

1 fit any of the protocols. Those are the things
2 that raise all kinds of questions of
3 capriciousness, and as many people have pointed
4 out, there ought to be a plan for dealing with
5 those, but someone, somewhere wants to try this
6 drug in a different tumor, that doesn't seem to
7 raise too novel issues, that sort of in some ways
8 happens all the time. This is more like a case
9 where the company isn't directing it, but that's
10 okay, they are not all-knowing.

11 DR. NERENSTONE: Ms. Linden.

12 DR. LINDEN: I would like to respond to a
13 couple of comments that have been made around the
14 table and also mentioned this morning and also at
15 the December hearing.

16 First, I would like to respond to Ms.
17 Platner regarding equity and justice, and that this
18 is the time to move on from focusing on those
19 issues. I am afraid--or I am not afraid--I
20 actually view those issues differently as a
21 bioethicist.

22 The way that I view them is that equity
23 and justice are ideals toward which we strive and
24 in any arena, whether it is experimental therapies
25 or democracy or what have you, we never accomplish

1 fully our ideals. We use them as beacons toward
2 which we are guided.

3 I would also like to respond to a comment
4 that Mr. Erwin made, as well as Dr. Williams, in
5 part of the discussion last December that has
6 really stayed with me over these past five or so
7 months, and that is the issue of communication.

8 Dr. Williams this morning
9 proposed--perhaps "proposed" is too hard a
10 version--suggested the possibility of a consensus
11 conference at some point to lay a framework for the
12 issues of treatment INDs and expanded access. I
13 think that is a wonderful idea, but I do believe
14 that we are very far from a time when it would be
15 appropriate to hold such a conference.

16 Bob Erwin's comment about communication, I
17 think is extraordinarily important, and the sort of
18 communication that I am most concerned about is of
19 the sort that was mentioned at the hearing last
20 December, and that is communication between and
21 among industry, PhRMA and its constituent members,
22 large pharmaceutical companies, and small biotech
23 start-ups, community members, activists, consumers,
24 physicians, the FDA, the NCI, HMOs, which have a
25 rather significant role in those communities where

1 they are dominant providers and how clinical trials
2 are enrolled.

3 I hope that the call for meetings where
4 these various stakeholders can get together and
5 begin to talk about their concerns, the fiscal
6 concerns that you mentioned, Dr. Taylor a few
7 moments ago, so that we can really begin to hear
8 each other and find out what our points of
9 agreement are, what our common ground is, and where
10 we have fundamental disagreements. That is not
11 going to happen at a consensus conference. A
12 consensus conference is for down the road in my
13 view.

14 Thank you.

15 DR. NERENSTONE: Mr. Dixon.

16 MR. DIXON: Yes. We have gone around and
17 around once again on this information and access,
18 and justice and equity point, and I would like to
19 remind everyone that we do have a statutory basis
20 for a clinical trials' database, which is largely
21 ignored by industry involved in FDA-related trials.

22 I would hope that this group would suggest
23 strongly to the agency that it work more
24 aggressively with industry to assure that those
25 trials are available on a database, so that

1 patients can find out about them wherever they
2 live. I think this would go a long way towards
3 answering some of these access questions.

4 I also think that if all cancer trials at
5 the FDA were within one office, so there were
6 similar rules across the board, that that would
7 also be a big step forward.

8 Thank you.

9 DR. NERENSTONE: Dr. Albain.

10 DR. ALBAIN: I do think, though, in
11 relation to the concept of a consensus conference
12 and national dialogue, that we are in a new era,
13 though, with our new agents, our molecular targeted
14 therapies, and, in fact, we are now seeing trials
15 open and close in 6 to 8 months with expanded
16 access trials opening before the investigators know
17 even the toxicity profile of the agent.

18 So, I think it is clearly necessary that
19 we rapidly reach some consensus about how at least
20 an expanded trial process should proceed
21 nationally.

22 DR. NERENSTONE: Dr. Sledge.

23 DR. SLEDGE: After hearing so many
24 wonderful discussions here, it is hard to add a
25 whole lot, but just three points, if I could.

1 First, the issue of justice. I mean in
2 essence in this very wonderful philosophical
3 discussion, we are basically talking about two very
4 different concepts of justice.

5 One is sort of utilitarian justice of, you
6 know, the greatest good for the greatest number,
7 which would suggest that justice is best served by
8 getting a drug onto the market as quickly as
9 possible, and therefore doing the best trials as
10 quickly as possible, and anything that holds it up
11 will delay justice for the majority.

12 The other form of justice, of course, is
13 individual justice, what can we do best for the
14 individual.

15 These really are very different concepts
16 of justice, we have got to recognize that.

17 Second, from a scientific standpoint,
18 leaving aside the issue of expanded access, which I
19 don't think is what we are discussing here, but
20 rather the use of single patient use setting, can
21 we get anything scientific out of single use
22 indications? My bias is no. My bias is no
23 because, first, the physicians who are involved in
24 the system as a rule of thumb are not clinical
25 researchers, and they are not used to or very good

1 at collecting clinical research data.

2 The patients, as a group, tend to be very
3 poorly characterized, and therefore, even the
4 adverse event data that you get out of these single
5 use indications I think is highly flawed and is
6 confounded by the patient's underlying disease in
7 most cases.

8 Is it possible that we might be able to
9 get some signal data from an efficacy standpoint in
10 terms of rare tumors? There, I suspect, yes, it is
11 possible. Certainly, if one looks at the history
12 of, say, a treatable cancer like testicular cancer,
13 where actually the initial signals did come out of
14 Phase I programs, and out of individual patients
15 responding remarkably well in a rare tumor, I think
16 it is at least possible that there may be at least
17 some potential for getting that sort of data.

18 Third, is a toxicity issue. We have
19 talked a lot about informing patients, but the
20 truth of the matter is that for drugs in early
21 development, we really don't have much to tell
22 patients about the drugs.

23 Talking about issues of informed consent
24 with patients with a drug that has only been
25 through a Phase I trial or very early Phase II

1 trial is pretty nonsensical, to tell the truth.
2 Most of the time we just simply don't know anything
3 about the range of activity of the drug, and we
4 truly don't know very much about the toxicity of
5 the drug. Most of the scary side effects that we
6 end up discussing with patients down the road, we
7 learn as a result of large Phase III trials rather
8 than Phase I and Phase II trials.

9 So, my bias is that a lot of the
10 bureaucracy that surrounds single use is pretty
11 much wasted bureaucracy. The sending of a protocol
12 to an Institutional Review Board, you know, the
13 informed consent discussions that go around this, I
14 think by and large really are done primarily for
15 lawyers rather than for patients. I am truly not
16 sure how much they benefit the average patient.

17 DR. NERENSTONE: Again, I have a question,
18 a point of information. Somebody raised a question
19 about centralizing the database for patient access
20 to trials.

21 Would someone comment about PDQ and
22 whether that has expanded access protocols listed
23 on that, does anyone know?

24 MS. DELANEY: We request that the
25 companies list their expanded access protocols in

1 the PDQ. Compliance with PDQ, in general, though,
2 has been very poor, as Carl Dixon said. There are
3 currently 1,850 clinical trials in the PDQ
4 database, and the number of industry-sponsored
5 trials in that database, the highest it ever got
6 was 200, and it is now going down again in spite of
7 the law that was passed.

8 So, this is the single largest place that
9 a patient can find out about an ongoing trial or if
10 they are not eligible for an expanded access
11 protocol that may be in there, they certainly can
12 find out about another trial they might be eligible
13 for, the compliance with it has been poor to
14 miserable.

15 DR. NERENSTONE: So, maybe one of the
16 suggestions can be that because the mechanism
17 exists, that drug companies should be encouraged--I
18 don't know if we can say required--to comply with
19 that in terms of helping them with their accrual,
20 as well as patient information about existing
21 studies. Because the mechanism does exist, we
22 shouldn't have to reinvent the wheel.

23 Other comments?

24 MR. DIXON: If I could just supplement
25 that, the statute on that particular database says

1 that they shall comply, so it is not a question of
2 whether industry wants to do it or not, the
3 database is there. It is just that they are not
4 doing it.

5 DR. NERENSTONE: Could you please
6 introduce yourself for the members of the
7 committee?

8 MS. TOIGO: I will. I am Terry Toigo.
9 Part of the law that Carl Dixon is referring to is
10 a section of the Food and Drug Modernization Act,
11 Section 113. FDA developed guidance and put out
12 guidance about a year ago. We will have another
13 guidance document available very shortly that will
14 tell sponsors how to get their trials into
15 clinicaltrials.gov, which is the database that the
16 government developed to respond to Section 113 of
17 FDAMA.

18 So, that will clear up any--we have
19 already given guidance on which trials need to be
20 put in that database. This will tell industry how
21 to get the trials into the database. It is
22 required, it is a law.

23 The reason they are not doing it--Dr.
24 Temple asked me how come companies are not doing
25 it--Congress passed a law, we are developing

1 guidance. We needed to get a mechanism in place
2 for companies to submit their trials, and that has
3 been now developed.

4 DR. NERENSTONE: Dr. Redman.

5 DR. REDMAN: Again, I am probably just
6 going to reiterate what Dr. Sledge said, you know,
7 there seem to be two issues here. The one that I
8 came prepared to discuss, I guess was the access to
9 investigational agents, not therapies, outside the
10 context of a clinical trial.

11 I think that process, that access does
12 co-opt the clinical trial, not that that person is
13 not being put on a clinical trial, but the fact is
14 you are making an assumption that the clinical
15 trial is through and you know the answer, and there
16 is some therapeutic benefit.

17 I really think that is a fallacy, and I
18 tend to agree that the whole process of single
19 patient use or access to an investigational agent
20 is a lot of waste of time, both at the regulatory
21 level and at the physician level, and there is no
22 information that is gained from that.

23 Some of the other comments, though, are
24 dealing with better access to clinical trials, and
25 I do agree, and there have been meetings at the

1 NCI, at CTEP, regarding this process. I think that
2 process definitely needs improvement, but I don't
3 think this committee is going to improve it.

4 DR. NERENSTONE: Dr. Linden.

5 DR. LINDEN: In response to the comment,
6 the clarification of the regs for the database, as
7 with any requirement, requirements don't hold a lot
8 of water unless there is enforcement, and I wonder
9 if there is or will be enforcement of entering
10 trials and updating information as it is
11 appropriate. That seems to me that it would be
12 quite essential.

13 DR. NERENSTONE: Mr. Erwin.

14 MR. ERWIN: Leaving the broader questions
15 of clinical trial design and expanded access and
16 just going back to individual access for a moment,
17 I think there is an additional perspective to
18 consider, and that is the hope by a lot of
19 scientists, and certainly families and patients,
20 that newer technologies will lead to more
21 efficacious products and the sometimes very
22 reasonable hope that what an individual is trying
23 to get access will, in fact, turn out to be one of
24 those.

25 For example, had it been necessary,

1 although I guess in many cases it wasn't, for an
2 individual to attempt to get access to Gleevec,
3 there is a good chance it would have been
4 beneficial, at least with the data that is
5 currently available today.

6 So, as more and more targeted therapies,
7 as they have been called, come along, the
8 importance to an individual of individual access
9 might actually increase.

10 I think that the mechanism that is in
11 place now, which the FDA very infrequently blocks,
12 where an individual's physician and a company can
13 choose to voluntarily provide individual access,
14 certainly works sometimes, and what we are talking
15 about is how to, one, make it fairer, to make it
16 perhaps less complex, perhaps streamline it, but
17 more importantly, to integrate it into the broader
18 context of the two forms of justice that Dr. Sledge
19 referred to.

20 The additional perspective I think we
21 ought to keep in mind is that the drive by families
22 and individuals to survive a disease like cancer is
23 going to go on no matter what policy decisions we
24 make, and, in fact, if individual access were
25 completely blocked, there would still be consistent

1 persistent attempts at access to something.

2 In fact, in the United States right now,
3 patients can get access through the legal clinical
4 trials mechanism, drugs that most of us in this
5 room probably believe do not work, and for which
6 those patients pay thousands of dollars in full
7 compliance with FDA regulations or at least close
8 to full compliance, and many of us consider those
9 particular kinds of trials to be fraud, but they
10 happen to fit within the legal framework that has
11 been set up.

12 Alternative therapies are another whole
13 category. People fly overseas for all sorts of
14 bizarre treatments. So, that demand and that drive
15 for a cure, as unreasonable as it may be, needs to
16 constantly be factored back into the decisions that
17 are made, particularly when there is an attempt to
18 provide guidance and education, because they are
19 not going to go away and in the face of advancing
20 technology, that hope will continually be fueled
21 whether it is false or not.

22 DR. NERENSTONE: Dr. Spiegel.

23 DR. SPIEGEL: Listening, I would concur
24 with some other speakers that there seem to be a
25 lot of issues on the table including general access

1 to clinical trials, participation in either the
2 government or there are many--I think there are
3 still some around that are trying to make public
4 databases and for-profit companies that have some
5 very clever ideas about how to overcome some of the
6 issues that have been raised with the government
7 databases and providing a third party who could
8 screen patients for companies who could post their
9 trials, but I think that is a different consensus
10 conference.

11 What I wanted to mention was I think both
12 in the December meeting and on 60 Minutes, but what
13 we have heard is probably a very appropriate level
14 of frustration that it is hard for people to
15 penetrate both Big Pharma and little biotech
16 companies to understand what stage drugs are at and
17 whether any single patient exemption is available.

18 I am certainly taking home something that
19 we could all do is to just challenge our own public
20 relations departments to see if our web sites or
21 800 numbers could be more clear, so that people
22 could even get a fast answer, that we do not at
23 this time have a compassionate use or an expanded
24 access program for any indication for a drug if it
25 is at a very early stage of development, just to

1 give people answers, so they don't feel they have
2 to keep knocking on doors.

3 I would like to raise a different issue,
4 though, and I guess I would ask Dr. George or
5 maybe, I know Dr. Temple has thought about this
6 often, is just to go to the concept of equipoise
7 that we apply when we do a clinical trial, we
8 convince ourselves that it is ethical to randomize
9 to standard therapy versus experimental because
10 nobody knows the answer, that one arm of the trial
11 is better than another.

12 But somehow when it comes to a
13 compassionate use, we seem to be saying if I am
14 doing a trial that has 25 inclusion and exclusion
15 criteria, and a patient is not eligible, but I am
16 doing the trial to find out if it works in that
17 disease, somehow I should be considering
18 compassionately that somebody whose creatinine is
19 too high or had too many prior therapies should
20 have access to compassionate use when there is
21 really no evidence, you know, by the usual criteria
22 of evidence, that it is likely to work. So, I
23 don't know if our statisticians or people who have
24 thought about clinical trial development would want
25 to comment in that.

1 DR. GEORGE: A brief comment. There is
2 one issue that you brought up obliquely there is
3 the issue of eligibility criteria in clinical
4 trials, which is something else off the topic here,
5 but I guess it is relevant in some indirect ways,
6 that I think it is true in cancer particularly that
7 the eligibility criteria are often too rigid.

8 That is, there are too many eligibility
9 criteria. That, of course, then leads to the
10 situation of people saying, well, not many people
11 are entered on clinical trials in cancer, and one
12 of the reasons is they are not eligible for the
13 clinical trials that are available. I mean there
14 are trials that are there, but they can't get on
15 them because they have a long list of eligibility
16 criteria.

17 But it is just the issue of whether, then,
18 not meeting the eligibility criteria, why people
19 seek these compassionate use or whatever we call
20 them mechanisms is just a human one, I think.

21 DR. NERENSTONE: Dr. Williams.

22 DR. WILLIAMS: You may wonder why we
23 titled this single patient use. It was really to
24 try to focus on the questions we asked here, which
25 is the dilemma that we are often faced with, is

1 when should we say no, the FDA say no, you know,
2 according to following the guidelines and law that
3 there is there isn't adequate safety and efficacy
4 to allow this person to receive the drug. That is
5 our responsibility.

6 I think many of the questions we are
7 hearing addressed, but what we do need to address
8 in the future and may or may not be our
9 responsibility, but I would like to make sure we
10 have time to ask--I think we have good groundwork
11 for it--but the questions about when should we
12 absolutely say no, when is it basically, I would
13 say, unethical or unwise or unsafe for us to allow
14 use.

15 The only reason we put single patient use
16 is because it avoids the likelihood it is going to
17 interfere with the trial or all these different
18 issues that industry might be concerned with, the
19 cost, et cetera, and more, in the time remaining,
20 perhaps focus on when should FDA say no, and then
21 in the future, we hope that there will be a process
22 where we can address some of these other issues.

23 DR. TAYLOR: I would like to make a
24 comment to answer yours, but also about what was
25 said earlier about frustration. I think what I see

1 as much as frustration about not being able to get
2 an answer is frustration about dying. I think that
3 is the whole basis of a lot of this is frustration
4 about dying and the realities of medicine and what
5 man can do and what God can do.

6 I do think that that is part of what I am
7 talking about in terms of patient education. I may
8 not know what the toxicity of that Phase I drug is,
9 but I do know the likelihood of response based upon
10 other Phase I trials, and I have to be frank and
11 honest about what man can do, and that is a very
12 important part of this whole thing.

13 A lot of this is dealing with the
14 frustration of dying and our inadequacies in
15 medical care.

16 I would like to go back. I think that I
17 would agree, that I think that a patient whose
18 performance status is so poor that we don't
19 consider them able to tolerate or to respond to
20 standard curative therapy would be a very reason
21 not to agree to provide that type of drug.

22 I also have a very hard time saying that
23 we are going to give Phase I agents out when we
24 have not even obtained a dose level that we know
25 could be used in a safe fashion. I think in that

1 setting that we do give, as you alluded to, with
2 your equipoise, we do give the implication that we
3 think this drug is better and before the trial is
4 done. We don't have the trial done, and we imply
5 by allowing that, that we know it is better.

6 We don't know it is better, we just don't
7 know, and it is a big zero in the column as opposed
8 to a 10 percent response or a 20 percent response
9 from the standard things.

10 DR. NERENSTONE: Why don't we then ask for
11 Dr. Williams, focus our discussion more
12 specifically on the questions, and we can further
13 have discussion under that framework that might be
14 more specific to what the FDA needs us to
15 accomplish this morning.

16 I am going to just go to the Questions to
17 the Committee. I think that we have had extensive
18 discussion about just to very briefly the FDA is
19 seeking advice from us in its role of assessing the
20 risk-to-benefit ratio of treatment use with an
21 experimental drug in an individual patient, and
22 when determining the apparent risk-to-benefit
23 ratio, the following are important considerations:

24 How thoroughly has the drug been studied
25 in humans?

1 What do the preliminary results from these
2 studies suggest about the safety and efficacy (or
3 activity) of the drug?

4 What are the other therapeutic options
5 available to the patient?

6 They feel that those are questions that
7 need to be in the context of those kinds of issues.

8 I would like to go to our first Questions
9 to the Committee.

10 For each of the following clinical
11 scenarios describing standard therapy, please
12 discuss the following question:

13 The FDA receives a request from an
14 investigator to use Drug X under a single patient
15 IND. The commercial sponsor of Drug X has granted
16 permission for the investigator to use the drug and
17 also has provided written permission for FDA to
18 refer to the commercial IND, so that has all been
19 taken care of. The patient's medical history is
20 outlined in each of the scenarios below.

21 The investigator states that the patient
22 is aware of the benefits of standard therapy but
23 wants to receive investigational treatment with
24 Drug X instead. The patient is ineligible or
25 unable to participate in a clinical trial using

1 Drug X.

2 When would single patient treatment with
3 Drug X be appropriate?

4 They would like us to discuss it in the
5 context of the drug's stage of development, the
6 level of efficacy and toxicity that would be
7 acceptable in the following standard therapy cases.

8 So, that is setting the scenario.

9 The first is there is no standard therapy
10 available, and essentially metastatic--I guess you
11 mean extensive--non-small-cell lung cancer that has
12 received all available therapy.

13 I think that probably we need to talk
14 about what phase the drug is in, Phase I, Phase,
15 II, Phase III, as to when that would be
16 appropriate, so each of these.

17 The first would be Phase I. Would it be
18 appropriate for a patient to receive a Phase I drug
19 with non-small-cell lung cancer after all available
20 therapy has been exhausted?

21 Discussion from the committee?

22 DR. WILLIAMS: Dr. Nerenstone, we are not
23 really asking for votes on these. We really would
24 just prefer to get discussion.

25 DR. NERENSTONE: I will lead off. I would

1 say no. I think in any of these scenarios, a Phase
2 I drug is really not appropriate for widespread or
3 even limited single patient use. We have no idea
4 of the toxicity. How can you even do an informed
5 consent if you not only don't know the drug dose,
6 but have no idea of the toxicity.

7 So, I would say because of lack of data,
8 informed consent becomes meaningless and therefore,
9 the potential to do extraordinary harm remains
10 high, the benefit remains most likely very low.

11 So, I would say pretty much under no circumstances
12 do I think a Phase I drug should be given out for
13 single patient IND, single patient exemption.

14 Dr. Kelsen.

15 DR. KELSEN: I agree. I was thinking
16 about this. If it is truly an experimental drug in
17 Phase I, it is not a combination of conventional
18 agents being used in a Phase I trial, which gets a
19 little tricky, so if I put that aside for a minute,
20 and it is really a new drug, you are at Level 2 or
21 Level 3, you have no idea of the toxicity, you have
22 only treated three or four patients, maybe up to
23 six, to provide that outside of a carefully,
24 carefully supervised trial would make me very
25 uneasy.

1 DR. WILLIAMS: As a devil's advocate,
2 there is an informed consent in your Phase I trial,
3 and for that patient it is okay, but you are saying
4 since you don't have a controlled setting, that
5 would be another--

6 DR. KELSEN: Right, obviously. There is
7 two settings this happens in. You are the
8 investigator at the center doing the Phase I trial.
9 The patient is not eligible. The level is not
10 open, which is even more difficult, they are
11 eligible, but the level is not open.

12 But you know very, very little about that
13 drug. That would make me very uneasy, make me
14 extremely uneasy. The patient is not at your
15 center. They read the PDQ. They understand there
16 is Drug X that is being studied in New York or
17 California or wherever, and they want to receive
18 that drug from a physician who is not even involved
19 in the study. I think that is really a bad idea.

20 DR. NERENSTONE: Dr. Przepiorka.

21 DR. PRZEPIORKA: I would have to agree
22 that anything that has not been studied or is still
23 in Phase I or just completed Phase I and going to
24 Phase II, should not be used in a single individual
25 patient.

1 I don't disagree with the terminology
2 "treatment IND." I think that pretty much says it
3 exactly the way we intend it to be. It is not a
4 single patient experiment. It is a single patient
5 treatment. So, in the interest of time, I would
6 actually suggest that we not even entertain Phase 0
7 or Phase I drugs in the rest of the scenarios.

8 DR. NERENSTONE: Is that the feeling of
9 the committee? Mr. Erwin.

10 MR. ERWIN: I think it is useful to draw a
11 distinction between single patient exception and a
12 single patient IND, because that also addresses the
13 confidence of the investigator and the quality with
14 which that patient will be treated.

15 DR. WILLIAMS: You are suggesting that it
16 might be acceptable at a Phase I center for someone
17 who didn't fit on the protocol, that they might
18 consider treating them off that protocol, is that
19 what you are suggesting?

20 MR. ERWIN: Yes, that is my suggestion.

21 DR. NERENSTONE: Why, I guess is my
22 question, why would you consider doing that?

23 DR. KELSEN: We should be very careful
24 about that because the parameters for a Phase I
25 trial usually involve very small groups of people

1 at each level, and it is a very common scenario to
2 say, you know, you talked to me about Phase I
3 studies and you told me that you might be opening
4 another level, and it is not, but I did fit the
5 criteria and I want to go into that. I could
6 imagine that having a level of 20 people in no time
7 flat without really knowing all the side effects.

8 MR. ERWIN: I would agree that it requires
9 care, but in this case, a single patient exception
10 to the study, you have got the primary investigator
11 who is running the Phase I study, who may be the
12 physician involved. You have got the patient, you
13 have got the IRB. There are multiple levels of
14 decisionmaking in this case which have all gone
15 positive.

16 My suggestion is that you don't need
17 broader government involvement in that decision.
18 At that point, you have got enough competent people
19 who have said yes, I want to do it. It comes back
20 to that issue of patient autonomy.

21 DR. KELSEN: It implies that a patient can
22 say I understand that the study is not open, I
23 understand you don't know very much at all about
24 this drug, you have only treated the first few
25 patients, but I want you to treat me, and you could

1 have that situation, you could have a number of
2 patients who are requesting that therapy when you
3 know very little.

4 DR. TAYLOR: You don't have true informed
5 consent because your informed consent for the Phase
6 I trial says I am not doing this for a therapeutic
7 benefit, I am doing this to find the side effects,
8 and that is not the same as doing it for treatment.

9 The objectives of a Phase I trial are to
10 determine the MTD and the toxicity of that drug,
11 and by treating that patient off of the study, you
12 don't succeed in getting your objectives, and the
13 patient, in my opinion, is being treated with
14 something that therapeutically, has a very little
15 chance of responding, and they are not
16 understanding that.

17 DR. SLEDGE: I can't accept that. You
18 have to differentiate between why we do Phase I
19 trials and why patients go on Phase I trials.

20 DR. TAYLOR: I don't disagree, but I think
21 you still have to--

22 DR. SLEDGE: I mean the idea that a
23 patient goes on a Phase I trial without any hope of
24 therapeutic intent is ridiculous.

25 DR. TAYLOR: And I don't do it without any

1 hope of therapeutic intent, but I think the
2 realities of it or the objectives of that trial are
3 not for therapeutic benefit at that point.

4 DR. SLEDGE: I am well aware that that is
5 your objective, it is not the patient's objective.

6 DR. NERENSTONE: Dr. Redman.

7 DR. REDMAN: Basically, this is for Dr.
8 Kelsen with Mr. Erwin. Having reviewed off-site
9 Phase I trials, what you are suggesting, many
10 investigators have had their trials pulled for
11 doing that. It is inappropriate, it is unethical,
12 and not within the rights of the patient to demand
13 treatment on an investigational trial outside the
14 confines of that trial.

15 We are talking about allowing Phase I. I
16 mean I can go all the way up to Phase III and say
17 no.

18 DR. NERENSTONE: Dr. Albain.

19 DR. ALBAIN: I think we have the real
20 potential of doing harm. That has been alluded to,
21 and we cannot allow patients in these early Phase I
22 trials that are designed very deliberately with
23 rigid eligibility criteria to protect the patient.

24 We don't know the metabolism. You know,
25 the creatinine criteria may be very, very

1 appropriate, and you put someone on with a
2 creatinine of 2, you could kill them.

3 DR. NERENSTONE: I think that the FDA,
4 that the take-home message that I see is that there
5 may be a real division between the medical
6 community and the non-medical community over this
7 issue, and I do think that the medical community,
8 many of whom around this table have been involved
9 in Phase I research, is struck by how potentially
10 harmful this could be.

11 In our role as physician, someone pointed
12 out how research treating a group of people under
13 research and treating patients individually
14 sometimes come into conflict. Our fear is that in
15 this particular case, it is the physicians who are
16 worried about doing harm, and the non-physicians
17 who perhaps don't understand our fear of doing harm
18 to the extent that we are--I don't want to say
19 horrified at this idea--but certainly strongly
20 against Phase I drugs being released.

21 DR. WILLIAMS: I think that was a very
22 good discussion, and it will be useful.

23 DR. NERENSTONE: Again, with the standard
24 patient with metastatic non-small-cell lung cancer,
25 what about a Phase II agent? Discussion.

1 DR. KELSEN: This is a little trickier
2 because this happens also a great deal where there
3 is an agent that is under study in a given disease
4 for which we now know perhaps a good bit about
5 toxicity. It may be a multicenter trial where
6 there is information from a number of
7 investigators, so that you have a better feel for
8 the dose and the schedule. You know it well enough
9 to go forward, and you are already beginning to see
10 preliminary activity.

11 Now, you have made even maybe a
12 preliminary report in some meeting, not necessarily
13 an open meeting, which very rapidly begins to
14 disseminate, and you have a patient who has no
15 options, would ordinarily be a candidate for the
16 study, but they have something that withholds from
17 the study, which is not felt to be a safety issue,
18 or the study, even worse, has now filled its
19 accrual in that particular center, and the patient
20 says, you know, I know that this drug is working in
21 22.5 percent of patients for Temple, and I would
22 like access to this agent in my disease for which
23 you have exhausted all the conventional options,
24 and we face that every day.

25 DR. WILLIAMS: What about some patients

1 treated, but no activity, or just the first few
2 patients have been treated?

3 DR. KELSEN: I think that is very
4 important. So, even within Phase II, I guess the
5 suggestion is even within Phase II, there are
6 gradations as to when treating a patient with
7 single patient use, it becomes more reasonable and
8 less reasonable, and I agree with the implication
9 that I have treated three people, I haven't a clue.

10 DR. WILLIAMS: I would like to hear the
11 discussion. Is it just you need to know it is safe
12 based on Phase I, or is it that you have to show
13 some activity? Where do you find it reasonable or
14 not reasonable?

15 DR. KELSEN: I am speaking personally for
16 myself. I have only treated a few patients, I have
17 no evidence of activity, what is the compelling
18 reason that we should use this agent in this
19 situation as opposed to the latter.

20 DR. WILLIAMS: It is a different question,
21 though. It is not whether you have compelling
22 reasons, you and FDA, you have come to work for us,
23 and you would say no if someone wanted to. When
24 should we say no, if there is no activity, should
25 we say no in Phase II, or should we say yes?

1 DR. NERENSTONE: Dr. Redman.

2 DR. REDMAN: I think if the FDA is willing
3 to approve a drug on Phase II data from 40
4 patients, I think the FDA should say fine, but if
5 you are not willing to approve the drug, I would
6 ask the medical members here how many agents that
7 have gone through Phase II trials or to Phase III
8 trials, have shown increased efficacy over and
9 above that in a Phase II trial?

10 I think it has always been the exact
11 opposite. It has always been in Phase III trials
12 where the efficacy has either maybe been
13 equivalent, but more likely has been less. So, I
14 think, again, even if we have an ASCO abstract from
15 the Phase II trial that suggests that there is a 25
16 percent response rate of an agent, that that still
17 does not require it to be given out on a
18 compassionate, single patient, however you want to
19 define it, unless the FDA is willing to say, gee,
20 based on that information, we will approve the
21 drug, we recommend approval of the drug.

22 DR. NERENSTONE: I see this as a little
23 bit more of a gray area, and I could see where
24 patient pressure and physician pressure could be
25 brought to bear after several, either one or

1 several encouraging Phase II studies are released.

2 I agree, the likelihood that this patient
3 is going to benefit is indeed quite small, and I
4 think no matter what, that you still have to have
5 performance status criteria, and you probably have
6 to have end organ criteria, because treating
7 someone again with a bilirubin of 12 in a new drug
8 is very likely to be toxic, especially if we
9 haven't had a lot of experience with it, and you
10 can set up those end organ targets as to what would
11 be appropriate, but I think that later in Phase II,
12 when you actually have some published data, I would
13 make the argument that I could see at least the
14 potential of releasing that.

15 My feeling would be that you would try and
16 do it in open access because as soon as that kind
17 of data becomes available, especially for something
18 like small-cell lung cancer, it is not going to be
19 one or two patients who are interested in it, it is
20 going to be many patients who are interested in it.

21 Mr. Erwin.

22 MR. ERWIN: I just wanted to add one
23 further perspective on that comment about
24 indications of effectiveness. The reality is that
25 a lot of times, particularly biotech companies,

1 don't even go to Phase II unless they have some
2 indication of efficacy in Phase I.

3 I know that that doesn't fit the
4 traditional and official criteria for Phase I, but
5 they use non-validated surrogates to get some
6 indication of efficacy before making that decision
7 to go forward. So, the Phase I, Phase II, Phase
8 III distinction in many respects is even less clear
9 when it is now possible for a Phase II trial to be
10 designed for and designated as pivotal.

11 I think, again, my opinion comes back to
12 the individuals involved, the patient, the
13 physician, and particularly a clinical trial's
14 experienced physician making a decision about
15 possible benefit.

16 DR. NERENSTONE: Dr. Spiegel.

17 DR. SPIEGEL: I would ask if Grant could
18 clarify the position the FDA is in. If we are
19 really talking about a drug that is in Phase II, I
20 would pose that nobody knows during that period
21 where you are.

22 If a company comes to the agency at an end
23 of Phase II meeting and lays out all of the single
24 study or all of multiple Phase II's, and then the
25 agency could say it has knowledge of a level of

1 activity, but if you are called about a drug by an
2 investigator, by a patient, who knows of one
3 anecdote that looked great, or I think the last
4 comment is very good, even if Phase I had a proof
5 of concept aspect to it and some biological
6 principle was confirmed in Phase I, into and end of
7 Phase II, you don't know what the true response
8 rate is.

9 So, I think you should be comfortable
10 saying we don't know where we are if someone
11 requests it during Phase II.

12 DR. NERENSTONE: Dr. Temple.

13 DR. TEMPLE: I guess I want to press you,
14 Stacy, on the practicalities here. What I heard
15 you suggesting is that until people are ready to
16 provide quite wide access, treatment IND or its
17 equivalent, then, it doesn't make much sense to
18 have individuals do it, but there are some
19 practical considerations.

20 Companies are not always ready to provide
21 wide access, but they like to use the, I don't
22 know, pressure-releasing ability of a few
23 individuals getting the drug in the situation where
24 conceivably, if asked, we might allow a treatment
25 protocol, but nobody has actually asked for one.

1 That raises all the questions of
2 unfairness and capriciousness and people being in
3 the know and all that. Do you have any further
4 thoughts? What you were suggesting I think was,
5 well, once you know enough to have anybody on these
6 things, you probably know enough to have a lot of
7 people on these things, but what about the
8 practicalities, should we be saying no until you
9 are ready to do it for everybody, it is not really
10 fair or equitable to do it for a couple of people?
11 What are your thoughts about that?

12 DR. NERENSTONE: I think I was hoping in
13 the best of all situations, and I am very sensitive
14 to the fact that especially the smaller companies
15 are not going to have geared up and are not going
16 to be able to provide wide access, in the best of
17 all situations, especially with a lot of patients
18 with a disease like lung cancer, I just see this as
19 opening the flood gates, and you have to be
20 prepared for the flood gates to be opened.

21 Do I think we should absolutely prohibit
22 single patient treatment in later Phase II, if they
23 can't do that, no, I am not going to take that hard
24 a stance.

25 DR. TEMPLE: Would you want it to be done

1 in some way that was fair even if limited? There
2 have been lotteries, for example, where a company
3 wasn't willing to do it for a million people.

4 DR. NERENSTONE: Absolutely, I think that
5 is exactly right. Then, you have to be prepared
6 for the flood gates to be opened, because I think
7 they will be, and I am not saying that that is
8 necessarily a good thing. I don't see it as a good
9 thing, but I think that is bowing to the realities.

10 Dr. Albain.

11 DR. ALBAIN: You actually just stated what
12 I was going to state, Stacy, that I we are in some
13 of these situations right now with some of the new
14 molecules and that the pivotal trials have
15 completed, and we don't have all the answers,
16 however, there have been abstracts presented in
17 national meetings, and the companies have come
18 forward with lotteries with expanded access
19 programs, and I think that is the place to refer
20 our patients to rather than going through the
21 cumbersome process of a single use situation.

22 Although we weren't asked specifically to
23 address that, that is why I said earlier that
24 having a rapid consensus nationally on how to mount
25 these trials, how to help some of these smaller

1 companies do these through perhaps a central
2 mechanism when they cannot mount them individually
3 would be very useful right now.

4 DR. NERENSTONE: Dr. Blayney.

5 DR. BLAYNEY: I think I would support the
6 business of single patient exemptions, and I think
7 you ought to build that into your drug development
8 process. At the end of Phase I meetings, one of
9 the questions you might ask the sponsor is if this
10 really looks good, how do you propose a fair and
11 equal expanded access and at what point would you
12 feel comfortable doing that.

13 Some sponsors may have limited production
14 facilities, and that needs to be known in advance,
15 and I think it would give the agency, as well as
16 the sponsor, as well as the physicians and patients
17 who want access to these programs a better idea of
18 what the ground rules are going in.

19 I think also, if I may say, there may be
20 some compelling biologic reasons that may emerge
21 that you may want to give expanded access if there
22 are peculiar molecular targets that either are
23 known in advance or known beforehand with
24 individual patients whose tumors demonstrate
25 potential susceptibility to these molecular

1 targets, you may want to build that into your
2 thinking, as well.

3 DR. WILLIAMS: Could I clarify the
4 rationale that several of you have expressed? I
5 very clearly understood during Phase I, it was a
6 patient safety issue, you didn't have the data on
7 patient safety, but in Phase II, we do have the
8 data on safety, and you are entering your patients
9 with the hope of seeing a response rate or
10 whatever, and now perhaps you have other patients
11 that don't fit on that.

12 A company comes to you and says we are
13 early in Phase II, but we have a patient here that
14 doesn't fit, we would like to treat him by special
15 exception use, and your rationale for not giving
16 that patient an investigation agent, if they want
17 to, if the company wants to, is what?

18 DR. NERENSTONE: I think in early Phase
19 II, it is still a toxicity issue. You know, very
20 few patients have been treated on that, and so it
21 still could be much worse than placebo. So, the
22 idea of, well, doing no harm, I think is still an
23 issue here with early Phase II.

24 Dr. George.

25 DR. GEORGE: Actually, my comment is

1 related to that, and Dr. Williams' comment some,
2 and that is just to remind people that the
3 notorious unreliability of Phase I data, even with
4 respect to toxicity, these are very small studies
5 done with very restrictive eligibility criteria for
6 safety reasons, and then at the later stages, those
7 criteria change and just from a statistical point
8 of view, these studies are known to be very
9 reliable.

10 I have certainly been involved with a
11 number of Phase II and even Phase III studies where
12 we had to radically change dose and schedule
13 because of unexpected things.

14 So, you can't say that just because the
15 Phase I test is over, we know the toxicity, so
16 everything is okay about that, now, all we are
17 concerned about is efficacy.

18 DR. NERENSTONE: Dr. Linden.

19 DR. LINDEN: One argument I heard a little
20 while ago was that because Phase I--I am going back
21 to the Phase I question--because Phase I trials
22 have scientific objectives only, not treatment
23 objectives, under the scenario, treatment IND
24 requests should be denied, but Phase II or Phase
25 II/III trials also only have scientific objectives,

1 not treatment objectives.

2 So, there is a little bit of slippery
3 ground there in this group as to whether treatment
4 INDs should be permitted at all.

5 That is my comment.

6 DR. NERENSTONE: I think most people would
7 say that Phase II studies where you are looking for
8 disease response is a surrogate endpoint for
9 patient benefit. You are perhaps right in that
10 that is an abstract concept that we have not yet
11 proven, but certainly the expectation is that tumor
12 response, which is what we are measuring, is going
13 to be correlated with symptom relief and more.

14 So, I think that most of us who do
15 clinical trials would say that Phase II and Phase
16 III studies really do have patient benefit as a
17 goal of the treatment.

18 DR. NERENSTONE: Dr. Przepiorka.

19 DR. PRZEPIORKA: I just wanted to address
20 two issues regarding the Phase II studies, and that
21 is if we go back to the terminology treatment IND,
22 if we are really going to treat the patient, then,
23 we really do need to know not only safety, but
24 efficacy, there is no question about that.

25 I just want to broaden something that Dr

1 Nerenstone said about having performance status
2 requirements for those sorts of treatment INDs and
3 that even when we pick up the journal and read
4 about a new drug that has come out, we have to read
5 the Method section to see who was the patient
6 population that was studied.

7 When we sit down with the patient, we have
8 to tell them the results based on whether or not
9 they fit those eligibility criteria, so I would
10 even suggest that for a treatment IND, the patient
11 has to actually fulfill the eligibility criteria
12 for the study from which the activity was shown.

13 Anything else is going to be a new study,
14 and as was pointed out, even in Phase I studies,
15 and Phase II studies, eligibility criteria have had
16 to be changed because of that, and if you come to
17 the single patient exemption question, you know, it
18 would be valuable data to find out whether or not
19 the safety of that drug in such a patient would be
20 of value, but it has to be done in a controlled
21 setting. That means another study. It has to be
22 done with more than one patient.

23 DR. NERENSTONE: So, Donna, you are making
24 the safety argument that even Phase II data may not
25 be reliable enough to translate into a patient

1 treatment.

2 DR. PRZEPIORKA: If the Phase II study is
3 completed, and we know the activity, we know the
4 safety, and we know the patient population, then, I
5 would say yes, that would be somebody who you would
6 give a treatment IND to while you are waiting for
7 Phase III or other progress and development, but if
8 you are still within the Phase II and you don't
9 have the results yet, then, no, there is no
10 indications to treat someone with that drug.

11 DR. NERENSTONE: Dr. Kelsen.

12 DR. KELSEN: I agree, the issues for Phase
13 I, first of all, all studies have scientific aims,
14 they have primary objectives and secondary
15 objectives. Most Phase I's or at least many Phase
16 I's, the secondary objective is to look the
17 therapeutic efficacy, but it is not the primary
18 objective, it is the secondary objective.

19 The primary objective of Phase II and III
20 is an efficacy objective. It is not a scientific
21 reason you are not treating people on Phase I for
22 the single patient use, it is really just safety.
23 You just don't know the right dosing schedule, and
24 you put the patient at risk.

25 DR. NERENSTONE: Dr. Averbuch.

1 DR. AVERBUCH: Mostly to respond to Dr.
2 Blayney's comments, and I think to echo some of the
3 last speaker's comments about it is only going to
4 be at the end of Phase II where we begin to have a
5 level of confidence about benefit-risk, and it will
6 depend on the drug, on the patient population, on
7 the trial design, but I think it is only at that
8 point by which you can begin to make judgments
9 about expanded access and whatever setting you
10 provide.

11 The other point I want to make, I think I
12 want to throw out a very extreme caution about
13 trying to have different rules for these
14 molecularly targeted, defined agents. I mean those
15 are still hypotheses, and I think we still are
16 bound by the principles of good clinical trials to
17 either satisfy or refute those hypotheses based on
18 clinical outcomes.

19 I mean the hypothesis existed that
20 specific antiarrhythmics would lead to improved
21 mortality in cardiovascular disease, and we know
22 the outcome of some of those trials. So, I think
23 we have to be very cautious about changing the
24 rules for those molecularly defined agents.

25 DR. NERENSTONE: Dr. Temple.

1 DR. TEMPLE: I just want to observe that
2 what you are all saying is entirely consistent with
3 the rules of treatment IND. There has to be
4 reasonable evidence of effectiveness, obviously not
5 quite enough to get the drug marketed, but
6 something less than that, but still some, and there
7 is actually a slightly different expectation when
8 the disease being treated is fatal, which I guess
9 is the case here, and the rules suggest that it
10 will be very unusual to do that until the end of
11 Phase II or thereabouts where you have some
12 evidence, so what you are saying is quite
13 consistent with the current definitions.

14 DR. WILLIAMS: But not necessarily the
15 same as what has been done in, say, single patient
16 use.

17 DR. TEMPLE: Well, no, that is right. I
18 thought what Dr. Nerenstone said earlier is that
19 one should think of single patient uses that aren't
20 to learn something, but to provide access as
21 roughly similar to being ready to allow for almost
22 everybody. That is what I heard before, which is
23 an interesting formulation.

24 DR. NERENSTONE: Ms. Delaney.

25 MS. DELANEY: I would just like to say

1 something as a practical matter from the experience
2 that we have in our office, that while the focus of
3 our discussion is clearly advice to FDA and how we
4 should handle single patient INDs, our practical
5 roll up the sleeve experience with this is that
6 companies usually start by saying yes to single
7 patient INDs, and their entire, let's call it
8 compassionate use until we change it, the
9 compassionate use plan is unanticipated.

10 It is sort of like tumbleweed and it
11 starts to roll, and then panic sets in, and many
12 times also I think these are always good people
13 caught in a bad situation, but nobody wants to say
14 no to the patient, and so oftentimes companies will
15 refer patients even today inappropriately to us,
16 knowing that the answer is no, but we have to turn
17 them right back to the company and say this is a
18 decision of the company.

19 My request is that sponsors anticipate
20 this ahead of time. Think ahead what will the
21 triggers be to when they might consider a treatment
22 IND, when will they consider an expanded access
23 protocol, under what circumstances will you allow
24 single patient INDs, and not get the patients and
25 family members caught up in the phone calls back

1 and forth to FDA saying no, it is not our job, it's
2 the company's job. It is really very distressing
3 for people who are, for the most part, at the end
4 stage of their life.

5 DR. NERENSTONE: Dr. Santana.

6 DR. SANTANA: One of the problems I have
7 with this whole discussion is--and I think it was
8 presented by one of the patient representatives
9 earlier in a letter--was that we are really talking
10 without having much data in front of us and we are
11 trying to make these rules, if that is what the FDA
12 wants us to advise them on, on how to put patients
13 in these categories to allow this or not to happen
14 without really knowing what the real world is all
15 about.

16 It was triggered by Donna's comment in the
17 sense that for a patient to get one of these drugs
18 under the mantra that it is non-research, but it is
19 still investigational blah-blah-blah, that they
20 have to meet some eligibility requirements that are
21 very similar to the patients that otherwise would
22 go on the Phase II study, but the reality is that I
23 bet you that a lot of these requests are because
24 patients do not meet the eligibility requirements
25 as stated in the protocol or for many other

1 reasons, that they may not have access, they live a
2 long distance, so we are dealing with a whole
3 heterogeneous set of reasons of what initiates the
4 process to request a practitioner or a patient or a
5 family to request these products, and now we are
6 setting a brand-new set of rules that, in essence,
7 will impede that process, if that is the goal of
8 the process.

9 So, one of the questions that I have--it
10 sounds like a little bit of a circular
11 argument--but one of the questions I have for the
12 FDA is when people request this, why are they
13 requesting it, what are the reasons, is it because
14 they are not meeting the eligibility criteria for
15 studies or because it is their last chance hope,
16 and they want to get a hand on anything, or is it
17 because they don't have access to the trial. I
18 mean what are the real reasons?

19 DR. WILLIAMS: I think all of those and
20 more, and we may not even be supplied with it in
21 that way.

22 DR. SANTANA: If that is true, then, we
23 have got to be very, very careful that we don't set
24 a set of rules to allow these special exemptions to
25 be approved.

1 DR. WILLIAMS: Actually, you have not been
2 asked to allow them. We are mostly interested in
3 when we would say no, because we do have that
4 responsibility, and clearly we do say no sometimes,
5 not that often, but we are interested in your
6 comments about not necessarily would you in various
7 circumstances, but what is the basis for why you
8 would say no, and I think it was pretty clear about
9 Phase I, the reason behind it.

10 DR. SANTANA: Yes, for safety, I think
11 that is very true.

12 DR. WILLIAMS: I would worry too much
13 about we are not going to take these and set rigid
14 rules based on a majority vote. That is why we are
15 not even having voting, but we would like to
16 understand your reasons and get your input, because
17 we have to make these decisions on basically a
18 daily basis, and we would like to have some input
19 from the committee.

20 DR. NERENSTONE: Dr. Przepiorka, would you
21 like to respond to Dr. Santana?

22 DR. PRZEPIORKA: Yes. I would actually
23 not disagree totally with he said. I think there
24 does have to be a mechanism available for patients
25 who do not fit eligibility criteria and therefore

1 would not be considered, quote, unquote,
2 "treatment," that is responding to the standard
3 regimen and the eligibility criteria that was used
4 to demonstrate activity.

5 This is where I think safety protocols in
6 the expanded access setting have to be set up
7 early, because most of the patients who will be
8 treated, will be treated outside the eligibility
9 criteria, and it is really important to get some of
10 that information available.

11 I also want to address one comment that
12 Dr. Williams said earlier, which was that he
13 doesn't believe that some of the things that we
14 were discussing earlier today were actually within
15 the purview of the FDA, and one of the things that
16 I am really concerned about is there is probably a
17 lot of data from expanded access protocols and
18 safety data, and information that we could possibly
19 draw some conclusions about who should or should
20 not be treated under these circumstances.

21 It is unfortunate that it is largely
22 probably all on archaic medium, so we can't really
23 access it very well, but I would hope that the FDA
24 would have a plan to actually get that formalized
25 in the future, so that we could use that data to

1 make more reasonable conclusions.

2 DR. NERENSTONE: Dr. Linden.

3 DR. LINDEN: The discussion so far has
4 focused on the risk-benefit ratio and the toxicity
5 factor and the activity-benefit ratio, and we have
6 heard a lot today about the problematic use of the
7 word "compassion," and yet it is my understanding
8 that compassion is yet another element that needs
9 to be figured, that does need or may not need
10 depending on where you stand, to be figured into
11 this pot of elements that need to be taken into
12 account.

13 If that is so, if there is an element of
14 compassion in this mechanism, then, number one, I
15 would suggest that we not throw that term out of
16 our lexicon, but that that needs to be wed in some
17 way to these other factors because it is a
18 significant factor.

19 DR. PAZDUR: Just to answer this question,
20 and Dr. Santana's question, when we looked at this
21 issue, the vast majority of reasons why people are
22 looking to go onto the single patient is because of
23 too many therapies. Basically, they are third,
24 fourth, fifth, sixth line therapies, and they are
25 looking for a treatment option here.

1 To answer Donna's question, one of the big
2 problems that we have is just the uncontrolled
3 nature of many of these expanded access, which
4 makes really scientific conclusions very difficult
5 to make. I assume she is referring to toxicity
6 considerations in this aspect.

7 Because of the uncontrolled nature here
8 and also the reporting many times of the
9 information, it is difficult to make a really
10 scientific conclusion.

11 DR. SANTANA: I hate to be simplistic, but
12 if the majority of the patients fit in this
13 category, then, maybe the clinical study should
14 have a strata of patients that defines that
15 subgroup. That may not be used in terms of the
16 analysis of the approval process, but certainly
17 would offer the clinical investigation to go
18 forward.

19 If that is a big part of the pie, I hate
20 to be simplistic, there may be a solution to that.

21 DR. NERENSTONE: Dr. Temple.

22 DR. TEMPLE: I just want to totally agree
23 with that. There is no reason why the primary
24 efficacy analysis couldn't be done in the subset of
25 people who do have good performance status while

1 you maintain the other groups. I mean they are
2 already in the institution, it should be little
3 burden to include them, and you will get
4 information on what the drug is like in those, and
5 that is really an excellent idea.

6 DR. NERENSTONE: Dr. Spiegel.

7 DR. SPIEGEL: I wanted to respond to some
8 of the comments that particularly the FDA members
9 have contributed today, although I would resist Dr.
10 Temple's provocative question should the FDA demand
11 justice, I think we have enough trouble writing
12 guidances and rules for things that are better
13 understood than that. But I think it would be very
14 appropriate for the FDA either at the end of Phase
15 II, although usually we have a very limited time to
16 talk about other issues about how we are developing
17 the drug, but either in the context of that meeting
18 or when the first request comes in and an important
19 senator or somebody else has requested it, I think
20 it is appropriate for the FDA to ask us what are we
21 going to do with the next request.

22 The other thing I would say is the FDA is
23 a wonderful source of good and bad experience to
24 share with sponsors. You can't divulge proprietary
25 information about other companies' products, but if

1 you have seen a very good ECAP program run, there
2 is no reason why you couldn't challenge either a
3 Big Pharma company that may have done things pretty
4 well, but could do them better or might have done
5 things lousy, or small companies that are here for
6 the first time, to say have you considered, instead
7 of an individual patient exemption, doing an
8 expanded access for 20 patients and see what
9 happens, or if you want to treat 200 patients, why
10 don't you do it under these types of mechanisms
11 that might help us all learn more about it.

12 So, I would encourage the agency to feel
13 that it has the authority to have these discussions
14 with big or small companies, although I don't want
15 any rules.

16 DR. NERENSTONE: Dr. Carpenter.

17 DR. CARPENTER: I think I wanted to
18 comment on compassion. It may be under-rated, but
19 I think a number of the physicians in the field
20 also feel a certain amount of compassion toward
21 this group of patients, but feel very much on the
22 spot when they get requests in people whose organ
23 performance is bad or performance is bad where you
24 wouldn't give more standard treatment because there
25 is almost no real chance of benefit, then being

1 asked to give an experimental drug with a lot less
2 knowledge and a lot more uncertainty to the same
3 person.

4 So, the idea of some very general
5 guidelines about organ performance and performance
6 status, to give a person a realistic idea about the
7 chance of improving on anything, much less the
8 experimental drug, could well be part of the
9 process at some point, and I don't know whether the
10 FDA would want to say that for certain people this
11 could be done, but really don't feel it's in usual
12 guidelines of good practice. There is that person,
13 and there are some who simply exhausted the usual
14 things, does have good organ function and
15 performance, for whom a promising new drug that is
16 not yet widely available might be a very reasonable
17 option. It is getting some balance in that, that I
18 think that we are chasing issues.

19 DR. NERENSTONE: Mr. Erwin.

20 MR. ERWIN: I think these last few
21 comments have been extremely good, and one in
22 particular regarding inclusion of nontraditional
23 patient groups in clinical trials, all of those
24 patients for which people legitimately express
25 concern about safety will ultimately be treated

1 once the drug is approved for marketing.

2 The more insight that can be gained into
3 those populations early, the better, I would say,
4 and it gets back to the whole question of what
5 quality information do we have in this discussion,
6 how many patients, if any, have ever actually
7 received a survival benefit from individual access
8 to a Phase II, Phase I, Phase III drug, how many
9 patients, if any, have ever actually been harmed by
10 that access, how does that compare to what happens
11 after marketing approval is granted.

12 You know, there is a lot of information
13 that is probably out there that we haven't compiled
14 into a systematic way to help in these sorts of
15 debates, and it keeps coming up over and over
16 again, you know, access to good quality information,
17 a retrospective analysis that could be very helpful
18 through some mechanism.

19 DR. NERENSTONE: I suspect that that data
20 does not currently exist, nor is it retrievable on
21 the basis of discussions with FDA with single
22 patient exemptions as it now operates.

23 DR. PAZDUR: Plus many of these trials are
24 single arm, so it is going to be hard to determine
25 any survival benefit from any single-arm study.

1 DR. TAYLOR: Right, and the reason we are
2 doing the trials, and the reason that they have
3 strict criteria is to try to get good data and to
4 get good scientific answers, and I guess I am going
5 to show my age, but many years ago there weren't
6 the restrictions on treatment that there currently
7 are when we put people on investigational trials,
8 and what we have learned were those patients who
9 had had multiple treatments didn't respond. In
10 fact, the statistic I was taught was that after
11 each treatment, your chance of responding drops by
12 20 percent.

13 So, we have done that before. I am not
14 opposed to it. I have a lot less problem giving
15 Phase II agents out in this individual basis, but I
16 think that to criticize our trials, the reason they
17 have been developed that way was to try to give a
18 fair answer about a particular drug or a particular
19 treatment, so that a patient would know it.

20 I don't also agree that I would
21 necessarily, if that drug were on the market, give
22 it to a patient, because I think part of compassion
23 is to tell them when they are wasting their time
24 and their money.

25 If you have had four treatments for

1 non-small-cell carcinoma of the lung, you are
2 wasting your time and your money to do another one,
3 and if you can say that there is a benefit to
4 society because I am going to be on a Phase I trial
5 or there is a benefit in some other way, that's
6 fine, but I am not sure it is compassionate when I
7 have people coming back and forth for blood counts
8 and CT's and spending that time for something that
9 I have pretty good evidence it is not going to work
10 because they have had four prior treatments.

11 DR. NERENSTONE: Dr. Linden.

12 DR. LINDEN: Hypothetically, what if a
13 study were commenced today to look at outcome
14 measures for patients who are granted treatment
15 INDs, and a second study on expanded access, and
16 what if it were learned that the outcomes are
17 virtually, unilaterally poor for both kinds of
18 studies, and there is anecdotal evidence and more
19 than anecdotal evidence, as Dr. Taylor just
20 suggested, that people do rather poorly on
21 treatment INDs because they come to them so late,
22 because they have received so much pretreatment, et
23 cetera?

24 If we are talking about safety, that is
25 one matter, but if we are talking about activity

1 and efficacy, if there is no efficacy, is that a
2 basis for--and I am speaking in late Phase II
3 trials, for drugs that are in late Phase II
4 trials--is that a basis for eliminating this
5 mechanism? I am just asking this as question to
6 try to help us focus on what our justifications or
7 criteria are.

8 DR. NERENSTONE: I guess you are asking if
9 we already know that the response rate is zero, do
10 we as physicians, who are trained ostensibly as
11 scientists, have the right to refuse treatment to a
12 patient, and I would say yes. I would say I don't
13 like including the word "compassion," because I
14 don't think that that is appropriate for us to be
15 talking about.

16 I think the compassion that we show our
17 patients is at the individual level. I think we
18 have to set guidelines, and oncology likes to think
19 itself as being a part of evidence-based medicine,
20 and just as physicians have too long given
21 antibiotics for patients who walk in the door with
22 a viral infection and said, oh, the patient wants
23 it, and therefore they should get it, I think it is
24 asking us to throw out all of our medical training
25 to say we should be giving patients, and as I said,

1 it is not placebo, it is worse than placebo,
2 because these are toxic medications, but even if it
3 weren't toxic, should we be giving them medications
4 that we know don't work because the patients are
5 demanding it.

6 I would say no, as a licensed physician,
7 that is irresponsible and unethical because I know
8 from a science-based point of view that it is not
9 going to work. So, I would say yes, we have a
10 responsibility to tell patients no, that you should
11 not be getting this drug.

12 DR. TEMPLE: Some of the suggestions that
13 we might learn more from this experience are I
14 think unlikely to be fruitful because they are
15 uniformly uncontrolled in a population that is
16 typically not terribly well defined, so that
17 getting survival data, I think is going to be very
18 difficult.

19 This sort of violates Grant's law, but I
20 just want to throw out one thought that hasn't come
21 up much, which is the possibility that some forms
22 of expanded access could actually be done in the
23 form of large, simple trials--that was on Grant's
24 slide--especially if the likelihood of benefit is
25 modest, that is, you are talking about people who

1 have failed multiple therapies, then, you really
2 have to wonder what you are going to accomplish.

3 There is no requirement that treatment
4 INDs and their like not provide useful data, it is
5 just works out that way. So, there is the
6 possibility of actually randomizing. There is at
7 least one AIDS trial that randomized between two
8 doses. There are very few similar examples, but
9 that is another possibility, that the right form
10 for wider access to take in people might be one
11 that actually provides information of a somewhat
12 different kind from what we are used to, not
13 focusing so much on tumor size and things like
14 that, but on things like survival outcomes, which
15 would need large numbers and might support wider
16 access, and might actually be economically feasible
17 for companies, as well.

18 It is worth throwing into the mix although
19 it doesn't get to Grant's main problem, which is
20 single patient.

21 DR. NERENSTONE: Grant, do you want us to
22 go back to the questions?

23 DR. WILLIAMS: Let's see, how many more do
24 we have? Fifteen minutes.

25 DR. NERENSTONE: We are still on A. There

1 is no standard therapy. How about Phase III
2 trials? The drug is already in Phase III trials.
3 Should the patient be able to have a single patient
4 exemption? Have we beaten that to death? I think
5 the general consensus is that would be okay.

6 DR. REDMAN: I disagree for the record.

7 DR. NERENSTONE: B. Available treatment
8 shows a marginal survival benefit. Non-metastatic
9 lung cancer, 1 to 2-month median survival, produces
10 moderate toxicity. Should they be able to
11 get--Phase I, we have sort of talked about, Phase
12 II or Phase III? I don't think it is really a big
13 different discussion actually than we have already
14 had.

15 DR. WILLIAMS: It is because we are no
16 longer talking about whether they have used all
17 available therapies. Here, we are saying available
18 therapy has 1 to 2 month survival benefit. What
19 would you have to see in a drug to allow you to
20 substitute it for that, or does it even play into
21 your consideration?

22 DR. NERENSTONE: Dr. Albain.

23 DR. ALBAIN: I guess I would ask you,
24 Grant, at least we have numerous in untreated
25 metastatic non-small-cell trials that have shown an

1 improved survival benefit, not just measured in
2 median, but we are talking about significant 1- and
3 2-year survival benefit, and quality of life
4 benefit versus best supportive care.

5 These trials have been conducted in
6 Canada, the United States, and Europe, so that I
7 would personally have a problem making a broad
8 statement that one could allow someone to go off
9 onto experimental therapy when you had standard
10 therapies that not only improve survival, but
11 improve quality of life, and that is where the
12 education of the patient comes back in, and the
13 public, on what can be achieved in this disease.

14 DR. WILLIAMS: That is this agent is
15 nontoxic, it seems to be relatively nontoxic, let's
16 say, and has a response rate. Would you allow it
17 or not?

18 DR. ALBAIN: Right now I thought we were
19 talking about Phase I.

20 DR. NERENSTONE: No, we are moving to end
21 of Phase II.

22 DR. WILLIAMS: Where would you draw the
23 line, what amount of efficacy or proven efficacy or
24 toxicity of this drug, in what setting would you
25 allow it, or would you never allow it?

1 DR. ALBAIN: I think I would work very
2 hard first to educate the patient and the family
3 about what we can achieve with standard therapy in
4 this scenario where not only do we know that we
5 have an improved statistical survival benefit, but
6 we have quality of life data over and over now that
7 is compelling, that it is better with treatment.

8 DR. NERENSTONE: Dr. Taylor.

9 DR. TAYLOR: I would disagree a little
10 bit. I would say that in this setting, I would not
11 be opposed to giving them a Phase II agent because
12 I don't have a curative treatment, and it is a very
13 small group of patients that gain that benefit. I
14 don't disagree that because there is something
15 standard available, that that shouldn't be brought
16 up to them as one way of doing it, but I have no
17 problem with giving Phase II agents to patients
18 with non-small-cell lung cancer.

19 DR. NERENSTONE: But remember off study.

20 Dr. Sledge.

21 DR. SLEDGE: This actually is an area
22 where we have a little data, actually from your
23 group, Kathy, in breast cancer, where there was
24 several years ago a randomized trial in breast
25 cancer between novel Phase II agents--

1 DR. ALBAIN: It was not my group, it was
2 the CALGB.

3 DR. SLEDGE: --CALGB--between novel Phase
4 II agents and standard therapy.

5 That trial was done with very strict
6 criteria, which is if you progressed after a couple
7 of cycles of therapy on the nonstandard regimen,
8 you went to the standard regimen, but there was
9 identical survival between the two groups.

10 It is hard for me to imagine that if you
11 had it under that sort of carefully controlled sort
12 of setting, that it would be a danger. The real
13 danger, of course, comes up due to the fact that
14 most of these settings are not carefully
15 controlled.

16 DR. WILLIAMS: George, that was with
17 progression, going off study if you did not
18 respond?

19 DR. SLEDGE: Correct. My recollection of
20 the trial was if you got two cycles, six weeks, 10
21 weeks of therapy, and had evidence of progressive
22 disease, you immediately crossed over to the
23 standard therapy.

24 There was identical survival between the
25 two arms.

1 DR. WILLIAMS: How large was the trial, do
2 you know?

3 DR. SLEDGE: It was actually a set of
4 rotating Phase II trials compared to a standard
5 arm. It was a fairly large database.

6 DR. ALBAIN: I was not disagreeing, Sarah,
7 with offering this end of Phase II investigational
8 drug, but my concern would be if that was a broad
9 policy, that some patients would not derive the
10 benefit of quality survival for 1 to 2 years with
11 extensive small-cell, and to go back to Dr.
12 Sledge's point, we don't have that data from that
13 breast trial available in extensive non-small-cell
14 lung cancer now that we have therapies that can
15 improve quality of life in the standard setting,
16 although one could argue the breast standard agents
17 did do that, so it's a good point.

18 But I think it is education. I would be
19 very nervous about letting a message get out that
20 this is an appropriate setting when we have worked
21 so hard to educate the lay community about what we
22 can achieve for lung cancer survivorship.

23 DR. NERENSTONE: I think that is a very
24 important point because I think all of these
25 scenarios are when the FDA is approached with this

1 problem. That is not to say this is something that
2 we advocate as treatment at all, and I think that
3 is a very important tenet, to make sure everybody
4 understands, because this is going to be
5 disseminated widely and this is for the patient who
6 has decided after a lot of counseling with their
7 private physician why this is probably not a great
8 idea and insists on it anyway.

9 DR. NERENSTONE: Dr. Carpenter, did you
10 want to add anything?

11 DR. CARPENTER: No.

12 DR. NERENSTONE: Dr. Blayney.

13 DR. BLAYNEY: I would be reluctant to
14 advise the FDA to allow a single patient exemption
15 at the end of a Phase II, I think in this setting,
16 because I think it may jeopardize further drug
17 development both because of accrual to clinical
18 trials and it may uncover some toxicity that would
19 take some time to explain and impede the timely
20 development of a potentially rational and useful
21 therapy.

22 DR. NERENSTONE: If we can go on then to
23 the third scenario. Standard therapy provides a
24 substantial prolongation of median survival. That
25 is a patient with advanced ovarian cancer, 1 to 2

1 year median survival benefit, but is generally not
2 curative.

3 I would be happy to start this
4 conversation. I would find it very difficult to
5 approve someone who is not going to take standard
6 treatment, which in general is not
7 life-threatening, does not have prolonged severe
8 permanent side effects, and instead, wants to use a
9 single patient exemption for a drug that is in
10 Phase II where we have no idea of its activity and
11 its survival benefit or even duration of median
12 response benefit as a single agent.

13 So, I would be hard pressed to think that
14 this is a good idea.

15 MR. ERWIN: I agree with you this time.

16 [Laughter.]

17 DR. ALBAIN: Stacy, what do you say if it
18 is in Phase III, though, what is your reply?

19 DR. NERENSTONE: Single agent treatment is
20 not a standard in the United States, and I would be
21 hard pressed to think that a single agent is going
22 to be better or even the same as our current
23 upfront treatments.

24 So, usually, when you are talking about
25 Phase III, it is in combination with something else

1 by the time it gets to Phase III, so as a single
2 agent, I don't see the scenario where that would be
3 appropriate.

4 DR. WILLIAMS: So, you would like to see
5 results from the randomized trial showing a similar
6 sort of outcome.

7 DR. ALBAIN: The reason I jumped to that,
8 as we all know, the new agents, the small molecules
9 are going from Stage 1, quasi-Phase II, and
10 oftentimes not a true Phase II trial, into Phase
11 III, leapfrogging, so that I don't know that we
12 want to give the message that we are all saying
13 that Phase III trials, if it is out there, that we
14 could go ahead and justify, so I wouldn't in this
15 situation.

16 DR. KELSEN: It does get a little muddier
17 when you have a study--I will disagree with you on
18 that--when we have a Phase III or a Phase II trial,
19 we have an experimental drug plus conventional
20 therapy in some of these settings, so what they are
21 saying is, oh, well, I have this small molecule,
22 monoclonal antibody, and it is being used in
23 combination with proven, approved, approved for
24 that indication chemotherapy, but I don't fit
25 entrance criteria into the study, and I would like

1 to get that drug. That makes it a harder decision.

2 The easier decision for me is the patient
3 perfectly fits criteria for the trial, but says I
4 don't want to be randomized to that arm. As soon
5 as you do that, then, it would be very hard to do
6 Phase III trials.

7 DR. NERENSTONE: I think, though, that
8 that is the problem. When you start allowing that
9 drug to be given out as the adjunct, you will
10 completely shut down your clinical trials, and
11 again, these are molecules not without very high
12 cost, some toxicity, and you are going to get into
13 the same problem you had with the bone marrow
14 transplant situation, which is everybody got it, no
15 one went on to study, and you never knew what the
16 real answer was to your question.

17 DR. KELSEN: I agree with you. I am just
18 saying it's an even trickier situation.

19 DR. NERENSTONE: Dr. Przepiorka.

20 DR. PRZEPIORKA: Just to underscore that,
21 I think if you are writing rules for yourself, one
22 rule to say no is patient is eligible for a study.
23 Then, they should not be under treatment IND.

24 DR. NERENSTONE: Dr. Linden.

25 DR. LINDEN: And that is precisely part of

1 the regs, that is written in stone. If the person
2 is eligible for a trial, they are not eligible for
3 treatment IND or expanded access.

4 DR. WILLIAMS: It may or may not say that
5 for treatment IND, but it doesn't even cover
6 expanded access. I mean some of these practices,
7 there really aren't regs for at this time.

8 DR. LINDEN: Well, treatment IND.

9 DR. WILLIAMS: Right.

10 DR. TEMPLE: Actually, it says that we can
11 stop a trial that is interfering with the
12 randomized trials. It doesn't actually say that
13 they can't both coexist. Maybe it could, but it
14 doesn't.

15 DR. BLAYNEY: I think, Grant, you also
16 raised the issue if the drug is nontoxic or very
17 close to being nontoxic, I think the response to
18 that is we don't, if it's nontoxic, it is likely
19 that the pivotal trial or the licensing trial will
20 move along and accrue very quickly, and you can, by
21 granting a single patient exemption, you can
22 perhaps impede that, and you don't want to impede
23 the completion of the pivotal trial, so I think you
24 also have an easy answer even if the drug has zero
25 toxicity.

1 DR. NERENSTONE: Moving on to the next
2 question, then. The standard therapy provides a
3 substantial rate of cure. The example is a patient
4 with acute leukemia who does not want to receive
5 chemotherapy that is associated with a 40 percent
6 rate of cure with substantial acute toxicity, but
7 that produces few lasting toxic effects.

8 Would some of our leukemia doctors like to
9 comment?

10 DR. SLEDGE: How about if the leukemia was
11 CML?

12 [Laughter.]

13 DR. WILLIAMS: George, you have been
14 wanting to say something.

15 DR. SLEDGE: What I am asking is the
16 obvious question. I mean we have a drug that
17 basically was approved on a Phase I and early Phase
18 II trial basis. We have a disease where we have a
19 proven long-term cure rate with albeit a very toxic
20 therapy. The ethical considerations must have
21 entered into your approval process.

22 DR. WILLIAMS: It wasn't approved for
23 initial therapy.

24 DR. SLEDGE: But you know darn well what
25 it is going to be used for.

1 DR. NERENSTONE: Other comments from the
2 committee?

3 DR. WILLIAMS: George is unhappy we didn't
4 bring it to the committee.

5 DR. BLAYNEY: What I said three minutes
6 ago applied to that, and that is approved for
7 principle. If it is a relatively nontoxic drug,
8 the trial was done very quickly, and you didn't
9 need this individual, a single agent exemption, and
10 fortunately, the company was responsive and had an
11 expanded access program in place, so that is
12 exactly what is approved for principle, that is why
13 you don't need the single patient exemption for
14 such a home run, a nontoxic home run.

15 DR. NERENSTONE: Dr. Przepiorka.

16 DR. PRZEPIORKA: I think perhaps a more
17 germane example would be the alternative drug for a
18 treatment IND is one that has no cure rate, but a
19 lot less toxicity and perhaps can just keep things
20 under control for an extended period of time.

21 I think there you have to start weighing
22 the risk and the benefit if the patient really and
23 truly says no, I don't want toxic therapy, period,
24 which patients can do especially elderly patients.
25 Then, the question is what do we benefit from the

1 investigational drug, and if the investigational
2 drug has shown efficacy or rather has not shown any
3 safety problems and does keep things under control
4 for a period of time, then, this may be something
5 that we are going towards palliative care.

6 So, it may be appropriate for a treatment
7 IND for a palliative care setting, but if this is
8 another drug that doesn't have a good cure rate,
9 and we are really not too sure whether it has any
10 efficacy at all, then, I would say no, there is no
11 reason to give something to the patient that
12 doesn't harm him, but we really don't know if it is
13 going to help him either.

14 DR. NERENSTONE: So, you are saying there
15 has to be some clue of efficacy even in this
16 situation.

17 DR. PRZEPIORKA: Yes.

18 DR. SPIEGEL: I am just curious on that
19 last comment, what you are accepting as evidence of
20 efficacy. At the end of Phase II, we have
21 activity. We sometimes call it efficacy, but we
22 usually think only at the end of Phase III, where
23 you have compared it to a standard therapy and
24 showed long-term benefit of some type, it could be
25 quality of life benefit, not just survival.

1 But at the end of Phase II, you know you
2 have activity unless you have CML with Philadelphia
3 chromosome disappearing, you usually don't really
4 have that much confidence that whatever you saw as
5 a response is sustainable and better than standard
6 therapy.

7 DR. PRZEPIORKA: That is a very good
8 question, and I would actually like to turf that to
9 Dr. Taylor. If you have a patient, an elderly
10 patient with leukemia who really doesn't want to
11 undergo toxic therapy, how much activity would you
12 look for to give him something palliative?

13 DR. TAYLOR: I don't know that I think I
14 have to give him some anti-cancer treatment to
15 palliate him, and I think you have to decide that
16 with the patient whether it is going to be
17 palliation with symptom management, pain control,
18 nausea control, or whether you are truly going to
19 try to palliate in terms of lowering white counts
20 and lowering the complications of that disease. I
21 think palliation can be done either way, and it is
22 going to be dependent upon that patient and what
23 their goals are. I think they have to determine
24 their own goals, and some of them choose, their
25 goals are just to be comfortable, and others want

1 to try some less than aggressive treatment.

2 In that setting, I don't know that I have
3 to have great response for efficacy data if I have
4 good toxicity profile and which I am not going to
5 aggravate my palliation.

6 DR. NERENSTONE: I guess the question is,
7 if you don't need any efficacy data, and it is a
8 drug that hasn't been studied in the leukemia, but
9 it has very low toxicity, is it reasonable to have
10 that patient call up and say I want that drug, and
11 essentially tell you what to give them, because it
12 is not toxic?

13 DR. TAYLOR: Well, I guess the practical
14 part says I rarely have that happen, that when
15 someone has chosen that they don't want to be
16 aggressive, I don't have them asking for new
17 agents.

18 DR. NERENSTONE: But they do, the FDA
19 does.

20 DR. TAYLOR: But is it in the setting
21 where they have really chosen to not be aggressive?

22 DR. WILLIAMS: This specific question was
23 set up. We have a few examples where people have
24 very good curative treatment, we are not talking
25 that person who really doesn't have good option,

1 really do have curative treatment, they don't want
2 it. They want investigational drug, and we have
3 felt that going along with that was not in the
4 patient's best interest, and there has been
5 autonomy issues.

6 DR. TAYLOR: I agree with you on the
7 autonomy, but I guess what I was hearing is I have
8 an elderly patient, I am sorry, I don't like the
9 response to acute leukemia treatment in elderly
10 patients, they don't do well, so that is a little
11 bit different.

12 DR. WILLIAMS: But that is a different
13 value judgment, a little farther on down the line
14 toward the lung cancer, I would say, or even before
15 that. The answer to this is probably pretty
16 obvious, even what you said with ovarian cancer, I
17 mean this is even higher level of benefit that
18 someone might be deciding they don't want, because
19 they want this new treatment.

20 DR. NERENSTONE: What I would say is that
21 somebody who has a treatable pneumonia, but they
22 want echinacea, and they want you to prescribe it,
23 and I would say no, I am a doctor, I prescribe
24 antibiotics, that is the appropriate treatment.
25 You can't get echinacea from me.

1 DR. TAYLOR: Right, and if this is a young
2 person who has no reason for avoiding his acute
3 leukemia treatment, then, I agree, I would not want
4 to go with any.

5 DR. NERENSTONE: Dr. Blayney.

6 DR. BLAYNEY: There are plenty of other
7 nonexperimental alternatives for that person,
8 prednisone, or whatever fits into their value
9 system, but I was also going to go the CML one step
10 further, that if hidrea was the experimental agent,
11 it is nontoxic, it is largely palliative, I think
12 that is a reasonable palliative maneuver.

13 But anyway, to your specific example,
14 there are plenty of non-IND requiring agents to
15 mistreat acute leukemia.

16 [Laughter.]

17 DR. NERENSTONE: Do we need to go to E?

18 DR. WILLIAMS: No.

19 DR. NERENSTONE: You get the general
20 sentiment.

21 Question 2. As noted above, the FDA
22 strongly endorses participation in clinical trials.
23 Patients should first consider entering a clinical
24 trial before pursuing treatment under a single
25 patient IND. If a patient is eligible and able to

1 receive Drug X as part of a clinical trial, but is
2 unwilling to do so, should that patient be allowed
3 to receive Drug X under a single patient IND?

4 Again, we have answered that. No is the
5 sentiment I think of the committee.

6 Mr. Erwin?

7 MR. ERWIN: I definitely agree the answer
8 should be no, but as a separate topic, I think
9 there needs to be consideration of how and when to
10 use crossover provisions in clinical trials. I
11 think that that can definitely accelerate accrual
12 and for the right agents and the right clinical
13 trial design. It doesn't have to interfere with
14 getting efficacy data.

15 DR. NERENSTONE: Question 3. If FDA has
16 sufficient evidence to conclude that a drug is
17 ineffective for treatment of a particular cancer,
18 discuss under what circumstances, if any, single
19 patient treatment use should be permitted.

20 You know how I feel about this, though. I
21 will open it up to the committee.

22 DR. TAYLOR: I agree, it should not be
23 used.

24 DR. NERENSTONE: Any other comments?
25 Do you feel that you have gotten what you

1 need?

2 DR. WILLIAMS: Yes, very much. Let me
3 just ask one question. There was a lot of
4 discussion about whether we should have a consensus
5 conference, who should be involved, et cetera. I
6 would just like to hear a little discussion about
7 where should we go in trying to move forward the
8 discussions about the justice of how to do these
9 programs.

10 We have talked about when you shouldn't,
11 when FDA should say no, but is there maybe a
12 different level for the industry and the community
13 when should it be provided, and how should it be
14 provided.

15 What do you think about how we should go
16 forward, who should be involved?

17 DR. NERENSTONE: Dr. Albain.

18 DR. ALBAIN: Grant, I just want to make
19 clear that we have been saying a lot of no's for
20 the single patient query to you, but I don't think
21 we have been saying no's to proper design of
22 expanded access programs or treatment IND programs,
23 that the companies can start planning very early in
24 their process of drug development as we are into
25 this exciting era of small molecules.

1 I think the time is ripe to have dialogue
2 about that issue at a national level.

3 MR. DIXON: I think, by and large, the
4 advocacy community would very much welcome a
5 consensus conference on this. The community itself
6 does not speak with one voice, and even more reason
7 why a consensus conference would be beneficial for
8 all of us.

9 DR. PAZDUR: We had entertained, and we
10 will be talking to people from the NCI, ASCO,
11 advocacy in general, and industry, PhRMA, to bring
12 this together, because we really think that this
13 needs further really voicing and looking at where
14 we would go with this whole topic.

15 DR. NERENSTONE: If there are no further
16 comments, thank you, everybody, for that discussion
17 and we will re-adjourn at 1 o'clock. This is a
18 closed session only, so it is just the committee
19 members and FDA.

20 Thank you.

21 [Whereupon, at 12:10 p.m., the Open
22 Session adjourned.]

23 - - -

| | | | | |
|----------|--|---|--|---|
| 0 | 6 | 113:1, 3, 25; 114:24; 115:20; 129:22; 132:16; 134:16, 21; 135:16; 136:18; 137:11, 17, 21; 143:9; 144:20; 145:22; 147:1, 17; 149:6, 17, 23; 151:3; 153:8; 155:7, 10, 16; 157:15; 159:22; 160:10, 16; 170:3, 6; 172:11; 179:22 access —l 98:13 access —is 98:15 accessible 17:16; 64:12 accomplish 34:6; 101:25; 119:15; 160:2 accordance 6:22 according 16:12; 46:19; 117:2 Accordingly 17:10 account 150:12 accrual 28:19, 22; 108:19; 129:19; 166:17; 178:11 accrue 170:20 achieve 163:3; 165:22 achieved 162:13 across 79:25; 95:2, 17; 104:6 Act 109:10 acted 92:25 action 10:2; 23:3 active 10:21; 87:24; 94:3 activists 25:22; 57:1; 102:23 activity 42:7; 48:6; 82:7; 91:17; 107:3; 120:3; 129:10; 130:1, 13, 17, 24; 134:1; 141:12; 142:3; 149:4; 157:25; 167:10; 173:21; 174:2, 11 activity-benefit 150:5 actually 22:8; 38:2; 66:21, 24; 82:15; 88:13; 89:9; 97:3; 101:20; 106:13; 112:9; 124:6; 132:12; 134:25; 136:11; 138:25; 141:11; 144:7; 148:1, 22; 149:14, 24; 155:6, 9; 159:22; 160:6, 11, 16; 161:13; 163:21, 22; 165:3; 170:10, 12; 174:8 acute 171:4, 6; 176:9; 177:2, 15 Adam 13:14; 14:18, 21 Adam's 14:16 add 104:24; 132:22; 166:10 added 51:2 addition 10:10; 27:3; 29:19; 45:20 additional 49:23; 111:17; 112:20 address 8:14, 24; 33:18; 48:21; 58:18; 68:14; 76:15; 77:11; 97:10, 19, 20; 117:7, 22; 136:23; | 140:19; 149:11 addressed 13:16; 32:10; 36:23; 46:17; 48:8, 16, 17; 87:9; 117:7 addresses 6:13; 124:12 adequate 91:25; 117:3 adequately 41:23 adherence 91:20 adjourned 180:22 adjunct 169:9 administered 32:12 administers 38:3 Administration 37:4 admission 25:18 adopt 16:20 adult 9:11 advance 93:17; 137:14, 23 advanced 19:14; 28:23; 29:12; 40:6; 70:21; 71:2; 166:25 advances 19:6 advancing 113:19 adverse 44:24; 45:21, 22; 46:12; 49:4, 25; 106:4 advice 36:8; 119:19; 145:3 advise 146:12; 166:14 adviser 92:13 Advisory 7:17; 8:24; 13:8 advocacy 13:12; 18:14; 23:3; 37:1; 47:20; 58:19, 20; 180:4, 11 advocate 9:23; 23:1; 26:11; 51:4; 94:8; 123:1; 166:2 advocates 18:21 Affairs 7:25 affect 46:22 affects 36:1 affiliations 7:6 aficionados 98:12 afraid —l 101:19 afraid —or 101:19 again 13:17; 36:5; 54:16, 22; 55:20; 59:3, 24; 61:13; 63:11; 65:15, 21; 67:21; 68:6, 13; 71:24; 72:8; 73:21, 23; 74:14; 75:24; 78:13; 81:6, 15, 21; 82:9, 21; 89:19, 23; 90:18; 103:17; 107:17; 108:6; 110:5; 128:23; 131:14; 132:7; 133:11; 155:16; 169:11; 178:4 against 9:9; 18:21; 20:8; 21:10; 68:9; 82:8; 128:20 age 10:21; 156:5 agencies 54:12; 59:16; 74:8 Agency 93:4; 103:23; 133:22, 25; 137:15; 153:12 agenda 8:9 | agent 27:9; 56:10; 83:24; 104:17; 110:19; 128:25; 129:3, 22; 130:18; 131:16; 138:16; 162:14; 163:11; 167:12, 19, 21; 168:2; 172:9; 177:10 agents 15:22; 20:14; 27:6; 29:12; 53:24; 83:12, 14; 88:6; 94:4; 104:13; 110:9; 118:23; 122:18; 131:6; 143:14, 24; 156:15; 163:17, 25; 164:4; 165:16; 168:8; 175:17; 177:14; 178:12 aggravate 175:5 aggressive 175:1, 16, 21 aggressively 103:24 ago 26:9; 36:17; 103:7; 109:12; 139:20; 156:5; 163:24; 172:6 agree 110:18, 25; 118:17, 21; 122:15; 123:21; 125:8; 130:8; 132:2; 142:12; 151:22; 156:20; 167:15; 169:17; 176:6; 177:3; 178:7, 22 agreed 20:6, 25 agreement 103:9 agreements 30:2 agrees 37:6 ahead 70:23; 145:20, 20; 168:14 AIDS 26:8; 27:12; 160:7 aims 142:13 Alabama 5:21 ALBAIN 5:22, 22; 104:9, 10; 127:18, 19; 136:10, 11; 161:22, 23; 162:18; 163:1; 164:1; 165:6; 167:17; 168:7; 179:17, 18 albeit 171:19 alive 10:3, 10 all-inclusive 70:10 all-knowing 101:10 Alliance 23:3; 26:20 allow 7:7; 19:10; 30:18; 36:9; 37:10; 38:8; 40:20; 42:2; 117:4, 13; 127:21; 134:24; 144:21; 145:23; 146:13; 147:24; 148:2; 161:19; 162:8, 16, 25, 25; 166:14 allowed 68:13; 178:2 allowing 18:1; 58:23; 119:5; 127:15; 169:8 allows 46:18 alluded 55:22; 83:17; 87:23; 119:1; 127:20 almost 95:8; 144:21; 153:25 along 11:5; 83:16; 112:7; 170:20; 176:3 Alternative 113:12; 172:17 alternatives 177:7 although 30:1; 97:11; |
| 1 | 7 | | | |
| 2 | 8 | | | |
| 3 | A | | | |
| 4 | ability 25:3; 63:2; 68:19; 81:22; 134:22 able 28:8; 31:24; 34:12; 61:3; 75:16; 80:4, 5, 9, 17; 84:2, 9; 87:12; 90:19; 106:8; 118:1, 19; 135:16; 161:3, 10; 177:25 above 25:17; 131:9; 177:21 absolutely 117:12; 135:21; 136:4 absorbed 25:14 abstract 131:14; 140:10 abstracts 136:16 academic 14:24; 95:20 accelerate 178:11 accept 51:6; 126:17 acceptable 94:1; 121:7; 124:16 accepted 24:17 accepting 173:19 access 7:12, 14; 15:3, 11, 17; 17:3, 4, 8, 18; 18:17; 20:15, 19, 25; 21:2, 12, 18; 23:4; 25:16, 23; 26:2, 5; 27:6, 9, 11, 23, 24; 28:2; 16, 18, 25; 30:15, 17, 21; 31:12; 32:1, 6, 7, 10, 11, 20; 33:14, 21, 23; 34:14; 35:21; 36:19; 39:11, 14, 20; 40:8; 44:8, 12; 46:17, 23; 47:8; 48:11, 18, 22; 49:13, 22, 24; 53:22; 54:21; 55:5; 57:2, 12, 15, 24; 60:4; 61:25; 64:16; 68:18; 71:19; 72:7; 74:11; 76:16; 79:4, 12, 18; 80:16; 81:3, 24; 82:21; 83:12, 13, 19; 84:6, 11; 85:11; 86:5; 88:20; 90:3, 19; 93:14, 20; 95:3, 4, 9; 96:3, 5, 7; 97:14; 98:7; 99:1; 102:12; 103:17; 104:3, 16; 105:18; 107:19, 22, 25; 108:10; 110:8, 11, 19, 24; 111:15, 16, 23; 112:2, 8, 13, 24; | | | |
| 5 | | | | |

112:1; 136:22; 152:9, 15;
153:14; 160:18; 165:16
always 16:10; 27:18;
33:7, 10; 64:13; 77:4; 84:1;
111; 134:20;
143:22
American 38:15, 18;
64:7; 65:20
Americans 65:16
Americans-to 67:3
among 14:21; 15:23;
102:21
amount 44:5; 98:6;
153:20; 162:23
analysis 95:24; 96:13;
151:16, 24; 155:17
and/or 23:10, 14; 99:11
anecdotal 95:6; 157:18,
19
anecdote 134:3,
anecdotes 27:20; 88:14;
96:9
announcement 6:13
annual 45:23
answered 30:5; 178:4
anti-cancer 87:25;
174:14
antiarrhythmics 143:20
antibiotics 158:21;
176:24
antibodies 25:5
antibody 168:22
antipate 30:16; 145:19
anticonvulsant 15:4
any-we 109:18
Appalachian 77:3
apparent 119:22
appearance 6:15
appears 15:21; 45:24
applaud 17:25
application 37:17; 48:23
applied 172:6
apply 17:4; 24:20; 57:8;
115:7
applying 14:25
appreciative 35:23
approach 17:17; 32:3;
41:13; 67:21; 76:19;
94:22; 95:16
approached 67:1;
165:25
appropriate 36:9, 14;
38:24; 41:15; 54:10;
96:23; 102:15; 111:11;
114:13; 121:3, 16, 18;
122:2; 128:1; 132:11;
152:14, 20; 158:14;
165:20; 168:3; 173:6;
176:24
ar 41:25; 44:10;
45:11; 47:18; 48:4; 49:14;
63:14; 93:5, 17; 131:21;
151:16; 155:11; 171:21
approve 42:12; 93:1;
131:3, 5, 20; 167:5

approved 9:4; 24:23, 25;
38:13; 40:9; 45:16; 76:8;
96:2; 147:25; 155:1;
168:23, 23; 171:17, 22;
172:6, 12
arbitrary 20:8
archaic 149:22
are-I 128:18
area 27:15; 29:10; 31:8;
32:22; 39:21; 63:17;
131:23; 163:21
areas 29:8; 41:15
arena 28:13; 101:24
argue 29:14; 100:11;
165:16
argued 13:20; 21:10
argument 89:7; 132:13;
139:19; 141:24
argument-but 147:11
arises 30:19
Arizona 9:12
arm 70:19; 115:10;
155:24; 165:5; 169:4
arms 164:25
around 4:10; 20:20; 80:6;
101:13; 103:16, 17;
107:13; 114:3; 128:8
arranging 86:11
article 77:25
articulate 69:1
artificial 52:9
asbestos 9:11
ASCO 131:14; 180:10
aside 105:18; 122:19
aside-was 98:3
ask-I 117:10
asked-they 67:2
aspect 42:20; 55:22;
70:11; 86:17; 88:18;
134:5; 151:6
aspects 72:17; 85:7
aspirin 11:9
assessing 119:19
assist 43:8
associated 24:2; 171:5
assume 31:7; 151:5
assumes 37:21
assumption 110:14
assure 26:1; 103:24
assured 50:5
assuring 25:24; 37:22;
49:11
Astra/Zeneca 4:15; 8:4,
5; 35:22; 43:15; 47:8;
48:18
attack 25:6
attempt 20:19; 112:2;
113:17
attempts 95:4, 9; 113:1
attendance 9:1
attention 76:22
audience 26:14
authority 153:13

autonomous 73:9
autonomy 52:17, 20;
53:6, 6; 54:18; 55:4; 56:21;
73:5; 83:10; 92:15, 16, 20;
125:20; 176:5, 7
availability 74:18
available 21:17; 22:6;
25:14; 26:6, 12; 38:15, 22,
25; 58:2, 6, 11; 60:21;
61:9; 64:2, 3, 14; 71:18;
72:10; 74:10, 22; 79:25;
80:21; 81:18; 89:18;
90:17; 98:11, 25; 103:25;
109:13; 112:5; 114:17;
116:13; 120:5; 121:10, 12,
19; 132:17; 148:24;
149:10; 154:16; 161:7, 17,
17; 163:15; 165:13
avenue 61:19
avenues 18:24
average 107:16
Averbuch 4:12, 14, 14;
8:2; 142:25; 143:1
avoid 17:18
avoiding 177:2
avoids 117:16
aware 8:10; 19:4; 88:19;
120:22; 127:4
awareness 31:20
away 11:23; 63:20;
113:19
awful 86:24

B

B 161:7
babies 55:1
back 51:22; 61:22; 76:9;
84:23; 85:10; 89:1; 95:11;
111:16; 113:16; 118:16;
125:19; 133:11; 139:20;
140:21; 145:17, 25; 155:4;
157:7; 160:22; 162:12;
165:11
background 16:3; 35:17;
51:9; 59:1; 97:24
bad 22:10; 54:5, 20;
67:13; 87:12; 88:23;
123:19; 145:13; 152:23;
153:23, 23
balance 154:17
barriers 66:9, 9, 11;
76:15; 82:25
based 18:10; 24:10;
25:12; 63:20; 118:9;
130:12; 131:20; 141:8;
143:17; 148:14
baseline 56:9
basic 82:9
Basically 40:16; 41:20;
51:17; 53:13; 82:7; 105:3;
117:12; 127:7; 148:17;
150:23; 171:17
basics 57:17
basis 42:15; 44:19; 46:5,
14; 47:24; 63:25; 64:20;
65:4; 103:19; 118:3;
148:7, 18; 155:21; 156:15;
158:2, 4; 171:18
batch 44:1
batches 43:22
Baylor 5:18
be-and 83:9
beacons 102:1
bear 131:25
beaten 161:4
become 90:16; 99:23
becomes 38:14; 59:2;
61:20; 80:3; 81:10; 122:8;
130:7; 132:17
becoming 95:14
beforehand 137:23
begin 9:16; 12:12; 45:11;
73:2; 90:2; 103:5, 7; 143:4,
8
beginning 67:22; 129:9
begins 129:13
behalf 11:11
behind 148:9
belief 24:17
beliefs 72:21
believing 30:11
belong 86:7
below 120:20
beneficence 52:17; 53:1,
8; 54:18
beneficial 112:4; 180:7
benefit 11:15; 25:4;
29:15; 37:8; 38:20; 87:15;
92:3; 96:2, 4, 12; 107:16;
110:16; 122:10; 126:7;
127:3; 132:3; 133:15;
140:9, 16; 153:25; 155:7,
25; 157:3, 5; 159:24;
161:8, 18; 162:1, 3, 4;
163:5, 13; 165:10; 167:1,
11, 12; 172:22, 25; 173:24,
25; 176:17
benefit-risk 143:5
benefiting 22:5; 45:25
benefits 9:7; 10:19; 24:7;
120:22
best 12:4, 24; 14:10, 24;
15:24; 17:1; 22:16; 23:5;
38:17, 18, 22; 61:19;
68:18; 74:3; 105:7, 9, 13;
135:13, 16; 162:4; 176:4
bet 146:23
better 20:23; 28:8, 12;
31:17; 34:11; 66:23;
68:11; 69:1; 78:12; 86:22;
94:5; 110:24; 115:11;
119:3, 5, 6; 129:7; 137:17;
152:12; 153:4; 155:3;
163:7; 167:22; 174:5
beyond 14:18; 16:19;
97:7, 18
bias 105:22, 22; 107:9
big 93:16; 104:7; 114:15;
119:7; 151:1, 19; 153:3,

14; 161:12
biggest 89:15
bilirubin 132:7
bioethicist 101:21
biologic 92:23; 137:20
biological 134:5
biologicals 4:7
Biologics 5:25; 20:17;
34:25; 95:12
biology 7:20
biotech 26:24; 102:22;
114:15; 132:25
Birmingham 5:21
birthday 12:2, 3, 7, 19, 19
bit 51:19; 59:1; 97:24;
129:4; 131:23; 140:2;
147:10; 163:10; 176:11
bizarre 113:14
blah-blah-blah 146:19
BLAYNEY 4:24, 24; 92:9,
10; 137:4, 5; 166:12, 13;
170:15; 172:5; 177:5, 6
Blayney's 143:2
blocked 112:25
blocks 112:11
blood 157:7
board 80:1; 104:6;
107:12
Bob 4:16; 6:6; 100:10;
102:16
bogged 72:1
bone 53:18; 169:13
both 16:18; 19:15, 17;
34:6; 37:7; 40:4; 89:8;
110:20; 114:11, 15;
157:17; 166:17; 170:13
bound 143:16
boundaries 36:13
bowing 136:9
brain 13:15; 14:19
brand-new 147:6
break 84:22, 23
Breast 4:20; 18:10, 13,
16; 19:1; 21:24; 26:20;
163:23, 24; 165:13, 16
bridge 33:23
brief 116:1
briefly 9:2; 13:16; 43:16;
91:3; 119:18
bright 12:2
bring 27:4; 71:11, 15;
100:9; 172:4; 180:11
brings 34:15
broad 27:15; 162:7;
165:8
broaden 140:25
broader 21:12; 32:20;
111:14; 112:17; 125:17
brought 57:6; 70:17;
116:2; 131:25; 163:15
Bruce 5:15
build 83:1; 137:7; 138:1
Building 7:4; 33:13

built 71:5; 81:14
burden 23:12; 46:9;
55:20; 152:3
bureaucracy 107:10, 11
business 137:6
buy 100:15
buy-in 66:23; 77:19

C

C 39:23; 40:4; 98:17
C225 19:16
CALGB 164:2
CALGB-between 164:3
California 4:19, 25;
83:23; 123:17
Call 4:2; 54:17; 57:15;
58:4, 6; 65:3; 71:17, 23;
86:4; 103:3; 116:19;
145:7; 173:21; 175:10
called 14:25; 39:23; 40:1,
25; 71:10; 79:12; 98:2, 23;
99:12; 112:7; 134:1
calling 19:18; 86:11
calls 19:23; 31:17; 71:8,
12; 145:25
came 20:11; 59:24, 25;
67:9; 68:5; 94:13; 110:8
campaign 93:17
can 16:13; 17:17; 19:5, 6;
22:8; 25:2, 8; 28:3; 29:19;
30:2; 31:1, 9, 13; 32:9, 22;
33:6; 34:8, 10; 35:13; 37:5;
39:5; 44:10, 19; 46:3;
49:25; 53:5, 20; 55:16;
56:13, 22; 57:19; 62:24;
63:9, 9, 16; 64:7; 65:10;
67:7, 25; 68:19; 69:1;
71:17, 22, 24; 72:17;
73:12; 74:2, 4, 17; 76:9,
11; 78:12; 80:7, 15; 83:7;
91:12; 93:5, 8; 94:3; 95:19;
96:22; 97:2; 103:4, 7;
104:1; 105:13, 20; 108:9,
11, 16, 18; 112:12; 113:3;
117:22; 118:5, 5, 11;
119:12; 122:4; 125:21;
127:16; 132:10; 143:8;
155:2; 157:3; 162:13;
163:3; 165:14, 22; 166:22;
170:10, 20, 21; 172:19, 24;
174:21; 178:11; 179:23
Canada 162:6
Cancer 4:21, 23; 6:4; 9:9,
18; 11:4, 23; 12:16; 13:13,
24; 14:6, 10; 16:23; 18:10,
13, 16; 19:1, 15; 20:22;
21:10, 11, 22; 22:17; 23:5,
8; 24:17; 26:4, 20; 36:7,
11; 37:1, 4; 39:21; 40:3;
42:8; 43:1; 47:9; 49:14;
51:5; 55:2; 59:12; 60:5, 9;
61:11; 62:8; 65:17; 67:5;
68:11; 69:3; 77:5; 79:5;
85:15; 86:1; 89:19; 94:25;
95:5; 97:11, 12; 104:4;
106:12, 12; 112:22; 116:6,

11; 121:11, 19; 128:24;
132:18; 135:18; 161:9;
163:18, 23, 25; 165:14, 22;
166:25; 176:14, 16;
178:17
cancers 21:23; 22:3;
28:23
candidate 129:15
capable 63:17
capacity 27:7
capricious 98:8
capriciousness 100:9;
101:3; 135:2
carcinoma 157:1
cardiac 24:4
cardiovascular 143:21
care 14:4; 17:7; 20:24;
31:24; 34:1; 50:23; 60:5,
24; 62:8, 19; 63:4; 67:10;
68:8, 23, 24; 69:15, 16, 21;
70:1; 73:24; 75:7; 76:17,
21; 78:6; 79:5; 80:19, 20;
83:20; 84:7; 85:12; 87:7;
88:1, 7; 89:21; 90:20;
93:25; 94:5; 118:15;
120:19; 125:9; 162:4;
173:5, 7
careful 47:19; 124:23;
147:23
carefully 12:10, 17; 29:4;
46:19; 47:21; 122:23, 24;
164:11, 14
Carl 108:2; 109:9
CARPENTER 5:20, 20;
153:16, 17; 166:9, 11
carry 78:19
case 20:17; 48:8; 100:25;
101:8; 125:9, 14; 128:15;
144:9
case-by-case 46:14
cases 62:9; 106:7; 112:1;
121:7
categories 146:13
category 21:19; 113:13;
151:13
caught 145:13, 25
Cause 13:11, 18; 25:2;
53:20
causing 29:10
caution 31:6; 143:12
cautious 143:23
celebrating 12:8, 18
Cell 5:17; 23:22
cells 55:2
Center 5:4, 24; 6:1; 9:21;
65:12, 12; 71:23; 95:13;
123:8, 15; 124:16; 129:19
centers 14:24; 31:23;
63:12
central 137:1
centralizing 107:19
centuries 52:2
certain 64:8; 72:17; 84:1;
95:5; 98:5; 99:19; 153:20;
154:10

certainly 83:18; 87:4, 25;
92:1; 96:15; 106:11;
108:11; 111:19; 112:14;
114:18; 128:19; 139:10;
140:11; 151:16
cetera 21:25; 22:1; 28:2;
117:19; 157:23; 179:5
Chairman 35:4; 58:23
chairwoman's 90:25
challenge 34:5; 73:7, 21;
114:19; 153:2
chance 9:15; 10:8; 13:17;
22:5; 112:3; 126:15;
147:15; 153:25; 154:7;
156:11
chances 54:23
change 11:20; 17:23;
28:10; 96:19; 139:7, 12;
145:8
changed 54:22, 23;
141:16
changes 17:20
changing 143:23
characterized 106:3
chasing 154:18
chemotherapies 53:19
chemotherapy 11:10;
19:4; 20:18; 22:12; 23:10,
14, 22; 24:2; 91:21, 23;
168:24; 171:5
Chicago 5:23
Chief 7:25
child 13:24
childhood 13:13
children 13:19; 14:6, 10;
17:6, 10
Children's 13:11, 18, 23;
14:5; 17:3
choice 9:25; 11:16; 61:8
choices 21:12; 67:17
choose 34:4; 112:13;
174:24
chooses 27:23
chose 51:9; 81:24
chosen 175:15, 21
chromosome 174:3
circle 34:15
circular 147:10
circumstance 96:24, 24
circumstances 15:10;
38:4; 47:3; 100:7; 122:11;
145:23; 148:7; 149:20;
178:18
circumstantial 74:12, 25
cite 16:4
cited 26:15
City 18:11; 85:24
clarification 16:2; 111:6
clarify 133:18; 138:3
clarity 17:7
class 6:21
clear 15:7, 11; 17:14;
36:17; 109:18; 114:21;
133:8; 148:8; 179:19

clearinghouse 74:17
Clearly 16:17; 31:5, 15;
49:4; 92:14; 104:18;
138:5; 145:3; 148:4
clever 114:5
clinic 71:10, 13; 84:15
Clinical 8:25; 9:5, 14, 24;
10:5, 15, 18; 11:6, 13, 15,
18; 12:11; 13:22; 14:3;
15:18; 16:10, 16, 25; 17:4,
19; 19:3, 11, 17; 20:13, 21;
22:13, 15; 24:11, 20;
25:13, 15; 30:9; 38:9, 17,
21; 42:11; 43:6; 44:22;
48:3; 49:17, 18, 24; 50:2;
59:9, 10; 60:7, 8; 61:1, 18,
23; 62:1, 4, 6, 11, 17, 24;
63:3; 64:1; 65:19; 66:4, 10,
15; 67:4, 22; 70:16; 71:3;
72:6, 17; 74:12, 15; 75:25;
76:16, 17; 77:17; 79:1;
81:11; 87:15; 89:24; 90:5;
94:10, 12; 96:17, 19, 20;
97:9; 103:1, 20; 105:24;
106:1; 108:3; 110:10, 12,
13, 14, 24; 111:15; 113:3;
114:1; 115:7, 24; 116:3,
11, 13; 120:10, 25; 133:13;
140:15; 143:16, 18;
151:13, 17; 154:23;
166:17; 169:10; 177:22,
23; 178:1, 10, 12
clinicaltrials.gov 109:15
clinician 29:25
clinicians 29:2; 31:18
close 18:23; 30:14;
94:10; 104:15; 113:7;
170:17
closed 24:13; 180:18
closely 66:13
clue 130:9; 173:15
CML 21:20; 171:11;
174:2; 177:9
co-opt 110:12
Coalition 4:21
code 15:24
coexist 170:13
cohort 76:7
collaborations 76:20
collect 48:10; 49:3
collected 25:24; 28:1
collecting 47:17; 49:9;
106:1
collection 45:21; 46:11;
48:7; 49:15
collectively 68:14; 72:3
College 5:18
colon 19:15; 21:24
column 119:7
combination 122:17;
167:25; 168:23
comfortable 134:9;
137:12; 174:25
coming 4:4; 71:12; 73:8;
82:12; 155:15; 157:7
commenced 157:13

commend 93:4
comment 8:16; 68:1, 2;
93:10; 102:3, 16; 107:21;
111:5; 115:25; 116:1;
117:24; 132:23; 134:4;
138:25; 139:1; 140:5;
146:16; 149:11; 153:18;
171:9; 173:19
comments 7:8; 18:5;
22:22; 51:2, 6; 94:19;
101:13; 108:23; 110:23;
143:2, 3; 148:6; 152:8;
154:21; 172:1; 178:24;
180:16
commercial 44:2, 3;
120:15, 18
commitment 32:20;
46:6; 47:12, 13; 69:25
committed 34:13
committee 4:9, 13; 5:10;
6:18; 7:17; 8:24; 13:9;
26:18; 35:4; 42:16; 50:13;
58:15, 25; 65:4; 90:22, 24;
92:8; 109:7; 111:3;
119:17; 120:9; 121:21;
124:9; 148:19; 172:2, 4;
178:5, 21; 180:18
committee's 43:7
committing 46:3
common 17:13; 21:23;
46:25; 93:9; 103:9; 125:1
common-sense 27:20
communicate 34:10
communication 15:15;
17:21; 32:23; 55:21; 95:2;
102:7, 16, 18, 20
communities 62:20;
66:12, 24; 76:23; 77:11;
78:9; 80:17, 20; 82:14, 16,
20; 102:25
community 10:22; 33:17;
44:5; 58:19, 20; 59:10, 22;
60:1, 18; 62:25, 25; 66:8,
16, 21; 68:7, 9; 76:20;
77:7, 9, 15, 18, 18, 20;
78:5, 18; 79:18; 82:9, 11;
83:8; 90:9; 93:8; 95:4;
102:23; 128:6, 6, 7;
165:21; 179:12; 180:4, 5
community-based 33:3;
77:24; 78:1, 3, 8; 86:7
companies 6:25; 22:9,
11; 26:1; 27:2, 8; 29:2;
43:24; 58:10; 100:2;
102:22; 107:25; 108:17;
109:24; 110:2; 114:4, 8,
16; 132:25; 134:20;
135:14; 136:17; 137:1;
145:6, 14; 152:25; 153:5,
14; 160:17; 179:23
company 19:22; 26:25;
32:25; 33:16; 36:19;
37:20; 41:13; 44:3, 11, 15;
45:8, 11, 25; 46:5; 48:10,
22; 71:20; 80:25; 99:21;
101:9; 112:12; 133:22;
136:2; 138:12, 17; 145:17,
18; 153:3; 172:10

company's 146:2
compare 155:10
compared 165:4; 173:23
convincing 50:4
compassion 150:7, 8,
14; 153:18, 20; 156:22;
158:13, 16
compassionate 14:12;
15:1, 12, 19; 17:24; 20:7;
22:2; 28:17, 21, 25; 29:8;
31:15, 22; 32:5; 33:21;
36:16; 93:23; 94:4; 97:4;
99:12; 114:23; 115:13, 20;
116:19; 131:18; 145:8, 9;
157:6
compassionately
115:18
compelling 130:17, 21;
137:20; 163:7
competent 60:5; 78:23,
24; 125:18
competition 44:8, 10, 15
compiled 155:13
compiling 95:21
complete 88:14
completed 123:23;
136:15; 142:3
completely 112:25;
169:10
completion 170:23
complex 17:9; 52:7, 10;
55:15; 112:16
complexities 55:18
complexity 30:13; 45:7
compliance 66:2; 108:1,
13; 113:7, 8
complications 174:20
comply 108:18; 109:1
compound 29:23
compounds 32:19
comprehensive 13:21
compromised 29:6
conceivably 134:24
concept 104:11; 115:6;
134:5; 140:10
concepts 105:4, 15
conceptually 28:15;
100:23
concern 28:18; 29:8;
44:7, 14; 154:25; 165:8
concerned 86:10;
102:18; 117:18; 139:17;
149:16
concerns 31:5; 43:11,
18; 44:25; 103:5, 6
conclude 178:16
conclusion 95:19;
151:10
conclusions 95:19;
96:14; 149:19; 150:1;
151:4
concur 113:23
concurrence 41:25
condition 32:16

conditions 46:22; 49:8
conduct 16:24
conducted 162:5
conducting 7:21; 42:9
conference 36:23, 24;
57:23; 102:11, 15; 103:11,
12; 104:11; 114:10; 179:5;
180:5, 7
conferences 55:9
confidence 124:13;
143:5; 174:4
confidentiality 30:2
confines 127:14
confirmed 134:6
Conflict 6:9, 11, 13;
14:14; 18:8; 53:6, 10;
92:15; 128:14
confounded 106:6
confused 98:22
confusing 27:15; 39:5
Congress 64:19
connected 20:10; 31:8
consensus 20:12; 36:23;
73:15; 74:9; 96:16;
102:10; 103:11, 12;
104:11, 19; 114:9; 136:24;
161:5; 179:4; 180:5, 7
consent 16:12; 29:21;
34:9; 41:24; 47:21; 52:24;
54:10; 55:3, 21; 56:21;
73:4, 6, 19; 76:22; 78:22;
106:23; 107:13; 122:5, 8;
123:2; 126:5, 5
consents 66:18; 73:10;
78:23
Consider 10:1; 12:10, 17,
23; 42:20; 46:5, 8, 13, 23;
50:2; 62:14; 70:15; 94:3;
111:18; 113:8; 118:19;
124:18, 22; 145:21, 22;
177:23
considerable 46:6
consideration 161:21;
178:9
Considerations 34:21;
35:2; 50:17, 18; 119:23;
134:19; 151:6; 171:20
considered 15:12; 16:7;
23:15; 32:8; 61:8; 65:25;
75:5; 76:6; 88:3; 149:1;
153:6
considering 9:24; 92:10;
93:19; 115:17
considers 42:5
consistency 15:15; 17:8
consistent 14:4; 16:21;
17:16; 112:25; 144:2, 13
constant 14:23
constantly 113:16
constituent 102:21
consult 63:24
consultants 6:24
consulting 7:10
Consumer 5:4; 58:24;
59:21

consumers 102:23
contact 45:9
context 16:16; 110:10;
112:18; 120:7; 121:5;
152:17
continually 113:20
continue 92:19
continued 69:25
contract 47:15
contracts 63:21
contradictory 33:24
contribute 61:12
contributed 152:9
control 24:9; 60:10;
172:20; 173:3; 174:17, 18
controlled 44:24; 87:22;
123:4; 141:20; 164:11, 15
controlling 87:20, 21
controversial 18:15
convenient 63:16
conventional 29:13;
122:17; 129:23; 168:19
conversation 167:4
convert 44:1
converts 44:3
conveyed 15:9
convince 115:8
convinced 20:2
Cooper 26:17; 34:17
Cooperative 17:1
coordinate 17:12, 21
coordinating 73:24
cope 33:8
copy 7:1; 26:12
corollary 54:19
corporation 7:20
corrected 100:23
correlated 140:13
cost 86:10, 15, 17; 89:6;
117:19; 169:12
Council 77:5
counseling 166:6
country 73:9; 83:18;
84:7; 92:14; 99:19; 100:24
counts 157:7; 174:19
couple 59:18; 101:13;
135:10; 164:6
course 18:14; 48:25;
99:4; 105:12; 116:9;
164:13
cover 79:19; 85:22; 170:5
create 95:16
created 23:4; 30:18;
47:15
creatinine 115:18;
127:25; 128:2
credit 93:6
criteria 62:9; 70:24; 73:2;
75:13; 90:14; 115:15, 21;
116:3, 7, 9, 16, 18; 125:5;
127:23, 25; 132:5, 6;
133:4; 139:5, 7; 141:9, 11,
15; 147:14; 148:25; 149:3,

9; 156:3; 158:7; 164:6;
168:25; 169:3
criticize 156:16
crossed 164:22
crossover 178:10
CT's 157:8
CTEP 111:1
culturally 60:5; 78:23,
24; 79:4
cultures 78:25
cumbersome 136:21
curable 74:22
curative 24:24; 76:4, 11;
118:20; 163:12; 167:2;
175:24; 176:1
cure 9:15; 23:13; 30:11;
91:9, 10; 113:15; 171:3, 6,
19; 172:18; 173:8
curious 173:18
current 8:15; 15:25; 27:3;
28:11; 31:21; 144:13;
167:22
currently 99:9; 108:3;
112:5; 155:20; 156:6
cut 19:5
cycles 164:7, 20

D

daily 45:8; 148:18
damage 25:3
Dan 23:18
danger 164:12, 13
darn 171:24
data 25:24; 27:19, 21;
28:1, 3, 18; 31:6; 32:15,
16; 38:12; 42:21, 23; 43:5;
46:11; 47:18; 48:7, 11, 21,
24; 49:3, 6, 10, 11, 15, 16;
56:9; 57:8; 86:2, 3; 89:1;
106:1, 4, 9, 17; 112:4;
122:7; 131:3; 132:12, 17;
138:6, 8; 139:3; 141:18,
24; 146:10; 149:17, 18, 25;
155:19; 156:3; 159:17;
160:4; 163:6, 22; 165:12;
175:3, 7; 178:14
database 103:20, 25;
107:19; 108:4, 5, 25;
109:3, 15, 20, 21; 111:6;
165:5
databases 114:4, 7
daughter 87:17
Dave 5:1
day 63:22; 64:6; 84:11;
129:24
day-to-day 47:16; 66:20
days 14:22; 15:2
dead 10:3
deadline 63:8
deadly 9:9; 12:16, 24
deal 50:24; 95:1; 96:12;
97:13; 129:2
dealing 50:23; 53:17, 18;

55:11, 12; 56:22; 97:5;
101:4; 110:24; 118:13;
147:2
deals 83:9
Dear 23:2; 26:18
death 9:11; 11:1; 53:20;
161:4
debates 155:15
decades 95:8
December 7:16; 9:1;
10:24; 13:16; 30:4; 43:10;
56:25; 60:13; 92:12;
101:15; 102:5, 20; 114:12
decide 10:18; 11:6, 24;
12:24; 31:1; 43:24; 53:9;
60:17; 62:12; 82:15;
174:15
decided 9:8; 48:10; 166:6
decides 40:18, 20; 64:19
deciding 12:10; 176:18
decision 9:22; 12:18, 25;
65:2; 73:7, 9, 10, 13, 15,
16; 93:1; 125:17; 133:6,
14; 145:18; 169:1, 2
decisionmaking 125:14
decisions 9:25; 17:10;
96:11; 112:23; 113:16;
148:17
decrease 48:24
dedicate 47:13
dedicated 13:12; 47:14
deep 31:13
defeated 11:22
define 52:11; 53:7;
131:19
defined 46:19; 55:23;
143:14, 24; 159:16
defines 151:14
defining 36:13
definitely 111:2; 178:7,
11
definitions 17:14; 37:13;
72:22; 144:13
degraded 24:6
DELANEY 6:3, 3; 107:24;
144:24, 25
delay 105:11
delays 63:1
deliberately 127:22
deliver 82:19
delivery 27:10
demand 84:3; 113:14;
127:12; 152:10
demanding 55:4; 159:5
democracy 101:25
demonstrate 137:24;
149:4
demonstrates 69:25
denied 139:24
deny 18:22
departments 44:17, 20;
114:20
depend 143:6
depended 98:8

| | | | | |
|----------------------------------|----------------------------------|------------------------------------|----------------------------------|------------------------------------|
| dependent 174:22 | differentiate 126:18 | distinctions 96:7 | 115:4, 5; 116:1, 21, 21, 22; | 119:3, 21, 24; 120:3, 14, |
| depending 150:10 | differently 101:20 | distress 15:16 | 117:23; 119:10, 11; | 15, 16, 24; 121:1, 3, 14, |
| derive 165:9 | difficult 14:15; 41:15; | distressing 146:2 | 121:22, 22, 25; 122:14, 15; | 18; 122:2, 5, 12, 16, 20; |
| describe 17:14; 39:6; | 56:23; 123:10; 151:4, 9; | distributed 36:20 | 123:1, 6, 20, 20, 21; 124:8, | 123:13, 16, 18; 125:24; |
| 40:12, 15 | 159:18; 167:4 | distribution 32:17 | 15, 21, 23; 125:21; 126:4, | 126:10; 129:20; 131:3, 5, |
| described 7:15; 25:17; | dilemma 116:25 | divided 39:9 | 17, 20, 22, 25; 127:4, 6, 6, | 21, 21; 132:7; 133:19; |
| 39:12; 40:1; 47:7; 79:10 | direct 65:11 | division 128:5 | 7, 7, 18, 18, 19; 128:3, 21, | 134:1, 23; 137:7; 141:4, |
| describing 120:11 | directing 101:9 | divulge 152:24 | 23; 129:1, 25; 130:3, 10, | 19; 142:10; 143:6; 144:5; |
| description 16:19 | directly 27:5 | Dixon 103:15, 16; 108:2, | 15, 20; 131:1, 1, 2, 22; | 152:4, 17; 154:1, 8, 15; |
| descriptive 39:13 | Director 6:6; 8:3; 26:19; | 24; 109:9; 180:3 | 133:16, 16, 17; 134:12, 12, | 155:1, 8; 156:18, 21; |
| deserving 93:10 | 34:18 | docs 57:13 | 13; 135:12, 25; 136:4, 10, | 159:11; 161:2, 19; 162:24; |
| design 27:9; 66:22; | disagree 124:1; 126:20; | doctor 32:24; 45:10; | 11; 137:4, 4, 5; 138:3, 18, | 165:8; 166:16; 167:9; |
| 111:15; 143:7; 178:13; | 148:23; 161:6; 163:9, 14; | 98:9; 176:23 | 24, 25; 139:1, 18, 18, 19; | 168:19; 169:1, 9; 170:16, |
| 179:21 | 168:17 | doctors 14:23; 171:8 | 140:6, 18, 18, 19, 25; | 24; 171:16; 172:7, 17; |
| designated 133:10 | disagreeing 165:6 | document 15:21; 109:13 | 141:23; 142:2, 11, 11, 12, | 173:1, 2, 8; 175:8, 10; |
| designed 98:10; 127:22; | disagreements 103:10 | documents 15:20 | 25, 25; 143:1, 1, 25, 25; | 176:2; 178:1, 3, 16; 179:24 |
| 133:10 | disappear 93:24 | dogged 27:18 | 144:1, 14, 17, 18, 24; | drug's 42:2, 19; 121:5 |
| desire 98:18; 100:24 | disappearing 174:3 | dollars 65:1, 5; 113:6 | 146:5, 5, 6; 147:19, 22; | drugs 4:7; 6:2; 7:16; 14:1; |
| desk 26:13 | disbelief 18:20 | domain 17:9 | 148:1, 10, 12, 20, 20, 21, | 15:17; 16:7; 17:3, 18; |
| desperate 15:10; 30:10; | disclaimer 50:21 | dominant 103:1 | 22; 149:12; 150:2, 2, 3, 19, | 18:17; 19:11; 20:16, 20; |
| 55:17; 100:25 | disclose 7:9, 18, 24; 8:3 | done 12:5; 26:8; 33:11; | 20; 151:11, 21, 21, 22; | 21:2, 13; 22:10; 26:8; |
| detailed 27:22; 48:11 | disconnect 66:7 | 54:9; 72:3, 17; 77:3; 80:23; | 152:6, 6, 7, 9; 153:16, 16, | 34:25; 35:9, 19; 36:1, 7, |
| determination 47:22; | discovery 30:25 | 82:10, 11, 16; 86:23; | 17; 154:19; 155:19, 23; | 10; 37:7, 11, 15; 39:5, 9, |
| 98:25 | discriminate 20:8 | 107:14; 119:4, 4; 135:25; | 156:1; 157:11, 11, 12, 19; | 24; 40:5, 9; 42:6; 43:12, |
| determine 38:9, 13, 19; | discuss 6:9; 18:15; | 139:5; 141:20, 22; 144:15; | 158:8; 159:12; 160:21, 23, | 19, 21, 22; 47:4; 49:14; |
| 126:10; 155:24; 174:23 | 40:13; 43:16; 110:8; | 151:24; 153:3, 4; 154:11; | 25; 161:6, 7, 15, 22, 22, | 51:14; 55:5; 56:15; 57:21; |
| determined 10:23 | 120:12; 121:4; 178:18 | 156:13; 159:22; 164:5; | 23; 162:14, 18, 20, 22; | 58:5; 60:21; 87:4, 5; 89:6; |
| determining 70:16; | Discussants 84:25 | 172:8; 174:21 | 163:1, 8, 8, 9, 19, 20, 21; | 90:1; 91:10, 11, 14; 93:18; |
| 119:22 | discussed 6:17; 14:25; | Donna 5:17; 141:23 | 164:1, 3, 16, 19; 165:1, 3, | 98:5; 106:20, 22; 113:4; |
| develop 17:13, 15; 25:22; | 19:2; 31:4; 47:5; 98:24 | Donna's 146:16; 151:1 | 6, 11, 23; 166:9, 9, 11, 12, | 114:16; 124:7; 128:20; |
| 28:4; 69:24; 70:19 | discussing 4:5; 105:19; | door 30:12; 158:21 | 12, 13, 22; 167:17, 19; | 146:17; 158:3 |
| developed 25:25; 39:25; | 107:6; 149:14 | doors 115:2 | 168:4, 7, 16; 169:7, 17, 19, | dubbed 59:8 |
| 47:21; 52:13; 98:3; | discussion 27:15; 30:18, | Doran 8:21, 22; 9:4; | 19, 20, 24, 24, 25; 170:4, | due 21:4; 164:13 |
| 109:11, 16; 110:3; 156:17 | 24; 34:23; 43:8; 84:22; | 11:12; 13:5 | 8, 9, 10, 15; 171:1, 10, 13, | dues 30:9 |
| developing 33:25; | 85:4; 90:22, 24; 92:11, 22; | dose 19:4; 100:13, 18, | 15, 22, 24; 172:1, 3, 5, 15, | Duke 5:11 |
| 109:25; 152:16 | 93:2; 96:9; 102:5; 105:3; | 20; 118:24; 122:5; 129:8; | 15, 16; 173:14, 17, 18; | duration 167:11 |
| development 7:11; 40:6; | 119:11, 13, 18; 121:21, 24; | 139:12 | 174:7, 9, 13; 175:6, 13, 18, | during 10:2; 133:20; |
| 11; 42:21; 43:21, 23; | 128:22, 25; 130:11; 145:3; | doses 50:4; 160:8 | 20, 22; 176:6, 12, 20; | 134:11; 138:5 |
| 66:15, 16; 79:13; 93:15, | 146:7; 150:3; 155:5; | dosing 142:23 | 177:1, 5, 5, 6, 17, 18, 19; | dying 12:4; 18:22; 91:21, |
| 21; 94:16; 106:21; 114:25; | 161:13; 179:4, 6; 180:16 | Doug 4:24 | 178:15, 22, 24; 179:2, 17, | 23; 118:2, 4, 14 |
| 115:24; 121:5; 137:7; | discussions 8:7; 27:19; | down 30:15; 63:25; 72:1; | 17, 18; 180:9, 15 | dysfunction 24:4 |
| 142:7; 166:17, 20; 179:24 | 36:14, 15; 93:12; 104:24; | 78:15; 89:23; 90:4; | drafted 85:3 | |
| device 26:24; 95:25 | 107:13; 153:13; 155:21; | 103:12; 107:6; 108:6; | draw 124:10; 149:19; | |
| devices 95:11 | 179:8 | 141:7; 169:10; 176:13 | 162:22 | |
| devil's 123:1 | disease 11:21; 12:25; | DR 4:3, 12, 14, 16, 18, 24; | drawn 39:17; 95:19; 96:7 | |
| devised 19:20 | 20:16, 17; 22:7; 23:13, 16; | 5:1, 3, 5, 7, 9, 11, 13, 15, | drift 85:10 | |
| diagnosed 14:11; 25:11 | 24:10; 26:5; 29:13; 32:16; | 17, 20, 22, 24; 6:1, 5, 6, 8, | drive 63:23; 112:21; | |
| diagnosis 14:19; 31:9; | 40:3; 48:5; 60:6, 8, 19; | 8, 12; 8:19; 13:4; 18:4; | 113:14 | |
| 69:2 | 69:2, 5, 10, 12, 23; 70:7; | 22:21, 23, 23, 25; 23:18; | drops 156:11 | |
| dialogue 37:6; 45:11; | 79:5, 24; 83:24; 89:17; | 34:19, 22; 35:4, 19, 21, 23, | Drug 8:24; 13:8; 15:1, 7; | |
| 104:12; 180:1 | 95:18; 97:11, 13; 106:6; | 24; 40:12; 43:13, 14; 45:6; | 16:5, 6, 13; 18:23; 19:16, | |
| dialysis 52:8 | 112:22; 115:17; 129:3, 22; | 46:8, 16, 21; 47:7; 48:20; | 21, 23; 20:23; 21:3, 16; | |
| die 11:14 | 135:18; 140:8; 143:21; | 50:10, 10, 12, 13, 15, 16, | 22:6, 9; 26:1, 7; 30:23; | |
| died 13:14; 14:21 | 144:8; 162:13; 164:22; | 20; 51:8; 56:24; 58:14, 17, | 32:15; 33:1, 19; 36:20; | |
| difference 28:24; 60:16 | 171:18; 174:20 | 18, 22; 72:9; 77:2; 79:8, 9, | 37:3, 16, 25; 38:3, 10, 13, | |
| different 20:24; 22:3; | diseases 30:6; 43:2 | 10, 22, 23; 80:22; 81:5; | 14, 19, 24; 39:22; 40:17, | |
| 33:16; 39:7, 20; 51:11; | dismissed 95:6 | 83:3, 5, 6, 15, 17; 84:21; | 17, 18; 41:11, 21, 22; 42:7, | |
| 52:10; 60:14; 63:20; 71:2; | dispensed 15:19 | 85:2, 2, 6; 89:11, 11, 13; | 10, 12, 21; 43:20, 20, 24; | |
| 85:7, 8, 14; 94:25; 95:18; | dispersed 99:10; 100:12 | 90:23; 92:9, 10; 94:17; | 44:6, 9, 18, 21; 45:2, 18, | |
| 98:24; 99:14; 100:14, 23; | disruptive 44:20 | 96:14; 97:22, 22, 23; | 24, 25; 46:1, 4, 10, 19; | |
| 101:6; 105:4, 15; 114:9; | disseminate 129:14 | 100:10, 15, 16, 22; 101:11, | 47:9; 48:2, 10, 14, 23; | |
| 115:3; 117:17; 130:20; | disseminated 166:5 | 12; 102:4, 8; 103:6, 15; | 50:4, 5; 57:2, 16; 58:10; | |
| 143:13; 144:7; 160:12; | disservice 20:22 | 104:9, 9, 10, 22, 22, 23; | 69:18; 70:4; 76:8; 81:2; | |
| 161:13; 176:11, 12; | distance 147:2 | 107:17; 108:15; 109:5; | 84:3; 85:18; 86:13, 22; | |
| 179:12 | distinction 124:11; 133:8 | 110:4, 4, 5, 6; 111:4, 4, 5, | 88:12, 12, 13, 21; 89:2, 20; | |
| | | 13; 112:18; 113:22, 22, 23; | 92:24, 24; 93:1, 7, 15, 17, | |
| | | | 21; 94:16; 96:1; 99:8, 21; | |
| | | | 101:6; 105:8; 106:24; | |
| | | | 107:3, 5; 108:17; 109:10; | |
| | | | 114:24; 117:4; 118:8, 21; | |

E

E 177:17
earlier 20:16; 57:6; 87:10;
 117:25; 136:23; 144:18;
 146:9; 149:12, 14
early 22:7; 27:6, 23;
 31:11; 32:6, 10; 33:16;
 34:14; 43:20; 46:24;
 79:10, 15; 81:3, 5; 95:11;
 99:4; 106:20, 25; 114:25;
 127:21; 138:13, 18, 23;
 149:7; 155:3; 171:17;
 179:23
earnestly 32:9
ease 31:20
easier 33:7; 57:25; 58:1;
 169:2
easily 79:20
easing 46:9
easy 52:11; 78:4; 170:24
ECAP 153:1
echinacea 176:22, 25
echo 143:2

| | | | | |
|---|---|---|--|---|
| <p>echoed 36:15 economically 160:16 educate 17:22; 36:6; 8 63:2; 165:21 educated 20:9; 72:6; 82:5 educating 58:8, 9 education 13:12; 26:22; 31:18; 58:3; 67:16; 68:19, 21; 75:8; 77:24; 78:8; 82:9, 16; 90:7; 91:4; 92:6; 94:21; 113:18; 118:7; 162:12; 165:18 educational 27:1; 31:14 effect 16:9, 14; 31:10; 42:19; 92:24 effective 23:6, 11; 24:9; 33:25; 38:10, 20; 42:12, 25; 43:1; 55:6; 56:17; 61:20; 89:3, 4, 25; 90:15; 91:12, 14, 18; 96:1; 97:4, 8 effectively 97:19 effectiveness 34:9; 39:2; 49:16; 98:6; 132:24; 144:4 effects 24:6; 25:1; 82:8; 107:5; 125:7; 126:7; 167:8; 171:7 efficacious 111:21 efficacy 26:8; 33:10; 42:2; 50:6; 106:9; 117:3; 120:2; 121:6; 131:8, 12; 13 139:17; 140:24; 14 20; 151:24; 158:1, 1; 162:23, 23; 173:2, 10, 15, 20, 21; 175:3, 7; 178:14 efficient 41:8 effort 11:22; 27:14; 33:17; 89:10 efforts 17:12; 66:11; 72:8 EGFR 21:25 either 30:23; 44:10; 68:8; 72:14; 114:1; 131:12, 25; 137:22; 143:17; 152:14, 17; 153:2; 173:13; 174:21 elderly 54:8; 67:3; 172:24; 174:9; 176:8, 9 elders 67:1, 2 electronic 17:22 elegant-sounding 21:5 element 150:8, 13 elements 150:11 Eligibility 48:4; 116:3, 7, 8, 15, 18; 127:23; 139:5; 141:9, 11, 15; 146:20, 24; 147:14; 148:25; 149:3, 8 eligible 15:5; 44:13; 48:3; 63:10; 65:7, 13; 108:10, 12; 115:15; 116:12; 123:9, 11; 172:2; 170:2, 2; 177 eliminating 158:4 else 64:1; 69:18; 70:8; 75:9; 77:4; 80:18; 99:12; 116:4; 141:13; 152:19; 167:25</p> | <p>else's 10:13; 12:14 embargoed 29:24 emerge 137:20 emergent 44:19 emerging 25:4, 6; 34:7 emotion 96:10 emotions 34:16 emphasize 56:19 emphasized 13:18; 88:19 employee 7:19 enacted 28:11 encourage 11:12; 93:13; 153:12 encouraged 21:3; 94:7 encouraged—I 108:17 encouraging 132:1 end 19:20; 97:1, 4, 18; 107:6; 132:6, 10; 133:22; 134:6; 137:8; 143:4; 144:10; 146:3; 152:14; 162:20; 165:7; 166:15; 173:20, 22; 174:1 end-of-life 50:24; 69:16; 87:9 ending 15:8 endocrine 24:5 endorses 38:16; 177:22 endpoint 140:8 endpoints 50:7 ends 68:15 energizing 31:10 enforcement 111:8, 9 enhance 34:8 enough 43:25; 72:6; 81:2; 85:3; 125:18; 129:8; 135:5, 6; 141:25; 144:5; 152:11 enrolled 103:2 enrollment 20:15 ensure 78:21 entered 116:11; 171:21 entering 22:13; 44:11; 111:9; 138:8; 177:23 entertain 124:6 entertained 180:9 entire 6:21; 145:7 entirely 15:20; 144:2 entitled 100:1 entity 82:6 entrance 168:25 entry 47:23 environment 62:18 epidemic 27:5; 34:3 epilepticus 14:22 equal 53:22; 54:21; 60:4; 79:4, 12; 81:3; 84:6, 10; 137:11 equally 17:4 equipose 115:6; 119:2 equitable 34:13; 97:3, 21; 135:10 equity 31:3; 32:3, 9;</p> | <p>101:17, 22; 103:18 equivalent 98:17; 131:13; 134:17 era 104:12; 179:25 ERWIN 4:22, 22; 7:18; 94:17, 18; 102:4; 111:13, 14; 124:9, 10, 20; 125:8; 127:8; 132:21, 22; 154:19, 20; 167:15; 178:6, 7 Erwin's 102:16 especially 28:22; 36:8; 43:21; 49:4; 72:11; 81:8; 93:16; 132:8, 17; 135:14, 17; 172:24 essence 105:2; 147:6 essential 111:12 essentially 121:10; 175:11 et 21:25, 25; 28:2; 117:19; 157:22; 179:5 ethical 17:2; 30:14; 50:17, 18; 51:1; 53:11; 54:10; 61:15; 64:11; 74:24; 83:6; 115:8; 171:20 ethicist 50:22 ethics 50:24; 51:10, 10, 15, 15, 16, 17, 21; 52:12, 15; 54:1, 2, 3, 4, 14 ethnographic 27:21 Europe 162:6 evaluate 7:8; 49:25 evaluating 42:6; 43:6; 50:6 even 6:15; 11:21; 14:16; 18:24; 53:14, 19; 63:7; 64:9, 16; 71:25; 75:16; 79:25; 81:17, 25; 83:25; 84:6, 14; 91:11, 17; 96:5, 11; 104:17; 106:3; 114:22; 118:24; 122:3, 4; 123:10, 18; 124:6; 129:11, 18; 130:4, 5; 131:14; 133:1, 8; 134:4; 136:1; 139:3, 11; 141:3, 10, 14, 24; 145:15; 147:20; 148:15; 159:2; 161:20; 167:11, 22; 169:18; 170:5, 24; 173:15; 176:14, 16, 17; 180:6 evening 26:17; 64:5 event 8:7; 92:23, 25; 106:4 events 46:12; 49:5 every-day 51:12; 59:4 everybody 4:10; 72:2; 78:13; 80:18; 82:23; 83:13; 84:18; 90:10; 135:9; 144:22; 166:3; 169:14; 180:16 everybody—I 84:2 everyone 4:4; 37:6; 103:19 evidence 21:4; 42:1, 7, 19; 98:6; 115:21, 22; 130:17; 144:4, 12; 157:9, 18, 19; 164:21; 173:19; 178:16 evidence-based 28:5;</p> | <p>158:19 evolution 18:16 evolve 90:13 exact 131:10 exactly 30:10; 124:3; 136:5; 172:12 example 16:3; 21:15; 23:18; 28:17; 44:16; 47:10; 66:25; 111:25; 136:2; 171:3; 172:17; 177:13 examples 160:8; 175:23 excellent 31:25; 43:11; 69:21; 152:5 exception 17:5; 41:1, 4; 124:11; 125:9; 138:15 exceptional 21:4, 16 exceptions 47:24 excited 33:3 exciting 179:25 exclude 8:11; 44:12 excluded 48:3; 79:17; 84:19 exclusion 8:12; 115:14 excuse 35:11 Executive 5:10 exemption 114:17; 122:13; 141:17; 153:7; 161:4; 166:14; 167:9; 170:21; 172:9, 13 exemptions 24:14; 25:16; 137:6; 147:24; 155:22 exhausted 121:20; 129:23; 154:13 exist 74:13; 108:21; 155:20 existed 98:8; 143:19 existence 29:24; 31:19 existing 41:1, 2, 7; 108:20 exists 68:21; 75:3; 82:1; 108:17 expand 42:13 expanded 7:12, 14; 20:25; 21:17; 25:23; 26:2, 5; 27:10, 24; 28:2, 16, 18, 24; 32:7, 11, 20; 33:13; 35:21; 39:10, 14, 20; 40:8; 44:8, 12; 45:3; 46:17, 23; 47:8; 48:11, 18, 21; 49:13, 21, 23; 57:2, 12, 15; 71:18; 72:7; 86:5; 88:20; 90:3, 8; 93:20; 95:3; 96:3, 7; 97:14; 98:7, 13, 14; 99:1; 102:12; 104:15, 20; 105:18; 107:22, 25; 108:10; 111:15; 114:23; 136:18; 137:11, 21; 143:9; 145:22; 149:6, 17; 151:3; 153:8; 157:15; 159:22; 170:3, 6; 172:11; 179:22 expect 29:15; 44:5; 53:13; 91:22 expectation 140:11; 144:7</p> | <p>expectations 77:13; 91:6 expected 14:18 expects 47:3; 99:17 expensive 43:23 experience 14:16; 31:14; 34:12; 45:8; 47:7; 48:18; 59:6; 72:14; 95:17; 100:20; 132:9; 145:1, 5; 152:23; 159:13 experienced 14:21; 49:9; 133:14 experiences 59:17; 94:25; 95:3 experiment 124:4 experimental 15:4; 19:7, 16; 36:7, 10, 19; 37:7, 11, 15; 39:5, 9; 42:6; 43:12, 19; 46:19; 51:14; 55:25; 56:1, 15; 69:18; 86:22; 91:8; 92:2; 94:4; 101:24; 115:9; 119:21; 122:16; 154:1, 8; 162:9; 168:19; 177:10 experts 82:18 explain 9:2; 166:19 explicitly 39:6 explored 75:6 exposed 9:10 express 154:24 expressed 18:20; 138:4 extended 10:5; 172:20 extending 30:8 extension 96:3 extensive 45:12; 119:17; 165:11, 13 extensive—non-small- cell 121:11 extent 98:13; 128:18 extra 22:6 extraordinarily 91:5; 102:17 extraordinary 122:9 extreme 30:13; 143:12 extremely 94:23; 123:14; 154:21</p> |
| <p>F</p> | | | | |
| <p>echoed - factors (6)</p> | <p>Min. II Scripto</p> | <p>F.N.P 58:21; 89:12 face 27:24; 30:13; 34:5; 113:19; 129:24 faced 116:25 facilitate 25:23; 78:14 facilitating 37:5 facilities 137:14 facing 18:15; 31:9 fact 23:17; 57:11; 71:16; 87:13; 96:1; 104:14; 110:13; 111:23; 112:24; 113:2; 135:14; 156:10; 164:13 factor 93:20; 150:5, 18 factored 113:16 factors 150:17</p> | | |

| | | | |
|--|---|---|---|
| fail 24:19; 33:5; 70:14 | 23; 89:24; 115:1; 120:6; 129:7; 137:12; 153:12, 20, 21; 154:11; 178:20, 25 | 95:1, 6 | 138:15; 156:14; 158:25; 159:3; 163:11, 17 |
| failed 34:2; 70:21; 75:4; 160:1 | feeling 54:24; 124:8; 132:15 | frictionless 92:21; 94:10 | Gleevec 21:15; 93:5; 112:2 |
| fails 32:25 | feelings 59:22 | Friedell 77:2 | Gleevec's 21:20 |
| fair 21:1; 32:20; 61:15; 96:11; 97:3, 21; 98:18; 99:3; 100:22; 135:10; 136:1; 137:10; 156:18 | feels 10:4 | friends 12:5 | global 72:16 |
| fairer 112:15 | felt 19:9; 67:14; 76:4, 5, 8; 83:18, 19; 129:17; 176:3 | front 146:10 | globally 71:7 |
| fairly 36:21; 47:11; 48:11; 165:5 | few 15:2; 22:13; 31:23; 36:17; 37:13; 51:2, 6; 69:9; 87:1; 93:19; 103:6; 125:24; 130:1, 16; 134:22; 138:20; 154:20; 160:8; 171:7; 175:23 | front-line 24:12 | goal 34:4; 60:3, 4; 140:17; 147:7 |
| fairness 8:14; 96:10 | fewer 21:12; 32:2 | fruitful 159:14 | goals 33:25; 79:3; 174:23, 24, 25 |
| faith 29:17 | fiasco 19:5 | frustration 114:14; 117:25; 118:1, 2, 3, 14 | God 118:5; 155:16 |
| fallacy 110:17 | field 153:19 | fueled 113:20 | goes 51:22; 69:4; 70:8; 72:25; 82:2; 95:11; 126:23 |
| false 18:24; 60:23; 113:21 | fields 7:21 | fulfill 141:11 | Good 4:3; 8:22; 18:7; 21:5, 6, 15; 26:18; 29:11, 17, 17, 21; 50:20; 51:24; 52:4, 5, 11; 53:2, 4, 7, 10; 54:7, 19; 58:22; 67:12, 17; 68:20; 69:11; 75:7; 91:2; 105:6, 25; 112:3; 117:10; 128:22; 129:4; 134:4; 136:8, 8; 137:10; 143:16; 145:12; 151:25; 152:23; 153:1; 154:12, 14, 21; 156:3, 4; 157:9; 165:17; 167:14; 173:8; 174:7; 175:4, 24, 25 |
| families 15:24; 17:7; 31:10; 55:14; 62:20; 72:19; 73:20; 76:18; 111:19; 142:21 | Fifteen 160:24 | full 23:7; 34:15; 113:6, 8 | government 54:12; 64:19; 109:16; 114:2, 6; 125:17 |
| families--and 73:23 | fifth 150:24 | full-time 7:19 | graduation 23:24 |
| family 10:4, 22; 11:4, 11; 12:19; 13:1, 11; 45:10; 51:4, 4; 59:11, 11; 61:5; 69:25; 73:10, 13, 13; 88:9; 91:9; 145:25; 147:5; 163:2 | fight 9:8; 31:11 | fully 102:1 | gradations 130:6 |
| Far 32:5; 87:10; 102:14; 150:3 | fighting 11:20; 12:15, 24; 55:15 | function 154:14 | graduated 18:13 |
| farm 64:7 | figure 33:2 | functional 33:13 | Grant 6:1; 35:3; 86:1; 133:17; 160:21; 161:24; 170:15; 179:18 |
| farther 176:13 | figured 150:9, 10 | fundamental 103:10 | Grant's 159:19, 23; 160:19 |
| fashion 57:21; 118:25 | files 40:23 | funded 64:18, 21; 71:19 | granted 6:23; 25:15; 27:25; 120:15; 155:11; 157:14 |
| fast 114:22 | filled 129:18 | further 9:13; 30:8; 52:1; 56:10; 84:22; 119:12; 132:23; 135:3; 166:16; 177:10; 180:13, 15 | granting 170:21 |
| faster 20:15; 78:4 | filling 32:7 | for--and 158:2 | grants 27:1; 82:14 |
| fatal 144:8 | final 20:11; 73:15 | for-profit 114:4 | grateful 13:17 |
| fault 74:4 | finally 9:19; 11:22; 26:4; 32:22; 35:20; 47:2; 49:12; 94:7 | forced 22:9, 11 | grave 12:21 |
| favorable 38:11 | financial 8:9; 26:23 | fore 100:9 | gray 131:23 |
| FDA 5:10, 25; 6:2, 4, 5, 7; 8:9, 23; 9:13; 13:8; 15:20; 16:1, 18, 20; 17:12, 15, 20, 25; 22:14; 25:21; 27:8; 30:12; 33:1; 35:7, 17; 36:9, 12; 37:10, 15, 23; 38:13, 16; 39:22, 25; 40:20; 41:13, 22; 42:1, 5, 15; 43:3; 45:15, 16, 23; 47:20; 48:4, 21; 54:13; 58:9; 68:9; 92:13; 95:12; 100:11; 102:24; 104:5; 109:11; 112:11; 113:7; 117:1, 20; 119:14, 18; 120:13, 17; 128:3; 130:22; 131:2, 4, 19; 133:18; 145:3; 146:1, 11; 147:12; 149:15, 23; 152:8, 10, 14, 20, 22; 154:10; 155:21; 165:25; 166:14; 175:18; 177:21; 178:15; 179:11; 180:19 | find 24:12; 34:2; 45:10; 55:24; 77:16; 88:1; 103:8; 104:1; 108:9, 12; 115:16; 126:7; 130:13; 141:18; 167:4 | foresee 28:8 | greatest 41:14; 105:6, 6 |
| FDA's 7:3, 5; 16:3; 31:5 | findings 38:10 | forgive 14:17 | ground 103:9; 137:18; 140:3 |
| FDA-related 103:21 | fine 131:4; 157:6 | form 9:9; 12:16; 21:21; 22:22; 42:14; 73:14; 82:13; 90:20; 99:1; 105:12; 159:23; 160:9 | groundwork 117:10 |
| FDAMA 109:17 | firms 8:8; 43:13 | formal 40:5; 100:3 | Group 4:25; 13:12, 16, 23; 18:9, 20, 25; 19:9, 25; 22:19; 23:4; 39:23; 40:4; 57:1; 64:16; 67:2, 2, 3; 76:9; 85:22; 98:17; 103:22; 106:2; 128:12; 140:3; 153:21; 163:13, 23; 164:1 |
| fear 22:10; 128:14, 17 | First 4:3; 18:19; 21:20; 24:18; 25:20; 35:16; 37:13, 19; 40:22; 42:14, 18; 43:19; 44:14; 45:9; 46:24; 47:12; 49:3; 50:20; 51:8, 21, 22; 52:16, 19; 53:2; 54:16; 101:16; 105:1, 23; 120:8; 121:9, 17; 125:24; 130:1; 142:13; 152:18; 153:6; 163:2; 177:23 | formalized 149:24 | Groups 17:1; 37:2; 39:10; 47:20; 74:8; 95:2; 124:25; 152:1; 154:23; |
| feasible 32:21; 160:16 | First-line 70:14 | former 56:2 | |
| feature 47:22 | fiscal 103:5 | forms 16:12; 47:17; 95:5; 112:18; 159:21 | |
| February 7:13 | fit 21:19; 79:14; 101:1; 113:10; 124:17; 125:4; 133:3; 138:11, 14; 141:9; 148:25; 151:12; 168:24 | formulate 22:14 | |
| Federal 64:19 | fits 169:3; 177:8 | formulating 22:19 | |
| feel 53:1; 75:11, 20; 87:2, | five 64:21; 84:23; 102:6 | formulation 144:23 | |
| | fix 30:2 | forth 146:1; 157:7 | |
| | flat 125:7 | fortunately 172:10 | |
| | | forward 31:2; 43:7; 68:17; 71:24; 95:14; 104:7; 129:9; 133:7; 136:18; 151:18; 179:7, 16 | |
| | | found 9:19 | |
| | | Foundation 4:23 | |
| | | founder 7:19; 13:10 | |
| | | founding 23:2 | |
| | | four 20:1; 52:16; 63:17; 89:13, 14; 92:12; 122:22; 156:25; 157:10 | |
| | | four-principle 52:15 | |
| | | fourth 52:18; 90:10; 91:16; 150:24 | |
| | | framework 37:9; 51:9; 102:11; 113:10; 119:13 | |
| | | Francisco 4:18 | |
| | | frank 118:10 | |
| | | fraud 113:9 | |
| | | Freedom 7:3 | |
| | | frequency 49:25 | |
| | | frequent 99:23, 24 | |
| | | frequently 39:7; 58:4; | |
| | | | |
| | | G | |
| | | gain 23:4; 95:9; 163:13 | |
| | | gained 110:22; 155:2 | |
| | | gates 135:19, 20; 136:6 | |
| | | gathering 94:22 | |
| | | gave 12:5; 52:15; 56:25 | |
| | | geared 135:15 | |
| | | gee 131:19 | |
| | | Gene 5:18; 8:25; 9:5, 8, 12, 13, 19; 10:4, 12; 11:12, 18; 12:11 | |
| | | general 74:9; 79:11; 108:1; 113:25; 154:4; 161:5; 167:6; 177:19; 180:11 | |
| | | generalizations 49:1 | |
| | | generally 25:18; 167:1 | |
| | | generated 95:5 | |
| | | genetic 53:20 | |
| | | gentlemen 35:5 | |
| | | GEORGE 5:11, 11, 13; 115:4; 116:1; 138:24, 25; 164:16; 171:13; 172:3 | |
| | | Gerard 35:22; 43:14 | |
| | | germane 172:17 | |
| | | Germany 54:6 | |
| | | get--Phase 161:11 | |
| | | get-go 69:11; 70:19; 78:7 | |
| | | gets 57:8; 65:5; 75:15; 78:4; 99:7, 8, 12; 122:18; 155:4; 168:1 | |
| | | Gil 77:2 | |
| | | given 12:3; 19:8; 46:18; 60:1; 61:9; 95:8, 12; 109:19; 122:12; 129:3; 131:17; 158:20; 169:9 | |
| | | giving 8:23; 16:13; 92:23; | |

164:9
guess 35:14; 79:11; 83:9;
 110:8; 112:1; 115:4;
 117:1; 121:10; 124:21;
 134:13; 144:8;
 150:4; 158:8; 161:23;
 175:6, 13; 176:7
guests 7:5
guidance 60:25; 73:25;
 74:5; 109:11, 12, 13, 19;
 110:1; 113:18
guidances 152:12
guide 17:2
guided 102:2
guidelines 70:25; 117:2;
 154:5, 12; 158:18
guilty 75:11

H

halt 10:18
hand 147:16
handed 67:6, 6
handle 47:16; 145:4
handling 40:21
hands 12:22; 52:5
happen 65:10; 68:13;
 99:18; 103:11; 113:10;
 146:13; 175:14
happened 54:6
happening 28:6
happens 74:21; 77:9;
 101:8; 123:7; 129:2;
 153:9; 155:10
happens—and 74:20
happy 12:6; 56:5; 167:3
hard 10:17; 63:1; 66:17;
 102:9; 104:24; 114:14;
 118:22; 135:23; 155:24;
 163:2; 164:10; 165:21;
 167:13, 21; 169:5
harder 169:1
harm 29:11, 16, 20;
 53:16; 75:23; 122:9;
 127:20; 128:16, 17;
 138:22; 173:12
harmed 155:9
harmful 128:10
Hartford 5:8
hat 86:23
hate 151:11, 19
hats 85:8, 14
have—it 147:9
Hazel 9:4; 11:12
Health 6:4; 31:24; 60:24;
 62:19; 63:4; 64:15, 24;
 67:10; 68:8, 23, 24; 72:4,
 22; 76:21; 77:11; 78:2, 6,
 17
health 3:20; 33:7; 60:14,
 16; 69:3; 80:17; 89:16, 22;
 90:6; 91:7; 103:7; 130:10;
 179:6
heard 36:15; 43:10;

60:18; 61:7, 13, 25; 63:11;
 71:25; 73:23; 74:9; 75:24;
 78:13; 85:6; 92:12; 94:8,
 24; 114:13; 134:14;
 139:19; 144:22; 150:6
Hearing 8:18, 20; 101:15;
 102:19; 104:23; 117:7;
 176:7
heart 15:15
hearts 52:9
held 33:17; 85:25
Helen 18:6, 8
help 12:25; 17:18; 23:4;
 53:3; 71:7; 78:14; 86:3;
 89:2; 136:25; 153:11;
 155:14; 158:6; 173:13
helpful 94:23; 155:17
helping 66:22; 108:19
HER2 21:25
Herceptin 21:19; 57:2
herself 10:9
heterogeneous 147:3
hidrea 177:10
high 14:4; 19:4; 20:13;
 29:22; 31:5; 49:11; 94:11;
 95:16; 115:19; 122:10;
 169:11
high-dose 22:12; 23:22
high-quality 21:8
higher 176:17
highest 65:18; 108:5
highlight 14:13
highly 20:9; 77:2; 106:5
Hippocrates 51:23, 24
hired 47:16
historical 97:24
Historically 39:19
histories 96:9
history 51:20; 57:3; 66:9;
 95:9; 106:11; 120:19
hit 89:14
HIV 27:11; 32:18; 34:3;
 95:4
HIV/AIDS 27:5
HMOs 63:5; 102:24
hold 9:13, 20; 52:4;
 88:15; 102:15; 111:7
holding 17:25
holds 8:4; 105:10
home 114:18; 172:14, 14
hometown 64:2
honest 35:25; 80:16;
 89:17; 118:11
honestly 29:15
honored 12:20
hope 9:8; 10:20; 11:19;
 12:15; 15:8, 13, 24; 18:24,
 24; 33:22; 34:15; 60:23;
 88:5, 11; 91:12; 93:6;
 103:3, 22; 111:18, 22;
 113:20; 117:21; 126:23;
 127:1; 138:9; 147:15;
 149:23
hoped 10:10

hopefully 9:16; 56:18;
 87:19
hoping 30:7; 135:12
horrible 11:21
horrified 128:19
Hospital 5:8; 32:13
hours 19:17; 63:19, 23;
 64:5, 6
housing 81:13
Houston 5:19
huge 20:21; 85:12
human 34:15; 116:20
humans 21:5; 46:24;
 119:25
hype 33:14
hypotheses 21:6;
 143:15, 17
hypothesis 143:19
Hypothetically 157:12

I

I's 142:15, 16
I-I 139:20
I/Phase 80:2
ICC 77:5
idea 18:20; 52:10; 69:11;
 99:7, 8; 102:13; 122:3, 6,
 21; 123:19; 126:22;
 137:17; 138:22; 152:5;
 154:4, 6; 166:8; 167:10, 14
idea—but 128:19
ideal 13:20
ideally 100:2
ideals 101:23; 102:1
ideas 36:2; 114:5
identical 164:9, 24
identified 53:23
ignored 103:21
IHS 64:18
II 32:15; 42:22; 80:2;
 81:19; 87:20; 100:12, 19;
 106:25; 107:8; 121:15;
 123:24; 128:25; 130:4, 5,
 25; 131:3, 7, 9, 15; 132:1,
 11; 133:1, 7, 9, 19, 23;
 134:7, 11; 135:22; 138:7,
 13, 19, 23; 139:11, 24;
 140:7, 15, 20; 141:15, 24;
 142:2, 8, 19; 143:4;
 144:11; 146:22; 152:15;
 155:8; 156:15; 158:2, 3;
 161:12; 162:21; 163:11,
 17, 25; 164:4; 165:4, 7;
 166:15; 167:10; 168:9, 10,
 18; 171:18; 173:20; 174:1
II's 133:24
II/III 139:25
III 42:22; 43:25; 44:13;
 81:20; 107:7; 121:15;
 127:16; 131:7, 11; 133:8;
 139:11; 140:16; 142:7, 19;
 155:8; 161:1, 2, 12;
 167:18, 25; 168:1, 11, 13,
 18; 169:6; 173:22

ill 10:20; 53:17
ill-informed 30:11
illness 30:6, 13; 72:22
illogical 24:20
imagine 125:6; 164:10
immediate 11:20
immediately 164:22
impact 6:19; 15:7; 72:23
impacts 62:11
impede 94:16; 147:7;
 166:19; 170:22, 22
imperfect 33:23
implement 17:20
implication 119:2; 130:8
implications 6:20;
 100:17
implies 96:18; 100:18;
 125:21
imply 119:4
importance 19:2; 112:8
important 10:14; 13:9;
 18:2; 28:15; 30:25; 33:22,
 24; 36:18; 37:5; 42:18;
 47:20, 22; 48:15; 49:3;
 57:5, 16; 59:2; 86:20; 87:2,
 6; 91:2, 5; 92:6; 96:6;
 98:19; 99:3; 100:5;
 102:17; 118:12; 119:23;
 130:4; 149:9; 152:18;
 165:24; 166:3
importantly 58:1; 112:17
impressed 98:20
improve 14:8; 32:22;
 96:19; 111:3; 162:10, 11;
 165:15
improved 36:3; 143:20;
 162:1; 163:5
improvement 111:2
improving 13:12; 154:7
in-between 51:15
in-depth 18:1
inadequacies 118:14
inalienable 83:11
inappropriate 127:11
inappropriately 145:15
incentives 25:25
incidence 65:17
include 24:3; 36:24; 76:7;
 152:3
includes 60:7; 75:6
including 7:21; 21:18;
 31:18; 45:21; 113:25;
 158:13
inclusion 115:14; 154:22
inclusive 89:20
inconceivable 28:20
incorporate 100:4
increase 23:13; 89:6;
 112:9
increased 31:20; 131:8
increasing 91:13
increasingly 24:8
IND 37:16, 16, 19, 19;

38:8; 40:2, 5, 11, 23, 24;
 41:2, 7, 20; 98:1, 3, 16;
 99:2; 120:15, 18; 122:13;
 124:2, 12; 134:16; 139:23;
 140:21; 141:10; 142:6;
 144:3; 145:22; 169:23;
 170:3, 5, 8; 172:18; 173:7;
 177:25; 178:3; 179:22
indeed 17:1; 23:17;
 71:16, 23; 76:8; 80:3, 8;
 88:3; 90:12; 132:3
Indian 5:3; 64:15, 24;
 65:12; 67:11
Indiana 5:13
indication 114:24; 133:2,
 6; 168:24
indications 27:25; 75:22;
 105:22; 106:5; 132:24;
 142:10
indirect 116:5
individual 30:24; 36:11;
 37:20; 38:2, 20; 39:16;
 41:14, 16; 42:3; 85:10;
 86:5; 88:21; 94:14, 14;
 95:4; 96:5, 8; 99:5, 17;
 100:8; 105:13, 14; 106:14;
 111:16, 22; 112:2, 8, 8, 13,
 24; 119:21; 123:24;
 137:24; 153:7; 155:7;
 156:15; 158:17; 172:9
individual's 112:12
individualized 44:18
individually 61:4; 72:2;
 128:13; 137:2
individuals 28:20; 30:6;
 31:11; 34:1; 37:18; 59:15;
 60:4; 61:24; 67:10; 71:17;
 75:14; 112:22; 133:12;
 134:18, 23
INDs 25:23; 26:3, 6; 27:9,
 25; 38:5; 86:5; 96:8, 22;
 97:2; 102:12; 140:4;
 141:2; 145:4, 7, 24;
 157:15, 21; 160:4
Industry 34:21; 35:2, 7;
 36:2; 37:1, 8; 40:10; 43:11;
 45:1; 46:16; 50:9; 66:14;
 70:18; 88:18, 24; 89:8;
 102:21; 103:21, 24; 109:2,
 20; 117:18; 179:12;
 180:11
industry-sponsored
 108:4
ineffective 178:17
ineligible 15:6; 41:4;
 120:24
inequity 31:21
infancy 14:19
infection 158:22
influential 19:19
Information 7:3; 17:8;
 26:19, 21; 29:25; 33:12;
 34:18; 56:11; 59:3; 61:9;
 74:18; 78:11; 85:23;
 89:17; 94:20, 22; 95:21;
 98:11; 103:17; 107:18;
 108:20; 110:22; 111:10;

129:6; 131:20; 149:10, 18;
151:9; 152:4, 25; 155:5,
12, 16; 160:11
informed 9:7, 21, 25;
29:21; 34:9; 41:24; 47:21;
52:24; 54:10; 55:3, 21;
56:21; 66:18; 73:4, 6, 10,
19; 76:22; 78:22, 23; 88:6;
106:23; 107:13; 122:4, 8;
123:2; 126:4, 5
informing 106:19
infrequently 112:11
infuriating 98:20
initial 28:8; 45:9; 106:13;
171:23
initially 75:13
initiate 27:14
initiates 147:3
injected 55:2
innovative 95:10
input 36:9; 59:19; 148:16,
18
insight 155:2
insists 166:8
instance 42:23; 49:22
instead 54:2; 120:24;
153:6; 167:8
instilled 11:3
Institute 16:23; 37:4;
86:1
institution 37:21; 152:2
Institutional 107:12
institutions 63:17; 80:24
instructive 35:24
insurance 22:11; 32:1;
66:2; 80:11, 11; 84:12
integrate 112:17
intend 124:3
intense 18:18
intent 126:24; 127:1
interactions 60:2
Intercultural 77:5
Interest 6:10, 11, 14;
8:10, 14; 18:8; 22:16;
26:23; 38:17, 19; 95:2;
99:20; 124:5; 176:4
interested 33:19; 67:21;
132:19, 20; 148:2, 5
interesting 65:6; 144:23
interests 6:24
interfere 28:19, 21;
42:11; 75:25; 117:17;
178:13
interference 48:1
interfering 170:11
internal 44:11; 45:17
intersection 51:21
intervals 45:23
intervention 96:1
interventions 75:18
interviewed 19:14
intestinal 21:21
into 4:11; 21:19; 25:18;

29:4; 39:9; 57:7; 61:25;
72:25; 81:7, 16; 82:5;
86:18; 89:7; 93:20; 94:2;
98:6; 100:4; 109:14, 21;
112:17; 113:16; 125:5;
128:14; 134:6; 137:7;
138:1; 141:25; 150:10, 11;
155:2, 14; 160:18; 161:20;
168:10, 25; 169:12;
171:21; 177:8; 179:24
introduce 109:6
introduced 15:8
introduction 4:9, 13;
35:1; 67:8
investigating 39:1
investigation 138:16;
151:17
investigational 15:22;
16:4, 5, 8, 11, 13; 27:6;
29:11; 35:9, 19; 36:1;
37:16; 38:24; 39:22; 41:3,
5; 50:4; 53:24; 83:12, 14;
110:9, 19; 120:23; 127:13;
146:19; 156:7; 165:7;
173:1, 1; 176:2
investigations 38:9, 12
investigator 38:1, 2, 5;
40:24; 41:23; 120:14, 16,
21; 123:8; 124:13; 125:10;
134:2
investigators 104:16;
127:10; 129:7
invited 7:5
involve 8:7; 73:22;
124:25
involved 10:22; 37:18;
41:12; 73:20; 78:9, 22;
80:7; 103:21; 105:23;
123:18; 125:12; 128:8;
133:12; 139:10; 179:5, 16
involvement 8:11, 15;
125:17
involving 45:12
IRB 32:25; 41:25; 45:17;
47:17; 72:15; 76:24;
78:24; 125:13
IRBs 32:14
irresponsible 159:7
is--and 146:7
Israel 77:25
issue 6:13, 17; 13:9; 31:3;
48:13, 15; 59:18; 62:10,
12; 64:3; 68:14; 72:20;
85:9, 11, 12; 90:8; 91:19;
93:3, 22, 25; 96:21; 102:7;
105:1, 18; 106:18; 115:3;
116:2, 3, 17; 125:20;
128:7; 129:17; 138:6, 19,
23; 150:21; 170:16; 180:2
Issues 6:4; 15:14; 18:2,
15; 27:5; 32:9; 33:9; 36:6,
17, 22; 50:24; 51:2; 53:11;
66:20; 68:4; 74:12; 77:6,
12; 85:17; 86:17; 87:9, 16,
18; 88:7, 16; 89:8; 97:5,
10, 19; 101:7, 19, 20;
102:12; 106:23; 110:7;

113:25; 114:6; 117:18, 22;
120:7; 140:20; 142:12;
152:16; 154:18; 176:5
it--but 117:11
it--Congress 109:25
it--Dr 109:23
items 42:5

J

Jan 4:20
Jane 19:25
January 7:13
jeopardize 166:16
job 146:1, 2
Jody 5:3; 58:21; 87:23;
89:12
John 5:20
journal 141:3
judgment 43:7; 176:13
judgments 41:16; 43:8;
143:8
jumped 168:7
justice 52:18; 53:21, 21;
54:20; 79:12, 16; 83:16;
96:12; 101:17, 23; 103:18;
105:1, 4, 5, 7, 11, 12, 13,
16; 112:18; 152:11; 179:8
justifications 158:6
justify 43:25; 168:14

K

Kansas 5:6
Karen 5:9, 24; 8:21; 34:19
Kathy 5:22; 163:23
keep 75:21; 84:14, 16;
86:3, 12; 88:6, 16; 112:21;
115:2; 172:19; 173:3
keeping 10:10
keeps 155:15
KELSEN 5:1, 1; 122:14,
15; 123:6; 124:23; 125:21;
127:8; 129:1; 130:3, 15;
142:11, 12; 168:16;
169:17
Kennealey 35:22, 24;
43:15; 46:16, 21; 47:7;
48:20; 50:10
Kennealey's 40:12
kept 30:12
kill 128:2
kind 21:15; 51:14; 65:3;
67:14; 82:12; 85:2; 95:15;
96:13; 99:1, 15; 132:16;
160:12
kinds 43:21; 101:2;
113:9; 120:7; 157:17
knew 15:5; 98:8; 169:15
knocking 115:2
knowing 71:1; 125:7;
145:16; 146:14
knowledge 72:21; 78:16;

19; 82:17, 18; 133:25;
154:2
known 16:6; 24:25;
29:22; 30:22; 55:6; 60:20;
98:18; 137:14, 23, 23;
139:8
knows 115:10; 133:20;
134:2

L

laborious 41:11
lack 27:19; 31:6; 66:2;
122:7
ladies 35:5
language 15:9, 14;
51:10, 12; 66:8
large 7:20; 43:25; 44:2, 5;
85:24; 93:3; 102:22;
107:7, 14; 159:23; 160:15;
165:1, 5; 180:3
largely 94:13; 103:20;
149:21; 177:11
largest 108:8
last 11:25; 26:16; 35:8,
12; 37:14; 51:1; 53:21;
59:18; 60:1, 12; 64:20;
69:8; 87:10; 90:18; 93:22;
100:25; 102:5, 19; 134:3;
143:3; 147:15; 154:20;
173:19
lasting 171:7
Lastly 45:1
late 26:16; 97:11; 98:14;
157:21; 158:2, 3
later 14:16; 15:2; 20:16;
22:7; 25:8; 40:12; 97:13;
132:11; 135:22; 139:6
latter 130:19
Laughter 167:16;
171:12; 177:16
law 108:7; 109:9, 22, 25;
117:2; 159:19
lawyers 107:15
lay 102:11; 165:21
lays 133:23
LEAD 18:13; 19:25;
22:19; 34:22; 44:9, 24;
85:3; 100:8; 111:20;
121:25; 143:20
leaders 91:1
leads 31:3; 53:11; 116:9
leapfrogging 168:11
learn 10:11; 14:7; 22:8;
34:7; 45:1; 56:10; 61:11;
85:23; 93:7, 8; 107:7;
144:20; 153:11; 159:13
learned 34:3; 45:3;
156:8; 157:16
least 23:5; 38:5; 51:22;
79:20; 90:18; 104:19;
106:16, 16; 112:4; 113:7;
132:13; 142:15; 160:7;
161:24
leave 98:3

leaving 105:18; 111:14
led 13:11
legal 41:18, 19; 113:3, 10
legitimately 154:24
length 31:4
less 21:23; 24:8; 25:7;
33:14; 44:23; 49:9; 99:16;
112:16; 130:8; 131:13;
133:8; 144:6; 154:1, 7;
156:14; 172:19; 175:1
letter 22:23, 25; 26:16
letter--was 146:9
letters 19:18
letting 165:19
leukemia 21:21; 171:4, 8,
10; 174:10; 175:8; 176:9;
177:3, 15
level 77:9; 94:21; 110:21,
21; 114:13; 118:24; 121:6;
122:20, 21; 123:9, 11;
125:1, 4, 6; 133:25; 143:5;
158:17; 176:17; 179:12;
180:2
levels 44:16; 82:10;
125:13
lexicon 150:16
Liaison 6:4
licensed 159:6
licensing 170:19
life 10:6, 13; 11:8; 12:1, 9;
24:6; 52:7; 55:9; 65:3;
72:25; 87:10, 18; 96:3;
146:4; 162:3, 11; 163:6;
165:15; 173:25
life-threatening 26:5;
40:3; 167:7
light 28:22
likelihood 92:3; 117:16;
118:9; 132:2; 159:24
likely 23:6; 42:11; 49:12;
80:23; 115:22; 122:10;
131:13; 132:8; 170:18
likes 158:18
limb 65:4
limited 33:20; 43:20;
49:21; 79:16; 122:3;
136:1; 137:13; 152:15
limiting 49:15
LINDEN 4:18, 18; 7:9;
56:24; 101:11, 12; 111:4,
5; 139:18, 19; 150:2, 3;
157:11, 12; 169:24, 25;
170:8
line 91:16; 150:24;
162:23; 176:13
lines 83:16; 89:14
linguistic 16:17
list 31:5; 107:25; 116:15
listed 107:22
listen 55:17; 61:18, 18
Listening 113:23
literally 67:6; 71:15
little 12:1; 22:5; 28:18;
29:15, 22; 45:1; 51:18;
52:1; 59:1; 97:24; 99:10;

114:15; 122:19; 123:12;
126:3, 14; 129:1; 131:22;
139:19; 140:2; 147:10;
152:2; 163:9, 22; 168:16;
171:13; 179:6
live 10:23; 14:18, 19;
65:10; 104:2; 147:1
lived 13:14
lives 10:7; 13:1; 14:5;
19:5; 30:7, 8; 55:15; 91:13
living 27:11
local 98:16
long 15:20; 18:18; 23:18;
63:9; 104:2; 116:15;
147:2; 158:20
long-term 24:2; 25:1;
171:19; 173:24
longer 15:12; 91:25;
161:16
look 18:1; 24:19; 43:7;
51:20; 52:15, 16, 19; 53:8,
9, 12; 54:1; 57:24; 60:12,
13; 61:21; 62:3, 10, 16, 18,
19, 20; 64:10, 15; 65:15,
16, 24; 66:13, 15; 67:3, 7,
25; 68:16, 23, 25; 69:13;
71:4, 6; 72:19, 20; 73:2,
18; 75:14; 76:24; 77:14,
20, 23; 79:23; 83:15; 84:5;
86:25; 87:16; 88:25;
89:22; 90:2, 13, 15; 97:9,
10, 14; 98:5; 142:16;
157:13; 174:12
look 166:19; 134:3;
150:20
looking 21:23; 29:7;
52:12; 53:22, 25; 54:1, 14,
21; 73:17; 79:24; 80:2;
81:8; 82:6; 87:18; 88:16;
95:21; 96:21; 140:7;
150:22, 25; 180:13
looks 70:19; 106:11;
137:10
lot 50:23, 24; 51:11; 52:9;
54:4, 24; 55:24; 56:20;
57:7, 13; 59:2, 16, 19;
61:24; 74:8, 8; 85:6, 20;
86:24; 88:22, 23; 89:10;
93:18; 94:19; 95:5, 13;
104:25; 106:19; 107:9;
110:20; 111:7, 18; 113:25;
118:3, 13; 132:9, 25;
135:6, 17; 146:23; 149:17;
150:6; 154:1, 2; 155:12;
156:14; 166:6; 172:19;
179:3, 19
lots 54:5; 84:8
lotteries 136:2, 18
lottery 20:5
lousy 153:5
loved 10:2; 12:14
love 62:5; 122:10; 175:9
love 23:9, 25;
24:11, 21; 25:10
lowering 174:19, 20
lowest 65:17
Loyola 5:23

lung 9:9; 12:16; 47:9;
121:11, 19; 128:24;
132:18; 135:18; 157:1;
161:9; 163:18; 165:14, 22;
176:14
Lurdes 23:1; 26:10
luxury 85:22, 25
lymphoma 23:1, 3, 4, 9,
18, 20; 24:1; 26:10

M

M.D 7:23; 8:2; 35:3;
50:19; 85:1
M.D/Ph.D 23:7; 26:10
machines 52:8, 8
Madam 35:4; 58:23
Madams 23:2
main 36:25; 39:9; 160:19
maintain 152:1
major 28:24; 53:23
majority 19:9; 25:11;
76:4; 87:13; 105:11;
148:14; 150:21; 151:12
makes 60:16; 65:2; 73:6,
15; 91:6; 151:4; 169:1
making 17:9; 43:8; 66:11;
110:14; 133:6, 14; 141:23;
162:7
maleficence 52:18
malignancies 24:3
man 9:12; 71:11; 118:5,
11
manage 86:2
management 26:25;
86:2, 3; 88:2; 174:17
managers 71:10
mandate 95:15
maneuver 177:12
manner 12:8; 44:21;
95:20; 100:19
manpower 71:5, 16
mantra 146:18
manufacturer 37:25;
41:21
manufacturing 44:1, 2
many 14:5, 16, 22, 22;
25:10; 27:25; 32:18; 47:3;
51:17; 53:1; 57:8; 60:14;
63:6, 7, 11, 22; 64:4, 14;
65:24; 68:6; 69:16; 70:4;
71:25; 72:11, 25; 73:4, 8,
8, 19, 23, 25; 75:20, 22;
80:20; 81:18, 21, 23, 25;
85:24; 86:8; 87:8; 89:8;
94:5, 25; 97:12, 12, 13;
100:7; 101:3; 104:23;
112:1; 113:8; 115:19;
116:8, 10; 117:6; 127:9;
128:8; 131:6; 132:20;
133:8; 142:15; 145:11;
146:25; 150:23; 151:3, 8;
155:6, 8, 23; 156:5; 160:23
many-1 114:2
marginal 161:8

market 48:2; 87:5; 88:13;
90:1; 105:8; 156:21
marketed 40:7; 144:5
marketing 38:14; 42:10;
93:2; 155:1, 11
marrow 53:18; 169:13
Marti 4:22
material 92:11
materials 16:1, 3; 17:22
matter 58:8, 9; 97:1;
106:20; 112:23; 132:4;
145:1; 157:25
matters 47:17
may 6:20; 7:1, 13; 8:16;
10:2; 12:25; 24:16; 28:6, 7,
19; 29:5, 23; 30:15, 16, 19,
23; 32:1; 37:24, 25; 38:24;
39:9; 43:20; 44:4, 15; 45:3,
25; 46:22; 49:10; 53:10;
60:21; 61:8; 64:13; 66:3;
70:20; 72:13; 74:11; 80:9;
81:13, 18; 84:12, 13;
86:14; 88:22; 90:13, 15,
20; 96:23; 106:16; 108:11;
113:15; 116:22; 117:8, 8;
118:7; 125:11; 127:25;
128:5; 129:5; 137:13, 19,
19, 20, 21; 138:1; 141:24;
147:1, 20; 150:9; 151:15,
20; 153:3, 18; 166:16, 18;
170:4, 4; 173:4, 6
Maybe 64:14; 72:5; 83:6;
96:24; 97:10, 14; 108:15;
115:5; 122:22; 129:11;
131:12; 151:13; 170:13;
179:11
mean 12:18; 46:6; 83:12;
100:12; 105:1; 116:13;
121:11; 126:22; 127:16;
143:14, 19; 147:18; 152:1;
170:6; 171:16; 176:17
meaning 92:23
meaningful 25:24
meaningless 122:8
means 31:25; 53:6; 60:7;
64:22, 24; 78:5, 7; 81:23;
141:21
measure 93:3
measured 162:1
measures 75:7; 157:14
measuring 140:12
mechanism 29:1; 30:18;
31:19; 32:5; 39:23, 23;
40:22, 25; 41:4, 9, 10;
93:21; 94:15; 97:7, 19;
98:15; 108:16, 21; 110:1;
112:10; 113:4; 137:2;
148:24; 150:14; 155:18;
158:5
mechanism-and 98:1
mechanisms 32:10;
40:4, 5, 21; 97:15; 116:20;
153:10
media 9:20; 33:14; 47:5;
60:24; 62:18; 67:25; 68:2,
6, 17; 76:21; 78:6; 93:16
median 161:9; 162:2;

166:24; 167:1, 11
Medical 4:25; 5:4, 8, 22;
7:21, 25, 25; 8:3; 9:21;
10:11; 14:24; 26:24;
31:23; 50:21, 22; 51:15,
17, 21; 52:12, 15; 54:1, 3;
63:7; 65:12, 12; 83:20;
85:11; 90:9; 118:15;
120:19; 128:5, 7; 131:6;
158:24
medications 159:2, 3
Medicine 5:18; 118:4;
158:19
medium 68:20; 149:22
meet 18:14; 66:4; 146:20,
24
meeting 6:14, 16, 18;
7:16; 9:2; 16:4; 18:19;
19:1; 20:11; 21:10; 36:5, 8;
43:10; 51:1; 56:24; 77:5, 6;
114:12; 116:18; 129:12,
13; 133:23; 147:14;
152:17
meetings 18:1, 18;
33:17; 85:21, 25; 103:3;
110:25; 136:17; 137:8
meets 65:4
member 18:9; 19:25;
21:9; 23:3; 51:4; 59:11;
61:5; 88:9; 91:9
members 6:23; 18:12,
19; 26:18; 35:5; 60:1;
66:21; 73:13; 82:11;
102:21, 23; 109:6; 131:6;
145:25; 152:8; 180:19
mention 114:11
mentioned 68:24; 70:22;
101:14; 102:19; 103:6
Merck 8:5
mesothelioma 9:9
message 128:4; 165:19;
168:12
metabolism 127:24
metastatic 19:1; 20:1;
97:12; 128:24; 161:25
metastatic-1 121:10
Method 141:5
methods 39:20
MGI 7:11
Michigan 5:16
microphone 4:11
might 10:12; 11:14;
13:24; 15:1; 23:20; 36:3;
48:22; 49:20; 50:2; 57:24;
95:24; 99:8; 106:8;
108:12; 112:9; 117:18;
119:13; 124:16, 17; 125:3;
134:24; 137:9; 145:21;
153:4, 11; 154:16; 159:13;
160:10, 15, 16; 176:18
migrant 64:6
million 136:3
mind 51:16; 59:24;
112:21
minds 74:23
minimal 91:17

minimally 94:15
minimize 44:14
minority 59:8; 66:6; 81:8
Minute 19:13; 57:20;
69:8; 122:19
Minutes 33:15; 35:6;
36:16; 71:9; 114:12;
160:24; 172:5
miracle 30:11
misconception 55:23;
56:12, 13, 20; 86:21
miserable 108:14
misnomer 15:25
missing 10:2; 28:3
mistakes 33:5
mistreat 177:15
misunderstanding
15:16
mix 86:12; 160:18
moderate 161:10
Modernization 109:10
modest 159:25
modification 41:6
molecular 104:13;
137:22, 25
molecularly 143:14, 24
molecule 168:21
molecules 136:14;
168:8; 169:11; 179:25
mom 11:21; 12:5
mom's 11:25
moment 10:1; 111:16
momentous 9:21
moments 103:7
money 66:3; 84:9; 88:22,
22, 24; 89:4, 5; 156:24;
157:2
monoclonal 25:5;
168:22
month 161:18
monthly 18:14
months 11:25; 14:20;
40:7; 59:18; 63:6; 91:13;
102:7; 104:15
moral 52:2
more 20:13, 14; 21:23,
23; 22:2, 6; 29:11; 30:9;
33:12, 12; 34:7; 41:8;
44:24; 49:18; 50:3; 52:7, 8,
9; 55:3, 3, 4, 5, 9, 10, 16,
17; 59:6; 61:2, 21, 23;
67:16; 70:17, 18; 71:6, 15;
73:16, 16; 75:22; 76:19,
21; 77:3; 78:11; 79:16;
83:6, 16; 89:5; 93:9; 94:21;
95:11, 20; 97:10; 98:11;
99:13; 101:8; 103:23;
111:20; 112:6, 6, 17;
114:21; 117:19; 119:11,
14; 123:10; 130:7; 131:13,
23; 140:13; 141:22;
147:20; 150:1; 153:11, 24;
154:2; 155:2; 157:18;
159:13; 160:23; 172:16;
180:6

morning 4:3, 5; 8:22; 18:7; 26:19; 50:20; 58:22; 62:2; 68:24; 78:14; 94:9; 101:14; 102:8; 119:15
mortality 65:18; 143:21
most 18:19; 20:6; 23:6; 25:16; 41:11; 44:12; 48:5; 49:3; 55:16; 58:1; 65:19; 80:15; 91:10, 11, 12, 14; 97:16; 98:20; 102:18; 106:7; 107:2, 5; 113:4; 122:10; 140:6, 14; 142:15; 146:3; 149:7; 164:14
mostly 59:6; 143:1; 148:2
mother 9:4, 10, 14, 17; 10:8, 20, 21; 11:2, 11, 17; 12:8, 13; 13:14
mother's 10:6; 11:1; 12:19
mount 136:24; 137:2
move 68:17; 71:24; 97:6, 17; 101:18; 170:20; 179:7
moving 162:20; 171:1
MTD 126:10
much 13:4; 15:16; 18:4; 22:21; 28:18; 29:3, 15; 30:22; 31:21; 32:4; 33:7; 34:17; 50:15; 61:9; 64:19; 93:3; 94:5; 95:20; 106:21; 107:4, 11, 16; 118:1; 122:11; 124:2; 125:23; 134:17; 138:21; 146:10; 148:12; 153:21; 154:7; 157:22; 159:21; 160:13; 174:4, 11; 179:2; 180:4
muddier 168:16
multi-tiered 31:24
multicenter 129:5
multiple 32:12; 39:14; 44:16; 46:18; 125:13; 133:24; 156:9; 160:1
must 14:7; 19:10; 34:5; 41:16, 21, 22, 23, 24, 24, 25; 43:24; 45:16, 18; 56:1, 1; 60:4; 94:7; 98:21; 171:20
mutation 21:25; 22:4
myelosuppression 24:4
myself 21:14; 53:7; 70:2; 130:16

N

NABCO 26:17, 25; 34:18
name 4:10; 18:7; 35:13
nation 79:20
nation's 14:24
National 4:20; 13:22; 16:23, 25; 26:20, 21; 32:14; 37:4; 86:1; 104:12; 136:17; 180:2
nationally 104:21; 136:24
Native 64:7; 65:16, 20; 67:3
natural 33:18

nature 32:15; 151:3, 7
nausea 174:18
Nazi 54:6
NCI 15:21; 16:1, 18, 20; 17:12, 15, 20; 23:19; 39:21, 24; 58:10; 87:3; 102:24; 111:1; 180:10
NDA 48:24; 49:13
near 36:23
nearly 14:20
necessarily 63:16; 72:15; 82:10; 129:12; 136:8; 144:14; 148:6; 156:21
necessary 15:6; 33:23; 62:8; 104:18; 111:25
need 8:10; 16:1, 17, 20; 20:13, 14, 15; 21:12; 22:14; 30:14, 17; 45:25; 48:15; 49:17; 58:1; 60:17, 21; 61:21; 62:3, 13, 16, 18, 19, 19; 67:16; 68:3; 69:8, 8, 13; 70:9; 71:6; 72:8; 73:2; 75:6, 7, 14; 76:14, 15; 77:14, 15, 23; 87:16, 22; 90:13; 93:13, 19; 94:19; 96:11; 109:19; 117:7; 120:7; 121:13; 125:16; 130:11; 140:23; 150:9, 9, 11; 160:15; 172:9, 13; 175:7; 177:17; 179:1
needed 24:9; 25:9; 42:9, 11; 47:14; 76:6; 110:1
needlessly 19:5
needs 15:19; 46:22; 74:10, 16; 82:10; 89:19; 90:6; 93:24; 111:2; 113:15; 119:14; 137:14; 150:8, 16; 178:9; 180:13
negates 63:2
negative 86:24
negotiated 31:23
negotiation 30:22
neither 15:5; 19:16
Nelson 4:22
NERENSTONE 4:3; 5:7, 7; 6:8; 8:19; 13:4; 18:4; 22:21; 34:19; 50:12, 15; 58:14, 17; 79:8; 83:3; 84:21; 85:2; 89:11; 90:23; 94:17; 96:14; 97:22; 100:10, 16; 101:11; 103:15; 104:9, 22; 107:17; 108:15; 109:5; 110:4; 111:4, 13; 113:22; 116:21; 119:10; 121:22, 25; 123:20; 124:8, 21; 127:6, 18; 128:3, 23; 131:1, 22; 133:16; 134:12; 135:12; 136:4; 137:4; 138:18; 139:18; 140:6, 18; 141:1, 23; 142:11, 25; 143:25; 144:18, 24; 146:5; 148:20; 150:2; 151:21; 152:6; 153:16; 154:19; 155:19; 157:11; 158:8; 160:21, 25; 161:7, 22; 162:20; 163:8,

19; 165:23; 166:9, 12, 22; 167:19; 169:7, 19, 24; 171:1; 172:1, 15; 173:14; 175:6, 18; 176:20; 177:5, 17, 19; 178:15, 24; 179:17; 180:15
nervous 91:7; 165:19
networking 47:19
neuropsychological 24:5
New 5:2; 15:17; 17:3, 18; 18:10; 20:17, 23; 32:18; 37:16; 40:23; 47:8; 48:23; 49:5; 55:5; 60:20; 61:10; 70:2; 75:17; 85:23; 88:6; 89:6; 95:10; 104:12, 13; 122:20; 123:16; 132:7; 136:13; 141:4, 13; 154:15; 168:8; 175:16; 176:19
newer 111:20
news 9:20; 87:12
next 8:20; 19:1, 13; 22:22; 35:5; 38:1; 42:13; 44:7; 45:6, 14; 46:16; 48:7; 71:24; 76:7; 93:19; 152:21; 171:1
NHL 24:11, 21; 25:10
nice 56:25; 57:3
night 84:14
nightmare 15:8
no's 179:19, 21
nobody 75:24; 89:23; 99:17; 115:10; 133:20; 134:25; 145:13
non-approved 4:6; 14:1; 34:24
non-cancer 84:3
Non-Hodgkin's 23:9, 25
non-ill 84:4
non-IND 177:14
non-maleficence 53:12
non-medical 128:6
Non-metastatic 161:8
non-physicians 128:16
non-research 15:22; 146:18
non-small-cell 121:19; 128:24; 157:1; 161:25; 163:18; 165:13
non-smoker 9:10
non-validated 133:5
None 74:4
nonexperimental 177:7
nonprofit 26:21
nonsensical 107:1
nonstandard 164:7
nontoxic 162:15, 15; 170:16, 17, 18; 172:7, 14; 177:11
nontraditional 154:22
nonvalue-laden 17:13
nor 15:5, 6; 23:13; 72:12; 155:20
norms 37:6
note 20:2; 36:12; 88:17

noted 8:12; 29:23; 177:21
notorious 139:3
novel 20:14; 101:7; 163:25; 164:3
number 27:10; 28:20; 31:11; 64:25; 71:7, 17; 80:24; 85:13, 14, 15, 19; 88:10; 99:19; 105:6; 108:4; 126:1; 129:6; 139:11; 150:14; 153:19
numbers 114:21; 160:15
numerous 27:8; 59:11; 161:24
numerous—that's 99:24
nurse 59:5; 62:25; 71:11; 86:12

O

o'clock 180:17
objective 95:20; 127:5, 5; 142:16, 18, 18, 19, 20
objectively 7:8
objectives 36:5; 56:4, 7, 8; 126:9, 12; 127:2; 139:22, 23, 25; 140:1; 142:14, 15
obligation 52:3
obliquely 116:2
observation 79:14
observations 27:17
observe 144:1
observing 92:24
obtain 15:7
obtained 7:2; 118:24
obtaining 56:9; 57:1; 61:19
obvious 171:16; 176:16
Obviously 41:10; 79:15; 123:6; 144:4
occur 44:16
occurrence 93:9
occurs 31:16
OD-1 6:7
ODAC 4:5; 22:14; 26:18; 58:25; 84:25
off 18:24; 30:15; 63:23, 25; 85:3; 116:4; 121:25; 124:18; 126:11; 162:8; 163:19; 164:17
off-label 85:18
off-site 127:8
off-study 51:13; 53:24; 85:10, 19
offensive 88:1
offer 31:24; 34:8; 40:18; 151:17
offered 29:12; 47:9; 55:19; 63:3; 65:9; 71:14
offering 46:23; 165:7
Office 6:3, 6; 7:3; 104:5; 145:2
Officer 7:25

official 39:25; 133:4
offset 57:15
often 24:11, 12; 25:6; 27:5; 30:8; 32:6; 38:4; 40:24; 48:15; 70:5; 87:23; 115:6; 116:7, 25; 148:5
oftentimes 145:14; 168:10
Oklahoma 65:9
old 14:20; 54:7
once 103:17; 135:5; 155:1
Oncologic 7:16; 8:24; 13:8
oncologist 45:14; 50:22; 85:14, 15; 86:6, 19
oncology 4:6, 25; 5:8, 23; 7:22; 8:4; 13:23; 14:2; 17:3; 34:25; 44:4; 59:5, 6; 63:7; 64:23; 158:18
one 9:20; 10:2; 11:9; 12:2, 14; 14:24; 21:3; 27:18; 28:8, 24; 29:10; 30:9; 31:17; 32:22; 34:4; 40:13; 42:20; 46:22; 47:3; 48:13, 20; 52:14; 54:15; 68:25; 70:11; 71:9; 72:15; 74:17; 78:2; 80:24; 85:14, 19; 86:17; 87:3; 91:4; 94:18; 95:23; 96:16; 97:25; 98:19; 99:5; 104:5; 105:5; 106:11; 108:15; 110:7; 111:23; 112:15; 115:10; 116:2, 11, 20; 131:25; 132:19, 22; 134:2, 25; 137:8; 139:19; 141:22; 144:19; 146:6, 8, 17; 147:9, 11; 149:11, 15; 150:14; 151:1; 154:21; 157:2, 25; 159:20; 160:7, 10; 162:8; 163:16; 165:16; 169:15, 21; 172:18; 177:9; 179:3; 180:6
one-third 18:25
ones 82:15
ongoing 108:9
online 19:18
only 9:8, 15; 10:9, 19; 12:14; 15:10; 20:23; 21:1, 3; 24:18; 31:20; 32:6; 36:12; 39:24; 46:10; 48:9; 59:25; 64:7, 25; 65:6; 74:23; 81:15; 84:8; 86:10; 87:24; 89:13, 20; 91:8; 92:4; 93:5; 98:12; 100:16; 106:24; 117:15; 122:5, 22; 125:24; 130:16; 139:22, 25; 140:23; 143:3, 7; 162:10; 163:4; 173:22; 180:18
onto 88:15; 105:8; 150:22; 162:9
Open 8:18, 20; 13:25; 16:21; 17:16; 30:13; 64:8; 90:23; 92:7; 104:15; 123:10, 11; 125:22; 129:13; 132:16; 178:21; 180:21

opened 135:20; 136:6
Opening 4:2; 104:16; 125:3; 135:19
opportunities 155:22
concern 126:13; 133:11
opportunity 8:23; 10:15; 12:6; 13:7; 27:13; 29:2
opposed 119:7; 130:19; 156:14; 163:11
opposite 131:11
option 32:6; 94:6; 150:25; 154:17; 175:25
options 11:24; 15:13; 29:14; 32:17; 33:20; 42:8; 47:2; 61:11; 75:6; 120:4; 129:15, 23
Order 4:2; 25:16; 48:1
ordinarily 129:15
ordinary 93:11
organ 21:24; 24:4; 132:6, 10; 153:22; 154:5, 14
organization 47:16
Organizations 26:21; 59:16; 86:8
organized 13:22; 44:20; 76:19
ostensibly 158:10
others 10:9; 14:8; 21:18; 31:4; 32:2; 57:9; 83:8, 19; 174:25
otherwise 33:20; 146:21
other 101:4; 112:21;
ourselves 70:14; 80:14; 82:22; 115:8
out 9:19; 22:10; 26:13; 29:5, 9, 13; 33:2; 47:1; 54:4, 11, 21; 63:5, 9; 64:25; 65:13; 66:1; 67:17; 69:21; 72:10; 77:15, 18; 82:12; 85:23; 93:11; 95:25; 101:4; 103:8; 104:1; 105:21; 106:4, 13, 14; 108:9, 12; 109:11; 111:23; 115:16; 118:23; 122:12; 128:12; 131:17; 133:23; 141:4, 14, 18; 143:12; 150:15; 155:13; 156:15; 158:24; 159:20; 160:5; 165:19; 168:13; 169:9
outcome 60:19; 68:11; 143:22; 157:13; 168:6
outcomes 13:13; 70:17; 25; 71:1; 143:18; 157:16; 160:14
outlined 120:20
outlook 11:20
outreach 78:8
outside 14:3; 19:8; 22:12; 122:23; 127:13;
outweigh 29:17
ovarian 18:10; 21:9, 11; 166:25; 176:16
ovary 21:24

over 9:16; 26:8; 34:4; 40:8; 44:7; 59:18; 67:7; 90:13; 93:19; 100:24; 102:6; 128:6; 131:8; 139:15; 155:15, 15; 163:6, 6; 164:22
overall 23:14
overcome 114:5
overhaul 16:18
overly 33:3
overseas 113:13
overseeing 37:22
oversight 41:14
overview 43:11; 50:9
overwhelming 96:11
own 14:13; 51:2, 6, 16; 64:2; 71:21; 85:17; 114:19; 174:24

P

p.m 180:21
pack 44:21
packaged 45:18
packaging 44:17
packing 44:18
paid 30:9
pain 87:21; 88:2; 174:17
painful 20:3
palliate 174:15, 19
palliation 174:17, 21; 175:5
palliative 50:23; 69:15, 21; 75:7; 87:7, 25; 88:7; 89:20; 93:25; 94:5; 173:5, 7; 174:12; 177:11, 12
panic 145:11
paper 7:15; 57:22
papers 58:7
paperwork 32:25; 45:15
parallel 32:11
parameters 84:1; 124:24
parents 15:17; 58:8
Parklawn 7:4
part 6:15; 8:20; 10:14; 33:4; 61:13; 70:16; 77:23; 81:13; 87:6; 93:15; 95:23; 99:3, 18, 21; 102:5; 109:9; 118:6, 12; 146:3; 151:19; 154:8; 156:22; 158:19; 169:25; 175:14; 178:1
partake 9:17
partial 36:12
participant 8:9
participants 7:7; 8:10, 13
participate 9:5; 11:18; 26:2; 67:9; 80:4, 5, 12, 15; 81:21, 25; 82:4; 84:16; 120:25
participating 38:21
participation 38:16; 62:6; 94:12; 114:1; 177:22
particular 6:19; 48:14;

56:9; 66:19; 67:10; 72:16; 95:23; 108:25; 113:9; 128:15; 129:19; 154:22; 156:18, 18; 178:17
particularly 113:17; 116:6; 132:25; 133:13; 152:8
parties 36:25; 47:20
partner 67:18; 68:13; 78:10
partnering 78:5
partnership 79:6
party 12:3; 114:7
Pasadena 4:25
passed 12:20; 108:7; 109:25
passionate 74:1
past 63:8; 67:14; 102:6
patient 4:6; 12:23; 13:11, 19; 14:1; 16:7, 15, 19, 22; 17:5, 15, 17; 18:21; 20:6; 21:1; 23:19; 24:14; 25:16, 23; 26:2, 6; 28:17, 25; 29:7; 30:1, 21, 24; 33:21; 34:24; 35:18; 38:5; 39:10, 16, 17; 40:15, 16, 22, 23; 41:1, 3, 4, 9, 10, 12, 19; 42:3; 43:4; 44:19; 45:2, 7, 14, 24; 49:8, 8; 51:3; 52:4, 5, 6, 11, 20; 53:4; 54:17; 55:24; 56:6; 58:19, 20; 61:2, 4, 21; 62:8, 13; 63:22; 69:13, 24; 72:7; 73:14; 74:7, 10; 75:5; 83:10, 11; 84:4; 88:9, 21; 90:3, 8, 12; 91:4; 92:3, 6, 15, 16, 17, 20; 94:20; 96:8, 22; 97:2; 99:5; 100:8; 105:20; 107:16, 19; 108:9, 20; 110:19; 114:17; 115:15; 116:23; 117:15; 118:7, 17; 119:21; 120:5, 14, 21, 24; 121:2, 18; 122:3, 13, 13; 123:3, 9, 14, 25; 124:4, 4, 11, 12, 14; 125:9, 12, 20, 21; 126:11, 13, 23; 127:12, 23; 128:24; 129:14, 19; 130:6, 7; 131:18, 24; 132:2; 133:12; 134:2; 135:22; 137:6; 138:6, 7, 13, 16; 140:9, 16, 22; 141:5, 7, 10, 17, 19, 22, 25; 142:4, 22, 24; 143:6; 144:15, 19; 145:4, 7, 14, 24; 146:8, 17; 147:4; 150:22; 153:7; 154:23; 155:22; 156:19, 22; 158:12, 22; 160:20; 161:3, 3; 162:12; 163:2; 166:5, 14, 25; 167:9; 169:2, 22; 170:21; 171:3; 172:13, 22; 173:11; 174:9, 10, 16, 22; 175:10; 176:8; 177:25, 25; 178:2, 3, 19; 179:20
patient's 23:12; 25:3; 42:8; 43:1; 45:14; 106:6; 120:19; 127:5; 176:4
patient-by-patient 46:4
patients 9:24; 11:5;

15:17; 21:11; 22:17; 23:4, 10, 25; 24:10, 13, 15, 17, 21; 25:10, 12, 14, 22; 29:2, 12, 20; 32:23, 24; 33:5; 34:12; 36:11, 15, 18, 21; 37:1, 8; 38:20; 39:15; 40:2; 44:10, 12; 46:1, 9, 18; 47:1; 48:2, 9; 49:18; 50:5; 53:13, 17; 54:7, 8, 8, 21; 55:4; 56:13; 57:13; 62:20; 63:13, 19; 64:5, 7, 11; 69:16; 70:3, 20; 71:1; 72:19; 73:20; 74:11; 76:9; 77:21; 78:9; 81:7; 84:12; 85:11, 16; 86:4; 87:2; 89:9; 90:7; 91:5, 20, 22, 24; 94:1, 3, 6, 13; 98:12; 104:1; 106:2, 14, 19, 22, 24; 107:6, 15; 111:19; 113:3, 6; 114:8; 122:22; 125:25; 126:2, 19; 127:21; 128:13; 129:21, 25; 130:2, 16; 131:4; 132:19, 20; 135:17; 136:20; 137:16, 24; 138:8, 10, 20; 145:15, 24; 146:12, 21, 24; 148:24; 149:7; 151:12, 14; 153:8, 9, 21; 154:24; 155:6, 9; 156:8; 157:14; 158:17, 21, 25; 159:4, 10; 163:13, 17; 165:9; 172:24, 24; 176:10; 177:23
Pattie 6:3
pay 22:11; 86:11; 113:6
pays 86:1
PAZDUR 6:5, 5; 150:19; 155:23; 180:9
PDQ 107:21; 108:1, 1, 3; 123:15
peculiar 137:22
pediatric 14:2; 16:25; 94:8, 9, 12
PELUSI 5:3, 3; 58:18, 21, 22; 79:9, 22; 81:5; 89:11, 12, 13
penetrate 114:15
Pennsylvania 9:6; 12:13
people 19:19; 20:9; 22:4, 13; 27:11; 30:11; 42:20; 53:1; 55:14; 57:8, 20, 20; 59:7, 11, 19; 60:23, 25; 61:10, 11, 23; 62:4, 5, 7, 23; 63:6; 64:14, 16; 65:21; 66:17, 23; 67:20; 69:20; 72:11; 73:4, 8, 8, 17; 74:1, 8, 14, 22; 75:20; 76:4, 5; 77:21; 79:17; 80:1, 3, 15; 81:1, 11, 16, 18, 21; 83:1; 84:8; 87:8, 13, 23; 88:5, 11, 15; 89:16; 90:18; 94:24; 99:6, 19; 100:24; 101:3; 113:13; 114:14, 21; 115:1, 23; 116:10, 10, 18; 124:25; 125:6, 18; 128:12; 130:9; 134:15; 135:2, 7, 10; 136:3; 139:2; 140:6; 142:21; 145:12; 146:3; 147:12; 150:21; 151:25; 153:22; 154:10, 24; 156:7;

157:7, 20; 159:25; 160:10; 175:23; 180:10
people's 91:13
percent 64:21, 22; 119:8, 8; 129:21; 131:16; 156:12; 171:5
perception 17:23; 66:1; 98:4
perceptions 72:21
perfect 90:11
perfectly 169:3
performance 75:15; 91:19; 92:1; 118:18; 132:5; 141:1; 151:25; 153:23, 23; 154:5, 5, 15
performs 38:3
perhaps 76:7; 81:21; 87:15; 92:13; 112:16, 16; 117:20; 128:17; 129:4; 137:1; 138:10; 140:9; 170:22; 172:16, 19
period 9:17; 46:1; 133:20; 172:20, 23; 173:4
permanent 25:2; 167:8
permission 52:23; 120:16, 17
permitted 12:12; 43:4; 140:4; 178:19
persistence 47:24
persistent 113:1
persists 15:23
person 10:20; 11:13; 21:7; 38:6; 45:10; 62:25; 68:1; 73:6; 110:12; 117:4; 154:3, 6, 12; 170:1; 175:25; 177:2, 7
personal 14:13; 96:9
personally 26:23; 130:15; 162:7
perspective 14:13; 27:4; 58:19, 20; 77:20; 111:17; 112:20; 132:23
Ph.D 7:9; 58:21; 89:12
Pharma 7:11; 114:15; 153:3
pharmaceutical 6:25; 26:24; 27:2; 35:7; 36:1, 25; 43:13; 102:22
Pharmaceuticals 4:15; 8:4, 6; 43:15
pharmacists 86:12
phase 30:25; 32:15; 42:22, 22, 22; 43:25; 44:13; 56:2, 3; 76:7; 79:19; 80:2, 9, 23; 81:19, 19, 20; 82:3, 5; 83:23; 84:3, 18; 87:14, 19, 20; 88:13; 90:16; 99:10, 14; 100:12, 19; 106:14, 25, 25; 107:7, 8, 8; 118:8, 10, 23; 121:14, 14, 14, 15, 17, 18; 122:1, 12, 17, 18; 123:2, 8, 23, 23, 24; 124:6, 7, 16, 24; 125:2, 11; 126:5, 9, 18, 19, 23; 127:9, 15, 16, 21; 128:9, 20, 25; 130:4, 5, 12, 25; 131:3, 7, 7, 9, 11, 15;

132:1, 11; 133:1, 2, 4, 7, 7, 7, 9, 19, 23, 24; 134:4, 6, 7, 11; 135:22; 137:8; 138:5, 7, 13, 18, 23; 139:3, 11, 11, 15, 20, 21, 21, 24, 24; 140:7, 15, 15, 20; 141:14, 15, 24; 142:2, 7, 8, 12, 15, 15, 19, 21; 143:4; 144:11; 146:22; 148:9; 152:14; 155:8, 8, 8; 156:15; 157:4; 158:2, 3; 161:1, 2, 11, 12; 162:19, 21; 163:11, 17, 25; 164:3; 165:4, 7; 166:15; 167:10, 18, 25; 168:1, 10, 10, 13, 18, 18; 169:6; 171:17, 17; 173:20, 22; 174:1
phases 60:7; 79:24; 81:7
phenomena 33:18
Philadelphia 9:6; 12:13; 174:2
philosophical 105:2
Phoenix 5:3; 65:10
phone 71:12; 145:25
phones 71:11
phoning 19:21
phrase 15:20, 23, 24
PhRMA 93:13; 102:21; 180:11
physician 23:21; 40:17; 41:12; 45:13; 50:23; 51:3; 53:8; 55:20; 85:13; 86:9, 17; 87:7; 88:1; 89:9; 92:16; 99:8; 110:21; 112:12; 123:18; 125:12; 128:11; 131:24; 133:13, 14; 159:6; 166:7
physicians 11:5; 15:23; 43:13; 49:9; 51:25; 52:3; 54:25; 58:5; 71:17; 85:20; 87:11; 102:24; 105:23; 128:15; 137:16; 153:19; 158:10, 20
pick 141:3
picture 30:10
pie 151:19
piece 33:15
pike 30:16
pilot 99:11
pipeline 32:19
pivotal 133:10; 136:14; 170:19, 23
place 72:16; 108:8; 110:1; 112:11; 136:19; 172:11
placebo 138:21; 159:1, 1
placed 12:21
placing 12:20
plain 55:10
plainly 80:25
plan 40:19; 41:6; 69:5, 24; 70:3; 101:4; 145:9; 149:24
planned 93:14
planning 93:16; 179:23
plans 33:5; 39:17; 63:5; 70:9

PLATNER 4:20, 20; 96:14, 15; 101:17
play 37:5; 161:20
players 31:1; 34:11
please 4:12; 12:10, 17, 23; 109:5; 120:11
plenty 177:6, 14
Plus 155:23; 168:19
pneumonia 176:21
point 11:9; 29:14; 43:23; 51:13; 100:1; 102:11; 103:18; 107:18; 125:18; 127:3; 137:11; 139:7; 143:8, 11; 154:9; 159:8; 165:12, 17, 24
pointed 101:3; 128:11; 141:14
points 35:18; 42:14, 14; 43:6, 16; 57:5; 89:15; 91:2; 92:13; 103:8; 104:25
policies 16:21, 24; 17:16; 25:22; 57:25; 58:2
policy 22:14; 28:4, 11; 96:11; 112:23; 165:9
political 47:25
politicizing 31:14
poor 77:3; 81:23; 108:2, 13; 118:18; 157:17
poorly 106:3; 157:20
population 50:1; 55:13, 24; 65:15, 20; 66:7; 82:13; 141:6; 142:4; 143:6; 159:15
populations 49:23; 55:13; 59:8; 81:9; 155:3
pose 133:20
position 13:19; 14:9; 22:20; 27:3; 47:25; 55:16; 85:21; 86:9; 133:18
positive 12:8; 125:15
possibility 29:10, 16, 20; 30:7, 19; 102:10; 159:21; 160:6, 9
possible 9:15; 12:15; 15:3, 13; 25:19; 29:17; 32:18; 34:11, 14; 45:2; 92:20; 94:16; 105:9, 10; 106:8, 11, 16; 133:9, 15
possibly 149:18
post 114:8
pot 150:11
potential 44:25; 82:8; 91:8; 106:17; 122:9; 127:20; 132:14; 137:25
potentially 128:9; 166:20
PR 21:5; 22:10
practical 134:19; 145:1, 4; 175:13
practicalities 134:14; 135:8
practice 57:11; 59:4; 84:11; 85:17; 86:7; 93:8; 154:12
practices 39:7, 8; 170:6
practitioner 59:5; 147:4

precious 14:6
precise 17:14
precisely 169:25
preclude 6:15
prednisone 177:8
prefer 121:24
preliminary 120:1; 129:10, 12
prepared 110:8; 135:20; 136:5
prerogative 90:25
prescribe 176:22, 23
present 18:16; 22:16
presentation 11:1; 35:21; 40:13
presentations 35:6; 59:25
presented 7:15; 35:17; 51:1; 52:14; 56:24; 67:15; 78:13; 136:16; 146:8
preserve 17:18
President 7:24; 13:10; 19:21, 24
press 33:4; 134:13
pressed 167:13, 21
pressure 131:24, 24
pressure-releasing 134:22
presumes 16:6
pretend 30:17
pretreatment 157:22
pretty 69:11; 107:1, 10; 122:11; 124:2; 148:8; 153:3; 157:9; 176:15
prevent 12:25; 48:1
prevented 9:14
prevention 60:10; 67:4; 79:25
previous 8:15; 66:9; 75:4
previously 24:13
primarily 38:25; 85:9; 107:14
primary 125:10; 142:14, 17, 19; 151:23
principle 52:25; 53:2, 5; 79:11; 134:6; 172:7, 12
principles 52:16; 54:16; 143:16
print 17:22
prior 115:19; 157:10
private 86:6; 166:7
proactive 13:22; 93:14
probably 12:4; 32:2; 49:6; 81:1; 83:6; 89:14; 110:5; 113:5; 114:13; 121:13; 132:5; 135:6; 149:16, 22; 155:13; 166:7; 176:15
problem 20:12; 32:3; 33:4, 10; 48:13; 53:23; 69:20; 156:14; 160:19; 162:7; 163:17; 166:1; 169:8, 13
problematic 28:4, 13;

150:6
problems 33:9; 48:17; 99:5; 146:6; 151:2; 173:3
procedure 46:17
procedures 16:24; 31:19
proceed 104:20
PROCEEDINGS 4:1
process 15:6; 29:4, 21; 31:23; 34:9; 36:3; 37:19; 44:17; 45:7, 12; 47:13; 48:2; 49:15, 17; 57:14; 59:13; 60:8; 61:1, 13, 14, 15; 62:17; 63:2; 64:10, 13; 65:22; 69:2, 5, 23; 70:11; 72:13, 23; 73:21; 74:15, 18; 75:25; 76:19, 23, 25; 77:23; 78:10, 15, 24; 79:13; 81:6; 89:17, 24; 90:5; 93:15; 104:20; 110:11, 18; 111:1, 2; 117:21; 136:21; 137:8; 147:4, 7, 8; 151:16; 154:9; 171:21; 179:24
processing 47:18
produces 161:9; 171:7
product 6:19
production 44:4; 137:13
products 6:21; 8:8, 16; 111:21; 147:5; 152:25
professional 17:23
Professionally 23:7
profile 21:6; 33:2; 104:17; 175:4
profound 31:10
Program 6:4; 7:12; 13:23; 28:25; 29:1; 30:21; 33:3; 39:25; 46:4; 47:8; 48:12, 14; 57:20; 61:2; 71:9; 93:14, 20; 96:3; 98:10; 100:3; 114:24; 153:1; 172:11
programs 27:11; 28:2, 16; 32:7, 12, 21; 39:12; 40:13; 44:8, 9, 12; 61:21; 98:7; 106:14; 136:19; 137:17; 179:9, 22, 22
progress 37:24; 142:7
progressed 164:6
progression 164:17
progressive 164:21
prohibit 135:21
Project 18:13; 22:18; 45:13; 47:15
prolongation 76:3; 166:24
prolonged 46:1; 167:7
promise 21:4; 43:25
promising 25:17; 40:9; 46:25; 48:5; 95:10; 97:16; 98:5; 154:15
proof 134:4
proper 179:21
proposal 21:11
propose 137:10
proposed 42:10; 102:9

proposed--perhaps 102:9
proposes 40:19
proprietary 152:24
prostate 67:5
protect 127:23
protected 54:25; 55:1
protocol 21:1; 39:15; 40:19; 41:3, 5, 7; 42:10; 45:16; 46:20, 23; 48:25; 49:1; 57:15; 107:11; 108:11; 124:17, 18; 134:25; 145:23; 146:25
protocols 18:22; 20:7; 39:16; 40:8; 45:4; 48:22; 49:22; 57:12; 101:1; 107:22, 25; 149:5, 17
proven 10:19; 26:7; 140:11; 162:23; 168:23; 171:19
provide 21:1; 36:19; 39:22; 41:14; 44:5; 68:20; 97:23; 112:13; 113:18; 118:21; 122:23; 134:16, 20; 135:16; 143:10; 144:20; 160:4
provided 7:10, 13; 39:24; 120:17; 179:13, 14
providers 62:19; 67:11; 68:23; 70:1, 14; 72:5, 11; 76:18, 21; 78:6, 18; 103:1
provides 76:3; 160:11; 166:23; 171:2
providing 27:12; 34:1, 13; 35:24; 36:2; 39:20; 41:11; 56:21; 114:7
provisions 178:10
provocative 152:10
prudent 32:21; 34:14
PRZEPIORKA 5:17, 17; 123:20, 21; 140:18, 19; 142:2; 148:20, 22; 169:19, 20; 172:15, 16; 173:17; 174:7
public 7:7; 8:18, 20; 17:23; 31:17, 20; 32:13; 36:6; 38:15, 18; 58:3, 9; 78:2; 89:2; 98:25; 114:3, 19; 162:13
publications 93:24
publicizing 27:10
publicly 14:15; 17:16
published 78:1; 132:12
pulled 127:10
pulmonary 24:5
purpose 30:25; 38:8; 39:1
pursue 72:13
pursuing 177:24
purview 149:15
put 9:13, 20; 11:21; 61:17; 86:18; 89:25; 94:2; 109:11, 20; 110:13; 117:15; 122:19; 128:1; 142:24; 146:12; 156:7
puts 55:19

Q

qualified 19:16
qualities 40:11
quality 13:24; 21:7; 70:20
qualitative 27:22; 28:12
quality 14:4; 20:14; 24:6; 49:11; 60:5; 69:15; 72:24; 79:4; 90:20; 95:16; 124:13; 155:5, 16; 162:3, 11; 163:6; 165:10, 15; 173:25
quantitative 28:12
quasi-Phase 168:9
Queimado 22:23; 23:1; 26:10
query 179:20
question--because 139:21
question--what 74:21
quick 93:4
quickly 105:8, 10; 170:20; 172:8
quite 38:4; 111:12; 132:3; 134:16; 144:5, 12
quote 149:1

R

ration 24:3
rationally 139:12
radiotherapy 23:10, 15
raise 97:5; 101:2, 7; 115:3
raised 21:22; 107:18; 114:6; 170:16
raises 135:1
raising 44:25
ramifications 28:7
ran 71:9
randomize 115:8
randomized 50:3; 160:7; 163:24; 168:5; 169:4; 170:12
randomizing 160:6
randomly 31:15
range 107:3
ranging 23:21
rapid 136:24
rapidly 104:19; 129:13
rare 12:15; 21:21; 30:6; 95:5; 106:10, 15
rarely 175:14
ras 21:25
rate 42:24; 49:14; 62:6; 131:16; 134:8; 138:9; 162:16; 171:3, 6, 15, 2:18; 173:8
rather 6:20; 12:21; 20:4; 30:5, 17; 38:25; 93:9; 102:25; 105:20; 107:7, 15; 136:20; 157:20; 173:2

ratio 119:20, 23; 150:4, 5
rational 17:10; 22:2, 6; 166:20
rationale 138:4, 15
re-adjourn 180:17
reach 104:19
reaction 45:22
reactions 44:25; 49:4, 25
read 77:25; 78:3; 123:15; 141:3, 4
reading 22:24; 92:11
ready 80:25; 134:15, 20; 135:9; 144:21
real 20:12; 29:5; 33:9, 9, 10; 88:23; 89:17; 127:19; 128:5; 146:14; 147:18; 153:25; 164:12; 169:16
realistic 34:7; 60:25; 154:6
realistically 47:2
realities 88:7; 118:4; 127:2; 136:9
reality 68:3, 10; 89:18; 132:24; 146:22
realize 62:5; 64:14; 75:9; 87:1; 98:1
really 29:20; 33:6; 51:14; 62:3, 4, 11, 13, 16; 64:10, 12; 68:3, 7, 16, 21; 69:3, 9, 15; 70:6; 71:19; 72:10, 12, 20; 73:1; 75:14, 15; 76:5, 14, 15; 77:7, 13, 19, 21, 23; 78:7, 21; 80:16, 16; 82:6; 87:3; 92:5; 97:6, 8, 8, 17; 99:13; 100:11; 102:6; 103:7; 105:15; 106:21; 107:14; 110:17; 115:21; 116:23; 121:23, 23; 122:2, 20; 123:19; 125:7; 133:19; 135:9; 137:10; 140:16, 22, 23; 142:22; 146:2, 9, 14; 149:9, 16, 22; 151:4, 9; 152:5; 154:11; 160:1; 161:12; 170:7; 172:22; 173:9, 12; 174:3, 10; 175:21, 25; 176:1; 180:12, 13
reason 29:15; 73:6; 74:23, 25; 100:16; 109:23; 117:15; 118:20; 130:18; 142:21; 148:9; 151:23; 153:2; 156:1, 2, 16; 168:7; 173:11; 177:2; 180:6
reasonable 49:20; 83:25; 111:22; 130:7, 8, 13, 14; 144:4; 150:1; 154:16; 175:9; 177:12
reasons 15:11; 24:16, 22; 84:20; 97:25; 116:12; 130:22; 137:20; 139:6; 147:1, 3, 13, 18; 148:16; 150:21
recap 60:15
receive 24:18; 26:25; 117:4; 120:23; 121:18; 123:17; 171:4; 178:1, 3
received 25:19; 26:16;

121:12; 155:7; 157:22
receives 120:13
receiving 46:10; 90:19
recent 33:15; 95:11
recently 23:19; 67:1
reception 26:13
Recess 84:24
recognize 32:4; 92:18; 97:7; 105:16
recognized 23:17
recognizing 30:14
recollection 164:19
recommend 131:21
recommendations 17:11; 23:21
record 4:12; 6:15; 7:10; 8:12; 161:6
recorded 92:25
records 86:3, 12
REDMAN 5:15, 15; 83:5; 110:4, 5; 127:6, 7; 131:1, 2; 161:6
reducing 23:11
refer 64:25; 120:18; 136:19; 145:15
references 26:15
referral 63:1; 64:13, 17; 65:1, 7, 14
referrals 63:15; 65:1; 76:17
referred 63:7, 19; 65:13; 112:19
referring 58:5; 79:22; 109:9; 151:5
refers 39:14
reflected 79:1
reflective 76:23
refuse 83:10; 158:11
refused 24:15; 25:18
refuses 27:23
refute 143:17
regard 6:14
regarding 7:11; 59:17; 66:10; 101:17; 111:1; 140:20; 154:22
regime 66:19
regimen 149:3; 164:7, 8
regs 111:6; 170:1, 7
regular 64:20
regularly 47:1
regulated 37:15
regulations 37:23; 39:6, 12; 40:1; 113:7
Regulatory 34:21; 35:2, 16; 44:9, 13; 50:8; 54:12; 110:20
reimbursement 86:14
reinstated 11:13
reinvent 108:22
reiterate 91:1, 3; 110:6
related 139:1
relation 61:10; 104:11
relations 114:20

relatively 23:11; 28:22; 43:5; 98:14; 162:15; 172:7
release 33:1, 4
released 128:20; 132:1
releasing 132:14
relevant 79:4; 83:20, 22; 84:1, 6, 20; 97:25; 116:5
reliable 139:9; 141:25
relief 140:13
religious 74:25
reluctant 33:1; 166:13
remain 53:2
remaining 11:25; 117:19
remains 122:9, 10
remarkably 106:15
Remarks 4:2
remember 12:7; 55:12; 163:19
remind 103:19; 139:2
remission 88:14
Rep 5:4; 58:24; 59:21
repeated 24:8
replacing 16:1
reply 46:12; 167:18
report 129:12
reported 6:24; 7:6
reporting 37:23; 46:9; 151:8
reports 41:22; 45:22, 22, 23
represent 59:21
representatives 36:24; 146:8
represented 82:24
represents 14:2
request 7:2; 107:24; 120:13; 145:19; 147:4, 5, 12; 152:18, 21
requested 152:19
requesting 126:2; 147:13
requests 40:17; 47:3; 134:11; 139:24; 146:23; 153:22
require 131:17
required 66:3; 109:22
required-to 108:18
requirement 111:7; 160:3
requirements 41:18, 19; 48:7; 66:4; 111:7; 141:2; 146:20, 24
requires 43:6; 125:8
requiring 46:11; 177:14
Research 4:23; 7:21; 15:18; 16:11; 23:8; 27:22; 28:12; 47:15; 51:15, 16; 54:2, 4, 9, 14; 63:12, 18; 66:8; 71:13; 76:21; 77:24; 78:1, 3; 86:8; 106:1; 128:9, 12, 13
researcher 56:3
researchers 27:8; 54:3; 70:18; 78:17; 82:17;

105:25
resist 152:9
resonant 33:14
resource 14:7; 26:22; 66:11
resources 32:1, 2; 33:11; 44:11, 15; 46:6; 47:13; 72:12; 83:1
respect 6:21; 7:5; 8:13; 54:17; 77:3; 92:19; 139:4
respects 133:8
respond 83:7; 87:14; 88:12, 13; 101:12, 16; 102:3; 109:16; 118:19; 143:1; 148:21; 152:7; 156:9; 164:18
responded 56:6
responding 106:15; 126:15; 149:2; 156:11
response 42:24; 50:14; 58:16; 111:5; 118:9; 119:8, 8; 131:16; 134:7; 138:9; 140:8, 12; 158:9; 162:16; 167:12; 170:17; 174:5; 175:3; 176:9
responses 87:1
responsibilities 45:21; 77:16
responsibility 37:21; 117:5, 9; 148:4; 159:10
responsible 73:24
responsive 172:10
rest 10:7; 13:1; 92:8; 124:7
restricted 48:5
restrictions 156:6
restrictive 139:5
result 28:7; 107:7
results 20:4; 46:25; 95:7; 120:1; 141:8; 142:9; 168:5
resume 7:14
retarded 54:8
retreatments 24:9
retrievable 155:20
retrieving 45:23
retrospective 155:17
review 35:16; 37:13; 95:17; 107:12
reviewed 127:8
reviewing 92:12
Richard 6:5
ridiculous 126:24
right 9:24; 11:3, 6, 6, 23; 12:23; 18:23; 32:4; 45:10; 52:20, 21, 22; 64:2; 83:10, 11; 90:11; 113:2; 123:6; 136:5, 13; 137:3; 140:9; 142:23; 144:17; 145:17; 156:1; 158:11; 160:9; 162:18; 170:9; 177:1; 178:12, 12
rights 127:12
rigid 116:7; 127:23; 148:13
ripe 180:1

risk 61:8; 142:24; 172:22
risk-benefit 150:4
risk-to-benefit 119:20, 22
risks 9:7; 24:2
road 103:12; 107:6
Robert 4:22; 7:18, 23; 35:19; 43:14
role 36:12; 92:13; 102:25; 119:19; 128:11
roles 37:5; 77:15
roll 145:5, 11
Room 7:3; 70:2; 96:16; 113:5
rotating 165:4
rough 36:13; 82:13
roughly 144:21
routine 63:25; 74:11
rule 24:20; 53:15; 105:24; 169:22
rules 16:21; 47:23; 54:13; 98:21; 104:6; 137:18; 143:13, 24; 144:3, 9; 146:11; 147:6, 24; 148:14; 152:12; 153:15; 169:21
run 29:13; 47:1; 153:1; 172:14, 14
running 125:11
rural 59:7; 72:4, 11
Ruth 4:18; 7:9

S

safe 26:7; 38:10, 19; 42:12; 43:5; 61:20; 76:9; 90:1, 15; 118:25; 130:11
safety 21:6; 32:15; 33:9; 39:1; 42:2; 44:25; 48:11; 50:6; 117:3; 120:2; 129:17; 138:6, 7, 8; 139:6; 140:23; 141:19, 24; 142:4, 22; 148:10; 149:5, 18; 154:25; 157:24; 173:3
safety/efficacy 33:2
Sally 26:17; 34:17
same 22:4; 34:10; 38:6; 39:8; 41:7, 7, 20; 49:10; 51:17; 60:3, 3; 76:24; 79:3; 83:20; 99:24; 126:8; 144:15; 154:2; 167:22; 169:13
Santana 146:5, 6; 147:22; 148:10, 21; 151:11
Santana's 150:20
Sarah 5:5; 50:19; 85:1, 5; 165:6
satisfactory 43:3
satisfy 143:17
save 10:12
saved 10:5; 14:5
saw 19:13; 174:4
Sawyer 19:25
saying 20:2; 68:2; 74:1;

75:8; 90:10; 115:13; 116:10; 118:22; 123:3; 134:10; 135:8; 136:7; 144:2, 12; 145:6; 146:1; 161:17; 168:12, 21; 169:18; 173:14; 179:19, 21
scale 7:20
scandal 54:4
scarce 14:7; 43:22
scary 107:5
scenario 121:8; 125:1; 139:23; 163:4; 166:23; 168:2
scenarios 96:23; 120:11, 20; 122:1; 124:7; 165:25
schedule 129:8; 139:12; 142:23
scheduled 44:21
Schering-Plough 4:17; 8:1; 35:20; 43:14
Schiff 18:6, 7, 8
science 10:11; 54:23
science-based 159:8
scientific 17:2; 56:5; 105:17, 21; 139:22, 25; 142:13, 20; 151:4, 10; 156:4
scientist 86:23, 25
scientists 111:19; 158:11
Scottish 52:1
screen 19:22; 71:7; 114:8
screened 87:3
screenings 71:22
searching 19:18
second 26:16; 40:25; 42:25; 46:25; 52:17, 25; 54:18; 91:15; 93:22; 105:17; 157:15
second-line 70:15
secondary 24:3; 142:14, 16, 18
Secondly 92:21
Secretary 5:10; 19:22
Section 6:22; 109:10, 11, 16; 141:5
sectors 95:18
seeing 68:7; 82:14; 104:14; 138:9
seek 24:11; 86:4; 88:5; 116:19
seeking 17:7; 85:16; 119:19
seem 49:12; 99:16; 100:8; 101:6; 110:7; 113:24; 115:13
seemed 47:10
seemingly 27:20
seems 45:1; 62:16; 83:9; 94:18; 96:10; 98:19; 99:2, 13; 100:5, 23; 111:11; 162:15
segment 19:14
seizures 14:23; 15:2

seldom 49:6
selected 38:22
self-help 18:9
semantic 93:22, 25
semantics 100:11
senator 152:19
sending 107:11
Senior 7:24; 8:3
sensationalism 68:4
sense 52:23; 83:7; 95:14; 134:17; 146:17
sensitive 135:13
sensitivity 15:9
sent 20:1
sentiment 177:20; 178:5
separate 28:16; 40:23; 100:5; 178:8
serious 25:1; 30:6; 33:9; 46:12; 49:5
seriously 28:21; 53:17
served 105:7
serves 30:24; 33:21
service 7:12; 65:8
services 7:11; 26:19; 34:18; 64:17, 23; 65:7, 8, 11, 14
session 35:8; 180:18, 22
set 17:13; 22:3, 6; 37:6; 63:5; 70:24; 71:22; 73:11; 75:13; 80:14; 83:25; 99:22; 113:11; 132:10; 147:3, 6, 23, 24; 148:13; 149:6; 158:18; 165:3; 175:23
sets 16:23; 145:11
setting 29:16; 44:24; 49:7; 50:3; 71:4; 91:16; 105:20; 119:1; 121:8; 123:4; 141:21; 143:9; 147:6; 149:6; 162:24; 163:10; 164:12; 165:15, 20; 166:15; 173:7; 175:2, 20
settings 59:7, 7; 63:20; 67:19; 72:5; 123:7; 164:14; 168:20
settled 92:16
several 27:1; 29:8; 37:18; 39:19; 131:25; 132:1; 138:4; 163:24
severe 92:4; 167:7
shall 54:17; 109:1
SHARE 18:9, 12, 22, 23; 21:9; 22:19; 152:24
SHARE's 22:18
shared 32:14; 45:6; 59:16
shareholder 7:19
sharing 62:2
ship 44:21
shipped 45:18
shipping 44:17, 18
shocked 53:14
short 19:5; 24:1; 25:1;

93:2
short-lived 24:8
shortage 48:14
shortcomings 20:20
shortly 109:13
shot 100:25
show 42:23; 130:12; 156:5; 158:16
showed 173:24
showing 43:24; 46:25; 168:5
shown 26:7; 48:6; 131:8; 141:12; 161:25; 173:2, 2
shows 161:8
shut 169:10
sick 55:14; 56:22
side 14:14; 25:1; 56:21; 82:8; 86:17; 92:17; 107:5; 125:7; 126:7; 167:8
sign 16:12; 58:7; 73:13
signal 106:9
signals 106:13
significant 24:1; 28:10; 100:17; 102:25; 150:18; 162:2
similar 51:18; 99:13; 104:6; 144:21; 146:21; 160:8; 168:5
simple 50:3, 6; 159:23
simplistic 151:11, 20
simply 29:1; 30:14; 34:4; 97:20; 107:2; 154:13
single 4:6; 13:19; 14:1; 16:7, 15, 19, 21; 17:5, 14, 17; 18:21; 20:6, 25; 24:14; 25:15, 23; 26:2, 6; 27:8; 28:16, 25; 29:7; 30:21; 33:21; 34:24; 35:18; 38:5; 39:10, 15, 16; 40:15, 16, 22, 23, 25; 41:3, 9, 10, 19; 43:4; 44:19; 45:2, 7; 47:21; 61:2, 21; 62:7, 12; 69:13; 72:7; 74:7, 10, 17, 23; 75:5; 76:20; 90:12; 96:22; 97:2; 105:20, 21; 106:4; 107:10; 108:8; 110:18; 114:17; 116:23; 117:15; 120:14; 121:2; 122:3, 13, 13; 123:24; 124:4, 4, 11, 12; 125:9; 130:7; 131:18; 133:23; 135:22; 136:21; 137:6; 141:17; 142:22; 144:15, 19; 145:4, 6, 24; 150:22; 155:21, 24; 160:20; 161:3; 166:14; 167:9, 12, 19, 21; 168:1; 170:21; 172:9, 13; 177:24; 178:3, 18; 179:20
single-arm 49:7; 155:25
Sirs 23:2
sit 141:7
sites 114:20
sitting 63:12
situation 29:23; 96:25; 116:10; 126:1; 130:19; 134:23; 136:21; 145:13;

168:15; 169:14, 18; 173:16
situations 135:13, 17; 136:13
six 122:23; 164:20
sixth 150:24
Sixty 19:13
size 160:13
sized 28:23
SLEDGE 5:13, 13; 104:22, 23; 110:6; 112:18; 126:17, 22; 127:4; 163:20, 21; 164:3, 19; 165:3; 171:10, 15, 24
Sledge's 165:12
sleeve 145:5
Slide 35:10, 15; 36:4; 37:12; 38:7; 39:3, 18; 40:14; 41:17; 42:4, 13, 17; 43:9, 17; 45:5, 19; 46:7, 15; 47:6; 48:19; 49:19; 59:14, 23; 60:11; 61:6, 16; 62:15, 22; 66:5; 67:24; 68:22; 70:12; 74:6, 19; 75:2; 76:1, 13; 77:1, 10; 78:20; 79:2
slide—especially 159:24
slight 41:6
slightly 144:7
slippery 140:2
Sloan-Kettering 5:1
slow 78:15; 89:23; 90:4
small 28:20, 23; 44:1; 46:5; 63:17; 80:24; 102:22; 124:25; 132:3; 139:4; 153:5, 14; 163:13; 168:8, 21; 179:25
small-cell 132:18; 165:11
smaller 79:15; 93:3; 135:14; 136:25
so-called 14:12; 17:24
social 32:20; 33:25
society 34:2, 6, 13; 54:23; 55:3; 61:12; 157:4
solely 31:7
solution 28:6; 31:17; 151:20
solutions 77:7
solve 99:4
somebody 77:2; 80:8; 99:7; 107:18; 115:18; 142:5; 152:19; 176:21
somehow 81:10; 115:12, 17
someone 10:13, 18, 24; 11:23; 12:3, 14, 18; 30:16; 100:19; 101:5; 107:21; 124:16; 128:1, 11; 130:23; 132:7; 134:10; 142:10; 162:8; 167:5; 175:15; 176:18
someone's 63:2
someplace 64:1
Somers 5:9
sometimes 29:3; 33:22;

45:11; 49:20, 22; 53:5, 16;
55:18; 63:15; 75:9; 79:16;
87:11; 88:2; 111:21;
112:14; 128:14; 148:4;
1
sc...what 99:14; 160:11
somewhere 83:13; 101:5
son 14:15
soon 11:1; 26:7; 132:16;
169:4
sorry 176:8
sort 30:25; 77:15; 79:11;
80:22; 83:7; 95:20; 98:16;
99:10; 101:7; 102:17, 19;
105:5; 106:17; 145:10;
159:19; 161:11; 164:11,
11; 168:6
sorts 113:13; 141:2;
155:14
sound 17:9
sounds 147:10
source 30:20; 33:22;
152:23
speak 13:8, 17; 14:11;
27:13; 58:23; 180:6
speaker 35:12; 46:16;
51:8
speaker's 143:3
speakers 35:7; 83:8;
91:7; 113:24
speaking 18:12; 21:14;
130:5; 158:2
s...s 21:22
Special 6:4; 14:2; 17:5;
74:12; 82:13; 90:3;
138:14; 147:24
specialist 23:18
specific 25:7; 74:24;
119:14; 143:20; 175:22;
177:13
specifically 119:12;
136:22
specifics 48:25
speed 49:13, 17
spend 62:2; 88:24; 89:9
spending 13:1; 88:22,
25; 157:8
spent 19:17; 89:5
SPIEGEL 4:16, 16; 7:23;
35:19, 23; 43:14; 45:6;
46:8; 50:10; 113:22, 23;
133:16, 17; 152:6, 7;
173:18
spite 108:6
spoke 10:24
sponsor 37:20, 20, 24;
38:6, 11; 40:16, 19, 23, 24;
41:2, 8, 22; 42:9; 93:16;
120:15; 137:9, 16
sponsors 93:7; 109:14;
145:19; 152:24
sponsorship 40:10
spot 12:2; 36:16; 153:22
squarely 34:5
Stacy 5:7; 134:14;

136:12; 167:17
staff 49:10
staffing 32:14
stage 40:10; 42:21;
69:22; 70:21; 97:11, 13;
114:16, 25; 121:5; 146:4;
168:9
stages 20:16, 16; 22:7;
79:5; 81:4, 5; 139:6
stakeholders 77:14;
103:4
stakes 29:22
stance 135:24
stand 11:3; 29:8; 100:22;
150:10
standard 20:24; 23:15;
24:18; 25:8, 20; 43:2, 3;
74:21; 75:3; 76:2, 2, 5, 10;
80:18, 20; 84:7; 89:25;
91:24; 115:9; 118:20;
119:9; 120:11, 22; 121:7,
9; 128:23; 149:2; 153:24;
161:1; 162:9; 163:3, 15;
164:4, 8, 23; 165:4, 15, 16;
166:23; 167:5, 20; 171:2;
173:23; 174:5
standards 16:24
standpoint 105:17;
106:9
start 4:8, 12; 8:19; 27:16;
66:14; 75:20; 99:23, 25;
100:2; 145:6; 167:3;
169:8; 172:21; 179:23
start-ups 102:23
started 75:18
starting 82:12
starts 145:11
state 4:10; 80:10; 136:12
stated 60:25; 136:11;
146:25
Statement 6:10, 11;
22:18; 26:12; 50:21; 162:8
statements 7:1; 27:21
States 19:24; 54:7; 113:2;
120:21; 162:6; 167:20
stating 21:11
statistic 156:10
statistical 139:7; 163:5
statistically 96:4
statisticians 115:23
statistics 25:12; 57:18
status 14:22; 75:16;
91:19; 92:1; 118:18;
132:5; 141:1; 151:25;
154:6
statute 108:25
statutory 103:19
stay 10:6; 35:14
stayed 102:6
stem 23:22
step 46:5; 47:12; 49:15;
71:24; 104:7; 177:9
Stephen 5:11
steps 45:17
Steve 4:14

Steven 8:2
still 14:14; 15:21; 19:9;
22:19; 35:12; 55:11, 12;
61:18; 75:20; 76:4; 78:18;
112:25; 114:3; 123:22;
126:21; 131:16; 132:4;
138:19, 21, 22; 142:8;
143:15, 15; 144:6; 146:19;
160:25
stock 8:5
stone 170:1
stonewalled 33:8
stop 15:1; 170:11
stopped 75:19
stories 61:25
strata 151:14
strategies 17:2
strategy 17:21; 19:21
streamline 112:16
strength 11:2
strict 156:3; 164:5
strive 101:23
strong 21:4
strongly 11:12; 38:16;
103:23; 128:19; 177:22
struck 128:9
struggling 14:10; 81:6
studied 49:24; 100:6, 19;
119:24; 123:16, 22; 141:6;
175:8
studies 25:18; 38:11;
42:11, 22; 43:25; 46:24;
50:3; 71:5; 72:25; 73:2;
79:19; 81:19, 20, 20;
86:24; 87:1; 108:21;
120:2; 125:3; 132:1;
139:4, 8, 11; 140:7, 16, 20;
141:14, 15; 142:13;
147:15; 157:18
study 37:22, 24; 49:7;
55:2; 80:23; 82:5; 90:16;
99:9, 10, 11, 14; 123:19;
125:10, 11, 22; 126:11;
129:3, 16, 17, 18; 133:24;
141:12, 13, 21; 142:2;
146:22; 151:13; 155:25;
157:13, 15; 163:19;
164:17; 168:25; 169:15,
22
study--l 168:17
studying 100:13
stuff 69:19
subgroup 151:15
submission 48:24; 49:13
submit 38:11; 110:2
submits 48:23
submitted 45:15, 15
submitting 7:2
subset 151:24
substantial 76:3; 166:24;
171:3, 6
substitute 161:20
succeed 31:8; 47:14;
126:12
sufficient 42:1; 178:16

Sugarman 51:8
suggest 43:5; 49:2;
103:22; 105:7; 120:2;
124:6; 141:10; 144:9;
150:15
suggested 46:8, 21;
57:23; 157:20
suggesting 124:15, 19;
127:9; 134:15; 135:4
suggestion 124:20;
125:16; 130:5
suggestions 70:23;
108:16; 159:12
suggests 131:15
summaries 54:15
summarize 35:6, 18, 20;
50:25
summarizing 45:22
Summary 34:20; 35:2;
50:8, 16, 18; 51:7; 56:25;
79:3; 89:14
supervised 122:24
supplement 108:24
supplied 147:20
supplier 40:17
supply 32:15; 33:9;
41:21; 43:20; 46:1
supplying 46:4
support 14:9; 32:14;
48:4; 49:10; 76:18; 80:7,
14, 25; 81:9, 12; 137:5;
160:15
supported 80:12
supporting 42:1
supportive 162:4
supposed 88:11
sure 29:19; 57:18; 65:10,
17; 72:8; 74:3; 78:25;
82:23; 89:16; 107:16;
117:9; 157:6; 166:3; 173:9
surely 30:2
surprised 58:7
surrogate 140:8
surrogates 133:5
surrounding 36:6; 39:4
surrounds 107:10
survival 23:14; 25:12;
50:7; 155:7, 25; 159:17;
160:14; 161:8, 9, 18;
162:1, 3, 10; 163:5; 164:9,
24; 165:10; 166:24; 167:1,
11; 173:25
survive 112:22
survivor 21:10
survivors 20:22
survivorship 165:22
Susan 13:6, 10
susceptibility 137:25
suspect 93:18; 106:10;
155:19
sustainable 174:5
sustains 34:16
symptom 88:2; 140:13;
174:17

symptoms 87:22, 22
synopsis 45:15
system 17:19; 19:3, 12;
20:13, 21; 22:15; 31:25;
47:10; 60:24; 62:17, 23;
63:4; 64:15, 24; 66:6;
67:11; 68:8; 71:4, 19; 80:6,
14; 90:11; 92:21; 94:10;
96:17, 19, 20; 97:9; 99:21;
105:24; 177:9
systematic 94:22; 95:17;
96:13; 155:14
systematically 24:14
systems 32:13; 57:25;
58:2; 76:16

T

table 101:14; 113:25;
128:8
tag 45:12
take-home 128:4
talk 14:15; 51:18; 53:23;
66:24; 68:19; 69:15;
82:21; 85:7; 86:16; 91:7;
103:5; 121:13; 152:16
talked 37:14; 52:13;
61:24; 68:1; 72:24; 73:5;
86:20; 106:19; 125:2;
161:11; 179:10
talking 21:16; 74:7; 77:9;
91:12; 98:14; 105:3;
106:23; 112:14; 118:7;
127:15; 133:19; 146:9;
157:24, 25; 158:15;
159:25; 161:16; 162:2, 19;
167:24; 175:24; 180:10
talks 45:13; 50:9
targeted 104:13; 112:6;
143:14
targets 25:7; 132:10;
137:22; 138:1
taught 52:13; 156:10
TAYLOR 5:5, 5; 50:16,
19, 20; 72:9; 83:6, 15;
85:1, 2, 6; 103:6; 117:23;
126:4, 20, 25; 156:1;
157:19; 163:8, 9; 174:9,
13; 175:13, 20; 176:6;
177:1; 178:22
teach 51:10
team 47:14
teams 68:24
technologies 111:20
technology 113:20
telephone 45:12
telling 51:24
TEMPLE 6:6, 6; 79:10,
23; 80:22; 83:17; 97:22,
23; 100:15, 22; 109:24;
115:5; 129:21; 134:12, 13;
135:25; 143:25; 144:1, 17;
151:21, 22; 159:12;
170:10
Temple's 152:10
TEMPLETON-SOMERS

5:9; 6:9, 12; 22:23, 25
temporarily 23:11
ten 26:8
tend 27:19; 106:2; 110:18
tenet 166:3
term 15:18; 94:1; 150:15
terminal 31:9
terminally 10:20
terminology 15:14; 16:20; 39:4; 56:14; 124:1; 140:21
terms 15:25; 17:13; 39:7, 11, 13; 55:20; 57:8; 58:2; 59:2, 10; 60:9; 62:10, 18, 23; 63:9; 64:10, 12; 68:16; 69:5; 71:7, 18; 72:4, 6; 73:19; 74:9; 76:24; 77:12; 78:8, 19; 80:18; 81:12, 12; 83:1; 86:10, 21; 88:10; 90:7; 106:10; 108:19; 118:7; 151:15; 174:19
terribly 159:16
Terry 109:8
test 20:15; 139:15
testicular 106:12
testified 30:4
thalidomide 55:1
that-when 168:18
themes 60:15
therapeutic 16:6, 9, 14; 55:23; 56:6, 12, 19; 110:16; 120:4; 126:6, 24; 127:1, 3; 142:17
therapeutically 126:14
therapies 21:24; 23:12; 24:18, 19, 23, 25; 25:2, 4, 6, 8, 20; 33:25; 34:8; 53:18, 20; 75:1, 17; 79:13; 95:10; 101:24; 104:14; 110:9; 112:6; 113:12; 115:19; 150:23, 24; 160:1; 161:17; 162:10; 165:14
Therapy 5:18; 8:25; 9:5, 8, 13, 14, 18, 19; 10:5, 12; 11:12, 18; 12:11; 24:12; 42:25; 43:2, 3; 56:8; 74:22; 75:3; 76:2, 3, 5, 10; 89:20; 91:25; 115:9; 118:20; 120:11, 22; 121:7, 9, 12, 20; 126:2; 161:1, 18; 162:9; 163:3; 164:4, 7, 21; 23; 166:21, 23; 168:20; 171:2, 20, 23; 172:23; 173:23; 174:6, 11
therapy-when 83:10
thereabouts 144:11
therefore 16:8; 23:14; 105:9; 106:3; 122:8; 148:25; 158:23
thinking 18:17; 100:2; 122:15; 138:2
third 52:17; 54:20; 90:6; 91:16; 106:18; 114:7; 150:23; 166:23
Thirdly 93:12
thoroughly 119:24

though 11:21; 104:10, 13; 108:1; 110:23; 115:4; 130:21; 167:18; 169:7; 178:20
thought 29:4; 31:12; 99:6; 115:5, 24; 144:18; 159:20; 162:18
thoughtful 18:5
thoughts 59:17; 135:4, 11
thousands 25:10; 80:25; 113:6
threat 14:2, 6
Three 14:20; 18:18; 21:7; 54:16; 63:6, 19, 23; 104:25; 122:22; 130:9; 172:5
three-month 9:17
throughout 60:6; 79:13, 23
throw 143:12; 150:15; 158:24; 159:20
throwing 89:7; 160:18
thumb 105:24
Thus 28:10
tightly 13:21
time-consuming 31:22
timeliness 76:17
timely 166:19
times 38:4, 23; 46:13; 55:17; 63:6, 8; 64:8; 65:25; 68:6; 69:9; 70:5, 18; 72:1; 73:25; 81:23, 25; 83:21; 85:24; 87:8; 94:5; 132:25; 145:12; 151:8
tired 77:21
title 35:11
titled 116:23
today 9:3, 23; 14:12; 18:12; 37:9, 10; 57:6; 58:24; 60:13; 61:13; 71:25; 73:5; 85:16; 88:19; 91:7; 92:22; 112:5; 145:15; 149:14; 150:6; 152:9; 157:13
today's 42:15; 53:23
today-are 73:24
together 33:13; 61:17; 68:10; 103:4; 180:12
TOIGO 109:8, 8
told 11:14, 17; 15:2; 85:12; 125:3
tolerate 118:19
took 11:23; 52:1
topic 116:4; 178:8; 180:14
total 18:20
totally 148:23; 151:22
touch 52:22
touched 93:23
toward 101:23; 102:1; 153:20; 176:14
towards 27:20; 104:2; 173:5
toxic 23:5; 25:7; 53:18;

132:8; 159:2, 3; 171:7, 19; 172:23; 174:11; 175:12
toxicities 42:24; 49:5
toxicity 32:16; 42:7; 92:4; 104:17; 106:18; 107:4; 118:8; 121:6; 122:4, 6, 21; 126:10; 129:5; 138:19; 139:4, 15; 150:4; 151:5; 161:10; 162:24; 166:18; 169:12; 170:25; 171:6; 172:19; 175:4, 9
track 32:11
traditional 133:4
trained 41:23; 158:10
training 18:14; 73:25; 74:5; 158:24
trajectory 60:6; 69:10
translate 79:21; 81:3; 141:25
translated 79:17
transplant 169:14
transplantation 23:23
transplants 53:19
transportation 81:12
travel 80:10; 81:22
treat 47:9; 64:11; 83:25; 89:19; 125:25; 138:14; 140:22; 142:10; 153:9
treatable 106:12; 176:21
treated 25:13; 36:21; 39:15; 41:5; 48:9; 49:23; 69:16, 17, 17; 76:10; 122:22; 124:14; 125:24; 126:13; 130:1, 2, 9, 16; 138:20; 144:8; 149:8, 8, 20; 154:25
treating 124:18; 126:11; 128:12, 13; 130:6; 132:6; 142:21
treatment 9:16; 10:12; 11:24; 14:3, 8; 16:5, 5, 11, 14, 15; 19:6, 7; 23:21; 27:9; 29:13; 30:20; 35:8, 12, 25; 36:7, 10, 14, 20; 37:7, 11; 38:25; 39:4, 8, 10, 11, 17; 40:1, 4, 11, 18; 41:9; 42:2, 6, 8; 43:5, 12, 19; 44:6; 46:10; 47:2, 4; 52:21, 23; 55:25; 60:9; 61:10, 11, 20; 64:9; 65:21; 69:22; 70:3, 7, 9, 15; 87:24, 25; 88:3, 4; 89:10; 91:8; 92:2; 94:3, 4; 98:1, 3, 16; 99:2; 102:12; 119:20; 120:23; 121:2; 124:2, 5; 126:8; 127:13; 134:16, 24; 135:22; 139:22, 23; 140:1, 3, 17, 21; 141:2, 10; 142:1, 6; 144:3; 145:21; 149:2; 150:25; 153:24; 156:6, 11, 19; 157:14, 21; 158:11; 160:3; 161:7; 163:7, 12; 166:2; 167:6, 19; 169:23; 170:3, 5, 8; 172:18; 173:6; 174:14; 175:1, 24; 176:1, 9, 19, 24; 177:3, 24; 178:17, 19; 179:22
treatments 23:5, 16;

25:17; 38:22; 55:19; 56:16, 16; 64:4; 68:11; 70:15; 75:4; 85:16; 88:21; 91:6; 97:15, 16; 113:14; 156:9, 25; 157:10; 167:23
tremendous 11:22
Trial 8:25; 9:5, 24; 10:5, 15, 18; 11:6, 8, 9, 13, 15, 18; 12:11; 13:25; 14:3; 16:16; 17:19; 19:3, 11, 17; 20:13, 21; 21:8; 22:15; 24:20; 26:25; 27:24; 28:19; 38:3; 50:2; 56:7, 8; 63:3, 10, 24; 64:1; 65:25; 66:4; 67:4, 4, 7; 80:9; 82:25; 84:13, 18; 87:14; 94:10, 14; 96:17, 19, 20; 97:9; 100:4; 104:20; 106:25; 107:1; 108:9, 12; 110:10, 12, 13, 15; 111:15; 115:7, 10, 14, 16, 24; 117:17; 119:3, 4; 120:25; 122:18, 24; 123:2, 8; 124:25; 126:6, 9, 23; 127:2, 13, 14; 129:5; 131:9, 15; 133:9; 143:7; 147:17; 157:4; 160:7; 163:24; 164:5, 20; 165:1, 13; 168:5, 10, 18; 169:3; 170:2, 11, 19, 19, 23; 171:18; 172:8; 177:24; 178:1, 13
trial's 133:13
trials 9:14; 13:22; 16:10, 25; 17:5; 19:8; 20:14, 22; 21:20; 22:3, 7, 12, 14; 24:11, 13; 25:13, 15; 28:23; 30:10; 38:17, 21, 23; 42:9; 44:11, 13, 22; 48:3, 10; 49:17, 18, 24; 56:4, 4; 59:9, 10; 60:7, 9; 61:1, 18, 23; 62:1, 4, 6, 11, 17, 24; 65:20, 22; 66:10, 15, 22; 67:23; 70:16; 71:3; 72:7, 17; 74:12, 15; 75:13, 25; 76:16; 77:17; 79:1, 15, 25; 81:6, 7, 11, 16; 82:22; 24; 87:20, 20; 89:24; 90:5; 94:12; 97:10, 12, 13; 103:1, 20, 21, 25; 104:4, 14, 16; 105:9; 107:7, 8, 20; 108:3, 5; 109:14, 19, 21; 110:2, 24; 111:10; 113:4, 9, 114:1, 9; 116:4, 11, 13, 14; 118:10; 126:19, 19; 127:9, 10, 22; 131:7, 8, 11; 136:14, 25; 139:21, 25; 140:15; 143:16, 22; 154:23; 155:23; 156:2, 7, 16; 158:3; 161:2, 2, 25; 162:5; 165:4; 166:18; 168:13; 169:6, 10; 170:12; 177:22; 178:10
trials-is 158:4
trials-that 159:23
tribe 65:8
trickier 129:1; 169:18
tricky 122:19
tries 45:10

triggered 146:16
triggers 145:21
trouble 58:12; 152:11
troubling 99:16
true 59:21; 66:20; 77:8; 89:18; 116:6; 126:4; 134:7; 147:22; 148:11; 168:10
truly 28:13; 66:7; 68:4; 69:1; 82:23; 89:25; 107:4, 15; 122:16; 172:23; 174:18
trustee 52:3
truth 33:7; 60:19, 22; 87:12; 106:20; 107:1
try 49:21; 51:10; 53:9; 57:24; 77:11; 85:9; 100:6; 101:5; 116:24; 132:15; 156:3, 17; 158:6; 174:19; 175:1
trying 19:15; 33:19; 34:6; 59:19; 68:15; 81:8; 85:23; 111:22; 114:3; 143:13; 146:11; 179:7
tumbleweed 145:10
tumor 13:15; 14:19; 23:12; 99:9; 100:6, 14; 101:6; 106:15; 140:11; 160:13
tumors 47:1; 106:10; 137:24
turf 174:8
turn 10:12; 29:4; 34:8, 20; 111:23; 145:16
turned 95:25
Tuskegee 54:8
TV 36:16
twin 33:25
two 19:14; 21:6; 27:16; 28:15; 36:25; 39:9; 40:21; 42:14; 43:12; 50:4, 9; 63:6, 19, 23; 91:1; 95:8; 105:3; 110:7; 112:18; 123:7; 132:19; 140:20; 160:7; 164:9, 20, 25
type 9:18; 52:24; 100:14; 118:21; 173:24
types 94:25; 95:9; 153:10
typically 71:3; 159:16

U

U.S.C 6:22
UC/Berkeley 4:19
UC/San 4:18
ultimately 20:21; 45:13; 96:2; 154:25
unable 33:1; 55:17; 120:25
unanticipated 145:9
uncertainty 154:2
uncomfortable 67:15
uncontrollable 14:23
uncontrolled 151:2, 7; 159:15

uncover 166:18
under 37:15; 39:15, 22; 40:9; 41:5; 46:10; 99:9; 110:3; 120:14; 122:11; 140:3; 129:3; 139:23; 140:23; 146:18; 149:20; 153:10; 164:11; 169:23; 172:20; 173:3; 177:24; 178:3, 18
under-rated 153:18
under-represented 65:19
undercut 19:11; 22:15
underfunded 64:22
undergo 75:1, 16; 174:11
undergoing 9:12
underlying 106:6
undermine 19:3; 96:17
undermining 25:3; 98:17
underscore 169:20
underserved 59:8; 66:7
understandable 33:18
understands 166:4
understood 138:5; 152:13
uneasy 122:25; 123:13, 14
unequal 17:18
unethical 117:13; 127:11; 159:7
unexpected 46:11; 49:5; 170:20; 4:8; 31:15
unfairness 135:2
unfortunate 15:18; 149:21
Unfortunately 54:2, 5; 56:2
unfunded 95:15
unhappy 172:3
uniformly 159:15
unilaterally 157:17
uninsured 65:24
unique 6:18
unit 65:8
United 19:24; 54:7; 113:2; 162:6; 167:20
University 4:19; 5:5, 12; 14, 15, 20, 23; 9:6; 12:12; 67:18
unknown 16:8, 13
unless 35:13; 69:18; 111:8; 131:19; 133:1; 174:2
unlikely 159:14
unnecessary 13:20
unproven 18:17, 23; 19:10; 20:20; 21:2, 12; 27
unteachable 149:1
unreasonable 44:4; 113:15
unreliability 139:3
unrestricted 27:1

unsafe 117:13
unsure 33:1
untreated 24:13; 161:24
unused 45:24
unusual 144:10
unwanted 28:7
unwilling 178:2
unwise 117:13
up 11:3, 21; 22:3, 6; 35:13; 39:17; 54:13, 15; 57:6; 59:25; 63:5; 68:5; 70:17; 71:4, 22; 73:11; 80:14; 86:14; 90:24; 92:7; 99:22; 105:10; 107:6; 109:18; 113:11; 116:2; 122:22; 127:16; 132:10; 135:15; 141:3; 145:5, 25; 149:6; 155:15; 159:21; 163:16; 164:13; 175:10, 23; 178:21
updating 111:10
upfront 70:24; 91:15; 167:23
upon 8:16; 9:11; 37:6; 54:11; 92:25; 118:9; 174:22
uproar 54:24
upset 54:24
urban 72:5
urgent 25:21, 25
urgently 33:24
use 4:6; 13:19; 14:1, 12; 15:1, 19, 20, 22; 16:1, 4, 5, 7, 19, 22; 17:5, 15, 17, 24; 19:10; 20:19; 21:20; 28:17, 21; 29:1, 3, 8; 31:15, 22; 32:5; 34:24; 35:8, 18, 25; 36:7, 10, 14, 16; 37:7, 11, 14; 39:5, 8, 10, 11, 16; 40:15, 16, 17, 18, 22; 41:1, 19; 42:6; 43:4, 12, 19; 44:6, 19, 23; 45:2, 7; 46:10; 47:4; 51:13; 53:24; 56:14, 15; 57:16; 61:2, 22; 62:8, 13; 68:18, 20; 69:14; 72:7; 74:7, 10, 23, 23; 75:5; 76:9, 11, 20, 20; 85:10, 18; 86:2; 88:21; 89:4; 90:3, 8, 8, 12; 93:23; 94:4, 14; 99:12; 102:1; 105:20, 20, 21; 106:5; 107:10; 110:19; 114:23; 115:13, 20; 116:19, 23; 117:14, 15; 119:20; 120:14, 16; 122:3; 130:7, 18; 133:5; 134:21; 136:21; 138:15; 142:22; 144:16; 145:8, 9; 149:25; 150:6; 167:8; 178:10, 19
used 16:14, 15; 25:8; 32:17; 36:10; 39:7; 41:8; 48:22; 51:12; 57:12, 23; 67:14; 91:15, 15; 94:15; 105:25; 118:25; 122:18; 123:24; 149:3; 151:15; 160:12; 161:16; 168:22; 171:25; 178:23
useful 28:1; 29:25; 39:13;

49:6; 124:10; 128:22; 137:3; 160:4; 166:20
user-friendly 61:3
uses 100:8; 144:19
using 20:14; 54:3; 98:15, 16; 120:25
usual 38:8; 39:1; 57:21; 115:21; 154:11, 13
usually 40:6; 41:6; 43:4; 49:14, 16; 73:14; 124:25; 145:6; 152:15; 167:24; 173:22; 174:3
utilitarian 105:5
utilized 76:6

V

VA 32:13
vaccines 25:4
valid 96:4
valuable 19:6; 141:18
value 141:20; 176:13; 177:8
values 72:21
varied 94:24
various 54:11, 13; 93:24; 95:9; 96:22; 98:7; 103:4; 148:6
vary 48:25; 49:8; 77:17
varying 100:13
vast 150:21
venues 32:12
verified 92:25
versing 68:7
version--suggested 102:10
versus 16:4; 50:1; 71:20; 115:9; 162:4
Vice 7:24
videotape 19:13
view 35:25; 66:9; 94:13, 14; 101:20, 22; 103:13; 139:8; 159:8
viewed 93:6
views 7:14; 60:14
violates 159:19
viral 158:22
virtually 157:17
visit 12:6; 87:17
vital 17:9
vocabulary 94:2
voice 66:16; 180:6
voicing 180:13
voluntarily 112:13
volunteer 85:3
vote 148:14
votes 121:23
voting 148:15
vulnerability 56:19
vulnerable 55:13, 13, 16

W

wait 63:6; 69:7
waited 9:16
waiting 63:13, 14; 142:6
waiver 7:1
waivers 6:23
walk 158:21
wants 75:24; 80:8; 89:23; 96:16; 101:5; 109:2; 120:23; 138:17; 145:13; 146:12; 158:22; 167:8
war 10:2
warrant 32:16
waste 110:20
wasted 19:7; 107:11
wasting 156:23; 157:2
watch 20:3
water 111:8
way 19:10; 20:20, 23; 21:1; 38:14; 53:21, 25; 56:14; 63:4; 64:11; 73:11; 81:15; 84:6; 88:24; 90:4; 92:18; 96:18; 97:1, 4; 98:4; 101:22; 104:2; 124:3; 127:16; 136:1; 147:21; 150:17; 155:14; 156:17; 157:5; 160:5; 163:16; 174:21
ways 51:18; 52:12; 57:24; 88:23; 94:2; 101:7; 116:5
wear 85:8, 13
web 114:20
wed 150:16
week 87:10
weekend 64:6
weekly 65:4
weeks 36:17; 164:20, 21
weighing 172:21
Weiner 13:6, 7, 10, 14
WEISS 5:24, 24
welcome 180:4
weren't 88:11; 136:22; 156:5; 159:3
what's 29:14; 32:24
wheel 108:22
whenever 92:19
Whereas 54:23; 84:12
Whereupon 180:21
wherever 104:1; 123:17
white 57:22; 174:19
whole 57:7; 61:12; 62:10, 12, 21; 64:16; 72:20; 79:20; 96:21; 104:25; 110:18; 113:12; 118:3, 12; 146:7; 147:2; 155:4; 180:14
whose 8:16; 57:13; 115:18; 118:17; 137:24; 153:22
wide 134:16, 21; 135:16
widely 24:16; 30:12; 38:15; 47:5; 49:8; 98:11,

18; 154:16; 166:5
wider 160:10, 15
widespread 6:20; 122:2
WILLIAMS 6:1, 1; 34:22; 35:3, 4; 50:13; 102:4, 8; 116:21, 22; 119:11; 121:22; 123:1; 124:15; 128:21; 129:25; 130:10, 20; 138:3; 139:1; 144:14; 147:19; 148:1, 12; 149:12; 160:23; 161:15; 162:14, 22; 164:16; 165:1; 168:4; 170:4, 9; 171:13, 22; 172:3; 175:22; 176:12; 177:18; 179:2
willing 10:8; 26:1; 81:11; 83:22; 87:11; 131:2, 5, 19; 136:3
Wilshire 4:24
wired 98:9
wish 8:16, 22; 12:6
withdrawn 15:10
withholds 129:16
within 36:13; 40:6; 53:10; 54:12, 13; 64:24; 79:18; 82:16; 85:17; 104:5; 113:10; 127:12; 130:4, 5; 142:8; 149:14
without 20:18; 27:21; 28:4, 8; 52:23; 54:9; 55:2; 73:25; 84:12; 95:14; 125:7; 126:23, 25; 146:10, 14; 169:11
woman 18:22; 19:20, 23
women 18:9, 15; 19:14; 20:3
wonder 66:17, 18; 111:8; 116:22; 160:2
wonderful 102:13; 104:24; 105:2; 152:23
wonderfully 56:5
word 51:23; 69:3; 77:18; 88:23; 150:7; 158:13
word--more 99:24
words 51:11
work 28:6; 30:23; 33:13; 43:13; 56:1; 57:1; 63:23; 64:5; 73:12; 93:7; 97:8; 99:8; 103:23; 113:5; 115:22; 130:22; 157:9; 159:4, 9; 163:1
worked 27:7; 39:21; 47:10; 59:9; 95:22, 22, 24, 25; 165:20
workers 63:22; 64:6, 7
working 23:7, 19; 25:21; 27:4; 45:8; 68:10; 84:14, 16; 129:20
works 112:14; 115:16; 160:5
world 54:22; 60:14; 66:9; 146:14
worried 128:16
worrisome 28:3
worry 44:23; 148:12
worse 20:24; 28:7;

129:18; 138:21; 159:1
worsened 29:24
worth 31:1; 160:18
write 83:16
writing 19:18; 152:11;
169:21
written 7:2; 51:23; 83:13;
120:17; 170:1
wrong 91:20, 22
wrote 19:23; 23:19; 56:3

X

X 64:25; 120:14, 15, 24;
121:1, 3; 123:16; 178:1, 3

Y

year 12:9, 20; 25:11;
87:4; 109:12; 167:1
years 14:16, 20; 20:1;
26:9; 27:4; 40:8; 59:6;
64:21; 91:13; 93:19;
156:5; 163:24; 165:10
York 5:2; 18:10; 123:16
young 9:11, 12; 177:1

Z

zero 119:7; 158:9; 170:24

Lawyer's Notes
