

Home MBGP News Research People Resources Information Meetings

www.brassica.info
sharing information worldwide for

The Multinational Brassica Genome Project

This site has been established to collate and exchange information relating to *Brassica* genomics and genetics. More information here, including concept note for Genome Project, and the brassica.info e-mail discussion list

- Draft White Paper
- Notes from MBGP Steering Committee, Jan 2005
- *B. rapa* Genome Sequencing Project: new data and browsers for BAC-end and shotgun sequencing
- July 14, 2005, Parkin et al., "Segmental structure of the *Brassica napus* genome based on comparative analysis with *Arabidopsis thaliana*". Genetics - ahead of print

Details of International and National *Brassica* research programmes

Information on *Brassica* researchers, the MBGP steering committee and conference organisers

Details and links to a wide range of *Brassica* experimental resources, including plants, reference populations, clone libraries, genetic markers.

A diverse and growing range of information relating to *Brassica* research and development, databases, and background information about the crop and markets

Listings of upcoming and past meetings and conferences including links to abstracts and other information online

Information on how to subscribe and participate in the brassica.info email discussion list. Currently > 320 members worldwide.

Sponsored by: Hosted by: Editor: Last updated: Hits since Feb 2002:

bbsrc ROTHAMSTED RESEARCH Graham King Apr 20th 2005 28294



Brassica Genome Gateway

- Brassica genome sequencing
 - Annotation service - Bring your own BAC [Read me]
- BBSRC Brassica IGF Project
 - Information
 - Database
 - Order BAC clones
 - A genome contigs
 - C genome contigs

11th June 2003 more
Concept note: Brassica Genome Sequencing

10th June 2001 more
4th Annual GARNet Meeting, to be combined with 2nd Plant Genomics European Meetings (Plant-GEMs)

12th January 2003 more

Arabidopsis thaliana Insertion Database

Home Genome Browse BLAST Gene Traps

Arabidopsis thaliana (TIGR genome version 5)

Instructions: Search using a sequence name, gene name, locus, oligonucleotide (15 bp minimum), or other landmark. The wildcard character * is allowed. To C buttons to change magnification and position.

Examples: 1-97,000, 117,000, 2,102,000, A2g26800 1, apetalal1, homeotic, flowering, FCA, F4N2, F4N*, MGT_3 6639*, MGT*6639*, CGAATTCAATA

[Hide banner] [Hide instructions] [Help]

Landmark or Region

Search [Reset] Flip

Data Source: Arabidopsis thaliana (TIGR genome version 5)

Dumps, Searches and other Operations: Annotate Restriction Sites About... Configure...

Tracks [Hide]

- CATMA primers
- Homologous Brassica ESTs
- Clone sequence regions
- Homologous Brassica GSSs
- External tracks italicized

Korea Brassica Genome Project

HOME | KBGP | Research | Status | Publication | Link |

Comparative Genome Viewer-Minimum Tiled BACs on Arabidopsis

Minimum tiling path Brassica BAC clones on Arabidopsis Chromosomes

BAC clones are allocated on *Arabidopsis* pseudo chromosomes based on directional (+ to -) and significant (<E-6) hits of both end sequences within 30-500 kb interval. Under this criteria, a total of 4317 BAC clones are allocated on *Arabidopsis* chromosomes (look at the *Arabidopsis-Brassica* Genome Browser). A total of 629 BAC clones with minimum overlap (minimum tiling BACs) are selected for sequencing. All the BAC sequence will be further used for genetic mapping and *Arabidopsis-Brassica* comparative genome analysis.

Chromosome 1

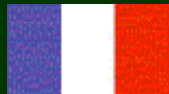
BAC ID	Coordinates
KBrB046G18R	(102720-227965)
KBrB030F10R	(624069-753147)
KBrB043F18F	(1073452-1209071)
KBrB013C03	(1502521-1513754)
KBrB092L06R	(441816-648987)
KBrB089B13R	(732356-1073863)
KBrB017P15R	(1203295-1513754)

Multinational *Brassica* Genome Project



Achievements: resources now in public domain

- Genetic maps and populations
- Collation of public-domain SSR markers
- ESTs in public repositories
- BAC libraries and physical (BAC) contig maps
- Initiation of *B. rapa* **sequencing project**
- Analysis of *B. oleracea* shotgun sequences
- www.brassica.info website and links
- “White Paper” , with national profiles



Multinational *Brassica* Genome Project

Additional objectives and opportunities:

- Standardised screening of Diversity (diversity sets)
- Induced variation (**TILLING**)
- Transcriptional micro-arrays ?
- Standardisation of nomenclature
- Information registries and exchange standards
- Integration of genetic and genomic maps : from QTL to gene



www.brassica.info

sharing information worldwide for
The Multinational Brassica Genome Project

MBGP
and Multinational *B. rapa* Sequencing Project

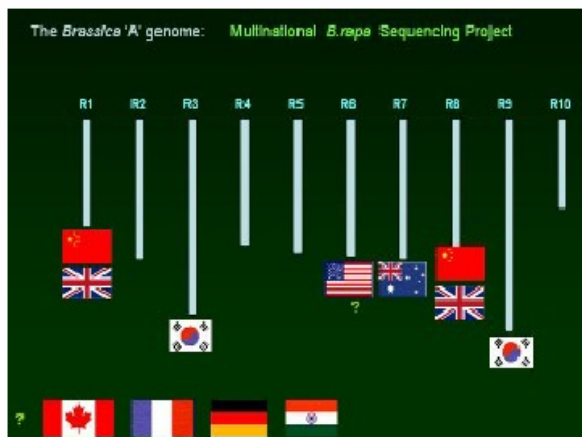
	All	ESTs	GSS
	All	ESTs	GSS
Live from	All	ESTs	GSS
NCBI	All		
(Entrez)	All	ESTs	GSS
	All		
	All	ESTs	GSS
Mar 6th, 2007	Total of 1,027,524 genbank accessions		

[Daily update totals](#) from [BrassicaDB](#).

The BrassicaDB [BLAST server](#) allows you to [BLAST any sequence](#) against all current *Brassica* sequences and BrassicaDB contents, as well as Arabidopsis TIGR v5

[Overview of the *B. rapa* sequencing project](#)

[Status of the Multinational *Brassica rapa* Sequencing Project](#)



Rapid rise in DNA sequence data

Feb 2007 : > 1 million *Brassica* accessions in NCBI GenBank

Today: 1,034,629 entries

→ easier to find orthologous genes

Affymetrix *Brassica* community GeneChip®



	<u><i>Brassica</i> ESTs in GenBank</u>
Jan 2006	100,000 + 30,000 pledged
Jan 2007	148,000
Today	212,904
June 2007	620,000
July – Oct	design, community review
Oct-Dec 2007	release of GeneChip



Affymetrix *Brassica* community GeneChip®



Brassica ESTs in GenBank

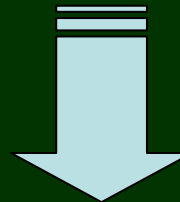
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Brassica community Array?



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Today	221,367
June 2007	620,000
July –	? design, community review



?Other platforms: Agilent, Combimatrix, Nimblegen etc