

**Subject:** RE: [EXTERNAL] JHS co-authorship for TOPMed WGS paper proposal  
**From:** Adolfo Correa <ACorrea@umc.edu>  
**To:** Corbin Quick <corbing@umich.edu>  
**Cc:** Michael Boehnke <boehnke@umich.edu>, Christian Fuchsberger <cfuchsb@umich.edu>  
**Date:** Monday, March 19, 2018 3:19:34 PM GMT-07:00

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Dear Corbin,

Please add:

Pramod Anugu  
Solomon Musani

Thank you,

Adolfo Correa

**From:** Corbin Quick [mailto:corbing@umich.edu]  
**Sent:** Monday, March 19, 2018 1:39 PM  
**To:** Adolfo Correa <ACorrea@umc.edu>  
**Cc:** Michael Boehnke <boehnke@umich.edu>; Christian Fuchsberger <cfuchsb@umich.edu>  
**Subject:** [EXTERNAL] JHS co-authorship for TOPMed WGS paper proposal

Dear Dr. Correa,

Please find attached a manuscript for our TOPMed WGS paper proposal, Cost-effective strategies for rare variant genome-wide association studies in the age of large reference panels.

Our analysis included 3,412 participants from the Jackson Heart Study, and we would be happy to include a co-author or study banner for JHS. Would you like for us to add a co-author or study banner to the authorship list (in addition to an acknowledgment)?

Thank you for your help.

Kind regards,

Corbin Quick, M.S.  
Ph.D. Candidate, Boehnke/Scott Lab  
Department of Biostatistics  
University of Michigan, School of Public Health

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**Subject:** RE: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

**From:** "Mak, Angel" <ChiYan.Mak@ucsf.edu>

**To:** "Burchard, Esteban" <Esteban.Burchard@ucsf.edu>, Corbin Quick <corbing@gmail.com>, "Salazar, Sandra" <Sandra.Salazar@ucsf.edu>

**Cc:** Michael Boehnke <boehnke@umich.edu>, Christian Fuchsberger <cfuchsb@umich.edu>, "Oh, Sam" <Sam.Oh@ucsf.edu>, "Keys, Kevin" <Kevin.Keys@ucsf.edu>, "White, Marquitta" <Marquitta.White@ucsf.edu>, Corbin Quick <corbing@umich.edu>

**Date:** Wednesday, March 28, 2018 4:17:38 PM GMT-07:00

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Hi Corbin,

Sorry for the late response. Attached please find the co-authors in the comments and edits to the acknowledgment section.

Feel free to let me know if you have any questions. If you notice any discrepancy to the study name, please stick to the version in the attached document.

Thanks,  
Angel

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**From:** Burchard, Esteban

**Sent:** Tuesday, March 27, 2018 3:00 PM

**To:** Corbin Quick <corbing@gmail.com>; Salazar, Sandra <Sandra.Salazar@ucsf.edu>

**Cc:** Michael Boehnke <boehnke@umich.edu>; Christian Fuchsberger <cfuchsb@umich.edu>; Oh, Sam <Sam.Oh@ucsf.edu>; Keys, Kevin <Kevin.Keys@ucsf.edu>; White, Marquitta <Marquitta.White@ucsf.edu>; Mak, Angel <ChiYan.Mak@ucsf.edu>; Corbin Quick <corbing@umich.edu>; Burchard, Esteban <Esteban.Burchard@ucsf.edu>

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Thank you Corbin

This is the name of the grant to do the WGS. Sandra included the original titles below. I did not realize that Angel Mak is out today. I would like the opportunity for my team and me to review the manuscript and respond

Esteban

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**From:** Corbin Quick <[corbing@gmail.com](mailto:corbing@gmail.com)>

**Date:** Tuesday, March 27, 2018 at 1:59 PM

**To:** Sandra Salazar <[Sandra.Salazar@ucsf.edu](mailto:Sandra.Salazar@ucsf.edu)>

**Cc:** "Esteban G. Burchard, M.D., M.P.H." <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)>, Michael Boehnke <[boehnke@umich.edu](mailto:boehnke@umich.edu)>, Christian Fuchsberger <[cfuchsb@umich.edu](mailto:cfuchsb@umich.edu)>, "Oh, Sam" <[Sam.Oh@ucsf.edu](mailto:Sam.Oh@ucsf.edu)>, Kevin Keys <[Kevin.Keys@ucsf.edu](mailto:Kevin.Keys@ucsf.edu)>, "White, Marquitta" <[Marquitta.White@ucsf.edu](mailto:Marquitta.White@ucsf.edu)>, "Mak, Angel" <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)>, Corbin Quick <[corbing@umich.edu](mailto:corbing@umich.edu)>

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Hi Sandra,

Thanks a lot, I'll update the manuscript accordingly. The study name I used was taken from <https://www.nhlbiwgs.org/group/project-studies>; it looks like the "Study Name" column actually refers to TOPMed Project titles

Thanks,  
Corbin Quick

On Tue, Mar 27, 2018 at 3:51 PM, Salazar, Sandra <[Sandra.Salazar@ucsf.edu](mailto:Sandra.Salazar@ucsf.edu)> wrote:

Hi,

The study names for Esteban studies are:

[NHLBI TOPMed: Gene-Environment, Admixture and Latino Asthmatics \(GALAI\) Study](#)  
[NHLBI TOPMed: Study of African Americans, Asthma, Genes & Environment \(SAGE\)](#)

These should be listed on the TOPMed website. If you only have Latino participants from Esteban's studies, then you should only reference the GALAI study.

Thank you,  
Sandra Salazar

**From:** Corbin Quick [mailto:[corbing@gmail.com](mailto:corbing@gmail.com)]

**Sent:** Tuesday, March 27, 2018 12:38 PM

**To:** Burchard, Esteban

**Cc:** Michael Boehnke; Christian Fuchsberger; Oh, Sam; Keys, Kevin; White, Marquitta; Salazar, Sandra; Mak, Angel; Corbin Quick

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

\* Correction: 1,000 of the 2,068 total Latino American participants were from GALA II / SAGE, and the rest were from the CRA Asthma study

On Tue, Mar 27, 2018 at 3:29 PM, Corbin Quick <[corbing@gmail.com](mailto:corbing@gmail.com)> wrote:

Thanks, yes the 2,068 samples were from GALA II / SAGE. What names we should use for the study populations?

On Tue, Mar 27, 2018 at 2:55 PM, Burchard, Esteban <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)> wrote:

Are these our samples "3,412 African Americans (participants of the Jackson Heart Study) and 2,068 Latino Americans (participants of Puerto Rican and Mexican descent from the Pharmacogenomics of Bronchodilator Response in Minority Children with Asthma study,"

If yes, then you have the incorrect name of our study populations.

Esteban

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**From:** Corbin Quick <[corbing@gmail.com](mailto:corbing@gmail.com)>

**Date:** Tuesday, March 27, 2018 at 11:21 AM

**To:** Michael Boehnke <[boehnke@umich.edu](mailto:boehnke@umich.edu)>

**Cc:** "Esteban G. Burchard, M.D., M.P.H." <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)>, Christian Fuchsberger <[cfuchs@umich.edu](mailto:cfuchs@umich.edu)>, "Oh, Sam" <[Sam.Oh@ucsf.edu](mailto:Sam.Oh@ucsf.edu)>, Kevin Keys <[Kevin.Keys@ucsf.edu](mailto:Kevin.Keys@ucsf.edu)>, "White, Marquitta" <[Marquitta.White@ucsf.edu](mailto:Marquitta.White@ucsf.edu)>, Sandra Salazar <[Sandra.Salazar@ucsf.edu](mailto:Sandra.Salazar@ucsf.edu)>, "Mak, Angel" <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)>, Corbin Quick <[corbing@umich.edu](mailto:corbing@umich.edu)>

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Thanks; I've attached a Word version of the manuscript

On Tue, Mar 27, 2018 at 1:31 PM, Michael Boehnke <[boehnke@umich.edu](mailto:boehnke@umich.edu)> wrote:

Thanks Estaban and Angel! Mike

On Tue, Mar 27, 2018 at 12:00 PM, Burchard, Esteban <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)> wrote:

Please send us the final draft and Angel and I will work on this today.

Esteban

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**From:** Corbin Quick <[corbing@gmail.com](mailto:corbing@gmail.com)>

**Date:** Tuesday, March 27, 2018 at 8:52 AM

**To:** "Esteban G. Burchard, M.D., M.P.H." <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)>

**Cc:** Michael Boehnke <[boehnke@umich.edu](mailto:boehnke@umich.edu)>, Christian Fuchsberger <[cfuchsb@umich.edu](mailto:cfuchsb@umich.edu)>, "Oh, Sam" <[Sam.Oh@ucsf.edu](mailto:Sam.Oh@ucsf.edu)>, Kevin Keys <[Kevin.Keys@ucsf.edu](mailto:Kevin.Keys@ucsf.edu)>, "White, Marquitta" <[Marquitta.White@ucsf.edu](mailto:Marquitta.White@ucsf.edu)>, Sandra Salazar <[Sandra.Salazar@ucsf.edu](mailto:Sandra.Salazar@ucsf.edu)>, "Mak, Angel" <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)>, Corbin Quick <[corbinq@umich.edu](mailto:corbinq@umich.edu)>

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Hi Dr. Burchard,

I just wanted to check with you again about including a co-author(s), study banner, or acknowledgment for GALA II/ SAGE in our manuscript. We'd like to submit our manuscript for TOPMed administrative review, and need to confirm whether/what co-author(s) should be included from each study before doing so. Thanks again for your help

Kind regards,

Corbin Quick, M.S.  
Ph.D. Candidate, Boehnke/Scott Lab  
Department of Biostatistics  
University of Michigan, School of Public Health

On Wed, Mar 21, 2018 at 3:44 PM, Mak, Angel <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)> wrote:

Hi Corbin and Michael,

Thank you very much for clarifying and pointing us to the date of the request. This is super helpful.

Esteban and Sandra will be in touch to provide GALA II/ SAGE authorship information.

Good luck with the submission,  
Angel

**From:** Michael Boehnke [mailto:[boehnke@umich.edu](mailto:boehnke@umich.edu)]

**Sent:** Wednesday, March 21, 2018 12:25 PM

**To:** Corbin Quick <[corbinq@gmail.com](mailto:corbinq@gmail.com)>

**Cc:** Mak, Angel <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)>; Corbin Quick <[corbinq@umich.edu](mailto:corbinq@umich.edu)>; Christian Fuchsberger <[cfuchsb@umich.edu](mailto:cfuchsb@umich.edu)>; Oh, Sam <[Sam.Oh@ucsf.edu](mailto:Sam.Oh@ucsf.edu)>; Keys, Kevin <[Kevin.Keys@ucsf.edu](mailto:Kevin.Keys@ucsf.edu)>; White, Marquitta <[Marquitta.White@ucsf.edu](mailto:Marquitta.White@ucsf.edu)>; Burchard, Esteban <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)>

**Subject:** Re: Please Respond: FW: GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Thanks Corbin!

Angel, please let me know if you would like to chat. Happy to do so.

All the best, Mike

On Wed, Mar 21, 2018 at 3:02 PM, Corbin Quick <[corbinq@gmail.com](mailto:corbinq@gmail.com)> wrote:

Hi Angel,

Thanks for getting back to me. This isn't a part of Goncalo's 18K paper call; sorry for any confusion

I contacted Sandra Salazar with a summary of our proposal (found [here](#)) on 8/29/16, who forwarded my request to Dr. Burchard. Following TOPMed's [paper proposal instructions](#), we submitted data requests for GALAII:DS-LD-RD and SAGE:DS-LD through the TOPMed WGS webpage on 09/08/16, which were both approved

Thanks,  
Corbin

On Tue, Mar 20, 2018 at 7:55 PM, Mak, Angel <[ChiYan.Mak@ucsf.edu](mailto:ChiYan.Mak@ucsf.edu)> wrote:

Dear Michael, Christian and Corbin,

We may be overloaded with TOPMed proposal/data requests, so forgive us if we missed related email/TOPMed calls from you before.

We are happy to participate but was a bit surprised because Esteban has never got the opportunity to approve this particular proposal. We only remember giving conditional approval (disease-specific) in the IRC survey on the use of our data in BRAVO and imputation panel back in April 2017.

We do remember Goncalo's presentation about imputation accuracy, but not sure if this proposal is related. This is the first time we hear about this proposal/manuscript. We would like to get some clarification about whether this proposal is part of Goncalo's 18K paper call?

Happy to provide GALA II and SAGE authorship list once this gets clarified.

Thanks,  
Angel

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**From:** Corbin Quick <[corbing@umich.edu](mailto:corbing@umich.edu)>  
**Date:** Monday, March 19, 2018 at 12:46 PM  
**To:** "Esteban G. Burchard, M.D., M.P.H." <[Esteban.Burchard@ucsf.edu](mailto:Esteban.Burchard@ucsf.edu)>  
**Cc:** Michael Boehnke <[boehnke@umich.edu](mailto:boehnke@umich.edu)>, Christian Fuchsberger <[cfuchsb@umich.edu](mailto:cfuchsb@umich.edu)>  
**Subject:** GALA II / SAGE co-authorship for TOPMed WGS paper proposal

Dear Dr. Buchard,

Please find attached a manuscript for our TOPMed WGS paper proposal, Cost-effective strategies for rare variant genome-wide association studies in the age of large reference panels.

Our analysis included 1,000 participants from the GALA II and SAGE studies, and we are happy to include an acknowledgement, co-author, or study banner for GALA II / SAGE. Would you like for us to include a co-author or study banner in the authorship list?

Thank you for your help.

Kind regards,

Corbin Quick, M.S.  
Ph.D. Candidate, Boehnke/Scott Lab  
Department of Biostatistics  
University of Michigan, School of Public Health

<design\_manuscript\_031018.pdf>

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Michael Boehnke PhD

**Subject:** Re: CRA Asthma co-authorship for TOPMed WGS paper proposal  
**From:** Scott Weiss <restw@channing.harvard.edu>  
**To:** Corbin Quick <corbing@umich.edu>  
**Cc:** Scott Weiss <scott.weiss@channing.harvard.edu>, Michael Boehnke <boehnke@umich.edu>, Christian Fuchsberger <cfuchsb@umich.edu>  
**Date:** Tuesday, March 27, 2018 10:31:06 AM GMT-07:00

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**Corbin: I finally had a chance to read this ms. I think it might be worthwhile to comment on the effect of genotyping error on trios (family) based analysis using imputation. If there is error in the chip based imputation then this will lead to a different p value for the imputed vs the sequenced results due to genotyping error from the imputation. The degree of error will be based on how effectively the rare variants are imputed. I didn't see this concept discussed so might be worthwhile including. As the PI of the study I should be included as a co-author. My affiliations are given below. You can**

also use this attached acknowledgement Best,  
Scott

Scott T. Weiss MD,MS

Professor of Medicine

Harvard Medical School

Director, Partners HealthCare Personalized Medicine Associate Director, Channing Division of Network Medicine Boston MA

tel 617 525 2278

cell 617 212 6909

email:[scott.weiss@channing.harvard.edu](mailto:scott.weiss@channing.harvard.edu)

> On Mar 19, 2018, at 2:26 PM, Corbin Quick <[corbing@umich.edu](mailto:corbing@umich.edu)> wrote: >

> Dear Dr. Weiss,

>

> Please find attached a manuscript for our TOPMed WGS paper proposal, Cost-effective strategies for rare variant genome-wide association studies in the age of large reference panels.

>  
> Our analysis included 1,300 participants from the CRA Asthma Study, and we are happy to include a co-author or study banner for CRA Asthma Study. Would you like for us to add a co-author or study banner to the authorship list? >  
> Thank you for your help and sharing data. >  
> Kind regards,  
>  
> Corbin Quick, M.S.  
> Ph.D. Candidate, Boehnke/Scott Lab  
> Department of Biostatistics  
> University of Michigan, School of Public Health >  
> <design\_manuscript\_031018.pdf>