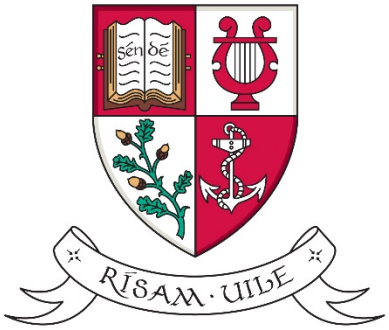

CIT Open Access Policy Procedures
Version 1
(June 2020)

1.0 Document Details

Title:	Open Access Policy Procedures
Author(s):	CIT Library; CIT Research Office
This Version Number:	1.0
Status:	Approved
Effective Date:	June 2020
Review Date:	June 2022

Important Note: If the 'Status' of this document reads 'Draft', it has not been finalised and should not be relied upon.

2.0 Revision History

Version Number	Revision Date	Summary of Changes	Changes tracked?
1.0			

3.0 Relevant/Related Existing Internal Documents

Cork Institute of Technology, Policy on Open Access, February 2020
Cork Institute of Technology, Policy on Intellectual Property, November 2019
Cork Institute of Technology, Code of Good Practice in Research, June 2019
Cork Institute of Technology, Regulations for Postgraduate Research Study, June 2015

4.0 Relevant/Related Existing External Documents

National Framework on the Transition to an Open Research Environment 2019
EU Commission Directive 2019/790 of 17 April 2019 on copyright and related rights in Digital Single Market and amending Directives 96/9/EC and 2001/29/EC
Commission Recommendation (EU) 2018/790 of 25 April 2018 on access to and preservation of scientific information C/2018/2375

5.0 Consultation History

This document has been prepared in consultation with the following bodies:

Research & Innovation Committee of Academic Council; Academic Staff and Students via Academic Council

6.0 Approvals

This document requires following approvals (in order where applicable):

Name	Date	Details of Approval Required
Academic Council	17/06/20	Version 1.0

7.0 Context and Purpose

Open Access allows for the online sharing of research and scholarly work without the barrier of subscription paywalls.

The Institute is committed to ensuring Open Access to its research in order to demonstrate the value of its outputs to the public and for the benefit of society at large. In doing this Cork Institute of Technology ("CIT") amplifies the profiles of its researchers and fulfils the needs of funder mandates, as well as increasing the potential for collaboration with researchers nationally and internationally.

In accordance with the Institute's Open Access Policy and the procedures outlined in this document, CIT demonstrates its support of the *National Framework on the Transition to an Open Research Environment*[1] and moves towards an alignment with the European Commission's most recent recommendations on the access to and preservation of scientific information.[2]

8.0 Policy

This document outlines the procedures for compliance with the Cork Institute of Technology Open Access Policy.

9.0 Scope

CIT's Open Access Policy and its related procedures outlined in this document apply to all research and scholarly work ("Works") authored or co-authored by CIT staff ("Staff") and research students ("Students") during their affiliation with CIT.

[1] National Framework on the Transition to an Open Research Environment 2019

[2] Commission Recommendation (EU) 2018/790 of 25 April 2018 on access to and preservation of scientific information C/2018/2

This includes:
a) All full-time and part-time postgraduate research students enrolled at CIT ("Students");
b) All full-time and part-time employees of CIT, including those on contracts of a permanent, pro-rata, casual, fixed-term or of an indefinite nature, as well as post-doctoral or other researchers ("Staff"); and
c) All individuals other than Students and Staff who engage in research or scholarly activities during their affiliation with CIT.
The categories of persons listed above are referred to collectively in this document as "Personnel".

10.0 Procedures

Institute personnel are entitled and expected to deposit digital copies of their works in CIT's open-access repository in accordance with the Institute's Open Access Policy.

The Digital Scholarship and Research Data Management Office ("Library") within Cork Institute of Technology Library Service will oversee the deposit of works and the running of the Institute's open-access repository.

10.1 What to Deposit

10.1.1 Peer-reviewed Material

The open-research repository will accept deposits of digital copies of peer-reviewed works to include but not limited to:

- Articles.
- Conference papers.
- Monographs.
- Book chapters.
- Any datasets related to the above.

10.1.2 Grey Literature

Further to this, the open-access repository will accept grey literature that has been generated during the time of a person's affiliation with CIT. Such items will include but are not limited to:

- Reports.
- Conference proceedings.
- Posters.

10.1.3 Postgraduate Research Outputs

The open-access repository will also accept digital copies of postgraduate research outputs and related artefacts. This refers to both full and part-time research students of the Institute enrolled in a course of study leading to a qualification at Level 9 (research) or Level 10.

A separate policy exists for the depositing of Masters and Ph.D. theses.[3]

[3] Cork Institute of Technology, Regulations for Postgraduate Research Study, June 2015

10.2 Deposit versus Open Access

Depositing these works ensures the preservation of CIT's outputs; it is a separate action from making work openly available and cannot be waived. Personnel should deposit work in the open-access repository regardless of whether it is to be made openly available.

10.3 Versions of Work

Where possible, the "version of record", i.e., the final published version, of an author's work should be forwarded to the Library via email for deposit in the open-research repository.

In the case of peer reviewed material, i.e., articles, conference papers, monographs and book chapters, the open-research deposit will accept the "author's accepted version" of the material. This is also known as the "Post-print." This is the version of the paper that has been accepted by the publisher, with all their corrections completed. It is the version of the material before it is published on the publisher's site, i.e., the "published version" or the "version of record." The content of both versions is the same with the only differences being in presentation. See Figures 1, 2 & 3 for examples.

Subsequent or updated versions of "author accepted version" can be forwarded to the Library via email. The Library will then update the item record in the open-access repository.

The Library will ensure that all deposits will include full metadata which will comply with FAIR Data Principles[4],, i.e.,, that data is Findable, Accessible, Interoperable and Reusable. In keeping with this, all deposits will comply with the CIT Code of Good Practice in Research, specifically section 11.2.[5]

The Library and open-research deposit will also meet the mandatory metadata requirements for OpenAire[6] compliance, as require by Horizon 2020 funding mandates.

[4] European Commission. Turning FAIR into reality: Final Report and Action Plan from the European Commission Expert Group on FAIR Data. Luxembourg: Publications Office of the European Union; 2018

[5] Cork Institute of Technology, Code of Good Practice in Research, June 2019

[6] European Commission. Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020. Luxembourg: Publications Office of the European Union; 2017.

Author's Accepted Version (AAM) | Post Print

Antimicrobial Agents and Chemotherapy: Article

Exploiting interkingdom interactions for the development of small molecule inhibitors of *Candida albicans* biofilm formation

F. Jerry Reen[1], John P. Phelan[1], Lorna Gallagher[1], David F. Woods[1], Rachel M. Shanahan[2], Rafael Cano[2], Eoin Ó Muimhneacháin[2], Gerard P. McGlacken[2] and Fergal O'Gara[1,3#].

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[3] School of Biomedical Sciences, Curtin Health Innovation Research Institute, Curtin University, Perth, WA 6102, Australia.

Running Head: Hydroxy Alkylquinolone signals target *Candida* biofilm.

FJR and JPP contributed equally to this work.

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Abstract

A rapid decline in the development of new antimicrobial therapeutics has coincided with the emergence of new and more aggressive multidrug resistant pathogens. Pathogens are protected from antibiotic activity by their ability to enter an aggregative biofilm state. Therefore, disrupting this process in pathogens is a key strategy for the development of next generation antimicrobials. Here we present a suite of compounds, based on the *Pseudomonas aeruginosa* 2-heptyl-4(1H)-quinolone (HHQ) core quinolone interkingdom signal structure, that exhibit non-cytotoxic anti-biofilm activity towards the fungal pathogen *Candida albicans*. In addition to providing new insights into what is a clinically important bacterial-fungal interaction, the capacity to modularize the functionality of the quinolone signals is an important advance in harnessing the therapeutic potential of signaling molecules in general. This provides a platform for the development of potent next generation small molecular therapeutics targeting clinically relevant fungal pathogens.

Figure 1.

Figure 2.

Author's Accepted Version (AAM) | Post Prints

AMERICAN SOCIETY FOR MICROBIOLOGY | Antimicrobial Agents and Chemotherapy

Exploiting Interkingdom Interactions for Development of Small-Molecule Inhibitors of *Candida albicans* Biofilm Formation

F. Jerry Reen,[a] John P. Phelan,[a] Lorna Gallagher,[a] David F. Woods,[a] Rachel M. Shanahan,[b] Rafael Cano,[b] Eoin Ó Muimhneacháin,[b] Gerard P. McGlacken,[b] Fergal O'Gara[a,c]

Biomerit Research Centre, School of Microbiology, University College Cork—National University of Ireland, Cork, Ireland[a]; School of Chemistry and Analytical and Biological Chemistry Research Facility (ABCRF), University College Cork—National University of Ireland, Cork, Ireland[b]; School of Biomedical Sciences, Curtin Health Innovation Research Institute, Curtin University, Perth, Australia[c]

A rapid decline in the development of new antimicrobial therapeutics has coincided with the emergence of new and more aggressive multidrug-resistant pathogens. Pathogens are protected from antibiotic activity by their ability to enter an aggregative biofilm state. Therefore, disrupting this process in pathogens is a key strategy for the development of next-generation antimicrobials. Here, we present a suite of compounds, based on the *Pseudomonas aeruginosa* 2-heptyl-4(1H)-quinolone (HHQ) core quinolone interkingdom signal structure, that exhibit noncytotoxic antibiofilm activity toward the fungal pathogen *Candida albicans*. In addition to providing new insights into what is a clinically important bacterium-fungus interaction, the capacity to modularize the functionality of the quinolone signals is an important advance in harnessing the therapeutic potential of signaling molecules in general. This provides a platform for the development of potent next-generation small-molecule therapeutics targeting clinically relevant fungal pathogens.

With the ever-increasing emergence of antibiotic-resistant pathogens and the lack of new antibiotics coming to market, we are entering a "postantibiotic era" (1–3). This realization has underpinned a global initiative to identify new and innovative approaches to infection management. As such, targeting virulence as a potential strategy for developing new antimicrobial drugs has been the focus of several research initiatives (4–11). In principle, suppressing virulence behavior and locking pathogens in a vegetative non-biofilm-forming lifestyle renders them less infective and more susceptible to conventional antibiotics (4, 12). While some success has been achieved against bacterial pathogens (6, 10, 13–19), less focus has been placed on fungal infections, which nevertheless continue to cause serious complications and mortality in patients (8, 20–22). Indeed, despite the medical and economic damage caused by fungal biofilms, there remains an urgent and largely unmet need for the identification of compounds able to specifically and selectively target and inhibit this mode of growth in clinically relevant fungal pathogens (23).

The predominant nosocomial fungal pathogens, which include *Candida* spp., *Aspergillus* spp., and *Fusarium* spp., are difficult to diagnose and cause high morbidity and mortality, even following antifungal therapy (21). *Candida albicans* causes a variety of complications ranging from mucosal disease to deep-seated mycoses, particularly in immunocompromised individuals (21, 24). Along with other fungal and yeast pathogens, *C. albicans* is known to form structured communities called biofilms on medical devices either pre- or postimplantation, leading to recurring infections and in some cases death (25, 26). Once established in the biofilm phase, *C. albicans* presents a significant clinical problem, with current treatment options severely limited by the intrinsic tolerance of fungal biofilms for antimycotics (20, 27, 28). Recent combination therapies incorporating antibacterial and antifungal agents have shown some success (29). However, as with all antibiotic-based strategies, reports of resistance continue to emerge (27), and biofilms themselves are considered a breeding ground for the emergence of antibiotic-resistant strains, effectively hastening the onset of the perfect storm where the rapid decline in new antibiotic production has been met by an equally rapid increase in multidrug-resistant organisms (1). Thus, there is a need to consider new anti-infective strategies that do not target essential processes in the target organism. While blocking biofilms in these organisms remains a major clinical challenge (26, 30), exploiting our increased understanding of microbial signaling networks to control virulence and biofilm behavior is one innovative approach with significant potential.

Many sites of infection are colonized by communities of mixed fungal and bacterial organisms, and several layers of communication significantly impact the dynamics and flux of these populations (31, 32). For example, *C. albicans* is known to coexist with *Pseudomonas aeruginosa* in the cystic fibrosis (CF) lung, and interkingdom communication between the two organisms has previously been reported (16, 33). The *Pseudomonas* quinolone signal (PQS), 2-heptyl-3-hydroxy-4-quinolone, and its biological precursor, 2-heptyl-4-quinolone (HHQ), are important virulence factors produced by *P. aeruginosa*. Structurally, PQS and HHQ differ by the presence of a hydrogen at C-3 in HHQ and a hydroxyl group in PQS, giving rise to the increased interest in modulating

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Address correspondence to Fergal O'Gara, f.ogara@ucc.ie.
F.J.R. and J.P.P. contributed equally to this work.
Supplemental material for this article may be found at http://dx.doi.org/10.1128/AAC.00190-16.

Figure 3.

10.4 Process of Depositing Works

A digital version of an author's work should be sent to the repository managers via email as soon as possible and no later than the date of its publication.

Figure 4 outlines at which point of the scholarly communication process the author should email the Library to deposit their work. The Library will upload and make the work openly available in accordance with the terms of the relevant publisher agreements.

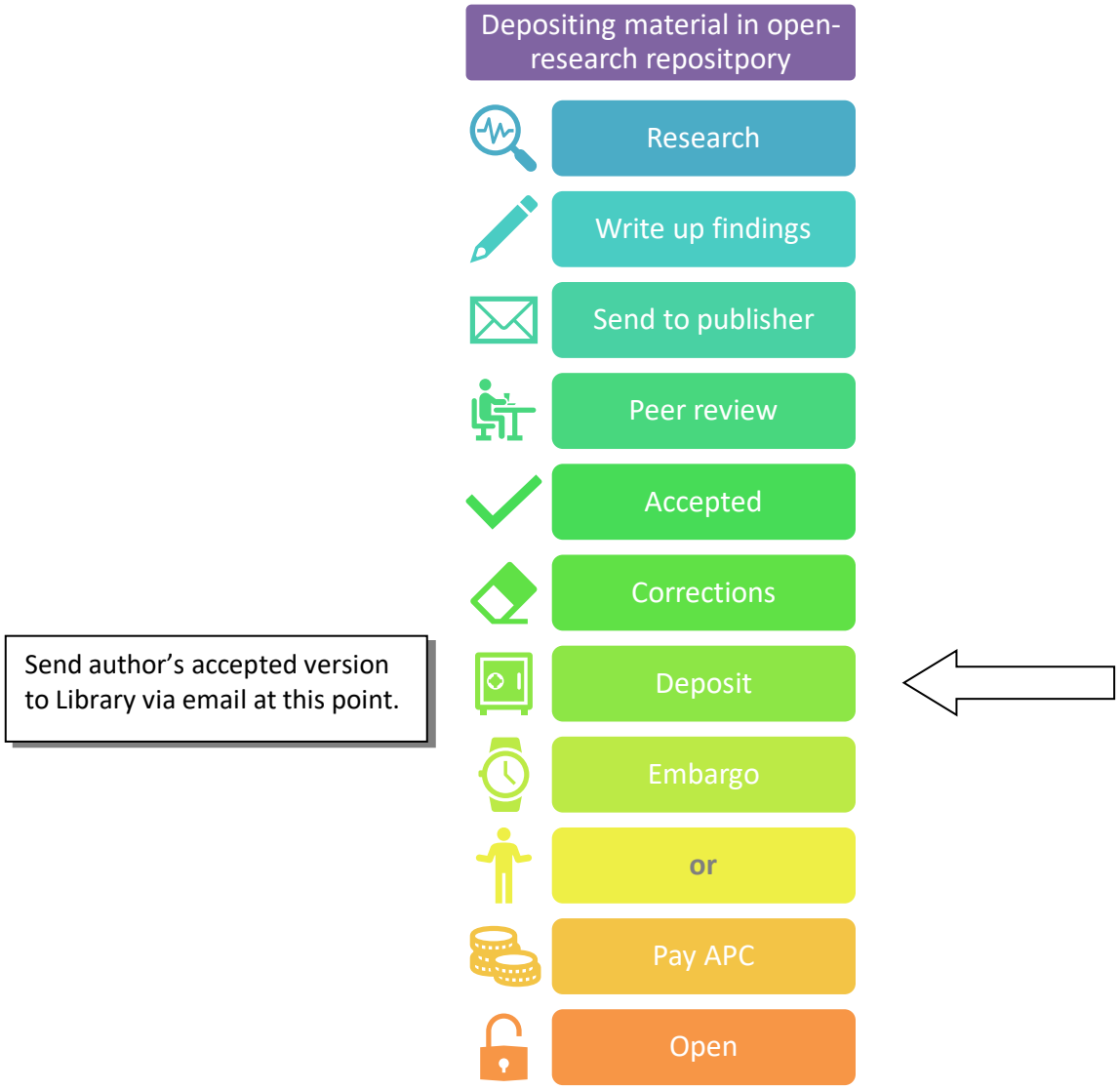

Figure 4 Illustration of point of the scholarly communication process the author should email the Library to deposit their work

In addition to this, the Library will harvest and accept previously published works authored or co-authored by CIT personnel during their affiliation with the Institute that are already openly available and deposit them in the open-access repository. Personnel should email such works to the open-access repository managers.

11.0 Exceptions

If there is a project related restriction reason for not making work openly available at the time of deposit - e.g. ethical, legal, or intellectual property reasons– then the full text of the item can remain closed for the duration of an agreed embargo period.

The application for an open access waiver can be made to the Responsible Officers by filling out the Open Access Waiver Form.[7]

The Responsible Officers will inform the Library of any Open Access Waivers granted and will instruct them on the duration of any subsequent embargoes that are approved.

The work will only become available through Open Access when the embargo period ends.

11.1 Appealing Open Access Waiver Decisions

If an author wishes to appeal a decision made by the Responsible Officers, they must initiate the *Procedure Governing Appeal to the President*.

To initiate an appeal, an author must write to the President, setting out the grounds of appeal in detail within 10 working days of the date of notification of the Open Access Waiver decision which is being appealed.

The President will convene a President's Appeal Board chaired by a member of the Institute's Executive Board (other than the President, the Registrar and the VP of External Affairs) and including the President's nominee and the Responsible Officer's nominee.

The President's Appeal Board may invite submissions from the author and any other persons it deems necessary and may meet with them or determine the matter on the basis of written submissions alone (if this is deemed appropriate in the circumstances).

The President's Appeal Board may confirm the decision made by the Responsible Officers or permit the author to receive a waiver for the work in question, subject to such conditions as it determines appropriate in the circumstances.

The President's Appeal Board shall normally communicate its decision in writing within 15 working days of the meeting.

12.0 Copyright

CIT encourages all authors to retain the copyright of their publications and materials deposited in the open-access repository.

The open-access repository does not assume ownership rights of authors' deposited works.

Unless otherwise directed through publisher policies, all works deposited in the open-access repository will be made available under the Creative Commons Attribution 4.0 License (CC BY 4.0).[8]

[7] To be created and linked

[8] Creative Commons Attribution 4.0 International Public License (CC BY 4.0)

Any license applied to material deposited in the open-access repository shall grant the right for text and data mining, in accordance with EU copyright guidelines.[9]

Library staff will endeavour to ensure that all deposits made will honour original publisher policies and guidelines. However, copyright compliance remains the sole responsibility of the author(s).

13.0 Responsible Officer(s)

The Registrar and Vice President for Academic Affairs and the Vice President for External Affairs, in consultation with the Head of Research, the Institute Librarian and the Research and Innovation Committee of Academic Council will be responsible for interpreting this procedures document, resolving disputes concerning its interpretation and application, and recommending changes to the Institute from time to time.

14.0 Relevant Definitions

In relation to this document the following terms to be understood as:

Term	Explanation
Author's Accepted Manuscript (AAM)	This is the version of the paper that has been accepted by the publisher, with all their corrections completed by the author but has yet to go through the copy-editing process, i.e., inclusion of publisher typesetting, logos etc. It is the version of the material before it is published on the publisher's site. It is also called a "Postprint". See Figures 1, 2 & 3 for examples.
Article Processing Charge (APC)	This is a publication fee that author's pay to a publisher to make the published version of their work immediately available. IT is often referred to as Gold Open Access.
Creative Commons License	A Creative Commons License is a public copyright license that allows authors to freely distribute their work through whichever means they see fit.
Copyright	The legal right granted to an author for their Intellectual Property. It is a property right and so can be transferred to another party, such as a publisher for the dissemination of the work.
Deposit	This means to place, i.e., upload, a digital copy of a work in the open-access repository for the purposes of preservation.

[9] EU Commission Directive 2019/790 of 17 April 2019 on copyright and related rights in Digital Single Market and amending Directives 96/9/EC and 2001/29/EC

Embargo	An embargo is a time restriction on a work. Publisher's often include these in their policies to advice author's when they are legally allowed to make a version of their published work available through an open-access repository.
FAIR	Findable, Accessible, Interoperable and Re-usable.
Grey Literature	Grey Literature is non-traditional research and scholarly outputs that are not ordinarily published, e.g. reports, working papers, white papers etc.
Intellectual Property (IP)	IP is property that derives from original creative thought. It can subsist in a variety of tangible and intangible forms such as poetry, music, art and technological or scientific inventions (CIT IP Policy 2019).
Metadata	Metadata is data that describes other data. It summarises aspects of the work submitted such as item type, author, file size and more. Adequate metadata ensures works are retrievable to those searching for them.
National Open Research Forum	The National Open Research Forum (NORF) has been established to deliver an Irish agenda for open research. This Forum is co-chaired by the Higher Education Authority (HEA) and the Health Research Board (HRB) with secretariat from the Department of Business, Enterprise and Innovation (DBEI). CIT officially endorsed the National Framework on the Transition to an Open Research Environment in July 2019.
Open Access	Open Access refers to online, free of cost access to peer reviewed scientific content with limited copyright and licensing restrictions.
OpenAIRE	OpenAIRE is a European project supporting Open Science. OpenAIRE is a technical infrastructure harvesting research output from connected data providers.
Open-access repository	The open-access repository will collect, preserve and freely disseminate digital copies of CITs research outputs, in accordance with publisher policies.

Peer-review	Peer-review is the process of validation and quality to which scholarly work is assessed to determine its suitability for publication. Peer-review is carried out by people of high standing in the field to which the scholarly work relates. Hence the name.
Plan S	Plan S is a funder initiative that requires that, from 2021, scientific publications that result from research funded by public grants must be published in compliant Open Access journals or platforms.
Postgraduate	This refers to both full and part-time research students of the Institute enrolled in a course of study leading to a Level 9 or Level 10 qualification, i.e., Masters or PhD.
Post-Print	The same as "Author's Accepted Manuscript". See above.
Published Version	The official and final published version of a work.
Publisher Policies	This refers to the policies in place by publishers in relation to an author's right to self-archive a version of their work in an open-access repository.
Research & Scholarly Work	This refers to outputs of research and scholarship created by CIT personnel. It includes peer reviewed material such as journal articles, book chapters, conference papers, and monographs, as well as grey material, such as reports, conference proceedings and posters.
Scholarly Communications	Scholarly Communication is the mechanism through which research and scholarship is created, evaluated, disseminated and preserved. It includes journal articles, book chapters, conference papers, monographs, as well as emerging publications like data sets, data visualisations, blog etc.
Version of Record	The same as "Published Version", see above.