Message

**From:** Jane Hoppin [jahoppin@ncsu.edu]
**Sent:** 6/14/2018 3:21:44 PM
**To:** DeWitt, Jamie [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user3803c28a]
**CC:** Strynar, Mark [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a9910d5b38e471497bd875fd329a20a-Strynar, Mark]; Adrien Wilkie [aawilkie@ncsu.edu]; Collier, David [COLLIERD@ecu.edu]; Detlef R. U. Knappe [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user17c3f77b]; Katlyn May [kmay2@ncsu.edu]; Lea, Suzanne [LEAC@ecu.edu]; Lindstrom, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=04bf7cf26aa44ce29763fbc1c1b2338e-Lindstrom, Andrew]; Nadine Kotlarz [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=userc79d3fb6]; Rob Smart [rcsmart@ncsu.edu]; Jessica Yasmine Islam [jessica.y.islam@gmail.com]; Alison Plumley [asplumle@ncsu.edu]
**Subject:** Re: Some other GenX thoughts

Hi all,
I meant newborn blood spots...so that would be a good way to assess historic exposure.

Tony Fletcher meant C8 study samples.

New legislation has nothing to do with human exposure assessment and epidemiology, so we're on our own there.

The looking at "other chemicals" would be to argue that our people are mostly the same as the US population except for PFAS. I was not anticipating that we'd look at these chemicals for health effects as well.

Thanks for all your thoughts and ideas...I think we can move forward for Fayetteville with what we have with regards to getting the logistics started, but need to think about the chemical analysis, etc. before we do any collection. We should hear from NIEHS in July.

Jane

On Thu, Jun 14, 2018 at 8:18 AM, DeWitt, Jamie <DEWITTJ@ecu.edu> wrote:

> Good morning all,
>
> --Prenatal blood spots. I don't think I've seen any published study using these for prenatal assessments of PFASs, only cord blood. If it's possible to do so, this may be a pretty cool way of looking back in time and would represent a new approach for the literature.
>
> --"Regular" contaminants. Again, I don't think that I've seen this approach in the PFAS literature, except if you look at some of Philippe's work to "control for" PCBs and mercury in the Faroe Island population. Jane, would you also be able to isolate potential effects of these "regular" contaminants from potential effects of PFASs on health endpoints?
>
> --Tony has 20 samples of his own serum to send us (Hahaha. Sorry. Not enough coffee yet to dampen my idiotic sense of humor)? I think it would be interesting to see if the WV/OH population has detectable levels of GenX. While it may

not have been detected at high concentrations in the water when Mark and Andy collected it, do we KNOW that it was not detectable at other points in time? The company doesn't exactly have a history of fully disclosure. At the very least, it would give us another population comparator.

--Jane, regarding the supplement -- some of your decisions should likely be based on the recent NC bill about PFASs (as you are well aware). It may be a way to obtain samples.

Jamie

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**From:** Strynar, Mark [mailto:Strynar.Mark@epa.gov]
**Sent:** Thursday, June 14, 2018 7:38 AM
**To:** Jane Hoppin <jahoppin@ncsu.edu>; Adrien Wilkie <aawilkie@ncsu.edu>; Collier, David <COLLIERD@ecu.edu>; Detlef R. U. Knappe <knappe@ncsu.edu>; DeWitt, Jamie <DEWITTJ@ecu.edu>; Katlyn May <kmay2@ncsu.edu>; Lea, Suzanne <LEAC@ecu.edu>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Nadine Kotlarz <nkotlar@ncsu.edu>; Rob Smart <rcsmart@ncsu.edu>; Jessica Yasmine Islam <jessica.y.islam@gmail.com>; Alison Plumley <asplumle@ncsu.edu>
**Subject:** RE: Some other GenX thoughts

All,

Thus far we have yet to see GenX in any of the contemporary serum samples for those living in the Wilmington, NC area above the limit of quantitation. My opinion would be blood spots would be difficult as they are significantly more complicated to work with, have dried and aged and we have no data to suggest this is a good use of our analytical time. However with respect to Nafion BP2 or the PFO4DA or PFO3OA it may work. We do have blood spot card we could try out to see if we can make this work with existing serum samples I suppose.

With the samples from Tony Fletcher I expect this is also to be a set of samples with nothing in them. The serum would have been collected prior to GenX even beginning to be used in WV. Based on our and others water analysis the water in WV seems to be way below what we see (have seen in Wilmington) and we have yet to see GenX in the serum there.

If you are looking for additional samples without GenX (and related PFAS) to support the Wilmington people being different, both ideas should work.

Mark

**From:** Jane Hoppin [mailto:jahoppin@ncsu.edu]
**Sent:** Wednesday, June 13, 2018 2:50 PM
**To:** Adrien Wilkie <aawilkie@ncsu.edu>; Collier, David <collierd@ecu.edu>; Detlef R. U. Knappe <knappe@ncsu.edu>; DeWitt, Jamie <DEWITTJ@ecu.edu>; Katlyn May <kmay2@ncsu.edu>; Lea, Suzanne <LEAC@ecu.edu>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Nadine Kotlarz <nkotlar@ncsu.edu>; Rob Smart <rcsmart@ncsu.edu>; Strynar, Mark <Strynar.Mark@epa.gov>; Jessica Yasmine Islam <jessica.y.islam@gmail.com>; Alison Plumley <asplumle@ncsu.edu>
**Subject:** Some other GenX thoughts

Hi all,

While the Chemours meeting added some excitement, there's some other things going on related to the study that I wanted to let you know about, get your input on.

Teacher training

CHHE is hosting a high school teacher training summer workshop. [mainly minority at lower funded schools] They are in labs M-Th, Friday they have workshops, etc. I've been asked to talk about GenX on July 13 at 11 am. If you want to join us, please do. It's not just my story to tell.

PPTOX meeting

While at the PPTOX meeting in the Faroe Islands, I met a number of PFAS researchers and got some suggestions and ideas for things that we might explore. Some things to think about:

1) Could we analyze GenX and other PFAS in prenatal blood spots? If so, we could get those and do a prenatal study. I'm not sure how long these are saved but I think about 5 years.

2) Could we analyze our samples for some "regular" chemical contaminants (eg. metals, phthalates) so we could argue that the only way people differ is with regard to PFAS. I'm starting conversations with Jeff Enders to do that work here at NCSU.

3) Do we want to analyze 20 of Tony Fletcher's serum to see if GenX was there earlier?

Supplement: Fayetteville

I submitted the supplement at the end of May. It may be July before we hear about it, but maybe not. I requested ~$170K direct costs

Collaboratory money: $215K to match the R21

So while I was out of the country, Detlef informed me that we will be getting $215K from the Collaboratory as a match for our R21.

**We should talk about what we want to do with that money.** I'd like to use some of it to support air and dust sampling in people's homes around Chemours. We can probably use some of it for the legwork for Chemours, but if we use that to sample the people living around the plant, then we won't be eligible for the supplement, and we'd like the match for that as well.

We can support analysis of other contaminants in people living in Wilmington.

I'd like to support a student to help us think about the best way to handle mixtures. I think our statistical analyses of health effects might be difficult if we do them one chemical at a time.

R01 for Superfund grant

I've agreed to write an R01 for the superfund grant, that probably goes in around Feb. By that time we should have enough preliminary data to help support some new hypotheses. I've asked them to give me ~$250K/year and a post-doc from the training core...so we could start with that as a possibility for another grant.

So chew on this for a while. I think we'll start to organize ourselves for Fayetteville in July. Probably find some new folks that want to work with us, so that I don't burn my great crew out.

Maybe an investigator meeting in July to look over blood results and talk about next steps.

Cheers,

Jane

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