

Subject: Re: Contribution Plot

Date: Wednesday, 23 September 2015 3:21:55 pm Australian Eastern Standard Time

From: Kim-Anh Le Cao

To: Madeline McCready

Hi Madeline,

You can show me your boxplots and contribution plots and I can tell if there is a bug in the R package too. I think the color is wrongly assigned on the contribution plot – it should display the class with maximal abundance (i.e. If the barplot bar is blue, it means that the blue group is maximally abundant in that group).

Regards,
Kim-Anh

Too brief? Apologies, I need to restrain my typing due to a computer elbow injury.

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mixOmics: <http://mixomics.org/>

From: Madeline McCready <m.mccready@uq.edu.au>

Date: Wednesday, 23 September 2015 12:29 pm

To: Kim-Anh Le Cao <k.lecao@uq.edu.au>

Subject: Re: Contribution Plot

I think I'm just not understanding what the colours should be showing. Should there be a way to link the contribution plot and the boxplot? The direction of the bars in the contribution plot don't make sense to me when I compare the same OTU in the boxplot. Sorry if I am taking up too much of your time.

Thanks,
Maddy

From: Kim-Anh Le Cao

Sent: Wednesday, September 23, 2015 4:03 PM

To: Madeline McCready

Subject: Re: Contribution Plot

Thanks Maddy,

Compared to your boxplot, does that mean that plotContrib is still not behaving well? (w.r.t sign and wrong color assigned)

Regards,
Kim-Anh

Too brief? Apologies, I need to restrain my typing due to a computer elbow injury.

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From: Madeline McCready <m.mccready@uq.edu.au>

Date: Wednesday, 23 September 2015 2:28 am

To: Kim-Anh Le Cao <k.lecao@uq.edu.au>

Subject: Re: Contribution Plot

Hi Kim-Anh

I ran the function with my data (not sure if you know but we removed all the HETs so it's only WT and KOs now, but I haven't changed any of the pipeline you wrote other than correcting for gender instead of litter in my non-SKG strain) and I've attached the resulting contribution plot.

It seemed to run fine, there were no errors. I also had to update my mixomics package and the plotIndiv worked much better with the updated version, I was having trouble with it using the older version.

Thanks,
Maddy

From: Kim-Anh Le Cao

Sent: Wednesday, September 23, 2015 5:30 AM

To: Madeline McCready

Subject: Re: Contribution Plot

Hi Madeline,

Could you test the plotContrib function implemented in the latest R package mixOmics? (version 5.1.2). I just wonder if that error is part of Shiny or also in the package.
What you need to run is:

```
plotContrib(res.splsda.ber, method = 'median', comp = 1)
```

After the pipeline I wrote (not sure if the data have changed since then?).

The help file is in
`help(plotContrib)` in R

Let me know if I have some issues running this

Regards,
Kim-Anh

Too brief? Apologies, I need to restrain my typing due to a computer elbow injury.

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From: Madeline McCready <m.mccready@uq.edu.au>

Date: Tuesday, 22 September 2015 6:09 am

To: Kim-Anh Le Cao <k.lecao@uq.edu.au>

Subject: Re: Contribution Plot

Hi Kim-Anh,

That makes a lot more sense. I also double checked the box plots from Shiny with the ones from the R script and they are the same, so that's good.

Thanks for your help!

Maddy

From: Kim-Anh Le Cao

Sent: Monday, September 21, 2015 6:07 PM

To: Madeline McCready

Cc: Mary-Ellen Costello

Subject: Re: Contribution Plot

Hi Madeline,

There might be a bug in my contribution plot regarding to the color assigned to each bar – I won't have time to make those changes on Shiny though until I come back.

What the contribution plot should show: blue for negative coefficients (X26...) and orange for those on the RHS.

You can trust the boxplots instead! Sorry abt that.

Regards,
Kim-Anh

Too brief? Apologies, I need to restrain my typing due to a computer elbow injury.

--

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From: Madeline McCready <m.mccready@uq.edu.au>

Date: Monday, 21 September 2015 3:47 am

To: Kim-Anh Le Cao <k.lecao@uq.edu.au>

Subject: Contribution Plot

Hi Kim-Anh

I am currently writing up my microbiology section of my thesis and was just after some clarification.

In the contribution plot the OTU in component 1, X351063 seem to be having a positive effect in regards to the KO, but the the same OTU in the boxplot has a decreased abundance in comparison to the WT. I'm just a little confused about how that works? Is it showing direction of effect? I've attached them for you to have a look at.

Also, I am unsure about what the axis are showing for all the plots, would you be able to explain them for me?

Thank you!!

Madeline McCready