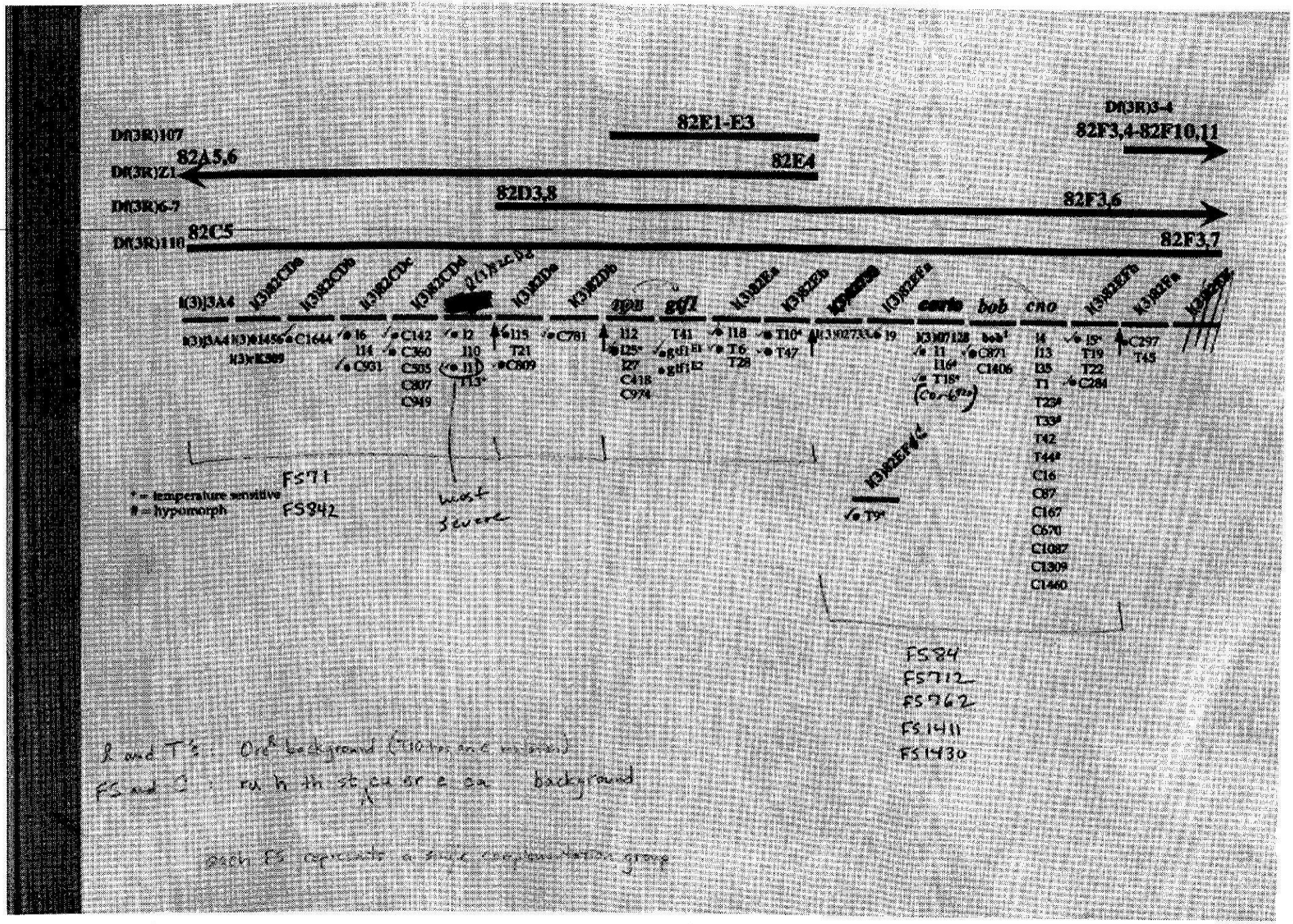
T. McGraw and K. Cook
October 2nd 1998.

BrF0104943



From [redacted] **Fri Oct 02 22:50:53 1998**
From: Kevin Cook <[redacted]>
To: rd[redacted]
Cc: [redacted]
Subject: Megraw 82CF complementation groups
Date: Fri, 02 Oct 1998 16:49:51 -0500

Hi Rachel--

I recently received a batch of stocks from Tim Megraw in Thom Kaufman's lab that will be incorporated into the Stock Center collection. Tim has not yet published this work. I will send you a copy of the diagram he gave me. (I talked to Aubrey about scanning and sending these diagrams by e-mail so that I don't have to deal with our evil fax machine.)

I'm sending this information to you for Tim. If you have any questions, you should contact Tim at [redacted] or contact Thom at [redacted] has additional information on phenotypes and allelic strengths that he may wish to communicate. This information may eventually be published.

A few things for you to consider:

1. Tim found that two P element mutations, l(3)01456 and l(3)rK509, failed to complement and provided finer mapping of the mutations. He wants to call the locus l(3)82CDa instead of l(3)01456 or l(3)rK509. Is this OK? (It's not the way BDGP has done it, but I thought it was reasonable in the context of a study like this.)

2. l(3)82CDe is the same as laf, a gene mentioned once in an abstract. They won't publish with the laf name, but they haven't decided on a new name.

3. There are 7 female sterile mutations that complement the rest of the mutations and complement each other. I suggested that he name the loci:

fs(3)82CDa[71]
fs(3)82CDb[842]
fs(3)82EFa[84]
fs(3)82EFb[712]
fs(3)82EFc[762]
fs(3)82EFd[1411]
fs(3)82EFe[1430]

4. Tim donated temperature sensitive alleles to the stock center. Are the following allele designation OK?
opa[ts125]
corto[tsT18]
l(3)82EFb[ts15]
l(3)82EFc[tsT9]

5. On the diagram, Tim penciled in brackets to show which mutations fall in the same chromosomal interval but are not ordered proximal to distal. The exception is opa and gtf1. opa is proximal and adjacent to gtf1. The order of l(3)82Ea, l(3)82Eb and (opa-gtf1) is not known.

6. Here are the stocks he gave to the Stock Center with my proposed genotypes. Are the locus and allele designations OK?

ru[1] h[1] th[1] st[1] l(3)82CDb[C1644] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
w[*]; l(3)82CDc[16]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82CDc[C931] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82CDd[C142] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82CDd[C360] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] fs(3)82CDa[71] cu[1] sr[1] e[s] ca[1]/TM3
ru[1] h[1] th[1] st[1] fs(3)82CDb[842] cu[1] sr[1] e[s] ca[1]/TM3
l(3)82CDe[111]/TM6B
l(3)82CDe[12]/TM3, Sb[1]
l(3)82Da[115]/ TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82Da[C809] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82Db[C781] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
opa[ts125]/TM3, Sb[1]
gtf1[e1]/TM3, Sb[1]
l(3)82Ea[118]/TM3, Sb[1]
w[*]; l(3)82Ea[T6]/TM6B
l(3)82Eb[T10] e[T10]/TM6B
l(3)82Eb[T47]/TM3, Sb[1]
l(3)82EFa[19]/TM3, Sb[1]
corto[11]/TM3, Sb[1]
corto[tsT18]/TM6B
ru[1] h[1] th[1] st[1] bob[C871] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]

l(3)82EFb[ts15]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] l(3)82EFb[C284] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
w[*]; l(3)82EFc[tsT9]/TM6B
ru[1] h[1] th[1] st[1] fs(3)82EFa[84] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] fs(3)82EFb[712] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] fs(3)82EFc[762] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] fs(3)82EFd[1411] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
ru[1] h[1] th[1] st[1] fs(3)82EFe[1430] cu[1] sr[1] e[s] ca[1]/TM3, Sb[1]
mwh[1] l(3)82Fb[1] red[1] e[1]/TM3, Sb[1] Adelaide's
mwh[1] l(3)82Fb[2] red[1] e[1]/TM3, Sb[1] Adelaide's
Df(3R)3-4, ru[1] th[1] st[1]/TM3, Sb[1]

7. l(3)neo31 complements Df(3R)110, so it was not included in the diagram.

Thanks for your help!

Best regards,
Kevin

Kevin Cook, Ph.D.
Department of Biology
Jordan Hall
Indiana University
Bloomington, IN 47405-6801

Bloomington Drosophila Stock Center
[redacted]

From [redacted] **Mon Oct 05 12:14:32 1998**
From: Rachel Drysdale (Genetics) <[redacted]>
To: [redacted]
Cc: [redacted]
Subject: Re: Megraw 82CF complementation groups
Date: Mon, 5 Oct 1998 12:15:10 +0100

Hi Kevin, and Tim,

I will curate this one as a pc from you and Tim, because there is so much additional info in your email message.

>1. Tim found that two P element mutations, l(3)01456 and l(3)rK509, failed
>to complement and provided finer mapping of the mutations. He wants to
>call the locus l(3)82CDa instead of l(3)01456 or l(3)rK509. Is this OK?

not really. We do not replace one anonymous type designation with another. It should really stay as l(3)01456 (apparently Spradling's take precedence for some reason).

>2. l(3)82CDe is the same as laf, a gene mentioned once in an abstract.
>They won't publish with the laf name, but they haven't decided on a new name.

We will have to stick with laf (not anonymous and has precedence). That's not to say it can't be changed in the future, but there is no good reason to change it now.

All other loci etc designations are ok except

>mwh[1] l(3)82Fb[1] red[1] e[1]/TM3, Sb[1]
>mwh[1] l(3)82Fb[2] red[1] e[1]/TM3, Sb[1]

We already have l(3)82Fb[1] and l(3)82Fb[2] as below

```
*a l(3)82Fb
*z FBgn0013574
*c 82F3--82F6
*c Left limit from inclusion within Df(3R)3-4 (FBrf0075380)
*c Right limit from inclusion within Df(3R)110 (FBrf0075380)
*x FBrf0075380 == Carpenter, 1994, stock list
*A l(3)82Fb[1]
*z FBal0031877
*x FBrf0075380 == Carpenter, 1994, stock list
*E FBrf0075380 == Carpenter, 1994, stock list
*o ethyl nitrosourea
*w A.T.C. Carpenter.
*k Phenotypic class: lethal | recessive
*k Escapers have small heads and broad abdomens.
*A l(3)82Fb[2]
*z FBal0031878
*x FBrf0075380 == Carpenter, 1994, stock list
*E FBrf0075380 == Carpenter, 1994, stock list
*o ethyl nitrosourea
*w A.T.C. Carpenter.
*k Phenotypic class: lethal | recessive
*k Escapers have small heads and broad abdomens.
#
```

Interestingly Tim's l(3)82Fb is pencilled out in the diagram I got, so unless you told me otherwise I would omit it.

l(3)82Fk is the next available l(3)82F... if you want me to include it.

>Tim has additional information on phenotypes and
>allelic strengths that he may wish to communicate.

now would be the time,

cheers,

Rachel.

From [redacted] **Mon Oct 05 16:35:30 1998**
From: Kevin Cook <[redacted]>
To: Rachel Drysdale (Genetics) <[redacted]>
Cc: [redacted]
Subject: Re: Megraw 82CF complementation groups
Date: Mon, 05 Oct 1998 10:34:32 -0500

Hi Rachel--

Tim received 1(3)82Fb[1] and [2] from Adelaide Carpenter, so they are not new mutations. I should have remembered to say this in my note. Mea culpa. The overlap of Df(3R)3-4 and Df(3R)110 connects Adelaide's "saturation" screen with Tim's.

If the 1(3)01456/1(3)rK509 complementation group can't be renamed 1(3)82CDa, then should the rest of the loci be renamed (82CDb becomes 82CDa, etc.)? It would create a lot of confusion since Tim is used to referring to the loci as he had them labeled. I think it would be better to retain the names they gave the loci and list 1(3)82CDa as a synonym now. Regardless, if Thom and Tim publish the 1(3)82CDa name for the 1(3)01456/1(3)rK509 complementation group, then you will have to list it as a synonym even if you don't adopt that name for the locus.

Philosophically speaking, shouldn't the "added value" of showing noncomplementation and finer mapping allow an investigator to name a locus anything he or she wishes? Besides, the cytological name tells you something about the locus that an arbitrary name doesn't--so precedence of one anonymous name over another really isn't germane is it?

Not listing laf as 1(3)82CDe is no big deal since Thom and Tim will rename the locus anyway.

I'll ask Tim if he wants to send you any other info.

Thanks for curating the info!!

Kevin

At 12:15 PM 10/5/98 +0100, you wrote:
>Hi Kevin, and Tim,
>
>I will curate this one as a pc from you and Tim, because there is so
>much additional info in your email message.
>
>>1. Tim found that two P element mutations, 1(3)01456 and 1(3)rK509, failed
>>to complement and provided finer mapping of the mutations. He wants to
>>call the locus 1(3)82CDa instead of 1(3)01456 or 1(3)rK509. Is this OK?
>
>not really. We do not replace one anonymous type designation with another.
>It should really stay as 1(3)01456 (apparently Spradling's take
>precedence for some reason).
>
>>2. 1(3)82CDe is the same as laf, a gene mentioned once in an abstract.
>>They won't publish with the laf name, but they haven't decided on a new
name.
>
>We will have to stick with laf (not anonymous and has precedence).
>That's not to say it can't be changed in the future, but there is no
>good reason to change it now.
>
>All other loci etc designations are ok except
>
>>mwh[1] 1(3)82Fb[1] red[1] e[1]/TM3, Sb[1]
>>mwh[1] 1(3)82Fb[2] red[1] e[1]/TM3, Sb[1]
>
>We already have 1(3)82Fb[1] and 1(3)82Fb[2] as below
>
>*a 1(3)82Fb
>*z FBgn0013574
>*c 82F3--82F6
>*c Left limit from inclusion within Df(3R)3-4 (FBrf0075380)
>*c Right limit from inclusion within Df(3R)110 (FBrf0075380)
>*x FBrf0075380 == Carpenter, 1994, stock list
>*A 1(3)82Fb[1]
>*z FBal0031877
>*x FBrf0075380 == Carpenter, 1994, stock list
>*E FBrf0075380 == Carpenter, 1994, stock list
>*o ethyl nitrosourea
>*w A.T.C. Carpenter.

From [redacted] **Mon Oct 05 16:44:28 1998**
From: Rachel Drysdale (Genetics) <[redacted]>
To: [redacted]
Cc: [redacted]
Subject: Re: Megraw 82CF complementation groups
Date: Mon, 5 Oct 1998 16:45:05 +0100

hi Kevin,

>Tim received 1(3)82Fb[1] and [2] from Adelaide Carpenter, so they are not
>new mutations.

excellent, that was my best guess, especially after running into
Adelaide in the hall and mentioning this to her.

>I think it would be better
>to retain the names they gave the loci and list 1(3)82CDa as a synonym now.

me too. They are only symbols after all.

>Regardless, if Thom and Tim publish the 1(3)82CDa name for the
>1(3)01456/1(3)rK509 complementation group, then you will have to list it as
>a synonym even if you don't adopt that name for the locus.

yup, no problem

>Besides, the cytological name tells you
>something about the locus that an arbitrary name doesn't--so precedence of
>one anonymous name over another really isn't germane is it?

yes I see your logic and might even agree, but its not the way it has
been done. Two things are sure: it is not sensible to try to encode too much
meaning in symbols (they cannot store everything about every gene) and
the fewer times symbols change the better.

I'll give Tim a day or two to add anything in he wants, and then bash
on regardless!

cheers,

Rachel

From [redacted] Mon Oct 05 22:56:02 1998
From: Tim Megraw <[redacted]edu>
To: Rachel Drysdale (Flybase) <[redacted]>
Cc: [redacted]
Subject: Re: Megraw 82CF complementation groups
Date: Mon, 5 Oct 1998 17:02:27 -0600

Dear Rachel,

Thank you so much for curating this data!

The following mutations were viable over the Df(3R)110:

l(3)s2521
l(3)103
l(3)10112
l(3)j4D1
l(3)01107
l(3)neo31
l(3)j4B9
l(3)00714

and the following mutants are pupal lethals:

l(3)82Eb(T10)
l(3)82EFb(T19)
l(3)82Da(T21)

I am also putting together a physical map that encompasses this region and I will send it to you when it is together.

Thanks,
Tim

Timothy Megraw, Ph.D.
[redacted]
Howard Hughes Medical Institute
Biology Dept., Indiana University, Bloomington, IN 47405

[redacted] FAX: [redacted]