<table>
<thead>
<tr>
<th>Title</th>
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<tr>
<td>Author(s)</td>
<td>Bollini, A; Lam, Allen; Mornati, S; Palmer, DT</td>
</tr>
<tr>
<td>Citation</td>
<td>Open Repositories 2010, Madrid, 6 - 9 July 2010.</td>
</tr>
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<td>Issued Date</td>
<td>2010-07-08</td>
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<td>URL</td>
<td><a href="http://hdl.handle.net/10722/61139">http://hdl.handle.net/10722/61139</a></td>
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<td>Rights</td>
<td>This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.</td>
</tr>
</tbody>
</table>
Authority framework in 1.6 and CILEA’s customization for The University of Hong Kong

Andrea Bollini CILEA
Allen Lam HKU
Susanna Mornati CILEA
David Palmer HKU
Flight Plan

David
• New design & customizations for HKU’s IR
• The reason & funding wherefore
• Serendipitous discoveries

Andrea
• Authority Framework in 1.6
• Linkage between DSpace items, and author profiles
• Technical background of the RPs Project
The HKU Scholars Hub

The HKU Scholars Hub is the institutional repository of The University of Hong Kong. It seeks to collect the intellectual output of HKU and make it available to the widest possible audience. Records are made in the Hub for items that are fulltext open access, or for URLs that hyperlink to the same.

Quick search of The Hub

Search the author, title, abstract and series fields.

Search

For phrase search, please use quotation marks, for example, "Wann, John", or "Behavior Therapy".

Break News

- HKU & Springer sign deal to allow all HKU faculty & students to publish in Open Access.
- Can we arrange seminar for your dept on ResearcherPages and the Springer deal? Please write to us. Seminars now arranged.

Prof. L. Samaranayake

An interview with the HKU Dean of Dentistry on the role
Prof Tam, Paul Kwong Hang

Pro-Vice-Chancellor and Vice-President (Research)
Chair of Paediatric Surgery

Also Cited As:
- Tam, Paul
- Tam, Paul KH

Research Interests:
- Genomics
- Developmental biology
- Immunology
- Paediatric surgery

About HKU ResearcherPages
- HKU ResearcherPages assist and enhance the research reputations of HKU authors and their institution. They enable Knowledge Exchange between HKU and the community in Hong Kong, China, and the World.
- How to edit your ResearcherPage?
- Publications listed here are ones for which we have fulltext and permission to post. Complete publication lists (without fulltext attached) will be imported in 2010, from HKU Research Output System and Scopus, and then de-duplicated. RP owners will also be able to upload and attach CVs later this year.

Authorised Items in the HUB - 1 to 20 of 43

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
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<tr>
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<td>Sun, Z; Wang, H; Liu, F; Chen, Y; Tam, PKH; Yang, D</td>
<td>2009</td>
</tr>
<tr>
<td>Chinese patients with sporadic Hirschsprung's disease are predominantly represented by a single RET haplotype</td>
<td>Garcia-Barcelo, MM; Sham, MH; Lui, VCH; Chen, BL; Song, YQ; Loo, WS; Yung, SK; Romeo, G; Tam, PKH</td>
<td>2003</td>
</tr>
</tbody>
</table>
Prof Tam, Paul Kwong Hang

Pro-Vice- Chancellor and Vice-President (Research)
Chair of Paediatric Surgery

Tel: 2855 4850
Office: G0 1540
Dept: Vice-Chancellor's Office
Email: paultam@hkucc.hku.hk

Personal Page | Biography

Research Interests:
- Genomics
- Developmental biology
- Immunology
- Paediatric surgery

Spoken Languages: English | Cantonese | Putonghua (国語 | 粵語 | 普通話)
Written Languages: English | Chinese (英文 | 中文)

Area of expertise:
- Paediatric surgery (Hirschsprung's disease and related disorders; genetics of neuroblastoma; experimental immunology; genomics of childhood tumours; minimal invasive surgery; bilary atresia and choledochal cyst)

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Bibliometric Data

Hub Items for: Tam, PKH

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Prof Tam, Paul Kwong Hang

Pro-Vice-Chancellor and Vice-President (Research)
Chair of Paediatric Surgery

Also Cited As:
- Tam, Paul
- Tam, Paul KH

Research Interests:
- Genomics
- Developmental biology
- Immunology
- Paediatric surgery

Spoken Languages:
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- Putonghua (简体中文 粤语)

Written Languages:
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- Chinese (英文 中文)

Area of expertise:
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Biobibliometric Data

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<td>Abnormal enteric nervous system development</td>
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Hub Items for: Tam, PKH

Go to ResearcherID.com to view more information
Tam, Paul K H

Personal
Name: Tam, Paul K H

Other formats: Tam, P. K. H., Tam, P., Tam, K. H.

Affiliation: University of Hong Kong, Department of Surgery
Kowloon, Hong Kong

Research
Documents: 296
References: 4637
Cited By: 2456
h Index: 24

Co-authors: 150

Web Search: 62228

Subject Area: Medicine, Biochemistry, Genetics and Molecular Biology, Chemistry

History
Publication range: 1982-Present
Source history:
- Gastroenterology
- Seminars in Neonatology
- Journal of the American College of Surgeons

Affiliation history:
- Institute of Molecular Technology for Drug Discovery and Synthesis, Hong Kong, Department of Chemistry
- Centre for Reproduction, Development, and Growth
- Morningside Laboratory for Chemical Biology, Department of Chemistry
- Université Paris Descartes, Faculty of Medicine
- Li Ka Shing Faculty of Medicine, Department of Surgery
- QMH, Department of Surgery
- Shenyang, China
- Paris, France
- Hong Kong, China

Documents
This author has published 296 documents in Scopus:
(Showing the 2 most recent)
- Salcido-Ochoa, F., Tsang, J., Tam, P., Falk, K., Rotzschke, O.
  Regulatory T cells in transplantation: does extracellular adenosine triphosphate metabolism through CD39 play a crucial role?
  (2010) Transplantation Reviews Abstract + Refs
  Synthetic fluorescent probes for imaging of peroxynitrite and hypochlorous acid in living cells.

View details of all 296 documents by this author
Inform me when this author publishes new documents in Scopus:
- E-mail alert

Cited By since 1996
This author has been cited 2466 times in Scopus:
(Showing the 2 most recent)
Results: Author=(tam phk) OR Author=(tam paul) OR Author=(tam kwong hang paul)

View Distinct Author Sets for tam phk
The Distinct Author Set feature is a discovery tool showing sets of papers likely written by the same person. (Tell me more)

Results: 275

1. Title: Clinical Experience in Managing Pediatric Patients with Ultra-short Bowel Syndrome using Omega-3 Fatty Acid
   Author(s): Chung PHY, Wong KKY, Wong RMS, et al.
   Source: EUROPEAN JOURNAL OF PEDIATRIC SURGERY Volume: 20 Issue: 2 Pages: 139-141 Published: MAR 2010
   Times Cited: 0
2. Title: Lack of association between nNOS-84G-A polymorphism and risk of infantile hypertrophic pyloric stenosis in a Chinese population
   Author(s): Miao XP, Garcia-Barcelo MM, So MT, et al.
   Source: JOURNAL OF PEDIATRIC SURGERY Volume: 45 Issue: 4 Pages: 709-713 Published: APR 2010
   Times Cited: 0
3. Title: Reduced RET expression in gut tissue of individuals carrying risk alleles of Hirschsprung's disease
   Author(s): Miao XP, Leon TYY, Ngan ESW, et al.
   Source: HUMAN MOLECULAR GENETICS Volume: 19 Issue: 8 Pages: 1461-1467 Published: APR 15 2010
   Times Cited: 0
4. Title: Silver Nanoparticles Mediate Differential Responses in Keratinocytes and Fibroblasts during Skin Wound Healing
   Author(s): Liu XL, Lee PY, Ho CM, et al.
   Source: CHEMMEDCHEM Volume: 5 Issue: 3 Pages: 468-475 Published: MAR 2010
   Times Cited: 0
5. Title: Management of choledochal cyst: 30 years of experience and results in a single center
   Author(s): She WH, Chung HY, Lan LCL, et al.
   Conference Information: 42nd Annual Meeting of the Pacific-Association-of-Pediatric-Surgeons, MAY 10-14, 2009 Hong Kong, PE0
Web Services to Integrate with Workflow

Institution automatically creates RID profiles

- Unique identifier for each researcher
- Researchers maintain control of information and privacy
- Current updated Web of Science citation counts into institutional repositories and systems

Updated citation counts, profile and publication data flow into institutions

HKU
港大

Slide, courtesy of Thomson Reuters.
Professor Tam has received numerous awards including the BAPS prize, Royal College of Surgeons’ gold medal, etc. He has published extensively including 19 chapters in 11 books and over 211 original articles in international journals. He was the Founding Director of the Centre of Human Development and Birth Defects.

My URLs:
http://hub.hku.hk/rp/rp00060
http://www.hku.hk/vcoffice/menu/pvc-tam_Biography.htm

Total Articles in Publication List: 673
Articles With Citation Data: 278
Sum of the Times Cited: 7372
Average Citations per Article: 26.52
h-index: 27
Last Updated: 05/15/2010 14:04 GMT
Samaranayake, Lakshman Perera

Staff Number: 18361
Full Name: Samaranayake, Lakshman Perera

Academic Name: Samaranayake, LP
Chinese Name: 西門維慨
Honorific: Professor

Biography:

Title

Title #0: Dean
Title #1: Chair of Oral Microbiology

Add Title

Picture:
Authority Control

- Hierarchy of Authority & Synonymy
  - Authorized headings
  - Variant headings
- Multi-script Synonymy
  - Roman, Traditional Chinese, Simplified Chinese, Japanese, Korean, etc. (UTF-8)
Prof. Bacon-Shone
Associate Dean of Social Sciences
Research Interest: “Gambling”

Relevant searches usually appear at top, or near the top of the list.
Why did we do it?

Knowledge Transfer:

- “the systems and processes by which knowledge, including technology, know-how, expertise and skills are transferred between higher education institutions and society, leading to innovative, profitable or economic or social improvements”

US$6.5M/yr, divided by 8 Universities in Hong Kong

At HKU

- Re-articulated Vision:
  - Teaching & Learning
  - Research
  - Knowledge Exchange (KE)

- KE includes,
  - Database of Visible Expertise to Enable & Measure KE
    - Metrics from citation databases
    - Research Output & Grants, etc.
    - Expanded OA Strategy
Serendipity
1) Online Reputation Management

- Internet Footprint
- Findability
- Identity exposure, disclosure
- Cybervetting
  - One bad apple...
2) Meanwhile,

- Reputation & identity of the institution:
  - University rankings
  - RAE
  - Peer Review
  - Parent’s choice of school for child
  - Recruiter’s choice
  - Media spokesmanship
  - Collaborative partnerships
  - Contract research undertaken
  - Funding received
  - Etc.
The Reputation of the University?
Increases

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<td>392,540</td>
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<td>RID – h index</td>
<td>4,892</td>
<td>5,210</td>
<td>6.5%</td>
</tr>
</tbody>
</table>
3) HK’s Research Assessment Exercise

- **UK:**
  - Research Excellence Framework (REF)

- **Australia**
  - Excellence in Research for Australia (ERA)
4) For HKU, a trusted authority

- ORCID - Open Researcher & Contributor ID
  - Based upon ResearcherID
  - All authors & publishers to use
  - Citation databases; Scopus, WoS
  - June 2010

- BKNpeople – Bibliographic Knowledge Network People
5) Re-positioning the academic library

- OCLC Report
  - Leverage value of IR in RAES
  - Provide a researcher-centred view
  - Moving beyond putting books on shelves
  - Aligned with institution’s vision & mission

6) Re-thinking the IR

Moral and philosophical approaches have failed
And here, pilots switch in mid-stream

Authority Framework in DSpace 1.6
Technical details

-The Authority framework is one of the new major features of DSpace 1.6

-Main contribution & projectual idea by Larry Stone

-CILEA / HKU Project was an early adopter. For this we provided JSPUI & PostgreSQL porting, browse & search enchangement with support for variants names and forms
Authority Framework: responsibilities

- Bind metadata fields to an Authority
- Retrieve matching values from user queries / input
- Supply the standard form and variants for an authority key
Authority Framework: main classes

org.dspace.content.authority

- MetadataAuthorityManager
- ChoiceAuthorityManager

Extensibility provided by:
- ChoiceAuthority
- AuthorityVariantsSupport

Configuration
Query

How TO Query ? WS, SQL, ...
Retrieve variants
Authority Framework: extension points

```
org.dspace.content.authority

ChoiceAuthority 5124
- getMatches(String, int, int, int, String) : Choices
- getBestMatch(String, int, String) : Choices
- getLabel(String, String) : String

AuthorityVariantsSupport 4365
- getVariants(String, String) : List<String>
```
Authority Framework: which authorities?

- Library of Congress Personal names authority: **LCNameAuthority**
- Sherpa RoMEO Project, publisher names authority: **SRPublisherAuthority**
- Sherpa RoMEO Project, Journal titles authority: **SRJournalTitle**
- DSpace Input Form XML based controlled list: **DCInputAuthority**
Authority Framework: which authorities?

```java
plugin.named.org.dspace.content.authority.ChoiceAuthority = \
    org.dspace.content.authority.SampleAuthority = Sample, \
    org.dspace.content.authority.LCNameAuthority = LCNameAuthority, \
    org.dspace.content.authority.SHERPARoMEOPublisher = SRPublisher, \
    org.dspace.content.authority.SHERPARoMEOJournalTitle = SRJournalTitle

## This ChoiceAuthority plugin is automatically configured with every
## value-pairs element in input-forms.xml, namely:
##   common_identifiers, common_types, common_iso_languages
plugin.selfnamed.org.dspace.content.authority.ChoiceAuthority = \
    org.dspace.content.authority.DCInputAuthority
```
Changes to the Data Model

- Two new fields for the MetadataValue class: authority & confidence

```
CREATE TABLE MetadataValue
(
    metadata_value_id INTEGER PRIMARY KEY DEFAULT NEXTVAL('metadatavalue_seq'),
    item_id INTEGER REFERENCES Item(item_id),
    metadata_field_id INTEGER REFERENCES MetadataFieldRegistry(metadata_field_id),
    text_value TEXT,
    text_lang VARCHAR(24),
    place INTEGER,
    authority VARCHAR(100),
    confidence INTEGER DEFAULT -1
);
```

Added fields in DSpace 1.6
Authority Framework: settings

Interactive settings

choices.plugin.dc.contributor.author = LCNameAuthority
choices.presentation.dc.contributor.author = lookup | suggest | select
choices.closed.dc.contributor.author = false

General settings – model constraints

authority.controlled.dc.contributor.author = true
authority.required.dc.contributor.author = false
authority.minconfidence.dc.contributor.author = accepted *
authority.minconfidence = ambiguous *

* More on this later
Authority Framework: UI lookup

Pop-up windows
Authority Framework: UI lookup

An icon show metadata value bind to an authority key
Authority Framework: UI suggest

Autocomplete AJAX
Authority Framework: UI conclusion

- For a short authority list a simple html select widget can be used
- The input facility is available also in the edit item page
- All the widgets are available in both UIs: JSPUI and XMLUI
## Authority Framework: UI conclusion

The image shows a screen capture of the Manakin interface, a user interface for managing metadata. The screen includes fields for adding metadata elements such as authors, publisher, and titles. The table below illustrates the structured data entry:

### Table: Metadata Entry

<table>
<thead>
<tr>
<th>Remove</th>
<th>Name</th>
<th>Value</th>
<th>Language</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>dc. contributor. author</td>
<td>Twain, Mark, 1835-1910</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>n 82045653</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Springer Verlag</td>
<td>en_US</td>
</tr>
</tbody>
</table>

This interface is designed to facilitate the management of digital resources, allowing for the creation, update, and management of metadata entries in a structured format.
Authority Framework: XML response

The html widget are build on standard AJAX XML response

Developers can easily extend or build new widget reusing existing infrastructure

```xml
<select xmlns="http://www.w3.org/1999/xhtml" start="0" total="6">
  <option authority="n 89103996" value="Clemens, Olivia Langdon, 1845-1904">
    Clemens, Olivia Langdon, 1845-1904
  </option>
  <option authority="n 93099439" value="Clemens, Samuel Langhorne, 1835-1910">
    Clemens, Samuel Langhorne, 1835-1910
  </option>
  <option authority="no2003079632" value="Conte, Louis de, 1835-1910">
    Conte, Louis de, 1835-1910
  </option>
  <option authority="n 93099461" value="Snodgrass, Quintus Curtius, 1835-1910">
    Snodgrass, Quintus Curtius, 1835-1910
  </option>
  <option authority="n 82045653" value="Twain, Mark, 1835-1910">
    Twain, Mark, 1835-1910
  </option>
  <option authority="n 79021164" value="Twain, Mark, 1835-1910">
    Twain, Mark, 1835-1910
  </option>
</select>
```
Keep the metadata clean

New administrative tool to:
- Check authority usage
- Review, reject, or confirm automatic linkage

Plan to release this functionality to the community after the HKU Scholars Hub migration to DSpace 1.6
Tentative matches for RP rp00857

RP Details

Label: He, Hongming
Authority key: rp00857
Variants: He, Hongming, He, H, 何洪铬,
Department: Dept of Geography;

Researcher interests:
1. Climate change impacts on human demensions
2. Water resources sciences, specialized in hydrological modelling
3. Urbanization process
4. Environmental modelling

Items awaiting Accept/Reject

Confidence level: UNCERTAIN

<table>
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<th>Author(s)</th>
<th>Year</th>
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<tr>
<td>1</td>
<td>Early Upregulation of Cyclooxygenase-2 in Human Papillomavirus Type 16 and Telomerase-Induced Immortalization of Human Esophageal Epithelial Cells</td>
<td>Zhuang, Z; Tsao, GSW; Deng, W; Wang, J; Xia, HHX; He, H; Feng, H; Wang, L; Gu, Q; Lam, SK; Lin, MC; Kung, HF; Wong, BCY</td>
<td>2008</td>
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<tr>
<td>2</td>
<td>Generation of repetitive sequence-depleted microdissected chromosome arm painting probes</td>
<td>He, H; Huang, W; Guan, XY</td>
<td>1999</td>
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<td>Generation of repetitive sequence-depleted microdissected chromosome arm painting probes</td>
<td>He, H; Huang, W; Guan, XY</td>
<td>1999</td>
</tr>
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Spring IoC & AoP (TxManager)
Hibernate & Hibernate Search
Spring MVC

... some tricks/tips to use Spring DI in the Authority Plugin in the next slides
Integration authority framework to HUB

it.cilea.hku.authority.dspace.HKUAuthority

implements

ChoiceAuthority,
AuthorityVariantsSupport,
NotificableAuthority

Keep static references to the RP “services” (persistence + search), injected by Spring
Integration

- Dependencies Injection with Spring on classes managed by the DSpace plugin system needs a workaround:
  - Use static fields and semaphore/init method to assure proper initialization both in web and batch contexts (Our approach for the RP Project)
  - Expose and retrieve the Spring context as JMXBean: use the Spring API to retrieve dependencies (DSpace services approach)
Integration of RP presentation

- Servlet filter on the browse url to make HTTP redirect to the RP
  - No changes in dspace jsp tags
  - No changes in browse pages
  - Simple turnoff of ResearcherPage without loss of the metadata quality
  - Low overhead for no rp browsing

- Integration with the HKU SSO, the netID as bridge between DSpace Eperson & RPs
HKU Colleagues
港大同僚

Terima Kasih
спасибо
شكرا لك
謝謝您
감사합니다
 cảm ơn bạn
धन्यवाद
Σε ευχαριστώ
ŋ                               Ταχ
有り難うございます
Thank You
Grazie
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http://creativecommons.org/licenses/by-nc-nc-sa/3.0/hk/

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- http://hub.hku.hk/handle/123456789/61139