

CURRICULUM VITAE

PERSONAL INFORMATIONS

Name Luca Vedovelli
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EDUCATION

- April 2012 **PhD in "Molecular and Cellular Pharmacology"**, University of Padua. With the thesis "*Alveolar surfactant phosphatidylglycerol, disaturated phosphatidylcholine, and SP-B kinetics in infants and adults with stable isotopes tracers, and H⁺V-ATPase activity in B1 subunit knockout mice.*" Prof. Pietro Giusti and Paola E. Cogo, MD, PhD.
- September 2010 – December 2011 PhD student at the Program in Membrane Biology Lab, Division of Nephrology, Massachusetts General Hospital, **Harvard Medical School**, Boston MA, USA. Prof. Dennis Brown.
- January 2009 – September 2010 PhD student at the "Rare Diseases– Pediatric Critical Care Laboratory" at the department of Pediatrics, University Hospital of Padua. Directors of the division: Paola E. Cogo and Prof. Virgilio P. Carnielli .
- January 2009 **First classified** (98/100) for the education grant of the PhD course in "Molecular and Cellular Pharmacology" of the University of Padua.
- June 2008 Passed the Italian/European State examination for the qualification to practice the profession of Pharmacist
- March 2008 Master's Degree in **Pharmaceutical Chemistry and Technology** (5 years course) by University of Padua (99/110) with the thesis "Realization , Characterization and Delivery of the lyophilized amniotic membrane AMX " (11/11) Prof. Maria Teresa Conconi, Emiliano Ghinelli, MD and Ken R. Kenyon, MD.
- July 2002 High School degree by liceo scientifico "A. Messedaglia" , Verona - Italy (100/100).

TRAINING COURSES

- September 2015 **Phyton Programming**, 11 weeks online course – University of Michigan
- February 2010 Course of Scanning **Electron Microscopy** and Environmental scanning electron microscope (SEM-ESEM). Univeristy of Padua
- May 2009 National School of Analytical Methodologies in Mass Spectrometry. University of Parma

JOB EXPERIENCES

- March 2014 – present **Head of the GPYIPR Laboratory** at the Pediatric Critical Care (PCare), Pediatric Research Institute "Città della Speranza" (Padova, Italy).
- AA 2013/2014 **Teacher** of the Pharmacology course, master's degree in Medicine – University of Padova
- AA 2013/2014 **Teacher** of the Biology course, master's degree in Nursing – University of Padova, Portogruaro
- AA 2013/2014 **Teacher** of the Applied Biology course, master's degree in Laboratory Technichan - Università of Padova, Vicenza

• June 2012 – August 2013

Chief Scientist of Hydro Technical Engineering Srl and Hi-Met Srl, supervising the R&D Lab working on hydrometallurgy (metals purification, micrometric and nanometric powder production), renewable energies management, and hydrogen fuel cell design and realization.

• June 2008 – December 2009

Principal Pharmacist by "Parafarmacia la Fontana" at Villafranca Veronese and Lazise (VR).

AWARDS

• December 2013

Winner of the "**Grant Program for Young Investigator on Pediatric Research**" (200k euro) of the Fondazione Cassa di Risparmio di Padova e Rovigo.

COLLABORATIONS

• September 2007 –Present

Collaboration with the "**Schepens Eye Research Institute**" (Harvard Medical School , Boston, USA – Prof. Kenneth R. Kenyon), **Keera S.r.l.** (Arcugnago, VI, Italy), and **Treviso Eye Tissue Bank** (Fondazione Banca degli Occhi del Veneto) for the italian **clinical trial** and scientific papers about the lyophilized amnion membrane AMX and Human Amniotic Membrane Transplant Elemental Units.

PUBLICATIONS

(All PubMed/Medline Indexed)

Double blind exploratory study on de novo lipogenesis in preterm infants on parenteral nutrition with a lipid emulsion containing 10% fish oil

Biagetti C, **Vedovelli L**, Savini S, Simonato M, D'Ascenzo R, Pompilio A, Cogo PE, Carnielli VP.
Clin Nutr. 2016 Apr;35(2):337-43

Cardiopulmonary Bypass Increases Plasma Glial Fibrillary Acidic Protein Only in First Stage Palliation of Hypoplastic Left Heart Syndrome.

Vedovelli L, Padalino M, Simonato M, D'Aronco S, Bertini D, Stellin G, Ori C, Carnielli VP, Cogo PE.
Can J Cardiol. 2016 Mar;32(3):355-61.

Neonatal Respiratory Diseases in the Newborn Infant: Novel Insights from Stable Isotope Tracer Studies

Carnielli VP, Giorgetti C, Simonato M, **Vedovelli L**, Cogo P
Neonatology. 2016;109(4):325-33.

Surfactant protein B and A concentrations are increased in neonatal pneumonia

D'Aronco S, Simonato M, **Vedovelli L**, Baritussio A, Verlato G, Nobile S, Giorgetti C, Nespeca M, Carnielli VP, Cogo PE.
Pediatr Res. 2015 Oct;78(4):401-6.

Effects of amniotic membrane extract on primary human corneal epithelial and limbal cells

Dudok DV, Nagdee I, Cheung K, Liu H, **Vedovelli L**, Ghinelli E, Kenyon K, Parapuram S, Hutnik CM.
Clin Experiment Ophthalmol. 2015 Jul;43(5):443-8

Pulmonary surfactant synthesis after unilateral lung injury in mice

Lamonica G, Amigoni M, **Vedovelli L**, Zambelli V, Scanziani M, Bellani G, Grassi A, Simonato M, Carnielli VP, Cogo PE.
J Appl Physiol (1985). 2014 Jan 15;116(2):210-5

Circulating aldosterone induces the apical accumulation of the proton pumping V-ATPase and increases proton secretion in clear cells in the caput epididymis.

Roy JW, Hill E, Ruan YC, **Vedovelli L**, Paunescu T, Brown D, Breton S.
Am J Physiol Cell Physiol. 2013 Jun 12. [Epub ahead of print]

Altered V-ATPase expression in renal intercalated cells isolated from B1 subunit-deficient mice by fluorescence-activated cell sorting.

Vedovelli L, Rothermel JT, Finberg KE, Wagner CA, Azroyan A, Hill E, Breton S, Brown D, Paunescu TG.

Am J Physiol Renal Physiol. 2013 Mar;304(5):F522-32. doi: 10.1152/ajprenal.00394.2012.

This paper was selected for the cover of may issue of the AJP:RP

Surfactant protein B amount and kinetics in newborn infants: an optimized procedure.

Simonato M, Baritussio A, **Vedovelli L**, Lamonica G, Carnielli VP, Cogo PE.

J Mass Spectrom. 2012 Nov;47(11):1415-9. doi: 10.1002/jms.3065.

Simultaneous measurement of phosphatidylglycerol and disaturated-phosphatidylcholine palmitate kinetics from alveolar surfactant. Study in infants with stable isotope tracer, coupled with isotope ratio mass spectrometry.

Vedovelli L, Baritussio A, Carnielli VP, Simonato M, Giusti P, Cogo PE.

J Mass Spectrom. 2011 Oct;46(10):986-92. doi: 10.1002/jms.1979.

Aldosterone stimulates vacuolar H(+)-ATPase activity in renal acid-secretory intercalated cells mainly via a protein kinase C-dependent pathway.

Winter C, Kampik NB, **Vedovelli L**, Rothenberger F, Paunescu TG, Stehberger PA, Brown D, John H, Wagner CA.

Am J Physiol Cell Physiol. 2011 Nov;301(5):C1251-61. doi: 10.1152/ajpcell.00076.2011.

Disaturated-phosphatidylcholine and surfactant protein-B turnover in human acute lung injury and in control patients.

Simonato M, Baritussio A, Ori C, **Vedovelli L**, Rossi S, Dalla Massara L, Rizzi S, Carnielli VP, Cogo PE.

Respir Res. 2011 Mar 24;12:36. doi: 10.1186/1465-9921-12-36.

ABSTRACTS (19 total, 8 as presenter/first author)

- May 2016 Informal Meeting on Mass Spectrometry, Fiera di Primiero, Italy.
- September 2013, 2014, 2015 Euconea 2013, 2014, 2015, Amsterdam, Holland.
- May 2013 ARVO (Association for Research in Vision and Ophthalmology) annual meeting, Seattle, WA, USA.
- October 2010, 2012 EAPS (European Association of Paediatric Societies) annual meeting, Istanbul, Turkey.
- May 2012 SOI (Italian Society of Ophthalmology) international symposium, Milan, Italy. **Oral Communication presenter.**
- April 2012 EB 2012 : APS (Experimental biology, American Physiological Society) annual meeting, San Diego, CA, USA. **Oral Communication presenter.**
- April 2010, 2011, 2012, 2013, 2015 PAS (Pediatric Academic Society) annual meeting, Vancouver (Canada), Denver CO, Boston MA, Washington DC, San Diego, CA, USA. **Poster presenter.**
- June 2010 ISI (The Fifth International Symposium on Isotopomers), Amsterdam, Netherlands. **Two posters presenter.**
- December 2009 ISOPT (International Symposium on Ocular Pharmacology and Therapeutics), Rome, Italy.
- June 2009 Italian Society of Pharmacology annual PhD students Seminar, Pontignano, Italy. **Poster and oral communication presenter.**

• June 2008, 2009 SICSSO (Italian Society of Stem Cells and Ocular Surface) annual meeting, Sorrento, Italy.

PERSONAL COMPETENCES

Clinical trials set-up and evaluation (experiences: AMX open label clinical trial, Biovitrum (lipase addition to human milk for preterm infants) clinical trial).

Industrial processes set-up and methods validation.

Advanced theoretical statistical data analysis (SPSS, Prism).

LABORATORY TECHNIQUES

Mass Spectrometry

- Isotopic Ratio Mass Spectrometer (IRMS, "DeltaPlus XL", Thermo Scientific). Clinical protocols, sample management & preparation, data analysis. In particular kinetics of lipids and small proteins of the alveolar surfactant.

- Gas Chromatographer - Single Quadrupole Mass Spectrometer (Agilent). Clinical protocols, sample management & preparation.

Chromatography

- Gas Chromatographer - FID (Agilent). Clinical protocols, sample management & preparation. Fatty acids analysis of phospholipids classes.

- Solid Phase Extraction

- Thin Layer Chromatography

Immunohistochemistry

- Western Blot

- Dot Blot and ELISA techniques identification and quantification of proteins (alveolar surfactant's specific protein B and C).

- Tissues preparation and slides immunostaining

- FACS (Fluorescence-activated cell sorting)

- ELISA and EIA techniques

Microscopy

- Electronic: sample preparation and basic utilization (JEOL)

- Confocal: multiple antibodies tagging and utilization (Nikon)

- Optical: normal and inverted, fluorescent antibodies tagging (Nikon, Leica)

Genetics

- PCR

- Real-Time PCR

- Plasmid transfections, RNAi

Cell Culture

- Kidney intercalated, principal (primary), HEK cells

- Pulmonary cells

General Chemistry & Industrial Technology

- Electrolysis/purification processes setup

- Hydrogen fuel cells design, production, troubleshooting, and operation.

LANGUAGES

Italian Mother tongue

English: Write and Speak: Advanced (TOEFL certified)

German Write and Speak: Base (school)

Spanish Write and Speak: Base (certified)

INFORMATICS

Windows: Advanced Level

MacOS X: Advanced Level

Linux : Base Level

Programs: MS Office, Scientific databases, EndNote, Photoshop, ChemStation, Excalibur, Isodat, SPSS, GraphPad Prism, and basic programming skills.

LV authorizes the use of this curriculum data, according to local regulations (i.e. DL 196, June 2003, for Italy).