

**Dott.ssa ANA LLEO DE NALDA**

*CURRICULUM VITAE,  
ATTIVITA' PROFESSIONALE, SCIENTIFICA E DIDATTICA  
ELENCO DELLE PUBBLICAZIONI*

## CURRICULUM VITAE, PROFESSIONALE E SCIENTIFICO

Ana Lleo de Nalda  
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### TITOLI

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- 2017-oggi *Abilitazione Scientifica Nazionale: professore I e II fascia in Medicina Interna*  
Settore 06/B1 - Validità: 06/04/2017 al 06/04/2023
- 2013-oggi *Abilitazione Scientifica Nazionale: professore II fascia in Gastroenterologia*  
Settore 06/D4 - II Fascia. Validità: 16/12/2013 - 16/12/2019
- 2016-oggi Componente del Comitato Scientifico *Humanitas University* come provider ECM nazionale
- 2017-oggi Ricercatore Universitario *Humanitas University* (Settore scientifico-disciplinare MED09: Medicina Interna)
- 2010-2014 *Assegno di Ricerca*  
Dipartimento di Medicina Traslazionale, Università degli Studi di Milano, IRCCS Istituto Clinico Humanitas
- 2006-2009 *Dottorato di ricerca in Metodologia Clinica (XXII ciclo)*  
Università degli Studi di Milano  
Titolo della tesi: "Epigenetica del cromosoma X in coppie di gemelli discordanti per Cirrosi Biliare Primitiva"  
Relatore: Prof. Mauro Podda
- 2001-2006 *Scuola di Specializzazione in Medicina Interna II (votazione 70/70 e lode)*  
Università degli studi di Milano  
Titolo della tesi: "Complicanze infettive in corso di terapia antivirale in pazienti affetti da epatopatia cronica HCV-correlata: studio prospettico su 174 casi"  
Relatore: Prof. Mauro Podda
- 2001 Abilitazione all'esercizio della professione. Iscrizione all'Ordine dei Medici di Milano
- 25/07/2000 *Laurea in Medicina e Chirurgia (votazione 110/110 e lode)*  
Università degli Studi di Milano  
Titolo della tesi: "Ruolo degli antigeni HLA nella suscettibilità/protezione alla nefrite lupica"  
Relatore: Prof.ssa Raffaella Scorza

### SOGGIORNI PRESSO UNIVERSITA' STRANIERE

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- 2011 Visiting scholar presso *Centre for Liver Research and NIHR Biomedical Research Unit in Liver Disease, University of Birmingham, Birmingham, United Kingdom* (Direttore: Prof. David H Adams).
- 2006-2010 Research fellow presso il dipartimento di *Rheumatology, Allergy, and Clinical Immunology,*



## ATTIVITA' ASSISTENZIALE

- 2013-oggi Assistente presso il reparto di Medicina Generale-Epatologia, Divisione di Medicina Interna, Istituto Clinico Humanitas (Responsabile: Prof. S. Bruno)
- 2014-oggi Attestato Advanced Life Support (ALS), validità: 5 anni
- 2010-2013 Assistente presso il reparto di Clinica Medica, Divisione di Medicina Interna, Istituto Clinico Humanitas (Direttore: Prof. Mauro Podda)
- 2001-2006 Medico specializzando della divisione Medicina III Ospedale S. Paolo (Cattedra di Medicina Interna dell'Università degli Studi di Milano, Prof M. Podda).
- 2006 Servizio di Dietetica e Nutrizione Clinica Ospedale Molinette, Torino (Direttore Dott.ssa Augusta Palmo)
- 2000-2001 Medico frequentatore presso la Cattedra di Medicina Interna dell'Università degli Studi di Milano, Prof M. Podda.
- 1998-2000 Studente interno presso la Cattedra d'Immunologia Clinica e laboratorio d'Immunologia molecolare dell'Università di Milano (Direttore: Prof.ssa Raffaella Scorza) dell'Ospedale Policlinico di Milano.
- 1997-1998 Studente interno presso il reparto di Medicina d'Urgenza dell'Ospedale Policlinico, Padiglione Pasini.

## ATTIVITA' SCIENTIFICA

### FINANZIAMENTI

#### *Finanziamenti attivi*

1. Ministero della Salute. Finalizzata-Giovani Ricercatori 2011-2012

Titolo: The role of macrophages in primary biliary cirrhosis: novel targets for immune intervention

Budget: 450.000 euro

Periodo: 2014-2017

Ruolo: Principal Investigator

#### *Finanziamenti conclusi*

1. Associazione Italiana per la Ricerca sul Cancro (AIRC)

Titolo: Cholangiocarcinoma associated microRNA: identification and diagnostic-prognostic potential

Budget: 310.000 euro

Periodo: 2012-2015

Ruolo: co-investigator

2. Commissione Europea - Settimo programma quadro

Bando: FP7-ICT for HEALTH-2010, numero 287596

Titolo: d-LIVER: ICT-enabled, cellular artificial liver system incorporating personalized patient management and support

Budget: 14.557.248 euro

Periodo: 2011 - 2015

Ruolo: Co-investigator

3. Fondazione Umberto Veronesi

Titolo: Cholangiocarcinoma associated microRNA: identification and diagnostic-prognostic potential

Budget: 150.000 euro

Periodo: 2012-2014

Ruolo: co-investigator

### ATTIVITÀ EDITORIALE PER RIVISTE SCIENTIFICHE

#### **Associate Editor**

- Digestive and Liver Disease

- Archives of Medical Science

#### **Revisore di pubblicazioni per riviste scientifiche**

Blood

Lancet

Journal of Autoimmunity

Digestive and Liver Disease

Journal of Clinical Immunology

Experimental Biology and Medicine

Autoimmunity Highlights

Archives of Medical Science

Journal of Nephrology

World Journal of Gastroenterology

### RELAZIONI SU INVITO

- 2007 "Fatty liver: new insights and approaches". University of California, Davis, Health System. Nutrition in Medicine, South Lake Tahoe, CA, USA. 6-7 Ott 2007
- 2008 "The consequences of apoptosis in autoimmunity". 6th International Congress on Autoimmunity. Porto, Portugal. 10-14 Sett 2008
- 2009 "Female predominance and autoimmunity". University of California, Davis, School of

- 2011 *"Immune-mediated bile duct diseases. Case presentation"* 46th annual meeting of the European Association for the Study of the Liver (EASL), 30 March 2011. Berlin, Germany.
- 2012 *"Autoimmune hepatitis: clinical management and therapy"*. SynLab Italia. Palazzo Serbelloni, 11 febbraio 2012. Milan, Italy.
- "Autoanticorpi nelle colangiopatie autoimmune"*. Multimedica Aggiornamenti in medicina di Laboratorio V ed: Nuovi e vecchi Biomarkers per l'autoimmunità epatica. 24 Ottobre 2012. Milano, Italy
- "Sex differences in Primary Biliary Cirrhosis"*. 2012 International Symposium on Epigenetics and Autoimmunity. Changsha, Cina. 26 ottobre 2012
- 2014 *"Diagnosis and Clinical Management of Autoimmune Liver Diseases"* Congreso Nacional Español de Immunología. Badajoz, Spagna. 9 maggio 2014
- "Patologia IgG4-correlata"* Hot topics in epatologia e trapianto epatico: Il ruolo delle immunoglobuline in epatologia". Castelvechchio Pascoli - Barga (Lu). 13 Giugno 2014.
- 2015 *"Autoimmune hepatobiliary disease: how to improve treatment efficacy"* 17<sup>th</sup> pre-meeting course of the Italian Association for the Study of the Liver. Roma 18 Febbraio 2015
- 2016 Young Investigator Lecture *"Biliary system and liver: new insights from immune system for understanding the natural history, therapy and outcomes"*, Italian Association for the Study of the Liver, Annual Meeting, Roma, 18 Febbraio, 2016
- "Overlap HCV-autoimmune liver disease in the IFN-free era"*, EXCEL, International Hepatology preceptorship program, Rozzano (MI), 12 marzo 2016.
- 2017 *Primary Biliary Cholangitis: an example of translational research in autoimmunity"*. Dipartimento di Medicina Traslazionale dell'Università del Piemonte Orientale. 06 aprile 2017.

#### ORGANIZZAZIONE DI CONGRESSI SCIENTIFICI

- 2016 *"7th Expert Meeting on the Management of Patients with HCV Infection"* Baveno (Hotel Splendid) - September 15/16, 2016. Segreteria scientifica

#### PREMI

- 2001 Premio di studio Gruppo Italiano per la lotta contro il LES
- 2009 Borsa di studio AISF (Associazione Italiana per lo Studio del Fegato) "Prof. Mario Coppo" per la ricerca dal titolo *Mitochondrial apoptoses: the key for biliary specificity in primary biliary cirrhosis*
- 2010 Borsa di studio "L'Oreal per la donna e la Scienza"
- "Young Investigator Award" per il miglior poster, A.I.S.F. Monothematic Conference 2010.
- 2011 EASL Sheila Sherlock Short-Term Fellowship

#### STUDI CLINICI ATTIVI

##### *Principal Investigator*

- 2016 "A Phase II, Randomized, Open-Label Clinical Trial to Study the Efficacy and Safety of the Combination Regimen of MK-5172 and MK-3682 with Either MK-8742 or MK-8408 in Subjects with Chronic HCV GT1 and GT2 Infection" - site: IRCCS Istituto Clinico Humanitas (Rozzano), Sponsor: Merck Sharp & Dohme Corp.
- 2016 "A Phase II, Randomized, Open-Label Clinical Trial to Study the Efficacy and Safety of the Combination Regimen of MK-5172 and MK-3682 with Either MK-8742 or MK-8408 in Subjects with Chronic HCV GT3 Infection" - site: IRCCS Istituto Clinico Humanitas (Rozzano), Sponsor: Merck Sharp & Dohme Corp.
- 2016 "A Randomized, Open-Label Study to Evaluate the Safety and Efficacy of Ombitasvir/ABT-450/Ritonavir Co-administered with Ribavirin (RBV) in Adults with Genotype 4 Chronic Hepatitis C Virus (HCV) Infection and Cirrhosis (AGATE-I)" - site: IRCCS Istituto Clinico Humanitas (Rozzano), Sponsor: AbbVie Inc

- Protocollo 747-301 Obeticholic Acid (OCA) (Fase 3a) "A Phase 3, Double Blind, Placebo Controlled Trial and Long Term Safety Extension of Obeticholic Acid in Patients with Primary Biliary Cirrhosis". Intercept Pharmaceuticals, Inc., USA.
- Protocollo GS-US-321-0102 (Fase 2b) "A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase Like 2 (LOXL2) in Subjects with Primary Sclerosing Cholangitis (PSC)". Gilead Sciences, Inc., USA.
- Protocollo GS-US-321-0106 (Fase 2b) "A Phase 2b, Dose-Ranging, Randomized, Double-Blind, Placebo-Controlled Trial Evaluating the Safety and Efficacy of GS-6624, a Monoclonal Antibody Against Lysyl Oxidase-Like 2 (LOXL2), in Subjects with Compensated Cirrhosis Secondary to Non-Alcoholic Steatohepatitis (NASH)". Gilead Sciences, Inc., USA.
- Protocollo 652-2-203 (Fase 2b) "A Phase 2, Randomized, Double-blind Study of the Efficacy and Safety of Cenicriviroc versus Placebo in Adult Subjects with Liver Fibrosis due to Non-alcoholic Steatohepatitis (NASH)" – Tobira Therapeutics Inc., USA.

#### MEMBERSHIPS DI SOCIETÀ SCIENTIFICHE

- American Association for the Study of Liver Diseases (AASLD)
- European Association for the Study of the Liver (EASL)
- Associazione Italiana per lo Studio del Fegato (AISF)
- Società Italiana di Immunologia, Immunologia Clinica e Allergologia (SIICA)

#### GRUPPI DI LAVORO/STUDIO INTERNAZIONALI

- 2010 – oggi      Membro dell'International Autoimmune Hepatitis Group (IAIHG), Londra, UK.  
 2010 – oggi      Membro dell'International Primary Sclerosing Cholangitis Group (IPSCG)  
 2010-oggi        Membro del PBC Global Group

#### ELENCO DELLE PUBBLICAZIONI

*Articoli originali su riviste indicizzate (peer-reviewed papers)*

		<b>IF</b>
<b>2003</b>	1. Marchini M, Antognioli R, <u>LLEO A</u> , Origgi L, Caronni M, Vanoli M, Scorza R: <i>HLA Class II antigens associated with lupus nephritis in Italian SLE patients. Human Immunology</i> 2003, 64, 462-468, ISSN: 0198-8859	3,0
<b>2006</b>	2. Selmi C, <u>LLEO A</u> , Zuin M, Podda M, Rossaro L, Gershwin M.E. <i>Interferon a and its contribution to autoimmunity. Curr Opin Investig Drugs</i> 2006; 7(5):451-6, ISSN: 1472-4472	3,3
<b>2007</b>	3. Invernizzi P, <u>LLEO A</u> , Podda M. <i>Interpreting serological tests in diagnosing autoimmune liver diseases. Semin Liver Dis.</i> 2007; 27(2):161-72, ISSN: 0272-8087	5,0
	4. <u>LLEO A</u> , Invernizzi P, Selmi C, Coppel RL, Alpini G, Podda M, Mackay IR, and Gershwin ME. <i>Autophagy: highlighting a novel player in the autoimmunity scenario. J Autoimmun</i> 2007; 29:61-8, ISSN: 0896-8411	7,8
<b>2008</b>	5. <u>LLEO A</u> , Selmi C, Invernizzi P, Podda M, and Gershwin ME. <i>The consequences of apoptosis in autoimmunity. J Autoimmun</i> 2008, 31(3); p. 257-262, ISSN: 0896-8411	7,8
	6. <u>LLEO A</u> , Invernizzi P, Prince H, Zhong R, and Gershwin ME. <i>Etiopathogenesis of Primary Biliary Cirrhosis. World J Gastroenterol</i> 2008, 14(21); p. 3328-37, ISSN: 1007-9327	2,0
	7. <u>LLEO A</u> , Battezzati PM, Selmi C, Gershwin ME, Podda M. <i>Is autoimmunity a matter of sex? Autoimmunity Reviews</i> , 2008 7(8); p. 626-30, ISSN: 1568-9972	5,3
	8. Invernizzi P, Selmi C, Poli F, Frison S, Floreani A, Alvaro D, Almasio P, Rosina F, Marzioni M, Fabris L, Muratori L, Qi L, Seldin Mf, Gershwin Me, Podda M,	11,3

- Battezzati Pm, Benedetti A, Bernuzzi F, Bianchi Fb, Bianchi I, Bignotto M, Bragazzi Mc, Brunetto M, Caimi M, Caliarì L, Caporaso N, Casella G, Casiraghi A, Colli A, Colombo M, Conte D, Croce L, Crosignani A, Dottorini L, Ferrari C, Fraquelli M, Frati Ce, Galli A, LLEO A, Mancino Mg, Mandelli G, Marra F, Montanari R, Monti V, Morini L, Morisco F, Niro G, Palasciano G, Calmieri Vo, Pasini S, Picciotto A, Portincasa P, Pozzoli V, Spinzi G, Strazzabosco M, Tiribelli C, Toniutto P, Zerinai P, Zuin M. *Human leukocyte antigen polymorphisms in Italian primary biliary cirrhosis: a multicenter study of 664 patients and 1992 healthy controls*. **Hepatology**, 2008, 48 (6); p. 1906-1912, ISSN: 0270-9139
- 2009 9. LLEO A, Selmi C, Invernizzi P, Podda M, Coppel RL, Mackay IR, Gores GJ, Ansari AA, Van De Water J, Gershwin ME. *Apoptosis and the biliary specificity of primary biliary cirrhosis*. **Hepatology**, 2009 Mar;49(3):871-9 ISSN: 0270-9139 11,3
10. Dhirapong A, LLEO A, Leung P, Gershwin ME, Liu FT. *The immunological potential of galectin-1 and -3*. **Autoimmunity Reviews**, 2009, Mar;8(5):360-3 ISSN: 1568-9972 5,3
11. Selmi C, LLEO A, Pasini S, Zuin M and Gershwin ME. *Innate Immunity and Primary Biliary Cirrhosis*. **Current Molecular Medicine** 2009 Feb;9(1):45-51, ISSN: 1566-5240 5,2
12. Padgett KA, Lan RY, Leung PC, LLEO A, Dawson K, Pfeiff J, Mao TK, Coppel RL, Ansari AA, and Gershwin ME. *Primary biliary cirrhosis is associated with altered hepatic microRNA expression*. **J Autoimmun**, 2009 May-Jun;32(3-4):246-53 ISSN: 0896-8411 7,8
13. Giorgini A, Capsoni F, Podda M, LLEO A, Battezzati PM, Ongari AM, Selmi C, Benetti A, Malinverno F, Rossaro L, Gershwin ME, Zuin M *Treatment with PEG-interferon and Ribavirin for Chronic Hepatitis C Increases Neutrophil and Monocyte Chemotaxis* **Ann N Y Acad Sci**. 2009 Sep;1173:847-57. 2,3
- 2010 14. Hov JR\*, LLEO A\*, Selmi C, Woldseth B, Fabris L, Strazzabosco M, Karlsen TH, Invernizzi P. *Genetic associations in Italian primary sclerosing cholangitis: Heterogeneity across Europe defines a critical role for HLA-C*. **J Hepatol** 2010 May;52(5):712-7 7,0
15. LLEO A, Invernizzi P, Gao B, Podda M, Gershwin ME. *Definition of human autoimmunity - autoantibodies versus autoimmune disease*. **Autoimmunity Reviews**, 2010 Mar;9(5):A259-66. Epub 2009 Dec 4. 5,3
16. LLEO A, Bowlus LC, Yang QX, Invernizzi P, Podda M, Van de Water J, Ansari AA, Coppel RL, Worman HJ, Gores GJ and Gershwin ME. *Biliary apoptosis and antimitochondrial antibodies activate innate immune responses in primary biliary cirrhosis*. **Hepatology** 2010; Sep;52(3):987-98. 11,3
17. Liu X, Invernizzi P, Lu Yue, Kosoy R, Lu Yan, Bianchi I, Podda M, Xu C, Xie G, Macciardi F, Selmi C, Lupoli S, Shigeta R, Ransom M, LLEO A, Lee AT, Mason AL, Myers RP, Peltekian KM, Ghent CN, Bernuzzi F, Zuin M, ICPBCG, Gregersen PK, Heathcote EJ, Hirschfield GM, Siminovitch KA, Amos CI, Gershwin ME, and Seldin MF. *Genome-wide meta-analyses identify three loci associated with primary biliary cirrhosis*. **Nature Genetics**, 2010 Aug;42(8):658-60 30,2
18. Liu H, Norman GL, Shums Z, Worman HJ, Krawitt EL, Bizzaro N, Vergani D, Bogdanos DP, Dalekos GN, Milkiewicz P, Czaja AJ, Heathcote EJ, Hirschfield GM, Tan EM, Miyachi K, Bignotto M, Battezzati PM, LLEO A, Leung PS, Podda M, Gershwin ME, Invernizzi P. *PBC Screen: An IgG/IgA dual isotype ELISA detecting multiple mitochondrial and nuclear autoantibodies specific for primary biliary cirrhosis*. **J Autoimmun** 2010, Dec;35(4):436-42. Epub 2010 Oct 6 7,2
- 2011 19. LLEO A, Shimoda S, Ishibashi H, Gershwin ME. *Primary biliary cirrhosis and autoimmune hepatitis: apoptosis and epitopes*. **J Gastroenterol**, 2011 Jan;46 Suppl 1:29-38. Epub 2010 Aug 27 2,9
20. Mitchell MM\*, LLEO A\*, Zammataro L, Mayo MJ, Invernizzi P, Bach N, Shimoda S, Gordon SC, Podda M, Gershwin ME, Selmi C, Lasalle JM. *Epigenetic inactivation of methyltransferase 1A in primary biliary cirrhosis* 4,5



21. Dhirapong A\*, LLEO A\*, Yang G-X, Tsuneyama K, Dunn R, Kehry M, Packard TA, Cambier JC, Liu FT, Lindor K, Coppel RL, Ansari AA and Gershwin ME. *B cell depletion therapy exacerbates murine primary biliary cirrhosis*. **Hepatology**, 2011 Feb;53(2):527-35 10,84
22. Rong G, Zhong R, LLEO A, Leung PS, Bowlus CL, Yang GX, Yang CY, Coppel RL, Ansari AA, Cuebas DA, Worman HJ, Invernizzi P, Gores GJ, Norman G, He XS, Gershwin ME. *Epithelial cell specificity and apoptotic recognition by serum autoantibodies in primary biliary cirrhosis*. **Hepatology** 2011 Jul;54(1):196-203. 10,84
23. Hashimoto N, Shimoda S, Kawanaka H, Tsuneyama K, Uehara H, Akahoshi T, Kinjo N, Taketomi A, Shirabe K, Akashi K, LLEO A, Ansari AA, Gershwin ME, Maehara Y. *Modulation of CD4(+) T cell responses following splenectomy in hepatitis C virus-related liver cirrhosis*. **Clin Exp Immunol**. 2011 Aug;165(2):243-50. 3,00
24. Han Y, DeMorrow S, Invernizzi P, Jing Q, Glaser S, Renzi A, Meng F, Venter J, Bernuzzi F, White M, Francis H, LLEO A, Marzioni M, Onori P, Alvaro D, Torzilli G, Gaudio E, Alpini G. *Melatonin exerts by an autocrine loop antiproliferative effects in cholangiocarcinoma; its synthesis is reduced favoring cholangiocarcinoma growth*. **Am J Physiol Gastrointest Liver Physiol**. 2011 Oct;301(4):G623-33. 3,52
25. Smyk DS, Rigopoulou EI, LLEO A, Abeles RD, Mavropoulos A, Billinis C, Invernizzi P, Bogdanos DP. *Immunopathogenesis of Primary biliary cirrhosis: An old wives' tale*. **Immun Ageing** 2011 Dec 2;8(1):12. 3,00
- 2012 26. LLEO A, Gershwin ME, Mantovani A, Invernizzi P. *Towards common denominators in Primary Biliary Cirrhosis: the role of il-12*. **J Hepatol** 2012 Mar;56(3):731-3 9,30
27. LLEO A, Liao J, Invernizzi P, Zhao M, Bernuzzi F, Ma L, Lanzi G, Ansari AA, Coppel RL, Zhang P, Li Y, Zhou Z, Lu Q and Gershwin ME. *IgM levels inversely correlate with CD40L promoter methylation in patients with Primary Biliary Cirrhosis*. **Hepatology** 2012 Jan;55(1):153-60 11,66
28. Jin Q, Moritoki Y, LLEO A, Tsuneyama K, Invernizzi P, Moritoki H, Kikuchi K, Lian ZX, Hirschfield GM, Ansari AA, Coppel RL, Gershwin ME, Niu J. *Comparative analysis of portal cell infiltrates in AMA positive versus AMA negative PBC*. **Hepatology** 2012 May;55(5):1495-506 11,66
29. Moroni L, Bianchi I, LLEO A. *Geoepidemiology, gender and autoimmune disease*. **Autoimmun Rev** 2012 May;11(6-7):A386-92. 6,55
30. LLEO A, Moroni L, Caliani L, Invernizzi P. *Autoimmunity and Turner's syndrome*. **Autoimmun Rev** 2012 May;11(6-7):A538-43 6,55
31. Bianchi I, LLEO A, Gershwin ME, Invernizzi P. *The X chromosome and immune associated genes*. **J Autoimmun** 2012 May;38(2-3):J187-92. 8,13
32. Persani L, Bonomi M, LLEO A, Pasini S, Civardi F, Bianchi I, Campi I, Finelli P, Miozzo M, Castronovo C, Sirchia S, Gershwin ME, Invernizzi P. *Increased loss of the Y chromosome in peripheral blood cells in male patients with autoimmune thyroiditis*. **J Autoimmun** 2012 May;38(2-3):J193-6. 8,13
33. Invernizzi P, Ransom M, Raychaudhuri S, Kosoy R, LLEO A, Shigeta R, Franke A, Bossa F, Amos CI, Gregersen PK, Siminovitch KA, Cusi D, de Bakker PI, Podda M, Gershwin ME, Seldin MF; The Italian PBC Genetics Study Group. *Classical HLA-DRB1 and DPB1 alleles account for HLA associations with primary biliary cirrhosis*. **Genes Immun** 2012 Sep;13(6):461-468 4,36
34. Selmi C, Feghali-Bostwick C, LLEO A, Lombardi S, De Santis M, Cavaciocchi F, Zammataro L, Mitchell M, LaSalle J, Medsger Jr T, Gershwin ME. *X chromosome gene methylation in peripheral lymphocytes from monozygotic twins discordant for Scleroderma*. **Clinical and Experimental Immunology** 2012 Sep;169(3):253-62 3,13
35. Juran BD, Hirschfield GM, Invernizzi P, Atkinson EJ, Li Y, Xie G, Kosoy R, Ransom M, Sun Y, Bianchi I, Schlicht EM, LLEO A, Coltescu C, Bernuzzi F, Podda M, Castronovo C, Shigeta R, Gores GJ, De Bakker PI, Moroni L, Cusi D

- Bodenheimer HC Jr, Liakina V, Vincent C, Levy C, Franke A, Gregersen PK, Bossa F, Gershwin ME, Deandrade M, Amos CI; The Italian PBC Genetics Study Group, Lazaridis KN, Seldin MF, Siminovitch KA. *ImmunoChip analyses identify a novel risk locus for primary biliary cirrhosis at 13q14, multiple independent associations at four established risk loci and epistasis between 1p31 and 7q32 risk variants.* **Hum Mol Genet.** 2012 Dec 1;21(23):5209-21.
36. Invernizzi P, Alessio MG, Smyk DS, LLEO A, Sonzogni A, Fabris L, Candusso M, Bogdanos DP, Iorio R, Torre G. *Autoimmune hepatitis type 2 associated with an unexpected and transient presence of primary biliary cirrhosis-specific antimitochondrial antibodies: a case study and review of the literature.* **BMC Gastroenterol.** 2012 Jul 20;12:92. 2,42
37. Bianchi I, Lleo A, Bernuzzi F, Caliari L, Smyk DS, Invernizzi P. *The X-Factor in Primary Biliary Cirrhosis: Monosomy X and Xenobiotics.* **Autoimmunity Highlights** 2012 Dec 3;3:127-132 -
- 2013 38. Chen RC, Naiyanetr P, Shu SA, Wang J, Yang GX, Kenny TP, Guggenheim KC, Butler JD, Bowlus C, Tao MH, Kurth MJ, Ansari AA, Kaplan M, Coppel RL, LLEO A, Gershwin ME, Leung PS. *AMA heterogeneity and the xenobiotic etiology of primary biliary cirrhosis.* **Hepatology.** 2013 Apr;57(4):1498-508 11,66
39. LLEO A, Oertelt-Prigione S, Bianchi I, Caliari L, Finelli P, Miozzo M, Lazzari R, Floreani A, Donato F, Colombo M, Gershwin ME, Podda M, Invernizzi P. *Y chromosome loss in male patients with primary biliary cirrhosis.* **J Autoimmun.** 2013 Mar;41:87-91. 7,36
40. Kar SP, Seldin MF, Chen W, Lu E, Hirschfield GM, Invernizzi P, Heathcote J, Cusi D; the Italian PBC Genetics Study Group, Almasio PL, Alvaro D, Andreone P, Andriulli A, Barlassina C, Benedetti A, Bernuzzi F, Bianchi I, Bragazzi M, Brunetto M, Bruno S, Caliari L, Casella G, Coco B, Colli A, Colombo M, Colombo S, Cursaro C, Croce LS, Crosignani A, Donato F, Elia G, Fabris L, Floreani A, Galli A, Grattagliano I, Lazzari R, LLEO A, Macaluso F, Marra F, Marzioni M, Mascia E, Mattalia A, Montanari R, Morini L, Morisco F, Muratori L, Muratori P, Niro G, Picciotto A, Podda M, Portincasa P, Prati D, Raggi C, Rosina F, Rossi S, Sogno I, Spinzi G, Strazzabosco M, Tarallo S, Tarocchi M, Tiribelli C, Toniutto P, Vinci M, Zuin M, Gershwin ME, Siminovitch KA, Amos CI. *Pathway-based analysis of primary biliary cirrhosis genome-wide association studies.* **Genes Immun.** 2013 Apr;14(3):179-86. 3,87
41. Podda M, Selmi C, LLEO A, Moroni L, Invernizzi P. *The limitations and hidden gems of the epidemiology of primary biliary cirrhosis.* **J Autoimmun** 2013 Oct;46:81-7 8,14
42. LLEO A, Invernizzi P. *Apoptosis and innate immune system: Novel players in the primary biliary cirrhosis scenario.* **Dig Liver Dis.** 2013 Aug;45(8):630-6 3,16
- 2014 43. Invernizzi P, Bernuzzi F, LLEO A, Pozzoli V, Bignotto M, Zermiani P, Crosignani A, Battezzati PM, Zuin M, Podda M, Raggi C. *Telomere dysfunction in peripheral blood mononuclear cells from patients with primary biliary cirrhosis.* **Dig Liver Dis.** 2014 Apr;46(4):363-8 3,16
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Milano, 01/03/2017