

## **Personal data**

First Name and Surname: Andrea Ferrigno

Year of Birth: 1973

Italian Nationality

Current position: Associate Professor of Pharmacology, University of Pavia

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## **Academic and Institutional Duties**

Member of the Board of Education of the PhD in Medical Sciences, University of Pavia.

Member of the Joint Committee of Students and Professors of the Department of Internal Medicine and Therapy, University of Pavia.

Member of the Technical-Scientific Committee of the Local Animal Facility.

Coordinator of the course “Drug Discovery and Actions”, Faculty of Medicine, Department of Internal Medicine and Therapy, University of Pavia

## **Grants**

### Public “OpnMe” Grant sponsored by Boehringer (2018-2021) (as Principal Investigator)

Aim of the Project was to evaluate the therapeutic potential of a novel “MitochondriaComplex I ROS modulator” in a rat model of steatohepatitis. The project was considered superior over other competitors by a Committee of Experts and funded with 27000€ for the first step.

### Public Grant sponsored by Intercept Pharmaceuticals (as Partecipant)

Aim of the Project was to evaluate the therapeutic potential of Obeticholic acid and of a novel FXR agonist in a model of steatohepatitis using ob/ob mice fed with high-fat diet. The project was judged superior over other competitors by a Committee of Experts and funded with 25000€ for the first step.

### 2011-2012 Giovani Ricercatori Ricerca Finalizzata (as Scientific Coordinator of the Research Unit)

The project, titled “Effect of proteasome and VEGF receptor inhibitors on NKG2D ligand expression on hepatocellular carcinoma cells: implications for immunotherapy of liver cancer” (Rif: GR-2011-02349273) was funded with 200000€.

### Grant Cariplo 2011 (Rif 2011-0439) (as Partecipant)

The project, titled “Real time monitoring of liver oxidative stress injuries by means of an innovative methodology based on integrated autofluorescence optical biopsy. Application to transplantation procedure” was funded by Fondazione Cariplo with 150000€.

### DAAD RISE International (Principal investigator)

Aim of the project was to evaluate the mGluR5 receptor role in lipid uptake and metabolism, in an in vitro model of NAFLD. The German ministry of Instruction supported the project in 2019 and 2016 with two internships.

## **Metrics overview (Scopus, 2023)**

Documents by author: 83

Citations by 909 documents: 1352

h-index: 22

## Publications

Coauthor of 83 research products published in International Journals with Impact Factor, including 68 research articles, 7 review articles, 2 letters, 2 editorials, and 1 book chapter. AF is **last author** in 7 articles; first author in 21 articles; second author in 25 articles.

Coauthor of more than 50 Meeting Abstracts.

Author of the book chapter “Molecular Targets in Liver Disease”, Chapter 52, on “Liver Diseases - A Multidisciplinary Textbook”, Springer 2020. ISBN 978-3-030-24432-3

Editor of the Italian edition of “Pharmacology at a Glance” – 6th Edition – Wiley-Blackwell.

Author of the Book “Farmaci Chemioterapici – Antibatterici, antivirali, antifungini e antineoplastici”. Ed: Medea Universitaria, ISBN: 8866930571.

## Selected for oral communications

**Oral poster presentation** EASL- I.L.C. European Association for the Study of the Liver International Liver Congress, April 10-14, 2019, in Vienna, Austria: “Obeticholic acid reduces matrix metalloproteinases activity via iNOS modulation in hepatic ischemia/reperfusion injury”.

**Oral communication** EASL - International Liver Congress, April 13-17, 2016, in Barcelona, Spain. “The farnesoid-X-receptor agonist obeticholic acid further increases biliary excretion of asymmetric dimethylarginine during hepatic ischemia/reperfusion injury.”

**Oral communication** 40th National Congress of SIF Società Italiana di Farmacologia. MPEP, a selective mGluR5 negative allosteric modulator, attenuates fat accumulation in an in vitro model of benign steatosis.

**Oral Communication** 40th National Congress of SIF Società Italiana di Farmacologia. SerpinB3: a novel target for treating hepatic ischemia/reperfusion injury.

**Oral Communication** 39th National Congress of SIF Società Italiana di Farmacologia. The mGlu5 receptor antagonist MPEP protects against cold ischemia injury in rat livers obtained from donor after cardiac death. Firenze 2019

**Oral communication** 39th National Meeting SIF Società Italiana di Farmacologia. Oral presentation. “Early and transient activation of MAPKs and matrix metalloproteinases contributes to hepatic ischemia/reperfusion injury”. Firenze 2019

**Invited Oral Communication:** Liver Gymnasium 5. September 24, 2018, Padova, Italy. “Obeticholic acid administration reduces bile duct injury after hepatic ischemia/reperfusion”.

**Invited Oral Communication:** Liver Gymnasium 4. November 29, 2017. Padova. “Fatty liver graft susceptibility and lipidomic profiling during static cold storage versus dynamic machine perfusion preservation”.

**Oral Communication** Annual Meeting A.I.S.F. – Associazione Italiana per lo Studio del Fegato, February 23rd-24th, 2017, Rome, Italy. “Fatty liver susceptibility to preservation injury using static cold storage versus dynamic machine perfusion”.

**Oral Communication** AISF conference 2010: "Biliary excretion of asymmetric (ADMA) and symmetric (SDMA) dimethylarginine during ischemia/reperfusion injury". DIGESTIVE AND LIVER DISEASE Volume: 42 Supplement: 4.

**Oral Communication** 42th Annual Meeting AISH -Associazione Italiana per lo Studio del Fegato: "Machine perfusion at 20 °C reduces preservation damage of livers from non-heart beating donors: A new chance for expanding the donor pool?". Annual Meeting, Rome, 18-21 February 2009.

## Awards

### International Awards

**Registration Bursary** EASL- D.I.L.C. European Association for the Study of the Liver International Liver Congress, August 27-29, 2020, in London, United Kingdom. “The fxr agonist obeticholic acid decreases matrix metalloproteinase activity via reck and timp modulation in hepatic ischemia/reperfusion injury”.

**Registration Bursary** EASL-DILC (Digital International Liver Congress). April 27-29, 2020. "Hepatic ischemia induces a time-dependent increase in SERPINB3 gene expression". Journal of Hepatology.

**Full Bursary award** EASL NAFLD Summit, September 26-28, 2019, in Sevilla, Spain. "Selective modulation of mGlu5 receptor affects oleic and palmitic acid-induced steatosis in HepG2 cells".

**Registration Bursary award** EASL- I.L.C. European Association for the Study of the Liver International Liver Congress, April 10-14, 2019, in Vienna, Austria. "Obeticholic acid reduces matrix metalloproteinases activity via iNOS modulation in hepatic ischemia/reperfusion injury".

**Registration Bursary** EASL-ILC (International Liver Congress). April 11-15, 2018, in Paris, France. "Negative allosteric modulators of metabotropic glutamate receptor subtype 5 protect against hepatic ischemia/reperfusion injury". Journal of Hepatology.

**Full Bursary award** EASL NAFLD Summit: September 20-22, 2018, in Geneva, Switzerland. "Changes in liver fatty acid delta-9, delta-6 and delta-5 desaturase activities in two animal models of hepatic steatosis."

**Registration award:** EASL-I.L.C. European Association for the Study of the Liver-International Liver Congress, April 19-23, 2017, in Amsterdam, Netherlands. "Upregulation of MATE-1 transporter by obeticholic acid correlates with increased biliary excretion of asymmetric dimethylarginine during hepatic ischemia/reperfusion injury".

**Registration Bursary** EASL-ILC (International Liver Congress). April 13-17, 2016, in Barcelona, Spain. "Selective blockade of metabotropic glutamate receptor by MPEP protects against hepatic cold ischemia and reperfusion injury". Journal of Hepatology.

**Full Bursary award** EASL Monothematic Conference: "Liver Fibrosis: The next goal in targeted therapy." June 17-18, 2016. Porto, Portugal. "Alteration in cationic amino acid transporters and oxidative stress in the development of NASH."

**Full Bursary Award** EASL Conference: "Microbiota, Metabolism and NAFLD", February 26-28, 2015, in Innsbruck, Austria. "Pathogenesis of NAFLD: mitochondria damage, oxidative stress and matrix metalloprotease activation in two animal models of hepatic steatosis".

**Full Bursary award** EASL Conference: "Microbiota, Metabolism and NAFLD", February 26-28, 2015, in Innsbruck, Austria. "Changes in serum levels of asymmetric-dimethylarginine (ADMA) in a rat model of NAFLD: role of cationic transporters."

### National Awards

**Bursary award**, Liver Gymnasium 5. September 24, 2018, Padova, Italy. "Obeticholic acid administration reduces bile duct injury after hepatic ischemia/reperfusion".

**Bursary award** in Liver Gymnasium 5. September 24, 2018. Padova. "Pathogenesis of NAFLD: changes in liver fatty acid delta-9, delta-6 and delta-5 desaturase activities in two animal models of hepatic steatosis".

**Bursary award** in Liver Gymnasium 4. November 29, 2017. Padova. "ATP-independent improvement of isolated rat hepatocytes viability in warm ischemia injury by mGluR5 negative allosteric modulators treatment."

**Bursary award** in Liver Gymnasium 4. November 29, 2017. Padova. "Obeticholic Acid suppresses iNOS induction and upregulates MATE-1 transporter, promoting biliary excretion of Asymmetric Dimethylarginine, after hepatic Ischemia/Reperfusion injury."

**Bursary award** in Liver Gymnasium 3. September 21-23, 2016. Padova. "The role of metabotropic glutamate receptor in hepatic cold ischemia and reperfusion injury implications for mGluR5 allosteric modulators as novel therapeutic strategies."

**Bursary award** Liver Gymnasium 3. September 21-23, 2016. Padova. "Obeticholic acid induces changes in biliary excretion of asymmetric dimethylarginine and its transporters during hepatic ischemia/reperfusion injury".

### **Reviewer of International Research Projects**

French National Research Agency (ANR) (2019)

National Science Centre (Narodowe Centrum Nauki – NCN, Poland) (2019).

National Science Centre (Narodowe Centrum Nauki – NCN, Poland) (2020).

### **Member of Scientific Societies**

Memberships: Società Italiana di Farmacologia (SIF); Associazione Italiana Studi sul Fegato (AISF); and the European Association for the Study of the Liver (EASL).

### **Editorial activity and Peer Reviewing**

#### Guest Editor

Since 2019 AF is **Guest Editor** of the permanent special Issue "Innovative Molecular Target and Therapeutic Approaches in Nonalcoholic Fatty Liver" on the Journal "International Journal of Molecular Sciences", IF 5.6.

In 2015 AF was **Guest Editor** of the special Issue "Innovative Pharmacological/Therapeutic Approaches against Hepatic Ischemia/Reperfusion Injury" on the Journal Biomed Research International (IF 1.58).

#### Invited reviewing activity

AF was invited to review articles submitted to prestigious international journals including: Pharmacological Reports, Scientific Reports, Pathophysiology, IUBMB Life, International Journal of Molecular Sciences, European Journal of Pharmacology, Metabolism, World Journal of Gastroenterology, Cells, Metabolites, Biomedicines, Journal of Clinical Medicine, Bioengineering.

Il sottoscritto, consapevole che – ai sensi dell'art. 76 del D.P.R. 445/2000 – le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono puniti ai sensi del codice penale e delle leggi speciali, dichiara che le informazioni rispondono a verità.

Il sottoscritto dichiara di aver ricevuto l'informativa sul trattamento dei dati personali.

Andrea Ferrigno

Pavia, 28.08.2023