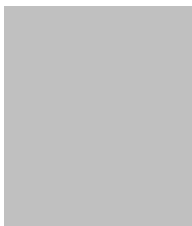


## PERSONAL INFORMATION

## Alessia Pascale



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🌐 <https://www.researchgate.net/profile/Alessia-Pascale>

Sex: Female | *Nationality*: Italian

*Position*: Full Professor of Pharmacology

Chair in Pharmacology & Pharmacotherapeutics 2, School of Pharmacy; teacher of Pharmacology, School of Chemistry, University of Pavia.

## WORK EXPERIENCE

**From Nov 2021 to present:** Permanent position as FULL PROFESSOR at the Dept of Drug Sciences, Section of Pharmacology, Univ. of Pavia.

**From Nov 2014 to Ott 2021:** Permanent position as ASSOCIATE PROFESSOR at the Dept of Drug Sciences, Section of Pharmacology, Univ. of Pavia.

**From Nov 2005 to Oct 2014:** Permanent position as AGGREGATE PROFESSOR at the Dept of Drug Sciences, Section of Pharmacology, Univ. of Pavia.

**From Mar 2002 to Oct 2005:** Permanent position as ASSISTANT PROFESSOR at Dept. of Experimental and Applied Pharmacology, Univ. of Pavia.

**From Nov 2000 to Feb 2002:** SENIOR RESEARCHER at the *Laboratory of Pharmacogenetic and Pharmacological Biotechnologies applied to neurodegenerative diseases*, Dept of Exptl. and Applied Pharmacology, Univ. of Pavia.

**From Oct 1998 to Oct 2000:** POSTDOCTORAL VISITING FELLOW at the NINDS, NIH, Bethesda MD, USA.

**From May 1997 to Sept 1998:** POSTDOCTORAL FELLOW at Georgetown Univ. Medical Center, Washington DC, USA.

**From July 1992 to Apr 1997:** FELLOW at the Laboratory of Neuropharmacology and Neurotoxicology, Univ. of Milan.

Business or sector: Pharmacology/Neurosciences

## EDUCATION AND TRAINING

Replace with dates (from - to)

**From Aug to Sept 2005:** VISITING SCIENTIST at Blanchette Rockefeller Institute, Johns Hopkins Univ., Rockville MD, USA.

**From Oct to Dec 2004:** VISITING SCIENTIST at Blanchette Rockefeller Institute, Johns Hopkins Univ., Rockville MD, USA.

**From June to Aug 2002:** VISITING SCIENTIST at Blanchette Rockefeller Institute, Johns Hopkins Univ., Rockville MD, USA.

**From May to July 2001:** VISITING SCIENTIST at Blanchette Rockefeller Institute, Johns Hopkins Univ., Rockville MD, USA.

**1999:** PhD in Biotechnologies applied to Pharmacology, School of Pharmacy, Univ. of Milan.

**From Sept to Dec 1994:** STAGE at the Laboratoire de Neurosciences Comportementales et Cognitives, CNRS, University of Bordeaux I, France.

**1994:** Specialization *cum laude* in Pharmacology, Univ. of Milan.

**1992:** Degree *cum laude* in Pharmaceutical Chemistry and Technology, School of Pharmacy, Univ. of Milan.

## WORK ACTIVITIES

### Awards/Qualifications

**2022:** "GLOBAL 3RS AWARD" from AAALAC International for the work published on PLoS One [15(11): e0242627] in 2020 (<https://www.aaalac.org/awards/global-3rs-winners/>).

**2017:** Qualifying examination for FULL PROFESSOR (05/G1 – Farmacologia, Farmacologia Clinica e Farmacognosia – SSD BIO/14 – FARMACOLOGIA).

**2015:** Price Best scientific paper 2013 as pre-clinic research for the paper: Milani P. et al., Neurobiol Dis. 60C: 51-60, 2013 by the "Istituto Neurologico Nazionale Casimiro Mondino".

**2014:** Qualifying examination for ASSOCIATE PROFESSOR (05/G1 – Farmacologia, Farmacologia Clinica e Farmacognosia – SSD BIO/14 – FARMACOLOGIA).

**2012:** *Una tantum award* for academic and scientific merits.

**2011-present:** Her short biography is included in the prestigious publication "Who is who in the World".

**2002:** Research fellowship in "Biological, agrarian and veterinarian sciences" from the Univ. of Pavia.

**1999:** Fellowship from the Società Italiana di Farmacologia for a short stage abroad.

**Oct 1998-Oct 2000:** Post-doctoral Visiting Fellowship from the NIH Visiting Program.

**May 1997-Sep 1998:** Postdoctoral fellowship from Georgetown Univ. Medical Center, Washington DC, USA.

**1994:** License (State certification exam) for Pharmacist profession.

**1989/90:** University taxes exemption for school merits.

**Editorial activity**    **2022-2023:** *Section Editor* for the book *Farmacologia* curated by Govoni S., Casa Editrice Ambrosiana.

**2022-present:** *Editorial Board member* for *International Journal of Molecular Sciences*.

**2018:** *Section Editor* for the section: "Functional Anatomy and Molecular Basis of the Cardiac-Brain Axis" for the Reference Book entitled: "Brain and Heart Dynamics". Eds. Vanoli E., Govoni S., Politi P. published by SPRINGER.

**2017-2018:** Scientific Supervisor and Coordinator of the authors involved in the writing of the educational material for the following ECM FAD course "Il microbiota: alleato o nemico della salute?" (The microbiota: allied or enemy of the health?) published on *Farmacia News*, Ed. TECNICHE NUOVE SpA.

**2016-2017:** Scientific Supervisor and Coordinator of the authors involved in the writing of the educational material for the following ECM FAD course "Anziano e Politerapia" (Elderly and Polytherapy) published on *Farmacia News*, Ed. TECNICHE NUOVE SpA.

**2015-2016:** Scientific Supervisor and Coordinator of the authors involved in the writing of the educational material for the following ECM FAD course "Novità in Farmacoterapia" (News in Pharmacotherapy) published on *Farmacia News*, Ed. TECNICHE NUOVE SpA.

**2009-present:** Review Editor for *Frontiers in Aging Neuroscience*.

**Invited presentations  
(last 10 years)**

"NUTRACEUTICI E MICROBIOTA" - CONGRESSO LOMELLINA DIABETE XI<sup>A</sup> EDIZIONE - Il trattamento innovativo del diabete: oltre la glicemia. Frazione Sforzesca – Vigevano (PV), November 30, 2019.

"A NEW STRATEGY TO COUNTERACT DIABETIC RETINOPATHY: THE HUR/VEGF CASCADE". Conference: RNA METABOLISM IN NEUROLOGIC DISEASES. Interplay between RNA binding proteins and non-coding RNAs. SESSION II: ELAV PROTEINS. Pavia, June 27-28, 2019.

"OCCHI PUNTATI SU HUR/VEGF: UNA NUOVA STRATEGIA TERAPEUTICA PER CONTRASTARE LA RETINOPATIA DIABETICA?" Sessione 5. Ricerca di Base (I). IT-ARVO CHAPTER MEETING - TERAPIE AVANZATE IN OFTALMOLOGIA. Catania, February 15-16, 2019.

"MICROBIOTA E TERAPIA DEL DIABETE" - CONGRESSO LOMELLINA DIABETE X<sup>A</sup> EDIZIONE: Il sistema diabete: focus sugli organi che vi gravitano attorno. Frazione Sforzesca – Vigevano (PV), November, 17, 2018.

"HUR PROTEIN AND DIABETIC RETINOPATHY". A. Pascale. ELAVENICE 2018 – ELAV proteins in physiology and disease. Venezia, September 13-15, 2018.

"THE ELAV PROTEINS: A NEW TARGET FOR NEUROREGENERATION?" Pascale A. WORKSHOP - TISSUE REPAIR: FROM BIOCHEMICAL MECHANISMS TO FORMULATION APPROACHES. Pavia, March 10, 2016.

"PROTEINE ELAV E CONTROLLO POST-TRASCRIZIONALE". SESSIONE 30, Simposio SMO: "Plasticità Cerebrale e occhio: nuove frontiere", Società Oftalmologica Italiana, 12° Congresso Internazionale – Milan, May 21-24, 2014.

"CONTROLLO POST-TRASCRIZIONALE DI VEGF: UN NUOVO BERSAGLIO NELLA RETINOPATIA DIABETICA?" Pascale A. Sessione V. *Farmacologia sperimentale preclinica: hot issues in Farmacologia Oculare (II)*. IT-ARVO CHAPTER MEETING - FARMACOLOGIA OCULARE: LA RICERCA TRASLAZIONALE. Catania, February 6-7, Italy, 2012.

### Grants (last 10 years)

**2022** Edmond Pharma S.r.l. (Recipharm)

**2021** Edmond Pharma S.r.l. (Recipharm)

**2021** – ROCHE (in collaboration with Fondazione Istituto Neurologico Casimiro Mondino, Pavia)

**PRIN 2020:** Unit chief of a MIUR Grant for the project: "New pharmacological targets to cure disabling retinal diseases".

**2019** Bausch & Lomb – IOM S.p.A.

**2018** Biogen Italia S.R.L. (in collaboration with Fondazione Istituto Neurologico Casimiro Mondino, Pavia).

**2017** I-CARE - Grant from I-CARE EUROPE for the project: "Next-generation in vitro testing tools to explore the neuro-immune cross-talk between nervous and cardiovascular systems".

**PRIN 2015:** Participant in a MIUR Grant for the project: "Early neuroprotective and anti-inflammatory treatment to prevent the development of diabetic retinopathy".

**2012** Bausch & Lomb – IOM S.p.A.

### Patents

"ERDOSTEINE, SALTS, ENANTIOMERS OR METABOLITES THEREOF FOR USE IN THE TREATMENT OF ACUTE AND CHRONIC PAIN STATES" – INVENTORS: Govoni S., Allegri M., Marchesi N., Pascale A. – International patent application n°EP22188031, Application date: 01/08/2022.

"N-ACETYL CYSTEINE AS INHIBITOR OF THE TRKA TYROSIN KINASE RECEPTOR FOR INTRA-AXIAL USE FOR ACUTE AND CHRONIC PAIN TREATMENT" – INVENTORS: Fantucci P., Govoni S., Pascale A., Marchesi N., Allegri M., Vanoli E., Calvillo L., Reggiani P., Pace V. - Ministero dello Sviluppo Economico - Application n°: 102021000010181, Application date: 21/04/2021.

"PEPTIDES WITH AGONIST ACTIVITY ON TrkA RECEPTOR AND/OR PEPTIDES WITH ANTAGONIST ACTIVITY ON NGF" – INVENTORS: Fantucci P, Govoni S, Pascale A, Marchesi N, Vanoli E, Vertemara J, Vitriolo AC - Ministero dello Sviluppo Economico, UIBM - Application n°: 102016000086689; Application date: 23/08/2016.

KIT TO DETECT THE CONTENT OF NGF IMMUNE-REACTIVE MATERIAL IN THE PLASMA" – INVENTORS: Marchesi N, Pascale A, D'Elia E, Vanoli E, Govoni S - Ministero dello Sviluppo Economico, Ufficio Italiano Brevetti e Marchi (UIBM). Application n°: 102016000014299; Application date: 11/02/2016.

### Third Mission activity

**2021-present:** Founder Member of the Redyneuheart s.r.l. START-UP.

**2016-present:** Official Member of the Neuheart S.r.l. Scientific Committee

**2014:** MIUR GRANT (GU Serie Generale n.92 del 19-4-2014) to Neuheart S.r.l. (516.456,90 euros) for a research project n. 1/9 entitled: "Sviluppo di farmaci agonisti ed antagonisti delle neurotrofine" (Development of agonist and antagonist drugs of neurotrophins).

**2011-present:** Participation to the academic spin-off Neuheart S.r.l.

### PERSONAL SKILLS

Mother tongue(s)	ITALIAN
Other language(s)	ENGLISH - FRENCH

- Current Institutional activities
- April 2020-present:** Member of the Faculty Board of the PhD Program in “Biomedical Sciences”, University of Pavia.
  - June 2018-present:** Member of the Faculty Board of the International Master in “Nanomedicines for drug delivery”.
  - Apr 2013-present:** Member of the “Research Committee and Third Mission” of the Drug Sciences Dept.
  - Feb 2015-present:** Representative for the University of Pavia in the Scientific Technical Committee of the Interuniversity Research Center on interactions between electromagnetic fields and biosystems (ICEmB).
  - Dec 2010-present:** Department representative in the Scientific Technical Committee for the “Interdepartmental Center of Gender studies”; February 2011-May 2014: Vice-President of the same Center.
  - Oct 2010-present:** Department representative in the Scientific Technical Committee for the “Center of History”.

## ADDITIONAL INFORMATION

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### Statement of Research Interests

Molecular pharmacology and neuropharmacology fields. The research is especially addressed to signal transduction mechanisms, with a focus on the RNA-stabilizing proteins ELAV in different physiologic and pathologic contexts, such as multiple sclerosis, memory and cognitive alterations associated to aging and Alzheimer’s disease, diabetic retinopathy, oxidative stress, and more recently in dysbiosis.

**Publications** Total number of publications in peer-review journals: **109**  
 Total number of scientific communications: **133**  
 Book chapters: **8**  
 Total number of citations: **4051** (Scopus); **5497** (Google Scholar) up to 31/01/2023.  
 H index: **38** (Scopus); **42** (Google Scholar) up to 31/01/2023.

**SELECTED PUBLICATIONS (max 10):**

-“EFFECT OF TROXERUTIN IN COUNTERACTING HYPERGLYCEMIA-INDUCED VEGF UPREGULATION IN ENDOTHELIAL CELLS: A NEW OPTION TO TARGET EARLY STAGES OF DIABETIC RETINOPATHY?” Fahmideh F., Marchesi N., Campagnoli L.I.M., Landini L., Barbieri A., Govoni S., **Pascale A.** *Frontiers in Pharmacology*, Section “Experimental Pharmacology and Drug Discovery” 13: 951833, 2022.

-“THE ROLE OF GUT MICROBIOTA IN OBESITY, DIABETES MELLITUS AND EFFECT OF METFORMIN: NEW INSIGHTS INTO OLD DISEASES”. **Pascale A.**, Marchesi N., Govoni S., Coppola A., Gazzaruso C. *Current Opinion in Pharmacology* 49: 1-5, 2019.

-“TARGETING VEGF IN EYE NEOVASCULARIZATION: WHAT’S NEW? A COMPREHENSIVE REVIEW ON CURRENT THERAPIES AND OLIGONUCLEOTIDE-BASED INTERVENTIONS UNDER DEVELOPMENT”. Amadio M., Govoni S., **Pascale A.** *Pharmacol Res.* 103:253-69, 2016.

-“NANOSYSTEMS BASED ON siRNA SILENCING HUR EXPRESSION COUNTERACT DIABETIC RETINOPATHY IN RAT”. Amadio M., **Pascale A.\***, Cupri S., Pignatello R., Osera C., D’Agata V., D’Amico A.G., Leggio G.M., Ruozi B., Govoni S., Drago F., Bucolo C. *Pharmacol Res.* 111:713-20, 2016. IF=4.480 \*co-autorship

-“THE COMPLEX WORLD OF POST-TRANSCRIPTIONAL MECHANISMS: IS THEIR Deregulation A COMMON LINK FOR DISEASES? FOCUS ON ELAV-LIKE RNA-BINDING PROTEINS”. **Pascale A.** and Govoni S. *Cell. Mol. Life Sci.* 69(4): 501-517, 2012.

-“THE PKC $\beta$ /HUR/VEGF PATHWAY IN DIABETIC RETINOPATHY”. Amadio M., Bucolo C., Leggio G.M., Drago F., Govoni S. and **Pascale A.** *Biochem. Pharmacol.* 80: 1230-1237, 2010.

-“NEURONAL ELAV PROTEINS ENHANCE mRNA STABILITY BY A PKC $\alpha$ -DEPENDENT PATHWAY”. **Pascale A.**, Amadio M., Scapagnini G., Lanni C., Racchi M., Provenzani A., Govoni S., Alkon D.L. and Quattrone A. *Proc. Natl. Acad. Sci. USA.* 102(34): 12065-12070, 2005.

-“INCREASE OF THE RNA-BINDING PROTEIN HUD AND POST-TRANSCRIPTIONAL UP-REGULATION OF THE GAP-43 GENE DURING SPATIAL MEMORY”. **Pascale A.**, Gusev P.A., Amadio M., Dottorini T., Govoni S., Alkon D.L. and Quattrone A. *Proc. Natl. Acad. Sci. USA.* 101(5): 1217-1222, 2004.

-“POST-TRANSCRIPTIONAL REGULATION OF GENE EXPRESSION IN LEARNING BY THE NEURONAL ELAV-LIKE mRNA STABILIZING PROTEINS”. Quattrone A., **Pascale A.**, Noguès X., Zhao W., Gusev P.A., Pacini A. and Alkon D.L. *Proc. Natl. Acad. Sci. USA.* 98(20): 11668-11673, 2001.

-“THE ROLE OF AN ANCHORING PROTEIN RACK1 IN PKC ACTIVATION IN THE AGEING RAT BRAIN”. Battaini F., **Pascale A.**, Paoletti R. and Govoni S. *Trends in Neurosci.* 20(9): 410-415, 1997.