Matzapetakis Manolis, Ph.D

NMR Facility Manager

Institute of Chemical Biology

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Education

2004: Ph.D. in Chemistry, University of Michigan, Ann Arbor, MI, USA
1998: B.Sc. Chemistry, University of Crete, Heraklion, Greece

Appointments

2022 - Present NMR facility Manager, NHRF, Athens Greece
2013 - 2018 Associate Researcher, ITQB NOVA, Oeiras, Portugal
2008 - 2013 Assistant Researcher, ITQB, Lisbon, Portugal
2007 - 2008 Military Service in Greek Navy
2004 - 2007 Post Doc, CHORI, CA, USA/ Berkeley, CA, USA and CERM, Florence Italy
2004 - 2004 Post Doc, University of Michigan, Ann Arbor, MI, USA

Research Interests:

NMR Metabolomics/chemometrics, Protein NMR including structure determination , dynamics and interactions in Solution and Solid State. (Metallo)protein expression purification and biophysical characterization, *De novo* protein design, peptide synthesis, Inorganic molecule synthesis and characterization.

Foreign languages. Greek (C2), English (C2), Portuguese (B2), Italian (A2), German (A1), French (A1)

Funded research programs

2015-2018 Team member of FCT PTDC/AGR-TEC/0992/2014
"Deciphering the grass pea (Lathyrus sativus) quality riddle. How can the omics technologies contribute to a demand-driven improvement in legume quality?" **Total Budget: €229.166** PI Carlota Vaz Patto

2013-2016 Team member of the (New-INDIGO/0001/2012), ERA-NET Project
Anti-infective strategies against bacterial pathogens "TBomics - an OMICS approach for diagnosing tuberculosis", New INDIGO Partnership Programme on Biotechnology applied to Human Health
Total Budget: €100.000 PI Ana Varela Coelho, ITQB/UNL

2013-2015 Team member of FCT PTDC/BBB-BEP/2532/2012
Title: Elucidation of the 3D-structure of an essential enzyme of the pathogenic Mycobacterium tuberculosis. **Total Budget: €199.702** PI: David Turner, ITQB/UNL

2013-2016 Team member of RECI/BBB-BQB/0230/2012
NMR Net - National Facility for Nuclear Magnetic Resonance: from Molecular Structure and Dynamics to Protein Function, Cell Physiology, and Metabolomics, **Total Budget: € 499.752,00,** PI: Eurico C Cabrita

2012-2014 Team Member of FCT Project PTDC/CVT/116499/2010
Title: "Lactation and milk production in Goat (Capra hircus): identifying molecular markers underlying adaptation to seasonal weight loss" **Total Budget : €138.845 (39.816 For BIONMR group),** PI: Andre Almeida

2010-2012 Team Member of FCT Project PTDC/BIA-PRO/100288/2008
Title: "Structural and functional investigation of type II NADH:quinone oxidoreductases"
Total Budget : €124.620. (5.000For BIONMR group) PI: Manuela Pereira, ITQB/UNL

2010-2012 Team Member of FCT Project PTDC/QUI-BIO/098406/2008
Title: "Engineering mini Superoxide Dismutases with tunable redox properties"
Total Budget : €162.888 (5.000For BIONMR group), PI: Olga Iranzo, ITQB/UNL,

2010-2012 Team Member of FCT Project PTDC/BIA-PRO/098882/2008
Title: "A novel bacterial system involved in copper tolerance", **Total Budget : €185.892. (15.000For BIONMR group)**
PI: Sofia R. Pauleta, FCT/UNL

2008-2010 Principal Investigator Manolis Matzapetakis
Industry Contract Bayer-Schering Pharma(BSP) / IBET, "Structure Determination of a medicinally important protein by NMR" **Total Budget : €64.317** PI Manolis Matzapetakis, ITQB/IBET

2003-2008 Team Member of NIH Project 2R01ES012236-06A2
Title: "Toxic Metal Complexation by de Novo Designed Peptides" PI: Vincent Pecoraro, University of Michigan, Ann Arbor, USA

Invited speaker

2016 19-23April, 1st Joint French-Portuguese NMR Conference, Lisbon, Portugal.
"Characterization of the structure and dynamics of the βH-NOX domain of the human soluble Guanylate Cyclase bound to cinaciguat"
2011 Interbio Symposium 'Frontiers in Protein Research' 5-7 May, ITQB, Oeiras, Portugal
"Investigation of a novel bacterial Iron homeostasis pathway"
2010 Departmental Seminar Speaker 24 February, FCT/UNL, Caparica, Portugal "Biomolecular NMR Application"
2009 Portuguese Bruker Users Meeting. 2nd December, ITQB, Oeiras, Portugal "NMR Solution Structure Determination of a Psychrophilic Thiol-Disulfide Oxidoreductase"

2008 1st Iberic NMR meeting, September, Seville, Spain. "NMR Solution Structure Determination of a Psychrophilic Thiol-Disulfide Oxidoreductase"
2008 Departmental Seminar Speaker 26 November, ITQB, Oeiras, Portugal. "NMR Tools for Basic and Advanced Biomolecular Applications"
2008 Invited Seminar speaker at Dept Chemistry – University of Crete "Iron Metabolic Pathways studied by NMR and *de novo* Protein redesign"
2007 Invited Seminar speaker for Job interview 24 September, ITQB, Oeiras, Portugal. "Biomolecular NMR: Applications for all Proteins Sizes"
2006 Invited Seminar speaker at CALTECH, Passadena, CA, USA.
"Study of Ferritin in Solution. Development of NMR Techniques for Very Large Proteins"
2006 Invited Seminar speaker at CHORI,Oakland, CA, USA.
"Study of Ferritin in Solution. Development of NMR Techniques for Very Large Proteins"
2006 Young Researchers Forum, EUROBIC 8, Aveiro, Portugal. "Exploring Ferritin Protein Pores On The Atomic Level With NMR"
2005 Invited Seminar speaker at Dept Chemistry – University of Crete "Design of Metalloproteins – Understanding through first principles"
2005 Invited Seminar speaker at CERM 23 June, CERM, Florence, Italy."Understanding metalloproteins through *de novo* designed peptides"
2004 Midwest Metals in Biology Meeting, June, Ann Arbor, MI, USA. "Interactions between multiple metal binding sites in designed peptides"
2003 **Gordon Graduate Research Seminar: Bioinorganic Chemistry, 6-9 February, Ventura, CA, USA.**
"Investigation of Heavy Metal Binding to Designed Peptides of the TRI Family"

Workshops / conferences/ meetings / summerschools organization

2011 Local organizer of the Conference: "CCPN Europa 2011: Supporting best practices in Biomolecular NMR". 26 Sep – 1 Oct, Oeiras, Portugal.
2011 Local organizer of the Summer School: International Interbio Summer School on Structural Biology "NMR applications in Protein Research". 22-24 Sep, Oeiras, Portugal.
2011 Organizing Committee of the ITQB Open Day 2011, 26 March, ITQB, Oeiras, Portugal
2009 Organizing Committee of the Meeting: "Biomolecular NMR from Liquids to Solids". 2 December, Lisbon, UNL, Portugal.
2008 Organizing Committee of the Workshop: "2nd CERMAX practical course on basic NMR". 17 - 19 June and 21 - 23 October, CERMAX, ITQB, Oeiras, Portugal.
2008 Organizing Committee of the Workshop: "Workshop programme Ciência 2007".
28 October, Lisbon, UNL, Portugal.
2008 Organizing Committee of the Workshop: "1st CERMAX practical course on basic NMR". 2 - 3 and 23 - 24 June, CERMAX, ITQB, Oeiras, Portugal.
2005 Organizing Committee of the Workshop: "Practical NMR spectroscopy Workshop". University of Technology, Wroclaw, Poland.
2004 Organization of the Workshop: "NMR spectroscopy of synthetic peptides". Department of Chemistry, University of Michigan, Ann Arbor, MI, USA.
2002 Participation in the organization of a Symposium: "PacifiKen 2002" - A Conference in Honor of Kenneth N. Raymond. 11 January, Berkeley, CA, USA.

Teaching and Training experience

2008-2018 Teaching in the Workshop: *"2nd CERMAX Practical Course on Basic NMR"* 17 - 19 June and 21 - 23 October, CERMAX, ITQB, Oeiras, Portugal.
2015-2018 Course Organizer, Proteins in Disease Mechanisms, MolBioS PhD program , ITQB, Oeiras, Portugal
2011 Teaching in IGC PhD Program 2011 "A Week with Structural Biology" 10-14 October, IGC, Oeiras, Portugal.
2011 Teaching in the Summer School: *"4th Hands-On Course: From Proteomics to Proteins"* 3 -18 July, FCT/UNL, Caparica, Portugal.
2011 Teaching in the Workshop: *"4th CERMAX Practical Course on Basic NMR"* 14 - 17 June, CERMAX, ITQB, Oeiras, Portugal.
2011 Teaching in the FCT/UNL Masters program Structural and Functional Biochemistry: "Structure determination by NMR" 8 April, FCT/UNL, Caparica, Portugal.
2011 Teaching in the IGC Ph.D. course of Structural Biology 24 - 27 January, IGC, Oeiras, Portugal.
2010 Teaching in the Summer School: *"3rd Hands-On Course on Protein and Proteomics"*
11 -24 July, FCT/UNL, Caparica, Portugal.
2005 Teaching in the Workshop: *"Practical NMR spectroscopy Workshop"* University of Technology, Wroclaw, Poland.
2004 Teaching in the Workshop: *"NMR spectroscopy of synthetic peptides"* Department of Chemistry, University of Michigan, Ann Arbor, MI, USA
1999 Graduate Student Instructor, Graduate level Inorganic Chemistry (Chem 507) Department of Chemistry, University of Michigan, Ann Arbor, MI, USA
1998 Graduate Student Instructor, General Chemistry (Chem 130) Department of Chemistry, University of Michigan, Ann Arbor, MI, USA

Postdoctoral fellows:

2013/2016 Ivo Miguel Henriques Saraiva, *"Study of early stage co-translational protein folding inside the ribosome",* SFRH/BPD/84404/2012. ITQB, UNL, Portugal.

2011/2014 Catarina Sá Almeida Amaral, Co-Supervisor with Claudina Pousada, Fundação para a Ciência e Tecnologia: SFRH/BPD/74294/2010 ITQB, UNL, Portugal.

PhD theses:

2017/present Anaisa Coelho

2013/2016 Mariana Miguel Rebelo da Palma Project title: " *Lactation and milk production in goats as influenced by seasonal weight loss: Characterizing the metabolome using NMR towards tolerance biomarker establishment*"

Scholarship from Fundação para a Ciência e Tecnologia: SFRH/BD/85391/2012, ITQB, UNL, Portugal.

2011/2015 Meire Coelho de Almeida Thesis Title: *"Structural Investigation of a Novel Ferrous Homeostasis Pathway"* Scholarship from Fundação para a Ciência e Tecnologia: SFRH/BD/69741/2010 Ph.D. thesis in Structural Biology, ITQB, UNL, Portugal.

M.Sc. theses:

2015/2016 Ricardo Laia *"Investigation of the coiled coil domain of the human soluble Guanylate cyclase"*
Master in thesis in Biotechnology from FC, UL, Portugal.
2015/2016 Ricardo Conde (Co-Supervisor), Master in thesis in Biotechnology from FC, UL, Portugal.

2012/2013 Ana Catarina Pereira*"Investigation of a Novel Ferrous Homeostasis Pathway"* Master in thesis in Biotechnology from FC, UL, Portugal.

2011/2012 Vanessa Vieira *"Investigation of a Novel Ferrous Homeostasis Pathway"* Master in thesis in Biotechnology from FC, UL, Portugal.

2009/2010 Luís Magalhães, *"Expression and purification and analysis of hyper-thermostable proteins for NMR Structural Proteomics"* Master in thesis in Biotechnology from FCT, UNL, Portugal.

Diploma thesis:

2011 Kataryana Batko, (3 months) **IAESTE student**,*"Investigation of a Novel Ferrous Homeostasis Pathway"* Scholarship from Fundação para a Ciência e Tecnologia: PT-2011-52 FCT/UNL at ITQB, Portugal.

2011 Ana Pereira.**B.Sc. degree Thesis in Biochemistry** *"Structure elucidation of RodZ"* FCT, UNL, Portugal.

2010-2011 Amit Koul, (6 months), **IAESTE student**,*"Investigation of a Novel Ferrous Homeostasis Pathway"* Scholarship from Fundação para a Ciência e Tecnologia: PT-2010-62, FCT/UNL at ITQB, Portugal.

2010 Meire Coelho de Almeida (12 months),*"Structural Investigation of a Novel Ferrous Homeostasis Pathway"* Scholarship from IBET: NMRFarm/09/2010, ITQB, UNL, Portugal.

2009/2010 t Fábio Sabino *"Expression and purification and analysis of hyper-thermostable proteins for NMR Structural proteomics"*Scholarship from Fundação para a Ciência e Tecnologia, ITQB, UNL, Portugal.

2007 Raffaele Klein **Co-Supervisor** with Prof. Ivano Bertini of the **B.Sc. degree Thesis**, *"Synthesis, Purification and characterization of Ferritin"* CERM, University of Florence, Florence, Italy.

Reviewer/Evaluator

PLOS One Reviewer of 1 Manuscript
French National Funding agency Evaluator
Wellcome Trust/ DBT India Alliance Evaluator
Journal of Biological Inorganic Chemistry, Springer Reviewer of 3 Manuscript
Inorganic Chemistry, American Chemical Society Reviewer of 5 Manuscripts

Publications in peer-review journals

34 R Conde, R Laires, LG Gonçalves, A Rizvi, C Barroso, M Villar, R Macedo, MJ Simões, S Gaddam, P Lamosa, L Puchades-Carrasco, A Pineda-Lucena, AB Patel, SC Mande, S Banerjee, M Matzapetakis, AV Coelho"Discovery of serum biomarkers for diagnosis of tuberculosis by NMR metabolomics including cross-validation with a second cohort" *Biomedical Journal* **2022** 45(4), 654-664

33 "Effect of dietary Spirulina (Arthrospira platensis) on the intestinal function of post-weaned piglet: An approach combining proteomics, metabolomics and histological studies" *Journal of Proteomics* **2021 269,** 104726

32. Andreia Gomes, Joana Godinho-Pereira, Carole Oudot, Catarina O Sequeira, Alba Macià, F Carvalho, Maria-José Motilva, SA Pereira, Manolis Matzapetakis, Catherine Brenner, CN Santos
"Berry fruits modulate kidney dysfunction and urine metabolome in Dahl salt-sensitive rats" *Free Radical Biology and Medicine* **2020** 154, 119-131

31. Enea Ferlizza, Gloria Isani, Francesco Dondi, Giulia Andreani, Katerina Vasylyeva, Elisa Bellei, André M Almeida, Manolis Matzapetakis, "Urinary proteome and metabolome in dogs (Canis lupus familiaris): The effect of chronic kidney disease" *Journal of proteomics* **2020** 222, 103795

30. Kuai Yu, Manolis Matzapetakis, Anita Horvatić, Marta Terré, Alex Bach, Josipa Kuleš, Natalia Yeste, Néstor Gómez, Laura Arroyo, Elisabet Rodríguez-Tomàs, Raquel Peña, Nicolas Guillemin, André M de Almeida, Peter David Eckersall, Anna Bassols "Metabolome and proteome changes in skeletal muscle and blood of pre-weaning calves fed leucine and threonine supplemented diets" *Journal of proteomics* **2020** 216, 103677

29. A Albors-Vaquer, Arshad Rizvi, M Matzapetakis, P Lamosa, AV Coelho, AB Patel, SC Mande, S Gaddam, A Pineda-Lucena, S Banerjee, L Puchades-Carrasco "Active and prospective latent tuberculosis are associated with different metabolomic profiles: clinical potential for the identification of rapid and non-invasive biomarkers" *Emerging microbes & infections* **2020** 9 (1), 1131-1139

28. Henrique F Carvalho, Ricardo JF Branco, Fábio AS Leite, Manolis Matzapetakis, A Cecília A Roque, Olga Iranzo "Hydrolytic zinc metallopeptides using a computational multi-state design approach" *Catalysis Science & Technology* **2019** 9 (23), 6723-6736

27. Yu K., Matzapetakis M., Valent D., Saco Y., Almeida AM, Terré M, Bassols A, Metabolomic Study of Dietary Amino Acid Supplementation in Dairy Calves, *Scientific reports* **2018** 8 (1), 1-12

26. Mariana Palma, Susana P Alves, Lorenzo E Hernández-Castellano, Juan Capote, Noemí Castro, Anastasio Argüello, Manolis Matzapetakis, Rui JB Bessa, André M De Almeida "Mammary gland and milk fatty acid composition of two dairy goat breeds under feed-restriction". *Journal of Dairy Research*, **2017**. 84(3), 264-271. doi:10.1017/S0022029917000371

25. Palma M, Scanlon T, Kilminster T, Milton J, Oldham C, Greeff J, Matzapetakis M, Almeida AM. "The hepatic and skeletal muscle ovine metabolomes as affected by weight loss: a study in three sheep breeds using NMR-metabolomics." *Scientific Reports*. 2016. doi: 10.1038/srep39120

24. Mariana Palma, Lorenzo E. Hernández-Castellano, Noemı Castro, Anastasio Argüello, Juan Capote, Manolis Matzapetakis and Andre Martinho de Almeida "Nmr-metabolomics profiling of mammary gland secretory tissue and milk serum in two goat breeds with different levels of tolerance to seasonal weight loss" *Mol. BioSyst*, **2016**, 12 (7) p 2094-2107 DOI: 10.1039/C5MB00851D

23. C. S. Nóbrega, I. H. Saraiva, C. Carreira, B. Devreese, M. Matzapetakis, Sofia R. Pauleta. "The solution structure of the soluble form of the lipid-modified azurin from Neisseria gonorrhoeae, the electron donor of cytochrome c peroxidase". *BBA- Bioenergetics* **2015** 1857(2) p 169-176 DOI:10.1016/j.bbabio.2015.11.006

22. Pereira, AC. Paiva, A. Saraiva, IH. Costa, T. Henriques, AO. Matzapetakis, M "Chemical shift assignments and secondary structure determination of the ectodomain of Bacillus subtilis morphogenic protein RodZ". *Biomol NMR assign.* **2015** 2(9) p 285-8. DOI: 10.1007/s12104-014-9593-8

21. Saponaro, A. Pauleta,SR. Cantini, F. Matzapetakis, M. Hammann, C. Donadoni, C. Hu, L. Thiel, G. Banci, L. Santoro, B. Moroni, "A Structural basis for the mutual antagonism of cAMP and TRIP8b in regulating HCN channel function" *PNAS,* **2014**,111(40) p14577-14582. DOI:10.1073/pnas.1410389111

20. Amaral C, Pimentel C, Matos R G, Arraiano C M, Matzapetakis M, Rodrigues-Pousada C. "Two Residues in the Basic Region of the Yeast Transcription Factor Yap8 Are Crucial for Its DNA-Binding Specificity" *PLOS One*, **2013**, 8(12) p e83328. DOI: 10.1371/journal.pone.0083328

19. Suárez Diez, M. Pujol A. M., Matzapetakis M., Jaramillo A., Iranzo O. "Experimental characterization of a conditionally folded helical protein domain with a reduced amino acid alphabet"**,** *Biotechnol J***. 2013** 8(7) p 855-64 DOI: 10.1002/biot.201200380

18. Ramírez-Gualito,K. Richter,M. Matzapetakis,M. Berger, S. Singer.D. "Structural characterization by NMR of a double phosphorylated chimeric peptide vaccine for treatment of Alzheimer's disease". *Molecules*, **2013** 18 5 p. 4929-41. doi:10.3390/molecules18054929**)**

17. Pauleta, SR. Nobrega, CS. Matzapetakis, M.

"1H, 13C and 15N resonance assignment of the soluble form of the Lipid-modified Azurin from Neisseria gonorrhoeae" *Biomol NMR Assign*. **2013**, 7(2), p:311-4

16. B.K. Maiti, T Aviles, M Matzapetakis, I Moura, SR Pauleta, JJG Moura,"Synthesis of [MoS4]2--M (M = Cu and Cd) Clusters: Potential NMR Spectroscopic Structural Probes for the Orange Protein" *Eur. J. Inorg. Chem.* **2012,** 26, p:4159-66 DOI: 10.1002/ejic.201200551

15. T. M. Pais, P. Lamosa, M. Matzapetakis, D. L. Turner, H. Santos. "Mannosylglycerate stabilizes staphylococcal nuclease with restriction of slow beta-sheet motions". *Prot. Sci* **2012***,* 21(8):p. 1126-37.
DOI: 10.1002/pro.2100

14. Collins, M. Matzapetakis*, H. Santos. Backbone and side chain ^{1}H, ^{15}N and ^{13}C assignments for a 21 kDa cold adapted thio-disulphide oxidoreductase. *Biomolecular NMR Assignments*. **2010**. 4(2):p. 151-4.
DOI 10.1007/s12104-010-9230-0

13. W. Bermel, I. Bertini, I.C. Felli, M. Matzapetakis, R. Pierattelli, E.C. Theil, P. Turano. A method for C<alpha> direct-detection in protonless NMR*. J. Mag. Res.* **2007**. 188(2): p. 301-10.

12. M. Matzapetakis, P. Turano, E.C. Theil, I. Bertini. (13)C- (13)C NOESY spectra of a 480 kDa protein: solution NMR of ferritin*. J. Biomol. NMR*. **2007**. 38(3): p. 237-42.

11. E.C. Theil, M. Matzapetakis, X.F. Liu. Ferritins: iron/oxygen biominerals in protein nanocages*. J. Biol. Inorg. Chem.* **2006**. 11(7): p. 803-810.

10. M. Matzapetakis, D. Ghosh, T.C. Weng, J.E. Penner-Hahn, V.L. Pecoraro. Peptidic models for the binding of Pb(II), Bi(III) and Cd(II) to mononuclear thiolate binding sites*. J. Biol. Inorg. Chem.* **2006**. 11(7): p. 876-890.

9. M. Matzapetakis, V.L. Pecoraro. Site-selective metal binding by designed alpha-helical peptides*. J. Am. Chem. Soc.* **2005**. 127(51): p. 18229-18233.

8. K.H. Lee, M. Matzapetakis, S. Mitra, E. Neil, G. Marsh, V.L. Pecoraro. Control of metal coordination number in de novo designed peptides through subtle sequence modifications*. J. Am. Chem. Soc.* **2004**. 126(30): p. 9178-9179.

7. M. Matzapetakis, B.T. Farrer, T.C. Weng, L. Hemmingsen, J.E. Penner-Hahn, V.L. Pecoraro. Comparison of the binding of cadmium(II), mercury(II), and arsenic(III) to the de novo designed peptides TRI L12C and TRI L16C*. J. Am. Chem. Soc.* **2002**. 124(27): p. 8042-8054.

6. M. Matzapetakis, M. Kourgiantakis, M. Dakanali, C.P. Raptopoulou, A. Terzis, A. Lakatos, T. Kiss, I. Banyai, L. Iordanidis, T. Mavromoustakos, A. Salifoglou. Synthesis, pH-dependent structural characterization, and solution behavior of aqueous aluminum and gallium citrate complexes*. Inorg. Chem.* **2001**. 40(8): p. 1734-1744.

5. M. Matzapetakis, N. Karligiano, A. Bino, M. Dakanali, C.P. Raptopoulou, V. Tangoulis, A. Terzis, J. Giapintzakis, A. Salifoglou. Manganese citrate chemistry: Syntheses, spectroscopic studies, and structural characterizations of novel mononuclear, water-soluble manganese citrate complexes*. Inorg. Chem.* **2000**. 39(18): p. 4044-4051

4. M. Matzapetakis, M. Dakanali, C.P. Raptopoulou, V. Tangoulis, A. Terzis, N. Moon, J. Giapintzakis, A. Salifoglou. Synthesis, spectroscopic, and structural characterization of the first aqueous cobalt(II)-citrate complex: toward a potentially bioavailable form of cobalt in biologically relevant fluids*. J. Biol. Inorg. Chem.* **2000**. 5(4): p. 469-474.

3. M. Kourgiantakis, M. Matzapetakis, C.P. Raptopoulou, A. Terzis, A. Salifoglou. Lead-citrate chemistry. Synthesis, spectroscopic and structural studies of a novel lead(II)-citrate aqueous complex*. Inorg. Chim. Acta.* **2000**. 297(1-2): p. 134-138.

2. M. Matzapetakis, C.P. Raptopoulou, A. Terzis, A. Lakatos, T. Kiss, A. Salifoglou. Synthesis, structural characterization, and solution behavior of the first mononuclear, aqueous aluminum citrate complex*. Inorg. Chem.* **1999**. 38(4): p. 618.

1. M. Matzapetakis, C.P. Raptopoulou, A. Tsohos, V. Papaefthymiou, N. Moon, A. Salifoglou. Synthesis, spectroscopic and structural characterization of the first mononuclear, water soluble iron-citrate complex, (NH4)(5)Fe(C6H4O7)(2)center dot 2H(2)O. *J. Am. Chem. Soc.* **1998**. 120(50): p. 13266-13267.

Book chapters

3. M Palma, AM de Almeida, M Matzapetakis
NMR Metabolomics *pari passu* with Proteomics: Two Relevant Tools for Animal Sciences Combined
Proteomics in Domestic Animals: from Farm to Systems Biology, **2018** 447-462

2. Veronique Duranthon, Susana S. Araújo, Mariana Palma, Andrea Rau4, Manolis Matzapetakis, André M. Almeida Chapter 10 - Rabbit research in the post-genomic era: transcriptome, proteome and metabolome analysis in the book : "The Genetics and Genomics of the Rabbit" Luca Fontanesi, Editor, CABI publishing
The Genetics and Genomics of the Rabbit, **2021**, pp. 250–270

1. E.C. Theil, X.F. Liu, M. Matzapetakis, *Biomineralization. From Nature to Application*, in *Vol. 4 of 'Metal Ions in Life Sciences',* A. Sigel, H. Sigel, and R.K.O. Sigel, Editors. **2008**, John Wiley & Sons, Ltd.: Chichester, UK.