Research Data & Scholix

Experience so far at Elsevier

Deborah Sweet
November 2019
Linking supporting Research Data to articles

1. Manuscript
   - Add data URL

2. RD4TA
   - Data availability Statement (DAS)
     - D1
     - D2

3. References
   - A1
   - D1
   - D2
   - E1
   - A2
   - A3

Data for: Contribution of bone marrow-derived cells to in situ engineered tissue capsules in a rat model of chronic kidney disease

A – Article citation
D – Data citation in References or Data Link
E – Entity citation in References or Entity Accession Number

Data deposited
Paper published online
Paper accepted

ScienceDirect

ELSEVIER

Linking Data & Literature
Scholix: connecting the dots

**Past:** disconnected sources using heterogeneity of practices

**Future:** standard set of guidelines for exposing and consuming links, supported by hubs

- Scholix: linking Research Data with the Literature
- A schema for standardizing the exchange of scholarly link information between scholarly infrastructure providers
  - Information Model for scholarly links representation
  - Recommendation and provision of exchange formats and protocols

See also http://www.scholix.org/guidelines
A new dihydroxanthone from a plant-associated strain of the fungus Chaetomium globosum demonstrates anticancer activity (Article)

Wijeratne, E.M.K.¹, Turbyville, T.J.²,³, Fritz, A.⁴, Whitewell, L.⁴, Gunatilaka, A.A.L.²

¹Southwest Center for Natural Products Research and Commercialization, Office of Arid Lands Studies, College of Agriculture and Life Sciences, 250 E. Valencia Road, Tucson, AZ 85706-6800, United States
²Steele Memorial Children's Research Center, University of Arizona Health Sciences Center, 1501 N. Campbell Avenue, Tucson, AZ 85724, United States

Abstract

Bioassay-guided fractionation of a cytotoxic ETOAc extract of the fungal strain, Chaetomium globosum, inhabiting the rhizosphere of the Christmas cactus, Opuntia leptocaulis, of the Sonoran desert afforded a new dihydroxanthone, globosuxanthone A (1), a new tetrahydroxanthone, globosuxanthone B (2), two new xanthenes, globosuxanthone C (3) and D (4), 2-hydroxyxertianthone (5), and two known anthraquinones (6 and 7). The structures of the new compounds 1-4 were elucidated by NMR and MS techniques, and the relative stereochemistry of 1 was determined by X-ray crystallographic analysis. Of the compounds encountered, 1 was found to exhibit strong cytotoxicity against a panel of seven human solid tumor cell lines, disrupt the cell cycle leading to the accumulation of cells in either G2/M or S phase, and induce classic signs of apoptosis. © 2006 Elsevier Ltd. All rights reserved.
Scopus uses Scholix to link to repositories (example CCDC)
Progress….

The **simplest way** to achieve this is:

1. **Capture** the research data (link) in the submission process
2. Processes are already in place with **editorial system providers** (with common standards)
3. **Submit data link to CrossRef** as part of standard metadata submission process

It will automatically get into the Scholix.org article-data linking ecosystem!
Linking research data - where we are now

1. During manuscript submission:
   a. URLs to any repository (dataprofile.xml for EES/EVISE)
   b. Direct deposit to Mendeley Data (MD integration with EES/EVISE)

2. Database linking (DOI-based call to OpenAire API for pairs of article-data)

3. SD Scholix implementation (SD whitelisted repositories)

4. 1-time deposit of article metadata to Crossref/Scholix

Linking research data - projects up next

1. During manuscript submission:
   a. URLs to any repository → dataprofile.xml for EM
   b. Direct deposit to Mendeley Data → MD integration Aries API

2. Database linking (DOI-based call to OpenAire API for pairs of article-data)

3. SD Scholix implementation (SD whitelisted repositories) → increase number of repositories (starting Q4 2019)

4. Continuous deposition of article information to CrossRef/Scholix

Policy updates to encourage sharing: statements and beyond