DES Action VOICE

A FOCUS ON DIETHYLSTILBESTROL

SPRING 2006 #108

Inside

Tips For Finding A DES Knowledgeable Doctor

by Sally Keely

Today's mail brought me bad news. My gynecologist is getting married. Well, that is not the bad news, but it means she is moving her practice across the country. Once again I am forced to look for a new gynecologist.

Finding a DES-knowledgeable gynecologist can be a daunting task for DES Daughters. How does one go about it?

In the past I have tried just picking one randomly from my insurance company's list. Unfortunately, all too often the physician either doesn't know much about DES or thinks it is a "thing of the past." Sometimes I have found doctors willing to learn, but this is not the best of situations.

I would like my gynecologist to be current on recent DES research, be able to share with me any new studies on DES exposure and be eager to read any article that I bring to her/him. Am I asking too much? Maybe, but I at least would need my gynecologist to be experienced in performing the special pelvic exam recommended for DES daughters (see www.cdc.gov/DES/consumers/do/protect_daughters.html for details).

DES Action can easily email you a description of the proper DES exam by requesting it from desaction@columbus.rr.com. If you'd like a hard copy version, just send a stamped self-addressed envelope to the office and mention that you'd like the DES exam fact sheet.

It seems that for one reason or another every few years I find myself in search of a new gynecologist. Here I wish to share ideas of how I have gone about that important pursuit.

First and foremost, DES Action can help! We can provide you with a list of doctors, organized by state, that have been recommended by other DES Daughters. Using this list ten years ago, I found a wonderful gynecologist who has since retired.

Second, you can generate a list of potential physicians and then screen them yourself. I intend to undertake the task this month. I will use names from DES Action's referral list, my insurance company's preferred provider list, gynecologists on staff at my local teaching hospital, and recommendations from friends, especially those who are also DES-exposed. Don't neglect nurse practitioners who can be very well-versed in the needs of DES Daughters.

I will do some light Internet research on each of the names on my list, looking for things such as educational and training background, length of time in practice, and certifications by the American Board of Obstetrics and Gynecology (www.abog.org). Many states post medical quality assurance information to the Internet, including malpractice suits, com-

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Ectopic Pregnancy Risk for Infertility Treatment

Reviewed by Fran Howell

Many DES Daughters turn to Assisted Reproductive Techniques (ART) in an effort to expand their families, so this study will be of particular interest to them. While it doesn't break out statistics for DES exposure, it does shed light on important risk factors to consider.

"Ectopic Pregnancy Risk with Assisted Reproductive Technology Procedures," by Heather Clayton, MPH, Laura A. Schieve, PhD. et al, *Obstetrics and Gynecology Vol. 107, No 3, March 2006*

The rate for ectopic pregnancies during infertility treatments is 2.1%, which is comparable to the ectopic rate of 2% in the general population. What Schieve, from the Centers for Disease Control and Prevention, and her associates learned is that women with abnormalities of the fallopian tubes are at higher risk.

Ectopic (sometimes called tubal) pregnancies are gestational sacs that develop outside of the uterus, often in the fallopian tubes. They can cause the tubes to rupture and can be life threatening for the mother.

The researchers studied 94,118 pregnancies listed in the CDC's ART Registry from 1999 to 2001. What they found was that abnormalities of the fallopian tubes raised the risk for ectopic pregnancies. "Women with tubal pathology were 2.0 times more

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DES Action

DES Action USA
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Join On Line Support Groups for DES Daughters or Sons

Want to be in touch, via e-mail, with other DES exposed individuals? As a benefit of being a DES Action member you can join either the DES Action Daughters On Line Support Group, or the one for Sons. That way you can ask questions and share experiences common only to those of us who are DES exposed.

To join the DES Action On Line Support Group simply send a blank e-mail to:
DESactionDaughters-subscribe@yahoogroups.com

To join the DES Action Sons On Line Support Group simply send a blank e-mail to:
DESactionSons-subscribe@yahoogroups.com

You'll receive an e-mail back from Yahoo! Groups confirming your request to join. It offers two registration options and the easiest is Option 2. Click "Reply" so the note is sent back.

Once we've checked to be sure you are a current DES Action member, you'll receive a welcome to the group letter explaining how to send messages. Then you can participate in the e-mail conversations, or just quietly read and enjoy the learning experience.

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MISSION STATEMENT
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Finding a DES Doctor *from page 1*
plaints, and disciplinary actions brought against the physician. (A good example of how to find this information is the NY state health department site at www.health.state.ny.us/nysdoh/opmc/howto2.htm.) There are also consumer comment sites such as www.RateMDs.com. Take this one for what it is worth as DES Action does not endorse it. Still, I look for information everywhere and anywhere I can find it.

Once I have narrowed my list, I call the office and ask for a fax number. How the office staff conduct themselves (efficiency, politeness, etc.) matters too!

Next I fax off a letter containing two specific questions regarding DES to which I know the answers that I am hoping to receive. Your questions, of course, may vary. Mine are:

1. When performing a gynecological pelvic exam, in what ways, if any, is your exam different on a DES Daughter from a non-exposed woman?

2. What is your usual course of treatment on a DES Daughter with CIN I or CIN II?

Roughly, in response to the first question, I would look for knowledge of the special DES exam. In particular, a "careful inspection of, and Pap smears from, not only the cervix, but all four walls of the vagina." To the second question I would like to hear the doctor's approach be to, "wait and watch carefully, re-checking every 3 months," and NOT "cryosurgery, LEEP, or other treatments." This is particularly true especially for CIN I which can regress naturally in a couple of months without medical intervention.

CIN stands for ***cervical intraepithelial neoplasia*** also known as ***dysplasia.*** Cervical dysplasia is the presence of abnormal pre-cancerous cells on the surface of the cervix or in its canal. In mild dysplasia (CIN I) only a few cells are abnormal and in moderate dysplasia (CIN II) there are more (about one-half the thickness of the surface lining of the cervix). In severe dysplasia or carcinoma-in-situ (CIN III) the entire thickness of cells is abnormal but they have not yet spread below the surface. Without treatment, CIN III can progress to invasive cervical cancer.

There is some evidence that this progression from CIN I to CIN III can occur in DES Daughters more rapidly than in non-exposed women. Therefore it is important to get an early diagnosis and then watch carefully for progression or regression of the condition.

I have typically received replies from about 25% of those sent. The responses are usually hand written and quite enlightening! From those, I make my choice and first appointment.

I hope some of the ideas I have shared with you today help you find an excellent gynecologist with whom you can have a long-term healthy relationship. DES VOICE

Sample Letter

Dear Dr. xxx,

I am a prospective patient looking for a new gynecologist. A colleague recommended you to me. Your background is quite impressive. I hope you can take a moment to answer a couple of questions for me. I am a 42-year old DES Daughter (exposed to diethylstilbestrol in utero) with no history of cancer.

1. When performing a gynecological pelvic exam, in what ways, if any, is your exam different on a DES Daughter from a non-exposed woman?

2. What is your usual course of treatment on a DES Daughter with CIN I or CIN II?

If you could be so kind as to reply by fax (your fax number here), email (your address here) or snail-mail, I would really appreciate it. I know your time is valuable, so thank-you in advance for your consideration.

Sincerely,

Please note: If you prefer to snail mail your questions to the potential physician, rather than fax them, then include a Self Addressed Stamped Envelope to increase your rate of return. From my experience I have had my best success using a fax.

Know A Good Doctor?

Do you have a doctor you like? If so, please don't keep it to yourself. We need additions to our Physician Referral List. By sharing doctor names you can help others in the DES community! Having a doctor you trust is so important, and good ones are not always easy to find.

Call our **toll free hotline at (800) 337-9288**, or email us at **desaction@columbus.rr.com** with your good DES doctor referral, including name, address, phone number and specialty. We'll add the name to our list and you'll know you've helped someone else.

Thank you!

ASK *the* EXPERT

The *DES Daughters On Line Support Group* collected questions regarding DES litigation, which we posed to a respected DES attorney.

Patricia Martin Stanford, Esquire, concentrates her practice on personal injury law, with an emphasis on pharmaceutical product liability actions on behalf of individuals injured as a result of DES exposure. She has successfully handled claims and obtained financial compensation for DES-related reproductive tract injuries resulting in cancer, infertility, ectopic pregnancy, miscarriage, premature birth, injuries to children born prematurely, and wrongful death.

We learned quite a bit about the complicated world of DES lawsuits and thought many of you would be interested, too.

If you are a DES Daughter, and a DES Action member, please consider joining our *On Line Support Group*. See page 2 for easy directions.

Q Can you give an overview of the legal process when going after a drug company?

A The longest and sometimes most challenging part of the process actually takes place before a lawsuit is ever filed. Putting together all of the evidence necessary to state a viable DES claim can be daunting, primarily because of the difficulty in locating records and witnesses. We must prove exposure to the drug (diethylstilbestrol or dienestrol, not simply "DES" anymore), the identity of the manufacturer (in most states), that your injuries were medically caused by DES, and what your damages are. Most states have no requirement that medical records be kept any longer than 7 years. We also have to locate records, or a living witness from your birth year, who can testify what brand of DES was taken. And of course, we must obtain your complete medical records.

Once the assembly of necessary information is complete, suit is filed in the most favorable jurisdiction possible. Which court your case is filed in dictates to a large degree how long the process takes. Typically, it is from 12-24 months, but this can change if your case is transferred to a different court, or if the defendant files motions to dismiss. Your part of the process requires relatively little time in comparison. We need your input for factual information, to fill out written questions from the defendant(s) (called interrogatories), to prepare for your deposition, and the actual appearance at deposition. Most of your input is at the beginning of the case and at the midpoint when your deposition is usually taken. Other than that, there is not a lot of day-to-day involvement. However, you may be asked to provide updated information, help us locate records or keep track of your medical expenses and lost wages.

Q What are the components needed for a successful DES suit? Cancer? Infertility? Anatomical changes like a T-shaped uterus? Others?

A The four main elements that must be proved in a DES case are: proof of exposure to the drug, proof of the brand of the drug ingested by your mother (in most jurisdictions), medical evidence proving that your conditions or injuries were in fact caused by your DES exposure, and proof of the physical, emotional and financial damages you have sustained. Those basic elements are required in every case, regardless of the type of injury involved. The epidemiologic (scientific) proof of a connection between your injury and your exposure differs according to the type of injury. The strongest correlation is between clear cell adenocarcinoma of the vagina (secondarily, of the cervix). For infertility claims, the scientific evidence of a connection is not as strong, so it is important to be able to rule out as many other possible causes for the infertility (such as male factor, ovarian dysfunction, past pelvic infections, other non-DES-related conditions like thyroid disorders or PCOS). We also must show that some anatomic abnormality caused by your exposure (T-shaped uterus, hypoplastic uterus, short or incompetent cervix) was the cause (or significant contributing cause) of the bad outcome…whether it is infertility or poor pregnancy outcome (such as miscarriage, ectopic, preterm delivery). Simply because you were DES-exposed and are infertile or suffered miscarriages is not enough to bring a legal claim. We must show that your exposure caused anatomic problems, which in turn led to the outcome. Conversely, the existence of

uterine or cervical abnormalities without resulting damages does not support a claim. For example, if you have been diagnosed with a short cervix or a T-shaped uterus, but go on to have a successful and uneventful pregnancy, you will likely not have a claim worth pursuing. This need for proof of legal and medical "causation" is often difficult for DES Daughters to understand.

As many of you probably already know, a 2002 study showed an association between breast cancer in DES Daughters over 40 and their exposure. Because the number of cases in the study was low, experts have not yet been willing to testify that there is sufficient "proof of causation." However, I am presently working with several different experts on this issue and hope to be able to put together the first DES breast cancer claim in the near future.

Q Is it important for the DES Mom to be involved? And what about medical records from 50 years ago?

A It is definitely helpful if the DES Mom is able and willing to be involved in a case. Over the last couple of years, drug companies have been much more aggressive in how they defend cases, so a mom's testimony can literally make or break a case. As you note, records from long ago are harder to obtain as most have been destroyed. Under some circumstances, we are able to use a DES Daughter's early GYN or pediatric records if they note DES exposure. However, the companies are now arguing that proof of "DES" exposure is not sufficiently precise. In much of the medical literature and studies that provide our proof that DES causes injury, the drug is referred to generically as "DES" and covers the whole category of synthetic estrogens. There are a number of different chemical variants of DES, including diethylstilbestrol (from whence the term originated), dienestrol, hexestrol and others. Diethylstilbestrol (or "stilbestrol" as it was often called by doctors) was by far the most common of these drugs to be used. However, unfortunately, these different drugs were made by different companies so it is now becoming more important to either locate the prenatal records that specify what was prescribed, or hope that the mom is able to testify that she took Stilbestrol or Dienestrol as opposed to her simply recalling the term "DES." In years past, we were able to proceed even if the mom recalled only that she was given a medication to prevent miscarriage. This kind of testimony now often provokes a motion to dismiss for failure to show sufficient proof of exposure to the specific drug taken.

Q How important are pharmaceutical records to a DES case?

A Of course, the more evidence, the better in any case. However, the odds are about 99.9:1 that we will not find pharmacy records in a DES case, due to the length of time since exposure. This is typically not a problem, provided we can locate some type of evidence that strongly implicates a particular manufacturer. For instance, in rare occasions, doctors prescribed DES by brand name. There are certain obstetric practices that we know from experience used, e.g., Stilbetin (the Squibb brand) or Synestrol (White Lab's brand of dienestrol), a variant of DES with the same effects). Sometimes, the DES Mom can recall specific characteristics of the pill that can serve as proof of identification, although the defendants have become quite adept at challenging this type of recollection evidence. Our greatest success on product ID has been in locating pharmacists (or other employees) from the dispensing drugstore. Surprisingly, they usually have a very good memory as to the brand or brands they dispensed. Of course, they may also claim lack of recollection when they don't want to get involved in litigation, or if the defendant(s) in a case have convinced them that their recollection is suspect. DES VOICE

Ectopic Pregnancy Risk *from page 1*

likely to have an ectopic pregnancy than women treated with ART because of male factor infertility. Endometriosis conferred a modest risk."

The study also showed, "the ectopic rate among fresh nondonor IVF-ET (in vitro fertilization with transcervical embryo transfer) treatment cycles, which is the most widely used type of ART, was 2.2%. In comparison, the ectopic rate among fresh nondonor ZIFT (zygote intrafallopian transfer) procedures was significantly increased, at 3.6%."

According to researchers this is perhaps somewhat intuitive because zygotes are transferred into the fallopian tubes in ZIFT. But it is interesting to note that they did not see an increase in ectopics with the GIFT (gamete intrafallopian transfer) procedure.

A zygote is a single-cell fertilized egg, formed by the union of a sperm and an ovum. If all goes well, the zygote develops into a multi-celled organization called an embryo. That name is used until the beginning of the third month of pregnancy. After that it is termed a fetus.

Other study results show that transplanting one or two embryos with higher estimated embryo implantation potential had a decreased risk for an ectopic. But transferring three or more embryos increased the ectopic pregnancy risk, even when the embryos were considered to have a high estimated implantation potential.

That leads the researchers to call for more studies into what role embryo characteristics play in the incidence of ectopic pregnancies during ART.

In this study, women who had a prior birth were less likely to experience an ectopic pregnancy during ART. But a woman's age, or the fact she'd had a previous miscarriage did not raise her ectopic risk.

While DES Daughters are known to be at higher risk for ectopic pregnancies in general, we don't know if that translates into an increased risk during infertility treatments. It is something DES Daughters need to take into account during discussions with their infertility specialists. DES VOICE

Hormone Replacement Therapy — A Review of the Latest Research

Reviewed by Pat Cody

Recent studies on HRT in post-menopausal women are of interest. All of these reports are on women in general, not specifically DES-exposed women.

*** "Hormone replacement therapy is associated with decreased survival in women with lung cancer," A.K. Ganti et al, *Journal of Clinical Oncology*, 1 January 2006.**

Up to now, no study was done on whether HRT had an effect on lung cancer survival. Since this cancer is the leading cause of cancer-related death in women (73,020 in 2006 out of 79,560 lung cancer diagnoses in women), Dr. Ganti and colleagues decided to find out whether the use of HRT had any effect on the patients' survival. Among their group of 498 women with lung cancer between 31 – 93 years of age, 429 (86%) had been smokers.

Looking at these 429 patients, researchers saw that "women with lung cancer who received HRT were younger at diagnosis (median age 63) than women with lung cancer who never received HRT (median age 68 years at diagnosis). Over-all survival was significantly higher in patients with no HRT compared with patients who received HRT (79 versus 39 months)." In the non-smoking patients, the difference in survival between those who had used HRT and those who had not was much less – 98 months for those who did not use HRT compared with 92 months for those who did use HRT. The authors conclude that, "further studies examining the role of HRT use on outcomes from lung cancer, especially in women with a history of smoking, are urgently needed to clarify this important problem."

No ready explanation exists for why women smokers using HRT had such a significantly lower survival period than those smokers who had not used HRT. The authors note that estrogen receptors are present in normal lung and tumor tissue.

*** "Venous thrombosis and conjugated equine estrogen in women without a uterus," J.D. Curb et al, *Archives of Internal Medicine*, Vol. 166, No. 7, April 10, 2006.**

This study checked the health records of 10,739 women ages 50 – 79 who had had a hysterectomy. They were part of the large Women's Health Initiative and were randomly given either Premarin or a placebo. Eighty-five of the women prescribed Premarin developed deep vein thrombosis (blood clot) compared with 59 cases among women who had been given the placebo. Development of this condition was highest in the first two years of taking the drug or placebo.

*** "Menopausal hormone therapy may increase risk for specific breast cancers," L.U. Rosenberg et al, *Breast Cancer Research*, February 2006.**

This is a study of 2,289 women in Sweden, aged 50-74, who were diagnosed from 1993-1995 with three types of breast cancer — invasive ductal 1,888; lobular 308; and tubular 93. When compared with 3,065 controls, the cancer patients who had been on medium strength estrogen and progestin had higher risks for all three types of cancer. Those who had been on low-strength estrogen alone had an increased risk for lobular cancer, especially with short-term use.

*** *International Journal of Cancer*, online issue 16 Sept. 2005.**

Dr. Malcolm Pike, Keck School of Medicine, University of Southern California, reported on a study of whether hormone replacement treatment affects breast cancer rates for women of all races equally. Much earlier research surveyed only white women, which raised questions for women from other races.

This project evaluated over 55,000 menopausal women living in California or Hawaii in 1993: whites, blacks, Hawaiians, Japanese Americans and Latin Americans. All of these groups who were using estrogen-progestin (Prempro) had a 29% greater risk for breast cancer after five years of use. Those women using estrogen-only, had a 10% greater risk. The research also showed that thin women (body mass index below 25) had a slighter higher risk. DES VOICE

French Court Update

by Pat Cody

Two DES Daughters who developed clear cell cancer (CCA) have pursued a lawsuit against the drug company, UCB Pharma, since 1991. During that time the drug maker has appealed previous court rulings and kept the case tied up in litigation.

That changed in March 2006, when the French Supreme Court of Appeal rejected an appeal by UCB Pharma and ordered the drug company to pay court costs of $45,000 euros ($57,123), on top of the $15,244 euros ($19,350) damage awards the women had been granted earlier.

This decision means that French DES Daughters who suffered from CCA can file similar suits and expect similar results. However, the ruling has no impact on cases involving infertility or DES Grandchildren issues. Other DES lawsuits must work their way through the French legal system the way the cancer case did.

Research on Endocrine Disruptors in Connection with Breast Cancer

reviewed by Pat Cody

It's interesting to note that Bisphenol A (BPA) was synthesized in the 1930's during the search for a way to create estrogen-like compounds. The first signs of its effects came about in work done in England by Charles Dodds, who wrote about it in 1936 and 1938. Dodds and his colleagues then synthesized DES, which they found to have greater estrogenic power. BPA was put to one side for years, until chemists learned it could be used in the manufacture of plastics.

"Perinatal exposure to Bisphenol A alters peripubertal mammary gland development in mice," by Monica Munoz-de-Toro et al, *Endocrinology*, May 26, 2005.

The authors tell us:

"Over the last 60 years, humans have been exposed to a plethora of synthetic hormonally active chemicals either overtly because of their deliberate use in agriculture and medicine, inadvertently as byproducts of industrial use, or as waste released into rivers, lakes and the atmosphere. Environmental exposure to these chemicals has coincided with an increase in endocrine-related diseases of the male reproductive system, and with increases in testicular and breast cancer.

"Among the endocrine disruptors, BPA is receiving increased attention due to its high potential for human exposure. Used in the manufacture of polycarbonate plastics and epoxy resins, BPA leaches from food containers, beverage containers, and dental sealants and composites under normal conditions of use. BPA is also used in the manufacture of many products in addition to those stated above, which would further increase levels of human exposure to this compound. These reports suggest that humans routinely ingest BPA."

In the first study of its kind, these scientists wanted to learn about exposure to BPA on the pubertal mammary glands of mice. They discovered that the BPA led to "persistent alterations" in mammary gland formation, and that "of special concern is the increased terminal end bud density at puberty, as well as the increased number of terminal ends..., since these two structures are the sites where cancer arises in humans and rodents."

The lengthy and detailed description of how the research was done ends with a discussion section that includes these thoughts:

"What are the implications of these findings regarding human health? Surrogate animal models provide an understanding of human disease. Although the relationship between the two is not always direct, surrogate models are most useful when used to develop hypotheses linking exposures and health outcomes. They also increase our understanding of the mechanisms underlying these pathologies. For instance, the mouse model has proved to be a generally outstanding model of human DES exposure, thus providing a means to understand the mechanisms underlying the DES syndrome. This excellent performance strengthens the human relevance of the current findings in mice.

" Within this context, it is useful to speculate how the findings described here may also apply to humans. On the one hand, exposure to estrogens is a main risk factor for the development of breast cancer in humans and also increases the development of mammary cancer induced by chemical carcinogens in rodent models. Thus, the increased sensitivity to estradiol suggests that prenatal exposure to BPA may increase the likelihood of neoplastic (cancer) development. On the other hand, terminal end buds are the structures in which mammary cancer originates both in rodents and humans. The increase in the number of terminal end buds/ducts area is also consistent with an increased risk of breast cancer. Another well established risk factor for breast cancer is increased mammographic density....These correlations suggest that perinatal exposure to BPA in particular, and to estrogens in general, may increase susceptibility to breast cancer." DES VOICE

Our Stolen Future *from page 8*

tions, there's likely to be a large percentage. Those can be prevented by reducing exposures... Science is coming out with a convergence of endocrine disruption and fetal-origins of adult disease, giving us the opportunity to make sure that the next generation doesn't follow the same trend."

So what grade do these authors give our progress in developing new public policies and different approaches to secure the future health of the environment and humans? An "F" was issued by all three. As Theo Colburn put it while addressing the lack of focus by consumer health organizations on the *causes* of health problems and learning disabilities, "we want to speak 'prevention'."

Up-to-date information about current research into endocrine disruption and all the science addressed in the book can be found on the web site, www.OurStolenFuture.org. Another great site is www.EnvironmentalHealthNews.org. Visit these sites regularly! DES VOICE

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"Our Stolen Future," Ten Years Later

By Kari Christianson

For the past ten years, *Our Stolen Future* has been widely recommended by millions of consumers and scientists. Of special interest to our DES-exposed population, one chapter ("Hormone Havoc") linked the history of DES exposure in humans to similar changes in the environment caused by endocrine disruption. The tenth anniversary of this publication has given individuals, organizations and scientists the opportunity to pull together all three of the co-authors for their views on endocrine disruption today.

"Why is this book so important?"

With this question, Moderator Steve Heilig opened the CHE (Collaboration for Health and the Environment) Partnership conference call on March 22, 2006. (A complete transcript of the call is available at www.healthandenvironment.org.) The authors of Our Stolen Future are: Theo Colburn, Ph.D., The Endocrine Disruption Exchange (TEDX); Dianne Dumanoski, former reporter for the Boston Globe; John Peterson Myers, Ph.D., CEO of the Environmental Health Sciences. All three co-authors provided introductory remarks and answered questions from some of the over 200 teleconference participants.

A sampling of their remarks includes:

Theo Colburn: "Since the book came out 10 years ago, vast evidence has accumulated confirming that we are in far deeper trouble than we ever anticipated while writing the book. 'Our Stolen Future' definitely understated the problem."

Dianne Dumanoski: "Chemicals that disrupt hormones and other chemical messages were an obscure phenomenon known at the time to only a small circle of scientists. We wanted to shine a spotlight on the problem, to get public attention, and to put the question on the public policy agenda. We hoped public concern would translate into more money for research — the research needed to answer the questions and better assess possible hazards.... "

Pete Myers: "You can look at this as a daunting issue, which it is. But I frankly also look at the emergence of the scientific understanding as a source of great hope. Collectively, science is linking environmental exposures to a wide array of health problems that today are imposing huge costs on society. In none of those are 100% of the cases likely to have been caused by exposure to endocrine disruptors. But some percentage is, and in some of the condi-

continued on page 7