemistry, July 1-3, **2009**, Universidade de Aveiro, Aveiro, Portugal.

10. AWARDS AND FELLOWSHIPS

- Since 2013, awarded with a PhD grant from Fundação para a Ciência e Tecnologia (FCT), Lisboa (SFRH/BD/85941/2012).
- European Society for Photobiology (ESP) Fellowship in the form of 100% registration fee waiver for attending the 16th Congress of the ESP, 31 August – 4 September 2015 at Aveiro, Portugal.
- Participation grant (supported by Spanish Society of Medicinal Chemistry) to attend II Simposio de Jóvenes Investigadores de la Sociedad Española de Química Terapéutica, June 12, 2015, Madrid, Spain.
- Best Poster Award in Sciences at Research Day 2015, May 20, Universidade de Aveiro, Aveiro, Portugal.
- Participation grant (supported by EACR, OECI and FN) to attend EACR-OECI Conference on Precision Medicine for Cancer, 1 – 4 March 2015 at Neumünster Abbey, Luxembourg.
- Honorable Mention on the "6th Biochemistry Day", April 20, 2012, Universidade de Aveiro, Aveiro, Portugal.
- July-September 2011, awarded with an international traineeship from The International Association for the Exchange of Students for Technical Experience (IAESTE, Ref No D/11/1000/1).

11. SCIENTIFIC ACTIVITIES (WORKSHOPS/SEMINARS/COURSES/CONFERENCES)

11.1 Organization

- Participation as co-organizer in the demonstration of chemical experiments at Readington Middle School, New Jersey, United States, February 29 – March 1, **2016**.
- Member of the staff team at European Society for Photobiology 2015 Congress, Aveiro, Portugal, August 31 – September 4, **2015**.
- Participation as co-organizer of the symposium “Moléculas fotoexcitáveis versus fotossensíveis”, at Week of Science and Technology, University of Aveiro (Portugal), November 26, **2014**.
- Participation as co-organizer of a lesson in *Técnicas Laboratoriais – Mestrado em Patologia Experimental* at IBILI, November 14, **2014**.
- Member of the staff team at 1st Young Medicinal Chemist Symposium, Faculty of Pharmacy, University of Lisbon (Portugal), September 12, **2014**.
- Member of the staff team at XXIII International Symposium on Medicinal Chemistry, Lisboa Congress Center (Portugal), September 07-11, **2014**.
- Participation as co-organizer of the symposium “Molecules, Light and Oxygen – a formulation with Future in Medicine and Environment”, at Week of Science and Technology, University of Aveiro (Portugal), November 21-23, **2012**.
- Participation as monitor of secondary school students on the Summer Academy at Department of Chemistry, University of Aveiro (Portugal), **2009**.

11.2 Participation in courses

- Course in Laboratory Animal Science, Category C with FELASA accreditation, September 7-18, **2015**, IBMC, Porto, Portugal.
- Advanced course, “Pharmacological Development: from Organic Synthesis to Clinical Trials”, July 2-13, **2012**, Universidade do Minho, Braga, Portugal.
- Training course, “HACCP and food safety: knowledge about the importance of food safety”, March 1-8, **2010**, School House Aveiro, Aveiro, Portugal.

11.3 Participation in workshops, conferences and seminars

- Participation on the “Dia da investigação «made in» UA: «Research Day»”, June 03, **2014**, Aveiro, Portugal.

- Participation on the “2nd Workshop in Mass Spectrometry and Carbohydrates”, May 15, 2013, Universidade de Aveiro, Aveiro, Portugal.
- Participation on the “6th Biochemistry Day”, April 20, 2012, Universidade de Aveiro, Aveiro, Portugal.
- Participation on the “Workshop-Cell/Tissue Culture”, November 14, 2011, Biocant, Cantanhede, Portugal.
- Participation on the "II Workshop on Biotechnology", May 18, 2011, Universidade de Aveiro, Aveiro, Portugal.
- Participation on the "XXI Annual Meeting of the Portuguese Society of Pharmacology”, February 2-4, 2011, Faculdade de Medicina da Universidade de Coimbra, Coimbra, Portugal.
- Participation on the "I Workshop on Biotechnology", May 19-20, 2010, Universidade de Aveiro, Aveiro, Portugal.
- Participation in the “I National Conference of Biomedical Sciences”, March 11-13, 2010, Universidade de Aveiro, Aveiro, Portugal.
- Participation on the "7th round of conferences in Chemistry", April 9, 2008, Universidade de Aveiro, Aveiro, Portugal.

12. REFERENCES

- **Professor Maria da Graça de Pinho Morgado Silva Neves**
Universidade de Aveiro, Aveiro, Portugal
gneves@ua.pt
- **Doctor Rudolf Schneider**
Bundesanstalt für Materialforschung und -prüfung (BAM), Berlin, Germany
rudolf.schneider@bam.de
- **Doctor João Tomé**
Universidade de Aveiro, Aveiro, Portugal
jtome@ua.pt
- **Professor Charles Michael Drain**
Hunter College of CUNY, New York, United States.
cdrain@hunter.cuny.edu

- **Doctor Rosa Fernandes**

IBILI, Coimbra, Portugal

rcfernandes@fmed.uc.pt]

- **Doctor Sandrina Silva**

Universidade Federal de São Carlos, São Carlos, São Paulo, Brazil

sandrina.silva@ufscar.br