Transformative Research Support Services at CUHK Library

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February 2, 2017
Drivers for Change

How should libraries re-align their services?

- Changes in Research Environment
- Crisis in Research Libraries - Need to Demonstrate Our Value
- Growth of e-Science and Digital Humanities
- Changes in Scholarly Communication in Digital Era
Responses of CUHK Library

* Re-organization to focus its resources on research support
* Embed into the workflow / life-cycle of researchers
* Build connections with postgraduates and young researchers
* Foster partnership and collaboration
* Provide more access points discovered by Google
* Content is king – create more digital objects of value to researchers
* Leverage digital technologies in services
Research Support is just another reference service under the umbrella of user services.
A new team, Research Support & Digital Initiatives, was formed in July 2015.
Supporting Research Life-Cycle

- New Digital Tools and Platforms are explored and embedded into a suite of services
- Cover postgraduates, researchers and Faculty
- The emphasis is on professional support and practices, not tools and platforms
New Scholarly Communications Services

- Provide new research tools and citation management tools
- Support Open Access Initiatives
- Manage CRIS (Current Research Information Systems) for institutional research outputs
- Promote ORCiD
- Copyright support
- Citation Management Service
- Support RAE (Research Assessment Exercise) requested by the research funding body of Hong Kong SAR
Research & Citation Management Tools

Available online or use in the Library:

- SPSS
- NVivo
- R
- RefWorks
- zotero
- Thomson Reuters
- EndNote
- Mendeley

Workshops & Seminars:

Learning objects:

- How to Find Citation Figures Using Web of Science
- How to Find Impact Factor of a Journal with Journal Citation Reports on InCites
Open Access Day at CUHK Library

- Raise the awareness of University community on open access
- Lead the discussion on open access on campus
- Promote new CRIS (Converis Research Portal)

Mobilize campus support for self-archiving at Research Portal
Research Portal

- From IR to CRIS
- Before CRIS: Non-validated metadata without full-text
- Now: fully open access CRIS for CUHK Library
- All the research outputs from a closed internal system were migrated: Currently contains +68,000 records
- New features developed to enhance its visibility:
  - Full-texts with DOI and/or publisher’s website
  - Citation Counts for records indexed in Web of Science
  - All auto-harvesting of records from external databases and ORCID
  - A better interface to enhance browsing and navigation
Personal Information

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Vice-Chancellor's Office

Academic Title: Vice-Chancellor, Professor of Medicine and Therapeutics (Clinical)

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Research Outputs

- Association of distal hyperplastic polyps and proximal neoplastic lesions: a prospective study of 5613 subjects (2016)
- Colorectal Cancer Screening Based on Age and Gender: A Cost-Effectiveness Analysis (2016)
- Colorectal cancer screening of the general population in East Asia (2016)
- Copy number variations of HLA-A and activation of NfκB pathway determine the sensitivity of gastric cancer cells to the lethality of natural killer cells (2019)
- CREST Plays an Oncogenic Role in Colorectal Cancer Through Promoting Wnt5a-Catenin Pathway via Enhancing Acetylation of β-catenin (2016)
- Critical Role of Antimicrobial Peptide Cathelicidin for Controlling Helicobacter pylori Survival and Infection (2016)
- CXCR chemokine receptor 3 promotes steatohepatitis in mice through mediating inflammatory cytokines, macrophages and autophagy (2015)
- Determinants of Bowel Preparation Quality and Its Association With Adenoma Detection: A Prospective Colonoscopy Study (2016)
- Disruption of NCOA2 by recurrent fusion with LACTEB in colorectal cancer (2016)
- Distinct Subtypes of Gastric Cancer Defined by Molecular Characterization Include Novel Mutational Signatures with Prognostic Capability (2016)
- Dysregulated Lysine Acetyltransferase 2B Promotes Inflammatory Bowel Disease Pathogenesis Through Transcriptional Repression of Interleukin-10 (2016)
- Epigenetic silencing of GDF1 disrupts SMAD signaling to reinforce gastric cancer development (2016)
- Expression and functional characterization of intraocular GH-IGF system in the zebrafish eye (2016)
- Forkhead Box F2 Suppresses Gastric Carcinogenesis Through Inhibiting Wnt Signaling Promoting β-Catenin Degradation and Is Associated With Survival of Gastric Cancer Patients (2016)
- Global incidence and mortality for prostate cancer: Analysis of temporal patterns and trends in 36 countries (2016)

Removal and recovery of nickel ion (Ni²⁺) from aqueous solution by magnetite-immobilized cells of Enterobacter sp. 4-2

Publication in refereed journal

CUHK Authors (Current)

Professor WONG Po Keung (School of Life Sciences)

Full Text

View Full text in CUHK
Digital Object Identifier (DOI): http://dx.doi.org/10.1016/S0141-0229(06)00082-8

Times Cited

Web of Science: 21

Abstract

Cells of Enterobacter sp. 4-2 which could remove large amounts of nickel ion (Ni²⁺) from aqueous solution were immobilized on magnetite. The optimal conditions for the adsorption of bacterial cells onto magnetites were a cell/magnetite ratio greater than 1:10 (dry weight basis). The buffer with pH less than or equal to 6.5, and temperature at 25 degrees C. Under selected conditions (cell/magnetite ratio of 1:10, pH 6.0, and temperature at 25 degrees C), more than 95% of the bacterial cells were immobilized onto magnetites. The optimal conditions for immobilized cells to remove Ni²⁺ from aqueous solution were TITS buffer at an alkaline pH (the temperature higher than 37 degrees C, and the retention time longer than 30 min. Under selected conditions (temperature at 25 degrees C and retention time of 10 min), 50-90% of Ni²⁺ was removed by immobilized cells from the buffer at pH 7-8. Complete recovery of adsorbed Ni²⁺ from immobilized cells was achieved by washing the Ni²⁺-cell-magnetite complexes with diluted citric acid. ©1997 by Elsevier Science Inc.

Author(s)

Wong PK, Fung KY

Journal name: Enzyme and Microbial Technology
Year: 1997
Month: 2
Day: 1
Volume number: 20
Issue number: 2
Publisher: Elsevier
Pages: 116 - 121
ISSN: 0141-0229
Languages: English-United Kingdom
Keywords: Enterobacter sp.; immobilized cell; magnetite; nickel ion

Web of Science

Biotecnology & Applied Microbiology; BIOTECHNOLOGY & APPLIED MICROBIOLOGY

Subject Categories

- Enterobacter sp. immobilized cell; magnetite; nickel ion
The single home for all digital collections created by the Library
Built on Islandora as the one-stop platform for all digital images
OAI-PMH enabled to provide open access
Full metadata to provide multiple access points
Search Engine Optimization (SEO) to facilitate discoverability by Google
Collaborated with Faculty to develop the collections to ensure they are valuable for research
| **Title** | 性命雙修萬神圭旨：[四集]  
Xing ming shuang xiu wan shen gui zhi : [si ji] |
|---|---|
| **Other Title** | 性命圭旨  
Xing ming gui zhi |
| **Author(s)/Creator(s)** | 尹真人 |
| **Statement of Responsibility** | 尹真人撰集  
[Yinzhuren zhuang ji]  
[China]，山東,  
China Yi shandong fang |
| **Publisher** | [China]，山東  
China Yi shandong fang |
| **Date** | 清康熙四十二年 [1670]  
Qing Kangxi gong xu [9 nian, 1670]  
1669 |
| **Issued Date** | 1669-01-01T00:00:00Z |
| **Edition** | 本部  
[Ben bu]  
[Kuai ben] |
| **Resource Type** | print |
| **Subject** | Taoism  
Alchemy |
A cutting-edge space for supporting digital scholarship (DS) research and collaborative research work

To encourage informal interactions in the space

Increase opportunities for library-faculty collaboration

On-site consultation service on DS projects is provided by Digital Scholarship Librarian

Workshops provided to promote DS research on campus
Visualisation Room

- Wired & wireless connections
- Multiple video inputs
- Moveable chairs & tables
- Digital display wall
- 80” Interactive whiteboard
- Writable partitions
Seminar Room

5 high-speed PCs
5 iMacs
with digital scholarship tools/software

Printing, photocopying & scanning
10 PCs and iMacs are installed with specialist digital scholarship software to support GIS, text-mining.

<table>
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<tr>
<th>Software in PCs</th>
<th>Software in iMacs</th>
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<tr>
<td>ArcGIS Teaching &amp; Research Lab Kit - Geographic information system (GIS) software for mapping &amp; geospatial data analysis</td>
<td>Adobe Creative Cloud - Includes Photoshop, Dreamweaver, Illustrator, Premiere Pro and all the available apps in the package</td>
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<td>Cytoscape - For visualising molecular interaction networks and biological pathways</td>
<td>Google Earth Pro</td>
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<td>Nvivo - For qualitative research analysis</td>
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<td>Google Earth Pro</td>
<td>R - For statistical computing and graphics</td>
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<td>GRASS GIS - GIS software</td>
<td>MS Office</td>
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<td>IBM SPSS - For statistical analysis</td>
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We are taking on new research tools and platforms to transform our research support services in addition to the traditional roles as a teacher of information literacy skills, custodian of information, provider of e-resources. We have assumed following new roles:

- Technology Specialist
- Manager of institutional research outputs
- Manager of digital repository
- Creator of digital collections
- Hosting of institutional e-journals
- Advisor on Copyright issues
- Supporter of open access
Reflections

* We are not there yet:
  * We have not fully embedded into researcher’s workflows
  * More collaboration is needed
  * More innovative research tools can be taken
  * More services can be delivered online

* The way forward:
  * Towards e-Research: supporting digital curation and research data
  * More integration in Research Portal
  * Develop data visualisation service
Reflections

* What hindered?
  * Right mix of staff skills
  * Traditional service culture of the Library
  * Research culture of the University
  * Sustainable Resources
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