

BIOGRAPHICAL SKETCH

| | | | |
|---|--------------------------------|----------------|---------------------------|
| NAME | POSITION TITLE | | |
| Leonardo A. SECHI | Full Professor of Microbiology | | |
| EDUCATION/TRAINING | | | |
| INSTITUTION AND LOCATION | DEGREE | YEAR(s) | FIELD OF STUDY |
| University of Sassari, Italy | BS | 1989 | Biology |
| University of Sassari, Italy | Specialization | 1993 | Microbiology and Virology |
| Temple University, Philadelphia, PA | Postdoc | 1990-1993 | Microbiology |
| Istituto di Microbiologia e Virologia, University of Sassari, Italy | Assistant Professor | 1994-2000 | Microbiology |
| Faculty of Sciences, University of Sassari, Italy | Associate Professor | 2001-2006 | Microbiology |
| Faculty of Medicine, University of Sassari, Italy | Full Professor | 2007-present | Microbiology |

A. Positions and Honors.

Other positions

2012: Member of the ANVUR (Italian Agency for the Evaluation of the University and Research)

2012: Member of the Experts Panel for the Ministero dell'Istruzione, Università e Ricerca (MIUR) for the Development and Research

2008-2011: Erasmus Delegate, Faculty of Science, University of Sassari

2009-2011: Member of the Visiting Professor Committee, University of Sassari

2007-2011: Responsible of the Microbiology Section, Department of Biomedical Sciences, University of Sassari

Honors

2007: Award for the #1 ranking investigator for Scientific Productivity, University of Sassari

He has an h index of 36 by googlescholar (http://scholar.google.it/citations?user=2CiA_SkAAAAJ&hl=it) and of 29 by Scopus

Peer-reviewed publications

L.A. Sechi has published up to now 170 papers in international peer reviewed journals.

Peer-reviewed publications of the last 5 years (in chronological order).

Cossu A, Sechi LA, Bandino E, Zanetti S, Rosu V. Expression profiling of Mycobacterium tuberculosis H37Rv and Mycobacterium smegmatis in acid-nitrosative multi-stress displays defined regulatory networks. *Microb Pathog.* 2013 Nov 1. doi:pII: S0882-4010(13)00139-3. 10.1016/j.micpath.2013.10.004.

Mameli G, Cossu D, Cocco E, Masala S, Frau J, Marrosu MG, Sechi LA. EBNA-1 IgG titers in Sardinian multiple sclerosis patients and controls. *J Neuroimmunol.* 2013 Nov 15;264(1-2):120-2

Cossu D, Masala S, Frau J, Mameli G, Marrosu MG, Cocco E, Sechi LA. Antigenic epitopes of MAP2694 homologous to T-cell receptor gamma-chain are highly recognized in multiple sclerosis Sardinian patients. *Mol Immunol.* 2013 Sep 30;57(2):138-140

Cossu D, Masala S, Frau J, Cocco E, Marrosu MG, Sechi LA. Anti Mycobacterium avium subsp. paratuberculosis heat shock protein 70 antibodies in the sera of Sardinian patients with multiple sclerosis. *J Neurol Sci.* 2013 Sep 13. doi:pII: S0022-510X(13)02897-9. 10.1016/j.jns.2013.09.011.

Masala S, Zedda MA, Cossu D, Ripoli C, Palermo M, Sechi LA. Zinc transporter 8 and MAP3865c homologous epitopes are recognized at T1D onset in Sardinian children. *PLoS One*. 2013 May 17;8(5):e63371. doi: 10.1371/journal.pone.0063371.

Cossu D, Masala S, Cocco E, Paccagnini D, Tranquilli S, Frau J, Marrosu MG, Sechi LA. Association of Mycobacterium avium subsp. paratuberculosis and SLC11A1 polymorphisms in Sardinian multiple sclerosis patients. *J Infect Dev Ctries*. 2013 Mar 14;7(3):203-7. doi: 10.3855/jidc.2737

Zanetti S, Sechi LA, Molicotti P, Delogu G, Rubino S. In honor of Professor Giovanni Fadda: a fighter against tuberculosis. *J Infect Dev Ctries*. 2013 Mar 14;7(3):159-60. doi: 10.3855/jidc.3499

Frau J, Cossu D, Coghe G, Lorefice L, Fenu G, Melis M, Paccagnini D, Sardu C, Murru M, Tranquilli S, Marrosu M, Sechi L, Cocco E. Mycobacterium avium subsp. paratuberculosis and multiple sclerosis in Sardinian patients: epidemiology and clinical features. *Mult Scler*. 2013 Feb 25.

Cossu D, Masala S. and Sechi L.A. A Sardinian map for multiple sclerosis. *Future Microbiology*. February 2013, Vol. 8, No. 2, Pages 223-232

Molicotti P, Usai D, Cubeddu M, Sechi LA, Zanetti S. Comparison of two molecular methods for diagnosis of Chlamydia trachomatis. *J Infect Dev Ctries*. 2013 Jan 15;7(1):64-6. doi: 10.3855/jidc.2802.

Masala S, Cossu D, Pacifico A, Molicotti P, Sechi LA. Sardinian Type 1 diabetes patients, Transthyretin and Mycobacterium avium subspecies paratuberculosis infection. *Gut Pathog*. 2012 Dec 27;4(1):24. doi: 10.1186/1757-4749-4-24

Cossu A, Ferrannini E, Fallahi P, Antonelli A, Sechi LA. Antibodies recognizing specific Mycobacterium avium subsp. paratuberculosis's MAP3738c protein in type 1 diabetes mellitus children are associated with serum Th1 (CXCL10) chemokine. *Cytokine*. 2012 Dec 18. doi:pii: S1043-4666(12)00791-0. 10.1016/j.cyto.2012.11.008

Rani PS, Tulsian NK, Sechi LA, Ahmed N. In vitro cytokine profiles and viability of different human cells treated with whole cell lysate of Mycobacterium avium subsp. paratuberculosis. *Gut Pathog*. 2012 Sep 24;4(1):10. [Epub ahead of print] IF 2.1

Manca Bitti ML, Masala S, Capasso F, Rapini N, Piccinini S, Angelini F, Pierantozzi A, Lidano R, Pietrosanti S, Paccagnini D and LA Sechi. Mycobacterium avium subsp. paratuberculosis (MAP) in a Italian cohort of Type 1 diabetes pediatric patients. *Clinical and Developmental Immunology* 2012;2012:785262. Epub 2012 Jul 11.. IF 2.26

Cimaglia F, Aliverti A, Chiesa M, Poltronieri P, De Lorenzis E, Santino A and LA Sechi. Quantum dots nanoparticle-based lateral flow assay for rapid detection of Mycobacterium species using anti-FprA antibodies. *Nanotechnology Development* Published: 2012-01-04 17:14:56 DOI: 10.4081/nd.2012.e5

Cossu A, Sechi LA, Zanetti S, Rosu V. Gene expression profiling of Mycobacterium avium subsp. paratuberculosis in simulated multi-stress conditions and within THP-1 cells reveals a new kind of interactive intramacrophage behaviour. *BMC Microbiol*. 2012 May 30;12(1):87. [Epub ahead of print] IF 2.96

Scotto M., G. Afonso, E. Larger, C. Raverdy, F.A. Lemonnier, J.C. Carel, D. Dubois-Laforgue, B. Baz, D. Levy, J.F. Gautier, O. Launey, G. Bruno, C. Boitard, L.A. Sechi, J.C. Hutton, H.W. Davidson, R. Mallone. Zinc transporter (ZnT)8 186-194 is an immunodominant CD8+ T-cell epitope in HLA-A2+ type 1 diabetic patients. *Diabetologia*. 2012 55(7): 2026-31 PMID: 22526607 [(2012). IF 6.973

Cossu D, Masala S, Cocco E, Paccagnini D, Frau J, Marrosu MG, Sechi LA. Are Mycobacterium avium subsp. paratuberculosis and Epstein-Barr virus triggers of multiple sclerosis in Sardinia? *Mult Scler*. 2012 Jan 19. [Epub ahead of print] PMID: 22261119. IF 4.23

Cannas S, Molicotti P, Bua A, Usai D, Sechi LA, Scanu AM, Blasi E, Zanetti S. Interaction between Mycobacterium tuberculosis, Mycobacterium bovis, Mycobacterium avium subspecies paratuberculosis with the enteric glia and microglial cells. *Gut Pathog*. 2011 Dec 9;3(1):19. [epub ahead of print]

Liandris E, Gazouli M, Andreadou M, Sechi L, Rosu V, Ikonomopoulos J. (2011). Detection of pathogenic mycobacteria based on functionalized quantum dots coupled with immunomagnetic separation. *PLOS ONE*, ISSN: 1932-6203, doi: PMID: 21637746

Alvi A, Ansari SA, Ehtesham NZ, Rizwan M, Devi S, Sechi L, Qureshi IA, Hasnain SE, Ahmed N. (2011). Concurrent proinflammatory and apoptotic activity of a Helicobacter pylori protein (HP986) points to its role in chronic persistence. *PLOS ONE*, vol. 6, ISSN: 1932-6203, doi: e22530.

Masala S, Paccagnini D, Cossu D, Brezar V, Pacifico A, Ahmed N, Mallone R and Sechi LA. (2011) .Antibodies Recognizing Mycobacterium avium paratuberculosis Epitopes Cross-react with the Beta-Cell Antigen ZnT8 in Sardinian Type 1 Diabetic Patients. *PLoS ONE* 6(10) e:26931. doi:10.1371/journal.pone.0026931, Epub 2011 Oct 27 IF 2009: 4.351

Cossu A, Rosu V, Paccagnini D, Cossu D, Pacifico A, Sechi LA. MAP3738c and MptD are specific tags of Mycobacterium avium subsp. paratuberculosis infection in type I diabetes mellitus. *Clin Immunol*. 2011 Oct;141(1):49-57. IF 2010: 3.932

Cossu D, Cocco E, Paccagnini D, Masala S, Ahmed N, Frau J, Marrosu MG and L A Sechi. Association of Mycobacterium avium subsp. paratuberculosis with 1 Multiple Sclerosis in Sardinian patients. PLoS ONE , 6(4): e18482. doi:10.1371/journal.pone.0018482 published 13 April 2011 IF 2009: 4.351

Di Sabatino, A, Paccagnini, D, Vidali, F, Rosu, V, Biancheri, P. Cossu, A, Zanetti, S, Corazza, GR and L. A. Sechi. Detection of Mycobacterium avium subsp. paratuberculosis (MAP) specific IS900 DNA and antibodies against MAP peptides and lysate in the blood of Crohn's disease patients. Inflammatory Bowel Diseases . 2011 May;17(5):1254-5. doi: 10.1002/ibd.21461. Epub 2010 Sep 2 IF 2009: 4.64

Nalam K, Ahmed A, Devi SM, Francalacci P, Baig M, Sechi LA, Hartskeerl RA and N. Ahmed. Genetic affinities within a large global collection of pathogenic Leptospira : implications for strain identification and molecular epidemiology. PLoS One. 2010 Aug 27;5(8). pii: e12637. IF 2009: 4.351

Zanetti S, Cannas S, Molicotti P, Bua A, Cubeddu M, Porcedda S, Marongiu B and Sechi LA. Evaluation of the Antimicrobial Properties of the Essential Oil of Myrtus communis L. against Clinical Strains of Mycobacterium spp. Interdiscip Perspect Infect Dis. 2010;2010. pii: 931530. Epub 2010 Jul 29. PMID: 20706606 [PubMed - in process]

Gazouli M., Liandris E, Andreadou A, Sechi LA, Masala S, Paccagnini D, and Ikonopoulou Specific Detection of Unamplified Mycobacterial DNA Using Fluorescent Semiconductor Quantum Dots and Magnetic Beads. J. Clin Microbiol. Aug;48(8):2830-5. Epub 2010 Jun 16. IF 2009: 4.162

Rocca S., Cubeddu T, Nieddu AM, Pirino S., Appino S, Antuofermo E., Tanda F, Verin R., Sechi LA, Taccini E and A. Leoni. Detection of Mycobacterium avium spp. paratuberculosis (Map) in samples of sheep paratuberculosis (Johne's disease or JD) and human Crohn's disease (CD) using liquid phase RT-PCR, in situ RT-PCR and immunohistochemistry. Small Ruminant Research 88 (2010) 126–134. IF 2009: 1.428

Masala S, Molicotti P, Bua A, Zumbo A, Delogu G, Sechi LA, Zanetti S. Molecular characterization of Sardinian Mycobacterium tuberculosis isolates by IS6110 restriction fragment length polymorphism, MIRU-VNTR and rep-PCR. New Microbiol. 2010 Apr;33(2):155-62. IF 2009:0.947

Rani PS, Sechi LA, Ahmed N. Mycobacterium avium subsp. paratuberculosis as a trigger of type-1 diabetes: destination Sardinia, or beyond? Gut Pathog. 2010 Mar 29;2(1):1

Dheda K, Davids V, Lenders L, Roberts T, Meldau R, Ling D, Brunet L, van Zyl Smit R, Peter J, Green C, Badri M, Sechi L, Sharma S, Hoelscher M, Dawson R, Whitelaw A, Blackburn J, Pai M, Zumla A. Clinical Utility of a Commercial LAM-ELISA Assay for TB Diagnosis in HIV-Infected Patients Using Urine and Sputum Samples. PLoS One. 2010 Mar 24;5(3):e9848. IF 2009: 4.351

Bua A, Rosu V, Molicotti P, Das Gupta SK, Ahmed N, Zanetti S, Sechi LA. Phages specific for mycobacterial lipoarabinomannan help serodiagnosis of tuberculosis. New Microbiol. 2009 Jul;32(3):293-6. IF 2009:0.947

Pinna A, Usai D, Sechi LA, Carta A, Zanetti S. Detection of virulence factors in Serratia strains isolated from contact lens-associated corneal ulcers. Acta Ophthalmol. 2009 Oct 20. [Epub ahead of print] IF 2009: 2.441

Pinna A, Usai D, Sechi LA, Zanetti S, Jesudasan NC, Thomas PA, Kaliamurthy J. An Outbreak of Post-Cataract Surgery Endophthalmitis Caused by Pseudomonas aeruginosa. Ophthalmology. 2009 Dec;116(12):2321-6.e1-4. Epub 2009 Oct 7. IF 2009: 5.491

Dheda K, van Zyl-Smit RN, Meldau R, Meldau S, Symons G, Khalfey H, Govender N, Rosu V, Sechi LA, Maredza A, Semple P, Whitelaw A, Wainwright H, Badri M, Dawson R, Bateman ED, Zumla A. Quantitative lung T cell responses aid the rapid diagnosis of pulmonary tuberculosis. Thorax. 2009 Oct;64(10):847-53. Epub 2009 Jul 9. IF 2009: 7.041

Paccagnini D, Sieswerda L, Rosu V, Masala S, Pacifico A, Gazouli M, Ikonopoulou J, Ahmed N, Zanetti and Sechi L.A. Linking chronic infection and autoimmune diseases Mycobacterium avium subspecies paratuberculosis, SLC11A1 polymorphisms and Type-1 Diabetes Mellitus. PLoS One. 2009 Sep 21;4(9):e7109. IF 2009: 4.351

van Zyl-Smit RN, Pai M, Peprah K, Meldau R, Kieck J, Juritz J, Badri M, Zumla A, Sechi LA, Bateman ED, Dheda K. Within-subject variability and boosting of T-cell interferon-gamma responses after tuberculin skin testing. Am J Respir Crit Care Med. 2009 Jul 1;180(1):49-58. Epub 2009 Apr 2. IF 2009: 10.689

Liandris E, Gazouli M, Andreadou M, Comor M, Abazovic N, Sechi LA, Ikonopoulou J. Direct detection of unamplified DNA from pathogenic mycobacteria using DNA-derivatized gold nanoparticles. J Microbiol Methods. 2009 Sep;78(3):260-4. Epub 2009 Jun 17. IF 2009: 2.427

Dheda K, van Zyl-Smit RN, Sechi LA, Badri M, Meldau R, Meldau S, Symons G, Semple L, Maredza A, Dawson R, Wainright H, Whitelaw A, Vallie Y, Raubenheimer P, Bateman ED, Zumla A. Utility of quantitative T cell responses versus unstimulated IFN- γ for the diagnosis of pleural tuberculosis. *Eur Respir J*. 2009 Nov;34(5):1118-26. Epub 2009 Apr 22. IF 2009: 5.527

Ahmed N, Sechi LA, Megraud F, Hasnain SE. Gut Pathogens: enteric health at the interface of changing microbiology. *Gut Pathog*. 2009 Feb 3;1(1):1.

Dheda K, Van-Zyl Smit RN, Sechi LA, Badri M, Meldau R, Symons G, Khalfey H, Carr I, Maredza A, Dawson R, Wainright H, Whitelaw A, Bateman ED, Zumla A. 2009. Clinical diagnostic utility of IP-10 and LAM antigen levels for the diagnosis of tuberculous pleural effusions in a high burden setting. *PLoS ONE*. 2009;4(3):e4689. Epub 2009 Mar 11. IF 2009: 4.351

Rosu V., Ahmed N., Paccagnini D., Gerlach G., Fadda G., Hasnain SE, Zanetti S., and L.A. Sechi. 2009. Specific immunoassays confirm association of *Mycobacterium avium* subsp. *paratuberculosis* with Type-1 but not Type 2 diabetes mellitus. *PLoS ONE*. 2009;4(2):e4386. Epub 2009 Feb 10. IF 2009: 4.351

Snoussi M., Noumi E., Hajlaoui H., Usai D., Sechi L.A., Zanetti S and A. Bakhrouf. 2009. High potential of adhesion to abiotic and biotic materials in fish aquaculture facility by *Vibrio alginolyticus* strains. *J Appl Microbiol*. 2009 Feb 25. [Epub ahead of print] SSN 1364-5072 IF 2009: 2.098

Molicotti P, Bua A, Ortu S, Ladu MC, Delogu G, Mura A, Sechi LA, Fadda G, Zanetti S. 2008. Heparin binding haemagglutinin as potential diagnostic marker of *Mycobacterium bovis*. *New Microbiol*. 2008 Jul;31(3):423-7. IF 2009:0.947

Snoussi M., Noumi E., Cheriaa J., Usai D., Sechi L.A., Zanetti S., and Bakhrouf A. 2008. Adhesive properties of environmental *Vibrio alginolyticus* strains to biotic and abiotic surfaces. *New Microbiologica*, Oct;31(4):489-500. IF 2009:0.947

Gazouli M, Sechi L.A, Paccagnini D, Sotgiu S, Arru G, Nasioulas G, Vassilopoulos D. 2008. NRAMP1 polymorphism and viral factors in Sardinian multiple sclerosis patients. *Canadian Journal of Neurological Sciences*, Sep;35(4):491-4. IF 2009: 1.041

Zanetti S., Bua A., Molicotti P., Delogu G., Mura A., Ortu S., and Sechi L.A. 2008. Identification of mycobacterial infections in wild boars in northern Sardinia, Italy. *Acta Veterinaria Hungarica* 56 (2): 145-152. IF 2009: 0.642

Rosu V, Ahmed N, Paccagnini D, Pacifico A, Zanetti S and Sechi L.A. 2008. *M. avium* subspecies *paratuberculosis* is not associated with Type-2 Diabetes Mellitus. *Ann Clin Microbiol Antimicrob*. 2008 Apr 22;7(1):9. IF 2009: 2.64

Gomes BC, Esteves CT, Palazzo ICV, Darini ALC, Felis GE, Sechi LA, Franco BDGM, De Martinis ECP. Prevalence and characterization of *Enterococcus* spp. from Brazilian foods. *Food Microbiology* 25: 668-675. 2008. IF 2009 3.216

Snoussi M, Noumi E, Usai D, Sechi LA, Zanetti S and Bakhrouf A. 2008. Distribution of some virulence related-properties of *Vibrio alginolyticus* strains isolated from Mediterranean seawater (Bay of Khenis, Tunisia): investigation of eight *Vibrio cholerae* virulence genes. *World J Microbiol Biotechnol* (2008) 24:2133–2141.

Snoussi M., Hajlaoui H., Noumi E., Usai D., Sechi LA, Zanetti S., Bakhrouf A. 2008. In-vitro anti-*Vibrio* spp. activity and chemical composition of some Tunisian aromatic plants *World J Microbiol Biotechnol* (2008) 24:3071–3076.

Pinna A, Usai D, Sechi LA, Molicotti P, Zanetti S, Carta A. 2008. Detection of Virulence Factors in *Pseudomonas aeruginosa* Strains Isolated From Contact Lens-Associated Corneal Ulcers. *Cornea*. 2008 Apr;27(3):320-326 IF 2.106

Deriu A S Zanetti, Marongiu B, Piras A, Porcedda S, Sechi LA Tuveri E. 2008. Antimicrobial Activity of *Inula helenium* L. essential oil against gram positive and gram negative bacteria and *Candida* spp.. *Int J Antimicrob Agents* 31; 6, pp. 592-594. IF 2009: 3.032

Molicotti P, Bua A, Mela G, Olmeo P, Delogu R, Ortu S, Sechi LA, Zanetti S. 2008. Performance of QuantiFERON-TB Testing in a Tuberculosis Outbreak at a Primary School. *J Pediatr*. 2008 Apr;152(4):585-6. IF 2009: 4.09

Ahmed N, Sechi LA. 2008. Correction: *Helicobacter pylori* and gastroduodenal pathology: New threats of the old friend. *Ann Clin Microbiol Antimicrob*. 2008 Feb 20;7(1):6 [Epub ahead of print] IF 2009: 2.64

Hussain MA, Naveed SA, Sechi LA, Ranjan S, Alvi A Ahmed I, Ranjan A, Mukhopadhyay S, Ahmed N. 2008. Isocitrate dehydrogenase of *Helicobacter pylori* potentially induces humoral immune response in subjects with peptic ulcer disease and gastritis. *PLoS ONE*. 2008 Jan 23;3(1):e1481. IF 2009: 4.351

Sechi LA, Rosu V, Pacifico A, Fadda G, Ahmed A, Zanetti S. 2008. Humoral immune responses of Type-1 Diabetes patients to *M. avium* subspecies *paratuberculosis* lend support to the infectious trigger hypothesis. *Clinical Vaccine Immunology*. 2008, vol.15, 2: 315-26. IF 2009: 2.373

Sechi LA, Paccagnini D, Salza S, Pacifico A, Ahmed N, Zanetti S 2008. *Mycobacterium avium* subsp. *paratuberculosis* bacteraemia in Type-1 diabetes cases: An infectious trigger?. *Clinical Infectious Diseases* 2008;46:148–149. IF 2008 8.195

Bannantine J., Rosu V., Zanetti S., Ahmed N., and Sechi L.A. 2008. Antigenic profiles of recombinant proteins from *Mycobacterium avium* subsp *paratuberculosis* in sheep with Johne's disease. *Veterinary Immunology and Immunopathology*. 2008. 122; 116-125.
IF2009: 1.963