Message

**From:** Lindstrom, Andrew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=04BF7CF26AA44CE29763FBC1C1B2338E-LINDSTROM, ANDREW]
**Sent:** 8/18/2016 7:47:04 PM
**To:** Detlef Knappe [knappe@ncsu.edu]; Sun, Mei [msun8@uncc.edu]
**CC:** Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]
**Subject:** RE: paper outline for the ether compounds

Detlef,

As you know, working with academics can be difficult. They do things for their own reasons and the EPA has little control over what they do.

The last paper we sent to OW for review took more than two months. This is absolutely unacceptable.

They are paralyzed with how to deal with the PFAS.

I suggest you do what you think you need to do.

Thank you,

Andy

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**From:** Detlef Knappe [mailto:knappe@ncsu.edu]
**Sent:** Thursday, August 18, 2016 3:39 PM
**To:** Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Sun, Mei <msun8@uncc.edu>
**Cc:** Strynar, Mark <Strynar.Mark@epa.gov>
**Subject:** Re: paper outline for the ether compounds

Thank you, Andy! In terms of your clearance process, does it need to be completed before we submit or does it need to be completed before it is accepted?

Detlef

On 8/18/16 3:19 PM, Lindstrom, Andrew wrote:

> Mei,
>
> Thank you for considering my comments in the updated draft. I think it looks excellent.
>
> I've added a few more minor comments to this recent draft – mostly editorial.
>
> Maybe we could use the basic map of the CFR basin in Figure S2 and superimpose in the structure of GenX on top as a graphical abstract. We'd have to remove the US and NC state maps and simplify the basin map a bit, but that might work.
>
> I've already put this into our clearance process, but as I said this usually takes a long time.
>
> Please let us know how things progress on your end and let us know if you have any questions.

Thank you very much,

Andy

**From:** Sun, Mei [mailto:msun8@uncc.edu]
**Sent:** Thursday, August 18, 2016 10:31 AM
**To:** Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
**Cc:** Strynar, Mark <Strynar.Mark@epa.gov>; Detlef Knappe <knappe@ncsu.edu>
**Subject:** Re: paper outline for the ether compounds

Hi Andy

Thank you for your comments. I made some changes according to your suggestions, and cut off a few words here and there so we are now within the word limit. Could you please take another quick look to see if there's any other problem, and add Mark's revision into it? We will send this to the facilities for their opinion afterwards.
Also, I'm thinking of a graphic abstract for this paper but haven't got good ideas. Any suggestions? Thank you.

Mei Sun

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On Fri, Aug 12, 2016 at 2:59 PM, Lindstrom, Andrew <Lindstrom.Andrew@epa.gov> wrote:

> Mei,
>
> Excellent work!
>
> Please consider my suggestions attached above.
>
> Thank you very much,
>
> Andy

**From:** Sun, Mei [mailto:msun8@uncc.edu]
**Sent:** Friday, July 29, 2016 5:09 PM

**To:** Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>
**Cc:** Detlef Knappe <knappe@ncsu.edu>
**Subject:** Re: paper outline for the ether compounds

Hi Mark and Andy

Please see the attached drafts for the PFECA paper, and let me know your comments/suggestions. Especially, I need a double check on the analytical method details, and comments on whether what is there now is enough, or more specifications are needed. We are now a couple of hundreds above the 3000 word limit of EST letter, but hopefully we can cut off a few words here and there in the final version to make it right.

Thank you.

Mei Sun

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On Thu, May 5, 2016 at 1:34 PM, Lindstrom, Andrew <Lindstrom.Andrew@epa.gov> wrote:

> Mei,

I don't have anything written up for the large volume injection protocol -- yet.

I am working on it for our long awaited sludge paper though. I asked Elisa to help out with this and she sent me the methods section of her dissertation which I've attached above. I think we'll need to get more added to this, but it may be a good start.

As for the SPE and the UPLC methods, please see the write up in Nakayama et al. 2010.

Mark will have to check all of this out eventually.

Thank you,

Andy

**From:** Sun, Mei [mailto:msun8@uncc.edu]
**Sent:** Thursday, May 05, 2016 10:14 AM
**To:** Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Strynar, Mark <Strynar.Mark@epa.gov>
**Cc:** Detlef Knappe <knappe@ncsu.edu>
**Subject:** Re: paper outline for the ether compounds

Thank you for the suggestions, Andy. Do you have some available description of the analytical methods (both the large volume injection and the SPE with UPLC) that we can use in this paper? Thank you.

Mei Sun

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On Tue, May 3, 2016 at 1:37 PM, Lindstrom, Andrew <Lindstrom.Andrew@epa.gov> wrote:

Detlef,

Showing that the ethers are present in finished drinking water at such high concentrations (Figure 2) is going to be a very big deal.

Is Wilmington OK with this? Should they be coauthors? This could be very important for them. We should stand with them.

Also, if we could tie in the UCMR3 results, demonstrating that we are only seeing the tip of the iceberg looking for the "legacy" PFAS (only PFHpA was measured there at 12 - 27 ng/L), it will be very important.

Now that I think about it, would ES&T Letters be too restrictive in terms of word count? This is a big story.

Thank you,

Andy

**From:** Detlef Knappe [mailto:knappe@ncsu.edu]
**Sent:** Tuesday, May 03, 2016 10:47 AM
**To:** Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>

**Cc:** Mei Sun <msun8@uncc.edu>; Strynar, Mark <Strynar.Mark@epa.gov>
**Subject:** RE: paper outline for the ether compounds

Thank you for the encouragement, Andy. This is a semi-invited es&T letters paper via Bill Cooper, who is the environmental engineering program director at NSF. We will proceed expeditiously. Let us know if you see issues or additional points you think we should address. Mei will keep fleshing out the paper, but we are very much interested in any input you can give. Apart from the two of you, we will add Elisa as a co-author. Anyone else we should include?
Best,
Detlef

On May 3, 2016 10:23 AM, "Lindstrom, Andrew" <Lindstrom.Andrew@epa.gov> wrote:

Mei,

This looks really great.

The Office of Water is going to be very interested. Maybe too interested.

This is excellent work establishing the continued presence of the traditional PFCAs and PFSAs for the entire length of the river, the emergence of the PFECAs as replacements, and the relative difficulty for water treatment processes to effectively remove these materials. The data on the removal efficiency of the PFECAs is especially compelling.

This work compliments and adds to Mark's recent paper very nicely.

There are many important implications concerning what kinds of new compounds to look for, how to remove them, and what exposures might mean.

This work will certainly receive a great deal of attention.

I'm personally not too concerned about the low level quantitation. QL/2 or zero is fine – the story is up in the 100s of ng/L.

I think it would be good to try to get this out before OW announces the Health Advisories for PFOA and PFOS.

Please let me know how I can help.

Thank you,

Andy

**From:** Sun, Mei [mailto:msun8@uncc.edu]
**Sent:** Tuesday, May 03, 2016 9:27 AM
**To:** Strynar, Mark <Strynar.Mark@epa.gov>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>
**Cc:** Detlef Knappe <knappe@ncsu.edu>
**Subject:** paper outline for the ether compounds

Hi Mark and Andy

Hope things are going well. Detlef and I are preparing a manuscript on the occurrence and fate of PFASs including the ethers for ES&T Letters, and we are hoping to get your opinion. The paper outline is attached. Would you please take a look and let us know your thoughts? We are not very sure about the nomenclature of the ethers, and have some debates on how to deal with concentrations lower than the quantification limits when doing statistic analysis. Thank you.

Best,

Mei Sun

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