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TSCA NON-CONFIDENTIAL BUSINESS INFORMATION

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THE AN GROUP

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October 26, 2012

TSCA Confidential Business Information Center (7407M)
TSCA 8(e) Coordinator
EPA East - Room 6428 Attn: Section 8(e)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001



RE: Preliminary Data From New York Medical College Acrylonitrile DNA Binding Study

Dear TSCA 8(e) Coordinator:

The Acrylonitrile Group (AN Group), on behalf of its members¹, is submitting preliminary information from an ongoing study being conducted at the New York Medical College (NYMC). The study was designed to evaluate whether acrylonitrile (AN) binds to DNA in rat brains following AN exposure. As explained in further detail below, there are several unresolved issues regarding the preliminary study results that are being considered by the researchers and AN Group consultants involved with this research project.

As part of its review, the AN Group has considered whether the preliminary results warrant reporting to EPA in accordance with TSCA 8(e). Based on that review, the AN Group has decided that existing EPA guidance is not sufficient to determine whether the results obtained are reportable and therefore no determination has been made as to whether a "significant risk of injury to health or the environment" is actually presented by the findings. Nonetheless, we are providing the preliminary results and intend to keep the Agency informed of the progress of this study.

In this study, F344 and Sprague Dawley (SD) rats were administered drinking water with approximately 100 ppm AN for 28 days, which was followed by gavage dosing with 100 mCi, [2,3-¹⁴C] AN, 11mg/kg bw (~exposure with 100 ppm in the drinking water). Another group of rats were administered drinking water without AN for 28 days followed by a gavage dosing of the C14 labeled AN at the same exposure level. The study also included a negative control of plain water and a positive control consisting of 8 mCi, 5 mg/kg bw of benzo[a]pyrene (B[a]P) in 0.5% methyl cellulose in water.

Attached are two graphs that NYMC provided that presents preliminary data from the study. The two sets of graphs are provided given that Accium Biosciences (Seattle, WA), the laboratory measuring the radiolabelled material using accelerator mass spectrometry (AMS),

¹ The AN Group represents the major North American producers and users of acrylonitrile, including: Ascend Performance Materials LLC; Cornerstone Chemical Company; Cytec Industries Inc.; The Dow Chemical Company; INEOS USA, LLC; Lucite International; and SABIC Innovative Plastics.

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believes they received less material for analysis than what NYMC maintains they sent to Accium. Graph 1 presents the results based on the 5 ug sample size that NYMC believes was shipped; Graph 2 presents results based on the sample size that Accium Biosciences reported to NYMC was received for analysis. (See attached graphs and legend.)

We are currently investigating steps to assess whether the reported radioactivity is associated with DNA binding or binding to proteins and/or other macromolecules. Even if the determination is ultimately made that there has been DNA binding, there are various issues that will need to be considered regarding the significance of the findings to human health.

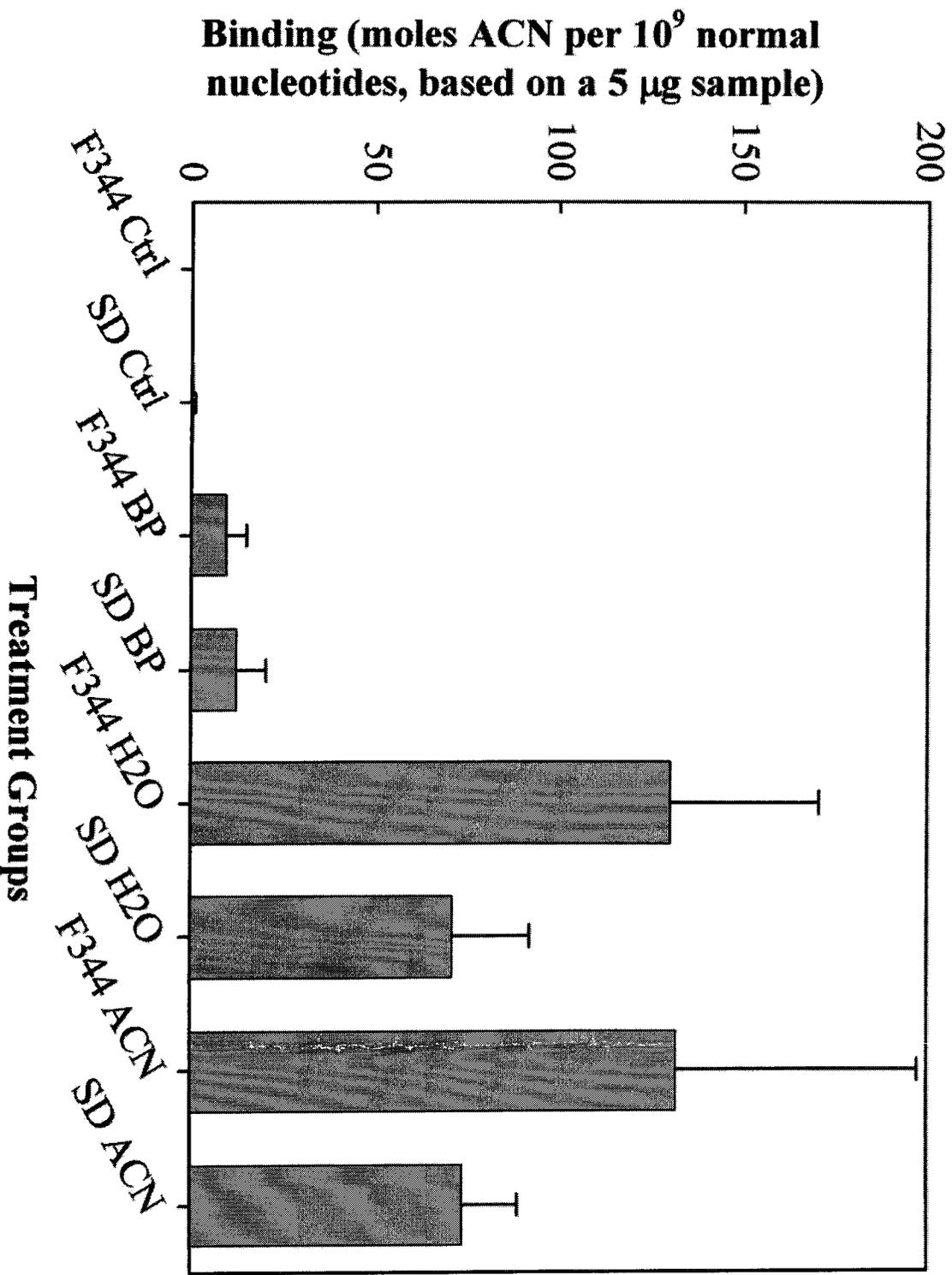
If you have any questions, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert J. Fensterheim". The signature is fluid and cursive, with a long horizontal stroke at the end.

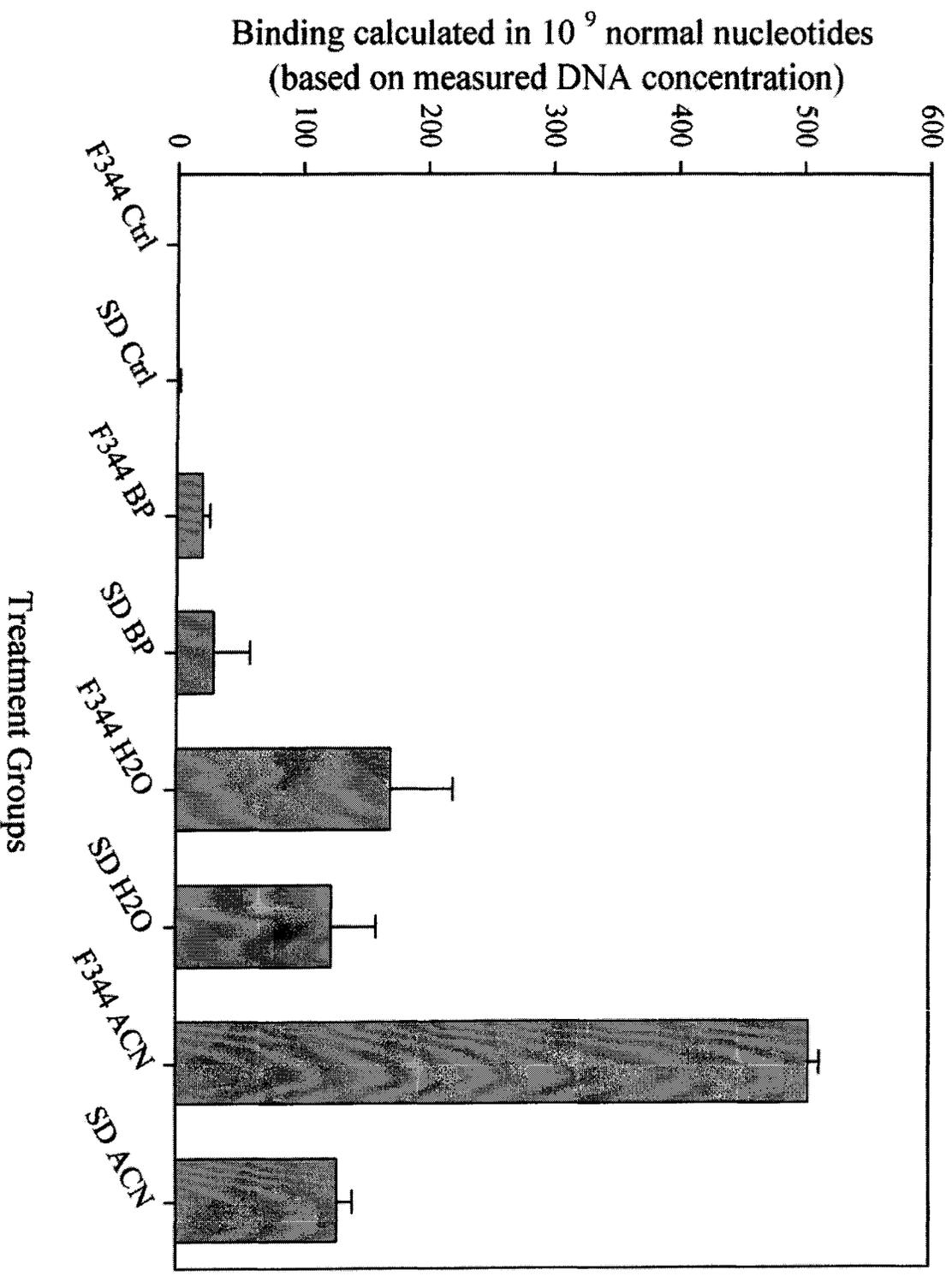
Robert J. Fensterheim, MPH
Executive Director

**¹⁴C Associated with Brain DNA Enriched Samples
Isolated from Rats Treated with B[a]P or ACN**



Graph 1

¹⁴C Associated with DNA enriched sample in
Rats Treated with B[a]P or ACN



Graph 2

Legend for Preliminary Data Graphs from NYMC Acrylonitrile Rat DNA Binding Study

F344 Ctrl	F344 rats administered drinking water only, as the Negative Control
SD Ctrl	SD rats administered drinking water only, as the Negative Control
F344 BP	F344 rats treated with benzo[a]pyrene, as the Positive Control
SD BP	SD rats treated with benzo[a]pyrene, as the Positive Control
F344 H2O	F344 rats treated with drinking water for 28 days followed by one radiolabelled dose of AN
SD H2O	SD rats treated with drinking water for 28 days followed by one radiolabelled dose of AN
F344 ACN	F344 rats treated with 100 ppm AN in drinking water for 28 days followed by one radiolabelled dose of AN
SD ACN	SD rats treated with 100 ppm AN in drinking water for 28 days followed by one radiolabelled dose of AN

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CAPITAL DISTRICT 208
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