

## Microbiology education: The case of the SARS-CoV-2 and Covid-19 pandemic in didactic transposition P22

Carvalho G. S.<sup>1</sup>, Lima N.<sup>2</sup>

<sup>1</sup>CIEC. Institute of Education, University of Minho, <sup>2</sup>MUM, CEB - Biological Engineering Centre, University of Minho

The school constitutes a privileged setting for learning international scientific knowledge and local socio-economic and political context knowledge. Selecting content to be learned in school is a permanent tension matter of great social and political relevance. The didactic transposition looks at how and when scientific contents ("International scientific knowledge") are selected to be taught in school ("Knowledge to be taught") in the External Didactic Transposition (EDT) process and how this knowledge is taught and learned at school ("Learned knowledge") in the Internal Didactic Transposition (IDT). In the EDT process, policymakers select the knowledge to be taught in schools from international scientific knowledge, creating national school programmes that also serve as textbook guidelines to be used as pedagogical resources in the classroom. These decisions are subject to the influences of several sectors of society, such as politicians, agencies, educators and other stakeholders, and so they take a long time to be established.

This work shows how critical social issues such as the SARS-CoV-2 and Covid-19 pandemic could disturb the usual process of didactic transposition. Indeed, usually, there is a considerable period between the emergence of a scientific concept and its appearance in the national curriculum called Didactic Transposition Delay (DTD). Therefore, it was expected that the SARS-CoV-2 and Covid-19 pandemic topics would be added, in the future, to the national curricula and textbooks of most countries. However, being a matter of great social interest, the SARS-CoV-2 and Covid-19 pandemic topic, which emerged in late 2019 and had a massive social impact on the whole planet in 2020, started almost immediately to be a matter of classroom discussions between teachers and students ("learned knowledge"), much time before textbooks were available to support the teaching and learning process and national programmes would be published even much later. Therefore, in this process, there was a shortcut where the SARS-CoV-2 and Covid-19 pandemic topic ("International scientific knowledge") surpassed the curriculum step ("Knowledge to be taught") to be taught in school ("Learned knowledge") at once.

Acknowledgements: This research had partial financial support from Portuguese national funds through the FCT (Foundation for Science and Technology) within the framework of the CIEC project UIDB/00317/2020 and CEB project UIDB/04469/2020. It also had the partial support of the European Union's Horizon 2020 research and innovation programme under grant agreement n° 871129 - IS\_MIRRI21 Project.



15<sup>TH</sup>

INTERNATIONAL  
CONFERENCE ON CULTURE  
COLLECTIONS

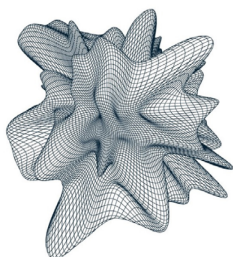
Exploiting Microbial Resources to Support Social Wellbeing

ICCC 15

Abstracts Book

**Edited by:**

Nelson Lima  
Carla Santos  
Célia Soares  
Manuel G. Silva  
Ana João Ferreira  
Ricardo Meirelles Cruz



**ICCC 15**

INTERNATIONAL CONFERENCE  
ON CULTURE COLLECTIONS

---

12-16 JUNE 2023

**University of Minho**, Campus Gualtar

Exploiting Microbial Resources to  
Support Social Wellbeing

**Abstracts Book**

ICCC 15

Edited by:

Nelson Lima

Carla Santos

Célia Soares

Manuel G. Silva

Ana João Ferreira

Ricardo Meirelles Cruz

15<sup>th</sup> International Conference on Culture Collections  
**Exploiting Microbial Resources to Support Social Wellbeing**

Braga | University of Minho | Campus Gualtar  
12 to 16 June 2023

Abstracts Book ICCC 15

Title: 15<sup>th</sup> International Conference on Culture  
Collections: Exploiting Microbial Resources to  
Support Social Wellbeing

Editors: Lima N., Santos C., Soares C., Silva M. G., Ferreira  
A. J., Cruz R. M.

Cover, Graphic  
design & Text processing: Manuel G. Silva, MUM - Micoteca da Universidade  
do Minho

Edition published by: MUM - Micoteca da Universidade do Minho  
<https://www.micoteca.deb.uminho.pt/>

1<sup>st</sup> Edition: November 2023

Place & Country: Braga, Portugal

Digital publication: PDF

ISBN: 978-972-97916-6-6

All rights are reserved to the MUM - Micoteca da Universidade do Minho, however, the abstracts can be freely reviewed, abstracted, reproduced or translated, in part or in whole, but not for sale or use in conjunction with commercial purposes. The views expressed or implied in this publication, unless otherwise noted, should not be interpreted as official positions of the MUM. In addition, the partial support from the IS\_MIRRI21 EU project (grant agreement nº. 871129) impels that this document reflects only the author's view and the Commission is not responsible for any use that may be made of the information it contains.