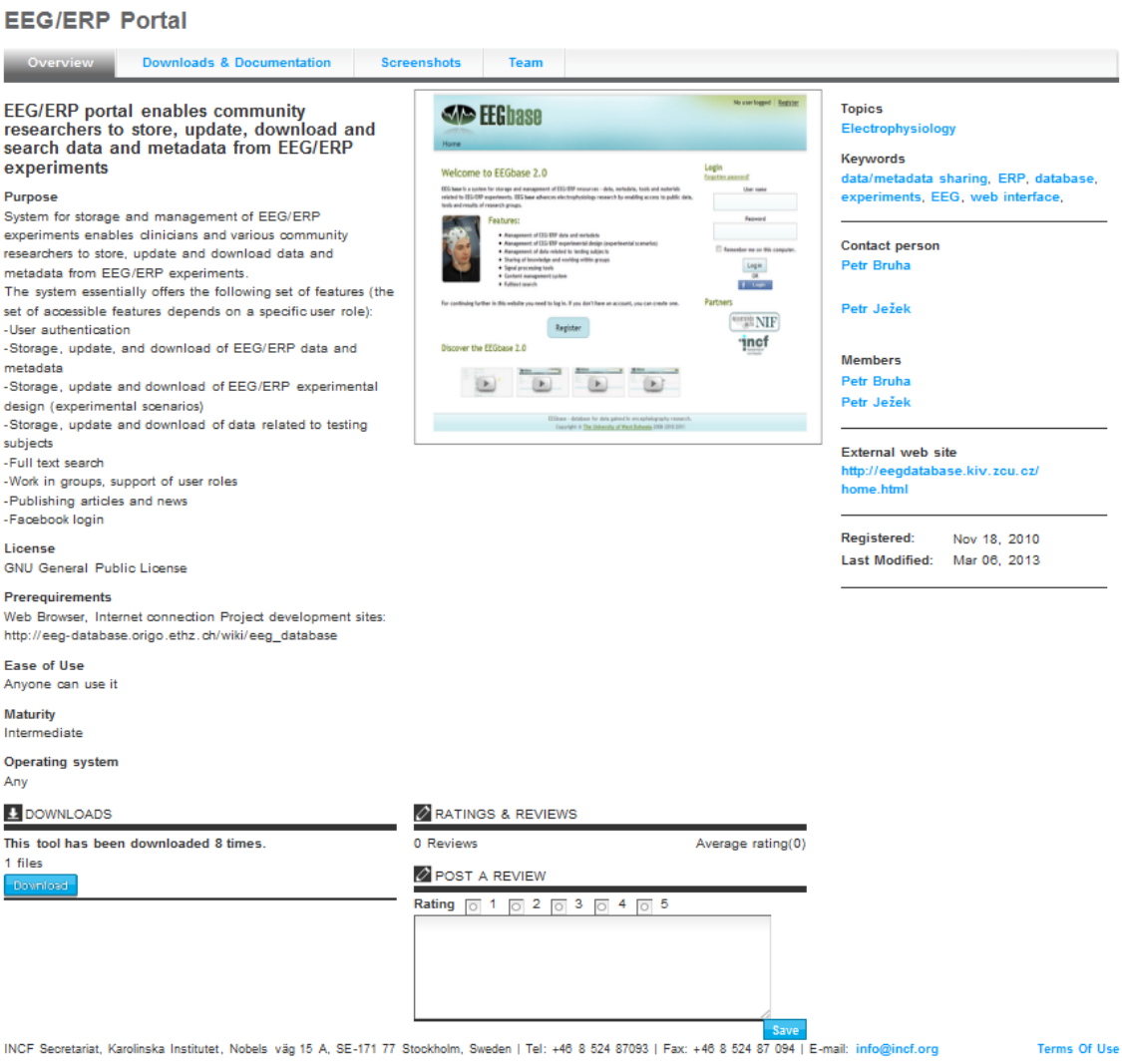


Figure 1: EEG/ERP Portal's website on INCF

PANDORA

Overview | Downloads & Documentation | Screenshots | Bug tracker | Team | Wiki | Code repository

Database analysis and visualization of simulated and recorded electrophysiological data

Purpose
PANDORA is a Matlab Toolbox that makes database management accessible from your electrophysiology project.

See the Wiki for the news.

PANDORA works by extracting user-defined characteristics from raw neural data (e.g., voltage traces) and creating numerical database tables from them. These tables can then be subjected to further analyses, such as drug and parameter effects, statistical, correlation, and principal components. Publication-ready plots can be produced with an embedded plotting system.

Features:

1. Works offline within Matlab
2. Requires no external software
3. Is object oriented and allows easy extensions
4. Can easily tie with existing Matlab scripts
5. Can query a database as in SQL

See the Documentation, Wiki, and Images links on this page for more information.

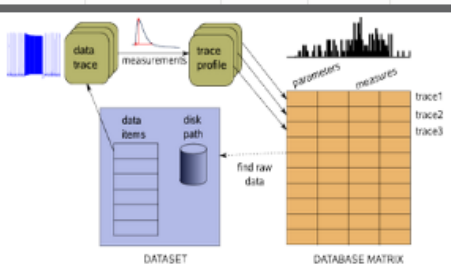
License
Apache Software License

Prerequirements
* Matlab - optional: Matlab Signal Processing Toolbox - optional: Matlab Database Toolbox

Ease of Use
Intermediate

Maturity
Stable

Operating system
Any



Topics
Large scale modeling
Electrophysiology
Computational neuroscience

Keywords
database interface, spike recognition, data formats, mysql, Neuronal Characterization, spike analysis, electrophysiology, development environment, Signal analysis, linux, neuroinformatics, event detection, OS Independent, matlab, analyze, MATLAB, data analysis, Database, Windows, neurophysiology, spike train analysis, data visualization, database, windows, computational neuroscience, spike processing, Linux,

Contact person
Cengiz Gunay
Dept. Biology, Emory University

Members
Cengiz Gunay

External web site
http://userwww.service.emory.edu/~cgunay/pandora/

Publications
Cengiz Günay, Jeremy R. Edgerton, and Dieter Jaeger (2008) Channel Density Distributions Explain Spiking Variability in the Globus Pallidus: A Combined Physiology and Computer Simulation Database Approach. J. Neurosci. 2008 28: 7476-7491; doi:10.1523/JNEUROSCI.4198-07.2008
Günay C, Edgerton JR, Li S, Sangrey T, Prinz AA, Jaeger D (2009). Database analysis of simulated and recorded electrophysiological datasets with Pandora's toolbox. Neuroinformatics, 7(2):93-111. doi: 10.1007/s12021-009-9048-z.

Registered: Jul 31, 2008
Last Modified: Nov 12, 2012

DOWNLOADS

This tool has been downloaded 283 times.
4 files
2 **external** documentation item
Download

RATINGS & REVIEWS

0 Reviews Average rating(0)

POST A REVIEW

Rating 1 2 3 4 5

Save

Figure 2: Pandora's website on INCF

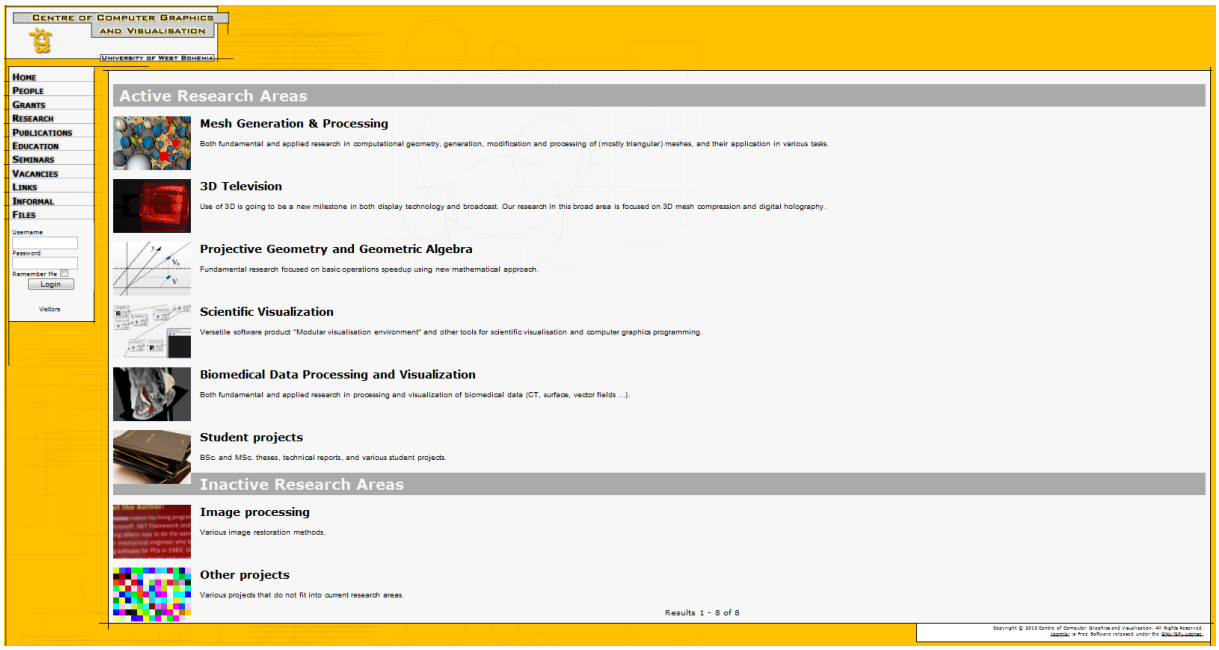


Figure 3: Presentation websites of Centre of Computer Graphics and Visualization

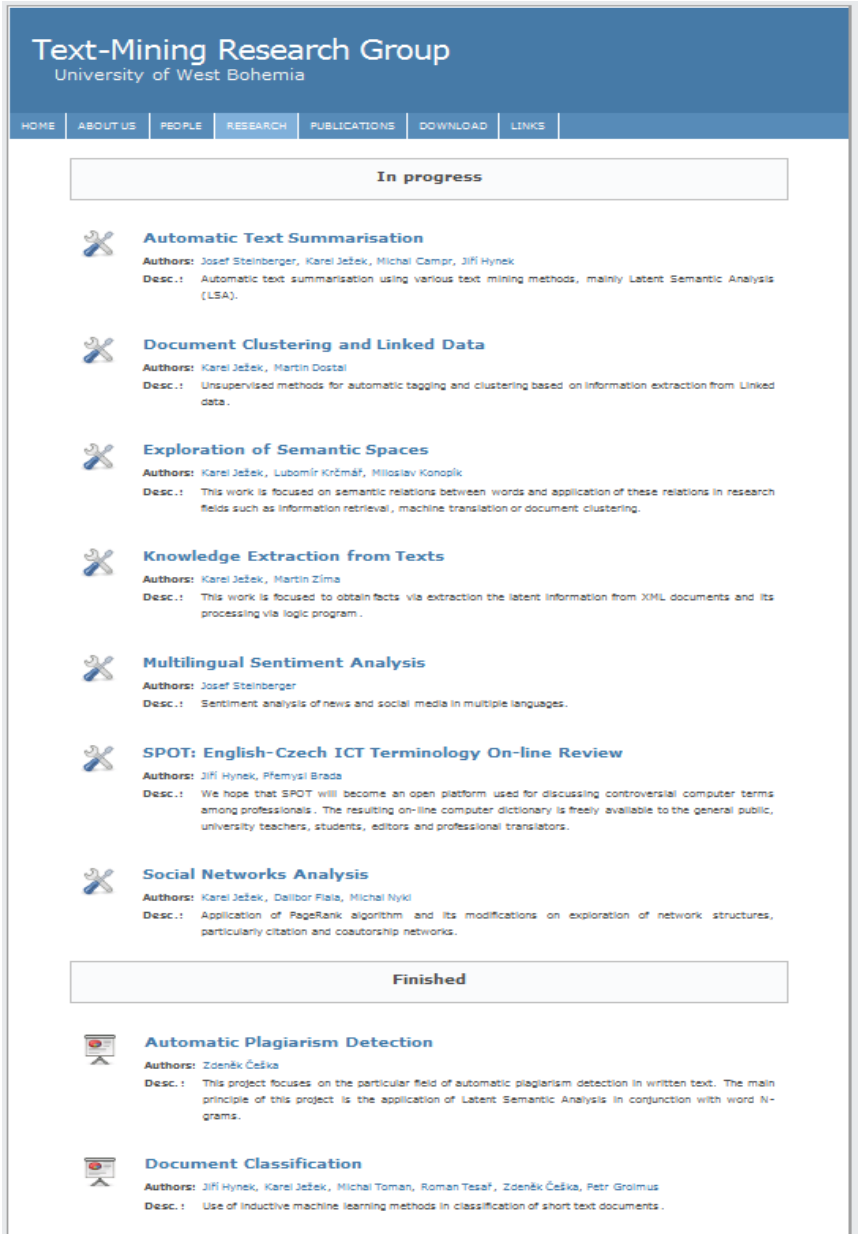


Figure 4: Presentation websites of Text-Mining Research Group

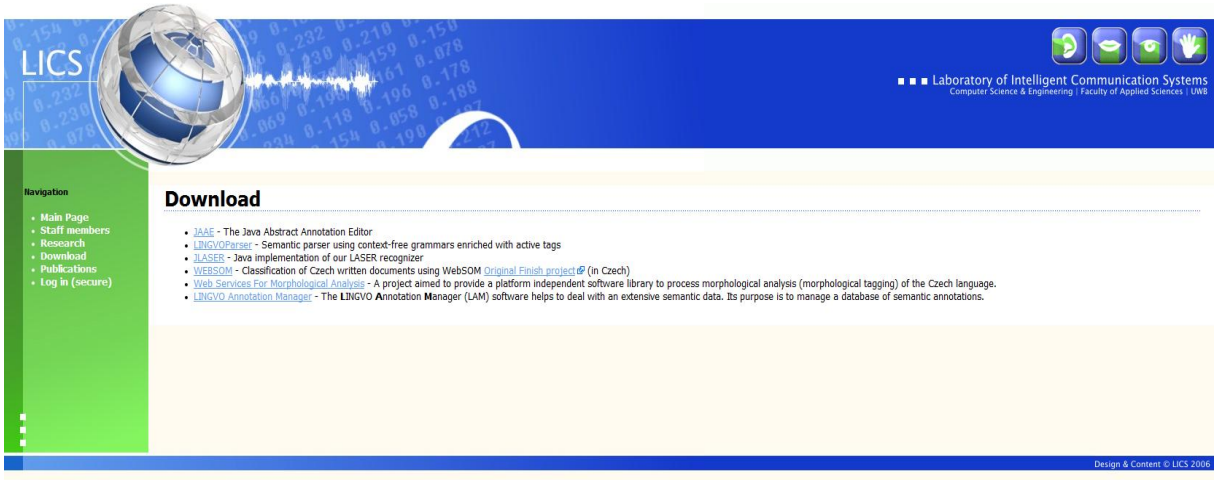


Figure 5: Presentation websites of Laboratory of Intelligent Communication Systems

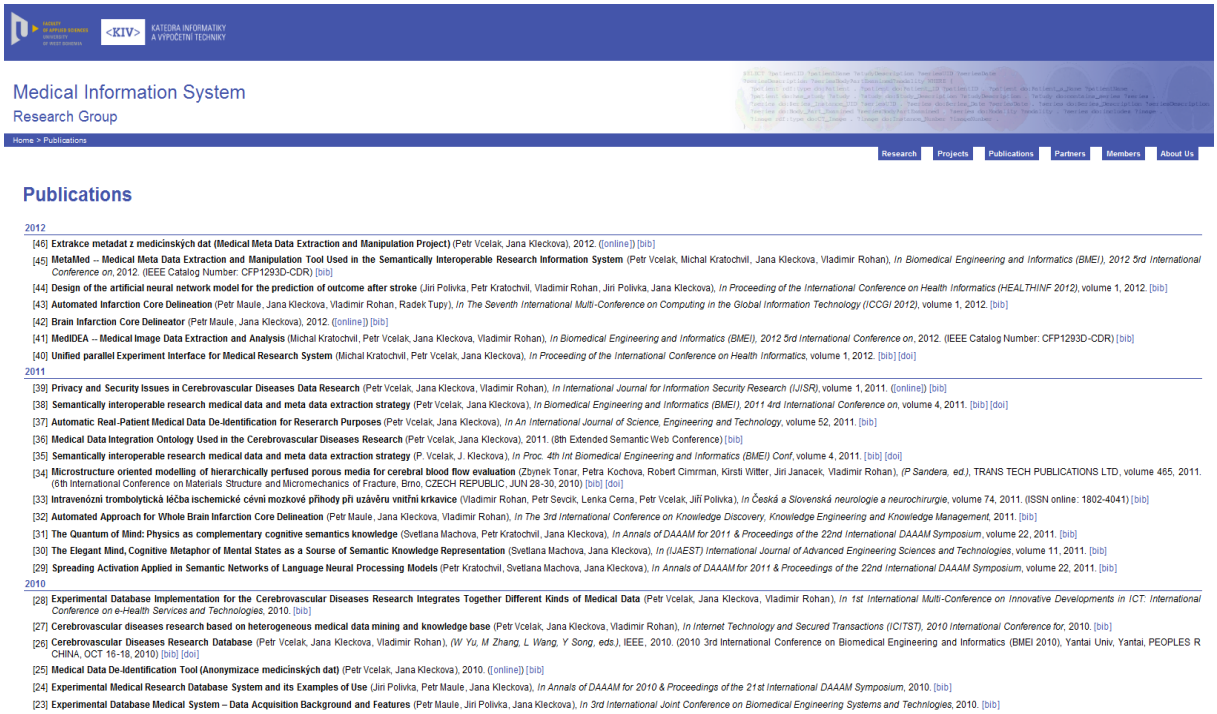


Figure 6: Presentation websites of Medical Information System

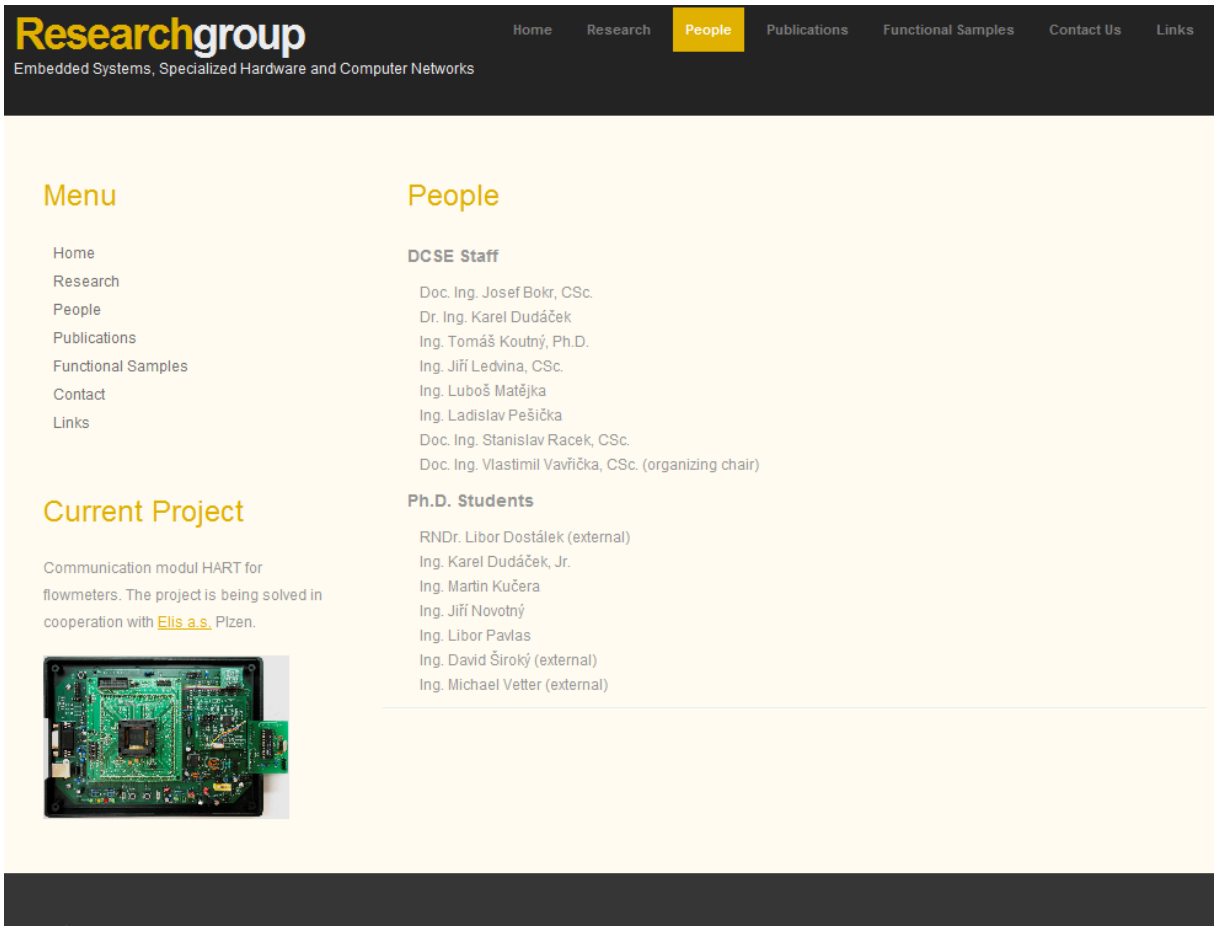


Figure 7: Presentation websites of Embedded Systems, Specialized Hardware and Computer Networks

Figure 8: Presentation websites of Distributed Systems, Simulations, Software Engineering

Figure 9: Presentation websites of The Dutch node

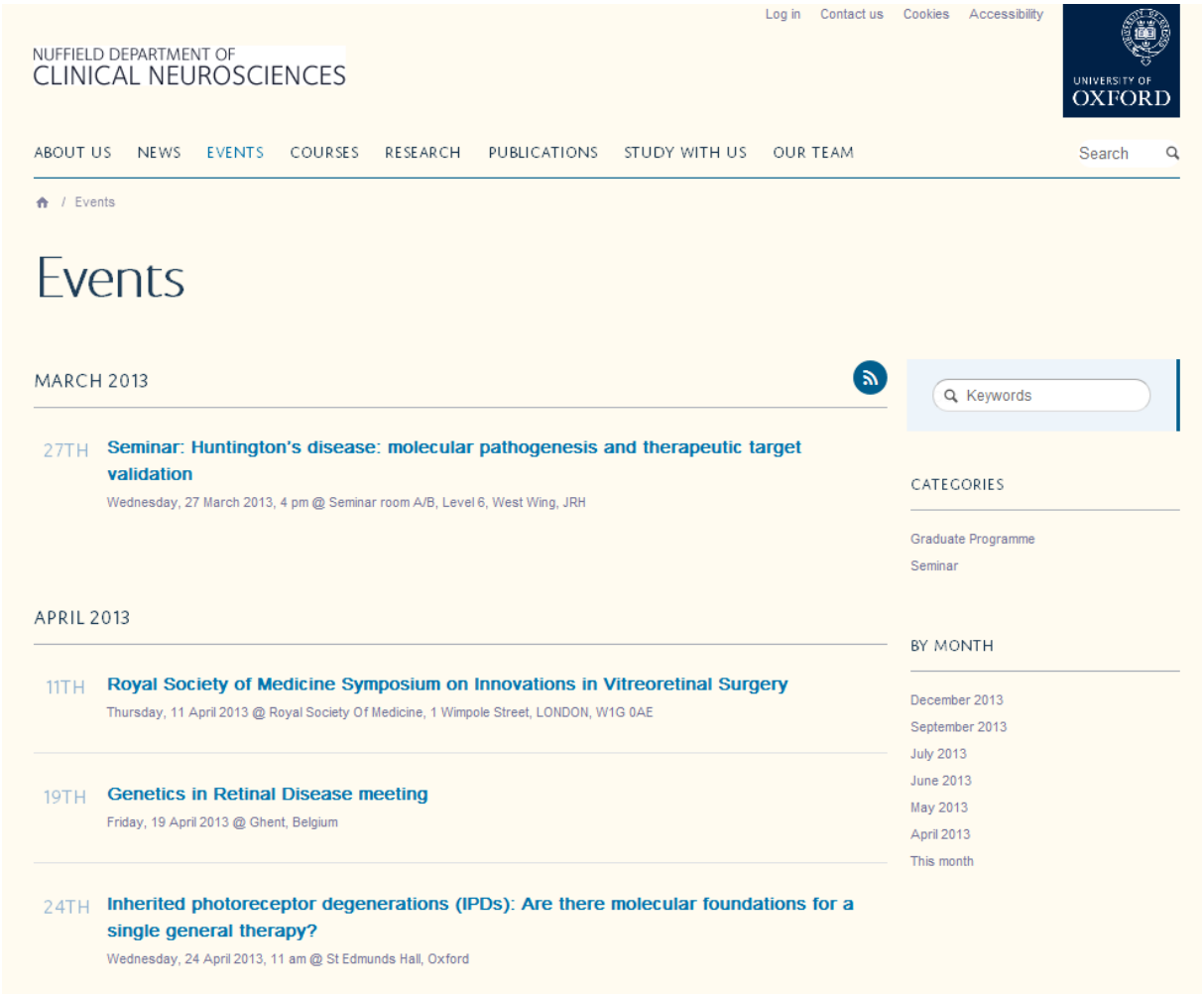


Figure 10: Presentation websites of the Nuffield Department of Clinical Neurosciences at the Oxford University

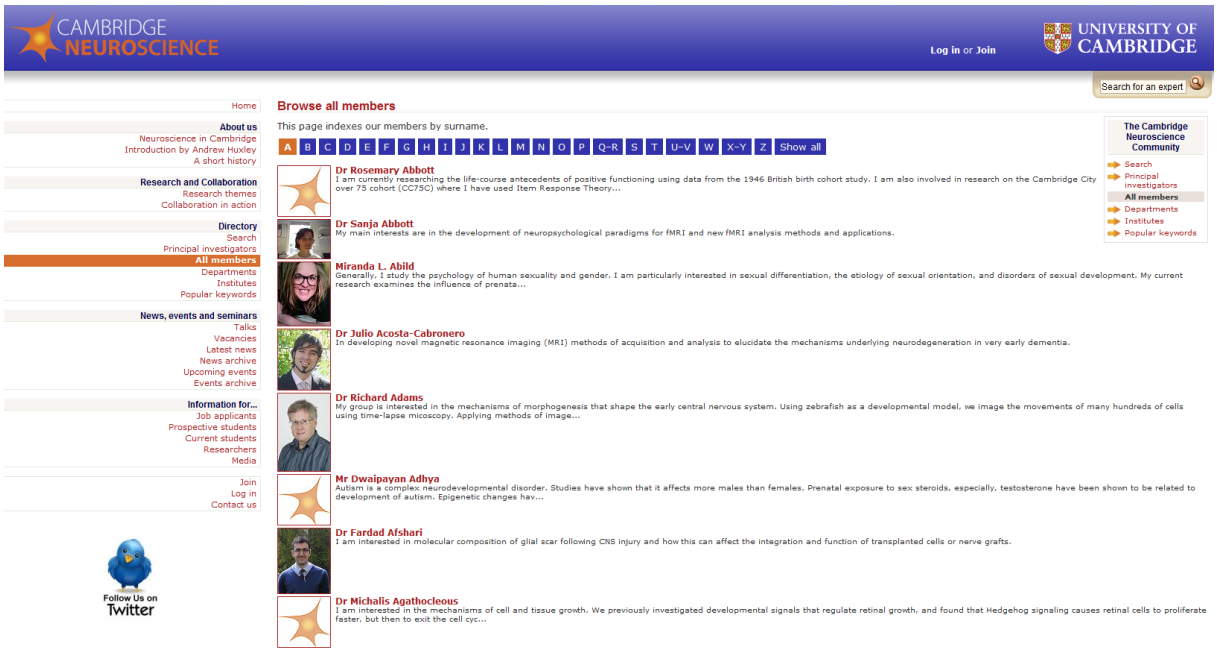


Figure 11: Presentation websites of the Neuroscience at the University of Cambridge

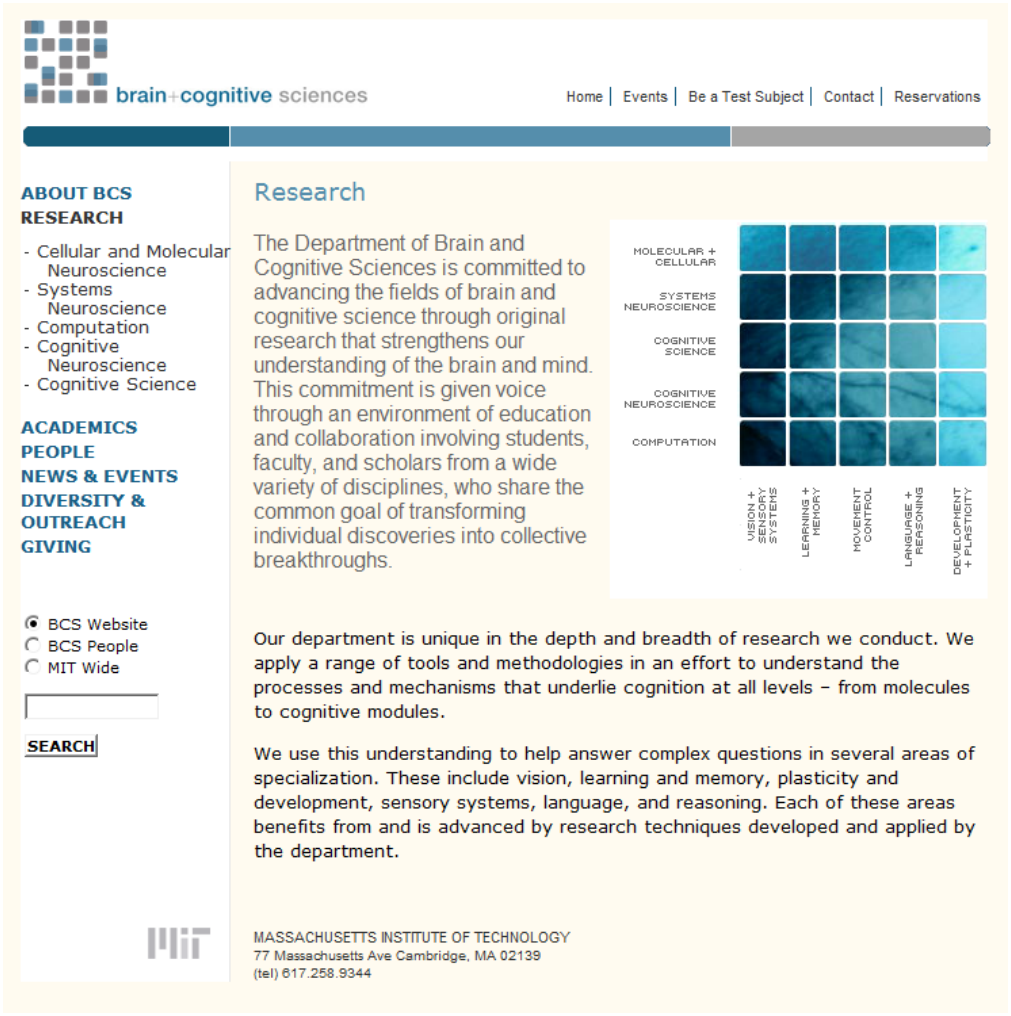


Figure 12: Presentation websites of the Department of Brain and Cognitive Sciences at MIT

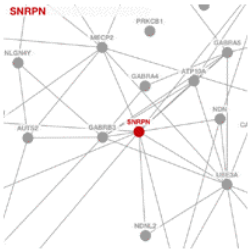
home | about cbmi | contact us

cbmi
Center for Biomedical Informatics

research | news & events | education & training | resources

Home » Resources

Search this site...



Resources

RESOURCE NAME	COMMENTS
Aegis	Public Health Surveillance Tool
AutWorks	View and search through the network of genes implicated in Autism Spectrum Disorder and related neurological diseases.
BEST	SNP tagging
CAGED	Time-series clustering for gene expression.
GrowthCalc	Automated human growth charts
Healthmap	Worldwide, multilingual view of public-health relevant outbreaks,.
HITEx	HITEx (Health Information Text Extraction) is an open-source natural language processing (NLP) software application. HITEx consists of the collection of Gate plug-ins that were developed to solve problems in medical domain, such as princial diagnoses extraction, discharge medications extraction, smoking status extraction and others.
The i2b2 Workbench	Tools for analyzing entire healthcare systems for discovery
Indivo	Personally controlled Health Record
MAPPER	Identifies transcription factor binding sites
RoundUp	Large-scale database of orthology covering over 220 publicly available genomes. The orthologs are computed using the Reciprocal Smallest Distance (RSD) algorithm.

Figure 13: Presentation websites of the Center for Biomedical Informatics at Harvard University

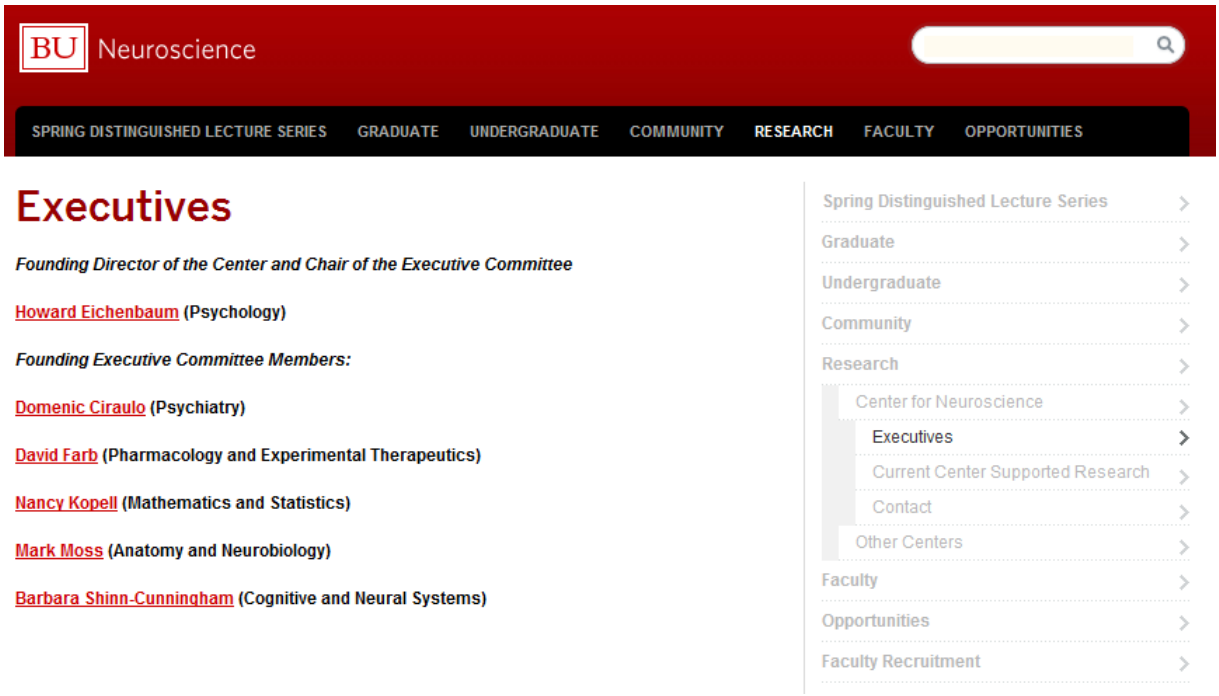


Figure 14: Presentation websites of the Center for Neuroscience at Boston University