

# ANNALISA BIANCO

## EXPERIENCES

### POSTDOCTORAL FELLOWSHIP

**Italian Liver Foundation - ONLUS | July 2021 - Nov 2021**

Bldg Q - AREA Science Park Basovizza  
SS14 Km 163,5  
34149 Trieste - Italy  
[www.fegato.it](http://www.fegato.it)

"Banca d'Italia" Fellowship: Generazione di organoidi epatici: nuove strategie per stabilire modelli in vitro di malattie"

### DOCTORAL SCHOLARSHIPS

**Ph.D. in Molecular Biomedicine**

**Italian Liver Foundation - ONLUS, University of Trieste, Italy | Nov 2017 - Dic 2020**

Topic: Unconjugated bilirubin (UCB) is a metabolic end-product of heme catabolism. Bilirubin's behavior in a human body has two faces similar to Janus Bifrons. Elevated serum/plasma UCB concentration exposes babies to the risk of neurotoxicity. Conversely, mildly elevated systemic bilirubin concentrations such as in Gilbert syndrome (GS) protect against various oxidative stress-mediated and metabolic diseases including cardiovascular diseases (CVD) and diabetic nephropathy (DN). The main aim of the project is to evaluate the effect of bilirubin on in vitro models of DN and atherosclerosis. Furthermore, we studied the impact of total serum bilirubin level to metabolic syndrome and NAFLD in obese children and adolescents.

Acquired technical skills: Immortalized Cell cultures and Primary cell cultures; Preparation of culture media; Treatment of cell cultures; Isolation of Primary cells; Genotyping; Bilirubin handling; Viability and Cytotoxicity test; Collection, extraction and quantification of RNA and Proteins; Retro-transcription, Real-time PCR, Western Blot, ROS determination, Antioxidant Power determination (LUCs Technology), Antioxidant Enzymes Activity, Immunofluorescence assay, ELISA Test, TUNEL assay.

### RESEARCH COLLABORATION

**Anti Oxidant Power Company, Toulouse, France | Oct 2018 - Nov 2018**

LAAS/CNRS (Lab facilities)  
7 avenue du Colonel Roche  
BP 54200 - 31400 TOULOUSE, FRANCE  
<https://antioxidant-power.com/en/aop-3/>

Acquired technical skills: Light Up Cell System (LUCS) technology and Anti Oxidant Power 1 (AOP1) assay.

## SKILLS AND CORE COMPETENCIES

- Strong Interpersonal communication skills
- Sound writing and copy editing skills
- Ability to prioritize for results
- Effective time management skills
- Content editing and development
- Mastery at beating deadlines
- Rapt attention to details
- Fast learning abilities
- Ability of Student tutoring and training

### Language skills

Italian-mother tongue  
English - scientific level  
Spanish - basic level (Certification Nivel 3. Centro de linguas modernas, Campus de Santiago de Compostela)

### Digital skills

Proficiency in the use of Microsoft Software packages.  
Certificate in ECDL (European Computer Driving Licence)

### Other

- Driving Licence B

## ADDITIONAL INFORMATION

### Honors and Awards

- Post-Doctoral "Banca d'Italia" Fellowship, Italian Liver Foundation, Trieste, Italy
- Doctoral Fellowship, course in Molecular Biomedicine (XXXIII Cohort), University of Trieste
- Erasmus student scholarship, University of Santiago de Compostela, Spain | Sep 2013 - Feb 2014

### Courses

- Laboratory Safety-Course. ASQ -SINERGIE srl. Ambiente, Sicurezza, Qualità. May 2018
- Basic course on animal experimentation: the laboratory animal well-being. University of Trieste. May 2018
- Laboratory Safety-Course. University of Trieste. Nov 2015

## INTERNSHIP FOR MASTER DEGREE THESIS WORK

**Italian Liver Foundation - ONLUS, University of Trieste, Italy | Jan 2017 - Oct 2017**

Acquired technical skills: Cell cultures; Preparation of culture media; Treatment of cell cultures; Bilirubin handling; Viability test (MTT and LDH); Collection, extraction and quantification of RNA and Proteins; Retro-transcription, Real-time PCR, Western Blot, ROS determination.

## INTERNSHIP - UNIVERSITY OF URBINO CARLO BÒ

**University of Urbino Carlo Bò, section of Molecular Biology | Jun 2014**

Acquired technical skills: Extraction of nucleic acids; Amplification techniques; Agarose gel preparation and electrophoretic run; Analysis of DNA sequences for phylogenetic purposes.

## INTERNSHIP - UNIVERSITY OF URBINO CARLO BÒ

**VITO FAZZI Hospital, LECCE, Italy | Jul 2014 - Sep 2014**

Operational unit: microbiology, virology, molecular biology  
Acquired technical skills: Pre-treatment of clinical samples of various kinds (including the treatment of faecal samples for parasitological analysis); Seeding and isolation techniques on solid terrain; Use of differential culture media for specific pathogens and diagnostic interpretation of the growth results obtained; Preparation of agar culture media; Analysis of isolates by rapid biochemical tests, latex agglutination; Preparation and interpretation of slides for bacterioscopic and parasitological direct examination after Gram staining; DNA extraction; Real Time-PCR; Western BLOT; Hemagglutination test; Drug resistance and sequencing; Antibioграмма; Mycoplasma ureaplasma: tests for isolation, identification, antibiotic-resistance, counting for Mycoplasma Hominis and for Ureaplasma urealyticum; Semi-quantitative analysis for Treponema pallidum; Endotoxin test; FACS analysis

## ERASMUS STUDENT SCHOLARSHIP

**University of Santiago de Compostela, Spain | Sep 2013 - Feb 2014**

Period of theoretical and practical training (European "Erasmus" program) at the University of Santiago de Compostela, Spain.

Acquired skills: Biochemical Laboratory: Protein Extraction; Determination of protein concentration; Electrophoretic analysis. Microbiology Laboratory: Cultures and techniques of bacterial seeding; morphological analysis and Gram test; Presence of endospore; Test of catalase and oxidase. Parasitology Laboratory: Research and analysis of parasites.

## Publications

- **Bianco A.**, Dvořák A, Capková N, Gironda C, Tiribelli C, Furger C, et al. The Extent of Intracellular Accumulation of Bilirubin Determines Its Anti- or Pro-Oxidant Effect. *Int J Mol Sci.* 30 ottobre 2020;21(21).
- **Bianco, A.**, Pinci, S., Tiribelli, C., and Bellarosa, C. (2021). Life-Long Hyperbilirubinemia Exposure and Bilirubin Priming Prevent In Vitro Metabolic Damage. *Front. Pharmacol.* 12. doi:10.3389/fphar.2021.646953.
- Bellarosa C, Bedogni G., **Bianco A.**, Tiribelli C, and Sartorio A. "Association of Serum Bilirubin Level with Metabolic Syndrome and Non-Alcoholic Fatty Liver Disease: A Cross-Sectional Study of 1672 Obese Children. *J Clin Med* 2021 Jun 25;10(13):2812. doi:10.3390/jcm10132812

## Conferences and seminars

### Oral presentations

- **Bianco A.** "Effects of Bilirubin on Metabolic Syndrome". Liver Gymnasium 5, September 24, 2018, Padova.
- **Bianco A.** "Effects of Bilirubin on Metabolic Syndrome in two *in vitro* models" 26th International Conference of Clinical Diabetes. December 14-15, 2017, Rome.

### Poster presentations

- **Bianco A.**, Pinci S., Tiribelli C. and Bellarosa C. "Bilirubin biological effects on different *in vitro* systems"; Don Ostrow Trieste Yellow Retreat. September 4-5, 2019, Trieste.
- Pinci S., **Bianco A.**, Tiribelli C. and Bellarosa C. "Effects of Bilirubin on Metabolic Syndrome in two *in vitro* models of MetS". Don Ostrow Trieste Yellow Retreat. September 4-5, 2019, Trieste.
- **Bianco A.**, Tiribelli C. and Bellarosa C. "Effects of Bilirubin on Metabolic Syndrome". Liver Gymnasium 5, September 24, 2018, Padova.
- **Bianco A.**, Tiribelli C. and Bellarosa C. "Effects of Bilirubin on Metabolic Syndrome in two *in vitro* models". 20th ISANH international conference on oxidative stress, redox homeostasis and antioxidants. June 25-26, 2018, Paris.

## INTERNSHIP - UNIVERSITY OF URBINO CARLO BÒ

Hospital 'Santa Maria Della Misericordia', URBINO, Italy | Dic 2012 - Feb 2013

Acquired skills: Chemical-physical and microscopic analysis of the urine sample; Hematologic exams; Blood count; PT (prothrombin time); PTT or APTT (activated partial thromboplastin time); VES (speed of erythrocyte sedimentation); Glycosylated hemoglobin dosage.

## INTERNSHIP

Clinical Analysis Laboratory Pignatelli, LECCE, Italy | Jul 2010 - Sep 2010

Acquired technical skills: Antibody research; karyogram; karyotype; Eosinophil count; Physical-chemical and microscopic examination of faeces; Crop examination.

## OTHERS ACTIVITY

- Call for Ideas project by Globus et Locus association, Italicanet.com. Feb 2021
- Promoter for Corona Extra beverage (Belgian company AB InBev). Jul 2016
- Promoter for Martini & Rossi industry. Aug 2015
- Hostess at "CITTA' DEL LIBRO" event, Campi Salentina (LE), Nov 2010

## ACADEMIC HISTORY

QUALIFICATION TO PRACTICE AS A BIOLOGIST | JUNE 2021

Registration in the National Council of Biologists (Albo professionale dei biologi) with order number: AA\_089761

## UNIVERSITY OF TRIESTE, ITALY

PhD in Molecular Biomedicine | Nov 2017 - Dic 2019

Doctoral Project subject: Effect of Bilirubin on Metabolic Syndrome

The research activity is carried out at the Italian Liver Foundation ONLUS.

We deals mainly with the *in vitro* and *in vivo* study of the bilirubin protective aspects and the molecular mechanisms involved.

## UNIVERSITY OF TRIESTE, ITALY

Master's Degree in Functional Genomics | Sep 2015  
- Oct 2017

Final grade: 109/110

Thesis: Effects of bilirubin on metabolic syndrome in two *in vitro* models.

Supervisor: Prof. G. Grassi

Co-supervisor: Dott.ssa Bellarosa Cristina

The research activity is carried out at the Italian Liver Foundation ONLUS.

DIPLOMA SUPPLEMENT is available.

## UNIVERSITY OF URBINO CARLO BÒ, ITALY

Bachelor's Degree in Biological Sciences | Sep 2012  
- Jul 2015

Final grade: 110/110

Thesis: Nuove frontiere nella ricerca della regolazione della telomerasi.

Supervisor: Prof. A. Amicucci

Achievement of the three-year degree in Biological Sciences (health-molecular curriculum, L-13, with achievement in the 3 years of studies required by the course)

## REFERENCES

Cristina Bellarosa, PhD, Senior Scientist, Deputy Director of Italian Liver Foundation - ONLUS

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Claudio Tiribelli, MD PhD Professor of Medicine University of Trieste, Director of Italian Liver Foundation - ONLUS

Email: [ctliver@fegato.it](mailto:ctliver@fegato.it)

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Last actualization 13.07.2021

