BF 0161615

From [redacted] Mon Aug 25 22:35:36 2003
From: [redacted]
To: [redacted]
Subject: Mutation notation for flybase
Date: Mon, 25 Aug 2003 14:35:30 –0700

Dr. Ashburner,

I am pasting in a copy of the email that I sent to you earlier this month. Dr. Markow said that she spoke with you and you had not received my email. My apologies, I should have checked with you prior to now.

Here is the body of my prior email.

I was speaking with Teri about the problems related to the mutant alleles on our stocklist at the stock center. I am working with the computer department to alleviate some of the problems. The hyperlink problem is associated with the lack of information in the field that links our mutant allele to the flybase report. They are in the process of fixing that now.

I was wondering if I can get some clarification on the suggestion that you had to include the Dnnn\ portion of the symbol in the hyperlink.

Our link is not directly associated with the Dnnn* notation, but goes instead to the FBgn flybase report number where it receives its directions to the appropriate flybase site. Will this still make a difference to include the Dnnn\ portion in the hyperlink?

Adding the Dnnn\ portion to all mutation notations is not a problem, but if they are included in the hyperlink, it will significantly increase the size of our database and decrease the speed with which it runs. If there is an advantage to doing this, then we will get it taken care of, I just want to understand the benefit it provides. (I am kind of new at this database stuff, so sometimes I don't see the implications of making certain adjustments)

I am having the list of mutant alleles checked that you sent and will let you know as quickly as possible if there are any changes. I am also checking to see what data is available concerning these alleles.

I will make the necessary changes to the individual mutants right away.

We are in the process of suggesting a complete redesign of the database that feeds our website. I would like to work as closely as possible with the database designers of flybase to insure our ability to interact. Is there someone specific that I should speak with?

Thank you so much for all of your help.

Lisa

Lisa Laing
Collections Manager
Research Specialist
Tucson Stock Center
[redacted]

I have just been looking at yr stock list, because Kathy pointed out that not all mutant alleles are linked to FlyBase - for the reason that they are not in.

1. Below is a list of mutant alleles that I will create in FB for you. Can you have someone check it over, as I have made some guesses ! If you have any further data we could include on any of them (e.g. mutational origin eg spontaneous vs induced with X rays, ems) that would be great.

Going thru yr list I saw some systematic problems.

a) Some times you have a string of mutant alleles but the hyperlink stops someway along the string.

(b) I suggest that the hyperlink include the Dnnn\ part of the symbol and not just the bit after the \

(c) Can I strongly suggest that all symbols have the species prefix,

ie NOT like this

Dmer\sly[1] w[1] m[1]

but like this

Dmer\sly[1] Dmer\w[1] Dmer\m[1]

(d) some notes on individual mutants:
i. renamed Dfun\v[1] as Dfun\v[5] as we already have v[1] - v[4] alleles.
ii. Dtex\rd - removed the ? what is the name ? "reduced" [eye ??]
iii. I have put a space between eg bright and eye in brighteye etc
iv. what is this: Dhyd\spr .. spread [wings] ?
v. Dhyd\X-Y TRANSLOCATION, have changed to Dhyd\T(1;Y)340/2
vi. Dmer\sly[1] w[1] m[1]   .. what is sly ??
vii. Is Dmer\br Dmer\broad ??
viii. Dmul\vestigal[1] , typoL vestigial
ix. Spse\or[1]; spa[1] , typo Dpse
x. Dsim\fa .. what us fa ? facets ?

If we could set a system so that whenever you need a new mutant allele I get an email then that will keep this current.

As ever - Michael

======== 1
gene_symbol: Dacu\dark eye
gene_name: dark eye
allele_symbol: Dacu\dark eye[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dafs\bright eye
gene_name: bright eye
allele_symbol: Dafs\bright eye [1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dald\cardinal
gene_name: cardinal
allele_symbol: Dald\cardinal[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dald\curled
gene_name: curled
allele_symbol: Dald\curled[1]
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dald\sepia
gene_name: sepia
allele_symbol: Dald\sepia[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dald\white
gene_name: white
melanohaster_homolog_(inferred): w
allele_symbol: Dald\white[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dtex\dark eye
gene_name: dark eye
allele_symbol: Dtex\dark eye[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dtex\rd
gene_name: rough eye
allele_symbol: Dtex\rd[1]
Phenotypic class: visible | recessive

```
Phenotype manifest in: eye
#
gene_symbol: Dbus\px-like
gene_name: px-like
allele_symbol: Dbus\px-like
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dbuz\rough eye
gene_name: rough eye
allele_symbol: Dbuz\rough eye[1]
Phenotypic class: visible | recessive
Phenotype manifest in: eye
#
gene_symbol: Dcar\w
gene_name: white
melanohaster_homolog_(inferred): w
allele_symbol: Dcar\w[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dcru\st
gene_name: scarlet
allele_symbol: Dcru\st[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dcru\y
gene_name: yellow
allele_symbol: Dcru\y[1]
Phenotypic class: visible | recessive
Phenotypic class: body colour defective
Body colour: yellow.
#
gene_symbol: Dfun\v
allele_symbol: Dfun\v[5]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dhyd\spr[3-77]
Phenotypic class: visible | recessive
allele_symbol: Dhyd\spr[3-77]
#
gene_symbol: Dmau\pr
gene_name: purple
melanohaster_homolog_(inferred): pr
allele_symbol: Dmau\pr[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dmau\cy
gene_name: curly
allele_symbol: Dmau\cy[1]
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dmau\e
gene_name: ebony
melanohaster_homolog_(inferred): e
allele_symbol: Dmau\e[1]
Phenotypic class: visible | recessive
Phenotypic class: body colour defective
#
gene_symbol: Dmau\pm
gene_name: plum
allele_symbol: Dmau\pm[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dmer\sly
allele_symbol: Dmer\sly[1]
Phenotypic class: visible | recessive
#
gene_symbol: Dmer\w
gene_name: white
```

```
melanohaster_homolog_(inferred): w
allele_symbol: Dmer\w[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dmer\m
allele_symbol: Dmer\m[1]
gene_name: miniature
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dmer\br
allele_symbol: Dmer\br[1]
Phenotypic class: visible | recessive
#
gene_symbol: Dmer\pr
allele_symbol: Dmer\pr[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dmic\st
gene_name: scarlet
allele_symbol: Dmic\st[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dmul\vestigial
gene_name: vestigial
allele_symbol: Dmul\vestigal[1]
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dpau\pn
gene_name: prune
allele_symbol: Dpau\pn[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dper\delta
allele_symbol: Dper\delta[1]
Phenotypic class: visible | recessive
#
gene_symbol: Dper\orange
allele_symbol: Dper\orange[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dper\bright orange eye
gene_name: bright orange eye
allele_symbol: Dper\bright orange eye[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Drob\orange eye
gene_name: orange
allele_symbol: Drob\orange eye[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dsim\or
gene_name: orange
melanohaster_homolog_(inferred): or
allele_symbol: Dsim\or[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dsim\car
allele_symbol: Dsim\car[2]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
```

```
gene_symbol: Dsim\fa
allele_symbol: Dsim\fa[1]
Phenotypic class: visible | recessive
#
gene_symbol: Dsim\aeroplane
gene_name: aeroplane
allele_symbol: Dsim\aeroplane[1]
Phenotypic class: visible | recessive
Phenotype manifest in: wing
#
gene_symbol: Dsim\pr
gene_name: purple
melanohaster_homolog_(inferred): pr
allele_symbol: Dsim\pr[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#
gene_symbol: Dsim\skew
allele_symbol: Dsim\skew[1]
Phenotypic class: visible | recessive
#
gene_symbol: Dtrp\brown eye
gene_name: brown eye
allele_symbol: Dtrp\brown eye[1]
Phenotypic class: visible | recessive
Phenotypic class: eye colour defective
Phenotype manifest in: pigment cell
#


abberation_symbol: Dhyd\T(1;Y)340/2
#
abberation_symbol: Dhyd\T(2;3;4)De
#
```

Questions	Answer
> > gene symbol: Dafs\bright eye > > gene name: bright eye > > allele symbol: Dafs\bright eye [1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dald\curled > > gene name: curled > > allele symbol: Dald\curled[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES** This stock needs selection for a complete recessive gene. Not all the individuals in this stock present the wing mutation.
> > gene symbol: Dald\sepia > > gene name: sepia > > allele symbol: Dald\sepia[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dald\white > > gene name: white > > melanohaster_homolog_(inferred): w > > allele symbol: Dald\white[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dtex\dark eye > > gene name: dark eye > > allele symbol: Dtex\dark eye[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	There is not a morphological difference between the mutant and wild/type stocks (Compared against stock .31)
> > gene symbol: Dtex\rd > > gene name: rough eye > > allele symbol: Dtex\rd[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: eye	**NO** No deformity on eye-shape. The "rd" terminology may be referred to red-eye (color very similar to those populations reported as "cinnabar"). (Compared against stock .3)
> > gene symbol: Dbus\px-like > > gene name: px-like > > allele symbol: Dbus\px-like > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES** Px-like is a wing mutation. Individuals in this stock have the 2nd and 3rd posterior wing cells dorsally folded. This stock needs selection for a complete recessive gene. Not all the individuals in this stock present the wing mutation.
> > gene symbol: Dbuz\rough eye > > gene name: rough eye > > allele symbol: Dbuz\rough eye[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: eye	**YES**

> > gene symbol: Dmau\pm > > gene name: plum > > allele symbol: Dmau\pm[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dmer\sly > > allele symbol: Dmer\sly[1] > > Phenotypic class: visible | recessive	**Body coloration in this stock's individuals clear yellow-brownish**
> > gene symbol: Dmer\w > > gene name: white > > melanohaster_homolog_(inferred): w > > allele symbol: Dmer\w[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** White eye
> > gene symbol: Dmer\br > > allele symbol: Dmer\br[1] > > Phenotypic class: visible | recessive	**Body coloration for this stock's individuals is clear brown. Males haven't coloration in their testis.** **(Compared against stock .21)**
> > gene symbol: Dmer\pr > > allele symbol: Dmer\pr[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dmic\st > > gene name: scarlet > > allele symbol: Dmic\st[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Bright–red eyes
> > gene symbol: Dmul\vestigial > > gene name: vestigial > > allele symbol: Dmul\vestigal[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES** No wings present on these stock individuals
> > gene symbol: Dpau\pn > > gene name: prune > > allele symbol: Dpau\pn[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** This eye mutation is also present in the stock .15 and it is not reported in the TSC web page.
> > gene symbol: Dper\delta > > allele symbol: Dper\delta[1] > > Phenotypic class: visible | recessive > > gene symbol: Dper\bright orange eye > > gene name: bright orange eye > > allele symbol: Dper\bright orange eye[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	These mutations are present in stock .14 (delta) and stock .44 (bright orange eye). Nevertheless, there is not a morphological difference between these stocks. Individuals from both stocks have the same mutation in the eye. It is a bright-red eye. It is a florescent tone, almost an orange color.

> > gene symbol: Dcar\w > > gene name: white > > melanohaster_homolog_(inferred): w > > allele symbol: Dcar\w[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** White eyes
> > gene symbol: Dcru\st > > gene name: scarlet > > allele symbol: Dcru\st[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Bright red eyes
> > gene symbol: Dcru\y > > gene name: yellow > > allele symbol: Dcru\y[1] > > Phenotypic class: visible | recessive > > Phenotypic class: body color defective > > Body color: yellow.	**YES** Body coloration yellow-brownish
> > gene symbol: Dfun\v > > allele symbol: Dfun\v[5] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES/NO** Unknown the reason for "v" mutation. Individuals in this stock present a **bright-red eye** mutation.
> > gene symbol: Dhyd\spr[3-77] > > Phenotypic class: visible | recessive > > allele symbol: Dhyd\spr[3-77]	**YES** "spr" is a wing mutation. The majority of the individuals from this stock have their wings spread in 45° from body when they rest. This stock needs selection for a complete recessive gene. Not all the individuals in this stock present the same wing mutation. Some individuals had the wings down 45°. Therefore, wings in these individuals touch the ground when they rest.
> > gene symbol: Dmau\pr > > gene name: purple > > melanohaster_homolog_(inferred): pr > > allele symbol: Dmau\pr[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES**
> > gene symbol: Dmau\cy > > gene name: curly > > allele symbol: Dmau\cy[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES/NO** This stock has a mutation in the wing. Nevertheless, wings are not curly. These individuals have "waves" in the 3rd posterior cell of the wing membrane. Therefore, wings are really fragile and susceptible to break.
> > gene symbol: Dmau\e > > gene name: ebony > > melanohaster_homolog_(inferred): e > > allele symbol: Dmau\e[1] > > Phenotypic class: visible | recessive > > Phenotypic class: body color defective	**YES** Black body coloration.

> > gene symbol: Drob\orange eye > > gene name: orange > > allele symbol: Drob\orange eye[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Bright–red/orange eyes
> > gene symbol: Dsim\or > > gene name: orange > > melanohaster_homolog_(inferred): or > > allele symbol: Dsim\or[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Bright orange eyes
> > gene symbol: Dsim\car > > allele symbol: Dsim\car[2] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Eye coloration is almost the "prune" mutation mentioned in some stocks above.
> > gene symbol: Dsim\fa > > allele symbol: Dsim\fa[1] > > Phenotypic class: visible | recessive	**A mutation in the tarsi. When individuals from this stock are at rest, their tarsi are almost in semi-circle curve. Therefore, these individuals every time they try to land, they land on their back.**
> > gene symbol: Dsim\aeroplane > > gene name: aeroplane > > allele symbol: Dsim\aeroplane[1] > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES** Wing mutation that spread wings in 180° while individuals rest. These stock needs selection. The majority of the individuals present the 180° wings-rest position. Nevertheless, some individuals also present a 45° above thorax wing-rest position. In addition, they are some individuals with orange eyes and one of the two-wing mutations.
> > gene symbol: Dsim\pr > > gene name: purple > > melanohaster_homolog_(inferred): pr > > allele symbol: Dsim\pr[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES/NO** It is an eye mutation but the color is not purple. It is a unique color between white and orange.
> > gene symbol: Dsim\skew > > allele symbol: Dsim\skew[1] > > Phenotypic class: visible | recessive	Unknown mutation. There is not a morphological character to link with this mutation.
abberation_symbol: Dhyd\T(2;3;4)De	Not clear what it means T(2;3;4)De. Individuals on this stock present some malformation on the 4th, 5th, and 6th sternite.
> > gene symbol: Dmer\m > allele symbol: Dmer\m[1] > > gene name: miniature > > Phenotypic class: visible | recessive > > Phenotype manifest in: wing	**YES** A wing mutation. Wings of these individuals are curve over the abdomen. They are fragile wings and with humidity, wings get stick to the abdomen.
> > gene symbol: Dacu\dark eye > > gene name: dark eye > > allele symbol: Dacu\dark eye[1] > > Phenotypic class: visible | recessive > > Phenotypic class: eye color defective > > Phenotype manifest in: pigment cell	**YES** Dark-red eye