

Curriculum Vitae

Dr Salvatore Barbera

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Dr. Barbera training and work path began in 1997 with his voluntary attendance of the Forensic Toxicology Laboratory as a student of the degree in biological sciences of the Institute of Forensic Medicine and Insurance of the Faculty of Medicine and Surgery, University of Catania.

In 1998 he gained a work contract concerning the chemical-toxicological test analysis of drugs seized by the judicial authorities.

In 2001, he got a coordinated and continuous collaboration agreement within the MURST Project "Toxicological impact of agricultural and energy activities". The aim of this work was focused to the qualitative and quantitative identification of residual pesticides both in soils under examination and in the edible parts of the cultivated plants made through chemical-toxicological analyzes.

This activity was carried out by adopting both suitable solvent extraction techniques and gas chromatography (GC) analytical tools such as GC coupled to mass spectrometry (GC-MS), GC coupled to an electron capture detector (GC-ECD) and GC coupled to a detector for nitrogen and phosphorus molecules (GC-NPD). The data acquisition was carried out by applying the SCAN method: which allows an exhaustive scanning identification of the organic molecules, separable by gas chromatographic analysis, comparing the characteristic mass spectra with those recorded in the acquired MS database. In addition, quantitative analyzes were performed using opposite standard calibration curves made using known pure samples.

In 2005 he graduated in Biomedical Laboratory Techniques (classification number SNT3 of the course in Technical Health Sciences) at the Faculty of Medicine of Catania University on 25 October 2005 (grade, 110/110 *cum laude*), with a dissertation entitled "*Assessment of the state of drug addiction from hair matrices. Evaluation of the risk of false positive after external cocaine contamination* "

Since 2006 he has been working as an expertise freelancer, continuing to collaborate with the Forensic Toxicology laboratory of the University of Catania, carrying out analysis on behalf of some expert witnesses (CTU) in criminal proceedings.

In December 2016 he joined the Institute of Biomolecular Chemistry, branch of Catania, as an administrative assistant and since 2019 to date he has been in charge as ICB Administrative Manager for the branch of Catania

SELECTED PUBLICATIONS

- Barbera N., Barbera S., Lombardo I., Sgarlata M., Romano G. (2000) "Determinazione dei cannabinoidi nei capelli: contaminazione esterna e rischio di falsi positivi". *Rivista Italiana di Medicina Legale*, 22 (4-5):1039-1056.
- Cartia G., Romano G., Barbera N., Barbera S., Geraci D. (2003) "Impatto tossicologico dell'1,3-dicloropropene nei terreni e nei vegetali", Colture Protette, Anno XXXII (7):55-59.
- G. Sciacca, A. Finocchiaro, S. Barbera, K. Fisicaro, M. Avitabile, G. Dell'Osso (2004) "La tipizzazione dell'acido desossiribonucleico (DNA) su tessuto umano fresco trattato con diversi fissativi. Risultati a confronto". *Medicina Legale*, Atti del XX Congresso Nazionale dei Genetisti Forensi Italiani (Ge.F.I.), Bologna, 9 - 11 settembre 2004, pp. 226 - 227.
- V.Mazzone, K. Fisicaro, G. Sciacca, S. Barbera, N. Barbera(2007) "Studio di differenti fissativi per l'ottimizzazione delle metodiche istomorfologiche e di biologia molecolare." *Biologi Italiani*, Anno XXXVII – n.8 , Settembre 2007, pp. 33- 39.
- Guido Romano, Francesca Indorato, Giorgio Spadaro, Salvatore Barbera, Nunziata Barbera. "Cocaine contamination in pubic hair: Analysis of the decontamination method". *Egyptian Journal of Forensic Sciences* (2014) 4, 129–136