

1. Introduction

- Identification of technologies and intellectual properties (IPs) is a critical challenge to CTSA
- The CTSA IP Directory is a consortium-wide collaborative initiative to share data of IPs
 - Led by University of Rochester (UR) Clinical & Translational Science Institute (CTSI)
 - Joint effort
 - UR CTSI Informatics Key Function
 - UR CTSI Committee for Industry & Foundation Relations
 - CTSA Public-Private Partnership (PPP) Key Function Committee

2. System Function

- Web-based system aggregating IP data from
 - Participating CTSA institutions
 - NIH Technology Transfer Office
- Front-end search tool based on terms
- Search results displayed as a simple list
 - Links to detailed descriptions of each technology
 - Title, institution, inventor, short summary, application area, development status, institution contact information

3. Search Results

- Search results can be filtered by owner institution
 - Link to institution's tech transfer office website
- Technologies of interests can be added to a “shopping cart”
 - Save and printed later
- Common search terms and most viewed technologies updated in real-time
- XML-based feeds available

4. Screenshot of CTSA IP Directory

The screenshot shows a web browser window with the URL <http://www.ctsaip.org/>. The page features a blue header with the CTSA IP logo and the tagline "bridging discoveries and medical practice". Below the header is a red navigation bar with four main sections: "Home/Search" (Find available technology), "View Saved Technology" (You have no saved technologies), "About CTSA-IP" (Information about this project), and "Participate" (How your institution can participate). The main content area is white and contains a large search bar with a "Technology Search" button. Below the search bar are three columns of content:

- View IP By Institution:** A list of institutions with blue underlined links: Columbia University, Emory University, Fred Hutchinson Cancer Research Center, NIH, Oregon Health and Science University, Rockefeller University, Stanford University, The Ohio State University, Tufts University, University of Alabama at Birmingham, and University of Chicago.
- Most Common Searches:** A list of search terms: cancer, antibody, gapdh, monoclonal, mitochondria, autophagy, Pain, liver, novel, stroke, and cheati.
- Technology RSS Feeds:** A list of RSS feeds with blue underlined links: All Institutions (very large file), Columbia University, Emory University, Fred Hutchinson Cancer Research Center, NIH, Oregon Health and Science University, Rockefeller University, Stanford University, Tufts University, University of Alabama at Birmingham, and University of Chicago.

5. Search Results – List of IPs

Search Results for Technology Licensing : Clinical and Translational Science Award Institutions - Internet Explorer provided by

http://www.rochesterctsa.org/ip/search.cfm

Google

Search Results for Technology Licensing : Clinical...

CTSA IP
bridging discoveries and medical practice

[Home](#) Search Home | [View Saved Technology](#) You have no saved technologies

Search Results

Your search returned 282 result(s).

Filter Your Search - Show Only the Following:

HIV -- Please Select -- Filter

1 2 3 4 5 6 Next >

[HIV gp41-Membrane Proximal External Region Arrayed on Hepatitis B Surface Antigen Particles for HIV Diagnostic and Vaccine Applications](#)
NIH

[Suppression of CCR5- but not CXCR4-Tropic HIV-1 Replication in Lymphoid Tissue by Human Herpes Virus 6](#)
NIH

[A Novel Recombinant HIV-1 Virus Capable of Infecting Primate Cells](#)
Rockefeller University

[Adoptive Immunotherapy for Reestablishing HIV-specific Cytotoxic T-cell \(CD8 T-cell\) Function in HIV and AIDS Patients and Methods for Assessing the Reestablishment of CD8 T-cell Function](#)

Done Internet | Protected Mode: On 100%

6. Search Results - Details

The screenshot shows an Internet Explorer browser window displaying a search result page from the CTSA IP website. The browser's address bar shows the URL <http://www.rochesterctsa.org/ip/details.cfm?id=2408>. The page header features the CTSA IP logo with the tagline "bridging discoveries and medical practice". A navigation bar includes links for "Home" and "View Saved Technology". The main content area displays the title "Suppression of CCR5- but not CXCR4-Tropic HIV-1 Replication in Lymphoid Tissue by Human Herpes Virus 6" and provides details such as the institution (NIH), a summary of the research, and contact information for Susan Ano. A sidebar on the right contains a "TOOLS" section with links for "Create a PDF", "Save This Technology", "Back to Search Results", and "Perform a New Search". The browser's status bar at the bottom indicates "Internet | Protected Mode: On" and a zoom level of 85%.

Suppression of CCR5- but not CXCR4-Tropic HIV-1 Replication in Lymphoid Tissue by Human Herpes - Internet Explorer provided by

<http://www.rochesterctsa.org/ip/details.cfm?id=2408>

Suppression of CCR5- but not CXCR4-Tropic HIV...

CTSA IP
bridging discoveries and medical practice

[Home](#) [View Saved Technology](#)
Search Home You have no saved technologies

Suppression of CCR5- but not CXCR4-Tropic HIV-1 Replication in Lymphoid Tissue by Human Herpes Virus 6

Institution: NIH

Summary
HIV-1 infects cells via a receptor complex formed by CD4 and a coreceptor, such as CCR5 or CXCR4. The early stages of HIV-1 infection are dominated by CCR5-tropic viral variants. CXCR4-tropic variants frequently emerge at later stages followed by a rapid decline in CD4+ T cells and progression to AIDS.

This invention describes the mechanism of the coreceptor switch from CCR5 to CXCR4 as HIV infection progresses. The study of the interaction between human herpes virus 8 (HHV-8) and HIV has shed light on this coreceptor switch. The inventors observed that HHV-8 affects HIV replication by suppressing CCR5-tropic but not CXCR4-tropic HIV-1. The inventors demonstrate that HHV-8 upregulates the production of RANTES, a CC chemokine that is known to inhibit infection by CCR5-tropic HIV-1. RANTES interferes with the interaction of the CCR5-tropic HIV-1 thereby allowing the CXCR4-tropic HIV-1 variants to emerge.

This observation may lead to new HIV-1 therapies and vaccines. For example, an attenuated HHV-8 or the use of other compounds to stimulate RANTES production could be used as an HIV vaccine while a drug effective against HHV-8 could be used as an HIV therapeutic. Once HHV-8 is eradicated from the body or rendered nonfunctional the conversion from CCR5-tropic HIV-1 to CXCR4-tropic HIV-1 cannot take place.

Category
Infectious Diseases -Therapeutics-Anti-Viral-AIDS (only), Infectious Diseases -Vaccines-Viral-AIDS (only);Infectious Diseases -Therapeutics, Infectious Diseases -Vaccines;Infectious Diseases

Contact Information
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TOOLS

- [Create a PDF](#)
- [Save This Technology](#)
- [Back to Search Results](#)
- [Perform a New Search](#)

Internet | Protected Mode: On 85%

7. Development Process

- Started with an assessment of IP databases maintained by select CTSA institutions in 2008
- Identification of common data fields
 - Title, summary, contact information, etc.
 - Bridging components across institutions
- Federated data architecture
 - Each participating institution maintain the data in its original structure and format (XML or Excel)
- *iBridge* integration added in Spring 2010

8. Development Lessons Learned

- The “proper” way isn’t always the best way
- Talk with users (both external and internal)
- Employ an iterative, agile process
- Everyone needs a carrot

9. Next Steps

- Engage more CTSA institutions to participate
- Improve data collection process and search function
- Fully implement IP data standards
- Explore potential opportunities to collaborate with other CTSA consortium initiatives
- Explore additional opportunities with industry and other organizations

10. Summary

- The CTSA IP Directory is a working system in actual use and with buy-in from the NIH and many CTSA institutions
- This project is a unique example to demonstrate a fruitful collaboration between CTSA informatics and PPP key functions
- We are looking for new CTSA institutions to join us

To join contact Mike Hazard (michael_hazard@urmc.rochester.edu)