

# Hugo Miguel Raposo Correia Botelho

E-mail [hmbotelho@fc.ul.pt](mailto:hmbotelho@fc.ul.pt)  
 Webpage <http://webpages.fc.ul.pt/~hmbotelho>  
 Telephone +351 21 750 0659  
 Work address University of Lisboa, Faculty of Sciences  
 BioISI - Biosystems & Integrative Sciences Institute  
 Campo Grande, C8  
 1749-016 Lisboa. Portugal




---

## BIOGRAPHICAL NOTE

Scientist with a strong expertise in microscopy, high content screening, cell biology, biochemistry and biophysics. Cystic Fibrosis researcher. Manager of the High-Throughput Screening Facility from BioISI / Faculty of Sciences, University of Lisbon. Bioimage analyst, software developer, data scientist, trainer and academic supervisor.

---

## MAIN SKILLS

Cystic Fibrosis	CFTR traffic and folding; Cystic Fibrosis cellular models; therapeutic target identification.
Management	Manager of High-Throughput Screening Facility (BioISI/FCUL); Lab work supervision; Project management.
Microscopy	High-content microscopy screening. Widefield and confocal fluorescence.
Bioimage analysis	Quantification and feature extraction from microscopy images (ImageJ, CellProfiler).
Cell Biology	Assay design; Eukaryotic and prokaryotic cell culture; RNA interference; Membrane trafficking.
Data Science	Statistical analysis of microscopy screening datasets. Data visualization, exploration and normalization.
Software development	R and ImageJ. Standalone scripts, libraries and web applications.
Training	Organization of courses and training sessions on microscopy, screening and image analysis.
Biochemistry	Protein expression, purification and characterization; Liquid chromatography; SDS-PAGE; Western blot; Proteomics.
Biophysics	Spectroscopy (UV-visible Absorption, Fluorescence Emission, Circular Dichroism, FT-IR, Dynamic Light Scattering); Protein folding, misfolding and aggregation; Thermodynamics; Protein aggregation; Electrochemistry.

---

## EDUCATION

2010	PhD in Biochemistry. Specialization: Biophysics. ITQB / Universidade Nova de Lisboa. Approved by unanimity Supervisor: Cláudio M. Gomes <u>Thesis title:</u> Protein folding and metal ions – Conformational and functional interplay
2006	Degree in Biochemistry (Licenciatura, pre-Bologna). Faculty of Sciences, University of Lisboa. Mark: 18/20 Supervisor: Cláudio M. Gomes <u>Thesis title:</u> Pesquisa, identificação e caracterização de proteínas hiperestáveis no proteoma solúvel da archaea hipertermofílica <i>Sulfurisphaera</i> sp. [Search, identification and characterization of hyperstable proteins in the soluble proteome of the hyperthermophilic archaea <i>Sulphurisphaera</i> sp.]

---

## SCIENTIFIC CAREER

2019, Jul - today	Facility Manager, High-Throughput Screening Facility. BioISI, FCUL.
2019, Jul - today	Junior Researcher, BioISI, FCUL. Using high-content siRNA screening for the identification and characterization of CFTR regulator genes. Development of bioimage analysis software.
2012, Apr – 2019, Jun	Post-Doctoral Fellow. BioISI, FCUL. Identification and characterization of therapeutically relevant proteins rescuing CFTR traffic in Cystic Fibrosis using siRNA-based high-throughput microscopy screens. Development of automated image analysis pipelines and biostatistical analysis software. Supervisor: Margarida D. Amaral.
2012, Jul – 2013, Dec	Post-Doctoral Fellow, Advanced Light Microscopy Facility, EMBL Heidelberg, Germany. Training on high-throughput microscopy (). Screening of siRNA libraries to identify CFTR modulators. Supervisors: Rainer Pepperkok, Margarida D. Amaral.
2011, Sep – 2012, Apr	Post-Doctoral Fellow, ITQB/UNL. Biophysical characterization of amyloidogenesis in S100 proteins. Supervisor: Cláudio Gomes.
2011, Jul - Oct	Post-Doctoral Fellow, Department of Neuropathology. Freiburg University, Germany. Neuropathological analysis of S100 deposits in animal and cellular models of Alzheimer's disease. Crystallographic characterization of S100 amyloids. Supervisor: Günter Fritz.
2010, Nov - 2011, Jun	Post-Doctoral Fellow, ITQB/UNL. Characterization of the amyloidogenic propensity of S100 proteins in physiological-like conditions. Supervisor: Cláudio M. Gomes.
2010, Jan - Feb	Visiting PhD Student, Umeå University, Sweden. Cytotoxicity of S100 amyloids, Supervisor: Ludmilla Morozova-Roche.
2006 - 2010	PhD Student, ITQB/UNL. Modulation of the conformation, stability and amyloidogenesis of S100 proteins by metal ions. Conformation and stability of iron-sulfur proteins. Supervisor: Cláudio M. Gomes.
2005 - 2006	Undergraduate research student, FCUL Biochemistry course. ITQB/UNL. Proteome wide analysis of protein stability in the hyperthermophile <i>Sulphurisphaera</i> sp., Supervisor: Cláudio M. Gomes.

---

## PUBLICATIONS

*h*-index: 13

Online publication list and statistics:

<http://www.researcherid.com/rid/B-3092-2008>  
<http://orcid.org/0000-0002-4208-1086>  
[https://www.researchgate.net/profile/Hugo\\_Botelho](https://www.researchgate.net/profile/Hugo_Botelho)  
<https://www.scopus.com/authid/detail.url?authorId=15030102200>  
<http://www.ncbi.nlm.nih.gov/sites/myncbi/1X9J-JV7QTAQu/bibliography/47769077/public>  
<http://www.linkedin.com/pub/hugo-botelho/27/5b9/b60>  
<http://scholar.google.com/citations?user=nXftyYwAAAAJ>  
<https://www.cienciavitae.pt/portal/E218-E579-24C1>

### Papers in international peer reviewed journals

- Godinho-Pereira J, Lopes MD, Garcia AR, Botelho HM, Malhó R, Figueira I, Brito MA (2022) A drug screening reveals minocycline hydrochloride as a therapeutic option to prevent breast cancer cells extravasation across the blood-brain barrier. *Biomedicines*. 10(8):1988. DOI: [10.3390/biomedicines10081988](https://doi.org/10.3390/biomedicines10081988) (IF: 4.757, 2021)

2. Ferreira FF, Silva IAL, Botelho HM, Amaral MD, Farinha CM (2022) Absence of EPAC1 signaling to stabilize CFTR in intestinal organoids. *Cells*. 11(15):2295. DOI: [10.3390/cells11152295](https://doi.org/10.3390/cells11152295) (IF: 7.666, 2021)
3. Fernandes C, Palma E, Silva F, Belchior A, Pinto CJ, Guerreiro JF, Botelho HM, Mendes F, Raposinho P, Paulo A (2022) Searching for a Paradigm Shift in Auger-Electron Cancer Therapy with Tumor-Specific Radiopeptides Targeting the Mitochondria and/or the Cell Nucleus. *Int J Mol Sci.* 23(13):7238. DOI: [10.3390/ijms23137238](https://doi.org/10.3390/ijms23137238) (IF: 6.208, 2021)
4. Quaresma MC, Botelho HM, Pankonien I, Rodrigues CS, Pinto MC, Costa PR, Duarte A, Amaral MD (2022) Exploring YAP1-centred networks linking dysfunctional CFTR to epithelial-mesenchymal transition. *Life Sci Alliance*. 5(9):e202101326. DOI: [10.26508/lsa.202101326](https://doi.org/10.26508/lsa.202101326) (IF 5.781, 2021)
5. Lim SH, Snider J, Birimberg-Schwartz L, Ip W, Serralha JC, Botelho HM, Lopes-Pacheco M, Pinto MC, Moutaoufik MT, Zilocchi M, Laselva O, Esmaeili M, Kotlyar M, Lyakisheva A, Tang P, Vázquez LL, Akula I, Aboualizadeh F, Wong V, Grozavu I, Opacak-Bernardi T, Yao Z, Mendoza M, Babu M, Jurisica I, Gonska T, Bear C, Amaral MD, Stagljar I (2022) CFTR interactome mapping using the Mammalian Membrane Two-Hybrid High-Throughput Screening system. *Mol Syst Biol*, 18:e10629. DOI: [10.15252/msb.202110629](https://doi.org/10.15252/msb.202110629) (IF 13.068, 2021)
6. Pinto MC, Botelho HM, Silva IAL, Railean V, Neumann B, Pepperkok R, Schreiber R, Kunzelmann K, Amaral MD (2022) Systems Approaches to Unravel Molecular Function: High-content siRNA Screen Identifies TMEM16A Traffic Regulators as Potential Drug Targets for Cystic Fibrosis. *J Mol Biol*, 434(5):167436. DOI: [10.1016/j.jmb.2021.167436](https://doi.org/10.1016/j.jmb.2021.167436) (IF 6.151, 2021)
7. Hagemeijer MC, Vonk AM, Awatade NT, Silva IAL, Tischer C, Hilsenstein V, Beekman JM, Amaral MD, Botelho HM (2020) An open-source high-content analysis workflow for CFTR function measurements using the forskolin-induced swelling assay. *Bioinformatics*, 36(24): 5686-5694. DOI: [10.1093/bioinformatics/btaa1073](https://doi.org/10.1093/bioinformatics/btaa1073) (IF 6.937)
8. Silva IAL, Doušová T, Ramalho S, Centeio R, Clarke LA, Railean V, Botelho HM, Holubová A, Valášková I, Yeh J-T, Hwang T-C, Farinha CM, Kunzelmann K, Amaral MD (2020) Organoids as a Personalized Medicine Tool for Ultra-Rare Mutations in Cystic Fibrosis: the Case of S955P and 1717-2A>G. *Biochim Biophys Acta - Mol Basis Dis*, 1866, 165905. DOI: [10.1016/j.bbadi.2020.165905](https://doi.org/10.1016/j.bbadi.2020.165905) (IF 5.187)
9. Uliyakina I, da Paula AC, Afonso S, Lobo MJ, Felício V, Botelho HM, Farinha CM, Amaral MD (2020) Full rescue of F508del-CFTR processing and function by CFTR modulators can be achieved by removal of two regulatory regions. *Int J Mol Sci*, 21(12): 4524. DOI: [10.3390/ijms21124524](https://doi.org/10.3390/ijms21124524) (IF 5.924)
10. Amaral MD, Hutt DM, Tomati V, Botelho HM, Pedemonte N (2019) CFTR processing, trafficking and interactions. *J Cyst Fibros*, S1569-1993(19)30932-30934. DOI: [10.1016/j.jcf.2019.10.017](https://doi.org/10.1016/j.jcf.2019.10.017) (IF 4.759)
11. Santos JD, Canato S, Carvalho AS, Botelho HM, Aloria K, Amaral MD, Matthiesen R, Falcão AO, Farinha CM (2019) Folding status is determinant over traffic-competence in defining CFTR interactors in the endoplasmic reticulum. *Cells*, 8(4): 353. DOI: [10.3390/cells8040353](https://doi.org/10.3390/cells8040353) (IF 4.366)
12. Palma E, Botelho HM, Morais GR, Rodrigues I, Santos IC, Campello MPC, Raposinho P, Belchior A, Gomes SS, Araújo MF, Correia I, Ribeiro N, Gama S, Mendes F, Paulo A (2019) Unravelling the antitumoral potential of novel bis(thiosemicarbazone) Zn(II) complexes: structural and cellular studies. *J Biol Inorg Chem*, 24: 71-89. DOI: [10.1007/s00775-018-1629-6](https://doi.org/10.1007/s00775-018-1629-6) (IF 3.246)
13. Awatade NT, Ramalho S, Silva IAL, Felício V, Botelho HM, de Poel E, Vonk A, Beekman JM, Farinha CM, Amaral MD (2018) R560S: a class II CFTR mutation that is not rescued by current modulators. *J Cyst Fibros*, 18(2):182-189. DOI: [10.1016/j.jcf.2018.07.001](https://doi.org/10.1016/j.jcf.2018.07.001) (IF 4.29)
14. Cristóvão JS, Morris VK, Cardoso I, Leal SS, Martinez J, Botelho HM, Göbl C, David R, Kierdorf K, Alemi M, Madl T, Fritz G, Reif B, Gomes CM (2018) The neuronal S100B protein is a calcium-tuned suppressor of amyloid- $\beta$  aggregation. *Sci Adv*, 4(6): eaaq1702. DOI: [10.1126/sciadv.aaq1702](https://doi.org/10.1126/sciadv.aaq1702) (IF 12.804)
15. Lérias JR\*, Pinto MC\*, Botelho HM, Awatade NT, Quaresma MC, Silva IAL, Wanitchakool P, Schreiber R, Pepperkok R, Kunzelmann K, Amaral MD (2018) A novel microscopy-based assay identifies extended synaptotagmin-1 (ESYT1) as a positive regulator of anoctamin 1 traffic. *Biochim Biophys Acta - Mol Cell Res*, 1865(2): 421-431. DOI: [10.1016/j.bbamcr.2017.11.009](https://doi.org/10.1016/j.bbamcr.2017.11.009) (IF 4.739)

16. Igreja S, Clarke LA, Botelho HM, Marques L, Amaral MD (2015) Correction of a cystic fibrosis splicing mutation by antisense oligonucleotides. *Human mutat*, 37(2): 209-215. DOI: [10.1002/humu.22931](https://doi.org/10.1002/humu.22931) (IF 5.089)
17. Clarke LA, Botelho HM, Sousa L, Falcão AO, Amaral MD (2015) Transcriptome meta-analysis reveals common differential and global gene expression profiles in cystic fibrosis and other respiratory disorders and identifies CFTR regulators. *Genomics*, 106(5): 268-277. DOI: [10.1016/j.ygeno.2015.07.005](https://doi.org/10.1016/j.ygeno.2015.07.005) (IF 2.386)
18. Botelho HM, Uliyakina I, Awatade NT, Proença MC, Tischer C, Sirianant L, Kunzelmann K, Pepperkok R, Amaral MD (2015) Protein traffic disorders: an effective high-throughput fluorescence microscopy pipeline for drug discovery. *Sci Rep*, 5, 9038. DOI: [10.1038/srep09038](https://doi.org/10.1038/srep09038) (IF 5.228)
19. Carvalho SB, Botelho HM, Leal SS, Cardoso I, Fritz G, Gomes CM (2013) Intrinsically disordered and aggregation prone regions underlie β-aggregation in S100 proteins. *PLoS ONE*, 8, e76629. DOI: [10.1371/journal.pone.0076629](https://doi.org/10.1371/journal.pone.0076629) (IF 3.354)
20. Sá-Moura B, Simões AM, Fernandes H, Fraga J, Abreu IA, Botelho HM, Gomes CM, Marques AJ, Dohmen J, Ramos P, Macedo-Ribeiro S (2013) Biochemical and biophysical characterization of recombinant yeast proteasome maturation factor ump1. *Comput Struct Biotechnol J*, 7(8), e201304006. DOI: [10.5936/csbj.201304006](https://doi.org/10.5936/csbj.201304006) (IF 4.148, 2017)
21. Botelho HM, Leal SS, Cardoso I, Yanamandra K, Morozova-Roche LA, Fritz G, Gomes CM (2012) S100A6 amyloid fibril formation is calcium-modulated and enhances superoxide dismutase-1 (SOD1) aggregation. *J Biol Chem*, 287(50): 42233-42. DOI: [10.1074/jbc.M112.396416](https://doi.org/10.1074/jbc.M112.396416) (IF 4.651)
22. Leal SS\*, Botelho HM \*, Gomes CM (2012) Metal ions as modulators of protein conformation and misfolding in neurodegeneration. *Coord Chem Rev*, 256: 2253-2270. (\*equally contributing authors). DOI: [10.1016/j.ccr.2012.04.004](https://doi.org/10.1016/j.ccr.2012.04.004) (IF 11.016)
23. Veith A, Botelho HM, Kindinger F, Gomes CM, Kletzin A (2012) The sulfur oxygenase reductase from the mesophilic bacterium *Halothiobacillus neapolitanus* is a highly active thermozyyme. *J Bacteriol*, 194: 677-685. DOI: [10.1128/JB.06531-11](https://doi.org/10.1128/JB.06531-11) (IF 3.177)
24. Botelho HM, Gomes CM (2011) Structural reorganization renders enhanced metalloprotein stability. *Chem Commun*, 47: 11149-11151. DOI: [10.1039/c1cc13354c](https://doi.org/10.1039/c1cc13354c) (IF 6.169)
25. Fritz G, Botelho HM, Morozova-Roche LA, Gomes CM (2010) Natural and amyloid self-assembly of S100 proteins: structural basis of functional diversity. *FEBS J*, 277: 4578-90. DOI: [10.1111/j.1742-4658.2010.07887.x](https://doi.org/10.1111/j.1742-4658.2010.07887.x) (IF 3.129)
26. Botelho HM, Leal SS, Veith A, Prosinecki V, Bauer, C., Fröhlich, R., Kletzin A, Gomes CM (2010) Role of a novel disulfide bridge within the all-beta fold of soluble Rieske proteins. *J Biol Inorg Chem*, 15: 271-281. DOI: [10.1007/s00775-009-0596-3](https://doi.org/10.1007/s00775-009-0596-3) (IF 3.287)
27. Botelho HM, Koch M, Fritz G, Gomes CM (2009) Metal ions modulate the folding and stability of the tumor suppressor protein S100A2. *FEBS J*, 276(6): 1776-86. DOI: [10.1111/j.1742-4658.2009.06912.x](https://doi.org/10.1111/j.1742-4658.2009.06912.x) (IF 3.042)
28. Prosinecki V, Botelho HM, Francese S, Mastrobuoni G, Moneti G, Urich T, Kletzin A, Gomes CM (2006) A proteomic approach toward the selection of proteins with enhanced intrinsic conformational stability. *J Proteome Res*, 5(10): 2720-6. DOI: [10.1021/pr0602491](https://doi.org/10.1021/pr0602491) (IF 5.151)

## Book Chapters

1. Amaral MD, Clarke LA, Farinha CM, Botelho HM (2023) Systems Biology and the New Omics, *in* Hodson and Geddes' Cystic Fibrosis, 5E (Bush A, Amaral MD, Davies JC, Simmonds NJ, Taylor-Cousar JL and Ranganathan S, Eds.) Taylor & Francis. *In press*.
2. Amaral MD, Farinha CM, Matos P, Botelho HM (2016) Investigating alternative transport of integral plasma membrane proteins from the ER to the Golgi: lessons from the cystic fibrosis transmembrane conductance regulator (CFTR), *In* Unconventional Protein Secretion: Methods in Molecular Biology, vol. 1459 (Pompa, A., and De Marchis, F., Eds.) 105-126. Humana Press, New York. DOI: [10.1007/978-1-4939-3804-9\\_7](https://doi.org/10.1007/978-1-4939-3804-9_7)

3. Carvalho SB, Cardoso I, Botelho HM, Yanamandra K, Fritz G, Gomes CM, Morozova-Roche LA (2014) Structural heterogeneity and bioimaging of S100 amyloid assemblies, in *Bionanoimaging: Protein Misfolding and Aggregation* (Uversky, V., Lyubchenko, Y., eds), 197-212. Academic Press, Boston. DOI: [10.1016/B978-0-12-394431-3.00018-3](https://doi.org/10.1016/B978-0-12-394431-3.00018-3)
4. Botelho HM, Fritz G, Gomes CM (2012) Analysis of S100 oligomers and amyloids, in *Amyloid Proteins: Methods and Protocols, Methods in Molecular Biology*, vol. 849 (Sigurdsson E.M., Calero, M., Gasset, M., eds), 373-386. Springer Science+Business Media. DOI: [10.1007/978-1-61779-551-0\\_25](https://doi.org/10.1007/978-1-61779-551-0_25)

## Patents

1. Amaral MD, Botelho HM, Lopes-Pacheco M, Pinto MC (2022) Method of identifying agents for the treatment of cystic fibrosis caused by the mutation F508del. Provisional Patent Application 20221000000995. Instituto Nacional da Propriedade Industrial, Portugal.

---

## SERVICE AS EXPERT REVIEWER FOR SCIENTIFIC JOURNALS

Biochimie  
FEBS Letters  
Journal of Biotechnology  
Journal of Dermatological Research  
JoVE  
Metallomics  
Molecular Genetics & Genomic Medicine  
Physical Chemistry Chemical Physics  
PLoS One  
Scientific Reports  
SLAS Discovery

Online reviewing statistics:

<http://publons.com/a/1484264>

---

## SOFTWARE PORTFOLIO

<http://github.com/hmbotelho>

---

## LECTURING ACTIVITY

2022-2023	Fundamentos de Química e Bioquímica [ <i>Fundamentals of Chemistry and Biochemistry</i> ]. Problem solving lectures. Degree on Biomedical and Biophysical Engineering and Degree in Physical Engineering, FCUL. 1 <sup>st</sup> year, 2 <sup>nd</sup> semester.
2023	Introdução à Biologia Molecular [ <i>Introduction to Molecular Biology</i> ]. Laboratory lectures. Degree on Biochemistry, FCUL. 1 <sup>st</sup> year, 2 <sup>nd</sup> semester.
2017-2022	Functional screens and high throughput microscopy in drug discovery. Lecture for FCUL Data Science Post Graduation. Omics approaches in biomedicine and biotechnology module (1/year). Course responsible: Margarida Gama-Carvalho.
2016-2022	Fluorescence Microscopy. Lecture for FCUL Biochemistry Master's course. Complements in Biochemical Analysis module (1/year). Course responsible: Cláudio M. Gomes or Ana Coutinho.
2021, Feb 4	High-throughput microscopy & Screening. Lecture at online course "Optical microscopy at Optical microscopy at COLife & Friends: learning the basics". [ <a href="https://youtu.be/tGnOjOUk2J8">https://youtu.be/tGnOjOUk2J8</a> ]. Course organizer: COLife.

2020, Nov 24	Princípios e Aplicações da Microscopia de High-Throughput [Principles and Applications of High-Throughput Microscopy]. Lecture for ISEL's Graduation Course on Biomedical Engineering. Biology and Histology module. Course responsible: Rita Pacheco.
2020, Feb-Jun	Biochemistry, Laboratory lectures. Biology degree FCUL, 1 <sup>st</sup> year, 1 <sup>st</sup> semester.
2016-2020	High-throughput microscopy & screening. Lecture for FCUL Animal Biology Department Master's course. Bioimaging module (1/year). Course responsible: Gabriel Martins.
2019, Mar 27	CellProfiler & CellProfiler Analyst workshop. Practical demo for the micro-Workshop "Introduction to Image Processing and Analysis using Fiji". Instituto Gulbenkian de Ciência / Advanced Imaging Unit. Workshop organization: Nuno Pimpão Martins.
2018, Oct 24	Workshop on High Content Screening and Data Mining. Software demo. SPAOM2018: Spanish Portuguese Meeting for Advanced Optical Microscopy. Granada, Spain.
2018, Oct 18	Image analysis open source programs: ImageJ, CellProfiler and others. Training session on open source image analysis software. CNIO High Content Screening School. Madrid, Spain. Organizer: Diego Megias.
2017-2018	High content analysis of the forskolin Induced swelling assay. Lecture for BioISI PhD program & Hands-on workshop on Epithelial Systems: Physiology and Pathophysiology (1/year).
2014-2018	Introduction to High-Throughput Microscopy, Image acquisition, Data analysis in High-Throughput Microscopy, Assay development in High-Throughput Microscopy, High-Throughput Microscopy bioassay & Discussion of the experimental work [6 lectures/year]. Hands-on workshop on High-Throughput Microscopy. BioISI PhD Programme in Biology/Biochemistry (BioSYS).
2016-2022	Data analysis in high content microscopy screening. Course on High Throughput Screening and Image Analysis for Biosciences (1/year). I3S. Porto, Portugal. Organizer: André Maia.
2017, Apr 5&19	Scientific image editing workshop. Organizer: ipSC – commission of post-graduate students of the Faculty of Pharmacy of the University of Lisbon.
2017, Feb 12-15	Building a workflow with CellProfiler. Instructor in NEUBIAS Biolimage Analysis Training School for Early Career Investigators. Oeiras, Portugal.
2013, Oct 23 - 24	High Content Screening in Cystic Fibrosis Biomedical Research. EMBL Predoc Course 2013. Cell Biology module. Practical sessions.

---

## COORDINATION OF RESEARCH PROJECTS

2023-2024	NewKinCF – Unraveling the mechanism of action of a novel kinase regulator of F508del-CFTR traffic and activity FCT 2022.03453.PTDC. 50,000€ Principal Investigator: <u>Hugo M. Botelho</u>
2022	Mitochondrial network in Multiple Acyl-CoA Dehydrogenase Deficiency: construction of a high-content bioimage analysis workflow BioISI Project. 5,000€ Principal Investigators: <u>Hugo M. Botelho</u> & Filipa S. Carvalho.
2020	VALHealth - Valorisation of Algae for Health: Bioactive Compounds from Marine Bioresources by Membrane Technology BioISI Project. 10,000€ Principal Investigators: Rita Pacheco & <u>Hugo M. Botelho</u> .
2018	Deconvolution of dual CFTR/ANO1 Modulators from Portuguese natural products – A new class of drugs for CF therapy BioISI Project. 10,000€ Principal Investigators: Helena Gaspar, Helena Vieira & <u>Hugo M. Botelho</u> .

2017	A new class of drugs for CF therapy - Dual CFTR/ANO1 Modulators from Portuguese natural products BioISI Project. 10,000€ Principal Investigators: <u>Hugo M. Botelho</u> & Helena Vieira.
2016	Natural compounds as a source of novel drug leads for Cystic Fibrosis BioISI Project. 10,000€ Principal Investigators: <u>Hugo M. Botelho</u> & Helena Vieira.
2016	The identification of new natural compounds of high therapeutic potential for Cystic Fibrosis by high-throughput microscopy screens BioISI Post-Doc. Supervisors: <u>Hugo M. Botelho</u> & Helena Vieira.

## ORGANIZATION OF SCIENTIFIC MEETINGS

2022	Chem&BioChem – Postgraduate Students Meeting, FCUL Member of the scientific committee 15 July, Faculty of Sciences, University of Lisbon <a href="https://chembiochem.campus.ciencias.ulisboa.pt">https://chembiochem.campus.ciencias.ulisboa.pt</a>
2021	SPAOM2021 – Spanish-Portuguese Advanced Optical Microscopy 2021 Member of the scientific committee & HCS Community Workshop Organizer 23-25 November, Online <a href="https://igc.idloom.events/spaom2021">https://igc.idloom.events/spaom2021</a>
2021	Eutopia 3 – Third Meeting of the European Topology Interdisciplinary Initiative Member of the local organizing committee 15-17 February, Faculty of Sciences, University of Lisbon <a href="http://eutopia3.campus.ciencias.ulisboa.pt">http://eutopia3.campus.ciencias.ulisboa.pt</a>
2019	Workshop on Integrative Approaches to Protein Folding & Aggregation Organizing Committee 11-12 June, Faculty of Sciences, University of Lisbon <a href="http://folding2019.campus.ciencias.ulisboa.pt">http://folding2019.campus.ciencias.ulisboa.pt</a>

## ORGANIZATION OF TRAINING EVENTS

2022	Macro Scripting in ImageJ - COLife & FCUL 18-20 January. Online Participants: 37
2021	Basics in Light Microscopy 25-28 October. Online. Participants: 38 <a href="https://fculmf.campus.ciencias.ulisboa.pt/blm2021">https://fculmf.campus.ciencias.ulisboa.pt/blm2021</a>
2021	Introduction to Image Analysis COLife & FCUL 21-23 September. Online. Participants: 218 <a href="https://colife.eu/en/introduction-to-image-analysis-course">https://colife.eu/en/introduction-to-image-analysis-course</a>
2018	Hands-on Workshop on High-Throughput Microscopy 9-13 July. BioISI/FCUL. Lisbon, Portugal. Participants: 17 <a href="https://fculmf.campus.ciencias.ulisboa.pt/htm2018">https://fculmf.campus.ciencias.ulisboa.pt/htm2018</a>
2017	Hands-on Workshop on High-Throughput Microscopy 17-21 July. BioISI/FCUL. Lisbon, Portugal.

	Participants: 21 <a href="https://fculmf.campus.ciencias.ulisboa.pt/htm2017">https://fculmf.campus.ciencias.ulisboa.pt/htm2017</a>
2016	Hands-on Workshop on High-Throughput Microscopy 11-15 July. BioISI/FCUL. Lisbon, Portugal. Participants: 11
2015	Hands-on Workshop on High-Throughput Microscopy 18-20 March. BioISI/FCUL. Lisbon, Portugal. Participants: 11

## PUBLIC AWARENESS OF SCIENCE ACTIVITIES

2022	Ser Cientista 2022. FCUL. Células ao microscópio: os seus organelos e o que eles nos ensinam sobre os novos fármacos. Jul 25-29. Lisboa, Portugal. <a href="https://ciencias.ulisboa.pt/pt/evento/25-07-2022/ser-cientista-2022">https://ciencias.ulisboa.pt/pt/evento/25-07-2022/ser-cientista-2022</a>
2022	TecLabs Demo Day. Platform for image-based screening of chemical compounds with potential therapeutic applications: the example of cystic fibrosis. May 5. Lisboa, Portugal.
2022	Dia Aberto FCUL. BioISI High-Throughput Screening Facility. May 4. Lisboa, Portugal.
2021	Ciências Research Day – Open Labs at BioISI High-Throughput Screening Facility. Oct 27. Lisboa, Portugal.
2021	FIC.A - Festival Internacional de Ciência. A microscopia e a descoberta de novos fármacos. Oct 14. Oeiras, Portugal.
2021	Dia Aberto Virtual FCUL. Unidade de Microscopia. May 5. Online. <a href="https://www.youtube.com/playlist?list=PLlamaT8XLnu2_2X9gXVIUeggezhhNTohx">https://www.youtube.com/playlist?list=PLlamaT8XLnu2_2X9gXVIUeggezhhNTohx</a>

## SCIENTIFIC SOCIETIES

2016-present	NEUBIAS: Network of European Biolimage Analysts, COST Action CA15124
2006 - present	Portuguese Biochemical Society & Portuguese Biophysical Society

## PRIZES AND AWARDS

2019	Travel grant. NEUBIAS Training School #13. Biolimage Analysis for Facility Staff: "Workflows & Scientific Programming using ImageJ/Fiji & Python".
2018	NEUBIAS ITC Conference Grant. EMBL Conference - From Images to Knowledge with ImageJ & Friends (I2K) & I2K Developers Satellite Meeting.
2015	Meeting fellowship. 12 <sup>th</sup> ECFS Basic Science Conference.
2013	EMBO best poster award "Molecular Biology in Portugal and EMBL" and registration voucher to The 5 <sup>th</sup> EMBO Meeting.
2010	Travel Grant, Portuguese Biochemical Society.
2010	Travel Grant, Portuguese Biophysical Society.
2010	Subsidy for participating in International Congresses, Fundação Calouste Gulbenkian.
2007	Student Travel Grant, ICBIC XIII.

2007	Banco Espírito Santo Award – Best Classified Graduates in 2005/2006.
2004	Fundação da Faculdade de Ciências da Universidade de Lisboa Award – Best Classified 1 <sup>st</sup> year Graduation Students in 2002/2003.

---

## LANGUAGE SKILLS

Portuguese	Native speaker.
English	Excellent speaking, reading and writing.
French	Basic speaking, reading and writing.
Spanish	Basic speaking, reading and writing.

---

## OTHER ACTIVITIES

2019-present	Contact person of BioISI in PPBI - Portuguese Platform of Biolmaging.
2019-present	Member of the Lisbon Area Bioimaging Group (Lx-BIG).
2019-present	Contact person of BioISI in the PT-OPENSCREEN research infrastructure.
2019-present	Co-coordinator of FCUL Microscopy Facility.
2016-2020	Member of NEUBIAS: Network of European Biolimage Analysts, COST Action CA15124
2014 - present	Collaborates in the management of microscopy resources. BioISI & Functional Genomics and Proteostasis Group (group leader: Margarida D. Amaral). BioISI/FCUL. Lisbon, Portugal.
2013	Volunteer to the 36 <sup>th</sup> European Cystic Fibrosis Society Conference. Jun 12-15. Lisbon Congress Centre. Lisbon, Portugal.
2005	Member of the Organizing Committee of the II National Meeting of Biochemistry Students. Apr 23-25. FCUL. Lisbon, Portugal.
2003	Participation in the I National Meeting of Biochemistry Students. Apr 25-27. Coimbra University. Coimbra, Portugal.
2001	Ciência Viva Program for the Scientific Occupation of Youngsters in the Vacations. "Caracterização molecular de animais marinhos arrojados nas costas de S. Miguel". University of the Azores. Supervisor: Manuel João Costa. Jul. Ponta Delgada, Portugal.
2001	Participation in the 5 <sup>th</sup> Ciência Viva Forum. "Qualidade da Água – Um Património Universal". Escola Secundária Antero de Quental. May. Lisbon, Portugal.
2000	Ciência Viva Program for the Scientific Occupation of Youngsters in the Vacations. "Da diversidade biológica à diversidade biomolecular: um trabalho na área laboratorial". University of the Azores. Supervisor: Manuel João Costa. Jul. Ponta Delgada, Portugal.