



## Barbara Benedetti

Fixed-term assistant professor

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### *Education and training*

2019

#### **PhD in Sciences and Technologies of Chemistry and Materials**

Development and optimization of innovative analytical methods for the determination of phytoestrogens in soy-food by chromatographic techniques coupled to mass spectrometry - Cum laude  
University of Genoa - Genova - IT

2013

#### **Master degree in Analytical Chemistry**

Extraction and determination of methylxanthines and flavanols in cocoa samples by HPLC-DAD and chemometrics - 110/110 cum laude  
University of Rome Sapienza - Rome - IT

2011

#### **Bachelor degree in Chemistry**

Preparation and XPS characterization of crystalline silicon surfaces suitable for the adhesion of gold nanoparticles - 110/110 cum laude  
University of Rome Sapienza - Rome - IT

### *Academic experience*

2019 - 2020

#### **Post-doctoral fellow**

CREA-Food and Nutrition - Rome - IT  
analysis of bioactive molecules in industrial and food waste samples by chromatographic-mass spectrometric techniques

2018 - 2019

#### **Post-doctoral fellow**

University of Rome Sapienza - Rome - IT  
development of analytical methods (sample preparation and liquid chromatography-high resolution mass spectrometry) for the characterization of food biological and environmental samples

2014 - 2015

#### **Internship**

University of Barcelona - Barcelona - ES

Synthesis and characterization of molecular imprinted polymers analysis of antibiotics by high performance liquid chromatography

## ***Work experience***

2014

### **Analyst in quality control laboratory**

Catalent Pharma Solutions - Aprilia (LT) - IT

## ***Language skills***

### **English**

Independent

First certificate in

English (B2 level)

### **Spanish**

Independent

### **Italian**

Mother tongue

## ***Research interests***

My main research interests involve the analytical chemistry of organic compounds, from sample preparation to instrumental parameters optimization. My experience is mainly in chromatographic techniques (GC and HPLC) coupled to mass spectrometry (both low and high resolution instruments). During my academic career I've dealt with several types of sample, from food to environmental and biological samples. I focus my research on the optimization of sample prep strategies, as well as of the instrumental analysis conditions, in order to develop or improve analytical methods for the determination of various classes of compounds. I then complete my studies with the steps involved in the evaluation of the method performances and validation. I am also interested in chemometrics, especially experimental design, a fundamental tool to study chemical problems in a multivariate fashion.