

What follows is a brief compilation of many of the medical and science sources that have agreed to work with us - and the logic of our process to be weaved into the antidotal stories.

Subject: PROVING OUR CASE – Medical And Scientific

Bullet Points of Logic Flow

"Can you prove it?" is literally the billion-dollar question that an army of toxic tort attorneys is working on as we write. Unlike the 1980s when the Exxon Valdez spilled oil, the field of Occupational & Environmental Medicine (OEM) is today more advanced, so the BP workers and general public exposed to BP's oil and chemicals stand a better chance of proving their claims.

Proving it requires showing that people were exposed to dangerous levels of dangerous chemicals from the BP disaster. So we need to address:

1. The dangerous chemicals;
2. The dangerous levels; and
3. The vulnerable populations.

1. DANGEROUS CHEMICALS: Oil and chemicals in dispersants

After Exxon Valdez, there was one known successful toxic tort lawsuit that linked occupational asthma with chemical exposure. (Garry Stubblefield's story is covered in *Sound Truth and Corporate Myths*; his toxic tort lawyer is Dennis Mestas of Anchorage, Alaska.

This successful toxic tort lawsuit created interest within the academic community to study the health impacts of oil exposure. The latest literature review was in 2011 (attached).

The scientific and medical communities know oil exposure makes people sick and have known since the first literature review in 1981, co-authored by retired forensic chemist-toxicologist and expert **John Laseter, PhD**.

Until retirement, Laseter was the leading expert in the U.S. on oil impacts on human health, going back to Amoco Cadiz oil spill in France). The forensic chemistry lab, Accu-Chem, operated for 20 years to support his expert witness work in toxic oil exposure cases. He developed the Volatile Organic Solvent blood profile and sold it when he

retired 5 years ago to Metamatrix in Atlanta, GA, that is now doing the blood tests for people in the Gulf of Mexico.

Kathy Burns, PhD, a toxicologist specializing in human health impacts of PAHs and oil, dispersants, etc., wrote the first white paper on anticipated human health impacts from the BP disaster including identifying vulnerable sectors of the population: children, pregnant women, elderly, people suffering from chronic illnesses, and African Americans, who are susceptible to blood disorders, which can be triggered by exposure to oil/dispersants. The report on Gulf Oil Spill Health Hazards summarizing the toxicological and epidemiological information on crude oil AND dispersants is at: http://www.sciencecorps.org/gulf_oil_spill_health_hazards.html

-- **Hugh Kaufman, EPA whistleblower**, was interviewed on Democracy Now! July 10, 2010, and warned that the EPA was in denial about the toxic effects of dispersants to humans. Interview: http://www.democracynow.org/2010/7/20/epa_whistleblower_accuses_agency_of_covering

Dangerous toxic Corexit dispersants were documented and used in coastal and inland seas, despite federal government claims to the contrary. Documentation by private citizens triggered an official investigation by the U.S. Dept. of Justice (http://www.huffingtonpost.com/riki-ott/an-open-letter-to-us-epa_b_697376.html). Results of investigation are unknown. Lead investigators: **James Kejonen**, DOJ NOAA agent; and **Ben Bryant**, DOJ FWS agent.

2. DANGEROUS LEVELS

A chart by the **Agency for Toxic Substances and Disease Registry** shows the relationship between acute, intermediate, and chronic exposure levels and time duration. (Attached, under Other Resources). Although the federal agencies such as the EPA and NIEHS claim the levels of oil (no mention of chemicals in dispersants) in the air and water and seafood were "safe," other scientists disagree. It is highly likely that the Gulf-wide population from roughly Barataria Bay, Louisiana, to Apalachicola, Florida, were exposed to intermediate levels oil and chemicals that were dangerous to their health.

Robert Naman, PhD, chemist, measured dangerous levels of oil and chemicals in dispersants in the coastal and nearshore water. His work was contracted by local media and private citizens. **News 5 investigates**: Testing the water, July 23, 2012. http://www2.wkrg.com/special_section/2010/jul/17/news-5-investigates-testing-the-water-ar-2121731/

Further, dispersant-coated oil droplets, can be aerosolized becoming part of the Gulf hydrologic cycle and appearing in sea breezes, clouds, and rain, as confirmed by **NASA scientists** – and consistent with samples taken by Gulf coast residents and media of oily sheen contaminating their airplane's leading edges after flying over the Gulf, puddles on door stoops after rain, outdoor swimming pools, and shallow bayous, bays, and coastal seas. **Ira Leifer, PhD**. "Oil Rain" Confirmed by NASA chief mission scientist: Clouds

from Gulf did “rain oil” on land (video), Feb. 21, 2011. <http://www.floridaoilspilllaw.com/oil-rain-confirmed-nasa-chief-mission-scientist-clouds-gulf-rain-oil-land-video/>

Chemist and McArthur Genius Award recipient **Wilma Subra, PhD**, compiled an initial pilot report of some of the Volatile Organic Solvent blood profiles on sick Gulf residents. Her summary report shows extraordinarily high levels of oil biomarkers in human blood; i.e., the oil went from the Gulf Stream into the human blood stream.

Lead toxic tort lawyer, **Stuart Smith**, has conducted a number of independent studies on levels of oil and dispersants in Gulf air and water. <http://www.stuarthsmith.com/they-poisoned-the-gulf-with-dispersant-and-it-didnt-even-disperse/>

The general public has brought two actions against the EPA to amend the National Contingency Plan to make dispersants less toxic, or to ban toxic chemicals including dispersants from U.S. territorial seas. Earthjustice and the People’s Petition by a coalition of scientists and citizens, including Tribes, bring the lawsuits.

The background information in the lawsuit and petition contain the most recent information and reports on human health impacts and ecological impacts of exposure to oil and chemicals in dispersants, including all of the documents mentioned above. Significantly, the American Petroleum Institute filed an amicus brief to side with EPA and keep allowing toxic chemical dispersants in oil spill response. Earthjustice lawyer **Mariane Engelman Lado**, is lead on Counsel.

VULNERABLE POPULATIONS

Riki Ott, PhD, a trained marine toxicologist who documented the emerging public health epidemic of chemical illnesses across the Gulf in her Huffington Post blogs (<http://www.huffingtonpost.com/riki-ott/>), calculated the number of Gulf people at risk of exposure from the 2010 census data and visitor information (as of March 2011): six million. This number is CONSERVATIVE: 1) it only includes visitor data to Alabama coastal areas, not Louisiana coasts including New Orleans; and 2) it does not include inland communities where a substantial portion of the population worked BP spill response.

Before the Exxon Valdez, oil spills were classified as a hazardous waste cleanup. Exxon got an exemption to the 40 hours of required hazardous waste cleanup training and instead provided 4 hours -- and NO RESPIRATORS. The "Valdez exemption" was institutionalized when Bush/Cheney declassified oil spill cleanup as hazardous, requiring just 4 hours of training -- and NO RESPIRATORS. Oil waste itself was also declassified as hazardous waste after the BP disaster. The hazardous waste collected in the BP spill went to municipal landfills, creating secondary exposures.

After two years of denying any health problems associated with its disaster, **BP agreed** to a medical "benefits" settlement that lists pages of symptoms and illnesses acknowledged

under the agreement -- the exact same symptoms and illnesses reported across the Gulf and listed in the medical literature.

See [http://www.laed.uscourts.gov/OilSpill/Orders/05032012\(AmendedMedicalSettlement\).pdf](http://www.laed.uscourts.gov/OilSpill/Orders/05032012(AmendedMedicalSettlement).pdf)

Recent studies from the **Georgia Institute of Technology** and others found that the addition of dispersants made the oil 52 times more toxic than the oil alone to rotifers, an ecological indicator. <http://www.stuarthsmith.com/scientists-efforts-to-disperse-the-bp-spill-made-it-much-much-more-toxic/>

Similarly, coastal geologist **Rip Kirby** found oil-and-dispersant binds easily to sand grains but is only visible under black light; in other words, the supposedly clean beaches were still a huge health risk to the visiting populace. http://surfrider.org/images/uploads/publications/Corexit_Connections.pdf

The *March 2012 Dispersant Use Initiative*, a document intended to guide and plan research needs and decision-making in future spills and a document produced by the **Interagency Coordinating Committee for Oil Pollution Research** authorized under the Oil Pollution Act of 1990, states that key needs include, among others, a key need of “understanding risk to workers and public safety, and communicating the risk successfully, and understanding the trade offs of using dispersants with respect to human health” (emphasis added). There has been NO PUBLIC DISCUSSION of human health tradeoff, which might not be acceptable to the public. Further, there has not even been a warning of a problem as EPA has been in denial since (and before) the BP disaster: EPA maintained that the chemicals in dispersants were in things like cosmetics, Klondyke ice cream bars, and more. http://www.crrc.unh.edu/workshops/dispersant_future_11/Dispersant_Initiative_FINALREPORT.pdf

The evidence of human health issues linked with the BP disaster finally caused the National Institute of Health to initiate a study on BP spill responders. It will be years before anything comes of this study – as even after the study completes there is a confidentiality period of years agreed with BP.

Proper diagnosis and treatment of chemical illness is a specialty field of OEM (Occupational and Environmental Medicine). There are not many MDs with this training in the Gulf. Incomplete list of MEDICAL DOCTORS who are successfully treating Gulf residents or visitors for CHEMICAL ILLNESSES associated with exposure to BP disaster oil and dispersants:

One of nation's leading experts on Occupational and Environmental Medicine is **Michael Harbut, MD**, Co Director, National Center for Vermiculite and Asbestos-Related Cancers; Director, Environmental Cancer Initiative, Karmanos Cancer Institute Professor (Clinical), Internal Medicine, Wayne State University; Chief, Center for Occupational and Environmental Medicine Section Chief, Occ/Env Medicine, Providence Hospital.

Harbut voluntarily filmed a "Curbside Consult" after the BP disaster to explain environmental health and chemical illnesses to a lay audience -- the people he knew would be most impacted. He also wrote one-page summaries of crude oil health hazards, NOT including dispersants, for workers and the general public. http://www.sciencecorps.org/gulf_oil_spill_health_hazards.html

William Rea, MD, Environmental Health Clinic–Dallas. Rea is a recognized international expert, leader, and pioneer in field of OEM and detox/treatment techniques. He built built one of first two chemical detox centers in the U.S., and successfully treated Exxon Valdez workers for chemical illnesses associated with exposure to oil and THE SAME DISPERSANTS and chemicals used in the BP disaster.

Mike Robichaux, MD of Raceland, LA. Robichaux is new to the field of Occupational & Environmental Medicine. He does recognize chemical illness and is successfully treating (detoxing) people from his clinic.

Kaye Kilburn, MD of Los Angeles, CA. Kilburn is working with Robichaux. His specialty is brain injury from exposure to toxic chemicals.

Phil Landrigan, MD of the Mount Sinai School of Medicine. Landrigan is not treating people from the Gulf, but his specialty is oil effects on human health, especially in children. He is good at explaining this to lay audiences because he frequently does radio shows.