

BIOGRAPHICAL SKETCH

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NAME Jose Luis, Lopez-Ribot	POSITION TITLE Professor		
eRA COMMONS USER NAME ribot1			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Valencia, Valencia, Spain	B.S.	1988	Pharmacy
University of Valencia, Valencia, Spain	Licentiatue	1989	Pharmacy/Microbiology
University of Valencia, Valencia, Spain	Pharm.D./Ph.D.	1991	Pharmacy/Microbiology
Texas Tech Univ Health Sciences Center	Postdoc	1992-96	Mycology/Immunology

A. Positions and Honors.

Positions and Employment

1988-1991: Graduate student/ Res. Asst, Dept. of Microbiology, School of Pharmacy, Univ. Valencia, Spain.
1992-1996: Postdoctoral Research Associate. Dept. of Microbiology & Immunology, TTUHSC, Lubbock, TX.
1995-1996: Research Associate, Dept. of Microbiology & Immunology, TTUHSC, Lubbock, TX
10/1996-5/1997: Research Fellow, Dept. Medicine, Div. Infectious Diseases, UTHSCSA, San Antonio, TX.
6/1997-8/2003: Assistant Professor, Dept. Medicine, Div. Infectious Diseases, UTHSCSA, San Antonio, TX.
9/2003-8/2005: Associate Professor, Dept. Medicine, Div. Infectious Diseases, UTHSCSA, San Antonio, TX.
9/2005-current: Adjunct Associate Professor, Dept. of Microbiology and Immunology, UTHSCSA, San Antonio.
9/2005-8/2008: Associate Professor (tenured), Dept. Biology, UTSA, San Antonio, TX.
9/2008-current: Professor, Dept. Biology, UTSA, San Antonio, TX.

Awards, Recognitions and other Professional Activities

Predocctoral Fellowship, Spanish Ministry of Science and Education, 1989-1991
Cum laude in Doctoral Thesis. School of Pharmacy, Univ. of Valencia, 1991
Premio extraordinario de doctorado (Special Recognition Award for Doctorate), Univ. of Valencia, 1993
NATO Postdoctoral Fellowship, 1995
Member IACUC Committee, UTHSCSA, 1999-2003
Scientific Advisory Committe, MHCOE, UTHSCSA, 2000-2004
Member Intellectual Property Committee, UTHSCSA, 2002-2005
Co-chair, Intellectual Property Committee, UTHSCSA, 2004-2005
Member Institutional Biosafety Committee, UTHSCSA, 2003-2005
Chair, Institutional Biosafety Committee, UTHSCSA, 2004-2005
Chair, Institutional Biosafety Committee, UTSA, 2005-present
Chair, Cell and Molecular Biology Doctoral Studies Committee, UTSA, 2006-2008
Member of the Organizing Committee, XV Congress of the International Society for Human and Animal
Mycology, San Antonio, May 2003. (Scientific Program Committee)
Burroughs Wellcome Fund New Investigator in Molecular Pathogenic Mycology, 2001
Associate Editor, Mycopathologia, Revista Iberoamericana de Micologia
Editorial Board, Infection and Immunity, Current Immunology Reviews, Antimicrobial Agents and
Chemotherapy, Microbial Drug Resistance.

Ad-hoc reviewer for the following journals: Eukaryotic Cell, Proceedings of the National Academy of
Sciences (PNAS), Microbiology, Medical Mycology, PLoS Pathogens, Current Biology, Journal of Infectious
Diseases, Journal of Clinical Microbiology, Trends in Microbiology, Journal of Clinical Investigation (JCI),
FEMS Immunology and Medical Microbiology, Journal of Proteomics, Mycoses, The Open Mycology Journal,
Journal of Antimicrobial Chemotherapy, Clinical Infectious Diseases, Clinical Microbiology Reviews,
Proteomics, Proteome Science, Proteomics Clinical Applications, Vaccine, Molecular Microbiology,
International Microbiology, Food Microbiology, Fungal Genetics and Biology, BioMed Central-Microbiology,
Drugs, Current HIV Research (CHIVR), Chemistry and Biology, FEMS Microbiology Letters, Current
Genetics, FEBS Letters, Microbes and Infection (Institute Pasteur), Diagnostic Microbiology and Infectious
Disease, Canadian Journal of Microbiology, Encyclopedia of Life Sciences, Journal of Medical Microbiology,

Journal of Mass Spectrometry, Current Molecular Medicine, Therapeutics and Clinical Risk Management, FEMS Yeast Research, Cellular Microbiology, Clinical Microbiology and Infection, Journal of Oral Pathology and Medicine, Expert Review of Anti-infective Therapy, Bioresource Technology, European Journal of Oral Sciences, Acta Biomaterialia, Journal of Prosthodontics, Mini Reviews in Medicinal Chemistry, International Journal of Medical Microbiology, Journal of Critical Care.

Permanent member, NIH Bacteriology and Mycology-2 Study section (2003-2004)

Permanent member, NIH Pathogenic Eukaryotes (PTHE) Study section (2004-2007)

Co-chair, American Heart Association R4 Immunology, Microbiology and Microbial Pathogenesis, Fall 08.

Chair, American Heart Association R4 Microbial Pathogenesis, 2009-2010.

Ad-hoc reviewer for Granting Agencies: NIH (AARR-4, NIDCR Special Grants Review, Bacterial Pathogenesis, Special Emphasis Panel ZRG1 PTHE-K and NIDCR Special Emphasis Panel ZDE1 YL-(20), National Science Foundation (NSF), American Heart Association (AHA), Department of Defense (DoD), Veteran's Administration Merit Review, US Army Medical Research and Materiel Command (USAMRMC), Health Research Council of New Zealand, Fondo Nacional de Ciencia Tecnica, Agencia Nacional Promocion Cientifica y Tecnologica, Argentina, The Wellcome Trust (UK), Department of Health Policy Research Programme (UK), Research Council of Hong Kong, Research Funding and Policy Division, Health Research Board (Ireland), British Society for Antimicrobial Chemotherapy (UK), ERA-NET European PathoGenoMics Research, National Health Laboratory Service (NHLS) Research Trust, South Africa, Institute for Integration of Medicine and Science (IIMS), UTHSCSA, MBRS SCORE Program (UTSA), South Texas Center for Emerging Infectious Diseases Scholarship Program (UTSA).

Professional Memberships: American Society for Microbiology, Medical Mycological Society of the Americas, Asociacion Española de Micologia, Texas Faculty Association, European Confederation of Medical Mycology, International Society for Human and Animal Mycology.

B. Publications last 4 years (from a total of over 120 publications).

1. Chamilos, G., M.S. Lionakis, R.E. Lewis, **J.L. Lopez-Ribot**, S.P. Saville, N.D. Albert, G. Halder and D.P. Kontoyiannis. 2006. *Drosophila melanogaster* is a facile model for large-scale studies of virulence mechanisms and antifungal drug efficacy in *Candida*. J. Infect. Dis. 193:1014-22
 2. Saville, S.P., D.P. Thomas and **J.L. Lopez-Ribot**. 2006. A Role for Efg1p in *Candida albicans* Interactions with Extracellular Matrices. FEMS Microbiol Lett. **256**:151-158.
 3. Ramage, G., M. Ghanoum and **J.L. López-Ribot**. 2006. Fungal biofilms: agents of disease and drug resistance. In Molecular Principles of Fungal Pathogenesis (J.Heitman, A. Mitchell, S. Filler eds.) ASM Press.
 4. Pérez, A., B. Pedrós, A. Murgui, M. Casanova, **J.L. López-Ribot** and J.P. Martínez. 2006. Biofilm formation by *Candida albicans* mutants for genes coding fungal proteins exhibiting the eight cysteinecontaining CFEM domain. FEMS Yeast Res. **6**:1074-1084.
 5. Saville, S.P., A.L. Lazzell, A. Bryant, A. Fretzen, A. Monreal, E.O. Solberg, C. Monteagudo, **J.L. Lopez-Ribot** and G.T. Milne. 2006. Inhibition of Filamentation Can Be Used to Treat Disseminated Candidiasis. Antimicrob. Agents. Chemother. **50**:3312-3316.
 6. Thomas, D.P., S.P. Bachmann, and **J.L. Lopez-Ribot**. 2006. Proteomics for the Analysis of the *Candida albicans* Biofilm Lifestyle. Proteomics. **6**:5795-804
 7. Thomas D.P., A. Viudes, C. Monteagudo, A.L. Lazzell, S.P. Saville, and **J.L. López-Ribot**. 2006. A proteomic-based approach for the identification of *Candida albicans* protein components present in a subunit vaccine that protects against disseminated candidiasis. Proteomics. **6**:6033-6041.
 8. Ramage, G., J.P. Martinez and **J.L. López-Ribot**. 2006. *Candida* biofilms: a clinically significant problem. FEMS Yeast Research. **6**:979-986.
 9. Thomas, D.P., A. Pitarch, L. Monteoliva, C Gil, and **J.L. Lopez-Ribot**. 2006. Proteomics to Study *Candida albicans* Biology and Pathogenicity. Infectious Disorders Drug Targets. **6**:335-341.
 10. **López-Ribot, J.L.**, R. Diaz-Orejas and C. Gil. Antibodies. 2007. In Immunity against Fungal Pathogens (Brown and Netea eds.). Elsevier Press.
 11. Pitarch, A., G. Molero, L. Monteoliva, D. P. Thomas, **J.L. López-Ribot**, C. Nombela and C. Gil. 2007. Proteomics in *Candida* species. In *Candida*: comparative and functional genomics (C. de'Enfert, ed.). Horizon Press. *In press*.
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12. Ramage, G., B. L. Wickes and **J.L. López-Ribot**. 2007. Inhibition on *Candida albicans* biofilm formation using divalent cation chelators (EDTA). *Mycopathologia*. **164**:301-6.
13. Saville, S.P., A.L. Lazzell, A. Chaturvedi, C. Monteagudo and **J.L. Lopez-Ribot**. 2008. Use of a Genetically Engineered Strain to Evaluate the Pathogenic Potential of Yeast and Filamentous Forms during *Candida albicans* Systemic Infection in Immunodeficient Mice. *Inf. Immun.* **76**: 97-102.
14. Banerjee, M., D. Thompson, A. Lazzell, P. Carlisle, C. Pierce, C. Monteagudo, **J.L. López-Ribot**, and D. Kadosh. 2008. *UME6*, a novel filament-specific regulator of *Candida albicans* hyphal extension and virulence. *Molecular Biology of the Cell*. **19**:1354-65.
15. Pierce, C.G., P. Uppuluri, A.R. Tristan, F. L. Wormley Jr., E. Mowat, G. Ramage, **J.L. López-Ribot**. 2008. A simple and reproducible 96 well plate-based method for the formation of fungal biofilms and its application to antifungal susceptibility testing. *Nature Protocols*. **3**:1494-1500
16. Grubb, S.E.W., C. Murdoch, P. Sudbury, S. P. Saville, J. Lopez-Ribot and Martin H. Thornhill. 2008. *Candida albicans* - endothelial cell interactions: a key step in the pathogenesis of systemic candidiasis. *Inf. Immun.* **76**:4370-7.
17. Lee, SA, J Jones, S Hardison, J Kot, Z Khalique, SM Bernardo, A Lazzell, C Monteagudo, **JL Lopez-Ribot**. 2009. *Candida albicans* VPS4 is required for secretion of aspartyl proteases and in vivo virulence. *Mycopathologia* **167**:55-63.
18. Carlisle, P.L., M. Banerjee, A.L. Lazzell, C. Monteagudo, **J.L. López-Ribot** and D. Kadosh. 2009. Expression levels of a filament-specific transcriptional regulator are sufficient to determine *C. albicans* morphology and virulence. *PNAS*. **106**:599-604.
19. Pierce, C.G., D.P. Thomas and **J.L. Lopez-Ribot**. 2009. Effect of Tunicamycin on *Candida albicans* biofilm formation and maintenance. *J. Antimicrob. Chemother.* **63**:473-9.
20. Saville, S.P., A.L. Lazzell, A. Chaturvedi, C. Monteagudo and **J.L. Lopez-Ribot**. 2009. Efficacy of the genetically engineered *Candida albicans tet-NRG1* strain as an experimental live attenuated vaccine against hematogenously disseminated candidiasis. *Clinical and Vaccine Immunology*. **16**:430-2.
21. Uppuluri, P., A.K. Chaturvedi and **J.L. Lopez-Ribot**. 2009. Design of a simple model of *Candida albicans* biofilms formed under conditions of flow: development, architecture, and drug resistance. *Mycopathologia*. E-published ahead of print.
22. Redding S, B. Bhatt, H.R. Rawls, G. Siegel, K. Scott and **J.L. Lopez-Ribot**. 2009. Inhibition of *Candida albicans* biofilm formation on denture material. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod.* **107**:669-72.
23. Lazzell, A.L., A. K. Chaturvedi, C.G. Pierce, D. Prasad, P. Uppuluri and **J.L. Lopez-Ribot**. 2009. Treatment and prevention of *Candida albicans* biofilms with caspofungin in a novel central venous catheter murine model of candidiasis. *J. Antimicrob. Chemother.* **64**:567-70.
24. Grubb, S.E., C. Murdoch, S. Saville, **J.L. Lopez-Ribot**, P. Sudbery and M.H. Thornhill. 2009. Adhesion of *Candida albicans* to endothelial cells under physiological conditions of flow. *Infect. Immun.* **77**:3872-8.
25. Uppuluri P., H. Dinakaran, D.P. Thomas, A.K. Chaturvedi and **J.L. Lopez-Ribot**. 2009. Characteristics of *Candida albicans* Biofilms Grown in a Synthetic Urine Medium. *J. Clin. Microbiol.* **47**:4078-4083.
26. Thomas D.P., **J.L. Lopez-Ribot** and S.A. Lee. 2009. A proteomic analysis of secretory proteins of a pre-vacuolar mutant of *Candida albicans*. *J Proteomics*. **73**:342-51.
27. Ramage, G., E. Mowat, B. Jones, C. Williams, and **J.L. Lopez-Ribot**. 2009. Our Current Understanding of Fungal Biofilms. *Critical Reviews in Microbiology*. **35**:340-55.
28. 16. Uppuluri, P., C.G. Pierce, and **J.L. Lopez-Ribot**. 2009. *Candida albicans* Biofilm Formation and its Clinical Consequences. *Future Microbiology*. **4**:1235-1237.
29. **López-Ribot, J.L.** and T.F. Patterson. 2009. Fungal Drug Resistance: Azoles. In *Antimicrobial Drug Resistance Handbook*. (D.L. Mayers ed.) Humana Press.
30. Ramage, G, E. Mowat, W. Craig, **J.L. Lopez-Ribot**. 2009. Yeast biofilms. In *Pathogenic Yeasts, The Yeast Handbook* (R. Ashbee and E.M. Bignell eds.), Springer-Verlag Berlin Heidelberg.

C. Research Support.

Ongoing:

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). " Host Immunity and Virulence in *Candida albicans* Pathogenesis ". 1RO1AI064562. Dates: 07/1/2006 – 6/30/2010. The main objective of this grant is to assess the effect of morphogenetic conversions on host immunity during candidiasis. Role: PI.

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). " *NRG1* Regulated Genes in *Candida albicans* Pathogenicity ". 1RO1AI063256. Dates: 04/1/2006 – 3/31/2010. The main objective of this grant is to identify genes that control morphogenetic conversions and virulence during candidiasis. Role: Co-Investigator (S.P. Saville PI).

National Institute of Dental and Craniofacial Research (NIDCR), National Institutes of Health (NIH). "Small molecule inhibitors of *Candida albicans* biofilm formation". R21 DE 17294. Dates: 07/01/2007 to 06/30/2009. The main objective of this grant is to identify small compounds that prevent the development of biofilms by *C. albicans*. Role: P.I.

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). "*Candida albicans* biofilm dispersion as a key step during candidiasis". R21 AI 080930. Dates: 05/22/2009 to 04/30/2011. The main objective of this grant is to examine *C. albicans* biofilm dispersion. Role: PI.

POCsparc (Proof of Concept: Short Proposal to Accelerate Research Commercialization). "A high-throughput fungal biofilm chip for drug discovery". Dates: 2009-2010. (Anand K. Ramasubramanian, co-PI).

Merck. Efficacy of Caspofungin against *Candida albicans* biofilms under conditions of flow. Dates: 12/09 - 11/10. (Priya Uppuluri, co-PI).

American Cancer Society. "Determination of Morphology and Virulence in *Candida albicans*". Dates: 01/10-12/13. (Subcontract with UTHSCSA, David Kadosh, PI.)

Completed:

Merck. "Efficacy of Cancidas in a *Candida albicans* biofilm model *in vivo*". Dates: 02/01/2006-11/30/2008. The main objective of this project is to evaluate the activity of caspofungin against *Candida* biofilms *in vivo*. Role: PI.

National Institute of Dental and Craniofacial Research (NIDCR), National Institutes of Health (NIH). "Analysis of the *Candida albicans* proteome". R21 DE 15079. Dates: 08/01/2003 to 05/31/2007. The main objective of this grant was to generate a *C. albicans* proteomic database. Role: PI

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). " *NRG1* regulation of *Candida albicans* virulence". R03 AI 054447. Dates: 04/01/2003 to 08/31/2006. The main objective of this small grant is to assess the virulence of our genetically engineered strain in a murine model of disseminated candidiasis. Role: PI

Burroughs Wellcome Fund New Investigator in Molecular Pathogenic Mycology. "Gene and Protein Expression Profiling in *Candida albicans* biofilms". Dates: 07/2001-06/2004. These project uses genomic and proteomic approaches to study the *C. albicans* biofilm life-style. Role: PI

Inhibitex Inc. Development of immune-based strategies against candidiasis. Dates: 02/01/2002-01/31/2004. The main objective is to develop monoclonal antibodies for the therapy of candidiasis. Role: PI

National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH). "Protective antibodies to *Candida albicans* mp58". R29 AI 42401. Dates: 05/01/97 to 04/31/03. The main objective of this project is to identify protective antibody responses during systemic candidiasis. Role: PI

Texas Higher Education Coordinating Board. Advanced Technology Program (Biomedicine). "Exploring the Phenotypic Traits Associated with the Formation of *Candida albicans* Biofilms". 003659-0080-1999. Dates: 01/01/00-08/01/02. The main objective of this project is to develop models and analyze characteristics of *C. albicans* biofilms. PI.