From: Landrigan, Philip [phil.landrigan@mssm.edu]

Sent: 8/12/2014 1:36:18 PM

To: Fiorella Belpoggi - Istituto Ramazzini [belpoggif@ramazzini.it]

CC: Huff, James (NIH/NIEHS) [G] [huff1@niehs.nih.gov]; Lunn, Ruth (NIH/NIEHS) [E] [lunn@niehs.nih.gov]; Dana Loomis [LoomisD@iarc.fr]; Neela Guha [guhan@iarc.fr]; kmb@sciencecorps.org; Kathryn Guyton [GuytonK@iarc.fr]; Cooper,

Glinda [Cooper.Glinda@epa.gov]; Cogliano, Vincent [cogliano.vincent@epa.gov]; morando soffritti

[soffrittim@ramazzini.it]; frank mirer [fmirer@hunter.cuny.edu]; peter infante [pinfante@starpower.net]; Elihu D Richter **Ex. 6 Personal Privacy (PP)**; danny teitelbaum [toxdoc@ix.netcom.com]; Kathleen Ruff [kruff@bulkley.net];

joe ladou Ex. 6 Personal Privacy (PP) ; Lauren Zeise Ex. 6 Personal Privacy (PP) ; jsass@nrdc.org; colin soskoine [Colin.Soskolne@ualberta.ca]; Caldwell, Jane [Caldwell.Jane@epa.gov]; Dunnick, June (NIH/NIEHS) [E]

[dunnickj@niehs.nih.gov]; bucher@niehs.nih.gov; Birnbaum, Linda (NIH/NIEHS) [E] [birnbaumls@niehs.nih.gov]

Subject: Re: R: NAS formaldehyde -- endorses RoC/NTP [AGAIN!!!!!]

```
Bravo, Fiorella
Sent from my iPhone
> On Aug 12, 2014, at 8:09 AM, "Fiorella Belpoggi - Istituto Ramazzini" <belpoggif@ramazzini.it> wrote:
  We published our paper on formaldehyde carcinogenicity in 1989, after 25
  years we take our revenge! Long term bioassays are predictive, it is just a
  matter of time...
>
  Dr. Fiorella Belpoggi
> Director
  Cesare Maltoni Cancer Research Center
> Ramazzini Institute
  Via Saliceto, 3
> 40010 Bentivoglio (Bologna)
> Italy
  Tel. +39-051-6640460
> Fax. +39-051-6640223
> e-mail: belpoggif@ramazzini.it
> www.ramazzini.org
> Confidentiality Statement: This email message, including any attachments, is
> for the sole use of the intended recipient(s) and may contain confidential
  and privileged information. Any unauthorized use, disclosure or distribution
> is prohibited. If you are not the intended recipient, please contact the
> sender by reply email and destroy all copies of the original message.
> ----Messaggio originale----
> Da: Huff, James (NIH/NIEHS) [G] [mailto:huff1@niehs.nih.gov]
> Inviato: venerdì 8 agosto 2014 17:40
  A: Lunn, Ruth (NIH/NIEHS) [E]; Dana Loomis; Neela Guha; kathy burns; Kathryn
> Guyton; Cooper, Glinda; vincent cogliano; fiorella belpoggi; morando
> soffritti; frank mirer; peter infante; Elihu D Richter; danny teitelbaum;
> phil landrigan; Kathleen Ruff; joe ladou; Lauren Zeise; jennifer sass
> [NRDC]; colin soskoine; Jane Caldwell; Dunnick, June (NIH/NIEHS) [E]
  Cc: Bucher, John (NIH/NIEHS) [E]; Birnbaum, Linda (NIH/NIEHS) [E]
> Oggetto: NAS formaldehyde -- endorses RoC/NTP [AGAIN!!!!!]
> way to go - two in a row - wonderful.
  Onwards and upwards for PUBLIC HEALTH.
  james
  On /Fri8Aug/14 11:17 AM, "Lunn, Ruth (NIH/NIEHS) [E]" <lunn@niehs.nih.gov>
  wrote:
 Here is the brief release NAS has on their website about the formaldehyde
https://urldefense.proofpoint.com/v1/url?u=http://www8.nationalacademies.org/onpinews/newsitem.aspx?Recor
```

```
dID%3D18948&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%3D%0A&r=XlW7xWdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHM
HHMK6doZX4nVDALN8%2FWZ39h4Fo7L5oLDUb9wv5L4%3D%0A&s=ddf61a43568425e7bdfb542dc8c50c6f4035b37f45872261971e25
a03e8ba2f0
> [cid:3490342740_2317033] FOR IMMEDIATE RELEASE Formaldehyde Confirmed as
> Known Human Carcinogen A new report
<https://urldefense.proofpoint.com/v1/url?u=http://www.nap.edu/catalog.php?record_id%3D18948&k=PFsgZv%2B4</pre>
TEaU9fTpAWpLNw%3D%3D%0A&r=x1W7xWdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8%2FWZ39
h4Fo7L5oLDUb9wv5L4%3D%OA&s=3cc7d928bcd498fa2bbc3ac14ebea119da62d09ca9ea39727eea2f10bc0a9c60> from the
National Research
> Council has upheld the listing of formaldehyde as "known to be a human
> carcinogen" in the National Toxicology Program 12th Report on Carcinogens
  (ROC). The committee that wrote the Research Council report found that the
> listing is supported by sufficient evidence from human studies that indicate
> a causal relationship between exposure to the chemical and at least one type
> of human cancer. The committee reached the same conclusion after conducting
> both a peer review of the RoC and an independent assessment of the
> formaldehyde literature. The NTP is an interagency program that produces the > RoC. Formaldehyde is a substance of interest for the RoC because many
> people in the United States are exposed, either through environmental
> sources such as combustion processes and tobacco smoke, or in occupational
> settings that include the furniture, textile, and construction industries.
> Formaldehyde is also produced naturally by human cells. It was first listed
> by NTP as "reasonably anticipated to be a human carcinogen" in 1981 before > being upgraded to "known carcinogen" in the 2011 RoC. Based on RoC listing
  criteria, a substance can be classified as known to be a human carcinogen if
> there is sufficient evidence of carcinogenicity from studies in humans that
> indicate a causal relationship between exposure to the substance and human
  cancer. In its peer review of the RoC, the Research Council committee found
> that NTP described the strengths and weaknesses of relevant studies in a way
  that was consistent and balanced, but noted that it would be more complete
> if it also discussed why weaker evidence did not alter the conclusion. In
  addition, NTP did not include a description of its interpretation of "limited" and "sufficient" evidence for human studies, which factors into
> whether a chemical is listed as reasonably anticipated to be or known to be > a human carcinogen. The Research Council committee defined "limited
> evidence" in humans to be two or more studies of varied design that suggest
> an association between formaldehyde and a specific type of cancer but that
> cannot exclude alternative explanations such as chance, bias, or confounding > factors. Evidence was deemed to be "sufficient" if those alternative > explanations could be ruled out with confidence. On this basis, the
> committee agreed that there is sufficient evidence to support an association
  between formaldehyde and cancer in humans. In its independent assessment,
> the committee considered human, animal, and mechanistic studies published
> through November 8, 2013 that focused on nasopharyngeal cancer, sinonasal
> cancer, and myeloid leukemia. It found sufficient evidence of
  carcinogenicity in human and animal studies and "convincing relevant
  information" that formaldehyde induces mechanistic events associated with
> the development of cancer in humans. Based on these findings, the committee > concluded that formaldehyde should be listed in the RoC as "known to be a
  human carcinogen." Contacts: Lauren Rugani, Media Officer Christina
> Anderson, Media Assistant Office of News and Public Information
> 202-334-2138; e-mail news@nas.edu <mailto:news@nas.edu>
> www.national-academies.org/newsroom
> <https://urldefense.proofpoint.com/v1/url?u=http://www.national-</pre>
academies.org/newsroom&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%3D%0A&r=X1w7xwdP1tUIjrsQYpVoUgD02yeMZwjRHRTD3XqH0Lc%
3D%0A&m=rHMHHMK6doZX4nVDALN8%2FWZ39h4Fo7L5oLDUb9wv5L4%3D%0A&s=7695a2131ceb6cdcad529112480bccbd73269a13f7c
b3959393af131f26f4349> Twitter: @NAS_news
<https://urldefense.proofpoint.com/v1/url?u=https://twitter.com/NAS_news&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%3D</pre>
%OA&r=Xlw7xwdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%OA&m=rHMHHMK6doZX4nVDALN8%2FWZ39h4Fo7L5oLDUb9wv5L4%3
D%0A&s=671fdf1018306daa799603e81ab1e631fbb9f165cb4e51d6cf1f260469cd0fe3> and @NASciences
<a href="https://urldefense.proofpoint.com/v1/url?u=https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%">https://twitter.com/NASciences&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%</a>
3D%0A&r=X1w7xwdP1tuIjrsQYpVouqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8Ž2FWZ39h4Fo7L5oLDub9wv5L4
%3D%0A&s=d33de55d7f69cba7975099a7a10cea44bdeffc2575cde86a411e38c80eda8d7a> RSS feed:
https://urldefense.proofpoint.com/v1/url?u=http://www.nationalacademies.org/rss/index.html&k=PFsgZv%2B4TE
aU9fTpAWpLNw%3D%3D%0A&r=X1W7xWdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8%2FWZ39h4
Fo7L5oLDUb9wv5L4%3D%OA&s=11a684970a8f166b62f769c947e5a9765cb2e18c065a4211a60a31455c7e7137
<https://urldefense.proofpoint.com/v1/url?u=http://www.nationalacademies.org/rss/index.html&k=PFsgZv%2B4T</p>
Eau9fTpAwpLNw%3D%3D%0A&r=X1W7xwdP1tuIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8%2FWZ39h
```

4Fo7L5oLDUb9wv5L4%3D%0A&s=11a684970a8f166b62f769c947e5a9765cb2e18c065a4211a60a31455c7e7137> Flickr:

https://urldefense.proofpoint.com/v1/url?u=http://www.flickr.com/photos/nationalacademyofsciences/sets&k=

ED_006489_00000144-00002

```
PFsgZv%2B4TEaU9fTpAWpLNw%3D%3D%0A&r=X1W7xWdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDA
LN8%2FWZ39h4Fo7L5oLDUb9wv5L4%3D%0A&s=23a4eab1f79597f8cd9614c5ab7255cf0a51bd83109d20d86d727d840ae6a9b8
<https://urldefense.proofpoint.com/v1/url?u=http://www.flickr.com/photos/nationalacademyofsciences/sets&k</pre>
=PFsgZv%2B4TEaU9fTpAwpLNw%3D%3D%0A&r=x1w7xwdP1tUIjrsQYpVoUqD02yeMZwjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVD
ALN8%2FWZ39h4Fo7L5oLDUb9wv5L4%3D%0A&s=23a4eab1f79597f8cd9614c5ab7255cf0a51bd83109d20d86d727d840ae6a9b8>
            Pre-publication copies of Review of the Formaldehyde Assessment in
> the National Toxicology Program 12th Report on Carcinogens
<https://urldefense.proofpoint.com/v1/url?u=http://www.nap.edu/catalog.php?record_id%3D18948&k=PFsgZv%2B4</p>
TEaU9fTpAWpLNw%3D%3D%0A&r=x1W7xWdP1tUIjrsQYpVoUqD02yeMZWjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8%2FWZ39
h4Fo7L5oLDUb9wv5L4%3D%0A&s=3cc7d928bcd498fa2bbc3ac14ebea119da62d09ca9ea39727eea2f10bc0a9c60> available
from the National
> Academies Press on the Internet at www.nap.edu
<https://urldefense.proofpoint.com/v1/url?u=http://www.nap.edu/&k=PFsgZv%2B4TEaU9fTpAWpLNw%3D%3D%0A&r=XlW</pre>
7xwdP1tuIjrsQYpVougD02yeMZwjRHRTD3XqH0Lc%3D%0A&m=rHMHHMK6doZX4nVDALN8%2FwZ39h4Fo7L5oLDub9wv5L4%3D%0A&s=e4
28020cbb5246137266757c2e219bfea14de76342ff164a028a4838547890d0> or by
> calling 202-334-3313 or 1-800-624-6242. Reporters may obtain a copy from
  the Office of News and Public Information (contacts listed above).
> # NATIONAL RESEARCH COUNCIL Division on Earth and Life Studies Board on
> Environmental Studies and Toxicology Committee to Review the Formaldehyde
> Assessment in the National Toxicology Program 12th Report on Carcinogens > Alfred O. Berg*(chair) Professor and Chair Emeritus Department of Family
> Medicine University of Washington Seattle John C. Bailar III* Professor
> Emeritus University of Chicago Mitchellville, Md. A. Jay Gandolfi Professor
> Emeritus College of Pharmacy University of Arizona Tucson David Kriebel
  Co-Director Lowell Center for Sustainable Production; and Professor
  Department of Work Environment University of Massachusetts Lowell
  Morris Board of Trustees Distinguished Professor; Professor of Pharmacology
  and Toxicology Department of Pharmaceutical Sciences; and Interim Dean
  University of Connecticut School of Pharmacy Storrs Kent E. Pinkerton
  Director Center for Health and the Environment; Professor Department of Pediatrics School of Medicine; and Professor Department of Anatomy,
> Physiology, and Cell Biology School of Veterinary Medicine University of
> California Davis Ivan Rusyn Professor Department of Environmental Sciences
  and Engineering; Director Laboratory of Environmental Genomics; and Director Carolina Center for Computational Toxicology Gillings School of Global
> Public Health University of North Carolina Chapel Hill Toshihiro Shioda
> Associate Professor of Medicine Harvard Medical School; and Director
  Molecular Profiling Laboratory Massachusetts General Hospital Cancer Center
  Charlestown Thomas J. Smith Professor Emeritus Department of Environmental
> Health Environmental Science and Engineering Program Harvard School of
  Public Health Boston Meir Wetzler Chief Division of Leukemia Department of
> Medicine Roswell Park Cancer Institute; and Professor of Medicine School of
> Medicine and Biomedical Sciences University at Buffalo State University of
> New York Buffalo Lauren Zeise Deputy Director for Scientific Affairs Office
> of Environmental Health Hazard Assessment California Environmental
> Protection Agency Oakland Patrick Zweidler-McKay Section Chief Pediatric
> Leukemia and Lymphoma; and Associate Professor Department of Medicine
> Division of Pediatrics The Children's Cancer Hospital The University of
  Texas M.D. Anderson Cancer Center Houston STAFF Heidi Murray-Smith Study
> Director
                                                     *Member, Institute of Medicine
> Robin Mackar
  Office of Communications and Public Liaison National Institute of
 Environmental Health Sciences National Institutes of Health PO Box 12233,
> Research Triangle Park, NC 27709 919-541-0073; rmackar@niehs.nih.gov NIH . .
  . Turning Discovery Into Health
```