

Center for Mind-Body Medicine
COMPREHENSIVE CANCER CARE 2001: INTEGRATING COMPLEMENTARY &
ALTERNATIVE THERAPIES

KEYNOTE/PLENARY: Integrative Therapies: Moving the Field From Quackery to
Quality

SPEAKER: David Rosenthal, M.D.

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P R O C E E D I N G S

DR. GORDON: Our keynote speaker for this morning is Dr. David Rosenthal.

One of the major goals that we have and had right from the beginning, from the time we began to think about this conference in 1996, and then the first conference was 1998, was really to find a way to bring together open-minded, thoughtful leaders in oncology, leaders nationally and internationally in conventional cancer care, with people in the world of complementary and alternative medicine, to create as much of a dialogue as we possibly could so that we could really open our minds our hearts to one another, learn from each other, and work together with our patients to create a truly comprehensive and integrative cancer care.

And right from the beginning, David Rosenthal has been an active partner, and in fact a leader, in that work, and has really helped in this conference, and I think has helped the field in a very significant way. He's a former president of the American Cancer Society. He's professor of medicine at Harvard, director of Harvard University Health Services. And when Harvard opened its first program for integrative therapies, the Zakim Center, David became the first medical director, founding medical director of that program.

So he's somebody who's stepped out front, somebody who's said from the beginning, we need to know more about what this about. We need to approach in an open-minded and thoughtful way. And on top of that, he's won the poll among the Center for Mind-Body Medicine Staff as the nicest presenter to work with, which an important distinction as well.

So it's been a pleasure for us, all these years, David. And once again, it's a pleasure to invite you to give this opening keynote. (Applause)

DR. ROSENTHAL: Good morning. Thank you, Jim. I think what I'd like to do is take you home with me and so you can talk to my bosses as someone who gives great introductions.

It really is a privilege and an honor for me to be with you today at this conference on Comprehensive Care 2001. What I'd like to do is give you a brief outline of what I'll be talking about this morning.

I'll talk a little bit about the history of CAM, the definitions. I think there are problems with definitions, and I think we need to solve some of the problems we currently have with existing definitions. We'll go into driving forces. Why has this become of such public and professional importance at this point in time?

People always ask me, well, how did you get involved in the study? And I will present a little bit of information about my mentors in this field. We'll talk about what I'd like to spend the emphasis on, which I think this conference spends the emphasis on, is integrated cancer care. What is that? What is the formed vision or the almost completed vision of integrated cancer care? Finally, what are the obstacles in getting there? And there are obstacles, but they are conquerable and achievable. I think we can do it. And so we will talk about the future.

We all have the same goals. The major challenge that we have is reducing the mortality of cancer. 500,000 and more die each year from cancer. We all want to reduce the incidence of cancer: 1.2 to 1.3 million new cases of cancer in the United States each year. And at the same time, we want to improve the quality of life of the millions -- of the millions of surviving cancer patients.

That's our ultimate goal. That's what we want to do. That's what we all want collectively to do. And we're gaining, we are getting there, but how do we get there ultimately?

What is the history?

When I -- the history is certainly a dramatic one. It was not too long ago I attended a meeting of the American Cancer Society Committee on Quackery. In fact, notable clinicians in healthcare professions and administrators were involved in this committee. The committee was chaired by Helene Brown, who investigated claims of cancer cures. Next, the American Cancer Society changed the name from "Quackery" to "Questionable Methods of Therapy." Later on, it became known as the Unproven Methods of Therapy Committee. More recently, approximately 5 years ago, the American Cancer Society adopted the term CAM.

Many institutions have further delineated clinical services under departments and divisions

of all integrative therapies, referring to their centers as integrative centers.

In patients with many chronic diseases, and especially cancer, the use of complementary and alternative therapies is extremely high. Surveys have shown that close to 60 percent of people with chronic diseases such as cancer use one form of complementary therapy or another. And many, fortunately, do this alongside of

conventional therapy. Surveys reveal that although undergoing conventional therapy, patients maybe do not discuss this use of complementary therapies with their physician because they fear of the dissatisfactory response from the clinician, or as we learned yesterday from a recent survey by David Eisenberg, that the public's concerned that they don't need to know what I'm doing.

Times are changing, however. According to a study published recently in the JAMA, Journal of the American Medical Association, an estimated 42 percent of adult Americans, about 83 million people, used at least 1 of 16 CAM therapies the previous year, and spent approximately \$34 billion. Most of this money is out-of-pocket. As we know, most insurers do not cover any of these costs. The trends in use and cost are going up, as the number of people in the United States using therapies such as these continue to increase.

Before going any further, I said I wanted to talk about definitions.

When I talk about "complementary," I first started the terms, I used "complementary," "alternative" and "integrative" therapies.

Therapies that patients use, along with conventional medicine, also referred to as supportive therapy, that have been shown or proven to relieve symptoms or improve the quality of life. Alternative therapies are unproven therapies, because they have not been scientifically tested or are not evidence-based. In some cases, they were tested and even were found to be ineffective.

Alternative treatments are used instead of conventional treatment and could cause the patient to suffer either from lack of healthful treatment, from delay in treatment, or from direct harm of toxicity.

The newer term "integrative therapy," refers to the use of evidence-based proven therapies together with complementary therapies. As I said, we'll talk more about the meaning of IT as integrative medicine services are becoming part of cancer centers throughout the country and hospitals as well and also cancer ambulatory groups.

"Integrative therapies" could be the term for the future direction. And I hope we're all at the end of this meeting aspire to that.

Why now? Why now, in 2001, do we have over 1,200 people at this conference? And each year, it continues to grow, despite the trying times that we're currently in? Eastern medicine and naturopathy have been around for centuries, if not millennia. Why have CAM and integrative therapies taken on such a degree of clinical and social importance over the past several years?

There are at least five driving forces that I referred to for the popularity and use of CAM -- at least five, and I'm sure that you can come up with some more.

First, currently, this is a billion- -- billion-dollar industry. It's become a multibillion-dollar industry. Hundreds of methods of therapy are marketed specifically to people with cancer, as well as to people with other chronic ailments. It is not uncommon to go into any store, drugstore, food store, and find herbs, vitamins, and minerals that are being sold over the counter and -- sold over the counter and being unregulated by both the Food and Drug Administration and the Federal Trade Commission.

The second driving force increasing public pressure with empowerment for wellness by the public. Because of the marked public awareness through advertising and word of mouth, because of thousands of pieces of information sent immediately over the Internet and through other media, successes with one form of therapy or another, they are quickly learned. Whether a person hears about the prevention for Alzheimer's, common cure for cancer, or another claim, that message gets transported very quickly to our current communication system in the United States.

A third driving force: Increasing government support for clinical research and basic research. You heard from Dr. Straus. Yes, it's a little over \$100 million. Compared to cancer research by the federal government, it's a very small percentage. But if you look at the curve that Steve Straus shows you, it's increasing at a logarithmic rate.

The government has responded to the public pressure by initially forming the Office of Alternative Medicine, as we heard, and now the NIH Center, the National Center for Complementary and Alternative Medicine. This is the carrot for our researchers, biologists, physicians, and cancer researchers.

In cancer, both the National Institute and the National Center for CAM have been empowered by the legislature to provide funding for research. And that funding is accelerating. Recent requests for applications, Dr. Straus just showed you, to study barriers that exist for the integration of these therapies with conventional therapies -- the consequences of drug-drug interactions or drug-herb interactions. This government has been a stimulus for many, many medical centers to become involved in clinical invasive research.

A fourth driving force for the importance of integrated therapies, and that is the lack of cure. Certainly, the lack of a cure for a chronic disease such as cancer is a driving force that leads many people to search for that cure. As Dr. Straus said last year at this conference, "The plural of anecdote is not evidence. Anecdotes can be impressive and convincing to someone who has just been told they have incurable disease. But we have to put those anecdotes to the test."

And the fifth driving force, or my fifth driving force, is an obvious one: The difficulty with our current healthcare system. Yes, our healthcare system is currently in chaos. It's in revolution. It's reforming. And at the same time, it's escalating again, once again, at double-digit inflation. Costs are now going up at double-digit increases. People are looking for ways of self-care. What better way to do than to turn to your local stores and

look for complementary and alternative methods of therapy? Self-help is what we call that. It's not all bad.

Well, these are the driving forces that make this issue so front and center at this point in time in the practice of medicine and in our general well-being. But how did I get involved in this? I have two mentors: Dr. William C. Maloney, a hematologist, and my father. It was in great part because of these two mentors. When I first told people that I was going to become the medical director of the Zakim Center for Integrative Therapies at the Dana Farber Cancer Institute, one of my senior colleagues commented, "Oh, Rosenthal, so now you're going to be giving antioxidant enemas." (Laughter)

That's an obstacle. That statement betrays the continued sentiment from some members of our medical profession about complementary and integrative therapies. Whether it's a problem in understanding the field, the research, and the education, I don't know. But it points out, we have a ways to go.

Dr. Maloney is one of my mentors. He gave tremendous attention to his patients. It was incredible learning experience for me to watch him tell a patient the bad news about the diagnosis of leukemia. And this started in the late '60s, early '70s. Many patients died of leukemia in the 1970s. By the end of 15 to 20 minutes of talking, discussion and responding to questions, the patient, after hearing Dr. Maloney and just hearing the fact that he had a fatal illness, he would get up from his chair or she, go across the room, across the desk, and give an occasional hug and a thank you to Dr. Maloney for giving me this news. Someone who has just been told they have acute leukemia and being thanked for telling that news.

For those who know Dr. Maloney, you wouldn't have referred to him as the hugging type. He did not give the feeling that we often hear today from the patient, however, that, oh, my doctor told me I have an incurable disease and there is no treatment for me; nothing can be done for me. My mentor, Dr. Maloney, told me how to support my patients, whether it be a simple holding of an arm or a shoulder while discussing an issue, or just the touch of a foot of a patient lying in bed while we were making rounds. That's important, and we hear more about that coming back today. My father is my other mentor in CAM. My father is now 95 years of age. He entered an assisted living facility at the age of 86 and decided that he wasn't going to sit around and just vegetate; he wanted to do something. He had always been a very active man throughout his life, a teacher of science, but unfortunately developed macular degeneration and a severe peripheral neuropathy, which left him with little feeling in his feet.

He agreed to take part in the study to determine if age is a limiting factor in increasing muscle tone and muscle strength. As a part of a division of aging study at Harvard Medical School and a nutrition study at Tufts University, my father volunteered to become part of a clinical trial. What did he have to do? He underwent a muscle biopsy, a CAT scan of his thigh, and then started on an exercise regime and in combination with nutritional supplements. After 6 and then after 12 months, follow-up studies were done. The final results were published in The New England Journal of Medicine and revealed

that even at the age of 90, even at the age of 90, you can still grow muscle. My father always has said, "It's never too late to begin."

My father became the poster boy for a program called "Fit for Your Life" -- the combination of lifting weights and the combination of nutrition. He's been played up in Walking Magazine and in another magazine, and he is truly my hero. I am my father's son. (Applause) I inherited my father's interest and also became involved in clinical trials and clinical research. My wife and I, when I was a medical student in the early '60s, took part in the oral polio vaccine trials. We knew that there were risks, but we also knew there were benefits. And indeed, this turned out to be quite beneficial.

In the early '70s, I took part in the hepatitis B vaccine. Yes, there were some people who died in that trial. This was a trial comparing hepatitis B vaccine, which had just come on the market with a placebo, so you either got the hepatitis B vaccines, the three doses, or you got an injection of a placebo. Well, I found out that my title went out and that I was randomized to the hepatitis B vaccine arm of the study. And certainly we knew and found out that there were some deaths from encephalopathy due to the hepatitis B. But certainly, the benefits far outweighed the risks.

And finally, as I think Jim is, and other Harvard physicians, I am part of the Harvard Physician Health Study, a study that began back in the '70s and consisted of taking an aspirin every other day or a placebo and a betacarotene capsule every other day or a placebo. So there were essentially four arms to the study and numerous physicians who took part in this study. You know some of the results. They've been published. But yes indeed, aspirin every other day did reduce the incidence of severity of heart attacks and strokes in men. And the Physicians Nursing Study has done the same thing.

The other arm of the study, the other part of the study, the betacarotene, was looking at the reduction in the incidence of cancer. And that, to date, has not shown any significant results. In fact, it did show one specific counterevent that was unexpected by the investigators, and that is, in those people who did take betacarotene and then also did smoke cigarettes, the incidence of lung cancer was accelerated.

Those are my mentors, and those are my interests in clinical research.

After serving as a member of the early committees of the American Cancer Society, and becoming aware of the rapid development of claims that they were being formed worldwide institutions that claimed cures of cancer, I became quite concerned that we all needed to know and learn more, and to understand the difference between complementary and alternative therapies. I began to hear stories of people being treated for cure of cancer by conventional therapy, who then, in attempt to prevent recurrences, used an alternative therapy or an unproven therapy. When no cancer returned, the patient then was left with a feeling that the latter therapy was what cured the cancer. For example, after lumpectomy and radiation therapy for early breast cancer, a woman decides not to go on tamoxifen. Instead, she has heard about iscador

or herbal therapy and felt that it might be the appropriate remedy to prevent her cancer from coming back. Conclusion: iscador cured the breast cancer.

Another example is a young man with advanced curable Hodgkin's disease, who has the majority of his planned chemotherapy completed. But he is so sick and tired of the nausea and the complications of the chemotherapy, that he refuses any further therapy offered. He and his family obtained 714X, a mixture of camphor and nitrogen. This was followed by the claims that 714X treatment is what cured his Hodgkin's disease.

There are those stories and others. People with severe, undifferentiated cancers, such as spindle cell cancer, that went outside the conventional healthcare system for the magic cure. Later, the patient might say, well, you know, Doc, they did try their best. And although my cancer is not cured, I do feel better."

These are the stories that we're hearing. They need to be interpreted in the right light, and these issues need to be discussed.

Do patients need to go outside the healthcare system? Are we as physicians driving patients to do that?

I did become chair of the Advisory Committee on Complementary and Alternative Medicine, and have tried to, most importantly, do a lot of education to the public.

I'm also the director of a healthcare service for 35,000 people at Harvard University -- faculty, staff, retirees, and students. And together with my other job as the medical director of the Zakim Center, I have been able to see what integrative therapies and complementary therapies can really do. Right now, for example, in the college campus, it is stretched out. Stressed out, not stretched; it's stretched, too, but it's stressed out. College students, being away from home, hearing what's going on nationally and internationally. We started a mind-body program at the college and for our faculty and staff as well. Before midterm exams, we had a health fair and offer massage therapy, mind-body programs. Herb Benson comes over before midterms, and believe it or not, the students say, gee whiz, I lost my migraine headache. I feel much better. I'm sleeping. So I began to see some of the realities of some of the integrative therapies that are being used.

I, recently as a year ago, became the medical director of the Zakim Center for Integrative Therapies. And I'll tell you a little bit more about that. But this has also allowed me to be involved in helping cancer patients who are in conventional therapy, dealing with prevention of relapses, tolerability of their chemotherapy, and improving their quality of life.

As I said, I'd like to focus on what is integrated care? And believe it or not, it is no mystery. What is integrated care?. It is patient-centered care. It is shared decisionmaking. And finally, it is empowerment, empowerment for the patient, and a working relationship with physicians.

I don't know how many of you know about the Leonard P. Zakim Bridge in Boston. If you don't, you should because you're paying for it. This is the billion-dollar dig in Boston, putting the Southeast Expressway underground and then having bridges come out at the end of Boston, so that you can get back and see the daylight after you've left Boston. But each of you, through your federal income tax, is helping to pay for Boston's big dig.

But one of the interesting things is about Leonard P. Zakim, whom our Center for Integrative Therapy is named after. He was the director of the New England Division of the Anti-Defamation League. He built bridges across the community. He developed multiple myeloma and was a patient of the Dana Farber Cancer Institute. One day, he came to some of his physicians and said, "Why aren't you doing some of the things that I'm used to and that help me: Massage therapy, acupuncture, reiki." That was the beginning of the Integrative Therapy Center at the Dana Farber.

Leonard P. Zakim was building bridges, not only between communities in Boston and New England, but also building bridges between physicians and patients. It's a beautiful bridge. You can see it at night all lit up. In a true testament to Mr. Zakim. People say that he lived for probably 5 years longer than he might of with multiple myeloma because of his integrative therapies. He certainly had good chemotherapy, but also relied on acupuncture, massage therapy and reiki.

Almost at the same time as the Zakim Center for Integrative Therapy at the Dana Farber got off the ground Harvard Medical School developed a new division. This is the Harvard Medical School Division for Research and Education in Complementary and Integrative Medical Therapies. This was established by the dean of the medical school even before he had any funding. It consists of a division for research and education, and consists of research, education, fellowship training, medical student training, curriculum, et cetera. It's amazing to know what has happened with this center. Harvard Medical School joined a number of other academic institutions -- there are probably now a growing number, close to 15 medical schools -- that have formed such departments or divisions within their institutions.

Last week, Harvard Medical School was pleased to receive a gift of a \$10 million endowment by a Bernard Osher. The Osher Foundation had just funded a similar institution or a division at University of California in San Francisco. And what he thought was that the East and West should combine, and so the eastern part of the United States and the western part of the United States should be working together in integrative therapies. We're all very pleased to hear that Dr. David Eisenberg has been appointed as the director and the Osher Chair of this new division at Harvard Medical School. Already Dr. Eisenberg has heard from over 400 faculty members -- and this was before the \$10 million gift -- over 400 faculty members who have expressed an interest and participation in integrative therapies.

What do we need to do as far as integrative therapy divisions or departments? We need to focus on three major areas: Clinical services education, and finally research.

Our future appears to be in good hands. The curriculum of our medical schools and at Harvard Medical School is changing. It is also changing in nursing schools. They're beginning to ask the same questions. Nurses and medical students are asking the same questions as the public and the patients are: What is CAM? What are integrative therapies? The students are anxious to work on changing the curriculum to include in any case study that they have mention of support for complementary therapies. They are trying to make every case study include some mention of acupuncture, a mind-body technique, or a question about drug-drug or drug-herb or antioxidant associated with radiation therapy issue. Our health services schools are a good place to start this investigation, and certainly our students in both medicine and nursing are getting involved.

What are those clinical services? Well, as part of our clinical services, what we're trying to offer -- and we're just quickly go through these -- acupuncture, reiki, therapeutic touch, mind-body interventions, meditation, relaxation response, and guided imagery. One of the most significant ones that I have seen and one of the ones that we have a current research study for is music therapy -- also expressive arts, exercise, yoga, and another study that's currently undergoing is Qigong, in measuring the immune effect of an exercise program. Nutrition services, nutrition consults. And here I might just pause for just a second to comment on what's going in nutrition. I'd love to see the USDA get rid of the food pyramid and focus on what we do put into our mouths and what we should put into our mouths. (Applause) Whether it's the five-a-day program that we recommend, we need to learn more. Nutrition, nutritional research, is unfortunately still in its infancy. I said that last year and I said that the year before, but unfortunately, it is. Dr. Walt Willett has recently written a book compiling all the basic evidence that currently exists with respect to nutrition. It's an excellent book, and I recommend it to you, but really would strive to get more of our researchers involved in nutrition.

Well, not all is rosy with integrative therapies, and we do have quite a number of obstacles. As I mentioned before, oh, Rosenthal antioxidant enemas. The old guard. We do have an old guard that is sometimes pretty stodgy and immovable. But we're working on that. We need to continue that discussion and argument.

Regulatory issues. One of the areas that we as physicians and hospitals and administrators must deal with are regulations, and everybody should be dealing with these regulatory issues. The Joint Commission of Accreditation of Hospital Organizations, the National Council of Quality Assurance, the Tavistock Agreement, the Institute of Medicine Principles of Healthcare. We all need to focus on those specific issues and make sure that no matter what we do, we're abiding by those principles.

The hospital credentialing and privileging practices: Yes, it was an effort, but we're getting there. How do you credential practitioners in the community? It's possible. It takes a great deal of work, but there are models out there. And that is being accomplished.

And yes, there are legal issues that we all must face. And that too is being accomplished, looking at what is the responsibility of us when we delegate patients and assign patients to various clinical practices that are outside of the regular, conventional therapies.

And then there are research issues, as far as obstacles and dealing with the anecdotes. And how do we take those anecdotes? How do we prioritize? How do we take and issue and say, hey, we've heard an awful lot about this; how do we put it to the test? And there are a lot of those anecdotes. How do we prioritize in our own way in the research arena in dealing with those anecdotes? The fundamentals of classic research, the burden of proof, is the way we should be continuing to do research.

Use of multiple unproven interventions is a very difficult problem. And we heard yesterday about ways that this can be accomplished. Again, working with our investigational review boards in hospitals, we can find ways to look at these unconventional therapies, but therapies that have been around for years and millennia.

And then there are the ethical issues. How do we balance the access to these new therapies, keeping in contrast with potential harm, just like what I went through with hepatitis B vaccination? How do we make sure not to do any harm, but also to make sure that we're not bypassing any potential -- to make sure that we do go by the guidelines of Phase I, Phase II, and Phase III studies? CAM research should be just as good as non-CAM research. Whether we study shark cartilage or we study angiogenesis inhibitors, we may see that they are the same thing.

It should not be, therefore, different than CAM to not be different than non-CAM. Traditional Chinese medicine versus Western medicine. Should they be joined at the hip? And finally, let me give you just one example. PC-SPES prostate cancer, "hope" in Latin, is a compound that was brought about by a men's support group for prostate cancer. Many of them had been using it. Some of them discussing it with their physicians. But on their website, they gathered in some information, and they did their own clinical study. They did their own survey and got help to do that survey from preventive health and epidemiologists. And this epidemiological study showed that PC-SPES looked like it had some effect. This then became a Phase I, Phase II trial. And indeed, in several institutions, almost six or seven institutions in the United States, PC-SPES was brought into the fore for a clinical trial. **(WARNING: Recent developments on PC-SPES have shown it to contain estrogens and other non-herbal remedies, which have the potential to be dangerous. This info was not known at the time of this conference. When reading about PC-SPES, keep this information in mind. For more information, see the [Washington Post Article from September 5th, 2004](#)[may require registration].)**

It is effective in both androgen and androgen -- and responsive and androgen resistant prostate cancer. But the question is now, is it any better than the currently used therapy? And that's a Phase III study that is now being performed in the United States. That's the type of example of how we can all work together.

The other obstacles -- credentialing, licensing, quality assurance, and accountability in recordkeeping -- are all in the fore of what we have to deal with.

But if we can go to the last slide, the very last slide, as I mentioned before, we all have the same goals. We are all trying to reduce the incidence of cancer, reduce the mortality of cancer, and improve the quality of life of our cancer patients.

We are going in the right direction. Those numbers are going in the right direction. You can continue until the last slide.

There has been some confusion, distrust, poor communication amongst the field. But we are making headway. We are collaborating. We are making better promises and better structure of our organizations. And the driving forces are leading to that.

As I said, there has been confusion. And I think we need to focus at this meeting on, what is integrative cancer care? How can we make sure it stays and goes to integration? The senator is absolutely right: We need integration. We need research. We need education. We need to continue to work on a final formed vision together. We have an almost formed vision, and I know we will soon have the formed vision. Hopefully at the end of this meeting, Jim, we will be closer to that formed vision, and I really want to thank you very much for making this platform of integrated cancer care possible for all of us.

Thank you. (Applause)

DR. GORDON: Thank you very much, David, for sharing your journey and some of Harvard's journey as well -- moving into this world, embracing the world of complementary and alternative medicine, and creating integrative programs in education and in research, and now in services as well.

One of the things I'd like to add is that we've seen over these 4 years -- and I think PC-SPES is a wonderful example -- 4 years at this conference, we've seen this process of evolution move ahead of therapies that were considered alternative, now very much becoming not only complementary, but indeed evidence-based. And there's a sense of all of us moving together. And you'll see in some of the sessions on updates, on PC-SPES, among others, and Alex Sun's work with Sun Soup and Nick Gonzalez's work with his therapy for pancreatic cancer, I'll think you'll see the progression since we began this conference.

(Tape interruption)

DR. GORDON: -- Some of the sessions coming up represent the state of the art. For example, what do we know about spiritual approaches or energy medicine or nutrition that we feel every clinician and every cancer patient should know? Other sessions are cutting-edge research, for example, on Omega 3 fatty acids, or David mentioned natural anti-angio-genesis factors. We take on some of the most difficult controversies and

some of the most important ones, like whether antioxidants should or should not be used in conjunction with chemotherapy and radiation. Should soy be used as part of a therapy for breast cancer when someone's been diagnosed with breast cancer?

The format of the sessions is very much set up, in the case of research, to present the new research -- the people who are doing the work, to present it to an open-minded, highly experienced conventionally trained oncologist and oncology researcher. Have an opportunity for comment and dialogue. And all the sessions are also set up so that there's ample time for all of you to participate in the sessions.

The other thing we try to do, even though the schedule is very packed, is to give some time for breaks, for you all to meet each other, have a little chance to have some time for yourself. So in that spirit, we're going to take a break, and they'll be a break for half an hour, and then the concurrent sessions will begin at 11, and then we'll be back here after lunch to be with Rachel Remen.

So thank you all for this wonderful morning. Thank you again, David. (Applause)

(Whereupon, the PROCEEDINGS were adjourned.)

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