gm9315.L

FB4013670I

From [redacted] **Wed May 23 10:08:49 2001**
From: Michael Ashburner (Genetics) <[redacted]>
To: [redacted]
Subject: pc
Date: Wed, 23 May 2001 10:08:50 +0100

----- Begin Included Message -----

>From [redacted] Tue May 22 17:11:24 2001
Envelope-to: [redacted].uk
Delivery-date: Tue, 22 May 2001 17:11:24 +0100
X-Originating-IP: [130.209.6.41]
Reply-To: [redacted]
From: "Ross McLennan" <[redacted]>
To: [redacted]
Cc: [redacted]
Bcc:
Subject: Re: [BDGP] gene annotation
Date: Tue, 22 May 2001 17:10:56 +0100
Mime-Version: 1.0
Content-Type: multipart/mixed; boundary="----=_NextPart_000_5d99_4bd9_6680"
X-OriginalArrivalTime: 22 May 2001 16:10:58.0193 (UTC) FILETIME=[C9734810:01C0E2
D9]
Content-Length: 47787

----Original Message Follows----
From: Michael Ashburner (Genetics) <[redacted]>
To: [redacted], [redacted]
Subject: Re: [BDGP] gene annotation
Date: Tue, 22 May 2001 16:42:29 +0100

You can send it to me

Michael Ashburner

A word document is attached to this message explaining my arguments for the annotation of 10 Drosophila genes as members of the syntaxin family involved in vesicle fusion.

Thank you.

Ross McLennan

Ross McLennan
Division of Molecular Genetics
Anderson College
University of Glasgow
Glasgow
G11 6NU
Scotland

Tel: [redacted]
Email: [redacted]
or [redacted]

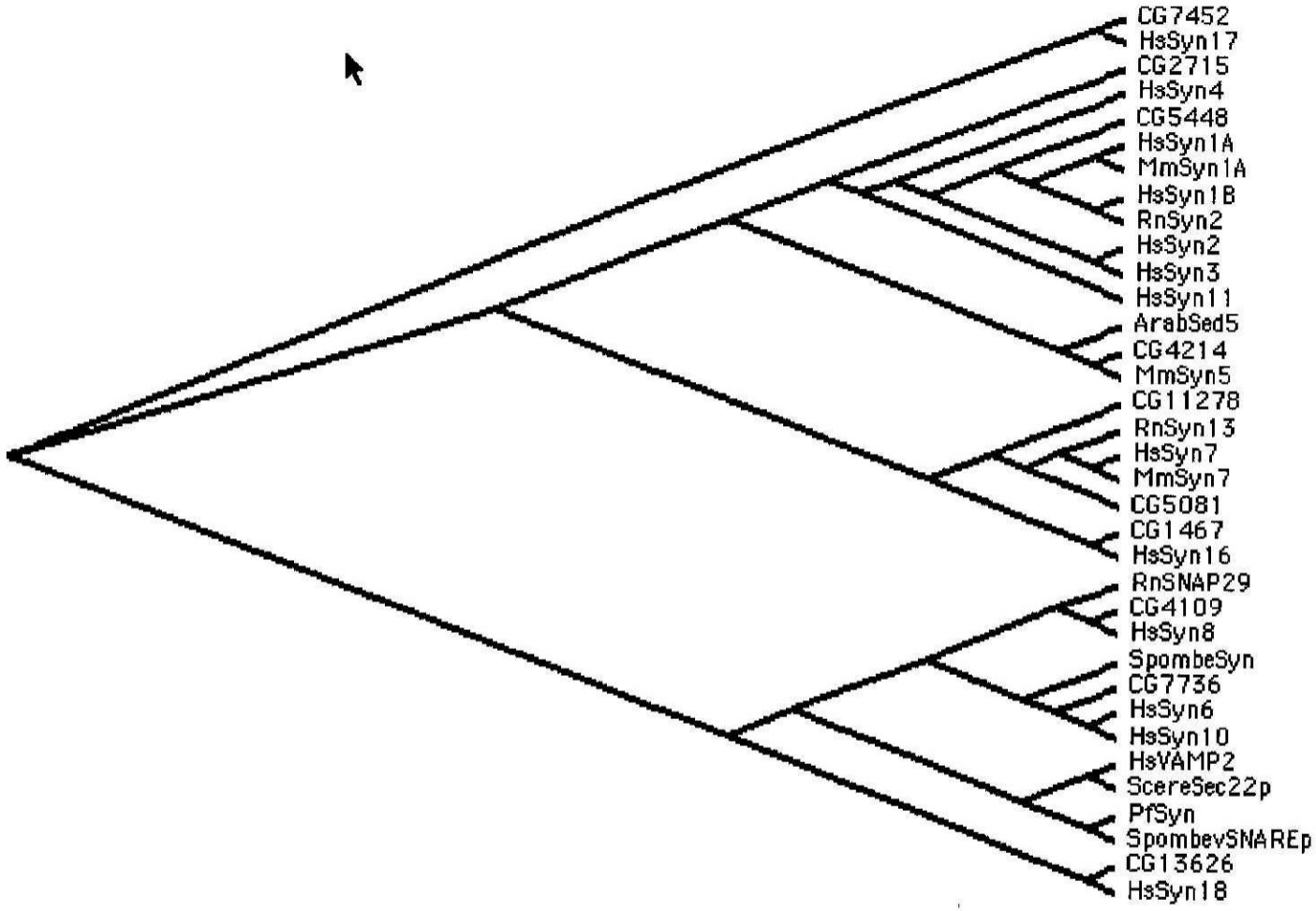
Get Your Private, Free E-mail from MSN Hotmail at http://www.hotmail.com.

----- End Included Message -----

<This message contains 1 attachments (not printed)>

Analysis of the completed *Drosophila melanogaster* genome sequence has revealed that there are putatively 10 syntaxin genes in this species. Several of these genes have already been studied in great detail, in particular the *Drosophila* homologue of syntaxin 1A. However, the vast majority of this family of genes has not been ananlysed in any great detail. I suggest the following nomenclature for the members of the *Drosophila* syntaxin gene family (see table below) based on the homology of the predicted products of the *Drosophila* genes to proteins which have previously been characterised in other species (although the same phylogenies are seen at the nucleotide level). The closest homolgues of each of the *Drosophila* syntaxin gene products (using the BLASTp 2.1.1 programme at http://www.ncbi.nlm.nih.gov/blast/blast.cgi) were found to be mammalian syntaxin proteins (see attached table and phylogenetic tree) and I suggest that the *Drosophila* genes be named corresponding to their closest mammalian orthologue. In particular, I question the naming of *Drosophila Syx7* and *Syx6/10* as this does not agree with the nomenclature system described above. In reality the closest homologue of CG7736 (currently named *syx7)* is human *syntaxin6*, whist the closest homologue of CG5081 (currently named *Syx6/10*) is rat *syntaxin 7.*

Drosophila gene accession number	Current *Drosophila* gene name (Flybase 21.05.2001)	Closest orthologue (species)	Proposed *Drosophila* gene name
CG5448	*Syx1A*	Syntaxin 1A (rat)	*DmSyx1A*
CG2715	*EG:95B7.1*	Syntaxin 4 (mouse)	*DmSyx4*
CG4214	*Sed5*	Syntaxin 5 (human)	*DmSyx5*
CG7736	*Syx7*	Syntaxin 6 (human)	*DmSyx6*
CG5081	*Syx6/10*	Syntaxin 7 (rat)	*DmSyx7*
CG4109	-	Syntaxin 8 (human)	*DmSyx8*
CG11278	-	Syntaxin 13 (rat)	*DmSyx13*
CG1467	*Syx16*	Syntaxin 16 (human)	*DmSyx16*
CG7452	-	Syntaxin 17 (rat)	*DmSyx17*
CG13626	-	Syntaxin 18 (human)	*DmSyx18*



Phylogenetic tree showing the relationships between the *Drosophila melanogaster* members of the syntaxin family (represented by their accession number) and a selection of those that have been characterised in other species.

Hs - *Homo sapiens*
Mm - *Mus musculus*
Rn - *Rattus norvegicus*
Spombe - *Schizosaccharomyces pombe*
Arab - *Arabidopsis thaliana*