

ELSEVIER:
SUPPORTING RESEARCHERS THROUGH
INNOVATIVE SOLUTIONS

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Vice Chairman

National Institute of Informatics Symposium
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The story of Shibboleth



שבולת : shibboleth

“Shibboleth,” meaning an ear of corn, or a stalk of grain, was a word used by the Gileads in biblical times. It was a word used to distinguish members of a group (like the Ephraimites) whose dialect lacked a / / sound (as in shoe) from themselves whose dialect did include such a sound.

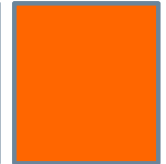
A “shibboleth” distinguishes not who you are, but where you are from and whom you are associated with

UPKI's “shibboleth”



The “UPKI-Federation” label has itself become a “shibboleth”

Embracing new technologies

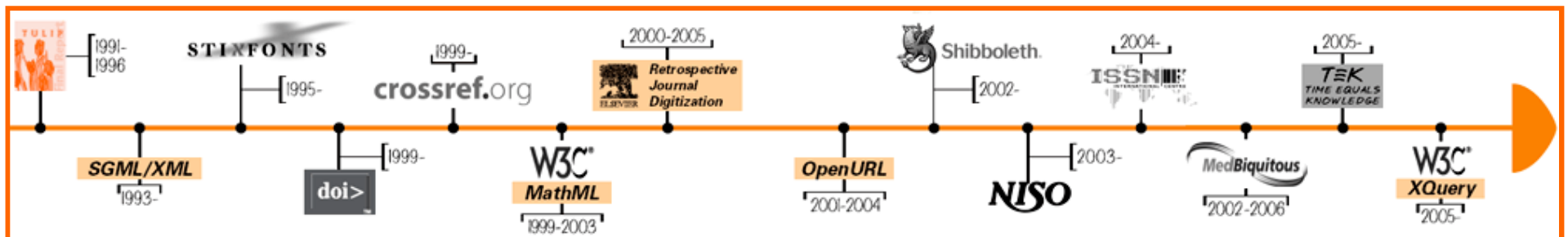


XML Technology

- One of the earliest adopters of media neutral structured formats
- One of the first publishers to commit entire article production workflow to this technology
- Versatility to produce PDFs, HTML, print all from one source

Digital Object Identifier (DOI)

- Founding member of CrossRef
- Understood importance of citation linking and need for DOI
- One of the first publishers to incorporate citation linking in products



Elsevier's work with Shibboleth



Elsevier has understood the value of developing Shibboleth and federated authentication from early on

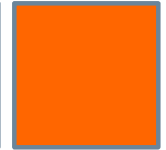
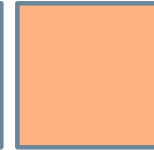
- Held workshops with customers to help develop Shibboleth design in 2002
- First vendor to support US-based InCommon federation in production in 2005
- Engaged in community discussions on best practices for multi-federation user-interface design
- Built multifederation capability and design into ScienceDirect



InCommon®

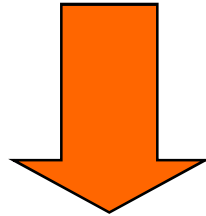
 ScienceDirect

UPKI Federation and Elsevier



A “WWW” Result

Elsevier is the first publisher to offer access to its e-publishing platform for testing the UPKI Federation



Initial testing has already been successful!

Benefits for researchers

- Use only one campus login ID/password for access to all licensed applications
- Personal data kept between user and home institution
- Option to personalize service if basic registration implemented

Benefits for university/library

- Reduced administrative overhead

Benefits for publishers

- No longer need IP authentication for on-site access
- Remote access/personalization using local credentials
- Reduced need for user support

Elsevier partner federations



HEAL-Link Federation

Authentication and Authorization Infrastructure (AAI)



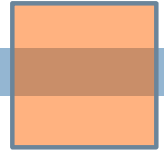
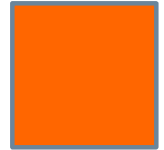
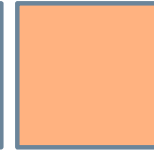
**IDEM
Italian Higher Ed & Research
Federation**



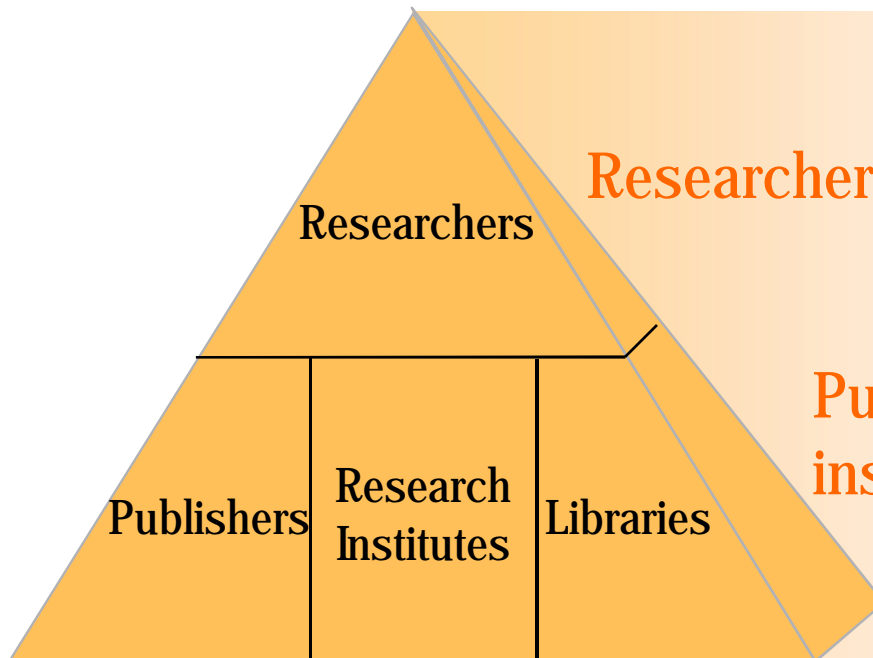
French Universities & Grand Ecoles



Elsevier's overarching mission



Make genuine contributions
to science and health communities



Researchers are the lead actors

Publishers, libraries, and research
institutes are supporting actors

1. Researchers need better ways to confront the exponential growth in content



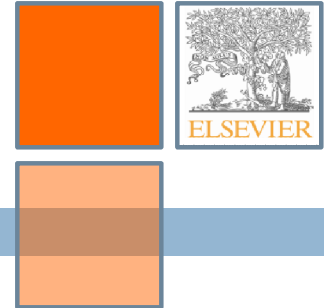
- Anyone can be a “publisher”
- Increasing number of websites
- Increasing scientific/research output
- Time spent searching for information still high

2. Researchers need tools to enhance their global network



- Globalization has enlarged research communities in emerging and developing nations
- Proliferation of online networking tools
- Greater interdisciplinary and combined-discipline research

3. Researchers need more engaging and interactive content-based experiences



- Rising popularity and use of streaming video
- Rise of mobile applications and technology
- Great interactivity through user-generated content

Managing the tsunami: Illumin8



Employs semantic search and natural language processing technology to isolate specific solutions to questions

illumin8 Feedback Help

Q- natural sweetener Search Guide Search
 E.g. natural sweetener, biodegradable film, green roofing, aseptic packaging

Filters Export to Excel

Displaying 4193 results. [View All](#)

Content Sources

- Journal
- Patent
- Web

Date (Journal & Patent)

Relevancy

High Medium Low

Summary Sort: Count Search in results

Organizations	Products	People
Cargill 229	Stevia 338	Luo Han Guo 52
Food and Drug Administrati... 175	Xylitol 312	Prakash, Indra 38
Coca-Cola 136	Honey 160	Luo 29
PepsiCo 74	Sugar 101	DuBois, Grant 21
Sunwin International Neutr... 36	Artificial sweetener 94	Dubois, Grant E. 14
Senomyx 34	All-natural sweetener 63	Lo Han 13
NutraSweet 31	Syrup 62	Cherukuri, Subraman Rd 11
Xlear 31	Truvia 56	Faust, Steven Michael 8
Whole Earth Sweetener 28	Fructose 54	Steve May 8
Lupus 27	Fruit 49	Trani, Marina 8

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Taste 19	enhance flavor 6	Flavor 35
Concentrate 9	enhance taste 6	Agave nectar 29
Impart taste 7	prevent cavity 6	Sweet taste improving com... 26
Expense 5	provide sweetness 6	Leaf 25
Low glycemic response 4	replace artificial sweetener 6	Color 23
Reduce bacterium 4	add flavor 5	Water 20
Seltin salt substitute 4	create dessert 5	Gum 17
Considerable research 3	deliver full energy 5	Calorie 15
Dry mixing 3	eliminate disadvantage 5	Artificial flavor 14

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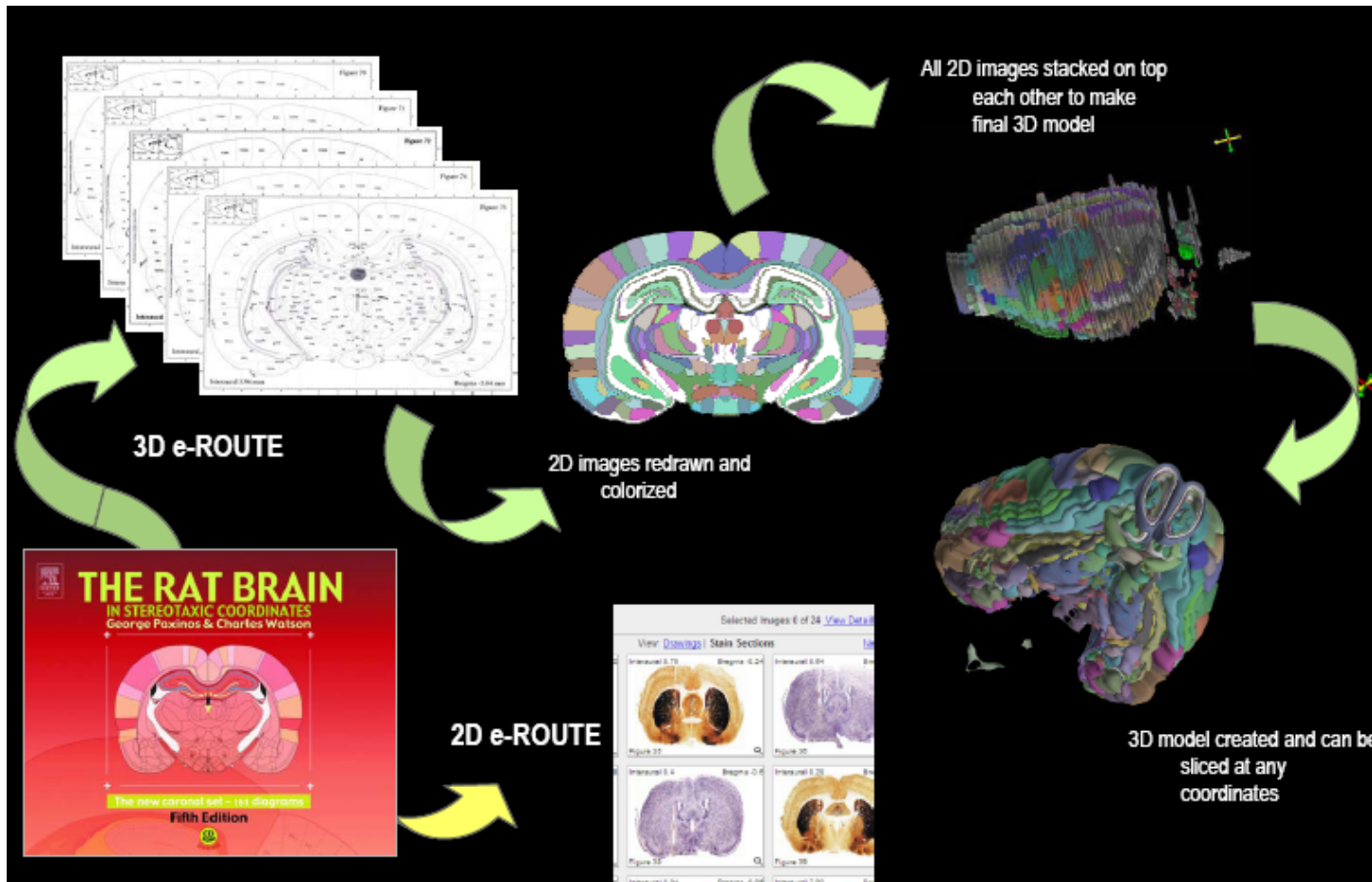
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1. Repair of Congenital Heart Lesions Combined With Lung Transplantation for the Treatment of Severe Pulmonary Hypertension: A 13-Year Experience	2005	Choong, C.K., Sweet, S.C., Guthrie, T.J.	J Thorac Cardiovasc Surg	Cardiology	★	C
2. Cystatin C, a Novel Measure of Renal Function, Is an Independent Predictor of Cardiac Events in Patients With Heart Failure	2005	Arimoto, T., Takeishi, Y., Niizeki, T.	J Card Fail	Pathology and Laboratory Medicine	★	B
3. Impact of Care at a Multidisciplinary Congestive Heart Failure Clinic: A Randomized Trial	2005	Ducharme, A., Doyon, O., White, M.	CMAJ	Medicine	★	A
4. The Patient With a Heart Murmur: Evaluation, Assessment and Dental Considerations	2005	Lessard, E., Glick, M., Ahmed, S.	J Am Dent Assoc	Dentistry	★	C
5. Trends in Prevalence and Outcome of Heart Failure with Preserved Ejection Fraction	2006	Owan, T.E., Hodge, D.O., Herges, R.M.	N Engl J Med	Anesthesia	★	B
6. Cardiac Resynchronization Therapy Delays Heart Transplantation in Patients With End-stage Heart Failure and Mechanical Dysynchrony	2006	Vanderheyden, M., Wellens, F., Bartunek, J.	J Heart Lung Transplant	Cardiology	★	B
7. Adrenal Insufficiency, Heart Rate Variability, and Complex Biologic Systems: A Study of 1,871 Critically Ill Trauma Patients	2007	Morris Jr, J...A..., Norris, P...R..., Waitman, L...R...	J Am Coll Surg	Surgery	★★★	B

Editorial selection and ratings of the most important articles and news in specific medical fields

Managing the tsunami: BrainNavigator



Three-dimensional,
searchable
visualization tool
streamlines
research process for
neuroscientists

Enhancing the global network: 2Collab



Free, online platform to find new research partners and form groups to share, tag, rate, and review online materials, such as bookmarks and articles

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Arterial Blood Gas Sampling (Emergency Medicine)

Editor(s): Todd W Thomsen, MD | Gary S Setnik, MD, FACEP
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PRE-PROCEDURE

INDICATIONS

- Determination of pH and partial pressure of respiratory gases
- Determination of other serum blood levels (e.g., lactate)
- Assessment of response to therapeutic interventions and disease state
- Sampling of blood in emergencies when venous blood cannot be obtained

CONTRAINDICATIONS

- Coagulopathy, anticoagulant medications, and thrombolysis
- Abnormalities of the overlying skin
- Prior vascular surgery at or proximal to the entry site
- Inadequate local circulation

EQUIPMENT

- Gloves and antiseptic ****UNIVERSAL PRECAUTIONS**** ****STERILE TECHNIQUE****
- Syringe, 25- to 27-gauge needle and 1% lidocaine without epinephrine for anesthetic (optional) See Local Anesthesia for further details.
- Syringe for aspiration (heparinized). Prepackaged ABG kits are available, or a standard syringe may be prepared with heparin.
- 1.5-inch 22- to 23-gauge needle and syringe cap
- Specimen bag and ice
- Bandage


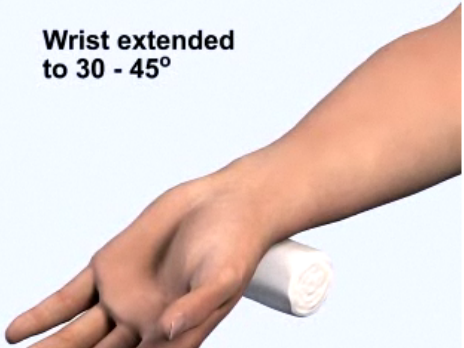


Figure 1 : Arterial blood gas sampling
[View Larger Image](#)

Chlorhexidine or Betadine Syringe & 25g needle ABG syringe

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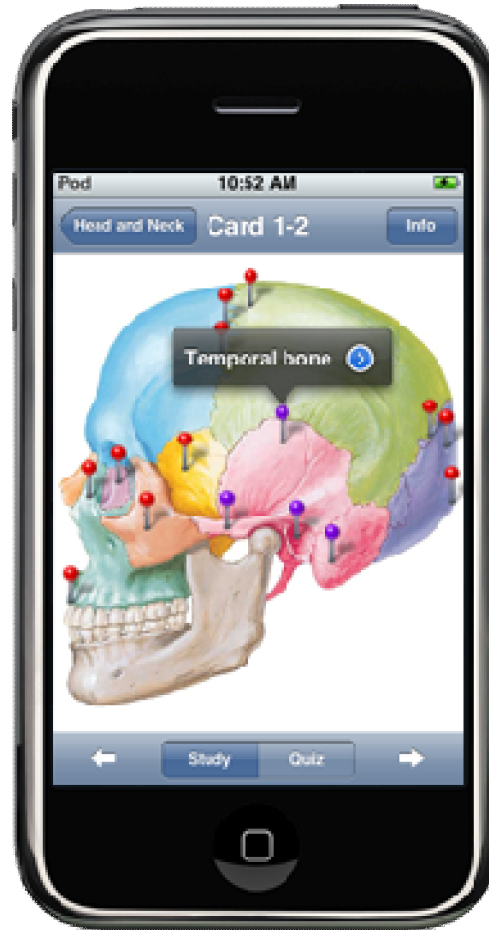
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Dynamic content-based experience: Article of the future



Letting researchers show us what their vision of a scientific article is

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http://www.cell.com/content/article/abstract/uid=PIIS0092

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LNA-based microRNA PCR system

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Cell, Vol 112, 845-857, 21 March 2003

Article

A Myristoyl/Phosphotyrosine Switch Regulates c-Abl

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Summary

The c-Abl tyrosine kinase is inhibited by mechanisms that are poorly understood. Disruption of these mechanisms in the Bcr-Abl oncoprotein leads to several forms of human leukemia. We found that like Src kinases, c-Abl is activated by phosphotyrosine ligands. Ligand-activated c-Abl is particularly sensitive to the anti-cancer drug STI-571 / Gleevec/imatinib. The SH2 domain-phosphorylated tail interaction in Src kinases is functionally replaced in c-Abl by an intramolecular engagement of the N-terminal myristoyl modification with the kinase domain. Functional studies coupled with structural analysis define a myristoyl/phosphotyrosine switch in c-Abl that regulates docking and accessibility of the SH2 domain. This mechanism offers an explanation for the observed cellular activation of c-Abl by tyrosine-phosphorylated proteins, the intracellular mobility of c-Abl, and it provides new insights into the mechanism of action of STI-571.

Reflect - SRC

Protein Chemical Other

Rous sarcoma oncogene Homo sapiens [edit]

SRC, SRC1, p60-Src, c-Src, pp60c-src, ...

Sequence, Locus, Pathways, Diseases, Literature, Patents

Src is a family of proto-oncogenic tyrosine kinases originally discovered by J. Michael Bishop and Harold E. Varmus, for which they won the ...

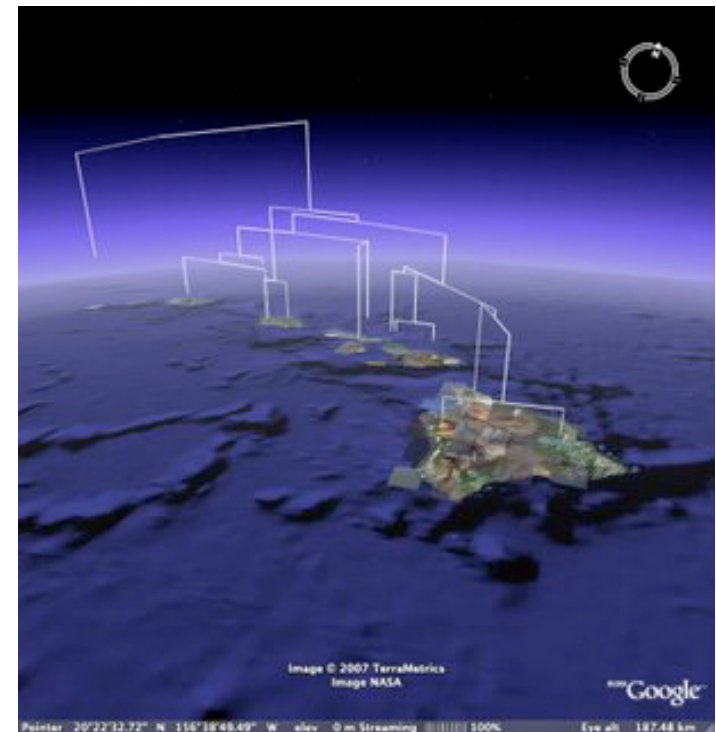
Reflect - Imatinib

Chemical Protein Other

Gleevec; Glivec [edit]

Imatinib is a drug used to treat certain types of cancer. It is currently marketed by Novartis as Gleevec (USA) or Glivec (Europe/Australia) as its mesylate salt, imatinib mesilate (INN). It was originally coded during development as CGP57148B or STI571 (these terms are used in early preclinical publications). It is used in treating chronic myelogenous leukemia (CML), gastrointestinal stromal tumors (GISTs) and a number of other malignancies.

It is the first member of a new class of agents that act by inhibiting particular tyrosine kinase enzymes, instead of non-specifically inhibiting rapidly dividing cells.



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