

# RITA JOSÉ QUINTAL ESCÓRCIO

A catalyst for a positive change

## EU Bioeconomy Youth Ambassador PhD Student

I've been working in Biotechnology since 2017 aiming to valorise agro-industrial residues to obtain high value products exploring functional molecules & biomaterials.

### Work interests

Biopolymers; Bioprocesses; Biotechnology

### Languages

Portuguese (native); English (fluent)

## Work/ Experience

### Bioeconomy Youth Ambassador (2022-2024)

Selected by **European Commission**

#### PinusResina Project

Ref: PDR2020-101-031905

Biotech project about the Portuguese Resin

Research Fellowship  
ITQB-NOVA, Portugal  
Jan 2020 - Dez 2021

#### FLIPT Project

Ref: 713475

EU H2020 Biotech project about natural polymers

Research Fellowship  
ITQB-NOVA, Portugal  
Fev 2019 - Dez 2020

### Master thesis project

In the search of novel bioplastics: Exploiting bio & chemical tools to fine tune the physicochemical properties of plant polyesters

ITQB-NOVA  
Out 2018 - Sep 2019

## Education

### PhD student in Molecular Biosciences

Instituto de Tecnologia Química e Biológica (ITQB-NOVA)

Jan 2022- present

Scholarship from the FCT

### Master's Degree in Biotechnology for Sustainability

Instituto de Tecnologia Química e Biológica (ITQB-NOVA)

Oct 2017 - Dez 2019

Scholarship from Santa Cruz Municipality - Madeira Island

Scholarship from Caniço City - Madeira Island

### Bachelor's Degree in Biology Biotechnology (branch)

University of Azores  
Sep 2014 - Jul 2017

Scholarship from the Regional Government of Madeira Island

## PUBLISHED WORKS IN BIOPOLYMERS

### Author

Finding a Needle in a Haystack: Producing Antimicrobial Cutin-Derived Oligomers from Tomato Pomace. ACS Sustainable Chemistry & Engineering 2022, <https://doi.org/10.1021/acssuschemeng.2c03437>

### Co-author

Pinus radiata bark sequentially processed using scCO<sub>2</sub> and an ionic liquid catalyst yields plentiful resin acids and alkanolic acids enriched suberin. Industrial Crops and Products 2022, <https://doi.org/10.1016/j.indcrop.2022.115172>

Quantification of Structure-Property Relationships for Plant Polyesters Reveals Suberin and Cutin Idiosyncrasies. ACS Sustainable Chemistry & Engineering 2021, <https://doi.org/10.1021/acssuschemeng.1c04733>

Bioinspired co-polyesters of hydroxy-fatty acids extracted from tomato peel agro-wastes and glycerol with tunable mechanical, thermal and barrier properties. Industrial Crops and Products 2021, <https://doi.org/10.1016/j.indcrop.2021.113718>.

An Ionic Liquid Extraction That Preserves the Molecular Structure of Cutin Shown by Nuclear Magnetic Resonance. Plant Physiology 2020, <https://doi.org/10.1104/pp.20.01049>

## SCIENCE COMMUNICATION & SCIENTIFIC OUTREACH ACTIVITIES

Speaker in Clube Crescer com Ciência (C4) in School Camilo Castelo Branco, Carnaxide, November 2022.

Interviewed by a national TV Station "RTP1", November 2022.

Interviewed by a national newspaper "Expresso", October 2022.  
Speaker in the high-level EU Bioeconomy conference, in the session "Youth engagement in the Bioeconomy", Brussels 2022.

Participation in the 7th estoril conference entitled "Rebalancing our World: A call for the purpose generation", Carcavelos 2022.

Participation with Poliéster band on the closing ceremony of European Researchers' Night, Oeiras 2021.

Speaker in an online interview done by a national television channel (SIC) addressing "July month without plastic", 2020.

Speaker in a JORTEC shotgun talk at FCT NOVA being awarded with the 3rd place, Almada 2020.

International Microorganism Day, representing ITQB NOVA and Cristina Silva Pereira's Lab (AEM) presenting filamentous fungi and bacteria in daily life objects, Lisbon 2018.

Participation in Science 2018 –meeting of Portuguese researchers. This event focused in the debate on the design of the future 9th European Research and Innovation Framework Program, 2021-2028, Lisbon 2018.

## ORGANIZATION OF EVENTS

5th Biology Conference entitled "Inovating and Discovering in Azores" at University of Azores (UAç), Ponta delgada – Portugal (2017)

4th Biology Conference entitled "Investigate Biology" at University of Azores (UAç), Ponta delgada – Portugal (2016)

## HOBBIES AND ACTIVITIES

Member of Poliéster Band 2018-present

Member of National Scouts Movement (CNE) 2007-2017

Member of Oblíquo Band 2012-2014

Singing and playing guitar

Gardening

Videogames

Reading



More information here

## REFERENCE CONTACT

Prof. Dr. Cristina Silva Pereira  
Principal Investigator and Associated Professor  
[spereira@itqb.unl.pt](mailto:spereira@itqb.unl.pt)

## PERSONAL CONTACTS

Email: [escorcio@itqb.unl.pt](mailto:escorcio@itqb.unl.pt)  
ITQB-NOVA, Av. da República,  
2780-157 Oeiras



@ritajescorcio