Professor Silvia Sookoian, MD, PhD, FAASLD

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Professor Silvia Sookoian, MD, PhD., is a Senior Research Scientist at the CONICET (National Scientific and Technical Research Council); Head of the Clinical and Molecular Hepatology. CENITRES (Translational Health Research Centre). Maimonides University, Buenos Aires. Argentina. Full Professor of Medicine and Dean of the Faculty of Health Science at the Maimonides University. Buenos Aires. She graduated cum laude from the University of Buenos Aires School of Medicine. Her professional role as a physician scientist involves the translation of scientific knowledge in Hepatology into patient care. The primary focus of her current clinical and translational research is on the genetic, epigenetic and molecular mechanisms implicated in the pathogenesis and progression of MASLD. Dr. Sookoian has published extensively in the field of Liver Diseases, including Metabolic dysfunction-associated steatotic liver disease-MASLD (former NAFLD) and hepatitis C. She has been in clinical practice since 1987 (Clinical Training Board certificated in Internal Medicine; Fellowship in Hepatology). She received training in Hepatology (Karolinska Institute, Huddinge University Hospital. Sweden 1997 Hepatology Centres of Excellence Program; Pathology (Armed Forces Institute of Pathology. Washington DC. 2000); Genetics of complex diseases (Cold Spring Harbor Laboratories. NY, USA, and Wellcome Trust Advanced Courses 2006).



POSITION TITLE:

- -Senior Research Scientist. CONICET (National Scientific and Technical Research Council).
- -Head of the Clinical & Molecular Hepatology. CENITRES (Translational Health Research Center). Maimonides University, Buenos Aires. Argentina.
- -Dean of the Faculty of Health Science. Maimonides University. Buenos Aires. Argentina.
- -Full professor of Medicine. Maimonides University. Buenos Aires. Argentina.

EDUCATION/TRAINING INSTITUTION AND LOCATION DEGREE Completion FIELD OF STUDY Date (if applicable) MM/YYYY University of Buenos Aires, School of Medicine MD 12/1986 Medicine (magna cum laude) University of Buenos Aires, School of Medicine Ph.D. 03/2000 Medicine

University of Buenos Aires, School of School of
Exact and Natural Sciences

Argerich Hospital Associated to University of Buenos Aires. Government of City of Buenos Aires. Argentina

Master 12/2001 Molecular Medicine

Specialist 12/2000 Methodology of the Scientific Research

Residency 01/1987- Internal Medicine and Chief 06/2001

Personal Statement

Dr. Sookoian is a distinguished physician-scientist dedicated to translating scientific advancements in Hepatology into clinical practice. Her research investigates the genetic, epigenetic, and molecular mechanisms driving the pathogenesis and progression of MASLD (former known as non-alcoholic fatty liver disease NAFLD). Board-certified in Internal Medicine with a Fellowship in Hepatology, Dr. Sookoian has been in clinical practice since 1987. Her academic foundation includes advanced training in Hepatology at the Karolinska Institute (Sweden), pathology at the Armed Forces Institute of Pathology (Washington DC), and the genetics of complex diseases at both Cold Spring Harbor Laboratory (NY) and the Wellcome Trust Advanced Courses (UK). She has published extensively on liver diseases, particularly MASLD and cardiometabolic syndrome.

residency

Diversity Statement

Dr. Sookoian is a physician-scientist dedicated to promoting equity and advancing diversity within the fields of Hepatology, genetics, and molecular medicine. As a member of the Latino community, she brings a vital minority perspective to her field, advocating for the inclusion of diverse ethnic, institutional, and geographic voices in all academic and clinical forums. Over three decades of clinical and academic practice, Dr. Sookoian has cultivated an environment of inclusive knowledge-sharing. Her work is guided by the conviction that linguistic and cultural diversity are fundamental to the progress of modern translational medicine.

Positions, Scientific Appointments, and Honors

ACADEMIC APPOINTMENTS

Staff Senior Researcher. National Scientific and Technical Research Council (CONICET). 2003-Current. Category: Senior Investigator. http://www.conicet.gov.ar. Buenos Aires. Argentina. CONICET is the main government agency that fosters the development of science and technology in Argentina. This Career comprises five categories (Assistant, Associate, Independent, Principal and Senior).

PROFESSIONAL APPOINTMENTS:

Head, Department of Clinical & Molecular Hepatology. Institute of Medical Research (Instituto de Investigaciones Medicas), IDIM-CONICET. School of Medicine, University of Buenos Aires. January 2003-September 2022.

Vice Chair for Institute of Medical Research (Instituto de Investigaciones Medicas), IDIM-CONICET, School of Medicine, University of Buenos Aires. January 2015-December 2021.

Head of the Clinical & Molecular Hepatology Department. CONICET (National Scientific and Technical Research Council) & CENITRES (Translational Health Research Center). Maimonides University, Buenos Aires. Argentina. Buenos Aires. Argentina. March 2023-current

Dean of the Faculty of Health Science. Maimonides University. Buenos Aires. Argentina. 2023-.

SERVICE TO PROFESSIONAL ORGANIZATIONS:

National Organizations (Argentina)

- 1. Chairman of the Session: Clinical Science and Public Health Commission, for the evaluation of National Research Funding. National Agency Scientific and Technical Research (Agencia Nacional de Promoción Científica y Tecnológica. ANACYT-Foncyt). Argentina. 2010-2013.
- 2. Permanent member Roster Commission Research & Development (PID-Clinic) The Fund for Scientific and Technological Research (FONCyT). 2013-1015
- 3. Coordinator of the Sentinel Unit of the National Program of Viral Hepatitis Surveillance. Ministry of Public Health. Buenos Aires Argentina. 1992-2000.
- 4. Member of the Adviser Group of the National Program of Viral Hepatitis Surveillance. Ministry of Health. Buenos Aires. Argentina 1994-2000

International Organizations (member of study sessions/roster for the evaluation of research or investigators)

- 1. REA-FP7-HEALTH. European Commission. Research Executive Agency. 2012-2013 Medical Research Council United Kingdom. 2012-2016
- 2. Medical Research Council South Africa. 2012-2012
- 3. Israel Science Foundation. 2010- 2013
- 4. Research Grant Council (RGC) of Hong Kong. 2012-2016
- 5. National Institute of Health Extramural Review Branch. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). 2013
- 6. National Institute of Diabetes, Digestive, and kidney diseases at the National Institutes of Health. 2018
- 7. Estonian Research Council (ETAg). 2018-2021.
- 8. SC1-BHC-18-2018: Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC). European Commission Horizon 2020. 2018.-Expert (member Consensus Panel)
- 9. The Wellcome Trust DBT India Alliance Fellowship. 2018.

- 10. European Commission call Topic SC1-BHC-08-2020 stage I. Health, Demographic Change and Wellbeing' challenge under Horizon 2020 Topic SC1-BHC-08-2020: New therapies for Non-Communicable Diseases. 2019. Brussels, Belgium.
- **11.** Health, Demographic Change and Wellbeing' challenge under Horizon 2020 Topic SC1-BHC-08-2020: New therapies for Non-Communicable Diseases. Brussels, Belgium
 - 12. European Commission call SC1-BHC-17-2020 stage II: member of the Consensus Panel. SC1-BHC-17-2020: Global Alliance for Chronic Diseases (GACD) 2 Cancer prevention and early detection. 2020.
 - 13. Department of Internal Medicine-Gastroenterology, Medical School at the University of Michigan. 2020. Evaluation of investigators promotion.
 - 14. National Institute of Diabetes, Digestive, and kidney diseases at the National Institutes of Health, 2021. Evaluation of investigators promotion.
 - 15. Expert European Commission Horizon Europe Cluster 1 Health Topic: HORIZON-HLTH-2022-DISEASE-06-04-two-stage Development of new effective therapies for rare diseases. 2022
 - 16. Expert Horizon Europe Cluster 1 Health Topic: HORIZON-MISS-2021-CANCER-02. 2022
 - 17. European Commission calls Horizon Europe. Monitor Project A-TANGO 945096
 - 18. Fund for Scientific Research FNRS Belgium 2022.
 - 19. Scientific Committee of the Italian Liver Foundation. 2023
 - 20. Medical Research Council UK. 2023
 - 21. Scientific Committee Italian Liver Foundation, Italy, 2023-current.

Professional Service (International) to Editorial board of International Journals

As member of the Editorial board

- 1. Editorial board member GUT Country: UK (2015- current)
- 2. Editorial board member HEPATOLOGY Country USA (2016-2021)
- 3. Editorial board member Journal of Lipid Research Country: USA (2019-current)
 - 4. International Editorial Board Journal of Alimentary Pharmacology & Therapeutics. Country: UK (2020-current)
 - 5. Editorial board member Liver International. Country: UK (2020- current)
 - 6. Editorial board member Hepatobiliary Surgery and Nutrition (HBSN) Country: CHINA (2020-current)
- 7. Editorial Advisory Panel Clinical Science Country UK (2012-2015)
 - 8. PlosOne Academic Editor Country USA (2012-2022)
 - 9. World Journal of Gastroenterology. Country China, 2008-2013
 - 10. Annals of Hepatology. 2002-2006. Country Mexico.
 - 11. Editorial board member Journal of Hepatology (2025-current)

As Associate Editor

- 1. Associate Editor, Hepatobiliary Surgery and Nutrition (HBSN) Country: CHINA (2021-current)
- 2. Associate Editor NAFLD, Clinical and Molecular Hepatology Country: South Corea (2020-current)
- 3. Associate Editor Journal of Lipid Research Country: USA (2024-current)
- 4. Associate Editor Liver International Country: USA (2025-current)

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Other relevant professional service

NIDDK Grant Number: 1R13DK139768-01.

Organizer of the Keystone Symposia, *MASH and Fibrosis: From Molecular Phenotypes to Precision Therapeutics*, being. Fairmont Banff Springs, Banff, AB, Canada March 3 - 7, 2024.

Professional Service (International) to AASLD (American Association for the Study of Liver Diseases) or other professional societies

- 1. Member of the PROGRAM EVALUATION COMMITTEE American Association for the Study of Liver Disease (AASLD). 2010-2013.
- 2. Member of the Steering Committee Steatosis and Steatohepatitis Special Interest Group of AASLD and Co-Chair of its global outreach subcommittee (2018-2020).
- 3. Member of the Latin American Regional Advisory Council of AASLD (2019-current).
- 4. Abstract review committee American Association for the Study of Liver Diseases (AASLD) Steatosis and Steatohepatitis: Clinical and Therapeutic. Liver Meeting (2015-2019)
- 5. Abstract review committee American Association for the Study of Liver Diseases (AASLD) Steatosis and Steatohepatitis: Clinical and Therapeutic. DDW (2016-2019)
- 6. Moderator of the Session: *Genetic Modifiers in NAFLD*. 63rd Annual Meeting of the American Association for the Study of Liver Diseases. Boston USA 2012.
- 7. Moderator of the Session: Parallel Session: *NASH: Diagnosis and Treatment*. The Liver Meeting 2013 in Washington, DC.
- 8. Moderator of the Session: Parallel Session Title: Parallel 35: *Fatty Liver Disease: Clinical and Therapeutic II.* The Liver Meeting 2015. San Francisco, CA.
- 9. Moderator of the Session: *ASH/NASH*: Clinical Session Type: Topic Forum. Digestive Disease Week 2016. San Diego, USA 2016.
- 10. Moderator of the Session: Parallel 5: *NAFLD: Diagnosis and Natural History*. The Liver Meeting 2016 Boston, MA. Annual Meeting of the American Association for the Study of Liver Diseases.
- 11. Moderator of *Steatosis and Steatohepatitis SIG Program.* The Liver Meeting 2016 in Boston, MA November 11 15. Annual Meeting of the American Association for the Study of Liver Diseases. Boston USA 2016
- 12. Moderator of the Session: Parallel 6: Novel Therapeutics for NASH. The Liver Meeting 2019 Annual Meeting of the American Association for the Study of Liver Diseases. Boston USA
- 13. Abstract review committee American Association for the Study of Liver Diseases (2016-2019)
- 14. Review Chair. American Association for the Study of Liver Diseases. NAFLD and NASH clinical. Liver Meeting 2021-2022.
- 15. Member of the NAFLD Nomenclature Steering Committee.
- 16. AASLD/EASL NAFLD Nomenclature Consensus Meeting, Task Force member
- 17. Member of the Delphi panel EASL-EASD-EASO Clinical Practice Guidelines for the management of non-alcoholic fatty liver disease. 2023
- 18. Program member: Healthy Livers, Healthy Lives: A Global Coalition for Action on Fatty Liver Disease. 2023
- 19. Review Session Chair. American Association for the Study of Liver Diseases. NAFLD and NASH clinical. Liver Meeting 2023 and DDW 2023.
- 20. Review Session Chair. American Association for the Study of Liver Diseases. NAFLD and NASH clinical. Liver Meeting 2024-2025.
- 21. Member of the EASL-EASD-EASO Delphi panel Clinical practice guidelines for the treatment of non-alcoholic fatty liver disease. 2023-active
- 22. Program member: Healthy Livers, Healthy Lives: A Global Coalition for Action on Fatty Liver Disease. 2023-active.

Honors

- -Fellow of the American Association for the Study of the Liver Disease (AASLD). Elected 2016.
- -Jury for the 2022 Innovators in Science Award in Gastroenterology. Innovators in Science Awards. New York Academy of Sciences.
- Gothenburg University, opponent thesis O Jamialahmadi 2023.

International awards (selected)

MSD Young Investigator Award. The XVIth Scientific Meeting of the Inter-American Society of Hypertension. THE SHORT VARIANT OF THE SEROTONIN TRANSPORTER GENE (SLC6A4) IS AN INDEPENDENT RISK FACTOR FOR OBESITY IN ADOLESCENTS WITH METABOLIC SYNDROME. Council For High Blood Pressure Research, American Heart Association. Latin American investigator

award. Title: Genetic Variants of Clock Transcription Factor Are Associated with Susceptibility to Obesity and Hypertension in Individuals with Metabolic Syndrome. InterAmerican Society of Hypertension, 2007.

Contributions to Science

My research group has been at the forefront of investigating the pathogenesis of NAFLD, with a specific focus on the genetic and epigenetic drivers of disease progression. In a landmark contribution to the field, we were the first to describe the metataxonomic profiling of human liver tissue in NAFLD patients, uncovering the critical role of the intrahepatic microbiota in determining disease severity.

By integrating multi-omics approaches—including transcriptomics, genomics, epigenomics, and metagenomics—my work continues to reveal the complex biological mechanisms of liver disease and identify novel targets for clinical intervention. This research is deeply rooted in the principles of 3PM (Predictive, Preventive, and Personalized Medicine). By leveraging high-dimensional data, I advocate for a shift from reactive care toward a proactive model that focuses on predicting individual susceptibility, implementing targeted preventive strategies, and delivering personalized therapeutic interventions tailored to the unique molecular signature of each patient.

Complete List of Published Work in My Bibliography:

https://pubmed.ncbi.nlm.nih.gov/?term=Sookoian+S. Selected Peer-reviewed Publications (Selected from 215 peer-reviewed Pubmed indexed publications)

ORCID ID: http://orcid.org/0000-0001-5929-5470

Scopus H index: 62. Google scholar: h-index 69. 64% percent of publications in the top 25% most cited documents worldwide). 87% percent of publications in the top 25% journals by CiteScore. 33.0% percent of international collaboration.

- Towards a reference cell atlas of liver diversity over the human lifespan. Taylor SA, Bader GD, MacParland S, Mullen AC, Andrews T, Cuenca AG, DasGupta R, Gehring AJ, Grün D, Guilliams M, Gulamhusein A, Henderson NC, Hirschfield G, Huppert SS, Itzkovitz S, Jiang ZG, Lauer GM, McGilvray I, Mysore KR, Pirola CJ, Quon G, Rahbari M, Regev A, Ricciuto A, Scott CL, Sharma A, **Sookoian S**, Tana MM, Teichmann SA, Vallier L, Vlachos IS, Wang B, Zhen M. Nat Rev Gastroenterol Hepatol. 2025 Oct 13. doi: 10.1038/s41575-025-01114-3. Online ahead of print.
- Organ damage proteomic signature identifies patients with MASLD at risk of systemic complications. Pirola CJ, Diambra L, Fernández Gianotti T, Castaño GO, San Martino J, Garaycoechea M, **Sookoian S.** Hepatology. 2025 May 1. doi: 10.1097/HEP.000000000001346. Online ahead of print.
- MASLD as a non-communicable disease. **Sookoian S**, Pirola CJ, Sanyal AJ. Nat Rev Gastroenterol Hepatol. 2025 Mar;22(3):148-149. doi: 10.1038/s41575-025-01039-x.
- Global Burden of Major Chronic Liver Diseases in 2021. Feng G, Yilmaz Y, Valenti L, Seto WK, Pan CQ, Méndez-Sánchez N, Ye F, **Sookoian S**, Targher G, Byrne CD, Chan WK, Treeprasertsuk S, Yu HH, Kim SU, George J, Xu WJ, Sebastiani G, Ocama P, Ryan JD, Lupșor-Platon M, Ghazinyan H, Hamid S, Perera N, Alswat K, Isakov V, Pan Q, Sarin SK, Schattenberg JM, Sotoudeheian M, Wong YJ, Sharara AI, AI-Busafi SA, Opio CK, Chai J, Fouad Y, Shi Y, AI-Mahtab M, Zhang S, Pirola CJ, Wong VW, Zheng MH. Liver Int. 2025 Apr;45(4):e70058. doi: 10.1111/liv.70058.
- Resmetirom for treatment of MASH. **Sookoian S**, Pirola CJ. Cell. 2024 Jun 6;187(12):2897-2897.e1. doi: 10.1016/j.cell.2024.05.009.
- Cross talk between the liver microbiome and epigenome in patients with metabolic dysfunction-associated steatotic liver disease. Pirola CJ, Salatino A, Fernández Gianotti T, Castaño GO, Garaycoechea M, **Sookoian S.** EBioMedicine. 2024 Feb 5;101:104996. doi: 10.1016/j.ebiom.2024.104996
- Global burden of metabolic dysfunction-associated steatotic liver disease, 2010 to 2021. Feng G, Targher G, Byrne CD, Yilmaz Y, Wai-Sun Wong V, Adithya Lesmana CR, Adams LA, Boursier J, Papatheodoridis G, El-Kassas M, Méndez-Sánchez N, **Sookoian S**, Castera L, Chan WK, Ye F, Treeprasertsuk S, Cortez-Pinto H, Yu HH, Kim W, Romero-Gómez M, Nakajima A, Win KM, Kim SU,

Holleboom AG, Sebastiani G, Ocama P, Ryan JD, Lupşor-Platon M, Ghazinyan H, Al-Mahtab M, Hamid S, Perera N, Alswat KA, Pan Q, Long MT, Isakov V, Mi M, Arrese M, Sanyal AJ, Sarin SK, Leite NC, Valenti L, Newsome PN, Hagström H, Petta S, Yki-Järvinen H, Schattenberg JM, Castellanos Fernández MI, Leclercq IA, Aghayeva G, Elzouki AN, Tumi A, Sharara AI, Labidi A, Sanai FM, Matar K, Al-Mattooq M, Akroush MW, Benazzouz M, Debzi N, Alkhatry M, Barakat S, Al-Busafi SA, Rwegasha J, Yang W, Adwoa A, Opio CK, Sotoudeheian M, Wong YJ, George J, Zheng MH. JHEP Rep. 2024 Nov 14;7(3):101271. doi: 10.1016/j.jhepr.2024.101271. eCollection 2025 Mar.

- Global, Regional, and National Burden of Primary Liver Cancer Attributable to Metabolic Risks: An Analysis of the Global Burden of Disease Study 1990-2021. Wu C, Targher G, Byrne CD, Mao Y, Cheung TT, Yilmaz Y, Valenti L, Méndez-Sánchez N, **Sookoian S**, Chan WK, Treeprasertsuk S, Yu HH, Kim SU, George J, Hu D, Sebastiani G, Ryan JD, Oviedo RJ, Zhong JH, Schattenberg JM, Lonardo A, Ruiz-Úcar E, Seto WK, Sotoudeheian M, Ocama P, Lupşor-Platon M, Yang T, Ghazinyan H, Pan Q, Hamid S, Adams L, Chai J, Prasad A, Perera N, Alswat K, Isakov V, Sarin SK, Sharara AI, Sanai FM, Al-Busafi SA, Opio CK, Toro-Huamanchumo CJ, Yang W, Wong YJ, Torzilli G, Fouad Y, Zheng MH. Am J Gastroenterol. 2025 Oct 1;120(10):2280-2290. doi: 10.14309/ajg.0000000000003288. Epub 2025 Jan 3.
- The Proteomics of MASLD Progression: Insights From Functional Analysis to Drive the Development of New Therapeutic Solutions. Pirola CJ, Fernández Gianotti T, **Sookoian S.** Aliment Pharmacol Ther. 2025 Feb;61(4):614-627. doi: 10.1111/apt.18468. Epub 2025 Jan 2.
- COVID-19 and NAFLD: biological insights from multi-omics data. Pirola CJ, **Sookoian S.** Liver Int. 2023 Jan 2. doi: 10.1111/liv.15509. Online ahead of print. PMID: 36593576
- PNPLA3 rs738409 and risk of fibrosis in NAFLD: Exploring mediation pathways through intermediate histological features. Vilar-Gomez E, Pirola CJ, **Sookoian S**, Wilson LA, Liang T, Chalasani N. Hepatology. 2022 Nov;76(5):1482-1494.
- The influence of host genetics on liver microbiome composition in patients with NAFLD. Pirola CJ, Salatino A, Quintanilla MF, Castaño GO, Garaycoechea M, **Sookoian S.** EBioMedicine. 2022 Feb;76:103858. doi: 10.1016/j.ebiom.2022.
- Liver Mitochondrial DNA Damage and Genetic Variability of Cytochrome B A Key Component of the Respirasome Drive the Severity of Fatty Liver Disease. Pirola CJ, Garaycoechea M, Flichman D, Castaño GO, Sookoian S. J Intern Med. 2021 Jan;289(1):84-96
- Intrahepatic bacterial metataxonomic signature in non-alcoholic fatty liver disease. **Sookoian S**, Salatino A, Castaño GO, Landa MS, Fijalkowky C, Garaycoechea M, Pirola CJ. Gut. 2020 Aug;69(8):1483-1491
- Impact of the Association Between PNPLA3 Genetic Variation and Dietary Intake on the Risk of Significant Fibrosis in Patients With NAFLD. Vilar-Gomez E, Jose Pirola C, **Sookoian S**, Wilson LA, Belt P, Liang T, Liu W, Chalasani N. Am J Gastroenterol. 2020 Dec 10. doi: 10.14309/ajg.000000000001072.
- ADH1B*2 is Associated With Reduced Severity of Nonalcoholic Fatty Liver Disease in Adults, Independent of Alcohol Consumption. Vilar-Gomez Eduardo, **Sookoian** Silvia, Pirola Carlos Jose, Liang Tiebing, Gawrieh Samer, Cummings Oscar, Liu Wanqing, Chalasani Naga. Gastroenterology 2020 Sep;159(3):929-943.
- SARS-CoV-2 virus and liver expression of host receptors: Putative mechanisms of liver involvement in COVID-19.Pirola CJ, **Sookoian S**. Liver Int. 2020;40(8):2038-2040.
- COVID-19 and *ACE2* in the liver and gastrointestinal tract: Putative biological explanations of sexual dimorphism. Pirola CJ, Sookoian, S. Gastroenterology. 2020 Oct;159(4):1620-1621
- Splice variant rs72613567 prevents worst histologic outcomes in patients with nonalcoholic fatty liver disease. Pirola CJ, Garaycoechea M, Flichman D, Arrese M, San Martino J, Gazzi C, Castaño GO, **Sookoian S**.J Lipid Res. 2019 Jan;60(1):176-185.
- Genetic variation in Long noncoding RNAs and the risk of Nonalcoholic Fatty Liver Disease. Silvia Sookoian, Cristian Rohr, Adrián Salatino, Hernán Dopazo, Tomas Fernandez Gianotti, Gustavo Castaño, Carlos Pirola. **Oncotarget**. 2017;8(14):22917-22926.
- Mitochondrial genome architecture in non-alcoholic fatty liver disease. Sookoian S, Flichman D, Scian R, Rohr C, Dopazo H, Fernández Gianotti T, San Martino J, Castaño GO, Pirola CJ. J Pathol. 2016;240(4):437-449.
- Serum aminotransferases in nonalcoholic fatty liver disease are a signature of liver metabolic perturbations at the amino acid and Krebs cycle level. Sookoian S, Castano G, Scian R, Gianotti T, Dopazo H, Rohr C, Gaj G, San Martino J, Sevic I, Flichman D, Pirola CJ. **Am J Clin Nutr 2016;103:1–14.**

- Metabolite Signatures of Metabolic Risk Factors and their Longitudinal Changes. Xiaoyan Yin, Subha Subramanian, Christine M. Willinger, Peter Juhasz, Paul Courchesne, Brian H. Chen, Xiaohang Li, Shih-Jen Hwang, Caroline S. Fox, Christopher J. O'Donnell, Pieter Muntendam, Valentin Fuster, Ivana Bobeldijk-Pastorova, Silvia C. Sookoian, Carlos J.Pirola, Neal Gordon, Aram Adourian, Martin G. Larson, Daniel Levy. **The Journal of Clinical Endocrinology & Metabolism. 2016** Apr;101(4):1779-89.
- Mendelian randomisation suggests no beneficial effect of moderate alcohol consumption on the severity of nonalcoholic fatty liver disease. Sookoian S, Flichman D, Castaño GO, Pirola CJ. Aliment Pharmacol Ther. 2016 Dec;44(11-12):1224-1234
- Genetic Variation in *TM6SF2* and the Risk of Nonalcoholic Fatty Liver Disease and Histological Disease Severity. Sookoian S, Castaño GO, Scian R, Mallardi P, Fernández Gianotti T, Burgueño AL, San Martino J, and Pirola CJ. **Hepatology** 2015; 61(2):515-25.
- Circulating microRNA signature in non-alcoholic fatty liver disease: from serum non-coding RNAs to liver histology and disease pathogenesis. Pirola CJ, Fernández Gianotti T, Castaño GO, Mallardi P, San Martino J, Mora Gonzalez Lopez Ledesma M, Flichman D, Mirshahi F, Sanyal AJ, Sookoian S. **GUT** 2015 May;64(5):800-12.
- Epigenetic modification of liver mitochondrial DNA is associated with histological severity of nonalcoholic fatty liver disease. Pirola CJ, Fernández Gianotti T, Burgueño AL, Rey-Funes M, Loidl CF, Mallardi P, San Martino J, Castaño GO, Sookoian S. Gut. 2013;62(9):1356-63.
- Meta-analysis of the influence of I148M variant of patatin-like phospholipase domain containing 3 gene (PNPLA3) on the susceptibility and histological severity of nonalcoholic fatty liver disease. Sookoian S, Pirola CJ. Hepatology. 2011 Jun;53(6):1883-94.
- Epigenetic regulation of insulin resistance in nonalcoholic fatty liver disease: impact of liver methylation of the peroxisome proliferator-activated receptor γ coactivator 1α promoter. Sookoian S, Rosselli MS, Gemma C, Burgueño AL, Fernández Gianotti T, Castaño GO, Pirola CJ. Hepatology. 2010, 52(6):1992-2000.
- Loci from a genome-wide analysis of bilirubin levels are associated with gallstone risk and composition. Buch S, Schafmayer C, Völzke H, Seeger M, Miquel JF, Sookoian SC, Egberts JH, Arlt A, Pirola CJ, Lerch MM, John U, Franke A, von Kampen O, Brosch M, Nothnagel M, Kratzer W, Boehm BO, Bröring DC, Schreiber S, Krawczak M, Hampe J. Gastroenterology. 2010;139(6):1942-1951.
- A nonsynonymous gene variant in the adiponutrin gene is associated with nonalcoholic fatty liver disease severity. Sookoian S, Castaño GO, Burgueño AL, Gianotti TF, Rosselli MS, Pirola CJ. **J Lipid Res.** 2009;50(10):2111-6.
- A1166C angiotensin II type 1 receptor gene polymorphism may predict hemodynamic response to losartan in patients with cirrhosis and portal hypertension. Sookoian S, Castaño G, García SI, Viudez P, González C, Pirola CJ **Am J Gastroenterol**. 2005;100(3):636-42.

EDITORIALS & REVIEWS

- Panomics in MASLD: Unravelling the drivers of disease heterogeneity. Pirola CJ, **Sookoian S.** Clin Mol Hepatol. 2025 Oct 27. doi: 10.3350/cmh.2025.0960. Online ahead of print.
- Focus on Semaglutide 2.4 mg/week for the Treatment of Metabolic Dysfunction-Associated Steatohepatitis. Petta S, Kim K, Targher G, Romeo S, **Sookoian S**, Zheng MH, Aghemo A, Valenti L. Liver Int. 2025 Nov;45(11):e70407. doi: 10.1111/liv.70407.
- From NAFLD to MASLD: Updated Naming and Diagnosis Criteria for Fatty Liver Disease. Rinella ME, **Sookoian S.** J Lipid Res. 2023 Dec 14:100485. doi: 10.1016/j.jlr.2023.100485. Online ahead of print.
- SARS-CoV-2 targets the liver and manipulates glucose metabolism. Pirola CJ, **Sookoian S. Trends Mol Med**. 2023 Jun 7:S1471-4914(23)00115-6.
- Alcohol consumption and metabolic syndrome: Clinical and epidemiological impact on liver disease. Åberg F, Byrne CD, Pirola CJ, Männistö V, **Sookoian S. J Hepatol**. Jan;78(1):191-206
- Genetics in non-alcoholic fatty liver disease: The role of risk alleles through the lens of immune response. **Sookoian S**, Pirola CJ. **Clin Mol Hepatol**. doi: 10.3350/cmh.2022.0318. Online ahead of print.
- Advances in our understanding of the molecular heterogeneity of fatty liver disease: toward informed treatment decision making. Pirola CJ, **Sookoian S. Expert Rev Gastroenterol Hepatol**. 2023 Apr;17(4):317-324.
- Editorial: NAFLD, chronic kidney disease, and pleiotropy-Why is PNPLA3 omnipresent? Pirola CJ, **Sookoian S. Aliment Pharmacol Ther**. 2023 May;57(10):1180-1182. doi: 10.1111/apt.17491

- An international Delphi consensus statement on metabolic dysfunction-associated fatty liver disease and risk of chronic kidney disease. Sun DQ, Targher G, Byrne CD, Wheeler DC, Wong VW, Fan JG, Tilg H, Yuan WJ, Wanner C, Gao X, Long MT, Kanbay M, Nguyen MH, Navaneethan SD, Yilmaz Y, Huang Y, Gani RA, Marzuillo P, Boursier J, Zhang H, Jung CY, Chai J, Valenti L, Papatheodoridis G, Musso G, Wong YJ, El-Kassas M, Méndez-Sánchez N, **Sookoian S**, Pavlides M, Duseja A, Holleboom AG, Shi J, Chan WK, Fouad Y, Yang J, Treeprasertsuk S, Cortez-Pinto H, Hamaguchi M, Romero-Gomez M, Al Mahtab M, Ocama P, Nakajima A, Dai C, Eslam M, Wei L, George J, Zheng MH. **Hepatobiliary Surg Nutr**. 2023 Jun 1;12(3):386-403
- Geographical similarity and differences in the burden and genetic predisposition of NAFLD. Yip TC, Vilar-Gomez E, Petta S, Yilmaz Y, Wong GL, Adams LA, de Lédinghen V, **Sookoian S**, Wong VW. **Hepatology**. 2022 Sep 5. doi: 10.1002/hep.32774. Online ahead of print. PMID: 36062393
- The lipidome in nonalcoholic fatty liver disease: Actionable targets. Pirola CJ, **Sookoian S. J Lipid Res.** 2021 Apr 9:100073. doi: 10.1016/j.jlr.2021.100073.
- NAFLD and Cardiometabolic Risk Factors: The Liver Fibrosis Trajectory Through the Lens of Biological Interactions. Pirola CJ, **Sookoian S. Hepatology**. 2021;73(2):479-482
- Genetic pathways in nonalcoholic fatty liver disease: Insights from systems biology. **Sookoian S**, Pirola CJ, Valenti L, Davidson NO. **Hepatology.** 2020 Jul;72(1):330-346.
- Estimation of Renin-Angiotensin-Aldosterone-System (RAAS)-Inhibitor effect on COVID-19 outcome: A Meta-analysis. Pirola CJ, **Sookoian S**. **J Infect**. **2020**;81(2):276-281.
- Epigenetic factors in non-alcoholic fatty liver disease. Pirola CJ, **Sookoian S**. **Expert Rev Gastroenterol Hepatol**. 2020 Jun 1:1-16. doi: 10.1080/17474124.2020.1765772. Online ahead of print.
- Systematic Review with Meta-Analysis: The Significance of Histological Disease Severity in Lean Patients with Nonalcoholic Fatty liver Disease. Sookoian S, Pirola CJ. **Alimentary Pharmacology & Therapeutics**. 2017, 2018 Jan;47(1):16-25
- Genetics meets Therapy? Exome-wide association study reveals a loss-of-function variant in HSD17B13 (17-beta-hydroxysteroid dehydrogenase 13) that protects patients from liver damage and NAFLD-progression. Sookoian, Si, Arrese, M, Pirola CJ. Hepatology.2018 DOI:10.1002/hep.30209.
- The dual and opposite role of the TM6SF2-rs58542926 Variant in Protecting against Cardiovascular Disease and Conferring Risk for Non-alcoholic fatty liver: A meta-analysis.Pirola CJ and Sookoian S. **Hepatology 2015**; 62 (1742-1756).
- Noninvasive biomarkers in NAFLD and NASH current progress and future promise. Wong VW, Adams LA, de Lédinghen V, Wong GL, **Sookoian S. Nature Rev Gastroenterol Hepatol**. 2018 May 29. doi: 10.1038/s41575-018-0014-9. [Epub ahead of print] Review
- Nonalcoholic Fatty Liver Disease and Metabolic Syndrome: Shared-Genetic basis of Pathogenesis. **Sookoian S** and Pirola CJ. **Hepatology** 2016 Nov;64(5):1417-1420.
- How safe is Moderate Alcohol Consumption in Overweight and Obese Individuals?"
 Gastroenterology's special 14th issue, "Commonalities and Distinctions Between Alcoholic and Nonalcoholic Fatty Liver Disease". Sookoian S and Pirola C. GASTROENTEROLOGY 2016 150(8):1698-1703
- Nonalcoholic fatty liver disease. Brunt E, Wong V, Bugianesi E, Day C, Sookoian S Maher J, Neuschwander-Tetri B, Nobili V, Sirlin C, Rinella M. **Nature Reviews Disease Primers** 2015;1:15080. doi: 10.1038/nrdp.2015.80.
- NAFLD: Metabolic make-up of NASH: from fat and sugar to amino acids. Sookoian S, Pirola CJ. **Nature Rev Gastroenterol Hepatol. 2014** Apr;11(4):205-7. Research Highlights
- PNPLA3, the history of an orphan gene of the potate tuber protein family that found an organ: the Liver. Sookoian S, Pirola CJ. Hepatology. 2014 Jun;59(6):2068-71
- Genome-wide Association Study of Liver-related Enzymes Suggests Putative Pleiotropic Effects on Diverse Traits and Diseases. Kim HS, **Sookoian S**, Hernaez R. **Hepatology**. 2021 Dec;74(6):3529-3533.
- PNPLA3 and COVID-19 outcomes: Thinking outside the box might explain the biology behind pleiotropic effects of rs738409 on the immune system. Pirola CJ, **Sookoian S. Liver Int**. 2021 Nov;41(11):2801-2804
- Editorial: bariatric surgery to reduce the risk of liver cancer. Pirola CJ, **Sookoian S. Aliment Pharmacol Ther**. 2021 May;53(10):1155-1156

• Nonalcoholic fatty liver disease. Brunt E, Wong V, Bugianesi E, Day C, Sookoian S Maher J, Neuschwander-Tetri B, Nobili V, Sirlin C, Rinella M. **Nature Reviews Disease Primers** 2015;1:15080. doi: 10.1038/nrdp.2015.80.

Position statements

- MAFLD: A Consensus-Driven Proposed Nomenclature for Metabolic Associated Fatty Liver Disease. Eslam M, Sanyal AJ, George J; International Consensus Panel. **Gastroenterology**. 2020 Feb 8. pii: S0016-5085(20)30171-2. doi: 10.1053/j.gastro.2019.11.312. [Epub ahead of print]. **International Consensus Panel**: Arun Sanyal, Brent Neuschwander-Tetri, Claudio Tiribelli, David E Kleiner, Elizabeth Brunt, Elisabetta Bugianesi, Hannele Yki-Järvinen, Henning Grønbæk, Helena Cortez-Pinto, Jacob George, Jiangao Fan, Luca Valenti, Manal Abdelmalek, Manuel Romero-Gomez, Mary Rinella, Marco Arrese, Mohammed Eslam, Pierre Bedossa, Philip N Newsome, Quentin M Anstee, Rajiv Jalan, Ramon Bataller, Rohit Loomba, Silvia Sookoian, Shiv K Sarin, Stephen Harrison, Takumi Kawaguchi, Vincent Wai-Sun Wong, Vlad Ratziu, Yusuf Yilmaz, Zobair Younossi.
- A multi-society Delphi consensus statement on new fatty liver disease nomenclature. Rinella ME, Lazarus JV, Ratziu V, Francque SM, Sanyal AJ, Kanwal F, Romero D, Abdelmalek MF, Anstee QM, Arab JP, Arrese M, Bataller R, Beuers U, Boursier J, Bugianesi E, Byrne C, Narro GEC, Chowdhury A, Cortez-Pinto H, Cryer D, Cusi K, El-Kassas M, Klein S, Eskridge W, Fan J, Gawrieh S, Guy CD, Harrison SA, Kim SU, Koot B, Korenjak M, Kowdley K, Lacaille F, Loomba R, Mitchell-Thain R, Morgan TR, Powell E, Roden M, Romero-Gómez M, Silva M, Singh SP, **Sookoian SC**, Spearman CW, Tiniakos D, Valenti L, Vos MB, Wong VW, Xanthakos S, Yilmaz Y, Younossi Z, Hobbs A, Villota-Rivas M, Newsome PN (senior); NAFLD Nomenclature consensus group. Ann Hepatol. 2023 Jun 20:101133. doi: 10.1016/j.aohep.2023.101133. Online ahead of print.
- A multi-society Delphi consensus statement on new fatty liver disease nomenclature. Rinella ME, Lazarus JV, Ratziu V, Francque SM, Sanyal AJ, Kanwal F, Romero D, Abdelmalek MF, Anstee QM, Arab JP, Arrese M, Bataller R, Beuers U, Boursier J, Bugianesi E, Byrne C, Castro Narro GE, Chowdhury A, Cortez-Pinto H, Cryer D, Cusi K, El-Kassas M, Klein S, Eskridge W, Fan J, Gawrieh S, Guy CD, Harrison SA, Kim SU, Koot B, Korenjak M, Kowdley K, Lacaille F, Loomba R, Mitchell-Thain R, Morgan TR, Powell E, Roden M, Romero-Gómez M, Silva M, Singh SP, **Sookoian SC**, Spearman CW, Tiniakos D, Valenti L, Vos MB, Wai-Sun Wong V, Xanthakos S, Yilmaz Y, Younossi Z, Hobbs A, Villota-Rivas M, Newsome PN; NAFLD Nomenclature consensus group. **J Hepatol**. 2023 Jun 20:S0168-8278(23)00418-X. doi: 10.1016/j.jhep.2023.06.003. Online ahead of print.
- A multi-society Delphi consensus statement on new fatty liver disease nomenclature. Rinella ME, Lazarus JV, Ratziu V, Francque SM, Sanyal AJ, Kanwal F, Romero D, Abdelmalek MF, Anstee QM, Arab JP, Arrese M, Bataller R, Beuers U, Boursier J, Bugianesi E, Byrne C, Castro Narro GE, Chowdhury A, Cortez-Pinto H, Cryer D, Cusi K, El-Kassas M, Klein S, Eskridge W, Fan J, Gawrieh S, Guy CD, Harrison SA, Kim SU, Koot B, Korenjak M, Kowdley K, Lacaille F, Loomba R, Mitchell-Thain R, Morgan TR, Powell E, Roden M, Romero-Gómez M, Silva M, Singh SP, **Sookoian SC**, Spearman CW, Tiniakos D, Valenti L, Vos MB, Wong VW, Xanthakos S, Yilmaz Y, Younossi Z, Hobbs A, Villota-Rivas M, Newsome PN; NAFLD Nomenclature consensus group. **Hepatology.** 2023 Jun 24. doi: 10.1097/HEP.0000000000000520. Online ahead of print. PMID: 37363821.
- A global research priority agenda to advance public health responses to fatty liver disease. Lazarus JV, Mark HE, Allen AM, Arab JP, Carrieri P, Noureddin M, Alazawi W, Alkhouri N, Alqahtani SA, Arrese M, Bataller R, Berg T, Brennan PN, Burra P, Castro-Narro GE, Cortez-Pinto H, Cusi K, Dedes N, Duseja A, Francque SM, Hagström H, Huang TT, Wajcman DI, Kautz A, Kopka CJ, Krag A, Miller V, Newsome PN, Rinella ME, Romero D, Sarin SK, Silva M, Spearman CW, Tsochatzis EA, Valenti L, Villota-Rivas M, Zelber-Sagi S, Schattenberg JM, Wong VW, Younossi ZM; Healthy Livers, Healthy Lives Collaborators. J Hepatol. 2023 Sep;79(3):618-634. doi: 10.1016/j.jhep.2023.04.035. Epub 2023 Jun 20.

Selected invited presentations.

Conference title: *Promises and Pitfalls of Precision Medicine in MASLD and MASH*. Kuala Lumpur. Malasya. 2025. Program of international academic exchange.

Conference title: Microbiome analyses of MASLD. American Association for the Study of Liver Disease (AASLD), The Liver Meeting 2025 in Washington, DC (November 7-11, 2025).

Conference title: New drug Discovery based on OMICS. KASL 2025. Gyeongju. South Korea.

Conference title: *Promises and Pitfalls of Precision Medicine in MASLD and MASH*. Alberta wide hepatology/gastroenterology evening webinar. June 24, 2024.

Conference title: *Epigenetic Changes in Progression from MASH to Fibrosis*. Keystone Symposia MASH and Fibrosis: From Molecular Phenotypes to Precision Therapeutics. Fairmont Banff Springs, Banff, AB, Canada • March 3 - March 6, 2024

Conference title: Targeted pathways in NASH cirrhosis. Emerging topic conference. American Association for the Study of Liver Diseases AASLD. Los Angeles, USA, **2023**.

Conference title: Challenges in Diagnosis of MASLD in Latin America. Session Title: Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD): Global Variances and Therapeutic Approach. The Liver Meeting. Boston, Massachusetts, USA. **2023**

Conference title: COVID-19 and NASH Cirrhosis: Disease Mechanisms, and the Crosstalk with Immune Response. 9th Joint Conference of Univ. Chicago and PUMCH Liver Surgery. Beijing, China Sept 8th-9th, **2023**.

Conference title: Targeted pathways in NASH cirrhosis. Emerging topic conference. American Association for the Study of Liver Diseases AASLD 2023. Los Angeles, USA, **2023**

Conference title: NAFLD from genes to tissue OMICS. Northwestern Jon Fryer MD CTC Lecture Series. March **2023**. Northwestern University, Chicago, USA. Virtual

Conference title: risk factors and mechanisms of non-alcoholic fatty liver disease "London Global Cancer Week, The Lancet Gastroenterology & Hepatology, in conjunction with The Lancet Regional Health - Americas webinar entitled Fatty liver disease in Latin America: an emerging public health threat. Virtual. November 16, **2022**

Conference title: Epigenetics and Liver Disease. Basic research Symposium. American Association for the Study of Liver Diseases (AASLD. The Liver Meeting 2022 in-person event held November 4 - 8, **2022**. Washington DC. USA

Conference title: Precision medicine applied to NAFLD. Meet the Expert sessions at The Liver Meeting. American Association for the Study of Liver Diseases (AASLD. The Liver Meeting 2022 in-person event held November 4 – 8, **2022**. Washington DC. USA

Conference title: "Stigma, Alcohol Use and Drivers of Disease". Pan-society Presentation of NAFLD Nomenclature Consensus Process." The Liver Meeting 2022 in-person event held November 4 – 8, 2022. Washington DC.

Conference title: The Basics of Genetics in NAFLD. Non-alcoholic Fatty Liver Disease SIG webinar. American Association for the Study of Liver Diseases AASLD 2021. Virtual.

Conference title: NAFLD from genes to tissue OMICS. GI Division at Tufts Medical Centre. Boston MA. USES. September 2021. Virtual

Conference title: Genetics-based precision medicine in NAFLD. NAFLD symposium of The Korean Association for the Study of the Liver (KASL). South Korea, October 16, 2021. Virtual

Conference title: Genetic Polymorphism and Immunologic Changes in NAFLD. NAFLD symposium of The Korean Association for the Study of the Liver (KASL). South Korea. October 8, 2022, Virtual

Conference title: Single Cell Research in Latin America: From cell to tissues to complex diseases: Perspectives from the physician. HCA LATIN AMERICA FRAMEWORK MEETING24–25 SEPTEMBER, 2020. Virtual Meeting. Broad Institute MIT USA.

Conference title: The pathogenesis of NAFLD: from genes to Tissue Omics. Washington University School of Medicine. St Louis. USES. Virtual. January 15, 2021.

Conference title: Noninvasive Diagnosis of Fatty Liver Disease. 19th International Congress of Endocrinology - ICE Virtual 2021. VIRTUAL, Argentina

Conference title: NAFLD: from genes to Tissue Omics. Fondazione Italiana Fegado, The Yellow Webinars. Trieste, Italy. Virtual. April 21, 2021.

Conference title: Personalized Medicine in Nonalcoholic Fatty Liver Disease: From Genetics and Systems Biology. KASL Symposium 1. Personalized Medicine in Liver Diseases: "Present and Future". The Liver Week 2021. Seoul, Korea. May 2021.

Conference title: NAFLD and Type 2 Diabetes. International Symposium. Imaging techniques to explore obesity-related medical complications. Santiago de Chile. 2011. Catholic University. School of Medicine.

Conference title: What is the role of genetic markers and lifestyle in NAFLD? UNITED EUROPEN GASTROENTEROLY WEEK (UEG). Amsterdam, Netherlands, 2012-11-02

Conference title: Genetic predisposition in NAFLD. Evolving mechanisms and emerging Therapeutics. Korean Association for the Study of the Liver (KASL) Seoul, South Korea, September 2016

Conference title: The epigenome in NAFLD. Steatosis and Steatohepatitis SIG Program. The Liver Meeting 2016 Annual Meeting of the American Association for the Study of Liver Diseases. Boston USA 2016.

Conference title: 8th Joint Conference of Univ. Chicago & PUMCH Liver 2019. Genetics of NAFLD and personalized medicine. Beijing CHINA, 2019.

Conference title: Epigenetic signatures increasing the risk of fatty liver disease. International Liver Congress 2020. European Association for the Study of the Liver (EASL). digital event

Course Director International Events

- 1. Program Chair SIG NAFLD-ALD: NAFLD and ALD in the Era of Integrative OMICS and Precision Medicine. Liver Meeting 2016. AASLD. Boston USA.
 - 2. Program Chair SIG NAFLD 2021. Precision medicine in evaluation and treatment of NAFLD. American Association for the Study of Liver Diseases. Los Angeles, USA.
 - 3. Keystone Symposia MASH and Fibrosis: From Molecular Phenotypes to Precision Therapeutics, being held at the Fairmont Banff Springs, Banff, AB, Canada March 3 7, 2024.