

Afterword

It was July 2001. James Hillman, the psychologist, and his wife, the artist Margot McLean, were hosting a lively discussion around the dining room table in their Manhattan loft a few blocks from the World Trade Center towers. The talk ranged from the bouquet of flowers catching the sunlight—when you knew how many pesticides had been used in their cultivation, were they still beautiful?—to psychological depression.

Hillman observed that depression was endemic in cultures with a high standard of living, and he suggested it might often be an innate response to the destructive aspects of modern life. “Short-term thinking is manic,” he said. “Depression ties in with mourning. It is a sign you are in touch. Those who are never depressed are the ones who are insane.”

Hillman was talking about the world as we knew it then, even before 9–11, and he was talking about the precautionary principle.

Before the rest of the group could object too much—who, after all, wants to stay depressed—Hillman explained: “Pathology or sickness is a fundamental way the world changes. The soul of the world knows that we are poisoning it. We are part of the soul of the world.”

The discussion veered into the many signs of sickness in the world, individual and social, spiritual and physical. The group agreed that many efforts were directed toward curing ills of all types, while too little was being done to address causes. The precautionary principle seemed to point toward the necessary change of heart and mind.

At about the same time, a pathologist in Indianapolis was sensing a sickness deeper than her medicine could reach, and the sickness was driving her toward change.

Dr. Indra Frank had grown up in New Mexico in a family that believed in taking care of the environment. Her parents were members of New Mexico Citizens for Clean Air and Water. They had strict rules about turning off lights that weren’t being used. They subscribed to organic

gardening magazines and took the family cross-country skiing and hiking. Indra developed a passion for the environment at an early age.

In school she turned to science, studying biochemistry and then going to medical school. She was board certified in pathology and began practicing in the mid-1990s, with a subspecialty in hematopathology, diagnosing diseases of the blood including lymphomas and leukemias. Along the way, she started bumping into medical issues related to environmental contamination. In medical school she learned to diagnose tumors related to asbestos exposure. A few years later, an oncologist friend who was moving to Ohio from Texas, where Indra then lived, made an offhand remark about Ohio being in the “lymphoma belt.” The oncologist said there was some suspicion that higher lymphoma rates in the Midwest were associated with pesticide use.

“This was a milestone comment for me,” Indra said in a November 2004 interview. “I had been unaware that the incidence of lymphoma could be regional.” She searched the medical literature for studies linking lymphoma and pesticide exposure and found them, but with some difficulty. She also found studies showing increased risk of leukemia. “This information gets buried in the medical literature where the general public is unaware of it,” she said. “It should be more available so people can make informed choices about chemical use for their own homes and gardens.”

Indra found her work as a pathologist interesting and good, and she felt productive. But her passion was for protecting and preserving the environment. She started thinking about how to put her skills to work for the good of the Earth.

“It finally occurred to me that the environment is a medical issue, and I could contribute as an M.D.,” she said. She began sending emails to her favorite environmental groups, asking how she could get involved. She was living and practicing in Indianapolis by then. The Hoosier Environmental Council enthusiastically invited her to volunteer. Indra talked with staff and Council members and decided that it would be useful to have a committee on health and the environment. Indra called someone she’d met at a workshop of Physicians for Social Responsibility for help in setting up a committee.

In its first year the committee developed a large contact list, 15–20 of whom would show up at monthly meetings in Indianapolis. “We have nurses and physicians, a member of a state public health association, a native plant expert, a nun whose sisterhood runs an organic farm, and lots of concerned citizens,” Indra said.

The work presented itself. The committee's first project was curbing mercury emissions from power plants. Indra testified about mercury pollution and health effects at EPA hearings. She helped the Hoosier Environmental Council petition the Indiana Pollution Control Board to issue stricter controls "because the EPA regulations are so weak." She was named to a state stakeholder committee to make that happen.

When we spoke to Dr. Indra Frank, she moved with grace and precision, spoke calmly, listened attentively as she hosted a workshop on the precautionary principle attended by more than 100 people from all over the state of Indiana. Nine physicians who attended the event received continuing medical education credit, thanks to Indra's arrangements.

One could easily imagine her as the physician scientist, but Indra had put away her white coat for the indefinite future. Six months earlier she had left her pathology practice to devote more time to environmental work.

"It's the first time in my life I've been unemployed," she laughed, "but I'm getting to work on issues that are deeply meaningful to me. I'm lucky I got to choose."

Indra heard about the precautionary principle from Council member Bill Caddell, a librarian from Frankfurt, Indiana. Indra, Bill, and their friends realized that the precautionary principle was at the heart of everything they were trying to do.

"The precautionary principle speaks to me because I am a pathologist," Indra said. "I spent most of the last 14 years peering through a microscope, often diagnosing cancers. I was aware of the problem of asbestos and mesothelioma, lung cancer from smoking, and the rising incidence of breast cancers. I knew that if precaution had been taken earlier with asbestos and tobacco, I wouldn't have been seeing so many cancers. It's my suspicion that the rising incidence of breast cancer is environmentally related."

Indra said that when her mother was young breast cancer struck approximately one in twenty women. When Indra started medical school, the incidence was one in ten. When she got out of school it was one in eight. "Now it is one in six or seven. The genetics can't have changed that much in a generation," she said. "As a pathologist I've stared enough tumors in the face that I know we have to be more cautious."

Part of Indra's job was diagnosing lymphoma. She often remembered her friend's remark and thought of the fact that she, too, was now living in the lymphoma belt.

In leaving her practice, Indra did not leave pathology behind altogether. “What I’ve started to dig into now is even scarier than cancer,” she said, “because it’s more subtle—endocrine disruptors and pollutants that have an effect on fetal development.”

Indra was in the middle of developing a program for public-access television about the health effects of pesticides and alternative ways to control pests. “My background is in biochemistry,” she said. “From the first time I read how many millions of pounds of pesticides are spread on U.S. soil, I felt that it couldn’t be good. If a chemical kills one organism, it will inevitably affect others. Living organisms on Earth share many chemical pathways.”

Indra and her husband Mark are the parents of two young children. She is thinking about them as she does this work, but she is also doing it for herself. “I got to the point in my career where I’d much rather work to prevent disease than be on the depressing end, the diagnosing. My goal in quitting pathology was to work on disease prevention. And that means influencing society to take precaution.”

The world needs conventional pathologists, but it needs others who respond to the call to take precaution, influence society, imagine better futures and better ways of doing things. Perhaps the physician-scientist of the future will be more like a pediatrician than a pathologist: one who monitors carefully and lovingly, prescribes preventive measures, takes care of small problems before they become big ones, and teams up with others—parents, teachers, extended families, whole communities, politicians, and national and international institutions—to give the next generation a good start in life.

This is not only about physicians, of course. All of us need to be concerned. This book is a toolkit and training manual in something we already know how to do: wise caretaking. Peter Montague wrote in *Rachel’s* #805 (November 25, 2004): “The precautionary principle is a powerful new anchor for a traditional value system based on compassion, cherishing community, environmental stewardship, and nurturing future generations within a framework of wisdom and forward thinking. Precaution is the future—positive, powerful, healthy, and good.”

To life!

Nancy and Carolyn
December 2004