

PERSONAL
INFORMATION

Lucia Cimarelli

WORK EXPERIENCE

December 9th 2020 – Present**Research Collaborator**

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Research activity: Working on the activity of characterization of antimicrobial compounds obtained from microorganisms of an in-house CCM (Culture Collection of Microorganisms) of the School of Biosciences and Veterinary Medicine.

Public Research Centre

December 2018 – November
2020**Research Fellowship**

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Research activity: Working on the project “Identification and structural-functional characterization of new antimicrobial compounds active against multi-drug resistant *S. aureus*, obtained from an in-house culture collection”.

Public Research Centre

May 2019 – November 2019

Tutoring

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Main activity: Placement Tutor of a thesis (Bachelor degree in Biosciences and Biotechnology) in “Characterization of a strain isolated from a soil sample displaying antimicrobial activity against pathogenic bacteria”.

Public Research Centre

October 2017 – June 2018

Supervisor

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Main activity: Training and supervision of a master student (Master degree in Biological Sciences) working on “Identification and purification of secondary metabolites highly active against multi-drug resistant *S. aureus*, obtained from an in-house culture collection”.

Public Research Centre

February 2017 – February 2018

Tutoring

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Main activity: Placement Tutor of a thesis (Bachelor degree in Biosciences and Biotechnology) in: “Experimental setup for the isolation and characterization of *Streptomyces* species from soil samples”.

Public Research Centre

May 2017 – December 2017

Post-Doctoral Fellowship

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Research activity: Working on the project “Characterization of secondary metabolites produced by microbial consortia containing diatoms, isolated from water and soil samples”.

Public Research Centre

May 2014 – May 2017

Ph.D. student in the Laboratory of Dr. Roberto Spurio

Laboratory of Molecular Genetics, School of Biosciences and Veterinary Medicine, University of Camerino, Italy

Research activity: Working on the project “Design and development by DNA chip technology of molecular probes for the selective detection of freshwater diatoms”.

Public Research Centre

May 2015

Guest Speaker at the “Festival of Education 2015 (IV Edition), Jesi – Italy”

Istituto Professionale di Stato per l’Industria e l’Artigianato - IPSIA E. Peralisi, Jesi (AN) – Italy

Main activity: Promotion of the project for the dissemination of scientific culture to students, citizen and new generations by games, laboratory and interactive activities.

Public Secondary School

June 2014 – July 2014

Working Stage [EU-funded FP7 research project (MicroAQUA)]

Scienion AG – Volmerstraße 7b, D-12489 Berlin, Germany

Main activity: Validation of oligonucleotide DNA probes by microarray experiments.

Private Research Centre

January 2014

Working Stage [EU-funded FP7 research project (MicroAQUA)]

Scienion AG – Volmerstraße 7b, D-12489 Berlin, Germany

Main activity: Specificity assays of molecular probes on DNA microarrays.

Private Research Centre

November 2013 – April 2014

Internship abroad [University of Camerino-funded fellowship for training abroad]

School of Biological Sciences – University of Portsmouth, King Henry Building, King Henry 1 Street, Portsmouth P01 2DY, United Kingdom

Research activity: Cyanobacteria culturing techniques and bacteriophages isolation from environmental samples of freshwater.

Public Research Centre

July 2013

Working Stage [EU-funded FP7 research project (MicroAQUA)]

Scienion AG – Volmerstraße 7b, D-12489 Berlin, Germany

Main activity: Specificity assays of molecular probes on DNA microarrays.

Private Research Centre

- June 2011 – July 2013 **University internship**
Laboratory of Molecular Genetics, School of Biosciences and Biotechnology, University of Camerino, Italy
Research activity: Isolation of freshwater diatoms, DNA/RNA extractions and probe design.
Public Research Centre
- December 2012 **Laboratory Workshop** [EU-funded FP7 research project (MicroAQUA)]
Scienion AG – Volmerstraße 7b, D-12489 Berlin, Germany
Main activity: Use of DNA chips for the analysis of environmental samples.
Private Research Centre
- August 2012 **Training exchange** [EU-funded FP7 research project (MicroAQUA)]
School of Biological Sciences – University of Portsmouth, King Henry Building, King Henry 1 Street, Portsmouth P01 2DY, United Kingdom
Research activity: Methods for cyanobacterial culture, DNA/RNA extractions, cyanophage assays.
Public Research Centre
- March 2011 – May 2011 **Internship abroad** [Leonardo da Vinci “Best Skills in Motion - BESKIMO” Project]
School of Biological Sciences – University of Portsmouth, King Henry Building, King Henry 1 Street, Portsmouth P01 2DY, United Kingdom
Research activity: Algal culturing techniques, extraction of bioactive compounds, screening of biological activities.
Public Research Centre
- December 2007 – December 2008 **University internship**
Laboratory of Microbiology, Department of Biology, University of Camerino, Italy
Research activity: Genome analysis; redefinition of the Pulsed Field Gel Electrophoresis conditions; modelling simulated *in silico*.
Public Research Centre
- April 2000 – May 2000 **Internship abroad** [Leonardo da Vinci “Workers Abroad” Project]
Oriflame International Research and Development, Blackthorn Road, Sandyford Industrial Estate, Foxrock, Dublin 18, Ireland
Main activity: Assistance in research and development and in manufacture of cosmetic formulations.
Cosmetic Industry
- March 2000 **Internship abroad** [Leonardo da Vinci “Workers Abroad” Project]
Bates Pharmacy, Superquinn Shopping Centre, Knocklyon, Templeogue, Dublin 16, Ireland
Main activity: Assistance in the public sale of drugs.
Pharmacy

EDUCATION

- July 11th, 2017 **Ph.D. in LIFE AND HEALTH SCIENCES**
Curriculum: Molecular and Cellular Biotechnology
International School of Advanced Studies, University of Camerino, Italy
Thesis Title: *“Design and development by DNA chip technology of molecular probes for the selective detection of freshwater diatoms”*.
Vote: Excellent
- July 11th, 2013 **Master Degree in Biomolecular and Biofunctional Sciences**
Curriculum: Molecular Biology
School of Biosciences and Biotechnology, University of Camerino, Italy
Thesis Title: *“Sonde molecolari basate su acidi nucleici di diatomee bentoniche. Disegno, sviluppo e applicazione per il monitoraggio delle acque dolci”*.
Vote: 110/110 cum laude and encomium
- December 11th, 2008 **Bachelor Degree in Biotechnology**
Curriculum: Microbial
Faculty of Pharmacy and Science and Technology, University of Camerino, Italy
Thesis Title: *“Studio in-silico dell’evoluzione dei genomi degli streptococchi di gruppo A”*.
Vote: 110/110
- July 10th, 1999 **High-School Diploma**
Curriculum: Chemical and Biological Technician
Istituto Professionale per l’Industria e l’Artigianato “Egisto Pieralisi”, Jesi, Italy
Vote: 98/100
- May 28th, 1999 **Certificate of competency**
Curriculum: Technical control and environmental protection (agri-food sector)
Istituto Professionale per l’Industria e l’Artigianato “Egisto Pieralisi”, Jesi, Italy
Vote: 87/100

TRAINING

- January 2020 **Attendance at the Course “Formazione generale dei lavoratori”**
Curriculum: General and Specific Training of Workers
Topic: Determination and assessment of risks related to chemical and biological agents at work.
Associazione Italiana Formatori ed Operatori della Sicurezza sul Lavoro (AiFOS), Brescia, Italy
- July 2019 **Attendance at the “EMBO | EMBL Symposium: New Approaches and Concepts in Microbiology”**
Poster Presentation: *“Isolation and Characterization of Secondary Metabolites Active against Multi-Drug Resistant Staphylococcus aureus”*
EMBL Advanced Training Centre, Heidelberg, Germany

- June 2018 **Attendance at the “XII National Congress of the Italian Society of Pharmaceutical Microbiology” (SIMiF)**
Poster Presentation: “*Identification of inhibitors of protein synthesis targeting multi-drug resistant Staphylococcus aureus*”
School of Biosciences and Veterinary Medicine, University of Camerino, Italy
- May 2018 **Attendance at “Cortona Procarioni 2018” Congress**
Società Italiana di Microbiologia Generale e Biotecnologie Microbiche (SIMGBM) and Associazione Genetica Italiana (AGI), Cortona, Tuscany, Italy
- July 2016 **Attendance at the “II International Conference on Clinical Sciences and Drug Discovery” (CSDD-2016)**
Poster Presentation: “*Screening an archetypal collection of microorganisms for the presence of unexplored antimicrobial compounds*”
University of Dundee, Dalhousie Building, Old Hawkhill, Dundee DD1 5EN, Scotland, United Kingdom
- May 2016 **Attendance at “Cortona Procarioni 2016” Congress**
Società Italiana di Microbiologia Generale e Biotecnologie Microbiche (SIMGBM) and Associazione Genetica Italiana (AGI), Cortona, Tuscany, Italy
- October 2014 **Attendance as invited speaker at the International Scientific Symposium “Small Solutions for Big Water-Related Problems – Innovative microarrays and small sensors to cope with water quality and food security”**
Oral Presentation: “*Towards the molecular evaluation of water quality levels: technical problems, successes and perspectives in the detection of biomarker diatoms by microchip hybridization*”
Italian National Institute for Health (ISS), Rome, Italy
- May 2014 **Attendance as invited speaker at “Cortona Procarioni 2014” Congress**
Oral Presentation: “*Detection of potentially toxic Amphora coffeaeformis*”
Scuola di Genetica di Cortona, Società Italiana di Microbiologia Generale e Biotecnologie Microbiche (SIMGBM) and Associazione Genetica Italiana (AGI), Italy
- October 2011 **Europass Mobility Passport (EM n° IT/00/2011/585/10)**
Topic: Activities carried out to gain a first experience of working in an international environment:
literature research, extraction of compounds, data analysis.
Education and Culture Lifelong Learning Programme “LEONARDO DA VINCI”
(Project n° LLP-LdV-PLM-10-IT-226)
- March 2011 **Attendance Foreign Language Course**
Topic: “English Language and Culture Course”; Level: B1
Training Vision Ltd, Unit 205 Victory Business Centre, Somers Road North, Portsmouth, Hampshire PO1 1PJ, United Kingdom
- November 2010 **Attendance Training Course “Leonardo da Vinci”**
Topic: “Best Skills in Motion – BESKIMO”
Education and Culture Lifelong Learning Programme LEONARDO DA VINCI
(Project n° LLP-LdV-PLM-10-IT-226)
- October 2008 **Attendance at the “36th National Congress of the Italian Society of Microbiology (SIM)”**
Poster Presentation: “*Il contributo degli elementi genetici esogeni alla variabilità genetica negli streptococchi di gruppo A misurata con la macrorestrizione con Smal e la PFGE*”
Italian National Institute of Health (ISS), Rome, Italy

June 2000

Certificate of attendance to a Placement and Exchange Project Leonardo da Vinci “Workers Abroad”

Topic: Front training and laboratory activities

Emerald Cultural Institute, 10 Palmerston Park, Rathgar, Dublin 6, Ireland

March 2000

Attendance Foreign Language Course

Topic: “Intensive English Language Course”; Level: Pre-Intermediate

Emerald Cultural Institute, 10 Palmerston Park, Rathgar, Dublin 6, Ireland

PERSONAL SKILLS and COMPETENCES

MOTHER TONGUE

Italian

OTHER LANGUAGES

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	B2	B2	B1	B2
	March 2000 – Certificate of attendance of an Intensive English Language Course - Pre-Intermediate level.				
	March 2011 – Certificate of attendance of an English Language and Culture Course - B1 level.				
French	A1	A2	A1	A1	A1

Livelli: A1/2 Livello base - B1/2 Livello intermedio - C1/2 Livello avanzato
 Quadro Comune Europeo di Riferimento delle Lingue

SOCIAL SKILLS and COMPETENCES

Good ability to work in groups and interact with people of different nationalities and cultures thanks to my internship experience gained abroad and my stay for several months in Irish and English families; I have excellent communication skills that I gained through my experience as waitress.

ORGANISATIONAL SKILLS and COMPETENCES

Good ability to participate at conferences and to present the research results by oral presentations and by poster presentations. I organize my own work, setting priorities and taking responsibilities (skill gained with different professional experience listed above).

- a. Isolation of microorganisms collected from environmental samples;
- b. Set-up of a Culture Collection of Microorganisms (CCM) collected from different environmental sites and maintenance of the strains at the School of Biosciences and Veterinary Medicine, University of Camerino (Italy);
- c. Screening of the Culture Collection of Microorganisms (CCM) for growth inhibition of tester strains;
- d. Characterization of microorganisms isolated from environmental samples by rDNA amplification and DNA sequencing;
- e. Use of specific bioinformatics tools for the analysis of DNA (NCBI, BLASTn, Muscle) as well as for the analysis of proteins (Expasy) and for the design of oligonucleotide primers (Primer3);
- f. Good experience in protein isolation and protein purification;
- g. Purification by Solid Phase Extraction and HPLC of secondary metabolites produced from environmental microorganisms;
- h. Identification of new secondary metabolites with inhibition activity against multi-resistant *Staphylococcus aureus* strains;
- i. High resolution chemical analysis (mass spectrometry) for the characterization of molecules with antibiotic properties against pathogen bacteria at the Chemistry Interdisciplinary Project (CHIP) – Unicam Centre Research (Italy).

COMPUTER SKILLS AND
COMPETENCES

Good command of Microsoft Office tools, particularly Word and PowerPoint. Good ability to surf with Internet for literature searching using Pubmed database, as well as good ability to share and access scientific output, knowledge and expertise on social networks like ResearchGate and LinkedIn or on academics platforms such as Academia.edu and Google Scholar, skills gained during PhD studies.

OTHER SKILLS and
COMPETENCES

I am attentive to details and I am a lover of the natural landscape, especially of the countryside. I love to read, in particular scientific journals.

DRIVING LICENCE

Category B

ADDITIONAL
INFORMATIONGRANTED PROJECTS

- a) **2015 – 2016:** Direct involvement in a public grant financed by the Italian Ministry of Education, Universities and Research – Project for the dissemination of scientific culture: “*Strumenti per la valutazione dei microrganismi presenti in un campione d’acqua dolce: dal microscopio ottico alle analisi molecolari. Una ricerca che conduce alla produzione di strutture sintetiche prendendo come modello le stampanti 3D biologiche*”, Law No. 113/91 (D.D. 2216 - 01/07/2014 - Titolo 2 - PANN14T2_00536). The research activities have been carried out at the University of Camerino (Italy), while the teaching and dissemination activities have been carried out at the Istituto Professionale di Stato per l’Industria e l’Artigianato - IPSIA E. Pieralisi, Jesi (AN) – Italy.
- b) **2011 – 2014:** Direct involvement in the EC grant “MicroAQUA: Universal microarrays for the evaluation of fresh-water quality based on detection of pathogens and their toxins”, project No. 265409 (call FP7-KBBE-2010-4, funding scheme collaborative project). The research activities have been carried out at the University of Camerino (Italy), at the University of Portsmouth (UK) and at the Scienion AG (Germany).

PUBLICATIONS

- Fantuz F., Ferraro S., Todini L., **Cimarelli L.**, Fatica A., Marcantoni F., Salimei E. “*Distribution of calcium, phosphorus, sulfur, magnesium, potassium, and sodium in major fractions of donkey milk*”. Journal of Dairy Science 2020, 103, 8741-8749.
- Fabbretti A., Çapuni R., Giuliadori A.M., **Cimarelli L.**, Miano A., Napolioni V., La Teana A., Spurio R. “*Characterization of the self-resistance mechanism to dityromycin in the Streptomyces producer strain*”. mSphere 2019, 4: e00554-19.
- Napolioni V., **Cimarelli L.**, Miano A., La Teana A., Çapuni R., Giuliadori A.M., Fabbretti A., Spurio R. “*Draft genome sequence of Streptomyces sp. strain AM-2504, identified by 16S rRNA comparative analysis as a Streptomyces kasugaensis strain*”. Microbiology Resource Announcements 2019, 8: e00966-19.
- **Cimarelli L.**, Giuliadori A., Brandi A., Adamkiewicz K., Spurio R., Fabbretti A. “*Screening an archetypal collection of microorganisms for the presence of unexplored antimicrobial compounds*”. BioDiscovery 2017, 20: e10763.
- Rodriguez I., Fraga M., Alfonso A., Guillebault D., Medlin L., Baudart J., Jacob P., Helmi K., Meyer T., Breitenbach U., Holden N.M., Boots B., Spurio R., **Cimarelli L.**, Mancini L., Marcheggiani S., Albay M., Akcaalan R., Köker L., Botana L.M. “*Monitoring of freshwater toxins in European environmental waters by using novel multi-detection methods*”. Environmental Toxicology and Chemistry 2017, 36, 645-654. (This article is protected by copyright. All right reserved. © 2016 SETAC).
- Greer B., McNamee S. E., Boots B., **Cimarelli L.**, Guillebault D., Helmi K., Marcheggiani S., Panaiotov S., Breitenbach U., Akcaalan R., Medlin L. K., Kittler K., Elliott C. T., Campbell K. “*A validated UPLC-MS/MS method for the surveillance of ten aquatic biotoxins in European brackish and freshwater systems*”. Harmful Algae 2016, 55, 31-40.
- Marcheggiani S., Spurio R., **Cimarelli L.**, Tito D., Mancini L. *Scientific Symposium “Small Solutions for Big Water Related Problems: Innovative Microarrays and Small Sensors to Cope with Water Quality and Food Security”*. Int. J. Environ. Res. Public Health 2015, 12, 15400-15408.
- **Cimarelli L.**, Singh K. S., Mai N. T. N., Dhar B. C., Brandi A., Brandi L., Spurio R. “*Molecular tools for the selective detection of nine diatom species biomarkers of various water quality levels*”. Int. J. Environ. Res. Public Health 2015, 12, 5485-5504.
- Dhar B. C., **Cimarelli L.**, Singh K. S., Brandi L., Brandi A., Puccinelli C., Marcheggiani S., Spurio R. “*Molecular detection of a potentially toxic diatom species*”. Int. J. Environ. Res. Public Health 2015, 12, 4921-4941.
- **Cimarelli L.**, Brandi A., Brandi L., Singh K. S., Dhar B. C., Gualerzi C. O., Spurio R. “*Towards the molecular evaluation of water quality levels: technical problems, successes and perspectives in the detection of biomarker diatoms by microchip hybridization*”. In: Marcheggiani S, Spurio R, D’Ugo E, Mancini L (Ed.). *Scientific Symposium “Small Solutions for Big Water-Related Problems – Innovative microarrays and small sensors to cope with water quality and food security”*. Istituto Superiore di Sanità. Rome, 26-28 October 2014. Abstract book. Roma: Istituto Superiore di Sanità; 2014; ISTISAN Congressi 14/C6: 13.
- Vitali L. A., **Cimarelli L.**, Petrelli D., Di Luca M. C., D’Ercole S., Prenna M., Ripa S. “*Il contributo degli elementi genetici esogeni alla variabilità genetica negli streptococchi di gruppo A misurata con la macrorestrizione con Smal e la PFGE*”. Bollettino della SIM 2008; Anno 10 – N.1, p. 53.

POSTER PRESENTATION

- **July 10th - 13th 2019:** EMBO | EMBL Symposium: New Approaches and Concepts in Microbiology – EMBL Advanced Training Centre, Heidelberg, Germany. [Poster title: “*Isolation and Characterization of Secondary Metabolites Active against Multi-Drug Resistant Staphylococcus aureus*”].
- **June 21st - 22nd 2018:** XII National Congress of the Italian Society of Pharmaceutical Microbiology (SIMiF) – University of Camerino, Italy. [Poster title: “*Identification of inhibitors of protein synthesis targeting multi-drug resistant Staphylococcus aureus*”].

- **July 27th - 29th 2016:** II International Conference on Clinical Sciences and Drug Discovery (CSDD-2016) – University of Dundee, Scotland, United Kingdom. [Poster title: “*Screening an archetypal collection of microorganisms for the presence of unexplored antimicrobial compounds*”].
- **May 30th 2015:** Festival of Education 2015 (IV Edition), Jesi – Italy. [Poster title: “*Partecipiamo con passione alla ricerca come vincitori del Progetto per la Diffusione della Cultura Scientifica (Legge 113/91 – Bando MIUR)*”].
- **October 12th - 15th 2008:** 36th National Congress of the Italian Society of Microbiology (SIM) – Italian National Institute for Health (ISS), Rome (Italy). [Poster title: “*Il contributo degli elementi genetici esogeni alla variabilità genetica negli streptococchi di gruppo A misurata con la macrorestrizione con Smal e la PFGE*”].

PARTICIPATION AT CONGRESSES AS INVITED SPEAKER

- a. **October 26th - 28th 2014:** Invited lecturer at the International Scientific Symposium “Small Solutions for Big Water-Related Problems – Innovative microarrays and small sensors to cope with water quality and food security” – Italian National Institute for Health (ISS), Rome (Italy). [Presentation title: “*Towards the molecular evaluation of water quality levels: technical problems, successes and perspectives in the detection of biomarker diatoms by microchip hybridization*”].
- b. **May 15th - 17th 2014:** Invited lecturer at “Cortona Procarioti 2014” Congress – Cortona, Tuscany (Italy). [Presentation title: “*Detection of potentially toxic *Amphora coffeaeformis**”].

OTHER ACTIVITIES

- A. **December 2020 – Present:** RESEARCH COLLABORATOR at School of Biosciences and Veterinary Medicine (Laboratory of Molecular Genetics), University of Camerino, Italy.
- B. **November 2019 – November 2020:** Research Fellow elected in the Council of the School of Biosciences and Veterinary Medicine, University of Camerino, Italy.
- C. **December 2018 – November 2020:** RESEARCH FELLOWSHIP at School of Biosciences and Veterinary Medicine, University of Camerino, Italy.
- D. **April 2017:** Participation in the competition for the grant of the SAS AWARD 2016 [Camerino (Italy)].
- E. **May 2017:** Penn Foster American Proctor [examiner for a proctored final exam].
- F. **October 2014:** Part of secretariat team of an International Scientific Symposium [Rome (Italy)].

Pubblicazione ai fini della Normativa in materia di Trasparenza ex D.Lgs 33/2013 e Trattamento dati personali

Il presente CV è oggetto di pubblicazione obbligatoria sul sito istituzionale UNICAM nella sezione “Amministrazione trasparente” ai sensi del D.Lgs. 33/2013;

Si autorizza quindi la pubblicazione del presente CV al fine di adempiere alle disposizioni in materia di trasparenza.

Si autorizza il trattamento dei dati ai sensi del D. Lgs. 30 giugno 2003, n. 196 “Codice in materia di protezione dei dati personali”.

28th October 2022