

Apollo, Cambridge's Institutional Repository, and the University's CRIS system

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Outline

- Overview of systems at Cambridge
- Repository and CRIS integrations
 - Before & after
 - Integration points
- Benefits & challenges
- Next steps

Background: Apollo

Apollo - University of Cambridge Repository

This repository holds the research output of members of the University of Cambridge. It is delivered and managed by the University Library's [Office of Scholarly Communication](#) team.



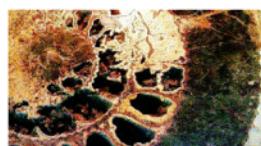
School of Arts and Humanities



School of Clinical Medicine



School of Technology



School of the Biological Sciences



School of the Humanities and Social Sciences



School of the Physical Sciences



Colleges



Other Communities

Share your
research

<https://www.repository.cam.ac.uk>

- Apollo holds the University's research outputs
- Available since 2003
- Runs on the DSpace repository platform (open source)

Background: Apollo use



- One of largest DSpace repositories in the world (over 230,000 items)

- Since May 2016 ...
 - 17,000 DOIs minted
 - > 2.5 million downloads of repository content
 - > 28,000 full-text files available open access

*Source: Institutional Repositories Usage Statistics UK (IRUS UK)

Background: Symplectic Elements

The screenshot shows a publication record for a paper titled "Circulating concentrations of vitamin D in relation to pancreatic cancer risk in European populations." The page includes details like authors, journal, date, citation metrics, and a history of interactions with the system.

Publication Details:
Circulating concentrations of vitamin D in relation to pancreatic cancer risk in European populations.
Int J Cancer 142(6):1189-1201 15 Mar 2018 [Author URI](#)

Altmetrics: 2

Citation Metrics: RCR 0, Dimensions 0, EPMC 0, Scopus 0, WoS -

Journal Rankings: International Journal of Cancer, SNIP 1.86, SJR 2.85

Full text: Available in Apollo, first deposited 27 Mar 2018. There is 1 file in the repository: [Circulating concentrations of vitamin D in relation to pancreatic cancer risk in European populations.pdf](#) (Published version)

Data sources: Dimensions for Universities, Europe PubMed Central

Actions: Add a new journal article, Mark as Favourite, Add to Workspace

Reporting Date: 15 Mar 2018

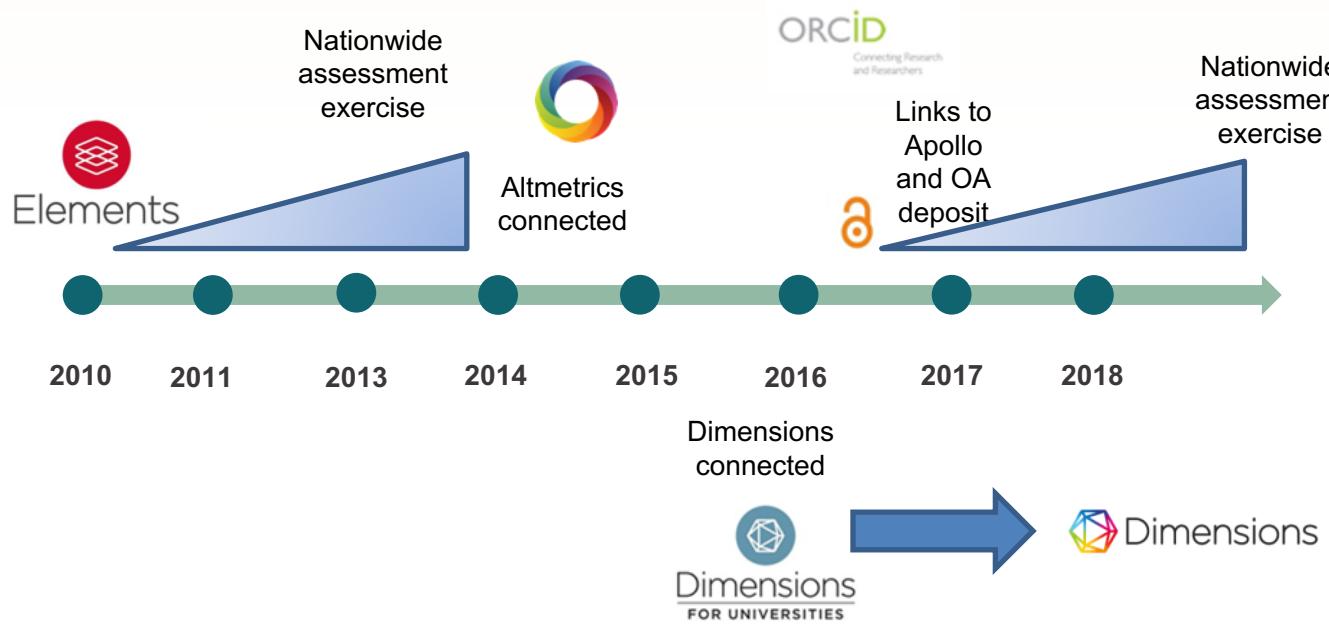
History: Showing 1 - 4 of 7 (newest first) [View all](#)

- Removed relationship of type "Funded by" from: CORE GRANT: AETIOLOGY OF TYPE 2 DIABETES AND RELATED METABOLIC DISORDERS (Grant). by Hannah Dingwall 08/06/2018
- Created OA policy exception Deposit6. by Hannah Dingwall 31/05/2018
- Manual source added. Manual source set as preferred for Philippa Grimstone. Reporting date(s) updated. by Philippa Grimstone 29/03/2018
- Deposit to repository completed. by Hannah Dingwall 27/03/2018

<https://elements.admin.cam.ac.uk>

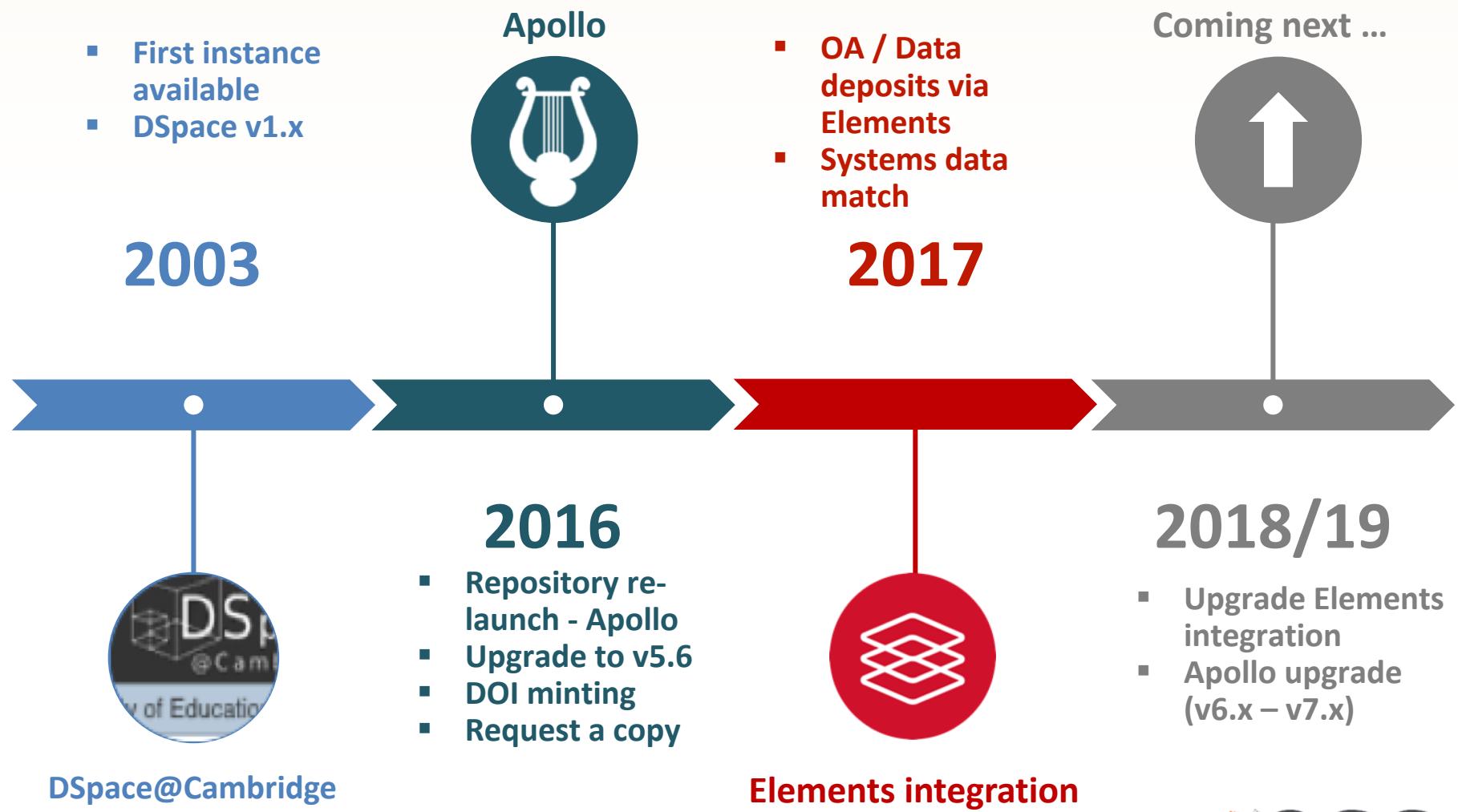
- Elements (v5.10)
- Internal system in use since 2010
- Linked data
 - ~ 6K active users
 - ~250K publications
 - ~14K grants
 - ~14K professional activities

Background: Symplectic Elements (II)



Timeline of research information at Cambridge

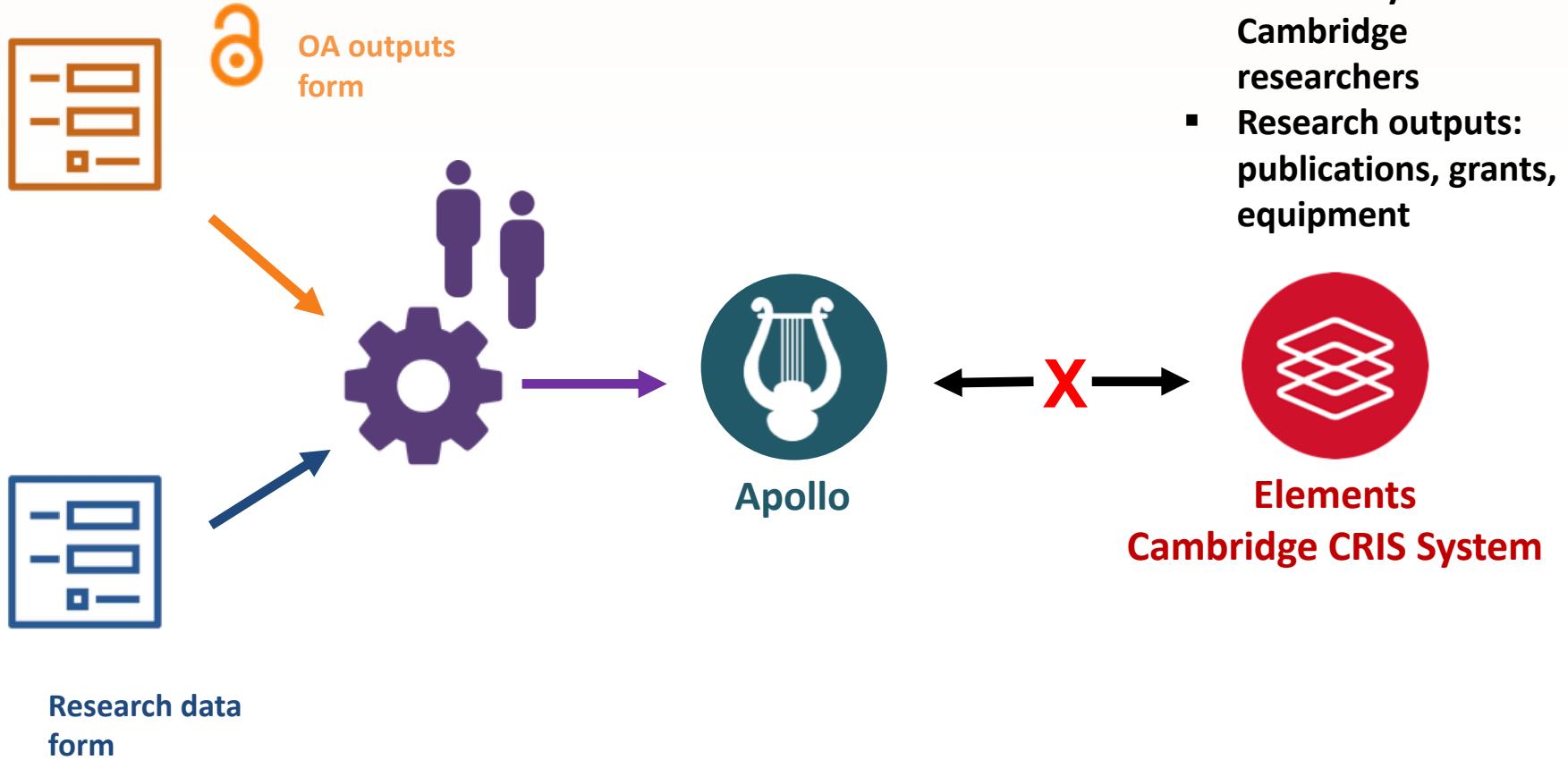
Repository integrations project



DSpace@Cambridge

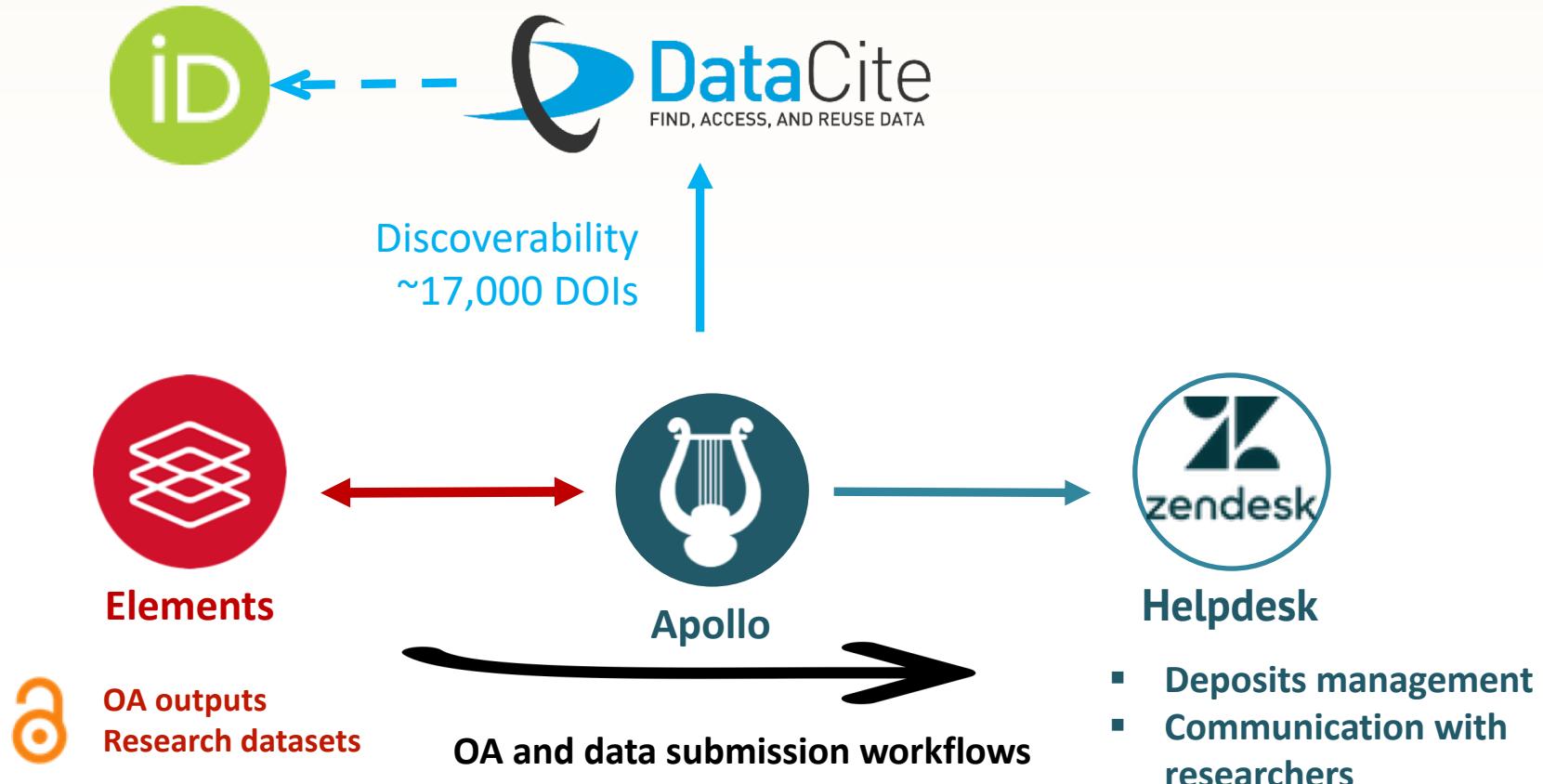
Elements integration

Before integration



Prior to repository upgrade: disconnected systems

After integration



Following from upgrade ...

Integration points (and workflows)



Open Access (OA)

Article and data deposits
via CRIS

OA workflows

- Submission management
- Communication with researchers

Repository ← → Elements

- Via Repository Tools 1 (RT1) connector
- Repository – CRIS metadata crosswalks
- Data match to link existing repository content in CRIS
- Automatic update of repository records

Repository → Helpdesk

- Via Zendesk API
- Tickets creation and update
- Receive updates from Elements

Benefits after integration

For researchers

- ‘One stop’ shop: OA deposits, grants linking and researcher profiles
- Flexible submission workflows: **placeholder DOIs** for in-progress research datasets can be issued

Open Access policies and funder compliance

- Enhanced reporting
- Data available from a single source

Enhanced visibility of outputs

- DOI registration and richer publications metadata
- Populated ORCID profiles

Remaining challenges

Technological

- Systems dependencies: cannot upgrade DSpace beyond **v5.x** due to incompatibility with the RT1 connector
- Duplicate records in Elements due to multiple submissions: i.e. accepted and published versions of articles
- Metadata updates: “all or nothing”

Data related

- OA compliance reporting is very complex and relies on the availability of complete publications data
- Varied coverage from external metadata sources

Operational

- Large volume of deposits (it is a good thing!) but review processes in the repository are cumbersome and time-consuming
- Very complex user interface for researchers in CRIS system

Next steps: migrate to RT2

- Upgrade current repository – CRIS connector to Repository Tools 2 (**RT2**)
 - Repository – CRIS integration decoupled from repository
 - Enhanced and highly configurable metadata crosswalks
- Current blockers preventing migration now
 - Lack of subsequent deposits into the repository
 - Metadata updates from CRIS to repository not available yet

Next steps: Fast-track deposits

Publication summary

Title	Learned hook avoidance of lemon sharks (<i>Negaprion brevirostris</i>) based on electroreception and shock treatment
Publisher DOI	10.1080/17451000903099749
Elements ID	860002

Required Information

Uploaded File(s)

File name	What's this version?	Delete?
SpaeGruber.pdf	Published version	<button>Delete</button>

[Add file\(s\)](#)

Describe this manuscript *

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Proof version
Version after copy-editing/typesetting by publisher but before publication

Other
Unidentified or problematic version – forward to Open Access team

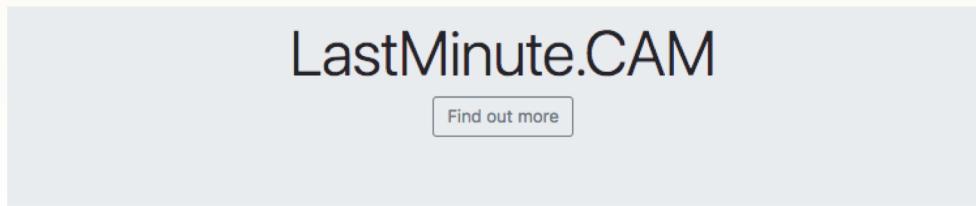
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- Simple web interface to review repository OA submissions
 - Via DSpace API
- Reduced processing times
- Better response times and communication with researchers

Next steps: Lastminute.CAM



Home Publications list

Publication information

Publication ID	Journal	
798005	Arch Intern Med	
Title	Clinical presentation, etiology, and outcome of infective endocarditis in the 21st century: the In	
Acceptance date	Online publication date	Print publication date
<input type="text"/>	<input type="text"/>	2009-03-09
Does your paper acknowledge COAF or RCUK funding? <input type="radio"/> Yes <input type="radio"/> No		
Add authors +		
Link to funding +		
Select grants by funder reference		
<input type="text"/> Search by grant identifier, e.g. EP/X/12345		<input type="checkbox"/> Search by Title
Probabilistic Auditory Scene Analysis		EP/G050821/1 <input type="button" value="X"/>
<input type="button" value="Submit"/>		

- Simple web interface to update publications information in the CRIS system
 - Via Elements API
- Enhanced researcher experience
- Collect key information in a timely manner
- Enhance compliance reporting

Thanks!