

# Curriculum Vitae

## 1. Personal data

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**Full name:** Álvaro Luís Afonso Moreira Rato da Fonseca

**Birth place and date:** Lisboa, 31/03/1961; **Nationality:** Portuguese

**National ID number:** 6002886 (Lisboa)

**NIF:** 182801322

**Institutional address:** Centro de Recursos Microbiológicos (CREM), Departamento de Ciências da Vida (DCV), Faculdade de Ciências e Tecnologia / Universidade Nova de Lisboa, Campus da Caparica, 2829-516 Caparica, PORTUGAL

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**Web pages:** <http://www.crem.fct.unl.pt/Personal/Alvaro/Alvaro.htm> (CREM)

<http://www.dcv.fct.unl.pt/pessoas/docentes/alvaro-fonseca> (DCV)

## 2. Academic degrees

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**Date / Academic degree / Scientific Area / Institution / Classification:**

- February 1996 / DOUTORAMENTO (PhD) / Microbiology / Faculdade de Ciências e Tecnologia (Univ. Nova de Lisboa) / Muito Bom com Distinção e Louvor
- October 1988 / MESTRADO (MSc) / Biotechnology / Instituto Superior Técnico (Univ. Técnica de Lisboa) / Muito Bom
- July 1984 / LICENCIATURA (Graduation) / Chemical Engineering / Instituto Superior Técnico (Univ. Técnica de Lisboa) / 15 valores

## 3. Previous and current scientific and/or professional activities

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**Period / Position or category / Department or Research Center / Institution:**

- 1986 to 1996 / Teaching Assistant / Secção Autónoma de Biotecnologia (SABT) / Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa
- 1996 to present / Assistant Professor / Departamento de Ciências da Vida (formerly SABT) / Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa
- 1986-1995 / Researcher (MSc student / PhD student) / Laboratory of Microbiology / Gulbenkian Institute of Science (IGC, Oeiras)
- 1998 to present / Researcher and Group leader / Centro de Recursos Microbiológicos (CREM) / Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

- 2009 to present / Coordinator of the Portuguese Yeast Culture Collection (PYCC) / CREM / Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

#### **4. Area of scientific activity**

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Research activities have focused mainly on fungal systematics and evolution, as member and leader of the research line “Ecology and systematics of yeasts and dimorphic fungi” (1998-2006) and more recently of the “Molecular Evolution and Ecology” research group (2007-2009). Significant achievements were obtained in the following areas: fungal classification and phylogeny; molecular identification, detection and typing; exploration of fungal diversity. Solid knowledge was gained on the biology of the studied fungi, with emphasis on basidiomycetous yeasts. Considerable expertise in the use of molecular tools and of molecular phylogenetic analyses was also acquired. A more recent research line aims to characterise the genomic regions that determine sexual identity and control sexual reproduction (*MAT* loci) in dimorphic basidiomycetes, viz. members of the genus *Rhodospordium* (Sporidiobolales) and tremellaceous yeasts closely related to *Cryptococcus neoformans*, and to understand their evolution. Collaboration on the latter topic was recently established with the Heitman lab at Duke University Medical Center (Durham, NC, USA). A more recent project focuses on the elucidation of the sexual status and population structure of saprobic *Cryptococcus* species in the Tremellales using molecular approaches.

#### **5. Domain of specialization, investigation interests and other skills / activities**

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**Domains of specialization:** Microbiology; Fungal/yeast ecology and systematics; Microbial molecular taxonomy and phylogeny.

**Present research interests:**

- Systematics and ecology of dimorphic fungi and yeasts
- Fungal molecular phylogenetics and evolution
- Molecular basis of sexual identity and reproduction in basidiomycetes
- Molecular population genetics of *Cryptococcus* and related basidiomycetous species

**Other skills/activities:**

- Lecturer and/or lab assistant in national / international post-graduate courses in the areas of yeast systematics and molecular microbial taxonomy: Gulbenkian Institute of Science (1987-1990); Faculty of Sciences/University of Lisbon (1999-2002); FCT/UNL (2003).
- Research stay at the Rosenstiel School of Marine and Atmospheric Sciences, Division of Marine Biology and Fisheries (University of Miami, Florida, USA), under the supervision of Prof. Jack W. Fell, on the use of ribosomal RNA sequences in species delimitations and

taxonomic reappraisal of the basidiomycetous yeast *Cryptococcus albidus* and closely related species belonging to *Cryptococcus* and *Filobasidium* (August 1995-February 1996).

- Visiting scientist at the Duke University Medical Center (Durham, NC, USA) in the laboratory of Dr. Joseph Heitman under the project “Evolution of the chromosomal sex-determining regions in basidiomycetous fungal relatives of the human pathogenic yeast *Cryptococcus neoformans*” funded by the Luso-American Foundation (Portugal). November 2007 to February 2008.

## 6. Teaching and outreach activities

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- Undergraduate courses at FCT/UNL: responsible for the Microbiology courses ('Microbiologia', 'Microbiologia A' e 'Microbiologia B') offered to different undergraduate degrees ('Química Aplicada', 'Engenharia do Ambiente', 'Ensino das Ciências da Natureza', 'Biologia Celular e Molecular', 'Bioquímica', 'Engenharia Química e Bioquímica') since 1995/96; collaboration in the teaching of several courses ('Estágio', 'Técnicas de Laboratório em Biologia', 'Seminário') offered to “Licenciatura em Biologia Celular e Molecular” (LBCM) since 2002/03.

- Graduate courses: collaboration in the Molecular Microbiology course of the MSc degree “Mestrado em Genética Molecular e Biomedicina” (FCT/UNL), since 2007/08 (responsible since 2009/10); collaboration in the teaching of mycology courses of the MSc degree in Medical Microbiology of UNL, since 2005/06.

- Other teaching activities: invited lecturer on microbial diversity at two high-schools (Lisboa, Oeiras) and 'Faculdade de Farmácia' (2003); 'Mostra de Ensino de Almada', 'Semana da Biodiversidade' (ISA/UTL), GABBA symposium (University of Porto) (2010).

- Outreach activities (FCT/UNL): active participant (as lecturer or co-organizer) in the event “ExpoFCT” (open day for high school students; since 2007) and in two courses for high-school biology teachers (1997, 2002).

- Promoter and co-organizer of the event “The Darwinian rEvolution” to celebrate the 2009 Darwin bicentennial, which included a conference-debate cycle, exhibition of student posters, an art installation, theatre performances and outreach activities; Library of the Caparica Campus (FCT/UNL), March-April 2009: <http://eventos.fct.unl.pt/darwin2009/>. This event won the first prize of the Springer 2009 Darwin year contest “Evolve your library”.

- Promoter and co-organizer of the event “BiodivFCT2010 – Biodiversidade no Campus da Caparica” to celebrate the International Year of Biodiversity 2010, which included a conference-debate cycle, photo and art exhibitions, theatre performances and outreach activities; Library of the Caparica Campus (FCT/UNL), October-November 2010:

<http://eventos.fct.unl.pt/biodiv2010/>.

## 7. Supervising experience

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### **Undergraduate students:**

- João José Inácio Silva (1996-1997): 'Isolation and identification of yeasts from basidiomicete fruit bodies'.
- César Simões da Fonseca (1998-1999): 'Yeasts from the Parque Natural da Serra da Arrábida: isolation and identification'.
- Laura Portugal (1999-2000): 'Reassessment of species delimitation of the basidiomycetous yeasts *Bullera armeniaca*, *B. crocea* and *Cryptococcus hungaricus*: a polyphasic approach'.
- Patrícia Sobral (2000-2001): 'Revaluation of the taxonomic status of selected species of the ascomycetous genus *Taphrina*: a polyphasic approach'.
- André Rosa (2006) and Nádia Rodrigues (2007): 'Characterization of the MAT locus of the basidiomycetous yeast *Rhodosporidium toruloides*'; co-supervision.
- Joana Rodrigues (2009): 'Characterization of the MAT locus of the basidiomycetous yeast *Kwoniella mangroviensis*'.

### **Graduate students and visiting scientists:**

- PhD student J. Inácio (1999-2003): "Occurrence and diversity of yeasts on the phylloplane of selected plants from Parque Natural da Arrábida"; co-supervision.
- Graduate student M.G. Rodrigues (2000-2003), grant holder of project 'Taphrina' (POCTI/35083/AGR/2000).
- Graduate student S. Tavares (2000-2003), grant holder of project 'Taphrina' (POCTI/35083/AGR/2000); co-supervision.
- Visiting PhD student A. Yurkov, Moscow State University (2004): "Molecular identification of basidiomycetous yeasts associated with birch forests in Russia"
- Graduate student M. Coelho (2004-2005), grant holder of project 'Rhodosporidium' (POCTI/BME/44322/2002); co-supervision.
- Visiting Professor F.C. Pagnocca, Universidade Estadual de São Paulo (2005): "Molecular identification of basidiomycetous yeasts associated with social insects and tropical plants in Brazil".
- PhD student (MIT program) Ana Rita Rodrigues (2011-2013), "Green oil production from alternative sources"; co-supervision
- MSc student Marco Guerreiro (2011-2012), "Molecular approach to the search of the reproduction mode and population structure of the yeast *Kwoniella mangroviensis*"
- Graduate student Lav Sharma (2011-2012), grant holder of project 'Cryptococcus' (PTDC/BIA-MIC/113051/2009)

## 8. Participation in research projects

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- 2011-2014: PI of the project “A novel molecular approach to uncover sex and population structure in tremellaceous yeasts closely related to *Cryptococcus neoformans*”, PTDC/BIA-MIC/113051/2009 (‘Fundação para a Ciência e Tecnologia’); approved for funding in September 2010.
- 2010-2013: Co-promoter and member of the research team of Project “LUSOEXTRACT: Descoberta de novos compostos naturais com propriedades terapêuticas isolados de ecossistemas portugueses únicos” under the QREN programme “Sistema de incentivos à investigação e desenvolvimento tecnológico em co-promoção”, Project AdI nº 13107, headed by the biotech company Bioalvo SA; approved for funding in July 2010.
- 2000-2003: PI of the project “The genus *Taphrina*: diversity, ecology and incidence on peach trees in Portugal”, POCTI/35083/AGR/2000 (‘Fundação para a Ciência e Tecnologia’).
- Member of the research teams of the following projects headed by CREM members and funded by ‘Fundação para a Ciência e Tecnologia’:
  - 1997-2000: “Evaluation, characterization and conservation of microbial diversity at ‘Parque Natural da Serra da Arrábida’, a Mediterranean-type ecosystem”, Praxis XXI Nº 2/2.1/BIA/413/94.
  - 1997-2000: “Study of the relationship between basidiomycetous yeasts and filamentous heterobasidiomycetes: a polyphasic approach”, Praxis Nº PCNA/C/BIA/174/96.
  - 2003-2007: “Biological control of post-harvest fungal pathogens with yeasts of the genera *Pseudozyma* and *Rhodosporidium*”, POCTI/AGR/44310/2002.
  - 2004-2005: “Identification and functional characterization of mating type specific genes in the non-conventional yeast *Rhodosporidium*”, POCTI/BME/44322/2002.
  - 2005-2009: “The genus *Botryosphaeria* in Portugal: species with *Diplodia* and *Dothiorella* anamorphs and pathogenic on woody hosts”, POCI/AGR/56140/2004

## 9. Publications

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### **Books:**

- A. Madeira Lopes e **Á. Fonseca**. “Biologia Microbiana”, Universidade Aberta, Nº94, 1996. ISBN: 972-674-170-X.

### **Chapters in books:**

- **Á. Fonseca\***, T. Boekhout and J. W. Fell. 2011. Chapter 138. *Cryptococcus* Vuillemin. In C.P. Kurtzman, J.W. Fell & T. Boekhout (editors), "The Yeasts, a taxonomic study", 5<sup>th</sup> edn. Vol. 3 (ISBN: 978-0-123-84868-0). Elsevier, Amsterdam, pp. 1661-1737 (doi:10.1016/B978-0-444-52149-1.00138-5)
- **Á. Fonseca\*** and M.G. Rodrigues. 2011. Chapter 73. *Taphrina* Fries. In C.P. Kurtzman, J.W. Fell & T. Boekhout (editors), "The Yeasts, a taxonomic study", 5<sup>th</sup> edn. Vol. 2 (ISBN: 978-0-123-84707-2). Elsevier, Amsterdam, pp. 823-858 (doi:10.1016/B978-0-444-52149-1.00073-2)
- **Á. Fonseca\*** and J. Inácio. 2011. Chapter 93. *Lalaria* R.T. Moore emend. Á. Fonseca. In C.P. Kurtzman, J.W. Fell & T. Boekhout (editors), "The Yeasts, a taxonomic study", 5<sup>th</sup> edn. Vol. 2 (ISBN: 978-0-123-84707-2). Elsevier, Amsterdam, pp. 1291-1298 (doi:10.1016/B978-0-444-52149-1.00093-8)
- **Á. Fonseca**. 2011. Chapter 117. *Kondoa* Y. Yamada, Nakagawa & Banno emend. Fonseca, Sampaio & Fell. In C.P. Kurtzman, J.W. Fell & T. Boekhout (editors), "The Yeasts, a taxonomic study", 5<sup>th</sup> edn. Vol. 3 (ISBN: 978-0-123-84868-0). Elsevier, Amsterdam, pp. 1471-1475 (doi:10.1016/B978-0-444-52149-1.00117-8)
- T. Boekhout\*, **Á. Fonseca**, J.P. Sampaio, R.J. Bandoni, J.W. Fell and K.J. Kwon-Chung. 2011. Chapter 100. Discussion of teleomorphic and anamorphic basidiomycetous yeasts. In C.P. Kurtzman, J.W. Fell & T. Boekhout (editors), "The Yeasts, a taxonomic study", 5<sup>th</sup> edn. Vol. 3 (ISBN: 978-0-123-84868-0). Elsevier, Amsterdam, pp. 1339-1372 (doi:10.1016/B978-0-444-52149-1.00100-2)
- **Á. Fonseca\*** and J. Inácio. 2006. Phylloplane yeasts. In: G. Peter & C.A. Rosa (editors). "Biodiversity and Ecophysiology of Yeasts" (ISBN 978-3-540-26100-1) Springer-Verlag, Berlin, pp. 263-301 (DOI: 10.1007/3-540-30985-3).
- **Á. Fonseca** e A. Madeira Lopes. 2003. Biodiversidade. In: N. Lima e M. Mota (coordenação). "Biotecnologia: Fundamentos e Aplicações", Lidel, Lisboa, pp. 3-31.
- J.W. Fell\*, T. Boekhout, **Á. Fonseca** and J.P. Sampaio. 2001. Basidiomycetous Yeasts. In: D.J. McLaughlin, E.G. McLaughlin and P.A. Lemke (editors), "The Mycota" (Vol.VII - Systematics and evolution, Part B), Springer-Verlag, Berlin, pp. 3-35.

***Papers in international scientific periodicals with referees:***

- F. L. Duarte\*, N. H. Pimentel, A. Teixeira, and **Á. Fonseca**. 2012. *Saccharomyces bacillaris* is not a synonym of *Candida stellata*: reinstatement as *Starmerella bacillaris* comb. nov. Antonie van Leeuwenhoek (in press) DOI 10.1007/s10482-012-9762-7
- S. Sun, B. Metin, K. Findley, **Á. Fonseca**, and J. Heitman\*. 2011. Validation of *Kwoniella heveanensis*, teleomorph of the basidiomycetous yeast *Cryptococcus heveanensis*. Mycotaxon **116**: 227-229. DOI: 10.5248/116.227

- J. Inácio, W. Ludwig, I. Spencer-Martins, and **Á. Fonseca\***. 2010. Assessment of phylloplane yeasts on selected Mediterranean plants by FISH with group- and species-specific oligonucleotide probes. *FEMS Microbiology Ecology* **71**: 61-72.
- L.B. Connell, R. Redman, R. Rodriguez, A. Barrett, M. Iszard and **Á. Fonseca\***. 2010. *Dioszegia antarctica* sp. nov. and *Dioszegia cryoxerica* sp. nov., psychrophilic basidiomycetous yeasts from polar desert soils in Antarctica. *Int. J. Syst. Evol. Microbiol.* **60**: 1466-1472.
- K. Findley, M. Rodriguez-Carres, B. Metin, J. Kroiss, **Á. Fonseca**, R. Vilgalys and J. Heitman\*. 2009. Phylogeny and phenotypic characterization of pathogenic *Cryptococcus* species and closely related saprobic taxa in the Tremellales. *Eukaryotic Cell* **8**: 353-361.
- M.F. Landell, J. Inácio, **Á. Fonseca**, M.H. Vainstein and P. Valente\*. 2009. *Cryptococcus bromeliarum* sp. nov., an orange-coloured basidiomycetous yeast isolated from bromeliads in Brazil. *Int. J. Syst. Evol. Microbiol.* **59**: 910-913.
- **Á. Fonseca\***, T. Boekhout and J. W. Fell. 2008. Validation of the basidiomycetous yeast species *Cryptococcus flavus* and *C. liquefaciens*. *Mycotaxon* **106**: 503–504.
- M.A. Coelho, A. Rosa, N. Rodrigues, **Á. Fonseca\*** and P. Gonçalves. 2008. Identification of mating type genes in the bipolar basidiomycetous yeast *Rhodospordium toruloides*: first insight into the *MAT* locus structure of the *Sporidiobolales*. *Eukaryotic Cell* **7**: 1053-1061.
- J. Inácio, M.F. Landell, P. Valente, P.H. Wang, Y.T. Wang, S.H. Yang, J.S. Manson, M.A. Lachance, C.A. Rosa and **Á. Fonseca\***. 2008. *Farysizyma* gen. nov., an anamorphic genus in the Ustilaginales to accommodate three novel epiphytic basidiomycetous yeast species from America, Europe and Asia. *FEMS Yeast Research* **8**: 499–508.
- J. Inácio, L. Portugal, I. Spencer-Martins and **Á. Fonseca\***. 2005. Phylloplane yeasts from Portugal: Seven novel anamorphic species in the Tremellales lineage of the Hymenomycetes (Basidiomycota) producing orange-coloured colonies. *FEMS Yeast Research* **5**: 1167-1183
- J. Inácio, M.G. Rodrigues, P. Sobral and **Á. Fonseca\***. 2004. Characterisation and classification of phylloplane yeasts from Portugal related to the genus *Taphrina* and description of five novel *Lalaria* species. *FEMS Yeast Research* **4**(4-5): 541-555
- J. Inácio and **Á. Fonseca\***. 2004. Reinstatement of *Rhodotorula colostri* (Castelli) Lodder and *Rhodotorula crocea* Shifrine & Phaff, former synonyms of *Rhodotorula aurantiaca* (Saito) Lodder. *FEMS Yeast Research* **4**(4-5): 557-561
- J.P. Sampaio\*, J. Inácio, **Á. Fonseca**, M. Gadanho, I. Spencer-Martins, G. Scorzetti, and J.W. Fell. 2004. *Auriculibuller fuscus* gen. nov., sp. nov. and *Bullera japonica* sp. nov., novel taxa in the Tremellales. *Int. J. System. Evol. Microbiol.* **54**: 987-993
- S. Tavares, J. Inácio, **Á. Fonseca\***, and C. Oliveira. 2004. Direct detection of *Taphrina deformans* on peach trees using molecular methods. *Eur. J. Plant Pathol.* **110**: 973-982

- S. Behrens, C. Ruhland, J. Inácio, H. Huber, **Á. Fonseca**, I. Spencer-Martins, B.M. Fuchs\* and R. Amann. 2003. In situ accessibility of small-subunit rRNA of members of the domains *Bacteria*, *Archaea*, and *Eucarya* to Cy3-labeled oligonucleotide probes. *Appl. Environ. Microbiol.* **69**(3): 1748-1758
- J. Inácio, S. Behrens, B.M. Fuchs, **Á. Fonseca**, I. Spencer-Martins\* and R. Amann. 2003. In situ accessibility of *Saccharomyces cerevisiae* 26S rRNA to Cy3-labeled oligonucleotide probes comprising the D1 and D2 domains. *Appl. Environ. Microbiol.* **69**(5): 2899-2905
- W.J. Middelhoven\*, **Á. Fonseca**, S.C. Carreiro, F.C. Pagnocca, O.C. Bueno. 2003. *Cryptococcus haglerorum*, sp. nov., an anamorphic basidiomycetous yeast isolated from nests of the leaf-cutting ant *Atta sexdens*. *Antonie van Leeuwenhoek* **83**: 167-174
- M.G. Rodrigues and **Á. Fonseca**\*. 2003. Molecular systematics of the dimorphic ascomycete genus *Taphrina*. *Int. J. System. Evol. Microbiol.* **53**(2): 607-616
- K. Bacigálová, K. Lopandic, M.G. Rodrigues, **Á. Fonseca**, M. Herzberg, W. Pinsker and H. Prillinger\*. 2003. Phenotypic and genotypic identification and phylogenetic characterisation of *Taphrina* fungi on alder. *Mycological Progress* **2**(3): 179-196
- J. Inácio, P. Pereira, M. Carvalho, **A. Fonseca**\*, M.T. Amaral-Collaco and I. Spencer-Martins. 2002. Estimation and Diversity of Phylloplane Mycobiota on Selected Plants in a Mediterranean-Type Ecosystem in Portugal. *Microbial Ecology* **44**(4): 344-353
- G. Scorzetti, J.W. Fell\*, **A. Fonseca** and A. Statzell-Tallman. 2002. Systematics of basidiomycetous yeasts: a comparison of large subunit D1/D2 and internal transcribed spacer rDNA regions. *FEMS Yeast Research* **2**: 495-517
- J.P. Sampaio\*, M. Gadanho, S. Santos, F.L. Duarte, C. Pais, **A. Fonseca** and J.W. Fell. 2001. Polyphasic taxonomy of the basidiomycetous yeast genus *Rhodosporidium*: *R. kratochvilovae* and related anamorphic species. *Int. J. Syst. Evolut. Microbiol.* **51**: 687-697
- **Á. Fonseca**\*, G. Scorzetti and J.W. Fell. 2000. Diversity in the yeast *Cryptococcus albidus* and related species as revealed by ribosomal DNA sequence analysis. *Can. J. Microbiol.* **46**: 7-27
- J.W. Fell\*, T. Boekhout, **A. Fonseca**, G. Scorzetti and A. Statzell-Tallman. 2000. Biodiversity and systematics of basidiomycetous yeasts as determined by D1/D2 large subunit rDNA sequence analysis. *Int. J. Syst. Evolut. Microbiol.* **50**: 1351-1371
- **Á. Fonseca**\*, J.P. Sampaio, J. Inácio and J.W. Fell. 2000. Emendation of the basidiomycetous yeast genus *Kondoa* and the description of *Kondoa aerea* sp. nov. *Antonie van Leeuwenhoek* **77**: 293-302
- **A. Fonseca**\*, J.W. Fell, C.P. Kurtzman and I. Spencer-Martins. 2000. *Candida tartarivorans* sp. nov., an anamorphic ascomycetous yeast with the capacity to degrade L(+)- and meso-tartaric acid. *Int. J. Syst. Evolut. Microbiol.* **50**: 389-394



- T. Boekhout\*, J.W. Fell, **A. Fonseca**, H.J. Prillinger, K. Lopandic, and H. Roeljmans. 2000. The basidiomycetous yeast *Rhodotorula yarrowii* comb. nov. as proposed by molecular phylogenetic analysis. *Antonie van Leeuwenhoek* 77: 355-358
- J.P. Sampaio\* e **A. Fonseca**. 1995. Physiological aspects in the systematics of heterobasidiomycetous yeasts. *Studies in Mycology* 38, 29-46.
- T. Boekhout\*, **A. Fonseca**, J.P. Sampaio e W.I. Golubev. 1993. Classification of heterobasidiomycetous yeasts: characteristics and affiliation of genera to higher taxa of Heterobasidiomycetes. *Canadian Journal of Microbiology* 39: 276-290.
- **A. Fonseca\*** e J.P. Sampaio. 1992. *Rhodosporidium lusitaniae* sp.nov., a novel homothallic basidiomycetous yeast species from Portugal that degrades phenolic compounds. *Systematic and Applied Microbiology* 15, 47-51.
- **A. Fonseca\***. 1992. Utilization of tartaric acid and related compounds by yeasts: taxonomic implications. *Canadian Journal of Microbiology* 38: 1242-1251.
- T. Boekhout\*, **A. Fonseca** & W.H. Batenburg-van der Vegte. 1991. *Bulleromyces* genus novum (Tremellales), a teleomorph for *Bullera alba*, and the occurrence of mating in *Bullera variabilis*. *Antonie van Leeuwenhoek* 59: 81-93.
- **Á. Fonseca** & N. van Uden\*. 1991. *Cryptococcus yarrowii* sp. nov., a novel yeast species from Portugal. *Antonie van Leeuwenhoek* 59: 177-181.
- **Á. Fonseca**, I. Spencer-Martins\* & N. van Uden. 1991. Transport of lactic-acid in *Kluyveromyces marxianus* - evidence for a monocarboxylate uniport. *Yeast* 7: 775-780.

***Papers in Proceedings of international conferences:***

- F. L. Duarte, N. H. Pimentel, A. Teixeira, **Á. Fonseca** (2011). *Candida zemplinina*: a novel species or the old *Torulopsis bacillaris*? In: Proceedings of the 34th World Congress of Vine and Wine (ISBN 978-989-20-2449-3), Section II, PO309, 4 pp.

**10. Communications**

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***Invited oral communications (International conferences):***

- Á. Fonseca. "Evolution of Basidiomycete Mating-type Loci: Insights from Studies in Basidiomycetous Yeasts". 9<sup>th</sup> International Mycological Congress (IMC9), Edinburgh, UK, August 2010
- Á. Fonseca, M.G. Rodrigues and J. Inácio. "Classification, phylogeny and ecology of the dimorphic ascomycetous genus *Taphrina*: a molecular study". 11<sup>th</sup> International Congress on Yeasts (ICY 2004), Rio de Janeiro, Brasil, August 2004

- Á. Fonseca and M. Rodrigues. "Molecular approaches to the re-appraisal of species diversity within the ascomycete genus *Taphrina*." 7<sup>th</sup> International Mycological Congress (IMC7), Oslo, Norway, August 2002
- Á. Fonseca. "Current views on the systematics and phylogeny of basidiomycetous yeasts", 10<sup>th</sup> International Symposium on Yeasts, Papendal, The Netherlands, August 2000
- Á. Fonseca, G. Scorzetti and J. W. Fell. "The use of rDNA sequence data for the assessment of diversity in *Cryptococcus albidus* and related species", 6<sup>th</sup> International Mycological Congress, Jerusalem, Israel, August 1998
- Á. Fonseca and J. P. Sampaio. "Current problems in the delimitation of genera of basidiomycetous yeasts", Workshop: "Biology and phylogeny of basidiomycetous yeasts and fungi", Vigo, Spain, October 1998

***Other oral communications (National or International conferences, since 2000):***

- M.A. Guerreiro, J.A. Rodrigues, D. Springer, K. Findley, J. Heitman, and Á. Fonseca, Molecular evidence for a tetrapolar mating system and genetic heterogeneity in the basidiomycetous yeast *Kwoniella mangroviensis*. XIX Jornadas de Biologia Leveduras Prof. Nicolau van Uden, Caparica, June 2012
- Á. Fonseca, "Reconstructing the Tree of Life: fulfilling Darwin's dream", (Dis)Entangling Darwin: Cross-Disciplinary Reflections on the Man and his Legacy, Porto, December 2009.
- Á. Fonseca, "Microbes and the tree of life: fulfilling Darwin's dream", 3<sup>rd</sup> Joint Congress of the Portuguese Society of Microbiology and the Portuguese Society of Biotechnology - MicroBiotec09, Vilamoura, November 2009.
- Á. Fonseca, M.A. Coelho and P. Gonçalves. "Diversidade e evolução dos determinantes moleculares da identidade sexual em fungos – contributo de estudos em leveduras basidiomicetas", XVI Jornadas de Biologia Leveduras Prof. Nicolau van Uden, Vimeiro, May 2008
- M.A. Coelho, Á. Fonseca, J.P. Sampaio and P. Gonçalves. "Development of genetic tools for the non-conventional yeast *Rhodospordium kratochvilovae*". XIV Jornadas de Biologia de Leveduras Prof. Nicolau van Uden, Évora, May 2006
- S. Tavares, J. Inácio, C. Oliveira and Á. Fonseca. "Direct molecular detection of the dimorphic ascomycete *Taphrina deformans*, agent of Peach Leaf Curl". XII Jornadas de Biologia de Leveduras Prof. Nicolau van Uden, Aveiro, May 2004
- M. Rodrigues and Á. Fonseca. "Genetic characterisation of *Taphrina* species on *Prunus* with special incidence on *T. deformans*, causal agent of peach leaf curl." XI Jornadas de Biologia de Leveduras, Bragança, May 2003
- J. Inácio, Á. Fonseca and I. Spencer-Martins. "Phylloplane yeasts: properties and direct molecular detection". ECCO Meeting, Braga, October 2003

- J. Inácio, R. Amann, Á. Fonseca and I. Spencer-Martins. "Evaluation of the accessibility of ribosomal RNA regions to fluorescently labelled probes for in situ yeast identification". X Jornadas de Biologia de Leveduras, Faro, May 2002
- J. Inácio, Á. Fonseca and I. Spencer-Martins. "Detecção e identificação directa de leveduras com sondas de DNA ribossómico." 9<sup>as</sup> Jornadas de Biologia de Leveduras, Alcochete, June 2001
- M. Rodrigues, J. Inácio, P. Sobral and Á. Fonseca. "Abordagens Moleculares na Diferenciação de Espécies do Género *Taphrina*". 9<sup>as</sup> Jornadas de Biologia de Leveduras, Alcochete, June 2001
- J. Inácio, M. Rodrigues, Á. Fonseca and I. Spencer-Martins. "Caracterização de Anamorfos de *Taphrina* Isolados do Filoplano em Portugal". Congresso Nacional de Microbiologia MICRO'2001, Póvoa de Varzim, December 2001

**Posters in conferences (since 2000):**

- Á. Fonseca and C. Carvalho. "The Portuguese Yeast Culture Collection (PYCC): past, present and future". XXX ECCO meeting. Utrecht (The Netherlands), 16-17 June 2011.
- M.A. Coelho, A. Rosa, N. Rodrigues, P. Gonçalves and Á. Fonseca. "Identification of MAT genes in the bipolar basidiomycetous yeast *Rhodospordium toruloides* - comparison with the homologous genomic region of *Sporobolomyces roseus*", ESF-EMBO Symposium "Comparative Genomics of Eukaryotic Microorganisms: Eukaryotic Genome Evolution", S. Feliu de Guixols (Spain), 20-25 October 2007.
- M.A. Coelho, A. Rosa, N. Rodrigues, P. Gonçalves and Á. Fonseca. "Unveiling the MAT locus organization in the basidiomycetous yeast *Rhodospordium toruloides* and in silico comparison with the genomic data of the closely related species *Sporobolomyces roseus*", Congresso Nacional MICRO-BIOTEC 07, Lisboa (Portugal), 30 November - 2 December 2007.
- M.A. Coelho, Á. Fonseca, J.P. Sampaio and P. Gonçalves. "Molecular Genetics in the unconventional yeast *Rhodospordium kratochvilovae*: a step towards the characterisation of sexual development". 2<sup>nd</sup> FEMS Congress, Madrid, Spain, July 2006.
- M.G. Rodrigues and Á. Fonseca. "Genetic heterogeneity in the ascomycete *Taphrina deformans*, agent of Peach Leaf Curl: evidence for two distinct forms parasitic on Peach and Almond". 8<sup>th</sup> International Mycological Congress (IMC8), Cairns, Australia, August 2006
- J. Inácio, M. Santos, I. Spencer-Martins and Á. Fonseca. "Species diversity of phylloplane yeasts: do nitrate-negative *Cryptococcus* spp. belong to *Cr. laurentii*?". 8<sup>th</sup> International Mycological Congress (IMC8), Cairns, Australia, August 2006.
- Á. Fonseca, J.P. Sampaio, P. Gonçalves and J. Almeida. "A phylogenetic rationale for a genome sequencing program of dimorphic fungi: a utopian endeavour?" ESF Research

Conference on 'Comparative Genomics of Eukaryotic Microorganisms', San Feliu de Guixols, Spain, November 2005.

- F.C. Pagnocca, C.C.C. Ruivo, S.C. Carreiro and Á. Fonseca. "Yeasts associated with leaf-cutting ants and plants from São Paulo State, Brazil." Congresso Nacional MICRO'05-BIOTEC'05, Póvoa de Varzim, Nov.-Dec. 2005

- M.A. Coelho, Á. Fonseca, J.P. Sampaio and P. Gonçalves. "Development of genetic tools for the unconventional yeast *Rhodospiridium kratochvilovae*." Congresso Nacional MICRO'05-BIOTEC'05, Póvoa de Varzim, Nov.-Dec. 2005

- J. Inácio, Á. Fonseca and I. Spencer-Martins. "Orange-pigmented yeasts from the phylloplane: taxonomic characterisation and direct molecular detection on leaves." 1<sup>st</sup> FEMS Congress, Ljubljana, Slovenia, June/July 2003.

- M. Rodrigues and Á. Fonseca. "Genetic variability in the dimorphic ascomycete *Taphrina deformans* causal agent of peach leaf curl." 23<sup>rd</sup> International Specialised Symposium on Yeasts (ISSY 23), Budapest, Hungary, August 2003.

- J. Inácio, Á. Fonseca and I. Spencer-Martins. "Direct molecular detection of phylloplane yeasts using Fluorescence In Situ Hybridisation (FISH)." MICRO'2003 – Congresso Nacional de Microbiologia, Tomar, December 2003.

- J. Inácio, Á. Fonseca and I. Spencer-Martins. "Molecular systematics of phylloplane yeasts: pigmented species belonging to the *Erythrobasidium* lineage of the Urediniomycetes (Basidiomycota)." 7<sup>th</sup> International Mycological Congress (IMC7), Oslo, Norway, August 2002

- J. Inácio, Á. Fonseca, R. Amann and I. Spencer-Martins. "Evaluation of the Accessibility of Ribosomal RNA Regions to Fluorescently Labelled Probes for in situ Yeast Identification." 7<sup>th</sup> International Mycological Congress (IMC7), Oslo, Norway, August 2002

- S. Tavares, J. Inácio, Á. Fonseca and C. Oliveira. "Direct detection of the Peach Leaf Curl fungus using molecular methods." Congresso Nacional de Bioquímica, Lisboa, December 2002

- M. Rodrigues and Á. Fonseca. "Molecular identification of *Taphrina* species parasitic on Prunus". 7<sup>th</sup> International Mycological Congress (IMC7), Oslo, Norway, August 2002

- M. Rodrigues and Á. Fonseca. "Genetic diversity among members of the ascomycetous genus *Taphrina* as revealed by ribosomal DNA sequence analysis and PCR-fingerprinting". 11<sup>th</sup> Congress of the Mediterranean Phytopathological Union / 3<sup>o</sup> Congresso da Sociedade Portuguesa de Fitopatologia, Évora, Portugal, September 2001

- J. Inácio, A. Fonseca and I. Spencer-Martins. "Yeast Diversity on the Phylloplane of Selected Plants in a Mediterranean-Type Ecosystem in Portugal". 10<sup>th</sup> International Symposium on Yeasts, Papendal, The Netherlands, August 2000

## 11. Other activities

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Participation in committees of MSc and PhD theses:

- PhD student Margarida B. Palma, FCT/UNL, December 2010
- PhD student Marco A. D. Coelho, FCT/UNL, November 2011
- MSc student Raoni C. R. Andrade, FCT/UNL, November 2010 (examiner)
- MSc student Tânia J. T. Leandro, FCT/UNL, November 2011
- MSc student Cátia I. A. Fidalgo, FCUL, February 2012 (examiner)
- Member of the Board of the Portuguese Society of Microbiology (1996-2002).
- Member of the International Mycological Association (IMA), since 1994.
- Member of the organizing committee of the "Congresso Nacional de Microbiologia (Micro'97)", Tomar, December 1997.
- Member of the organizing committee of "9as Jornadas de Biologia de Leveduras Prof. Nicolau van Uden", Alcochete, June 2001.
- Member of the organizing committee of the "van Uden International Advanced Course on Molecular Ecology, Taxonomy and Identification of Yeasts", CREM (FCT/UNL), Campus da Caparica, 21 July - 1 August 2003.
- Member of the scientific committee of "Congresso Nacional de Microbiologia Micro'2003", Tomar, 29 Nov. - 2 Dez. 2003.
- Member of the International Scientific Advisory Committee for the 8<sup>th</sup> International Mycological Congress (IMC8), Cairns, Australia, August 2006.
- Member of the organizing committee of the 3<sup>rd</sup> Joint National Congress of the Portuguese Society of Microbiology and The Portuguese Society of Biotechnology - MicroBiotec09, Vilamoura, November 2009.
- Co-chair of the Symposium "Evolutionary genetics of sex in fungi" in the 9<sup>th</sup> International Mycological Congress (IMC9), Edinburgh, UK, August 2010
- Member of the Editorial Board of FEMS Yeast Research (2001-2005).
- Reviewer for the following journals: FEMS Yeast Research, International Journal Systematic and Evolutionary Microbiology, Antonie van Leeuwenhoek, Mycological Research, Eukaryotic Cell.
- Commissioner of the International Commission on Yeasts to represent Portugal, since August 2008.

Campus de Caparica, 31 July 2012