From: Heather Spalding

Sent: Thursday, May 18, 2017 12:06 PM **To:** Pesticides

Subject: article for next BPC meeting packet

Hi Megan, I am hoping that you will include this article in the next board meeting packet.

Thanks very much, Heather Spalding

http://us.cnn.com/2017/05/15/health/roundup-herbicide-cancer-allegations/index.html



Christine Sheppard is one of more than 800 cancer patients suing Monsanto, the maker of Roundup, claiming the company failed to warn consumers about a risk of cancer from the weed killer. Monsanto insists Roundup is safe.

Patients: Roundup gave us cancer as EPA official helped the company

Story by Holly Yan, CNN Photographs by John Francis Peters for CNN

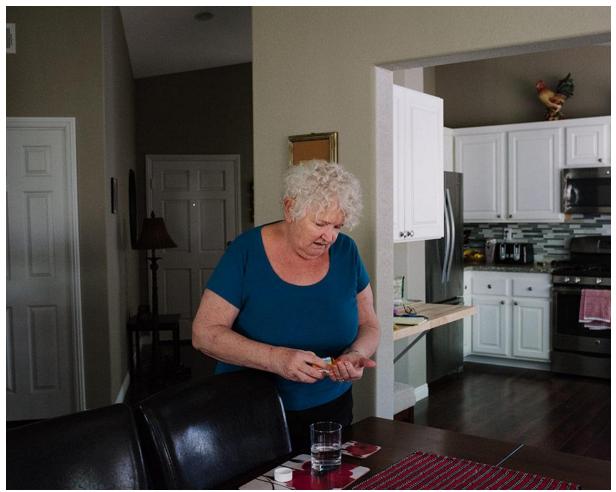
Updated 3:06 PM ET, Tue May 16, 2017

(CNN)Christine Sheppard fantasizes about her life before cancer. Before she had to take painkillers "all the time." Before she had to seriously worry about when she might die.

"I found out something was wrong because my right leg swelled up enormously," Sheppard said. "They did an ultrasound and found I was completely full of these lymph nodes. It was stage IV large-cell lymphoma."

Grueling chemotherapy treatments have started robbing her of mobility. "It's a strange nerve thing," she said. "I don't always know where my feet are. I have to look down to see where they are."

And the symptoms "will be progressively worse. There's no cure. Eventually, I will probably end up fairly immobilized."



Christine Sheppard said she has to take pills every four hours to avoid "hopping and screaming" in pain.

For 12 years, Sheppard had no idea what might have caused her non-Hodgkin's lymphoma -- until <u>a group of cancer researchers reported</u> (PDF) that glyphosate, the key ingredient in the popular weed killer Roundup, is "<u>probably carcinogenic to humans</u>" (PDF).

That's the same herbicide Sheppard said she sprayed on her coffee farm in Hawaii for five years.

"I was incensed," said Sheppard, 67. "We had no idea."

Eventually, I will probably end up fairly immobilized.

Christine Sheppard, non-Hodgkin's lymphoma patient

Sheppard is one of more than 800 cancer patients suing Monsanto, the maker of Roundup, claiming the company failed to warn consumers about the risk of cancer associated with Roundup products.

Monsanto says there's no proof that glyphosate is carcinogenic. In fact, it cites a report by the Environmental Protection Agency's Cancer Assessment Review Committee that saidglyphosate is "not likely to be carcinogenic to humans" (PDF).

But the former chairman of that committee <u>offered to stop an independent review on whether glyphosate could cause cancer</u>, according to a plaintffs' motion to compel his deposition. And that has left Sheppard even more incensed.

Health agency: Glyphosate is 'probably carcinogenic'

The World Health Organization's <u>International Agency for Research on Cancer</u> caused a stir in March 2015 when it said glyphosate is "<u>probably carcinogenic to humans</u>" (PDF), meaning it can lead to cancer.

"For the herbicide glyphosate, there was limited evidence of carcinogenicity in humans for non-Hodgkin lymphoma," the report states.

"The evidence in humans is from studies of exposures, mostly agricultural, in the USA, Canada, and Sweden published since 2001. In addition, there is convincing evidence that glyphosate also can cause cancer in laboratory animals."

That report spurred hundreds of non-Hodgkin's lymphoma patients to sue Monsanto.



Sheppard, with her cat Sebastian, said her right leg "swelled up enormously," to the astonishment of her doctor.

Timothy Litzenburg's law firm represents more than 500 of them. He said most of the patients didn't know about a possible link between Roundup and non-Hodgkin's lymphoma until the report came out.

"It would not surprise me in the least if there are 2,000 to 3,000 cases by the end of the year," Litzenburg said. "This is the most-used herbicide in the world ... from the largest farm operations to backyard gardens. It's ubiquitous."

We are suing because our clients got cancer from Roundup.

Plaintiffs' attorney Timothy Litzenburg

But many other companies also sell products containing glyphosate. Why aren't they targeted in these lawsuits?

"This is an oversimplistic answer, but Monsanto invented/discovered it, they held the patent for many years, they are the EPA registrant for glyphosate, and they continue to dominate the market," the attorney said.

"Furthermore, we are not alleging that our clients got cancer from glyphosate alone. We are suing because our clients got cancer from Roundup. ... Roundup contains animal fats and other ingredients that increase the carcinogenicity of the glyphosate."



Litzenburg claims "glyphosate alone is carcinogenic, but the addition of a surfactant has a 'synergistic' effect." Monsanto says more than 800 studies have shown glyphosate's safety.

Monsanto spokeswoman Charla Lord flatly denied those accusations.

"Glyphosate-based herbicides, including Roundup-brand formulated products with surfactants, all have a long history of safe use and do not pose any unreasonable risk to human health when used according to label directions," Lord said.

"The safety of each labeled use of a pesticide formulation must be evaluated and approved by regulatory authorities before it is authorized for sale."

Sheppard said she knows skeptics will say she can't prove that her cancer came from using Roundup. But she said the hundreds of plaintiffs with similar stories -- combined with the report -- show "such strong circumstantial evidence that the total adds up."

Regulatory authorities in the United States, Canada, Japan, New Zealand and Australia have publicly reaffirmed that glyphosate does not cause cancer.

Charla Lord, Monsanto spokeswoman

But Monsanto said there are more than <u>800 studies demonstrating glyphosate's safety</u>, including studies conducted internationally.

"In fact, since IARC classified glyphosate, regulatory authorities in the United States, Europe, Canada, Japan, New Zealand and Australia have publicly reaffirmed that glyphosate does not cause cancer," Lord said.

For example, the European Chemicals Agency said last month that glyphosate is "not classified as a carcinogen."

Monsanto stressed that the International Agency for Research on Cancer report does not establish a link between glyphosate and an increase in cancer.

Scott Partridge, Monsanto's vice president of global strategy, said plaintiffs' attorneys "are attempting to tie the IARC classification to individual cases of cancer, and they have been running advertisements to recruit plaintiffs. These lawsuits have no merit."

But recently unsealed court documents appear to show Monsanto mounting its effort to discredit the IARC report before it was even released.

Company executive suggests 'ghostwrite'

A month before the IARC report came out in 2015, Monsanto executive William F. Heydens sent an internal email to company toxicologist Donna Farmer with the subject line "RE: IARC planning," according to court documents. In that email, he suggested ghostwriting parts of an "overall plausibility paper" to save money.

These allegations are false. Monsanto scientists did not ghostwrite the paper.

Monsanto statement

"If we went full-bore (with experts), we could be pushing \$250K or maybe even more," Heydens wrote.

He said a "less expensive/more palatable approach" might be to involve experts only for some of the less contentious parts of the report. Then, Monsanto would "ghost-write the Exposure Tox & Genetox sections."

"[W]e would be keeping the cost down by us doing the writing," the email said. Afterward, scientists outside Monsanto "would just edit & sign their names so to speak."

"Recall that is how we handled Williams Kroes & Munro, 2000," Heydens wrote, <u>referring to a previous report on glyphosate</u>.

WILLIAM HEYDENS' FEBRUARY 19, 2015 EMAIL (p. 220)

WILLIAM HEYDENS' FEBRUARY 19, 2015 EMAIL (p. 220)

For the overall plausibility paper that we discussed with John (where he gave the butadiene example), I'm still having a little trouble wrapping my mind around that. If we went full-bore, involving experts from all the major areas (Epi, Tox, Genetox, MOA, Exposure - not sure who we'd get), we could be pushing \$250K or maybe even more. A less expensive/more palatable approach might be to involve experts only for the areas of contention, epidemiology and possibly MOA (depending on what comes out of the IARC meeting), and we ghost-write the Exposure Tox & Genetox sections. An option would be to add Greim and Kier or Kirkland to have their names on the publication, but we would be keeping the cost down by us doing the writing and they would just edit & sign their names so to speak. Recall that is how we handled Williams Kroes & Munro, 2000.

Monsanto executive William Heydens sent an email with the subject "RE: IARC Planning" one month before the IARC's glyphosate report came out. In it, he suggested ghostwriting parts of a plausibility paper.

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After the emails were unsealed in March, Monsanto said in a statement that the 2000 report was not ghostwritten and that Heydens' email was taken out of context.

IS GHOSTWRITING COMMON OR UNETHICAL?

Trudo Lemmens, a University of Toronto professor who specializes in health law, said ghostwriting in science "likely is quite common -- although it is difficult to know for sure how often it occurs."

He said ghostwriting is troublesome because "It undermines the entire trust we have in the scientific basis of reports written by experts if we allow them to be ghostwritten and if scientists put their names on it."

But are there any good reasons to ghostwrite a report?

"Science writers often write better than scientific experts themselves, and they have more time to do so at a lesser expense. That is how it is often defended," Lemmens said.

"But it has also clearly been used as a tactic to control the message and the presentation of evidence."

"Recently, in the context of personal injury litigation filed against Monsanto, plaintiffs' attorneys have cherry picked a single email -- out of more than 10 million pages of documents produced -- to allege that Monsanto scientists ghostwrote 'Safety Evaluation and Risk Assessment of the Herbicide Roundup and Its Active Ingredient, Glyphosate, for Humans,' " the company said.

"These allegations are false. Monsanto scientists did not ghostwrite the paper."

The company added that the report, published in 2000 in Regulatory Toxicology and Pharmacology, went through that journal's "rigorous peer review process before it was published."

But what about <u>the 2015 glyphosate paper</u> -- the one that Heydens suggest his company "ghost-write," according to the recently unsealed emails? Did Monsanto actually "ghost-write" parts of that report?

"No," Monsanto spokeswoman Camille Scott told CNN. "The paper and its conclusions are the work of the glyphosate expert panel. The paper also underwent (a) rigorous peer review process before it was published."

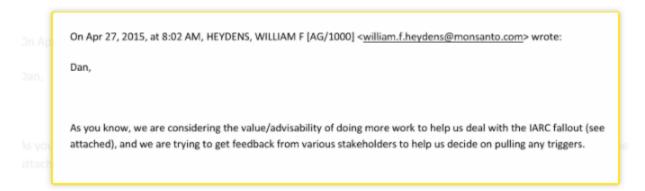
Scott said Monsanto retained a scientific consultant to convene the panel to review the international agency's assessment that glyphosate was "probably carcinogenic to humans."

The experts were asked to examine the agency's data and assess the scope of the research included or excluded, Scott said. They concluded that "the data do not support IARC's conclusion that glyphosate is a 'probable human carcinogen."

Email: EPA official offered to 'kill' study on glyphosate

A month after the report said glyphosate could cause cancer, Heydens sent an email to Monsanto's US agency lead -- the liaison to agencies such as the EPA -- about the possibility of "doing more work to help us deal with the IARC fallout."

WILLIAM HEYDENS ON 'IARC FALLOUT' (p. 103)



Monsanto executive William Heydens wrote an email to Dan Jenkins, the company's US agency lead at the time, about how to deal with fallout from an International Agency for Research on Cancer report saying glyphosate is "probably carcinogenic to humans."

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Dan Jenkins, Monsanto's US agency lead at the time, replied and suggested talking to Jess Rowland, then chairman of the EPA's Cancer Assessment Review Committee.

"He'll give us straight talk," Jenkins wrote in an April 27, 2015, email.

DAN JENKINS - "STRAIGHT TALK" FROM EPA OFFICIAL (p. 103)

From: JENKINS, DANIEL J [AG/1920]
Sent: Monday, April 27, 2015 11:51 AM
To: HEYDENS, WILLIAM F [AG/1000]
Subject: Re: Glyphosate IARC Question

I think you and I could get on the phone w Jess Rowland and discuss this pretty openly. He'll give us straight talk.

Dan Jenkins
US Agency Lead
Monsanto Company

Dan Jenkins replied to William Heydens' email about how to deal with "IARC fallout."

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But the next day, Jenkins said Rowland called him "out of the blue."

"Jess [Rowland] called to ask for a contact name at ATSDR," Jenkins wrote, referring to the federal Agency for Toxic Substances and Disease Registry.

At the time, the registry -- part of the US Department of Health and Human Services -- was working on its own investigation into glyphosate (PDF).

"(Rowland) told me no coordination is going on and he wanted to establish some saying 'If I can kill this I should get a medal,' " Jenkins wrote, as shown in the plaintiffs' motion to compel the deposition of Rowland.

"However, don't get your hopes up, I doubt EPA and Jess can kill this; but its good to know they are going to actually make the effort now to coordinate due to our pressing and their shared concern that ATSDR is consistent in its conclusions w EPA."

Also, Jess called to ask for a contact name at ATSDR. I passed on Jesslyn's email. He told me no coordination is going on and he wanted to establish some saying "If I can kill this I should get a medal". However, don't get your hopes up, I doubt EPA and Jess can kill this; but it's good to know they are going to actually make the effort now to coordinate due to our pressing and their shared concern that ATSDR is consistent in its conclusions w EPA. Dan Jenkins U.S. Agency Lead Regulatory Affairs Monsanto Company

According to a Monsanto email, a Monsanto employee said EPA official Jess Rowland said he "should get a medal" if he could kill a different government agency's investigation into glyphosate. Rowland, who is now retired from the EPA, has not returned requests for comment.

View the entire document with **DocumentCloud**

The report on glyphosate by the Agency for Toxic Substances and Disease Registry was never killed. In fact, researchers are still working on it, registry spokesman Larry Furphy said Friday.

"ATSDR is in the process of developing a Toxicological Profile for glyphosate," Furphy wrote in an email to CNN.

"For glyphosate, much of the scientific literature is continuing to emerge, and the agency wants to ensure that we have all the evidence from recent and pending literature reviews."

Furphy said the agency expects to release a draft of the report by the end of the year.

In a separate Monsanto email, dated September 3, 2015, Jenkins told colleagues that Rowland was planning to retire in about five to six months "and could be useful as we move forward with ongoing glyphosate defense."

Rowland has since retired from the EPA and has not responded to requests for comment.

EPA is not a party to the case. Beyond that, the Agency does not comment on active litigation.

an EPA representative

When asked about the litigation, an EPA representative said it is "a dispute between private litigants, and EPA is not a party to the case. Beyond that, the Agency does not comment on active litigation."

Litzenburg said the court documents "seem to show an inappropriately close relationship" between Monsanto and the former EPA official.

But Monsanto spokeswoman Lord said the company has never paid, given gifts to or done anything else to curry favor with anyone from the EPA.

"As part of a highly regulated industry, Monsanto routinely responds to EPA requests for data and information about our products," she said. "Monsanto fully respects the EPA's role in regulating pesticides, and we work to provide accurate information and answer questions to ensure that the agency can make decisions based on thorough and complete science."

Conflicting research on glyphosate

The National Pesticide Information Center acknowledges conflicting reports about the risk of cancer with glyphosate.

Some studies have associated glyphosate use with non-Hodgkin lymphoma.

National Pesticide Information Center

"When high doses were administered to laboratory animals, some studies suggest that glyphosate has carcinogenic potential," <u>said the center</u>, a cooperative between <u>Oregon</u> State University and the EPA.

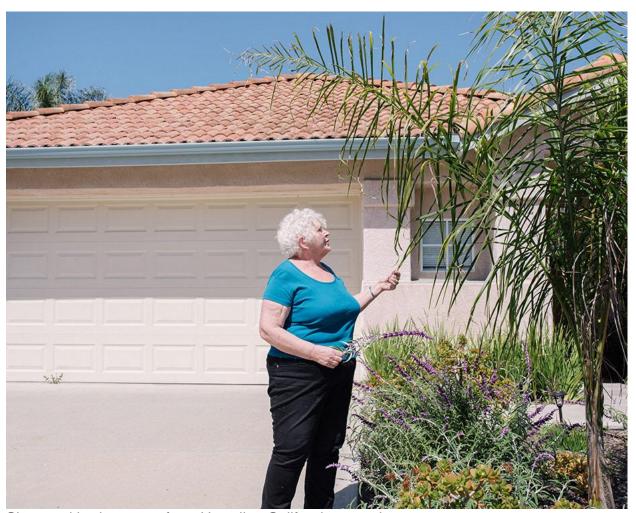
"Studies on cancer rates in people have provided conflicting results on whether the use of glyphosate containing products is associated with cancer. Some studies have associated glyphosate use with non-Hodgkin lymphoma."

Non-Hodgkin's lymphoma is a common cancer that starts in the lymphatic system. About 72,000 people are expected to be diagnosed this year, according to the <u>American Cancer Society</u>. An estimated 20,000 people will die from it in 2017.

'They took away our dreams, our savings'

While the lawsuits work their way through court -- the next phase of discovery is expected in October -- Sheppard said she's trying to manage her illness the best she can. That means avoiding planes and any crowded place.

"My immune system doesn't allow me to travel much," she said. "If I get sick, I get sick for a long, long time."



Sheppard had to move from Hawaii to California to get better access to cancer treatment.

She and her husband had to sell their coffee farm in Hawaii and move to California for cancer treatment. Sheppard said she has depleted her 401(k) to pay for medical bills.

"They didn't take away my life, thank goodness, but they took away our dreams, our savings," she said.

Sheppard said she now wants two things: Monsanto to stop selling Roundup, and an apology from the company.

She said she doesn't think she'll get the latter.

"I think Monsanto is going to fight this to the bitter end."

Editor's note: This article has been updated to add a response from Scott Partridge,
Monsanto's vice president of global strategy.