

Letterio Giuffrè

 **WORK** : Viale Ferdinando stagno d'alcontres 31, Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, 98166, Messina, Italia

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BIRTH DAY 22/02/1988 **NAZIONALITY:** Italian

WORK EXPERIENCE

[29/12/2022 – ACTUAL]

Fixed time university researcher (RtDa) in Genetics (BIO/18)

Department of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina

City: Messina

Country: Italy

[25/07/2022 – 26/12/2022]

Temporary Research Fellow

Università degli Studi di Messina

City: Messina

Country: Italy

Temporary Research Fellow involved in the project "Characterization of environmental microbiome and antibiotics resistance gene spread in hospital environment."

[01/07/2020 – 30/06/2022]

Temporary Research Fellow

University of Messina

City: Messina

Country: Italy

Temporary Research Fellow involved in the project "Genotyping of clinical and environmental microbial strains involved in nosocomial infections"

[16/03/2016 – 30/09/2016]

Biologist Volunteer Researcher

University of Messina

City: Messina

Country: Italy

Genotyping of relevant fungal pathogen species

[21/03/2018 – 26/07/2018]

Trainee at Sequentia Biotech SL

Sequentia Biotech SL

City: Barcelona

Country: Spain

Main skill:

Taxonomic and functional characterization of fecal microbiome using whole shotgun metagenome sequencing, target sequencing and metatranscriptomic: trimming of reads, taxonomic affiliation of reads using classified-first and OTU-first pipelines, meta-assembly, creation and taxonomic assignment of bins, functional characterization of microbial community using famli, interproscan and picrust2, ecological analysis of microbial community, statistical analysis of microbial relative abundances

[08/03/2019 – 29/05/2019]

Trainee at Sequentia Biotech SL

Sequentia Biotech SL

City: Barcelona

Country: Spain

Main skill:

De novo and reference guided genome assembly of procariotic and eucariotic genome

De novo and reference guided structural and functional annotation from genome and transcriptome

De novo and reference guided transcriptome assembly of microbial fungi

Statistical differential analysis of gene expression

EDUCATION AND

TRAINING

[01/10/2016 – 30/09/2019]

PhD in Veterinary Sciences

Department of Veterinary Sciences - University of Messina

Final Votation: Ottimo

Thesis: Taxonomic and functional characterization of fecal microbiota of Nero siciliano pigs using whole shotgun metagenome sequencing: Tutor: Enrico D'Alessandro.

[20/12/2012 – 15/03/2016]

Master's Degree in Biology (LM-6)

University of Messina

Field Research: Microbial genetics

Final Votation: 110/110 cum laude with highest honors

Tesi: Sequencement and expression level analysis of genes involved in N-acetilglucosamine metabolism in Candida africana. Tutor: Prof Orazio Romeo

[16/11/2007 – 17/12/2012]

Bechelor's Degree in Biological Sciences (LM-13)

University of Messina

Field Reserch: Microbial Genetics

Final Votation: 108/110

Thesis: Genomic and pathogenicity of Candida parapsilosis species complex. Tutor Prof Giuseppe Criseo

[16/01/2017]

Professional qualification of Biologist

University of Messina

LANGUAGE

MOTHER LANGUAGE: italian

OTHER LANGUAGES:

ENGLISH

LISTENING B2 READING B2 WRITING B2

ORAL PRODUCTION B2 ORAL INTERACTION B2

DIGITAL SKILLS

Statistical programming: R programming language | programming language: awk, sed, bash | Micosoft Office | Windows 7, Windows 8, Windows 10, Windows 11 | ubuntu

2022]

Du W†, Giosa D†, Wei J†, Giuffrè L, Shi G, El Aamri L, D'Alessandro E, Hafidi M, de Hoog S, Romeo O, Huang H. Long-read PacBio genome sequencing of four environmental saprophytic *Sporothrix* species spanning the pathogenic clade. *BMC Genomics* 23, 506 (2022). doi:10.1186/s12864-022-08736-w

[2022]

Dougue AN, El-Kholy MA, Giuffrè L, Galeano G, D'Aleo F, Kountchou CL, Nangwat C, Paul DJ, Giosa D, Pernice I, Shawky SM, Ngouana TK, Boyom FF, Romeo O. Multilocus sequence typing (MLST) analysis reveals many novel genotypes and a high level of genetic diversity in *Candida tropicalis* isolates from Italy and Africa. *Mycoses*. 2022 Jun 17. doi: 10.1111/myc.13483. Epub ahead of print. PMID:35713604.

[2022]

Lanza M, Filippone A, Casili G, Giuffrè L, Scuderi SA, Paterniti I, Campolo M, Cuzzocrea S, Esposito E. Supplementation with SCFAs Re-Establishes Microbiota Composition and Attenuates Hyperalgesia and Pain in a Mouse Model of NTG-Induced Migraine. *Int J Mol Sci*. 2022 Apr 27;23(9):4847. doi: 10.3390/ijms23094847. PMID: 35563235.

[2021]

Giuffrè L, Giosa D, Galeano G, Aiese Cigliano R, Paytuví-Gallart A, Sutera A M, Tardiolo G, Zumbo A, Romeo O, D'Alessandro E (2021). Whole-metagenome shotgun sequencing of pig faecal microbiome. *Italian Journal of Animal Science*, 20(1), 1147-1155. doi:10.1080/1828051X.2021.1952910

Scrivi qui la descrizione...

[2020]

Giosa D, Felice MR, Giuffrè L, Aiese Cigliano R, Paytuví- Gallart A, Lo Passo C, Barresi C, D'Alessandro E, Huang H, Criseo G, Mora-Montes HM, de Hoog S, Romeo O. Transcriptome-wide expression profiling of *Sporothrix schenckii* yeast and mycelial forms and the establishment of the *Sporothrix* Genome DataBase. *Microb Genom*. 2020 Oct;6(10):mgen000445. doi: 10.1099/mgen.0.000445.

[2020]

Romeo O, Marchetta A, Giosa D, Giuffrè L, Urzì C, De Leo F. Whole Genome Sequencing and Comparative Genome Analysis of the Halotolerant Deep Sea Black Yeast *Hortaea werneckii*. *Life (Basel)*. 2020 Oct 2;10(10):229. doi: 10.3390/life10100229. PMID: 33023088; PMCID: PMC7601665.

[2019]

Scordino F, Giuffrè L, Felice MR, Orlando MG, Medici MA, Merlo FM, Romeo O. Genetic diversity of *Candida albicans* isolates recovered from hospital environments and patients with severe acquired brain injuries. *Infect Genet Evol*. 2019 Oct 12:104068. doi:10.1016/j.meegid.2019.104068.

[2019]

E. D'Alessandro, I. Sapienza, D. Giosa, L. Giuffrè, A. Zumbo. In silico analysis of meat quality candidate genes among Nero Siciliano, and Italian heavy pigs genomes. *Large Animal Review* 2019; 25: 137-140.

[2019]

E. D'Alessandro, D. Giosa, I. Sapienza, L. Giuffrè, R. Aiese Cigliano, O. Romeo, A. Zumbo. Whole genome SNPs discovery in Nero Siciliano pig. *Genetics and Molecular Biology*. Accepted: 04-Jan-2019. <https://doi.org/10.1590/1678-4685-GMB-2018-0169>

[2018]

Scordino F, Giuffrè L, Barberi G, Marino Merlo F, Orlando MG, Giosa D, Romeo O. Multilocus Sequence Typing Reveals a New Cluster of Closely Related *Candida tropicalis* Genotypes in Italian Patients With Neurological Disorders. *Front Microbiol*. 2018 Apr 6;9:679. doi: 10.3389/fmicb.2018.00679. eCollection 2018. PubMed PMID: 29696003

[2017]

Felice MR, Giuffrè L, El Aamri L, Hafidi M, Criseo G, Romeo O, Scordino F. Looking for new antifungal drugs from flavonoids: impact of the genetic diversity of *Candida albicans* on the in-vitro response. *Curr Med Chem*. 2017 Dec 25. doi: 10.2174/0929867325666171226102700. PubMed PMID: 29278204.

[2017]

Giosa D, Felice MR, Lawrence TJ, Gulati M, Scordino F, Giuffrè L, Lo Passo C, D'Alessandro E, Criseo G, Ardell DH, Hernday AD, Nobile CJ, Romeo O. Whole RNA-Sequencing and Transcriptome Assembly of *Candida albicans* and *Candida africana* under Chlamydospore-Inducing Conditions. *Genome Biol Evol*. 2017 Jul 1;9(7):1971-1977. Doi:10.1093/gbe/evx143.

[2017]

Chowdhary A, Hagen F, Sharma C, Al-Hatmi AMS, Giuffrè L, Giosa D, Fan S, Badali H, Felice MR, de Hoog S, Meis JF, Romeo O. Whole Genome-Based Amplified Fragment Length Polymorphism Analysis Reveals Genetic Diversity in *Candida africana*. *Front Microbiol*. 2017 Apr 3;8:556. doi:10.3389/fmicb.2017.00556

[2016]

Felice MR, Gulati M, Giuffrè L, Giosa D, Di Bella LM, Criseo G, et al. (2016) Molecular Characterization of the N-Acetylglucosamine Catabolic Genes in *Candida africana*, a Natural NAcetylglucosamine Kinase (HXK1) Mutant. PLoS ONE 11(1): e0147902. doi:10.1371/journal.pone.0147902.

[2016]

Rharmitt S, Hafidi M, Hajjaj H, Scordino F, Giosa D, Giuffrè L, Barreca D, Criseo G, Romeo O. Molecular characterization of patulin producing and non-producing *Penicillium* species in apples from Morocco. Int J Food Microbiol. 2016 Jan 18;217:137-40. doi: 10.1016/j.ijfoodmicro.2015.10.019.

DRIVE LICENSE

Automobile: B

SEMINAR AND CONFERENCE

A Bonomo, G Rigano, M Lui, L Giuffrè, R Aiese Cigliano, O Romeo, D Giosa. *Sporothrix* genome database update and whole phylogenomic analysis.

Bioinformatics and Computational Biology Conference (BBCC), 2022.

Maria Lui, Gabriele Rigano, Andrea Bonomo, Letterio Giuffrè, Orazio Romeo, D Giosa. Bioinformatics analysis of six *Candida parapsilosis* genome assemblies obtained using whole-genome optical maps and Illumina short-read data.

Bioinformatics and Computational biology Conference (BBCC), 2022.

[20/09/2022 – 24/09/2022]

Domenico Giosa, Letterio Giuffrè, Gabriele Rigano, Maria Lui, Orazio Romeo Whole-transcriptome analysis of *Sporothrix brasiliensis* grown in mould- and yeast-inducing conditions.

21st Congress of the International Society for Human and Animal Mycology (ISHAM), New Delhi, India

[15/06/2022 – 18/06/2022]

Viviana Florida, Grazia Galeano, Letterio Giuffrè, Alessandro Zumbo, Orazio Romeo and Enrico d'Alessandro Exploring the fecal microbiota of Ragusano donkey

75° Convegno Sisvet, 2022, Lodi, Italia.

[07/2018 – 07/2018]

Scordino, G. Galeano, MG Orlando, G. Barberi, D. Giosa, L. Giuffrè, F. Marino Merlo, G. Criseo, O. Romeo. Molecular surveillance of healthcare-associated Candida infections in a rehabilitation center for patients with severe acquired brain injuries.

ISHAM 2018, Amsterdam (Olanda)

[07/2018]

L. Giuffrè, I Sapienza, G Criseo, O Romeo, E D'Alessandro. The Intestinal Mycobiota of Nero Siciliano Pig

ISHAM 2018, Amsterdam (Olanda).

[13/06/2018 – 15/06/2018]

SAPIENZA Irene, GIOSA Domenico, GIUFFRÈ Letterio, ROMEO Orazio, CHIOFALO Vincenzo, ZUMBO Alessandro, D'ALESSANDRO Enrico In silico comparison of meat quality candidate genes among Nero Siciliano, Duroc, Large White and Landrace genomes

XII Convegno nazionale Biodiversità, Ambienti, Salute, Università degli Studi di Teramo

[27/10/2017 – 28/10/2017]

L. Giuffrè, D. Giosa, F. scordino, I. Sapienza, G. Criseo, O. Romeo, E. D'Alessandro. Nero Siciliano pig's intestinal mycobiota: phenotypic and molecular characterization.

90° Convegno SIBS, Trapani, Italia

[27/10/2017 – 28/10/2017]

I. Sapienza, M. Pugliese, L. Sinagra, D. Giosa, L. Giuffrè, O. Romeo, E. D'Alessandro. Analysis of the titin-cap gene as candidate for dilated cardiomyopathy in Great Dane.

90° Convegno SIBS, Trapani, Italia

[27/10/2017 – 28/10/2017]

I. Sapienza, C. Rifici, A. Sanfilippo, L. Giuffrè, D. Giosa, O. Romeo, E. D'Alessandro. c-KIT mutation analysis and its relationship with degree of aggression in mast cell tumors in two dog breeds.

90° Convegno SIBS, Trapani, Italia

[27/10/2017 – 28/10/2017]

D. Giosa, A. Zumbo, I. Sapienza, L. Giuffrè, R. Aiese Cigliano, O. Romeo, E. D'Alessandro Whole genome SNPS discovery and analysis of genetic diversity in Nero Siciliano

90° Convegno SIBS, Trapani, Italia

[27/10/2017 – 28/10/2017]

D. Giosa, L. Giuffrè, R. Aiese Cigliano, M.R. Felice, G. Criseo, E. D'Alessandro, O. Romeo Bioinformatics Analysis of Next Generation Sequencing data in Microbiology.

90° Convegno SIBS, Trapani, Italia

[01/12/2016 – 02/12/2016]

D. Giosa, M.R. Felice, L. Giuffré, F. Scordino, C. Lo Passo, G. Criseo, E. D'Alessandro, O. Romeo. Whole mRNA Sequencing and Transcriptome Assembly of *Candida albicans* and *Candida africana* under Chlamydospores-Inducing Conditions.

89° Convegno SIBS, Ozzano dell'Emilia (BO), Italia

[01/12/2016 – 02/12/2016]

L. El Aamri, M. Hafidi, G. Criseo, L. Giuffre, H. Ghalfi, C. Barresi, M.G. Orlando, A. Lebrihi, D. Giosa, O. Romeo. Molecular Identification of Lipase Producing Yeast Isolated from Moroccan Strawberry and Olive Pomace.

89° Convegno SIBS, Ozzano dell'Emilia (BO), Italia

[01/06/2015 – 03/06/2015]

Rharmitt S, Hafidi M, Hajjaj H, Giosa D, Giuffrè L, Barreca D, Criseo G, Scordino F, Romeo O. Molecular and biochemical characterization of patulin producing and non-producing *Penicillium* species in apple fruits from Morocco

37th Mycotoxin workshop, Bratislava, Slovakia.

[25/04/2015 – 28/04/2015]

F. Scordino, D. Delfino, A.D. van Diepeningenc, L. Giuffrè, C. Lo Passo, A. Cascio, G. Criseo, O. Romeo. Microsatellite-based genotyping of *Candida glabrata* isolates reveals close genetic relatedness among African and Italian genotypes.

25th ECCMID; Copenhagen, Denmark.

ORAL COMUNICATION

[14/06/2019]

NGS e bioinformatica per la caratterizzazione di microbiomi umani ed animali.

Biologi in-silico: una nuova generazione di professionisti nell'era della post-genomica e bioinformatica. Messina, Aula Magna Dipartimento Ingegneria, Università degli Studi di Messina.

[27/10/2017 – 28/10/2017]

Nero Siciliano pig's intestinal mycobiota: phenotypic and molecular characterization.

90° Convegno SIBS "Società Italiana di Biologia sperimentale nella ricerca di base ed applicata all'ambiente ed alla salute umana", Trapani, Italia

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".

Messina, 01/06/2023

Letterio Giuffrè