

DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI

(art. 46 D.P.R. n. 445/2000)

DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETÀ

(art. 47 D.P.R. n. 445/2000)

.il... sottoscritto

COGNOME Cicala

NOME Francesco

NATO A

IL

ATTUALMENTE RESIDENTE A

INDIRIZZO

TELEFONO

Visto il D.P.R. 28 dicembre 2000, n. 445 concernente "T.U. delle disposizioni legislative e regolamentari in materia di documentazione amministrativa" e successive modifiche ed integrazioni;

Vista la Legge 12 novembre 2011, n. 183 ed in particolare l'art. 15 concernente le nuove disposizioni in materia di certificati e dichiarazioni sostitutive (*);

Consapevole che, ai sensi dell'art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità:

**che quanto dichiarato nel seguente curriculum vitae et studiorum
comprensivo delle informazioni sulla produzione scientifica
corrisponde a verità**

Curriculum vitae et studiorum

Academic formation:

- PhD in Marine Ecology at Center for Scientific Research and Higher Education of Ensenada (CICESE, Mexico). (2012-2017)

Thesis: Genetic characterization of "Candidatus Xenohaliotis californiensis" associated with blue (*Haliotis fulgens*) and yellow abalone (*Haliotis corrugata*) on the Pacific coast of Baja California.

Advisor: Dr. Axayácatl Rocha Olivares (arocho@cicese.mx)

- Master degree in Eco-Biology at University of Rome La Sapienza (Rome, Italy). (2009-2011)

Thesis: Effects of the *Posidonia oceanica* fragmentation (L.) Delile 1813, in the center part of Italy.

Advisor: Dr. Loreto Rossi (loreto.rossi@uniroma1.it)

➤ Under graduate degree in Biology at University of Rome La Sapienza (Rome, Italy). (2003-2009)
Thesis: *Locomotion and morphological plasticity in genus Podarcis Wagler, 1830; Reptilia, Lacertidae*.
Advisor: Dr. Riccardo Castiglia (riccardo.castiglia@uniroma1.it)

Current Position:

Postdoctoral researcher at University of Padua (Italy) (November 2022- *present*)

- Department of Comparative Biomedicine and Food Science
- Investigation: Adaptation strategies to climate change in bivalve mollusks.
- Advisor: Dr. Luca Peruzza (luca.peruzza@unipd.it)

Previous research experiences:

- Postdoctoral researcher at *Center for Scientific Research and Higher Education of Ensenada* (CICESE, Mexico) (2021-2022)
 - Department of Biomedical Innovation
 - Investigation: Genotypic characterization of SARS-CoV-2 in reinfected patients from Ensenada (Baja California, Mexico).
 - Advisor: PhD Alexei Licea Navarro (alicea@cicese.mx)
- Postdoctoral researcher at of Center for Scientific Research and Higher Education of Ensenada (CICESE, Mexico) (2019-2020)
 - Department of Marine Biotechnology
 - Investigation: Molecular taxonomic identification and genetic connectivity of zooplankton in the Gulf of Mexico.
 - Advisor: PhD Clara Galindo Sanchez (cgalindo@cicese.mx) and PhD Maria Clara Arteaga (arteaga@cicese.mx)
- Postdoctoral researcher at Center for Scientific Research and Higher Education of Ensenada (CICESE, Mexico) (2018-2019)
 - Department of Biomedical Innovation
 - Investigation: Metagenomics analysis of bacterial communities associated with marine sponges of Cabo Pulmo National Park (BCS), to identify genes involved in the synthesis of polyketides and peptides with antimicrobial activity
 - Advisor: PhD. Asuncion Lago-Lestón (asun.lago@gmail.com)
- Postdoctoral researcher at Center for Scientific Research and Higher Education of Ensenada (CICESE, Mexico) (2017-2018)
 - Department of Molecular Ecology
 - Investigation: Use of morphological and molecular tools for the characterization of deep sea meiofauna of Gulf of Mexico.
 - Advisor: PhD. Axayácatl Rocha Olivares (arocha@cicese.mx)

Peer reviewed publications (published & in press):

1. **Cicala Francesco**, Tripp-Valdez Miguel A, Montes-Orozco Vincent, Cervantes-Vazquez Gesem S., Lafarga-De la Cruz Fabiola, 2023. Effects of six diets on the growth and survival rates of red abalone (*Haliotis rufescens*) and its hybrid (*H. rufescens* ♀ x *H. fulgens* ♂). *Scientia Marina* 87, 1:e055 <https://doi.org/10.3989/scimar.05300.055>. **FI:1.4; Q2**
2. Garibay-Valdez Estefanía, Martínez-Cordova Luis Rafael, Vargas-Albores Francisco, Emerenciano Maurício G. C, Miranda-Baeza Anselmo, Cortés-Jacinto Edilmar, Ortiz-Estrada Angel M., **Cicala Francesco**, Martínez-Porchas Marcel, 2022. The biofouling process: The science behind a valuable phenomenon for aquaculture. *Review in Aquaculture* 2022;1–15. <https://doi.org/10.1111/raq.12770>. **FI:10.6; Q1**
3. Peiro-Alcantar Cecilia Isabel, Miranda-Baeza Anselmo, Garibay-Valdez Estefanía, Martinez-Cordova Luis Rafael, Vargas-Albores Francisco, **Cicala Francesco**, Gómez-Reyes Ricardo, Martínez-Porchas Marcel, 2022. Mature biofloc harbor similar bacterial communities regardless of the vegetal floating substrates (oat, amaranth, or wheat) used as promoters. *Aquaculture International* (2022) <https://doi.org/10.1007/s10499-022-00970-z>. **FI:2.9; Q2**
4. **Cicala Francesco**, Ramírez-Delgado David, De Jesus Ehecatl Gomez Ricardo, Martínez-Porchas Marcel, Pardo López Liliana, Jorge Alexander Rojas Jorge, Licea-Navarro Alexei, 2022. Detection of human pathogenic bacteria in sea lions rectal DNA samples from Gulf of California, Mexico. *Scientific Reports* 12, 14859 (2022) <https://doi.org/10.1038/s41598-022-18903-4>. **FI:4.6; Q1**
5. Ramírez-Delgado David, **Cicala Francesco**, González-Sánchez Ricardo, Ávalos-Téllez Rosalía, Solana-Arellano Elena, Licea-Navarro Alexei, 2022. Multi-locus evaluation of gastrointestinal bacterial communities from *Zalophus californianus* pups in the Gulf of California, Mexico. *PeerJ* 10:e13235 <https://doi.org/10.7717/peerj.13235>. **FI:3.06; Q1**
6. López-Landavery Edgar, Amador-Cano Gerardo, Tripp-Valdez Miguel, Ramirez-Álvarez Nancy, **Cicala Francesco**, De Jesus Ehecatl Gomez Ricardo, Díaz Frida, Re-Araujo Denise, Galindo-Sánchez Clara, 2022. Hydrocarbon exposure effect on energetic metabolism and immune response in *Crassostrea virginica*. *Marine Pollution Bulletin* 180(2022):113738. <https://doi.org/10.1016/j.marpolbul.2022.113738>. **FI:7.00; Q1**
7. **Cicala Francesco**, Cisterna-Céliz Jose, Paolinelli Marcos, Moore James, Sevgini Joseph, Rocha-Olivares Axayácatl, 2022. The role of diversity in mediating microbiota structural and functional responses in two abalone species under stressed withering syndrome conditions. *Microbial Ecology* 2022:1-11 <https://doi.org/10.1007/s00248-022-01970-5>. **FI:4.19; Q1**
8. **Cicala Francesco**, Arteaga María Clara, Herzka Sharon, Hereu Clara María, Jimenez-Rosenberg Sylvia, Saavedra-Flores Anaid, Robles-Flores Javier, De Jesus Ehecatl Gomez Ricardo, Batta-Lona Paola Gabriela, Galindo-Sánchez Clara, 2021. Environmental conditions drive zooplankton community structure in the deep-water region of the southern Gulf of Mexico: a molecular approach. *Molecular Ecology* 31:546-561 <https://doi.org/10.1111/mec.16251>. **FI:6.62; Q1**
9. Garibay-Valdez Estefanía, **Cicala Francesco (equal first author)**, Martínez-Porchas Marcel, Gómez-Reyes Ricardo, Vargas-Albores Francisco, Gollas-Galván Teresa, Martínez-Córdova Luis Rafael, Calderón Kadiya, 2021. Longitudinal variations in the gastrointestinal microbiome of the white shrimp, *Litopenaeus vannamei*. *PeerJ* 9:e11827 <https://doi.org/10.7717/peerj.11827>. **FI:3.06; Q1**

10. Valenzuela-Gutiérrez Rocío, Lago-Lestón Asunción, Vargas-Albores Francisco, **Cicala Francesco**, and Martínez-Porchas Marcel, **2021**. Exploring the garlic (*Allium sativum*) properties for fish aquaculture. *Fish Physiology and Biochemistry*, **47**:1179–1198 <https://doi.org/10.1007/s10695-021-00952-7>. **FI:3.01; Q2**
11. Vargas-Albores Francisco Martínez, Martínez-Córdova Luis Rafael, Hernández-Mendoza Adrián, **Cicala Francesco**, Lago-Lastón Asunción, Martínez-Porchas Marcel, **2021**. Therapeutic modulation of fish gut microbiota, a feasible strategy for aquaculture? *Aquaculture*, **544**:737050 <https://doi.org/10.1016/j.aquaculture.2021.737050>. **FI:5.13; Q1**
12. Tripp-Valdez Miguel, **Cicala Francesco**, Galindo-Sanchez Clara Elizabeth, Chacón-Ponce Karla, López-Landavery Edgard, Díaz Fernando, Re-Araujo Denisse, Lafarga De la Cruz Fabiola, **2020**. Growth performance and transcriptomic response of warm-acclimated hybrid abalone *Haliotis rufescens* (♀) x *H. corrugata* (♂). *Marine Biotechnology*, **23**:62-76. <https://doi.org/10.1007/s10126-020-10002-7>. **FI:3.72; Q2**
13. Martínez-Porchas Marcel, Lafarga-De la Cruz Fabiola, Aguilera Felipe, **Cicala Francesco**, Lago-Lestón Asunción, **2020**. Water microbiota is not affected by stocking density of the yellowtail kingfish (*Seriola lalandi*) in a recirculation aquaculture system. *Aquaculture Research*, **52**:410–414. <https://doi.org/10.1111/are.14883>. **FI:2.18; Q2**
14. **Cicala Francesco**, Lago-Lestón Asunción, Gomez-Gil Bruno, Cortés-Jacinto Edilmar, Martínez-Porchas Marcel, **2020**. Gut microbiota shifts in the giant tiger shrimp, *Penaeus monodon*, during postlarvae, juvenile and adult stages. *Aquaculture International*, **28**:1421–1433 <https://doi.org/10.1007/s10499-020-00532-1>. **FI:2.95; Q2**
15. **Cicala Francesco**, Cisterna-Céliz Jose, Moore James, Rocha-Olivares Axayácatl, **2018**. Structure, dynamics and predicted functional ecology of the gut microbiota of the blue (*Haliotis fulgens*) and yellow (*H. corrugata*) abalone from Baja California Sur, Mexico, **2018**. *PeerJ*, **6**:e5830 <https://doi.org/10.7717/peerj.5830>. **FI:3.06; Q1**
16. **Cicala Francesco**, Moore D. James, Cáceres-Martínez Jorge, del Río-Portilla Miguel Angel, Hernández-Rodríguez Monica, Vásquez Yeomans Rebeca, Rocha-Olivares Axayácatl, **2018**. Monomorphic pathogens: the case of *Candidatus Xenohaliotis californiensis* from abalone in California, USA and Baja California, Mexico. *Journal of Invertebrate Pathology*, **154**:19-23. <https://10.1016/j.jip.2018.03.012>. **FI:2.97; Q1**
17. **Cicala Francesco**, Moore D. James, Cáceres-Martínez Jorge, del Río-Portilla Miguel Angel, Hernández-Rodríguez Monica, Vásquez Yeomans Rebeca, Rocha-Olivares Axayácatl, **2017**. Multigenetic characterization of “*Candidatus Xenohaliotis californiensis*.” *International journal of systematic and evolutionary microbiology*, **67**:42–49. <https://doi.org/10.1099/ijsem.0.001563>. **FI:2.68; Q2**

Books Collaboration:

- Herzka, Sharon Z. (Ed.) (2021). Comunidades marinas. En S. Z. Herzka, R. A. Zaragoza Álvarez, E. M. Peters y G. Hernández Cárdenas. (Coord. Gral.). *Atlas de línea base ambiental del golfo de México (tomo III, segunda*

parte), México: Consorcio de Investigación del Golfo de México; pp:8 at <https://atlasigom.cicese.mx/es/dataset/libro-atlas-tomo-3-subtomo-2>.

Distinctions:

- Member of National Research System of Mexico (Sistema Nacional de Investigadores-CONACYT), Level: 1, 2022-present.
- Member of National Research System of Mexico (Sistema Nacional de Investigadores-CONACYT), Level: *Candidate*, 2018-2021.
- Doctorate thesis defense: *Unanimously approved*, 2017.
- Master thesis defense: Approved with *Ad Honorem*, 2011.

Human resources trained

➤ ***Member of thesis committee:***

- Student: Jesus Salvador Oliver Guidaro Flores
- Level: PhD; 2023 – present.
- Institution: Center for Research in Food and Development, A.C. (Hermosillo, Sonora).
- Thesis title: Effect of diseases by infection of *Staphylococcus haemolyticus*, *Nocardia* sp. and *Providencia* sp. in the composition of intestinal microeukaryoma of tilapia (*Oreochromis niloticus*)

- Student: David Rajme Manzur
- Level: PhD; 2021 – *present*.
- Institution: Center for Research in Food and Development, A.C. (Hermosillo, Sonora).
- Thesis title: Transcriptomic analysis of granulomatous diseases in Tilapia: a model to study host-pathogen interactions in fish.

- Student: Rocio Aracely Valenzuela Gutiérrez
- Level: PhD; 2019 – *present*.
- Institution: Center for Research in Food and Development, A.C. (Hermosillo, Sonora).
- Thesis title: Composition and functionality of the intestinal microbiota of mackerel (*Seriola lalandi*) fed with added garlic diets.

➤ ***Director of academic courses:***

- Transcriptome and differential expression (Postgraduate number: 293/23) (March/May, 2023)
- Basic Bioinformatics at CICESE (Postgraduate number: 002241) (January/Abril, 2021)
- Basic Bioinformatics at CICESE (Postgraduate number: 002241) (January/Abril, 2020)
- Basic Bioinformatics at CICESE (Postgraduate number: 002241) (January/Abril, 2019)

Congresses, Workshops, Symposia:

- Webinar in the Coastal Oceanography Seminar series, September 29th 2022. Oral presentation titled: Microbiota influences on mollusks health: the case of abalone Withering Syndrome

- Summer School Congress - Topics of Microbiota in Animal Production, January 10-17 (Santiago de Chile, Chile, 2022). Oral presentation titled: Microbiota influence on mollusks health: The case of abalone Withering Syndrome.
- Workshop Genome Assembly, January 11-14, 2021, (Mansfield, Connecticut, United States - *remote access*).
- Western Society of Naturalist 100th Meeting, November 01, 2019 (Ensenada, Baja California, Mexico). Poster presentation titled: *Growth and transcriptomic profile of warm-acclimated hybrid abalone (Haliotis rufescens x Haliotis corrugata)*.
- 6th Bioinformatics Workshop. Mining Microbial and Viral Genomes and Metagenomes for Biotechnological Applications using IMG Workshop, September 30-October 1, 2019 (Ensenada, Baja California, Mexico).
- Environmental Metatranscriptomics Workshop, September 8-9, 2018 (Ensenada, Baja California, Mexico).
- 3th Workshop of Meiofauna from the deep see of Gulf of Mexico, November 24-26, 2018. (Ensenada, Baja California, Mexico).
- 2nd Benthic Invertebrate Taxonomy, Metagenomics, and Bioinformatics (BITMaB-2) Workshop, January 15-19, 2018 (Corpus Christi, Texas, United States).
- 3th Workshop of genomic sequence analysis and metagenomics, September 23-26, 2014 (Ensenada, Baja California, Mexico).
- 49th Western Society of Malacologists, 82th American Malacological Society Annual Meetings, June 12-16 (Ensenada, Baja California, Mexico, 2014). Oral presentation titled: *Molecular description of the intestinal bacterial flora in wild Mexican population of Haliotis corrugate and Haliotis fulgens*.

Work Abilities and Skills

➤ *Bioinformatics Skills:*

- Operating systems: Linux/Ubuntu and Windows.
- Next-generation sequencing Technologies: Illumina MiSeq and HiSeq, Ion Torrent and 454 Pyrosequencing.
- Bioinformatics analysis: Quality control, structural microbiome characterization, *de-novo* and reference assembly, sequences alignment, differential expression, ontology analysis, metabolic pathways and protein network analysis.
- Bioinformatics Platforms: Qiime1 and Qiime2, RStudio, Galaxy, MG-RAST and IMG.
- Software for DNA and RNA-Seq analysis: Fastqc, Multiqc, Trimmomatic, Trinity, SPAdes, Mira, MegaHits, Quast, Transrate, Blast, Mafft, Kraken, Pplacer, SortMeRNA, PiCRUST.
- Software for Phylogenetic analysis: MrBayes, BEAST, RAxML, Fasttree, Paup, MEGAX.
- Software for Protein analysis: Busco, David and STRING.
- Software for Population genetics analysis: Primer6, STATISTICA, MEGAX, Geneious, CodonCode, ARLEQUIN, GenePop.

➤ *Practical laboratory and organizational skills:*

- DNA/RNA isolation and quantification (Bioanalyzer™, Qubit®, and nanodrop).
- DNA cloning and cDNA synthesis.
- Primer design, Polymerase Chain Reaction (PCR) and quantitative-PCR (qPCR and RT_qPCR).
- Transcriptome and Metagenome library construction.

- Microbiological tests for water, sediment, and tissues for aquaculture
- Experimental design, troubleshooting and protocol adaptation and optimization.
- Interdisciplinary team-based research.
- Publication of complex research in formal and informal settings.

➤ **Language experience:**

- Italian: Native speaker.
- Spanish: Advanced speaking, writing and oral expression.
- English: Advanced speaking, writing and oral expression.

Journal reviewer:

- *Fishes* (<https://www.mdpi.com/journal/fishes>) reviewer since 2022.
- *iMeta* (<https://onlinelibrary.wiley.com/journal/2770596x>) reviewer since 2022.
- *Frontiers in Marine Science* (<https://www.frontiersin.org/journals/marine-science>) reviewer since 2022.
- *Molecular Ecology* (Wiley Online Library at <https://onlinelibrary.wiley.com/journal/1365294x>) reviewer since 2022.
- *Ecological Genetics and Genomics* (Elsevier publisher at <https://www.journals.elsevier.com/ecological-genetics-and-genomics>) reviewer since 2021.
- *Aquaculture Reports* (Elsevier publisher at <https://www.journals.elsevier.com/aquaculture-reports>;) reviewer since 2020.
- *Animal Gene* (Elsevier publisher at <https://www.journals.elsevier.com/animal-gene>) candidate reviewer.

Additional work experiences:

- Histopathological analysis for the detection of *Candidatus Xenohaliotis californiensis*. Supervised by PhD. James Douglas Moore at Bodega Marine Laboratory, University of California at Davis (UC MEXUS-CICESE fellowship winner). (January/Abril, 2015)
- Photography volunteer in the research project “*Sea lions as sentinels of global change on vulnerable ecosystems in the coast and islands in the west of the Baja California Peninsula*”, supervised by PhD. Yolanda Schramm at UABC (Ensenada, Baja California, Mexico) (2009-2010)
- Volunteer in the research project “*Genetic characterization of Elephant Sea, Sea lions and seals in the Pacific islands of Baja California*”. Supervised by PhD Gisela Heckel at CICESE (Ensenada, Baja California, Mexico) (2009-2010)

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(*) ai sensi dell'art. 15, comma 1 della Legge 12/11/2011, n. 183 le certificazioni rilasciate dalla P.A. in ordine a stati, qualità personali e fatti sono valide e utilizzabili solo nei rapporti tra privati; nei rapporti con gli Organi della Pubblica Amministrazione e i gestori di pubblici servizi, i certificati sono sempre sostituiti dalle dichiarazioni sostitutive di certificazione o dall'atto di notorietà di cui agli artt. 46 e 47 del DPR 445/2000