IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

FEDERAL TRADE COMMISSION, STATE OF ILLINOIS, and STATE OF MINNESOTA,	)	Case No. 25 C 2391
Plaintiffs,	)	
v.	)	
GTCR LLC, GTCR BC HOLDINGS, LLC, and SURMODICS, INC.,	)	Chicago, Illinois
	)	August 27, 2025
Defendants.	)	8:35 a.m.

VOLUME 5
TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE JEFFREY I. CUMMINGS

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PROCEEDINGS REPORTED BY STENOTYPE
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(Proceedings heard in open court:)

THE CLERK: Case 25 CV 2391, Federal Trade Commission versus GTCR BC Holdings, LLC, et al.

Counsel, please state your name for the record, beginning with plaintiffs.

MS. MALTAS: Good morning. Allyson Maltas from the Federal Trade Commission on behalf of the plaintiffs.

MR. BROWN: Dylan Brown from the Federal Trade Commission on behalf of the plaintiffs.

MS. TYREE: Le'Ora Tyree FTC on behalf of plaintiffs.

MR. BUTERMAN: Good morning, your Honor. Lawrence Buterman from Latham & Watkins on behalf of GTCR and BC Holdings, and with me are my partners Kelly Fayne, Mandy Reeves, Gary Feinerman, and Maggie Sullivan.

MR. CULLEY: Good morning, your Honor. Daniel Culley from Cleary Gottlieb for GTCR and BC Holdings, and with me is my colleague Miranda Herzog.

MS. LEWERS: Good morning, your Honor. Joanne Lewers from Faegre Drinker on behalf of Surmodics, Inc., and with me is my colleague Matt Lechner and our company representative Gordon Weber.

THE COURT: Okay. Good morning to you all.

Is the FTC ready, Ms. Maltas, with your next witness?

MS. MALTAS: Yes, your Honor. Plaintiffs call Dr. Aaron Fix.

THE COURT: Okay.

MR. BROWN: Your Honor, may I approach the bench with binders?

THE COURT: You may.

Have a seat, sir. Okay. You can just set those to the side until we -- let me see what those are here.

MR. BROWN: I believe those may be the cross.

THE COURT: From someone else, yes. Okay. I think that's all for you maybe. Which one is -- I'll take that one, too.

Ms. Chambers.

Okay. Sir, could you please raise your right hand and state your name for the record.

THE WITNESS: Aaron Fix. That's A-A-R-O-N, F-I-X.

THE COURT: Thank you. I'm going to have my deputy swear you in, Mr. Fix.

(Witness sworn.)

THE WITNESS: I do.

THE CLERK: Thank you.

MR. BROWN: May I proceed, your Honor?

THE COURT: You may.

MR. BROWN: Thank you. Dylan Brown on behalf of the Federal Trade Commission.

AARON FIX, PLAINTIFFS' WITNESS, DULY SWORN

DIRECT EXAMINATION

BY MR. BROWN:
Q. Good morning, Dr. Fix.
A. Good morning.
Q. Could you please tell the Court where you work.
A. I work in the Bureau of Economics at the Federal Trade Commission.
Q. And what's your current position at the Bureau of Economics?
A. I'm a staff economist.
Q. Can you briefly describe your education, beginning with college.
A. Yes. I attended Wheaton College in northern Massachusetts, majored in economics and English. I obtained my Ph.D. and Master's Degree in economics from Boston College.
Q. Great. And you received your Ph.D. in 2011?
A. 2011, that's correct.
Q. Do you have any area of specialization within economics?
A. Industrial organization.
Q. And what do you mean by industrial organization?
A. That's the field in economics focusing on how firms compete with one another and how customers make choices, things like that.
Q. Before working as an economist with the FTC, did you hold any other positions in economics?
A. I taught microeconomics, macroeconomics, and statistics

while at Boston College.

I worked for about 10 years for an economic consulting company after graduate school, and I also taught an undergraduate seminar at Harvard University on the economics of antitrust merger enforcement.

Q. And the economic consultant firm you worked for was Analysis Group?

A. Correct.

Q. And what were your responsibilities at Analysis Group?

A. At a high level, provide economic analysis in connection with antitrust investigations or lawsuits.

Q. And how long were you at Analysis Group?

A. Roughly 10 years.

Q. And you may have mentioned this, but during your time there, you worked on behalf of both private plaintiffs and government agencies?

A. Private parties. It could be plaintiff or defendant.

Q. All right. Yes.

A. And yes, on behalf of the Federal Trade Commission or the Antitrust Division of the Department of Justice.

Q. And when did you join the FTC?

A. June 2021.

Q. And what type of work do you do as an economist at the Bureau of Economics?

A. I do economic analysis in connection with antitrust

investigations related to mergers or non-merger conduct. I also contribute to studies of industries, public comments or relevant research.

Q. Great. So, spanning your time at Analysis Group and your work at the FTC, roughly how many mergers would you say you've worked on in some capacity?

A. Certainly more than 10. Likely closer to 20.

Q. And what are some of the industries covered by those mergers?

A. Pharmaceuticals, hospitals, distribution, different supply chain, many industries.

Q. Great. And does your CV that's attached to your reports in this matter accurately reflect your education, qualifications, and work experience?

A. It does, yes.

Q. Dr. Fix, how much are you being paid specifically for your participation in this matter?

A. Nothing above and beyond my government wage.

Q. Has the FTC restricted your access to the materials in the record of this case in any way?

A. To my knowledge, I've had access to the whole record.

Q. And have you been directed to reach any particular opinions or to not reach any particular opinions by anyone at the Federal Trade Commission?

A. No.

MR. BROWN: Your Honor, at this time, I tender Dr. Fix as an independent expert in the field of industrial organization economics as applied to mergers.

THE COURT: Any objection?

MR. CULLEY: No objection to his qualification as an expert.

THE COURT: Okay. He's tendered and accepted.

MR. BROWN: Thank you, your Honor.

BY MR. BROWN:

Q. Dr. Fix, I understand you've prepared demonstratives for your testimony today?

A. I have.

Q. And the binder in front of you contains your demonstratives as well as your expert reports and the documents referenced in your demonstratives.

MR. BROWN: Your Honor, may we publish Dr. Fix's demonstratives on the screen for yourself and the witness to see, but not to the gallery?

THE COURT: Yes, you may.

MR. BROWN: Thank you. And, your Honor, it's our hope that we can do all of Dr. Fix's direct examination in open court. We've highlighted on the materials certain portions which are confidential. We're not going to be discussing the confidential portions specifically, or at least the confidential information within them. But that way, hopefully,

we can keep the remainder open to the public.

THE COURT: That sounds like a good plan.

BY MR. BROWN:

Q. Dr. Fix, if you could just briefly look at the binder in front of you. If you could turn to PX 4000, is this the initial expert report that you submitted in this matter?

A. Yes.

Q. And can you now please turn to PX 4013 in your binder.

Is this the rebuttal expert report that you submitted in this matter?

A. It appears to be, yes.

Q. I won't ask you to flip through all 100-some-odd pages.

A. I'm trying.

MR. BROWN: Great. And, your Honor, you have copies of the full reports in the binders, but we would be happy to admit them into evidence, if you would like, just so they can be part of the record.

MR. CULLEY: We would object to that, your Honor. It's hearsay, and it's cumulative of the testimony that Dr. Fix will give today. I don't think we have any fair opportunity to go through every piece of his report and rebut it.

THE COURT: Well, I'm going to reserve ruling on that, Mr. Brown.

I do note, Mr. Culley, in the context of a preliminary injunction, that expert reports are often admitted and

considered, and any objections or any sort of critiques go to the weight of the report. And I'm going to listen to the direct testimony and certainly your cross-examination of Dr. Fix.

And -- but I'll reserve ruling on that, Mr. Brown, until you conclude your public portion.

MR. BROWN: I appreciate that, your Honor. The only thing I would note is that Mr. Culley did have a very full opportunity to examine Dr. Fix at his deposition about -- which followed both of the reports, but thank you.

BY MR. BROWN:

Q. Mr. Fix, I'd like to turn to your analysis of the merger in this case.

What was your assignment with regard to GTCR's proposed acquisition of Surmodics?

A. At high level, to assess and evaluate the potential for competitive effects due to the merger.

Q. Great.

MR. BROWN: And if we could go to the first slide, Mr. Campos.

BY MR. BROWN:

Q. What were the kind of components of your analysis that you conducted?

A. Yeah. So, this slide shows the components. The first is to define a relevant antitrust market in which to evaluate the

competitive effects of the transaction.

Next, to assess market concentration, calculate market shares within an appropriately defined relevant antitrust market.

Following that, to evaluate the closeness of competition between the merging parties within that market and the potential for competitive effects or anticompetitive effects from the merger.

And then finally, to evaluate the proposed divestiture among other potential mitigating factors that could work in the opposite direction of any loss of competition.

Q. Great. And it's not listed here, but part of your work was also to evaluate and respond to the critiques from defendants' expert and defendants' other submissions?

A. Yes. I was asked to respond to any argument or opinion put forward that I found appropriate by either Dr. Wong or the defendants.

Q. Okay. Now, it's jumping to the last page of our story a little bit, but what were your ultimate conclusions about the proposed acquisition?

A. Overall, the proposed acquisition is likely to substantially lessen competition in the market for outsourced hydrophilic coatings for U.S. medical devices.

Q. Great. If we can go to the next slide, I believe that's what's stated here. And then you've also listed some of the

kind of subsidiary opinions that form part of that. Could you walk us through those?

A. Yes. So, these opinions relate to the -- you know, the components of my assignment that I just described, that the supply of outsourced hydrophilic coatings for U.S. medical devices is a relevant market, that that market is highly concentrated today. Surmodics and Biocoat are clearly the No. 1 and No. 2. And that their merger would likely harm competition.

The harm to competition could take the form of an increase in prices or other forms such as reduced customer service, or it could affect the quality of the coatings. And the proposed divestiture does not likely solve those anticompetitive concerns.

Q. Great. Thank you, Dr. Fix. And I understand you have a demonstrative depicting your assessment of market shares and concentration in the relevant market?

A. I do, yes. It's on the next slide; and I'll talk about it briefly now, but I'll describe it more fully later.

So, what your Honor can see on this slide is my calculation of market shares in the relevant market. I'm proposing the post-merger scenario in which the merging parties are combined.

This market share calculation is based on the revenues of suppliers in the relevant market in 2024. I will describe

again a little more fully later exactly how I arrived at these estimates and why I think revenues in 2024 are the appropriate measure of competitive significance in this case.

Q. And what does this figure tell you specifically about market shares and concentration?

A. Well, the merging parties are the top two. They have the two highest share. The combined share would be about 60 percent.

And there are several other suppliers in the market, many of whom are relatively insignificant as measured by their market share. Roughly half have a market share of 1 percent or less.

Q. And when you say they have small market shares, would it be correct to say they're not competitively significant, in your view?

A. Some of them are not, and I think that's consistent with the testimony we've heard this week, this past week.

Q. Thank you.

MR. BROWN: Your Honor, I'd like to move to admit PX 4001 into evidence.

MR. CULLEY: No objection.

THE COURT: It will be admitted.

MR. BROWN: Thank you.

(Plaintiffs' Exhibit No. 4001 was received in evidence.)

BY MR. BROWN:

Q. Now, Dr. Fix, this is again jumping ahead a little bit, bud I'd like you to turn to the next slide, which reflects your assessment of market shares taking the divestiture into account.

At a high level, what does this document show?

A. At a high level, this is the same calculation I just described, but allocating some of Biocoat's revenue in the relevant market to Integer, the proposed buyer.

The revenue that's being allocated is the products that are being divested or proposed to be divested in the merger.

And that results in Integer having roughly a 3 percent share. That's pretty consistent with the revenues that Integer projects in the relevant market in the next two or three years.

Q. And what does that suggest to you about the proposed divestiture?

A. It is suggestive that the proposed divestiture will not solve the anticompetitive problems with the merger.

Q. Is it your opinion that the merger, even taking into account the proposed divestiture, would substantially lessen competition?

A. It is.

MR. BROWN: Your Honor, I'd like to move to admit PX 4020 into evidence.

THE COURT: Any objection?

MR. CULLEY: No objection.

THE COURT: PX 4020 will be admitted.

MR. BROWN: Thank you.

(Plaintiffs' Exhibit No. 4020 was received in evidence.)

BY MR. BROWN:

Q. And thank you, Dr. Fix. We'll return in a moment to how you calculated market shares, but first I'd like to discuss how you define the relevant market in this case.

What does it mean for products to be in the same market?

A. Broadly, that they're substitutes for customers, that customers can consider two products to be alternatives for the same -- to meet the same need. Those products would be in the same relevant market.

Q. Great. So, they are alternatives or substitutes for customers meeting the same defined customer need?

A. Correct.

Q. Walk me through the process that economists use to determine a relevant market for analyzing a merger like this one.

A. So, beginning -- it starts with identifying a candidate market that we're going to subject to more scrutiny, but the candidate market would be identified using information in the record and public information, starting with: What products do the merging parties sell? Do those products compete with one

another? Do customers consider them alternatives to meet the same need? What other products and suppliers do customers consider to be alternatives to meet those same needs? And then what suppliers supply those products? Do they consider one another to be their competitors? And finally, how do people talk about the market in the ordinary course of business? That can be highly informative as well.

Q. Great. Thank you, Dr. Fix.

And then once you've identified the candidate market, what do you do to confirm that it's a properly defined antitrust relevant market?

A. I use two frameworks that are the ones that economists frequently use. One is a set of economic factors that are sometimes called practical indicia that help define the contours of a market. The other is something we call a hypothetical monopolist test, or sometimes abbreviated to HMT. And I'll describe what that means when I conduct the test.

Q. Great. Thanks. Now, if your candidate market is consistent with the practical indicia and satisfies the hypothetical monopolist test, what does that tell you?

A. It means the candidate market is a relevant antitrust market and it's appropriate to evaluate the competitive effects of the transaction by focusing on competition within that market.

Q. And ultimately, that's the goal of defining the market is

to figure out what we should look at to assess the effects of the merger?

A. Yes. It's to focus the inquiry on, you know, what's most relevant.

Q. Okay. Thank you, Dr. Fix.

Now, I'd like to focus specifically on the context of this case. First, what was the candidate market that you evaluated?

A. Outsourced hydrophilic coatings for U.S. medical devices.

Q. Let's break that down piece by piece. Why is the candidate market hydrophilic coatings for medical devices? How was that determined?

A. Well, those are the products that the two merging parties sell; and when they talk about competition with one another, they're talking about competition to sell hydrophilic coatings for medical devices.

Q. Is there a distinct customer need that is met in particular by hydrophilic coatings?

A. Yes. That's -- we've been hearing about it for the past week. It's the lubricity that the hydrophilic coating provides for the customer's medical device.

Q. Are there other types of coating or coating products that you considered for possible inclusion in the candidate market but ultimately excluded?

A. Yes. As we've heard for the past week, I was aware that

hydrophobic coatings are another coating that medical device makers sometimes use on medical devices, so that would be a natural one to think about.

But as we've heard, hydrophobic coatings provide a lot less lubricity. They're different in other ways. They don't appear to meet the same need for the customer that hydrophilic coatings do.

Q. So, even though hydrophobic coatings also provide lubricity for medical devices, there isn't substitution between the two of them, from what you've seen?

A. That's correct. They're used for different purposes.

Q. Great. And so from a customer need standpoint, hydrophobic and hydrophilic coatings are not substitutes?

A. That's correct.

Q. If the price of a customer's -- excuse me.

If the price of hydrophilic coatings went up, would you expect device makers to switch to hydrophobic coatings?

A. No, I wouldn't. Hydrophobic coatings are already quite a bit cheaper than hydrophilic coatings. If a customer is using a hydrophilic coating, it's not a price-based decision. They're doing that because they need the lubricity on their device.

The coating also makes up a really small portion of the cost of making the device, so customers are pretty insensitive to price changes.

Q. So, essentially, if a customer can get away with the lower lubricity of a hydrophobic coating, they're already doing so?
A. It would make sense to pay less, and -- if all you need is a lower level of lubricity.
Q. And on the flip side if today they're using a hydrophilic coating, it's because they've determined that they have to?
A. That's what I believe the record shows, and that's what we've heard from customer testimony as well.
Q. Great. So, your candidate market includes hydrophilic coatings, but not hydrophobic coatings. Does it include all types of hydrophilic coatings? We've heard about UV hydrophilic coatings and thermal-cured hydrophilic coatings.
A. It does include both UV-cured and thermal-cured hydrophilic coatings.
Q. Why do you include both?
A. A few reasons. To begin with, focusing on the customers' need, hydrophilic -- sorry, UV-cured and thermal-cured coatings provide the same level of performance. There's not necessarily a difference in the performance they either provide. It's just how they're adhered to the device.
Q. And so would it be correct to say that for most customers and most devices, UV-cured and thermal-cured coatings are able to fulfill the same customer needs?
A. That's what the customers say, yes.
Q. And when you say that they have comparable performance,

that's lubricity, durability, particulate count?
A. Yes. Those are the ways that performance is generally measured, and yes, they're -- they have comparable performance on those dimensions.
Q. And then looking through the other items you list on your slide, what are the other reasons you believe UV and thermal are in the same relevant market?
A. Well, the documentary evidence of competition in this market shows a lot of head-to-head competition between UV-cured and thermal-cured products. We'll talk about some of that later, but there isn't sort of competition between sub-segments of that market that is greater than competition between UV-cured and thermal-cured.

And when market participants talk about the market or estimate shares in the market or talk about their own share of the market, they talk about a hydrophilic coating market. They don't talk about a UV market and a thermal market.
Q. Great. Thank you, Dr. Fix.

Okay. So stepping back, the first piece of your candidate market is hydrophilic coatings for medical devices. The second piece you listed was outsourced hydrophilic coatings.
A. Yes.
Q. What does that mean?
A. Outsourced just means they're buying it from a third party

dedicated coating supplier, kind of the way I might buy a can of paint from Sherwin Williams, rather than mixing the paint and pigment myself.

Q. Great. So, we would contrast that with what's called in-source coating or in-house coatings?

A. Yeah. An in-house coating or in-source coating would be -- it's like I was just saying, it's where the medical device maker has a coating in-house. Maybe they developed it a while ago or acquired it in a previous acquisition. There are some medical device makers that have those.

Q. Now, some device makers have the equipment to apply and cure coatings at their facilities. Is that the same thing as in-sourced coatings?

A. No, that's not the same thing. That's more like my example of buying a paintbrush and some paint. It's a much lower degree of difficulty. The in-house coating means they're actually doing the chemistry in-house, developing the coating, probably involving Ph.D. chemists and significant R & D.

Q. So that would be, in your analogy, comparable to trying to formulate paint from scratch rather than just applying it?

A. Yes, if I went into my basement and tried to mix the pigments and the chemicals myself, yes.

Q. I'm sure your family would love that.

Now, you determined that in-house coatings should not be in the candidate market?

A. I did.
Q. Why are they not a relevant option for customers currently using outsourced coatings?
A. Well, most customers currently using outsourced coatings don't have the in-house coating, so for them, it is sort of by definition not an option. Customers have in the past developed them, but that's a long and costly process.

So, for a customer that has a device that needed a coating, developing one isn't an option.
Q. So, again looking at customer needs, if you're a device maker making a device today and you don't have an in-house coating, it's not an option to develop one for your new devices?
A. Correct. You can't buy one on the open market, and you can't develop one in the next couple of years for sure.
Q. Okay. But then, what about for those device makers that already have a proprietary in-house coating?
A. So, some device makers do have them, and many of those device makers use both. So, for some devices, they contract with Biocoat, Surmodics or another outsource supplier, and for some applications they use their own.

There are a couple of reasons that they do both. One is that different devices have different performance requirements. So, for devices with greater performance requirements, they're willing to pay extra to get the

outsourced hydrophilic coating.

Another reason is some of them, they may have a capacity constraint in their own plant, so they used the outsourced hydrophilic coating for that reason.

Q. So, for one of these device makers that does have a coating and is using it on some of their devices today, would they use more in-sourced coatings in response to a price increase for outsourced coatings?

A. I wouldn't expect much substitution towards the in-source coating because, again, they're using the outsourced coating at a greater expense because they have a need for it.

There are several outsourced hydrophilic coatings available on the market today, and if they're using one because it meets a need and the price went up or it otherwise were not available, I would expect them to choose another outsourced hydrophilic coating.

Q. You would expect them to choose a different outsourced coating --

A. Yes.

Q. -- rather than bring more of it in-house?

A. Yes.

Q. So, we've covered outsourced coatings and hydrophilic coatings. What's the third component of your candidate market?

A. The restriction to specifically U.S. medical devices.

Q. And walk me through the significance of that. Why limit

the candidate market to U.S. medical devices?
A. Well, one reason, which I think is more of a legal reason, is our antitrust laws apply to competition in the U.S., but there's also a reason that's related more to product market or to competition.

In the U.S., the role of the FDA is actually an important dimension of competition. To sell a medical device in the United States, it needs to be cleared by the FDA. Customers in this industry care a lot about having a hydrophilic coating supplier that has supplied coatings for FDA-approved devices and they want to use a coating that's been on FDA-approved devices.

So, customers don't necessarily see an unproven coating that's never been on an FDA-approved device as a substitute.
Q. And defendants' expert, Dr. Wong, doesn't disagree with this judgment about the geographic market, correct?
A. I think he -- I believe he says that this is the right geographic market and we should be focused on FDA-approved devices.
Q. So, after your review of the record, applying economic theory, your candidate market ended up being outsourced hydrophilic coatings for U.S. medical devices?
A. That's correct.
Q. Now that sounds to us pretty specific. Does that candidate

market align with how industry participants discuss the market?
A. It does. On the next few slides, which I think not everyone can see, there are some examples of parties in this matter and other market participants discussing the outsourced hydrophilic coatings market, the outsourced hydrophilic coatings competitive landscape. That's the slide we're trying right now.

On the next slide, we see the merging party Surmodics sort of estimating their own share off the outsourced hydrophilic coatings market.

And on the next slide, we see some testimony from an individual in this case discussing -- this is investigational hearing testimony discussing the outsourced hydrophilic coatings market and supplier shares of the revenue in that market.

Q. So, in each of these examples we just saw, and we can look at in the binders later, these are all examples of the merging parties specifically describing their own market as being outsourced hydrophilic coatings, correct?
A. Yes.
Q. Great. Thank you.

So, moving to the next step, you have your candidate market. Then you said that the next part is to confirm whether it's a relevant antitrust market using practical indicia and the hypothetical monopolist test?

A. That's correct.
Q. So let's start with the practical indicia. What are they, and what do they tell us in this case?
A. So, they're on our screen. We've been talking about them. It's hard to talk about the candidate market without also talking about the practical indicia. So, I'll just run through them quickly.

So, do industry participants recognize the candidate market as, like, a relevant economic entity or sub-segment of the economy? Yes, they talk about the outsourced hydrophilic coatings market specifically.

Does the product have distinct characteristics, uses, and customers? Yes, the distinct characteristic in this case is the lubricity the hydrophilic coating provides.

The distinct use case is that. It's the use on a medical device so it can navigate parts of the human body.

And the distinct customers are the device makers who bring devices to market that need that lubricity in order to obtain FDA approval and acceptance by physicians.
Q. And I think you described these earlier as economic factors, and broadly, they're consistent with principles of supply and demand and substitution?
A. They are factors that speak to the degree to which products are substitutes, largely. So, you know, the second item on this list is focused on customer needs and which products

customers consider to be substitutes to meet that need.

The third item: Do products in the candidate market have distinct prices? That gets to an economic concept called price elasticity of demand, how much does demand change when the price of -- for one product when the price of another product changes.

In this case, I've seen no evidence that the prices for hydrophilic coatings depend in any way on competition from hydrophobic coatings, for example.

And then finally, are there specialized dedicated vendors for this -- the products in the candidate market? Yes. All of the major outsourced hydrophilic coating suppliers supply hydrophilic coatings. They don't supply hydrophobic coatings.

Q. Thank you. And defendants' expert, Dr. Wong, agrees with the importance of looking at the practical indicia, correct?

A. He certainly said it was an appropriate way of identifying a market.

Q. So then, turning to the hypothetical monopolist test, which we often call the HMT, can you tell the Court what it is and how it's used?

A. Yes. So, the hypothetical monopolist test is the following -- asks the following hypothetical question. Let's take the candidate set of products that are currently supplied by competing suppliers. Imagine that they were hypothetically

owned by a single monopolist, and then ask the question: Could that monopolist exercise market power over that set by raising the price of one or more?

If the answer is yes, that means the candidate market we've identified is broad enough that it encompasses the relevant substitutes, and we've defined a relevant antitrust market. If the answer were no, we would need to expand the candidate set to include more substitutes, and we would ask the question again.

Q. So, in this case, we would imagine a company owning all sources of outsourced hydrophilic coatings, correct?

A. Correct.

Q. And then what question would we ask?

A. We would ask whether in response to a small but significant price increase in their preferred option, whichever is the hydrophilic coating that they're buying or would like to buy, whether they would substitute to another outsourced hydrophilic coating or whether they would substitute to something outside of that market, like a hydrophobic coating or just no coating at all.

Q. And that tells you whether it would be profitable for that hypothetical monopolist to raise the price of one of its products?

A. Yes.

Q. Great. What are the inputs that you need to perform the

hypothetical monopolist test?
A. Two pieces of economic information. It's the information that you would need to make a judgment about whether the hypothetical monopolist would find a price increase profitable. That information is, number one, the degree to which in the event of a price increase customers would substitute to other products in the market.

We call that the recapture rate or the within market recapture rate. It's the degree to which the hypothetical monopolist would recapture some of the sales that might leave one product and go to another. So, that's one piece of economic information.

And the second is the incremental profit margins on those recaptured sales. So, a price increase for a hypothetical monopolist or any firm is more profitable if the sales that are lost on the product experiencing the price increase are recaptured by other products at a high profit margin.
Q. So, hypothetically, the price goes up for one product. If the people switch away outside the market, the monopolist loses money; but if they switch to another product owned by the monopolist, they don't lose money, so it would be profitable to make that price increase, potentially?
A. Yes, that's fair.
Q. Great. Now, you calculate the incremental margins you

mentioned using data produced by the parties?
A. Yes, accounting data.
Q. And what do you find that the margins are, just in the general sense?
A. Well, they're not on the slide, but they're between 70 and 75 percent. They're high, consistent with GTCR's judgments about these companies when they were evaluating them, that they have high profit margins.
Q. And how did you determine the recapture rates?
A. So, the recapture rate, again, that's the degree to which customers will substitute to another product in the candidate set versus outside. In this case, I've defined a candidate set of products that is effectually all sources of supply for outsourced hydrophilic coatings. Customers' testimony and documents suggest that all or almost all sales would be recaptured within the relevant market, so I would expect the recapture rate to be close to 100 percent.
Q. So, in layman's terms, what does it mean for the recapture rate to be almost 100 percent here?
A. It means that almost all of the sales that would be lost if the price of one product went up would be recaptured by other products in the market, meaning that customers would choose another outsourced hydrophilic coating.
Q. Rather than choosing a product outside the relevant market?
A. Yes, rather than choosing not to coat the device or a

hydrophobic coating or something like that.
Q. Great. So, once you have the incremental margins and the recapture rate, you can put them into the HMT. Does your candidate market satisfy and pass the hypothetical monopolist test?
A. It does by a wide margin. If I was somehow wrong about the recapture rate and it's half what I think it is, it would still pass the test; and if the incremental profit margins were half what they are, it would still pass the test.
Q. Did Dr. Wong do anything in his report to demonstrate that the candidate market you've defined does not pass the hypothetical monopolist test?
A. No. He discussed my analysis, but he didn't demonstrate that it fails the test in any way.
Q. So, after this process of identifying the candidate market, assessing whether it's consistent with the practical indicia and passes the HMT, where does that leave you?
A. It tells me that I've defined a relevant antitrust market, and we can consider the competitive effects of the transaction, as well as the -- you know, the potential effects of a divestiture within that relevant antitrust market of outsourced hydrophilic coatings for U.S. medical devices.
Q. Great. Thank you, Dr. Fix.
After you determined the scope of the relevant market, how did you assess concentration within that market?

A. So, I -- I calculated market shares for every supplier in that market. I think we have that on the next slide. Those market shares are calculated using sales data provided by suppliers in the relevant market. I used their 2024 revenues.

That includes the revenues from the coating sales as well as the other things that customers find valuable that we've been hearing about in the past week, like the -- you know, the feasibility tests that they do before optimizing and commercializing the device, the money they pay to suppliers to coat their device, the reagent price, the solution price, and the royalty, which of course are part of the price.

Q. And also payment specifically just for applying the coating to the device?

A. Yeah.

THE COURT: Mr. Brown, before we move on, I had a question for Dr. Fix regarding the hypothetical monopolist test.

MR. BROWN: Sure.

THE COURT: You've indicated that -- I think you testified that the price of these coatings, because it's a small, relatively small percentage of the device's overall cost, is not a real big factor for the manufacturers of the devices; and that would suggest to me that if the price went up for these coatings, it may not really make much difference to them if they need that particular coating.

How does that fit into the hypothetical monopolist test that you performed or analysis that you performed?

THE WITNESS: Well, it's -- sorry. That's a good question.

It is a well-known -- well-known to a lot of us in the room, I think, and to economists, that in markets that have that feature that you're describing, the price of the coating is a small portion of the overall cost, and, you know, the coating provides a really important benefit for the device maker, markets can be defined quite narrowly in an industry like that, meaning when customers aren't very price sensitive, there isn't a lot of substitution outside the market.

I will say the testimony that I've seen on sensitivity to price is more about sensitivity to -- there's a distinction I would make. It's sensitivity to price changes between hydrophilic coatings that provide the same level of lubricity, and sensitivity to price changes between hydrophilic and other options.

And we've seen testimony consistent with the idea that among products that provide a comparable level of performance, there's some sensitivity to price. So, price isn't the first consideration, but it is a consideration. But it is not a consideration if you're moving from a product that performs at a high level to a product that does not.

So, I think -- I think it's consistent with a market

that is -- that is defined exactly as I have, where we draw the line between hydrophilic and non-hydrophilic.

THE COURT: Okay. Thank you.

Go ahead, Mr. Brown.

MR. BROWN: Thank you, your Honor.

BY MR. BROWN:

Q. So, if we could --

MR. BROWN: Yes. Thank you, Mr. Campos.

BY MR. BROWN:

Q. So, you testified earlier that this graphic shows that Biocoat and Surmodics are the two largest suppliers by share today and would combine for roughly 60 percent of the relevant market, correct?

A. Yes.

Q. What does that tell you about market concentration?

A. The market is highly concentrated, and the merger would significantly increase that concentration.

Q. Did you prepare a demonstrative showing in economic terms the degree of pre- and post-merger market concentration?

A. Yeah. The next slide is a table from my opening report.

Q. And what does it depict?

A. Well, the first row is exactly what you were just asking me about. It's the parties' combined share of the relevant market.

The next three rows reflect something we call the HHI

or the Herfindahl-Hirschman Index. It's an index that economists use to analyze concentration in a market in antitrust cases.

Pre-merger HHI of roughly 2500 indicates the concentrated market, and the change in HHI of roughly 1500 indicates a significant change in concentration.

Q. And there's economic literature suggesting that mergers with a significant change in concentration are likely to have anticompetitive effects?

A. There is, yes. That's a finding in the economic literature, absolutely.

Q. And, Dr. Fix, I believe you said this table appeared in your initial report, correct?

A. It does, yes.

MR. BROWN: Your Honor, I'd like to move PX 4008 into evidence.

THE COURT: Any objection?

MR. CULLEY: No objection.

THE COURT: PX 4008 will be admitted.

(Plaintiffs' Exhibit No. 4008 was received in evidence.)

BY MR. BROWN:

Q. And, Dr. Fix, the FTC and DOJ merger guidelines set forth thresholds for concentration and change in concentration above which mergers are considered to be presumptively unlawful and anticompetitive, correct?

A. They do, yes, and that's based on the learning from economics that you asked me about, that mergers at increased concentration are more likely to have anticompetitive effects.
Q. Based on the information in this table, does the proposed acquisition surpass the thresholds for presumptive illegality?
A. It does, yes, by a wide margin.
Q. So, let's go back to how you calculated the market shares we looked at a moment ago. Tell me about the data that you used.
A. So, again, I used 2024 sales revenues. That's revenues earned by suppliers in the relevant market that were produced in this case in response to subpoenas.
Q. Great. And so when you say produced in response to subpoenas, a lot of this information is not publicly available?
A. That's correct.
Q. So, in making your calculations, you had access to more data than market participants would normally have?
A. Yes, absolutely.
Q. And I know you stated the different components of what goes into the sales revenues, but why did you choose to use revenues to estimate market shares?
A. A few reasons, and I'll have some slides describing those reasons.
Probably market shares are generally calculated as a measure of -- some measure of sales, revenues or units. In

this case, units doesn't make much sense, given that the products are sold in ounces or liters or sometimes just applied to the device by the coating suppliers, so revenues make the most sense in this instance.

Q. Now, defendants and their expert, Dr. Wong, criticize your reliance on revenue, which they say doesn't reflect current competitive significance, correct?

A. They do.

Q. What are some of your reasons for believing that total revenues are, in fact, the correct way to measure competition, not just in the past, but at present and into the future?

A. So, a few reasons. So, I'll begin with I believe -- and I believe the evidence shows that current revenues -- the merging parties sometimes call these legacy revenues, but they are current revenues earned today -- are indicative of future competitive significance for a few reasons.

One, revenues reflect a track record of FDA-approved devices, many medical devices that have the supplier's coating on them, and a capability to provide those services and coatings going forward.

Revenues reflect a capacity and a capability within the hydrophilic coating supplier to take a customer's medical device from predevelopment -- or development, feasibility testing, optimization through the FDA approval process and then commercialization at a large scale, which some customers care a

lot about the scale.

And finally, the revenues today represent existing customer relationships. We've heard one individual at least refer to this as an incumbency advantage. Many of the customers with which Biocoat and Surmodics and other suppliers have a relationship with today, they bring new products to market all the time. They bring new generations of existing products but also new products. Each of those requires an FDA clearance and represents a potential opportunity to provide a coating on a new device with that new customer.

Q. And I think you mention on the next slide, we display some testimony -- that was *in camera*, so we won't discuss it -- but testimony we've heard at this trial already --

A. Yes.

Q. -- going to the importance of revenues.

And now I know it's not an economic concept, but would it be fair to say that in this way, past is prologue in terms of why looking at revenues tells you something about the future?

A. That is a term that the attorneys like to use.

Q. Great. Now going back to the other items you had had on that list, does the documentary record support the use of revenues to evaluate competition and the conclusions that you draw about the relative competitive significance of players in this market?

A. I believe it does in two important ways. So the first way I would point you to is customers today, the ones who have testified over the past week, as well as the ones who have produced documents in this case, some of which memorialize how they choose coatings, they're consistently evaluating Biocoat and Surmodics. Some of them say they're the best two options, the top two, or just among a handful that they consider.

So, if -- you know, if there was some other hydrophilic coating share -- sorry, if there was some other hydrophilic coating supplier out there that I've somehow missed that has a really large share, I would have expected to see that in the ordinary course of evidence about how coatings are selected today. I don't see that, and we haven't heard that in the past week. So that's one reason.

The other is this is how the suppliers calculate their market shares in the ordinary course of business. So, this is a slide again -- I don't think the rest of the court can see it, but it shows both of the merging parties calculating their own market share in exactly the way I have in the ordinary course of business.

There are a lot of other documents in which market participants do the same. They evaluate market shares by, you know, dividing a supplier's revenue by what they estimate the market revenue to be. The main difference between my own estimates and theirs is just that I have all of the data and

they're kind of guesstimating at their competitors' data.
Q. So, basically when you look at the documents, not only do market participants look at the same things you look at, but they come to the same conclusions that you come to?
A. They do. I haven't heard them describe this, you know, existing revenue, current revenues as some kind of annuity. That's a new concept that I didn't see in the record.
Q. So, the third point you listed about revenues was that the legacy revenues, which you said are better thought of as current revenues, are, in fact, subject to competition. Could you tell us about that?
A. Yes, in two important ways.

So, one is something I was just describing. What are sometimes described as legacy revenues or revenues from legacy customers, those are revenues earned from customers with which Biocoat or Surmodics or another supplier might have a long-standing relationship, but some of those revenues reflect recently approved devices.

So, those are -- those recent approvals reflect, you know, a recent opportunity to coat a new device, even though they're earned from what might be called quote, unquote a legacy customer.

So, that's one reason. And then the other, we've seen evidence that -- and I think there will be a slide later showing that as late as a few months before announcing this

merger, weeks before starting diligence, Biocoat was targeting existing commercialized devices with Surmodics coatings for competition, wanting to bring them over to Biocoat and coat them.

That was a stated strategy presented to Biocoat's board relating to competition between the merging parties in this matter for legacy revenues, and that was weeks before diligence started for this transaction.

Q. So, on your first point there, Biocoat and Surmodics have both been coating devices for Medtronic since the 1990s, but your view is that they have competed for newer devices, newer generations of devices for Medtronic in the interim, so those should not be considered to be legacy?

A. I would not consider those --

MR. CULLEY: Your Honor, I object. There have been quite a bit of leading questions, and I think we've let it go quite some time.

THE COURT: I'll sustain that objection.

MR. BROWN: Sure.

BY MR. BROWN:

Q. Medtronic has been a customer of the merging parties for many years, correct, Dr. Fix?

A. They have.

MR. CULLEY: Objection, your Honor. It's again another leading question.

THE COURT: Overruled.

BY MR. BROWN:

Q. Why do you believe that it's not proper -- or let me rephrase.

Do you believe it's proper to consider all revenue flowing from the relationship with Medtronic as legacy?

A. No, I don't, for the reason I just described. We heard from an individual from Medtronic last week testifying about new products in development right now in which Biocoat or Surmodics or both are being considered for, new opportunities, and they are a quote, unquote legacy customer of both the merging parties.

Q. And based on your review of the record, if Biocoat and Surmodics did not maintain the quality of their products and customer service, would they have been able to maintain these long relationships?

A. I believe the relationships reflect a history of providing those customers with coatings that meet their needs and service levels that meet their needs. And if -- currently, if a supplier failed to meet those needs or stopped providing the same level of service, there's clearly a constraint of another option available the customer could turn to.

Q. So, those revenues reflect the quality of the offerings today, not in the 1990s?

A. That's my understanding, yes.

THE COURT: Mr. Brown, I have a question about the legacy revenue before you move on.

Dr. Fix, let me give you a hypothetical situation where you have a company in the outsourced hydrophilic coating area that had legacy revenue, but it determined to stop providing any new coatings for sale, so its revenue, 100 percent of its revenue consisted of legacy revenue. It was no longer offering any new coating for sale.

How would you -- would you still give that company a market share equivalent to whatever the revenues from its legacy would indicate?

THE WITNESS: So, in that -- so, first, I don't believe that such a supplier exists, but it's an interesting question. I haven't thought about it.

THE COURT: It's a hypothetical.

THE WITNESS: It is, yes.

THE COURT: Because I don't know that we have one like that, but --

THE WITNESS: No, but -- okay. So let me think for a second.

I would -- so, in that case, this is a -- this would be a supplier who is -- let me make sure I have the hypothetical right. They're actively supplying coatings for medical devices, but they're coatings that were developed a while ago. The devices are commercialized, and they are --

they're not developing new coatings, and they're not competing for opportunity?

THE COURT: They're not offering any new coatings to coat new devices.

THE WITNESS: So, if I knew about that, I wouldn't consider them a competitor. If I knew that that supplier was not competing for new business, I don't think I would consider them to be a competitor.

THE COURT: Okay. So they would fall off the chart?

THE WITNESS: Yes. But that is a judgment that I would make.

So, in that case, I would know that 100 percent of their revenue is, you know, older revenue. Their -- they wouldn't be competitively significant in the sense of competing for new opportunities or disciplining the merging parties here in any way.

They would be earning revenue in the market, but for the purposes of a -- you know, an antitrust analysis where we're trying to figure out who might constrain the parties to this transaction, I don't think that customer -- sorry, I don't think that supplier would be one where we would want to apply -- attribute much significance to.

THE COURT: How would you treat a company that had 95 percent of its revenue from legacy and only 5 percent from current sales or sales of coatings to new devices.

Would you discount their share, or would you just treat it as you've treated the ones you have on the chart?

THE WITNESS: So, I would answer that in two ways.

So, in this hypothetical, it sounds like they are still competing.

THE COURT: They're still competing, but --

THE WITNESS: But part of their revenue --

THE COURT: -- the vast majority of the revenue is legacy. 95 percent, let's say.

THE WITNESS: Sure. So, in this hypothetical -- so, I think this -- in this hypothetical, I can differentiate in some way what's truly legacy versus not. That actually isn't a determination we can make in the data.

In this case, Biocoat and Surmodics, they sell coatings to Medtronic, but the data don't say which device they're going on, so it is a mix of the two.

If I were able to somehow attribute revenue to exact devices at the time they were -- according to the time at which they were approved, there might be a different calculation I could do, but it's not one we can do in this case.

If this supplier had 5 percent revenue coming from relatively recent devices, let's say, and 95 percent from ones that were approved a long time ago, I think I would want -- if they were actively competing for new business today, and if they have -- if that 95 percent of revenue reflects, you know,

existing customer relationships that are important and customers are talking about them as competitively significant and one of the best suppliers in the market, I think I would -- I wouldn't calculate a market share just based on 5 percent of their revenue.

THE COURT: You'd treat them like you treated the ones on the chart that we've seen?

THE WITNESS: I believe so, but again, I can't make that clean 5 percent, 95 percent distinction for anyone. What we have is the revenue that they earned, understanding that it's a mix of older devices and newer devices, and that's the information we have.

THE COURT: Okay. Thank you, Dr. Fix.

THE WITNESS: Did that answer your questions?

THE COURT: Yes, it did. Thank you.

Go ahead, Mr. Brown.

MR. BROWN: Thank you, your Honor.

BY MR. BROWN:

Q. Going to the Court's hypothetical just now of the supplier who had not issued a new coating, was coating the same device for many years, based on the testimony that you've reviewed, if that coating did not maintain -- or that supplier did not maintain the quality of its coating and customer service, would you expect the customer to at least consider switching?

A. Yes. So, customers have the option of switching at any

time, obviously. We've heard that they do it very infrequently. There's a -- economists would call it a switching cost.

If a supplier isn't meeting their needs, they can -- they can go elsewhere, and it just requires paying that cost, which is some more testing and a new FDA approval.

So, a competitor like the one that his Honor was asking about would be -- they would need at least to keep those customers happy.

Q. And that work to maintain quality and service, do you view that as a competitive action?

A. Yes.

Q. So, we talked about why you believe that total revenues are the correct way to look at the market; but notwithstanding that, did you perform some additional calculations of market share focusing specifically on newer revenue?

A. I did.

Q. And I believe the first of those is up on the slide in front of us. Could you please explain to us what is depicted here?

A. Yes. So, this is shares of revenue from new customers, so customers that are served in 2023, but not in the years prior. A calculation like this can also be informative.

In this case, looking at new customers, it sort of stacks the deck against the merging parties because they

already have more customers than other suppliers. So, I would still prefer the calculation that I -- that I presented to begin with; but this does tell us that most of the revenue from new customers, according to the data that were produced in this matter, is going to Surmodics and Biocoat.

Q. So, even though they already serve many of the largest firms in the industry, they still have more revenue with brand new customers in the market than any other firms?

A. That's what the data show for 2023. Again, it's consistent with customer testimony and the documentary evidence.

Q. Great. Now if we go to the next slide, I believe it shows a second alternative share calculation that you performed. If you could tell us about that.

A. Yeah. So, these are revenues from what's been sometimes called feasibility testing. It's the pre-commercial revenues before a device is FDA-approved. Customers bring their devices to Surmodics, Biocoat, and also other competitors; and some of those competitors, but not all, provide paid services to help them figure out which coating works best on their device. And sometimes they'll even make adjustments to the device as they decide which coating to use.

So, this is forward-looking. It's not based on -- it's no legacy revenue here. In fact, none of these are FDA-approved devices yet. It's just economic activity that's happening recently in connection with customers that are

developing devices for commercialization in the future.
Q. Great. And both of these pie charts and the underlying analysis appear in your original report?
A. Yes.
MR. BROWN: Your Honor, I'd like to move PX 4004 and PX 4005 into evidence.
THE COURT: Any objection?
MR. CULLEY: No objection.
THE COURT: They will be admitted.
MR. BROWN: Thank you.
(Plaintiffs' Exhibit Nos. 4005 and 4006 were received in evidence.)
BY MR. BROWN:
Q. So, Dr. Fix, what conclusions do you draw from these two analyses?
A. Broadly, they're consistent with my own estimate of market shares. They're -- you know, they reflect more recent commercial activity, but consistent with the idea that current revenues in the market earned today are indicative of competitive significance.
Q. And the fact that the results of these are in line, largely, with the calculations on total revenues supports, in your mind, the use of total revenue?
A. Yes.
Q. Great. Now, Dr. Fix, going back a step, you estimate that

the merging parties' combined share of the market is roughly 60 percent. Oh, I think we lost --

A. I did, and I lost my --

Q. Okay. You estimate that the merging parties' share of the market is a combined 60 percent?

A. Yes.

Q. Now, defendants' expert, Dr. Wong, performs his own market share calculation using totally different data and finds that Biocoat and Surmodics combine for only about 22 percent of the market?

A. Yes, he does.

Q. I'd like to dig in to how you reach such different conclusions.

First, Dr. Wong doesn't use sales data of any kind, does he?

A. He does not.

Q. What is the dataset that he uses?

A. He assembles data using forms that medical device makers file with the FDA in connection with the medical device clearance process.

THE COURT: Mr. Brown, I'm sorry to interrupt. Can I ask you one more question about PX 4004 and 4005, which we're seeing?

Dr. Fix, did you do an analysis which would have broken out those shares with the proposed divestiture for these

two measurements?

THE WITNESS: I don't believe that's in my report. I would need to look at the underlying data to see what could be done there.

The -- what's being divested is -- so, it's the Hydak UV, I think you've heard, the Biocoat's UV-cured product. That's a pretty recent product. It's not a huge part of Biocoat's sales.

And I don't expect that there was much -- I don't recall the exact amount of revenue in 2023, but it wouldn't be much, I would expect.

THE COURT: It might be a good share of the new customers, correct? I don't know.

THE WITNESS: I think there are four, three or four commercialized customers. There's not more than that.

So, I'm having trouble remembering offhand, but I do not think -- I don't know whether any of that revenue -- some of that revenue might have been the UV. I don't think it was much of the Biocoat share. And of course, it's none of the Surmodics.

For the feasibility testing, so there's -- there's the new customers, and there's the feasibility testing. If I'm recalling correctly, it may not be totally clear in the data which is -- whether all the feasibility testing is thermal or UV. Sometimes a customer brings a device and -- to Biocoat,

and Biocoat would try either coating. They might try both. The data show the revenues from that testing, but they don't necessarily tell us everything that is being tested.

So, I don't know how you would break out the feasibility revenue and attribute some of it to Integer. Biocoat has more things that they can try with the customer's device at that stage than Integer would have.

I'm kind of thinking out loud, but -- I guess the answer is no, I didn't do that. I'm not sure. I don't think it would show a very different picture, but I'm also not sure it would be entirely informative.

MR. BROWN: And, your Honor --

THE COURT: Thank you.

MR. BROWN: -- with your leave, we would be happy to consider that question and address it during the rebuttal period before closing arguments, if it would be helpful to the Court.

MR. CULLEY: Your Honor, this is the first I'm hearing of a rebuttal period. I mean, they already have a disclosure of what Dr. Wong is going to say. I would expect Dr. Fix to anticipate and address that in his testimony here today.

THE COURT: Well, in terms of rebuttal, there's a certain amount of time that's been allocated for each side's use. I hadn't heard of rebuttal, either, but typically rebuttal is something that's allowed. We'll have to see what

the time looks like.

I haven't been provided with a calculation of how much time has been used, but I think each side is rapidly consuming their allotted time for these proceedings, so I don't know how much time would be left for that, but --

MR. CULLEY: One other issue I would raise, your Honor, is we've obviously had a disclosure of the testimony that Dr. Fix is going to give today. If he would give -- propose to give different testimony in this rebuttal that's being proposed, we've had no disclosure of that, which of course, the rules distinguish.

THE COURT: Well, I would not hold this against him because what they're talking about came specifically from my questions, and it would be informative to me to just see how that would look with the two slides that he has prepared.

So, this isn't something that they're holding in their back pocket and now spring on you. I'm sure they're more surprised than you that maybe I'm asking any questions.

MR. CULLEY: Understood.

THE COURT: So, I'm not going to hold that against them, but it would be very helpful for me to see what that picture might look like, if it's possible.

I'm not sure -- Dr. Fix has indicated it may not even be possible to assess a proposed divestiture with these two analyses.

MR. CULLEY: Understood.

THE COURT: Okay? So, bottom line is if they've got time left, I'll allow them to do a rebuttal.

MS. MALTAS: And, your Honor, I would just state for the record that we have specifically and repeatedly noted in our witness list exchanges that we are reserving the possibility of rebuttal.

THE COURT: Okay.

Go ahead, Mr. Brown.

MR. BROWN: Thank you, your Honor.

BY MR. BROWN:

Q. Thank you, Dr. Fix.

So, we were starting to discuss the FDA dataset that Dr. Wong uses to calculate market shares. I believe you identified some problems with that dataset, if you could speak to those.

A. So, the data are -- it's a dataset he assembles for -- associated with FDA-approved devices in 2024, and he assembles it based on some forms that device makers file with the FDA.

Most of those devices don't have a hydrophilic coating to begin with, and some of them couldn't possibly accommodate one. Some of them are things like a software update to a device or a computer cable that connects a device to a screen.

Q. Do any of the FDA approvals in Dr. Wong's data definitely reflect devices with hydrophilic coatings?

A. Yes, some of them definitely do. He identifies less than half of them that he believes he's confirmed have a hydrophilic coating.
Q. And that's based on looking at the text of the FDA clearance or approval documents?
A. Yes. It was based on a -- sort of a more automated search we could call scraping, but then some manual confirmation.
Q. And I believe this slide summarizes some of your thoughts about his analysis, but broadly speaking, you take issue with his definition of coating-eligible devices?
A. Yeah. There's not really an economic concept used to estimate market shares that's analogous to that. Market shares are usually based on sales in the relevant market, not a sale that didn't happen but could have, for example.
Q. And by using this data that you've described as flawed, including devices that don't have and couldn't have hydrophilic coatings, how does that impact the final market share calculations?
A. There's only one thing it can do, which is make the merging parties' market shares lower because it's dividing their share -- their number by another number; and if you make the bottom number bigger, then the share goes down.
Q. So, by adding more devices that couldn't be coated, it depresses the market share calculations for the merging parties?

A. Yes.
Q. And that's the analysis that Dr. Wong uses to calculate that the share for the merging parties may be as low as 22 percent?
A. Yeah. The 22 percent is based on -- it's his estimate of the hydrophilic coated devices specifically, but it's not -- its not the 91 that he confirmed have hydrophilic coating. It's that plus another 50-plus that he assumes must also have a hydrophilic coating, even thought it's not discussed anywhere in any FDA form.
Q. So, the parties' share in Dr. Wong's calculation is 22 percent. Is he able to say what companies make up that other 78 percent?
A. No. He only calculates market shares for the merging parties, and the reason for that is these FDA forms don't tell you who the coating supplier is. So, there's no way to know that information. In the case of the merging parties, we do have evidence in the record, and where he wasn't able to be 100 percent sure, he could ask the merging parties, specifically, "Did you coat this device?"

So, he's able to do that to confirm at least with some degree of confidence who the hydrophilic coating supplier is in the case of the merging parties, but not for anyone else.

And he's also not able to do that for the 50 plus additional devices that he adds to the bottom of the

calculation, but not the top because those aren't actual devices.

Q. They're just an estimate?

A. Just a number that gets added to the bottom.

Q. And based on your review of the evidence, if there were other suppliers out there making up 78 percent of new devices, do you think we'd see more discussion of that in the documentary record?

A. It's kind of what I was saying before about my own estimate of market shares. I would expect to see in the documentary evidence and the customer testimony some indication that there's, like, this supplier out there with a really big share of new revenue that I'm missing somehow; and that hasn't come forth. I don't know who could possibly make up the other 78 percent.

Q. Now, understanding the weaknesses in this data, were you still able to use it to perform what you view as a more acceptable market share calculation?

A. Well, I did the calculation based on the devices that Dr. Wong specifically identified as having a hydrophilic coating. There were a few -- there was three in there that were not in the relevant market, but the other 88 possibly were.

And Biocoat and Surmodics, according to his determination of who coated which device, have a 35 to

44 percent share of those 2024 FDA approvals.
Q. So again, this is looking at just the devices which we really can be pretty confident in fact have hydrophilic coatings?
A. Yes. They could include outsourced hydrophilic coatings, which, as I've said are not part of my relevant market, but -- but at least 35 to 44 percent of them had a Biocoat or Surmodics coating?
Q. You said outsourced. I believe you meant that it could have included in-sourced?
A. Thank you, yes. Some of them certainly had an outsourced coating, but it's possible or likely that some of them also had an in-source coating, which I wouldn't consider to be part of the market.
Q. So, you said that those calculations yielded party shares possibly in the 35 to 44 percent range. How does that align with your total-revenue-based calculations?
A. Well, it's obviously lower than 60 percent, but I think it's consistent. This method of looking at new opportunities treats every opportunity exactly the same, so it would treat a new opportunity to coat an existing Medtronic device or a new Medtronic device that might have a very high volume associated with it, it treats that as the same as a smaller opportunity.
And we know, because of defendants' revenues, including what we're calling legacy revenues, or what the

defendants are calling legacy revenues, that they have established these established relationships with very large companies that produce high-volume devices. And so, you know one factor that could explain the difference between 35 to 44 percent and 60 percent is that difference in the volume associated with the device.

Q. So, something is essentially lost when we look at every device approval as being equivalent to every other approval?

A. That's one thing that is lost, and then also the -- you know, the revenues that Biocoat, Surmodics, and some of their competitors earn from coating the device and the services that customers find valuable.

Q. Great. Now, I know you would not say that this 35 to 44 percent estimate is the proper way to evaluate market shares, but if we did take it to be correct, would the change in concentration suggested by those market shares still be above the thresholds for presumptive illegality in the merger guidelines?

A. It would exceed those thresholds, yes.

Q. So we would find this merger to still be problematic even if those were the correct numbers?

A. As an economist I think the merger is problematic, but it would also exceed those thresholds in the guidelines, yes.

Q. Great. Moving on, I'd like to discuss your conclusions regarding the potential competitive effects of the proposed

transaction.

One of the claims the defendants have made in their submissions, Dr. Fix, and in court this week is that these market share calculations are irrelevant because Biocoat and Surmodics do not, in fact, compete particularly closely.

Did you examine how competition between hydrophilic coatings suppliers, including the merging parties, takes place in the market?

A. Yes. The first thing I did when I began looking at this industry was to try to understand how competition works.

Q. Could you walk us through what you learned?

A. Yes. So, very briefly or hopefully very briefly, there are a lot of ways that the hydrophilic coating suppliers in this market compete. I'm going to discuss several of them.

I've begun this slide with a quote from Dr. Wong's report, which I think is an accurate description of the meaning of competition as an economist would define it, which is multiple firms taking actions to best one another.

In this industry, those actions can include things like innovation, business development activities, price concessions, providing services to customers, and what are referred to in the industry as bake-offs.

And I have some slides that I don't think the rest of the room will be able to see, but they contain evidence that's from the past week and in the record of each of these types of

competition.
Q. If we could go to the first slide, I think you described the first type of competition as innovation broadly?
A. Yes. And I know your Honor can read the slides and no one else can see them, so I'll be brief.

So, suppliers compete by innovating. This slide contains some documentary evidence of Surmodics' development of the Preside product, which was specifically focused on increasing their share of the neurovascular segment of the market, where Biocoat has a significant share.
Q. Then if you go to the next slide focused on marketing and business development activities?
A. Yes. So another way that suppliers compete, marketing and business development activities, that means like testing their coating on a device against a competitor's coating. We've seen examples of that in the past week.

It includes the work they do attending trade shows and marketing their products to the medical device makers, visiting them onsite, inviting them to come visit them onsite and talk about how they can meet their needs.

This slide contains some testimony from another supplier of hydrophilic coatings that's consistent with that type of competition.
Q. Specifically competition in the pre-feasibility stage before any testing even occurs?

A. Yeah. This is before they would be testing on a device. They're generally competing to be picked for testing. That is a big dimension of competition.
Q. And then if we go to the next slide relating to price competition in various forms?
A. Suppliers compete via price concessions. We've heard testimony from a couple of individuals over the past week about taking a half a point off the royalty or things like that. This slide contains some of that testimony from Mr. Juntenen from Medtronic.
The next slide relates to competition on service levels, the different service levels that hydrophilic coating suppliers provide. This compares different suppliers on the services they offer. It's an internal Biocoat document or --
Q. And just to pause there for a second, we've heard some testimony and the documents show that Biocoat and Surmodics offer both higher quality service and a broader suite of service offerings than many of their competitors?
A. I have heard that testimony this week, Biocoat and Surmodics and also to an extent Harland offer those things.
Q. If we can go to the next slide?
A. And finally, actually, I haven't heard this term this week, although it shows up in the documents a lot, and it might have been mentioned yesterday. But when two suppliers are providing the coating for a device at the exact same time during testing,

which does happen sometimes, they'll refer to that as a bake-off in this industry.

And I know an individual -- I can't remember if this was yesterday or the day before, but testified about an instance in which Biocoat and Surmodics were providing exactly that kind of competition.

Q. So, broadly speaking, all of these different forms of competitive action, you've seen evidence in the record of hydrophilic coating supplies competing in these ways?

A. Yes.

Q. And specifically evidence of Biocoat and Surmodics competing with each other in these ways?

A. Yes.

Q. So, focusing on that competition between Biocoat and Surmodics and what we see in the record, does the evidence show that Biocoat and Surmodics see each other as prominent direct competitors?

A. Yes. And the next slide contains some of the documentary evidence in which they refer to one another as top competitor or direct competitor, primary competitor, things like that.

MR. BROWN: And as always, your Honor, the full documents are in the binder for your review.

BY MR. BROWN:

Q. And, Dr. Fix, we've seen evidence that -- examples in the record of head-to-head competition between the parties either

for customers or for opportunities?
A. Yes, there's some of that evidence on the next slide, reflecting competition for specific customers and a specific opportunity, and I believe the following slide as well.
Q. Great. And we won't belabor that, since the Court has heard a lot of it directly from those customers this week.
If we can turn to the next slide, perfect.
We've seen evidence that Biocoat has specifically targeted Surmodics's existing coated devices for conversion, correct?
A. Yes, I believe Mr. de Freitas was asked about this. He was shown some slides that were drafts of a board presentation. This slide is in the final board presentation.
Again, I know not everyone can see it, and I won't describe it in detail, but it reflects Biocoat's intention to compete for -- to coat devices that Surmodics is currently coating at a commercial scale.
Q. And I believe Mr. de Freitas said that that strategy changed at some point in time, but from what you've reviewed of the record, was this targeting of Surmodics's customers part of their strategy right up until the eve of when this merger was announced?
A. It was presented --
MR. CULLEY: Objection, your Honor. More leading.
THE COURT: Sustained.

BY MR. BROWN:
Q. Through what period do you see evidence of a strategy to target Surmodics's customers?
A. So, I know the date of this document is January 31st. I don't -- I can't recall the dates of any other documents.

So, this was obviously a few months before the proposed merger was announced, and, you know, diligence started in early March at the latest.
Q. Okay. Thank you, Dr. Fix.

So, that covers documents and testimony. Have you done any analysis of the extent of competition between Biocoat and Surmodics -- excuse me, quantitative analysis?
A. Yes.
Q. If we could turn to the --

MR. BROWN: Yep, thank you, Mr. Campos.
BY MR. BROWN:
Q. What is this, the analysis described on these slides -- or this slide?
A. So, this is just a calculation of the overlap in customers served by Biocoat and Surmodics. It is for each of the merging parties their 2024 revenues divided between customers that were recently served by the other and customers that were not. By recently served, I meant they did business with them in 2023 through the beginning of 2025.

In each case, I find that roughly three-quarters of

each of the merging parties' revenue is for customers who have recently done business, according to that definition, with the other supplier.

Q. And what conclusions do you draw from that?

A. That they compete for the same customers, that they're -- that they serve the same customers and are able to provide -- to meet the needs of similar customers.

MR. BROWN: Your Honor, I'd like to move PX 4025 into evidence.

THE COURT: Any objection?

MR. CULLEY: No objection.

THE COURT: PX 4025 will be admitted.

(Plaintiffs' Exhibit No. 4025 was received in evidence.)

BY MR. BROWN:

Q. So, Dr. Fix, we've been talking about head-to-head competition between Biocoat and Surmodics. When we talk about that, are we talking only about competition with their respective UV-cured coating options?

A. No, almost all -- by virtue of the fact that Biocoat only recently launched the UV product, it's mostly evidence of competition between Surmodics' UV-cured products and Biocoat's thermal-cured product, including the recent development of the Surmodics Preside product and testing it against Biocoat's thermal-cured product and hoping to gain market share in that segment of the market that Biocoat competes so strongly in.

Q. Great. Now, we don't need to belabor this, but what about other suppliers in the market? Is there evidence in the record that they compete less closely than do Biocoat and Surmodics?
A. Yes. We've heard testimony from the past week, and I have a slide on that, describing some of these other competitors as, you know, bad or not as significant as Biocoat and Surmodics. I see a yellow box over that, so I won't read any of these documents.
Q. And have you seen evidence that some of these less competitively significant competitors, as you described them earlier, may compete for certain types of applications or certain types of devices, but not for others?
A. We've heard evidence that when -- when the coating doesn't provide the same performance, it might be appropriate for less demanding applications, but not for others.

So, there could be devices that aren't intended to go as far or do as much in the body or stay in as long, and for those, there might be a wider set of coatings that could be used.
Q. Great. And now have you seen party documents reflecting that they view one another as closer competitors than they view other suppliers?
A. Yes. Specifically, I know Mr. Moran testified over two days, and I don't know which date this document was shown; but he identified only two hydrophilic coating suppliers as

Biocoat's primary competitors that affect their market share, and that was Surmodics and Harland.

He didn't identify any thermal-cured -- he did not identify any supplier with a thermal-cure coating as either a primary or secondary competitor. He only identified UV-cured -- companies offering UV-cured coatings as competitors -- primary competitors.

Q. Even though Biocoat still gets the vast majority of their revenues from thermal-cured coatings?

A. That's correct.

Q. Now, Dr. Wong attempts to analyze customer overlaps in his report, correct?

A. He does.

Q. I understand that you take issue with how he conducted that analysis?

A. Yeah. He's focusing on the number of customers rather than the revenue, so there are a lot of small customers that aren't associated with much revenue. So, if you count overlap that way, it can be less.

He's also focusing on already contracted customers, which is slightly more of a backward-looking exercise than one that incorporates feasibility revenues associated with newer devices. He -- yes, that's my assessment of his analysis.

Q. Great. Thank you.

Taking everything into consideration, what opinion did

you reach regarding the likelihood of harm to competition as a result of this merger?

A. So, I think it's highly likely that there will be anticompetitive effects. Any economic model of competition would take this fact pattern and translate it into anticompetitive effect.

So, if you have a market that's highly concentrated and the merging parties have a high share and the merging parties are close competitors but some of the other companies in the market are not, and if the merging parties have high profit margins, any economic model of competition tells you that that is -- a merge of those two competitors will cause anticompetitive effects.

Q. So, there's economic arrows all pointing in the same direction?

A. Correct.

Q. Now, when we talk about anticompetitive effects, what kind of things are we talking about?

A. Well, economists always like to focus on prices because that's what is easy to measure, but anticompetitive effects can take different forms. It can be diminished customer service or reduced investment in R & D, any competitive action that firms take to best one another.

If they're doing that because there's competition that's providing that incentive, if you reduce that

competition, then that affects the incentive.
Q. And you believe that today, the competition between Biocoat and Surmodics is providing that incentive?
A. I do.
Q. Will a post-divestiture Integer be able to provide that same constraint on a merged Biocoat and Surmodics that they do on each other?
A. My opinion is that that's very unlikely, and I know we're going to talk about that in a little bit.
Q. Great. Now, you estimate the size of these anticompetitive effects using a merger simulation model?
A. I do.
Q. What is that?
A. A merger simulation model is something economists use in cases like this. It's an analytical model of competition. It incorporates the fact that prices are constrained. The price that one supplier charges is constrained by customers' other alternatives, what else they can buy.

If you sort of remove one of those constraints from the model, the one between the merging parties and recalculate prices, then that gives you a prediction of how much prices might go up post-merger.
Q. Would it be fair to say that the merger sim kind of puts a number on how the incentive to keep prices low and quality high changes as a result of the removal of the competition between

the parties?
A. The merger -- the merger simulation gives you a predicted price increase, but the predicted price increase is a -- is a measurement of the change in the competitive constraint. It's quantifying the change in competitive constraint, or you could think of it as quantifying how valuable the competition is today to customers that's going to be lost.
Q. And if we go to the next slide, I believe this is the result of your merger simulation model. Could you tell us what this shows?
A. It shows that the removal of the constraint provided by Surmodics would give Biocoat incentive to increase price by 28 percent or more. The removal of the constraint provided by Biocoat would give Surmodics an incentive to increase price by almost 13 percent.
Q. Can you help us understand what that means? Are you saying that the combined firm will definitely raise prices by this amount once the acquisition closes?
A. I'm not saying definitely, and price increases greater or less than this on average are possible. I also think different customers would be affected differently, and that's something the model incorporates. These are averages.
What I believe is that this is a reliable reflection of the degree to which the parties currently constrain one another and the degree to which that competition would be lost

post-merger.
Q. And I believe you've said this already, but it might not even be in the form of a price increase that we see this play out?
A. This is a model of price competition, but of course, I believe any action that firms take to best one another, if they no longer have to take that action because they no longer compete with one another, they have less incentive to take that action.
MR. BROWN: Great. Your Honor, I'd like to move PX 4012 into evidence.
THE COURT: Any objection?
MR. CULLEY: No objection, your Honor.
THE COURT: Okay.
(Plaintiffs' Exhibit No. 4012 was received in evidence.)
THE COURT: And, Mr. Brown, a question for Dr. Fix.
Dr. Fix, would you consider whether the proposed divestiture Integer would have any impact on holding down Biocoat's -- any inclination that Biocoat might otherwise have to raise prices in light of the merger?
THE WITNESS: It's not something that I incorporated in this merger simulation, if that's what you're asking. I don't have a quantitative estimate of -- sorry. I have not tried to quantitatively estimate the degree to which Integer would sort of constrain price in that way.

I don't believe they would. I'm happy to go into more details, but I know we're planning on talking about the divestiture in a little bit, but it's up to --

THE COURT: Okay. Well, you can reserve your answer, and if Mr. Brown wants to get into that with you in the closed session, that's fine.

Go ahead, Mr. Brown.

MR. BROWN: Sure. I think we'll be able to do it fully in open session. I just --

THE COURT: Oh, okay.

MR. BROWN: I know that Dr. Fix is going to walk through divestiture-related issues.

BY MR. BROWN:

Q. But I think it's fine, Dr. Fix, if you'd like to answer the Court's question now.

What do we know about the divestiture that, in your opinion, would impact its ability to affect the prices of the merged parties post-acquisition?

A. Well, Biocoat will not have all of the products -- sorry, Integer would not have all of the hydrophilic coatings that Biocoat offers. So, for customers that want to test coatings that Integer doesn't have, that wouldn't be an option, or they won't have that option with Integer.

Integer will not be making the coatings on day one. They'll be relying on Biocoat for supply until they're able to

manufacture coatings.

And I'm skeptical that they would be able to compete for new customers before they're able to manufacture coatings. I don't know that a -- I don't believe a customer would want to sign a supply agreement with a hydrophilic coating supplier based on the promise that they will learn to make hydrophilic coatings in the future.

So, you know, I see -- Integer doesn't have the things that make Biocoat and Surmodics competitively significant. They're obviously a successful company in a related industry, but -- and they're not getting them from Biocoat.

So, I don't -- my view is that Integer would not constrain Biocoat, but I haven't incorporated that into some kind of merger plus divestiture simulation model or anything like that.

THE COURT: Thank you.

BY MR. BROWN:

Q. And, Dr. Fix, we'll walk through some of your thoughts about the divestiture, but broadly speaking, how does risk play into this uncertainty when we think about the competitive significance of Integer post-acquisition?

A. I don't -- we don't know what will happen with the proposed divestiture, broadly. We know that Integer will be able to in-source some of its supply. It's possible that in the future, they will also sell hydrophilic coatings; but without

knowing that, it's hard to make a determination about how they will discipline Biocoat's prices.

I think there's a risk that they will not compete effectively in the hydrophilic coatings market, and I would weigh that against the risk that the proposed merger significantly harms competition.

Q. So, we know that today there is significant competition between Biocoat and Surmodics and they constrain each other, but it sounds like there's a lot of uncertainty about what Integer might do?

MR. CULLEY: Objection, your Honor. Very leading question again.

THE COURT: Sustained. Could you rephrase your question.

MR. BROWN: Sure. I think we can move on. I'm sure we'll come back to this.

BY MR. BROWN:

Q. So, Dr. Fix, we've already started talking about the divestiture. You address this in your rebuttal report, correct?

A. I did.

Q. And why did you not address the divestiture at length in your initial report?

A. My understanding is -- well, it certainly was not signed. My understanding was there was a -- there was a potential

divestiture on the table. I believe that the merging parties were maybe presenting it to some of you or even to the front office at the Federal Trade Commission; but it wasn't final, and I didn't want to address a -- you know, a potential proposed divestiture that might change in my report.

Q. And then in your rebuttal report, you responded both to what Dr. Wong had to say about the divestiture and also analyzed its sufficiency for yourself?

A. Yes. I responded to Dr. Wong's opinion, and I looked at the proposed divestiture and offered some of my own opinions.

Q. And what does it mean for a divestiture to be sufficient?

A. To me as an economist, it means that it would return the market to the same level of competition pre-merger. I understand that the legal standard might be a little more relaxed than that; but as an economist, we like competition more than we like less, so I would prefer if it fully replaced the competition.

Q. And what did you conclude about what Dr. Wong had to say about the divestiture?

A. I don't believe he showed that it would solve the problems with the proposed transaction.

Q. Great. I think you already highlighted briefly your critiques of the divestiture; but if we turn to the next slide, I think what you said was that this is not a divestiture of a full business, but of selected assets, and insufficient in some

way. Could you explain what you meant by that?
A. I haven't said that yet, but it is in my slide, so I see that you look at them.

What I mean is some divestitures are of entire business units, meaning the buyer gets the whole business unit, the management team, the facilities, the employees. They're competing the next day without interruption to customers.

That's sort of the gold standard in a divestiture, and there's much less risk of it failing -- failing to replace competition, of course, because there's not necessarily any change in the day-to-day business.

This is -- this is obviously not that, and I don't think anyone contends that it is. So, Integer will not receive all of the coatings that Biocoat uses to compete. They won't receive the facilities and equipment, not all of it that Biocoat uses to produce coatings and compete.

They will not receive the vast number of employees that Biocoat uses to compete, and very -- you know, not many senior employees or management or people who make strategic decisions. That isn't proposed to go to Integer.
Q. Let's dig into that a bit more. You mentioned the coatings. Integer will be receiving Biocoat's UV coatings and a subset of its thermal coatings. Why are those insufficient?
A. Well, just focusing specifically on the coatings, Biocoat has a lot more coating products than they're divesting.

They're divesting what they're calling the currently marketed coating, which is the latest generation of the thermal-cured coating; and they're divesting the UV-cured coatings along with the customer contracts, assuming those customers will go. So, they're divesting the full UV, and they're divesting the most recent thermal-cured coating with a license back, so Biocoat will also have the coating.

So, post-divestiture, customers can either go to Biocoat for a thermal-cured coating and choose from the latest and greatest or others that might meet their needs; or they can go to Integer, who will be learning how to make coatings or depending on Biocoat for supply. I think we heard Mr. Juntenen said he would just go to Biocoat for that. I think we heard from another individual who said the same.

Q. Are there any thermal coatings that customers will be able to buy from Integer that they will not be able to buy from Biocoat?

A. I believe there's a license back for all of the thermal-cured coatings that Integer is acquiring. They are acquiring a much older coating that gets called legacy. It is -- it was developed a long time ago; and Integer uses it for their own customers, and so they're -- they're going to get a lot of in-sourcing savings from that, assuming they start -- once they can make it, they'll be able to save a lot of money versus purchasing it from Biocoat.

Biocoat does sell that coating to at least one other customer today, so there's a license back for that as well, I believe.

Q. So, your understanding is Integer will only have a subset of the thermal coatings that Biocoat will be able to offer?

A. Yes. Integer will have the most recent one that they call currently marketed. They will have one of the older ones that Integer uses a lot of. They will not get any of the others. They won't even get all the ones that they currently purchase from Biocoat. They'll still depend on Biocoat for supply for their main business model.

Q. And have you seen evidence that it is valuable for a supplier to have those other coatings besides just the newest one? Do customers choose other coatings?

A. Some do. There have been FDA approvals -- Biocoat has had FDA approvals in the past couple of years for medical devices that use coatings that were developed before 2015.

These are -- the ones that I'm recalling are certainly what they would call legacy customers, so they're customers they've had for a while, but they bring new devices to market. Biocoat will offer them the coating that they're familiar with and have used before, so that's something that Biocoat will be able to do post-transaction, but Integer won't.

Q. Great. And you may have mentioned this, but Integer will not be receiving the customer contracts or relationships for

the thermal business, correct?
A. Correct. That stays with Biocoat.
Q. If we go to the next slide, I think you already referred to this, but we've heard a couple of times this week -- well, please, I will allow you. Summarize, what is this testimony getting at?
A. So, I don't need to read it for the Court, but it's testimony suggesting that a customer would rather go to the coating supplier that develops the coating and knows it best, and that's their core competency, rather than another firm that would just be selling the same coating and didn't develop it.
Q. So, in your view, there's a likelihood customers would prefer to buy a coating from Biocoat than the same coating from Integer?
A. Customers have said that, and it makes sense to me why they would say that.
Q. Great. Now, briefly I think you've already talked about this a little, but what is your opinion about the sufficiency of the facilities and equipment that would be going over to Integer?
A. Well, the facilities -- the equipment is critical, obviously. You need the equipment to manufacture coatings.
Biocoat is proposing to divest a facility. It isn't a facility that's used for manufacturing. So -- and Integer doesn't plan to convert it to manufacturing. Integer plans to

move manufacturing to their Chaska, Minnesota, facility.

So, there will be a period of, you know, moving equipment there, developing -- creating a cleanroom, putting the equipment in the cleanroom, getting that facility validated with customers to make sure the coating is being -- developed at exactly the same specifications that it currently is. That's a process that will take months, and it will depend on post-divestiture cooperation between the buyer and the seller, Integer and Biocoat.

Q. And again briefly, since you already touched on it, what is your understanding about the sufficiency of the employees that would be going over?

A. Well, it's -- Biocoat has proposed 11 employees, some of them relatively junior, not very tenured, one Ph.D. chemist. Integer doesn't know or didn't know at the last -- for the last information that I have available whether they would keep all of those employees. They've identified a few as very important, but also didn't know whether those employees would go to Integer, again, as of the last information I have.

Q. And why are employees so important to competition?

A. Well, employees provide the competition. You can't compete without employees. So, Biocoat's -- the reason customers like Biocoat, as I understand it, is a lot of the people at Biocoat are very highly regarded. Their head of R & D is very highly regarded and sometimes gets pulled in to deal with particularly

challenging customer issues, particularly challenging devices.

All of the people who make strategic decisions about all of the dimensions of competition I talked about, those people would not be going to Integer. They're staying with Biocoat.

Q. So, Mr. de Freitas and Mr. Moran, who we've already heard from this week, they will not be joining Integer?

A. Correct. Everybody I've seen on the list of who's going to be testifying would stay with Biocoat. So, the institutional knowledge within Biocoat stays with Biocoat, and some employees potentially, if they're willing and if Integer wants them, would go to Integer.

Q. And that would include Mr. Hergenrother and Mr. Hance, who are the head of R & D and CEO, respectively?

A. Those individuals would remain with Biocoat in the proposed divestiture.

Q. Now, I'd like to just briefly return to your analysis of market shares and concentration post-divestiture. Can you again briefly describe what is on this slide for the Court?

A. Yes. So, this is post-merger market shares. It's a counterfactual world in which the merger happens, sorry, and the divestiture happens, and we credit Integer with the revenue that Biocoat earned on the assets it's divesting, specifically the UV-cured products that -- for which there's no license back, and the older thermal-cured coating that Integer buys a

large volume of to apply to their customers' devices.

If we credit that revenue to Integer, we arrive at roughly a 3 percent market share. What revenues Integer will earn in the relevant market going forward are, I think, highly -- a little speculative, but they do have projections they made while determining the value, how much they want to pay for the assets they're buying; and those projections suggest that this share is -- the revenue underlying this share would be about what they would project in the next couple of years.

Q. And without getting into the specifics, since they may be confidential, but where does Integer in those forecasts allocate most of the value for the proposed divestiture?

A. My understanding from the Excel model that they used to decide how much they're willing to pay and from Mr. Senn's testimony, Andrew Senn, the value or the offer they wanted to make for the assets was based on, you know, a measure of EBITDA, Earnings Before Income Taxes and Depreciation of Assets. That value comes from the in-sourcing of supplies.

So, right now, Integer pays a lot of money to Biocoat every year, I think something like $2 million for coatings. They think that by making the coatings themselves, that a conservative estimate of their savings that would just flow through to their bottom line would be half of that. It might be even more. So that's over a million dollars of savings

every year that Integer gets. So, it's understandable why they would want these assets.

Q. So, that would be savings on their existing business, in contrast with -- in contrast with what? I should not put words in your mouth.

A. It's -- it's a value to Integer that doesn't affect competition in the relevant market. So, it is -- I would contrast it with what I'm looking at as an economist, which is: How would this divestiture affect competition in the relevant market? There are two pieces to it.

There's Integer's ability to save money on their supply, which is obviously very valuable to them. There's the potential that they also sell coatings in the relevant market I've defined. That also potentially has some value to them. According to their projections, it's -- that will take time. It's in the future, and it's a little uncertain.

But that's what I'm focused on as an economist is competition in the relevant market, and it's much less clear what will happen there.

Q. And how does Integer's priorities and focus and likelihood of actions contrast with Biocoat in the market today?

A. Well, Biocoat is a -- is an outsourced hydrophilic coating supplier. That's what they do. It's their entire business. All of their management and strategic capabilities and R & D capabilities are focused on that, and Integer just has a very

different business model. They're focused on something else.

So, while they certainly will have incentive to earn more profit, they would -- it will require more investment for them to get there, I guess I would say.

They definitely -- or almost definitely, nothing is definite -- can profit immediately from in-sourcing some of their supply. They maybe in the future could profit -- if they choose to invest at sufficient levels, they could also supply in the relevant market.

Q. But to your mind, those are -- there's a certain amount of uncertainty and risk?

A. I think there's a high degree of uncertainty and risk.

Q. Okay. So, the last concern you noted was that Integer will remain entangled with the merged entity, but may have conflicting incentives. What did you mean?

A. So, I have that opinion. It's in my report, and I want to discuss it; but also just generally, incentive issues with the transaction is where an economist would start. How would this affect incentives?

So, the success of this divestiture definitely depends on cooperation between the buyer and the seller post-transaction, when they will have opposing incentives. It's well-known in economics, that firms don't like competition. They would like to avoid it, if possible, and it is against their economic self-interest to build up a

competitor. I think that's -- that's clear. So, the merging firms' incentive isn't to help Integer become a strong competitor in the relevant market.

And I would note that while this is happening, and even going forward, Integer will still be depending on Biocoat for supply, depending on Surmodics for supply, and depending on Harland. Those are the three coating suppliers from which Integer acquires hydrophilic coating for their own customers' devices, their medical device customers for whom they manufacture devices.

That supply is important to them. Mr. Senn testified about that. So, it begs the question of how hard Integer will go out to compete for a new customer against their critical suppliers, suppliers that provide an input to them that they need to do the main thing they do as a business, which is, you know, assemble their customers' medical devices, all stages of that, including applying the coating.

Q. So, we've heard a lot about the idea of competition on day one. If Integer is going out to compete for new business on day one after this divestiture, whose coating will they be competing with -- excuse me, whose coating will they be using in order to compete?

A. I mean, literally on day one, it would be -- they would have to get the supply from Biocoat. There will be a period of standing up a manufacturing facility in Chaska, Minnesota. How

long it will take is uncertain. It depends on these transition services. And during that time, the parties will have opposing incentives.

I believe from Mr. Senn's deposition, it was -- it could be optimistically around six months, possibly greater than a year. I don't know how long that would take.

But it's hard to imagine that during that time, customers would want to come to Integer for the same -- to get a subset of the coatings that Biocoat has from a company that isn't manufacturing coatings yet.

Q. And the divestiture agreement in some ways accounts for this conflicting incentive situation, doesn't it, Dr. Fix?

A. I would say it acknowledges it very clearly. The price, as I understand it, for these assets, is $10 million, with $2 million back, so that's eight. And then if GTCR or Biocoat provide all of these services in a sufficient way within a year to get Integer up and running, manufacturing their product, then GTCR gets the additional $7 million, so that would bring the total price to 15.

So clearly, the parties to the transaction realize they have opposing incentives. They've inserted this payment to try to help resolve that. But, you know, it also means that the merged firm can accept less money in exchange for less competition in the future. That option appears to be available to them.

Q. Great. Let's go to the big question, Dr. Fix. Do you think this divestiture is going to fail?
A. So, fail is a tricky word. I do not believe it will fail from the perspective of Integer because they're getting these assets at a very attractive price, and they will immediately realize a great deal of savings -- I shouldn't say immediately. Once they're able to manufacture the products, they will realize a great deal of savings on products that they buy for themselves to apply to customers' devices.

This can easily be a success for Integer and a failure in the relevant market that we're concerned with in this case. Integer will -- Integer can succeed without any benefit to competition is how I would put it. There's a great risk that there is no benefit to competition or that the benefit is very far in the future.

Q. So, even with this divestiture to Integer, the proposed acquisition could still substantially lessen competition in the relevant market?
A. I believe that even with the proposed divestiture, there will likely be a substantial lessening of competition in the relevant market that I've defined.

MR. BROWN: Thank you, Dr. Fix. No further questions at this time.

THE COURT: Okay. So what we're going to do, Mr. Culley, we'll take our -- take a break until 10:45, 10:45.

We'll come back, and we'll go until approximately 11:55, because I have a meeting at noon that I have to attend.

So, you can schedule out your questions for that. We'll continue on in open session when we come back.

MR. CULLEY: Your Honor, if I may.

THE COURT: Sure.

MR. CULLEY: I did have some questions for open session; but your Honor stole a little bit of my thunder, and relatively quickly after we come back, I'll be going to closed session. So, it may be more efficient to simply go straight into closed session when we come back. I leave it up to you.

THE COURT: How much time do you have right now, how many questions?

MR. CULLEY: It's only a handful, maybe six.

THE COURT: Wow, we'll do those when we get back.

MR. CULLEY: Okay. That's fine.

THE COURT: You never know what might happen.

THE CLERK: The court stands in recess. All rise.

(Recess had from 10:28 a.m. to 10:46 a.m.)

MR. CULLEY: Good morning, your Honor.
THE COURT: Good morning.
MR. CULLEY: May I approach the witness with binders and a demonstrative?
THE COURT: You may.
MR. CULLEY: And, actually, I have two copies, if I may, for the Court of the demonstrative.
THE COURT: Thank you. You can hand them to my Deputy, please.
(Tendered.)
THE COURT: Thank you.
MR. CULLEY: I took your Honor's cues about open session and tried to rearrange some things. So, hopefully, we can do a little bit more than I had previewed.
May I proceed, your Honor?
THE COURT: You may proceed.

CROSS-EXAMINATION

BY MR. CULLEY:
Q. Good morning, Dr. Fix.
A. Good morning, Mr. Culley.
Q. Are you situated? I know you have got a lot of binders up there. So --
A. I've got a lot of tiny water bottles, too.
Q. Now, I think you discussed this a little bit with Mr. Brown, but you are not offering the opinion in this case

that the divestiture will fail; is that right?
A. I would not express anything with 100 percent certainty.
Q. And your opinion is that there's a lot of uncertainty about the divestiture and you just don't know what's going to happen; is that right?
A. I would say none of us know what's going to happen and I would include myself among those.
Q. Now, you did not independently evaluate any past divestitures as part of your analysis of the divestiture in this case; is that right?
A. I wouldn't say I did a deep dive on any past divestiture, other than this one. I've -- I -- you know, I'm aware of economic literature and other public studies of past divestitures, and I reviewed some of those, but I didn't do -- look into detail into any of those divestitures myself.
Q. You looked at the research, but you didn't do your own independent review of those divestitures, right?
A. I did my own independent review of this divestiture.
Q. But not of any past divestiture, correct?
A. For purposes of this case, no.
Q. Now, one of those pieces of research was a study that colleagues of yours at the FTC did on grocery store mergers; is that right?
A. This is an academic paper -- it might still be a working paper, I forget -- authored by some economists in the Bureau of

Economics related to a past divestiture in that industry, yes.
Q. It's not a published paper, is what you're saying by "working paper"?
A. That's what I meant by "working paper." And I don't recall. I've seen them presented. I don't recall whether it's published or under review at the moment. And it's a very recent divestiture.
Q. And that study was based on an analysis of Yelp reviews?
A. That was certainly a big part of it.
Q. And you agree, sir, this transaction, it doesn't involve grocery stores; is that right?
A. Correct.
Q. And you're not -- with respect to the divestitures in that paper, you're not -- offering an opinion about why those divestitures failed?
A. I'm not offering an opinion about why those divestitures failed. I'm an offering an opinion about this divestiture, and my opinion does incorporate some economic learning related to incentives -- economic incentives -- in the context of divestitures.
Q. Now, one of those divestitures discussed in the paper was the Safeway/Albertsons merger; is that right?
A. That sounds familiar. Is this paper in one of my binders?
Q. I don't believe it's in your binder, but I am happy to hand it up to you, if you'd like.

A. It depends on which questions you're going to ask. I'm happy to proceed without it.
Q. Sure.
And the divestiture buyer there was a company called Haggen.
A. That also sounds familiar; but, if you want me to be certain, I'm going to need to see the paper.
Q. Okay. And, then, they had about 18 stores and they were acquiring 146 stores. Does that sound right?
A. In one of those divestitures that they study, the buyer was a smaller operation compared to the assets they were acquiring. That much I remember. That much I remember.
Q. And fair to say, you know, 18, that's, in order of magnitude, smaller than 146, right -- one's in the tens, one's in the hundreds?
A. If I'm remembering, the definition of order of magnitude, it would actually have to be 180, but that's very close.
Q. And, in this case, of course, Integer's revenue, that's $1.7 billion, right?
A. They're a very large company. They earn a lot of revenue from doing other things that are related, but not the same as the economic activity that's the subject of this case.
Q. And Biocoat's revenues are only about $20 million?
A. I think they're a little higher than that, but Integer is a very large company. Biocoat is a smaller company. That much

I'm sure about.
Q. The other research that you reviewed, that was the FTC's 2017 report on merger remedies?
A. I have reviewed that report.
Q. Okay. And why don't you go ahead and take a look at the folder that I handed to you, which is marked DDX 006.
MR. CULLEY: And, with your Honor's permission, if we could publish the first couple slides of that to everyone?
THE COURT: You may publish.
(Pause.)
MR. CULLEY: I think that we have to wait for Ms. Chambers to return, but --
THE COURT: Okay. We have had an issue with our computer, so I think it's -- her computer failed. Perhaps we can just do it with, the witness has the exhibit, I have it and the lawyers have it. Perhaps we can just do it that way until we get up running, again.
MR. CULLEY: That's perfectly fine, your Honor.
THE COURT: Okay.
MR. CULLEY: We'll do it the old-fashioned way.
THE COURT: Thank you.
MR. CULLEY: All right.
BY MR. CULLEY:
Q. Let's go ahead and look at Table 7 from this report. It's on Slide 2 of the demonstrative.

Do you see that, Dr. Fix?
A. Slide 2 of the demonstrative?
Q. Yes.
A. I see that.
Q. And this was an analysis of the outcome of the divestitures that were studied in this document, correct?
A. Yes.
Q. And the FTC classified two-thirds -- more than two-thirds -- of the partial divestitures studied in this report as, at least, a qualified success; is that right?
The partial divestitures, selected assets.
A. You know, I recall -- I believe there's more than one table in this report; but, just focusing on Table 7, I agree that 56 plus 11, which would be the lower bound, is 67 percent.
So, based on this table, I know there's accompanying notes and texts, and I can't see it --
THE COURT REPORTER: I'm sorry, sir. Louder and slower.
THE WITNESS: I'm sorry.
BY THE WITNESS:
A. Based on this table, without any of the accompanying notes and texts, I agree that in this table "Asset Packages," defined as "Selected Assets," were categorized as either success or qualified success in 67 percent or more cases.
I would add that these are divestitures -- largely

divestitures -- that were accepted by the Federal Trade Commission or the Department of Justice. So, there is one big dissimilarity between these and the one we're talking about.

BY MR. CULLEY:

Q. And let's go ahead and take a look at the next page, which has an excerpt from the next page of that report. And, in this paragraph, the Federal Trade Commission is describing a number of factors that tend to make divestitures of selected assets more successful; is that right?

A. Yes. I mean, the paragraph begins with, "Divestitures of selected assets tend to succeed." So, that seems like a fair characterization.

Q. Okay. And you know who Andrew Senn is?

A. Andrew Senn is the president of In- -- he's -- yes, he runs Integer.

Q. Okay. And you cited a little bit of his testimony in your direct examination; is that right?

A. I did.

Q. And I'd like to walk through some of the testimony of his that you didn't cite, and let's see how it fits into some of these factors.

Actually, before we do that, you didn't ever ask to speak with Mr. Senn, did you?

A. I did not personally ask to speak with Mr. Senn. I've read his investigational hearing and deposition transcript.

Q. And you didn't ask to speak with any Integer employee; did you, sir?
A. I've never asked to speak with an Integer employee, to my knowledge.
Q. And Integer came in and gave a presentation to the Federal Trade Commission; is that right?
A. My understanding is that they did. That isn't -- I don't think that's a presentation that I would have been allowed to attend --
THE COURT REPORTER: I'm sorry? I can't hear you.
BY MR. CULLEY:
Q. Did you ask?
A. No.
Q. Okay. Let's go ahead and start walking through the factors.
Now, the first factor that was listed there was similar existing operations. We've grouped that with a couple other similar factors.
You're aware that Mr. Senn has testified that Integer has decades of experience applying coatings; is that right?
A. I am aware that he testified to that and I was aware that Integer had that experience. They do apply coatings to their customers' medical devices.
Q. And, in fact, Integer applies hydrophilic coatings to over 2 million products annually; is that right?

A. I see that he said that.
Q. Do you have any reason to doubt it, sir?
A. He must mean units. It can't be separate SKU numbers. But I believe that he testified truthfully.
Q. And Mr. Senn also testified that his plan and strategy with the overall coatings business is to offer a full coatings solution to his customers, right?
A. I see that he said that.
Q. And that's because Integer is in adjacent businesses in hydrophobic coatings?
A. They recently acquired a full business unit, not a selected collection of assets, of a company that makes hydrophobic coatings.
Q. And Mr. Senn also testified that Integer already performs application development for thermal and UV coatings at its facility in Chaska; is that right?
A. He did testify to that. And I'm aware that Integer purchases today, and has for a long time, hydrophilic coatings from Surmodics, Biocoat and Harland and applies them to the customers' devices, including pre-commercial testing.
Q. And that pre-commercial testing you're mentioning, that's feasibility testing?
A. Yes.
Q. And you're aware that Integer performs that service for their clients today?

A. They do. I would add that feasibility testing is -- it's a range of services.

Integer certainly provides it. Biocoat and Surmodics are the gold standard for that type of service.

Q. You didn't do any systematic study of the level of quality of Integer's feasibility testing relative to Biocoat's and Surmodics', right?

A. I reviewed evidence available. I think it's consistent with the evidence available and the testimony this week.

Q. You didn't look at any data on the quality outcomes from Integer's feasibility testing versus the feasibility testing of the parties?

A. I don't believe such data were available.

Q. If you flip to the next page, "Knowledgeable about the relevant markets," do you see that?

A. Yes.

Q. Now, the next -- that's the next factor. You're aware that Integer's already involved in the medical device industry?

A. Yes. They're a development and -- contract, development and manufacturing services organization. They help develop and manufacture medical devices for clients.

Q. And Mr. Senn testified they're familiar with markets, such as cardiovascular, electrophysiology, peripheral vascular, structural heart, neurovascular, vascular access, neurology, endoscopy?

A. Yes. I see that he mentioned all of those.
Q. And you also see, sir, that he mentioned that he views applying -- that manufacturing is applying hydrophilic coatings as an extension of Integer's distinct capabilities. That was his testimony?
A. He says, "This is somewhat an extension of our distinct capabilities somewhat." I'm not sure what this refers to.
Q. And he notes that Integer has been applying hydrophilic coatings for the better part of 20 years?
A. They certainly have. They've also tried to develop them and failed.
Q. And they're getting a coating as part of the assets; isn't that right?
A. They are. They're getting more than one.
Q. And Mr. Senn also mentions that Integer has a sales force that's already knowledgeable about coatings, right?
A. About coatings, yes. We also heard testimony from Mr. de Freitas about how sales experience broadly in this industry doesn't always translate exactly to success in sales related specifically to outsourced hydrophilic coatings. But Integer certainly has a sales force.
Q. And, in fact, Integer also has experience submitting 510(k) applications for medical devices that involve hydrophilic coatings, right?
A. That's what Mr. Senn said.

Q. And let's go ahead and turn to the next slide: Familiarity With Customers.

Integer already has relationships with major medical device customers like Medtronic, Abbott, Boston Scientific; isn't that right, Doctor.

A. They certainly do. They serve medical device customers.

Q. And Mr. Senn, in fact, said he doesn't value Biocoat's existing customer relationships --

THE COURT REPORTER: Louder.

MR. CULLEY: Of course.

BY MR. CULLEY:

Q. And Mr. Senn said he does not value Biocoat's existing customer relationships because he believes Integer has more substantial relationships with all of those customers, right?

A. I see that he said that. Another reason not to value those relationships is that the value of the acquisition is your insourcing savings. But he did say that.

Q. And do you believe he testified untruthfully, sir?

A. No. I think this testimony is perfectly consistent with what I just said.

Q. Let's turn to the next factor, which is Acquisition of Brand Names. And you agree, sir, that Integer is acquiring the Biocoat and Hydak brand names, right?

A. I'm sorry, I was not on the page.

Q. It should be on the next slide there, Slide 7.

A. They are. This is not an industry where, I think, the brand is particularly important. I don't think medical device makers go to the store and see, like, a Hydak label the way we might see an Adidas shoe, and attribute any value to that brand. I think they value -- they know who the supplier is, and the supplier is the brand in this industry.

Q. And you did not do any analysis, Doctor, of how many leads come into Biocoat, for example, through their Web site, versus through other channels, right? That's not an analysis that was in your report?

A. No. I certainly look at the opportunities that come into Biocoat, but I didn't try to distinguish them by how they originate. A lot of them are with, you know, their existing, well-established customer base. That's a big part of their competitive significance.

Q. And the day after this divestiture closes, if someone fills out a form on the Biocoat Web site, that lead is going to go to Integer, right?

A. I don't know exactly how they will do that on the day after the divestiture. I'm sure they're planning for that. And, when it happens, I don't know. But, at that point, Integer would -- I suppose they could follow up with that customer and tell them, you know, "We don't know how to make coatings yet, but we will soon."

Q. Do you think that's going to be their sales pitch, Doctor?

A. I don't think they would phrase it like that. I think that might be what the customer hears.
Q. And Mr. Senn -- in addition to getting the brand names, Mr. Senn -- explained that Integer will benefit from the brand recognition associated with those names.
He testified to that; isn't that right?
A. I apologize.
Q. It's not on the slide.
Do you recall that testimony?
A. I don't recall it specifically, but I would believe that. I believe that because customers know that Biocoat developed Hydak. You know, that might be attractive because customers like Biocoat, not because of the name Biocoat, of course, but because of Robert Hergenrother and some of the other individuals we're hearing from this week.
Q. Let's talk about that. So, the next slide is: Key Employees. Do you see that?
A. I see two slides on Key Employees.
Q. Yeah. Now, you're aware that the patent holder for Biocoat's UV coating is transferring to Integer?
A. I'm aware that one of the names on the patent is transferring to Integer, the one with fewer patents to his name.
Q. And the other one is retiring?
A. He's definitely a more senior individual. I'm not sure of

his retirement plans. I would believe that.
Q. The person who is transferring is Dr. Tyler Long, who is a Ph.D. polymer chemist?
A. That's correct.
Well, Tyler Long is proposed to be transferred. I don't know whether he has agreed to that; but, you know, it's possible. That's who Biocoat identified.
Q. And Mr. Senn testified that Dr. Long was the only individual who was transferred at Integer's request specifically; is that right?
A. That's right. Integer didn't seem particularly concerned with getting Bio- -- a lot of Biocoat employees.
Q. And Mr. Senn testified there were no employees that Integer requested, but did not get, from the merging parties; is that right?
A. That's right. I think that's, you know, consistent with a view of the world in which the primary value of the acquisition is the insourcing.
Q. You keep coming back, Doctor, to this idea that the primary value of the acquisition is the insourcing. Mr. Senn, he has testified that on day one he's going to go out and compete for new business on new projects; isn't that right?
A. I don't remember the exact words, but I recall him testifying that Integer would be using the selected assets they're acquiring -- or may acquire -- to compete. I don't

know if your statement relates to the relevant market in this case or just, you know, developing more business with their existing CDMO clients.

Q. Mr. Senn has testified that he'll be out there competing for new projects; hasn't he, Doctor?

A. I believe Integer already competes for projects generally. I'm sure that they won't stop economic activity as a result of this acquisition.

I don't recall specifically what he said about competing in the relevant market for outsourced hydrophilic coatings. I would be happy to read it.

Q. Well, we'll come back to that in just a minute. So, let's finish out the employees for a second.

Now, Mr. Patel at Integer, he submitted a declaration in this matter?

MR. BROWN: Objection, your Honor. Counsel is basically making this a memory exercise. If he has a document he'd like to put in front of the witness, he certainly can do so.

THE COURT: Overruled.

BY MR. CULLEY:

Q. It's on the slide, if you want to look at it, Doctor. The next slide.

A. Which slide? Sorry. Which number?

Q. Slide 8.

A. I see it.
Q. And, in that declaration, Mr. Patel describes three of the -- or, excuse me. He noted Dr. Long and, then, he described two of the other employees that were coming over as, "super stars"; isn't that right, sir?
A. Yeah. I don't know why he put them in scare quotes, but that is how he described them.
Q. And you mentioned Dr. Hergenrother before as someone who wasn't transferring?
A. I believe so. He -- whether I mentioned him or not, he -- is not part of the ones being proposed to transfer.
Q. And one of the things that you just mentioned a moment ago is him helping with projects.

Now, at least as of the time of your deposition, you could not recall any specific instance of a customer opportunity where Dr. Hergenrother got involved in a project; isn't that right.
A. I don't agree that I couldn't recall one. I think I couldn't identify by PX or DX number or the customer name. But I recall that I have seen those, for sure.
Q. And you also agree that you have no knowledge of whether Dr. Long, who is being transferred, would be able to intervene in those situations. You just don't know one way or the other?
A. Nor do I know whether Dr. Long will be transferred, as of sitting here right now.

Q. You're aware -- as we see on the next slide, you're aware -- that Dr. -- Mr. Senn testified that Integer has 500 people doing R&D today?

MR. BROWN: Your Honor, can I just object? We don't have access to the slides. They're not up on the screen. So, we can't verify what the witness is being referred to.

THE COURT: Ms. Chambers, are you up and running now? Can we put them --

(Pause.)

THE COURT: So, Mr. Culley, you can publish the slides up on the screen now. Our computer is back. So--

MR. CULLEY: Sure, let's go ahead.

THE COURT: -- that should resolve your objection, hopefully.

MR. CULLEY: Yes. And I believe Mr. Brown should have a folder for demonstratives.

We'll get that fixed shortly.

BY MR. CULLEY:

Q. And Mr. -- and Integer also has 20 R&D centers around the world; is that right?

A. I see the testimony on this -- I'm sorry -- page, that you're referring to. That's from the Senn declaration. Andrew Senn did mention how many people at Integer are focused on R&D.

Obviously, Integer has had those R&D capabilities for a long time. They've attempted to use them to develop

hydrophilic coatings and failed. It's not necessarily just about how many R&D employees you have. But Integer certainly has a big -- has an R&D capability that is currently focused elsewhere. They have that capability, yes.

Q. And Integer's Chaska facility, that's in Minnesota's medical alley, right?

A. I haven't heard the words "medical alley." It's where I used to drive for my youth soccer league. Maybe it's medical alley now.

Q. It's the largest medical device cluster in the -- manufacturing cluster in the -- world, isn't it?

A. It's not far from Eden Prairie. So, I would -- I would -- believe there's quite a bit of medical device manufacturing in that area.

Q. Now, you also mentioned that no management employees are transferring over; is that right?

A. I believe I mentioned that.

Q. But you did not discuss that Integer already has Mr. Patel. That wasn't part of your testimony?

A. It was not. Mr. Patel used to be at Biocoat. I forget the exact role, but he was, you know, certainly a more senior person. He was there for, I don't recall.

Q. He was there for 15 years, right, sir?

A. I don't recall how long he was there. But he was -- he's familiar with Biocoat, it's fair to say.

Q. And he's now running the Precision Coating business at Integer?
A. I believe he runs the full business unit that Integer recently purchased related to hydrophobic coatings.
Q. And you also criticized the lack of transfer of sales employees. Do you remember that?
A. I don't believe any -- I don't believe sales employees are going.
Q. You mentioned Mr. de Freitas by name in your testimony?
A. Mr. de Freitas certainly is not proposed to be divested. Integer's only identified three or four that they view as very important, and they certainly weren't salespeople. They're more concerned with the technical people.
Q. And Mr. Senn testified that he believes his existing salespeople already have the fundamental knowledge required to go start selling coatings; isn't that right?
A. That's on Page 10?
Q. That's right. That was his testimony, sir?
A. He said that he thinks salespeople have the fundamental knowledge required to go start selling coatings. He didn't mention hydrophilic in his answer. That's probably what he was referring to.
Q. Now, we were --
MR. CULLEY: We can take that down.
BY MR. CULLEY:

Q. Now, we were talking a minute ago about Integer competing on day one. Do you remember that?
A. I believe so.
Q. And you said you'd want to see Mr. Senn's testimony about aggressively competing for new opportunities. You -- that would help you refresh your recollection?
A. If I could see his testimony, it would certainly help my recollection.
Q. That's great.
MR. CULLEY: Can we -- Ms. Reiser, could we -- put up Mr. Senn's deposition transcript, 286, 7 to 11.
THE WITNESS: Is this also something in one of my binders?
BY MR. CULLEY:
Q. I believe you have Mr. Senn's testimony in the second binder.
A. Okay. Should I -- should there be something on the screen?
Q. It looks like we're just having a technical issue. But --
A. Yes.
Q. -- if you just want to turn to Page 286 in what you have there, sir, please go ahead.
A. And his testimony there, he was asked, "Is Integer confident it will be able to compete aggressively for opportunities with respect to both UV and thermal coatings?"
And his answer to that was, "Yes"; is that right?

A. Yeah, I see that. He's using different words than you used in your questioning earlier. He -- you know, he -- might be referring to outsourced opportunities. He might be referring to their main CDMO business. That's their primary focus.
Q. And you don't believe he's testifying about going out and competing for new projects with customers? That's your interpretation of his testimony, Doctor?
A. That's not what I said.
Q. You're just not sure?
A. I'd be happy to read more of the transcript and try to determine which opportunity he's talking about. I'm focused on the one you're showing me right here.
Q. I guess we'll just hear it from Mr. Senn on Tuesday.
A. I'm looking forward to it.
MR. CULLEY: Let's take that down.
BY MR. CULLEY:
Q. Notwithstanding some of the testimony that we just reviewed, you raised some other concerns about the divestiture.
Just in terms of your own position versus Mr. Senn, is it your view that you are better situated than Mr. Senn to think about whether Integer will replace the competitive significance of Biocoat?
A. I believe that's the question I'm asking. I don't know that Mr. Senn is asking that question with respect to the relevant antitrust market in this case. I'd be surprised if it

is. He's, obviously, a successful business executive focused on his business.
Q. And you believe you have that advantage over him based on your training as an economist, your experience in evaluating mergers and the time you've spent with the record in this case?
A. Those are all reasons why I believe I'm qualified to consider a proposed divestiture in the case of a horizontal merger and evaluate, you know, the potential for it to remedy the anticompetitive effects or not.
Q. You've never -- in terms of training, you don't have a background in chemistry; do you, sir?
A. I do not have a background in chemistry.
Q. You never worked in the medical device industry?
A. I haven't, nor do I think I would be good at applying coatings. But that's not what I'm being asked to do here.
Q. In terms of your case experience, you can only recall working on one medical device case in your career as an economist; is that right?
A. I recall that discussion from my deposition. I've worked on a lot of cases and I recalled one from medical devices, yes.
Q. That was about five years ago?
A. The case was.
Q. And in terms of your time with the record, you began working on this case in January?
A. I first learned about this case in January. And I believe

I started reviewing materials in January, as well.
Q. Okay. So, that's about eight months you've had exposure to this industry?
A. Yeah. I believe that's pretty typical for antitrust merger challenges. These tend to move very fast. Sorry, sir.
I've spent -- eight months is a long time with the record. I would -- combining that with my training, I think I'm able to offer reliable opinion about the anticompetitive effects of the merger and the potential effects of the proposed divestiture.
Q. Mr. Senn has been working in this industry for 20 years, right?
A. He has. Again, I -- Mr. Senn, obviously, a very successful individual. I don't know how many horizontal mergers he's evaluated for -- thinking about competitive effects. I don't want to assume it's zero, but I know that his concern is Integer, their business.
He's overseen acquisitions before. His definition of success for those acquisitions is different than an economist's definition of success. We're asking different questions, me and Mr. Senn.
Q. Well, you haven't asked Mr. Senn any questions; have you, Doctor?
A. Mr. Senn and I have not had a conversation.
Q. Okay. One of the concerns that you brought up during your

testimony was about a Transition Services Agreement. Do you recall that?
A. I do recall that.
Q. Now, in your report, you claim that the firm has -- the combined firm, Biocoat Surmodics, has -- an incentive to sabotage the success of the proposed divestiture; is that right?
MR. BROWN: Objection. Misstates testimony.
THE COURT: Overruled.
BY THE WITNESS:
A. So, I don't recall whether I used the word "sabotage." I do believe they -- their economic incentive is for the divestiture to not replace lost competition in the relevant market.
BY MR. CULLEY:
Q. That is the word you used in your report, Doctor, "sabotage," isn't it?
A. Would you like me to check?
Q. Yeah.
MR. CULLEY: Should we put up Paragraph 229 of Dr. Fix's report.
BY MR. CULLEY:
Q. Now, at least to my ear, Doctor, the word "sabotage" has a connotation of an intent. Would you agree with that?
MR. BROWN: Objection.

BY THE WITNESS:
A. Am I supposed to be seeing something on the screen?
MR. BROWN: There's nothing on the screen.
MR. CULLEY: I am just asking about the definition of the word "sabotage."
THE COURT: Overruled.
BY THE WITNESS:
A. I don't know if I have a different definition than anyone else.
BY MR. CULLEY:
Q. Do you see Paragraph --
A. My focus is on the incen- -- oh, sorry. I'm there now. I see it. I see it.
Q. That's the word you use, right, "sabotage"?
A. Correct.
Q. And do you agree with me that that has a connotation of an intent?
A. I don't know. I would focus on the word "incentive."
Usually, if we're talking about a firm's incentive to do something, the thing we're talking about, I suppose there might be a connotation of intent. But what I'm focusing on is incentives. That's where economists usually focus.
Q. Now, you read Mr. Chip Hance of Biocoat's deposition; didn't you, sir?
A. I believe so.

Q. And he testified that he will fully perform the Transition Services Agreement; isn't that right?
A. I believe that's right.
Q. And you're not saying that Mr. Hance would tell this Court that he will fully perform the Transition Services Agreement, but then turn around and change his mind?
A. I don't know what Chip Hance will do in the future. I know that post-transaction, the seller's economic incentive is not for the proposed divestiture to replace competition. That isn't the purpose of a consolidation play. You don't want to introduce new competitors into the market you're trying to consolidate.
Q. All of the FTC approved divestitures in the past five years have involved transition services; haven't they, Doctor?
MR. CULLEY: Why don't we put up Slide 11 of DD 006, if we might.
BY MR. CULLEY:
Q. Is that right, Doctor?
A. I see what's on the screen. I can't speak to any of these specifically right now.
Q. You didn't go back and look at how common Transition Services Agreements were in FTC-ordered divestitures?
A. I don't know why I would have. I would expect them to occur.
Q. You're also aware that once production is transferred to

Integer -- well, actually, let me back up a minute.

I believe you stated in your direct testimony that Integer's insourcing savings, those don't begin until Integer actually starts producing the coating; is that right?

A. I don't recall the exact words I used. I don't think it's true that they don't save any money right away. I think that while they're getting up to speed, learning to manufacture the coatings, they get to purchase them from Biocoat at a cost-plus -- a very small amount.

So, actually, they're insourcing savings might start earlier, if I'm remembering correctly.

Q. In that cost structure, that's common in transition services in divestiture agreements, correct?

A. It wouldn't surprise me. As I said, I didn't go back and look at 25 past Transition Services Agreements. But that would -- it makes sense in this case.

Q. And once production is up and running in Chaska, you're aware that Mr. Senn testified that a coating business like this doesn't need a lot of capital to scale up, right?

A. Again, I'd have to look at the testimony to see what he said; but, I guess, in general, once you have scaled up, then you don't need a lot more capital to scale up.

Q. Well, why don't we go ahead and take a look at his testimony. Let's look at his transcript 283-10 to 284-8; and, specifically, what he said is, "It's not like a typical

manufacturing business, where you need a lot more footprint or equipment. To take on additional capacity with this, you may need to buy an additional or a larger vessel -- mixing vessel -- or, again, add a shift, or something like that. But it's minimal capital requirements to scale the business."

That was his testimony, right, sir?

MR. BROWN: Objection. That's a part of the answer that the witness gave, not the entire answer. I request that the witness be allowed to review the entire back and forth.

THE COURT: The witness can review the entire relevant excerpt, but still answer the question. So --

MR. BROWN: Sure. Thank you, your Honor.

BY THE WITNESS:

A. Yeah. I'm sorry. My understanding of what he's saying is, you know, there's the cost you pay to get up and running manufacturing the coatings. That's the thing that I believe is uncertain here -- or one of the things; but, with the Transition Services Agreement, if all goes well, Integer would eventually be able to manufacture coatings.

And, then, I understand that what he's saying is once you can do that, adding more devices, you have some additional capacity. So that adding more devices, the per-device cost at that point would be less or not particularly high.

BY MR. CULLEY:

Q. Sorry, Doctor, did I understand you right? Are you saying

you're not sure that Integer will ever manufacture the coatings it's receiving? Is that what you're -- is that your testimony?
A. I think you asked me earlier about what would happen, and I said nothing is a hundred percent. I believe that Integer will -- intends to manufacture the coatings and likely will -- be able to, eventually.
Q. Okay. And Mr. Senn said once they're able to manufacture the coatings, scaling up will not require much additional capital, right?
A. He said that.
MR. CULLEY: We can take that down.
BY MR. CULLEY:
Q. Now, you mentioned -- another criticism that you mentioned was Integer not receiving all of the existing thermal coatings that Biocoat has. That was a criticism of you mentioned in your direct testimony?
A. Yes.
Q. The only specific non-divested coating that you discuss in your report is the T-70 Legacy Coating; is that right?
A. If I remember my report correctly, that's the one -- that's an example I use is the T-070, which is the previous coating to the T-072.
Q. It's the only one you use, correct?
A. I think that's right.
Q. And you agree there are no documents or testimony

indicating that Integer thought they needed the T-70 Legacy Coating to compete; isn't that right?
A. I've seen documents where they discuss the T-70 and whether or not they need that or want that. I don't recall, sitting here, the document that uses those words. It says, "We need this to compete."
I recall some documents in which they discuss which coatings they should request or be receiving, and the T-70 is one of the ones that were mentioned during those discussions.
Q. You mentioned the word, sir, but there's no documents or testimony that even contain the substance of the statement that Integer has said they need the T-70 to compete for new business, correct?
A. I can't make a statement that no documents exist right now without any documents in front of me.
Q. But you're not aware of any?
A. I'm not aware of the statement that they need the T-070 to compete.
Q. I'm not asking you about the statement, sir. I'm asking you about the substance.
A. Okay. I'm not aware of the substance that they need the T-070 to compete. I would, again, say what they mean by "compete" may be different than my own definition.
Q. Okay. And you agree you only had one example in your report of a customer selecting a Legacy Coating since the T-72

coating has become available, right?
A. I recall citing to an example in my report. I didn't testify that that's the only time it's happened.
Q. But it's the only example you put in your report?
A. It is the example I put in my report.
Q. And you agree that's because that particular customer first wanted to see a regulatory approval for that coating, right?
A. If I'm remembering the example correctly, they were interested in having a coating on their device with the regulatory approval. I don't know that that's the -- I don't know that that's the -- only reason. It's certainly consistent with, you know, all the testimony we've heard about the importance of getting a hydrophilic coating that's seen regulatory approval before.
Q. And you agree, though, T-72 now has several regulatory approvals?
A. It does.
Q. And you agree that, given the approvals, that concern would be alleviated?
A. The specific concern that a hydrophilic -- that a medical device maker may have about applying a non-FDA approved coating to their device, that concern is, by definition, eliminated when that coating has been applied to another FDA-approved device. I agree with that.
Q. Okay. Let's talk a little bit about the license back.

That was something you mentioned in your direct testimony?
A. I did, I think.
Q. You agree that, all else equal, two companies having access to compete with a product would make a market more competitive than one, right?
A. That's obviously not the scenario we're talking about here; but, if we were talking about a different hypothetical, without an anticompetitive merger, and all else was equal between those two worlds, two isn't worse than one.
Q. Are you familiar with Boston Scientific's acquisition of Guidant?
A. I recall that that happened.
Q. That involved an FTC consent decree?
A. That sounds familiar.
Q. And for the overlap in drug-eluting stents, in particular, Boston Scientific and Guidant divested Guidant's development program for that product; isn't that right?
A. I think we've established that I didn't do a deep dive on past divestitures in other industries. So, I don't recall.
Q. Are you aware that Boston Scientific got a license back to that IP in that divestiture? Is that something you're aware of?
A. It sounds familiar. I would believe you.
Q. And you just didn't look at that divestiture?
A. Like I said, I'm aware of it. I didn't do a detailed

review of that divestiture.
Q. And you've not identified any evidence in your report indicating that Integer was concerned about the license back, have you?
MR. BROWN: Objection. Mr. Culley knows that there was a citation in the document on that exact point to a document that was subsequently withdrawn.
MR. CULLEY: Your Honor, counsel's testifying.
THE COURT: Overruled.
BY MR. CULLEY:
Q. Apart from the privileged document recounting an FTC meeting that was clawed back by Integer, there's no evidence in your reports, Doctor, that Integer was concerned about the license back, right?
A. I would need to look at the report to be sure.
Q. You have it in front of you. Go ahead. I believe it's in your FTC binder. It's your rebuttal report. And I believe it's somewhere around the last 16 pages.
A. I'm sorry, can someone remind me of the number of my rebuttal report in this binder?
THE COURT: Mr. Brown?
MR. BROWN: I believe it's PX 4013.
BY THE WITNESS:
A. Which paragraph, Mr. Culley?
BY MR. CULLEY:

Q. I mean, I don't have that in front of me, Doctor, but let's get it.
A. Well, I guess there's no way to find a paragraph if we're looking for the absence of something.
Q. Well, I believe there's a sentence in your report that says Integer was concerned about the license back. And it cites only the withdrawn privileged report from the FTC meeting, that Mr. Brown referred to, and there's no other citation in that footnote, correct?
A. So, I'm still not there, but I'm willing to believe that. I think that's a different question than whether I cited to any document. But I also think you probably don't want me to spend your time paging through my entire report.
Q. You also discussed the purchase price in your direct testimony; is that right?
A. I did.
Q. Now, your report contains no analysis of what value GTCR attributed to Biocoat's revenues from business already under design lock, that would generate revenue in the future, versus from Biocoat's sales pipeline; is that right?
A. I don't recall analyzing -- sorry -- the value of -- to GTCR, of business under design lock versus business not under design lock.
Q. It's just not something you looked at, right?
A. I don't know why I would have.

Q. You also expressed a concern about Integer also being in the CDMO business. Do you remember that during your direct testimony?
A. I definitely talked about them being in the CDMO business.
Q. But you do believe that Integer intends to sell their coatings on a standalone basis outside the CDMO business, right?
A. My memory is that Andrew Senn said that they intended to do that. I don't have a reason to doubt him. What I remember is that the immediate value of the acquisition, as discussed within Integer, is the insourcing savings. And there may be value in the future to outsource hydrophilic coating sales. But that is in the future and requires some scaling.
Q. And you're aware that Mr. Senn testified that Integer already sells components to its CDMO competitors today for different products, right?
A. I don't recall that.
Q. Do you have any reason to doubt it, that that was his testimony?
A. I don't have a reason to doubt it. I just don't remember that passage right now.
Q. Okay. You agree you've not done a comprehensive analysis of the effects of the vertical aspects of the divestiture to Integer, right?
A. If I was sitting at the FTC and was asked to investigate a

vertical merger -- so, a merger of a buyer and one of their suppliers, or a purchase by a buyer of some assets from their supplier -- you'd call it a vertical merger.

There may be more analysis that we would do specifically regarding that merger and different markets it might affect. In that case, if it was outside of the context of a merger like this, which is a horizontal merger, I don't believe I've done that -- like what I would do if we were just talking about a vertical transaction.

Q. And you agree vertical mergers can create efficiencies, right?

A. I think this merger -- so, "efficiencies" is a term of art, I suppose, in antitrust economics, particularly with regret to -- regarding mergers. We like efficiencies if, you know, there's a transaction that creates efficiencies, that might drive down prices for customers if they're passed through.

This proposed divestiture is an example of -- so, the insourcing savings that I keep mentioning, that's the -- that is certainly an efficiency that Integer will realize. They will have lower costs as a result of this transaction. They expect that and that's important to them. I agree that they will realize that.

BY MR. CULLEY:

Q. Okay.

MR. CULLEY: At this point, your Honor, I think I'm

going to have to start getting into confidential testimony in order to cross-examine Dr. Fix.

THE COURT: Okay. Thank you, Mr. Culley.

Mr. Brown, do you have any further questions from the public session?

MR. BROWN: Not at this time, your Honor.

THE COURT: Okay. So, I think what we'll do is we will clear the courtroom of folks who are not affiliated with the legal teams at this time.

And, Ms. Chambers, if you can cut the feed to the overflow courtroom.

(Proceedings heard in closed court:)

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Fix - cross

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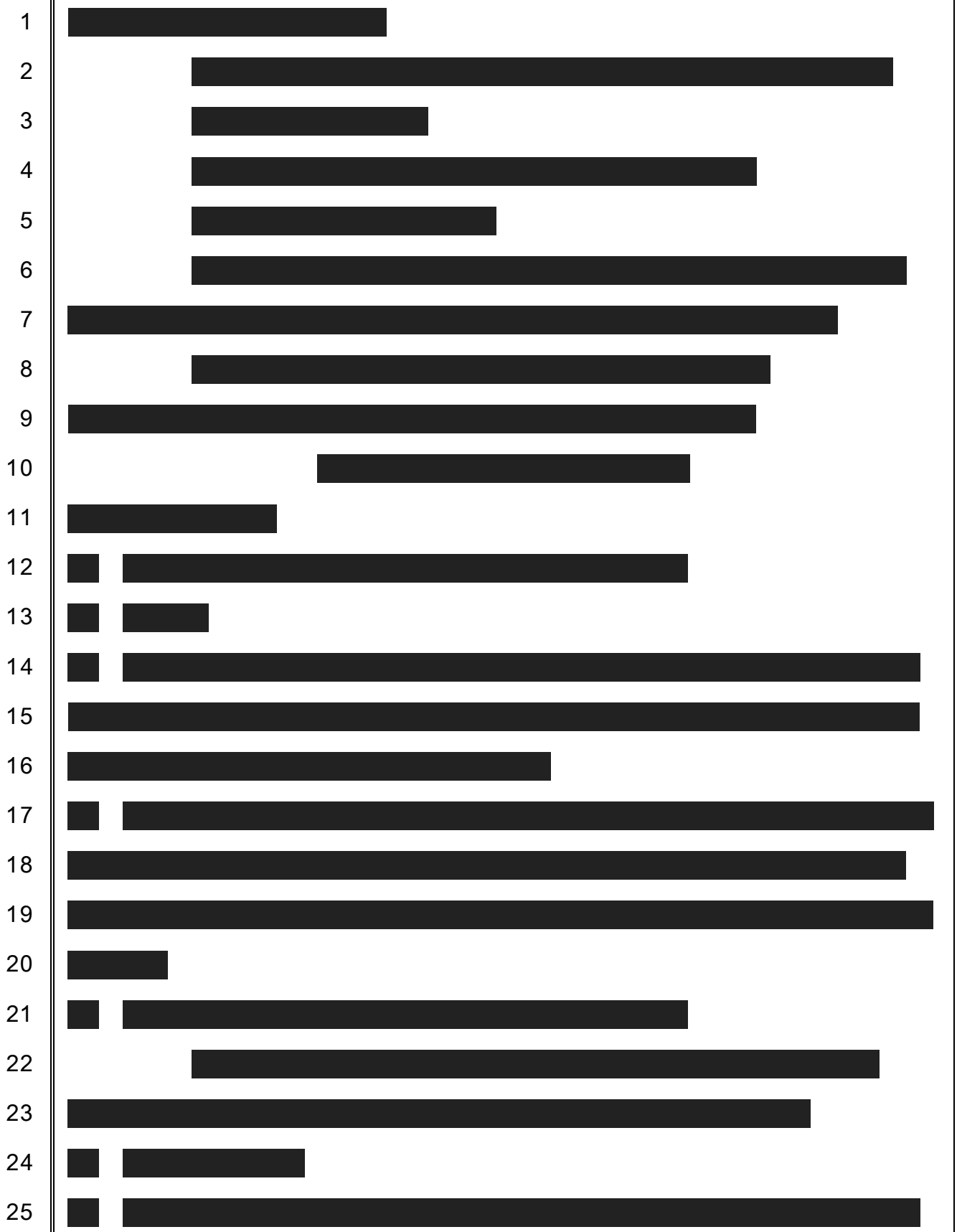

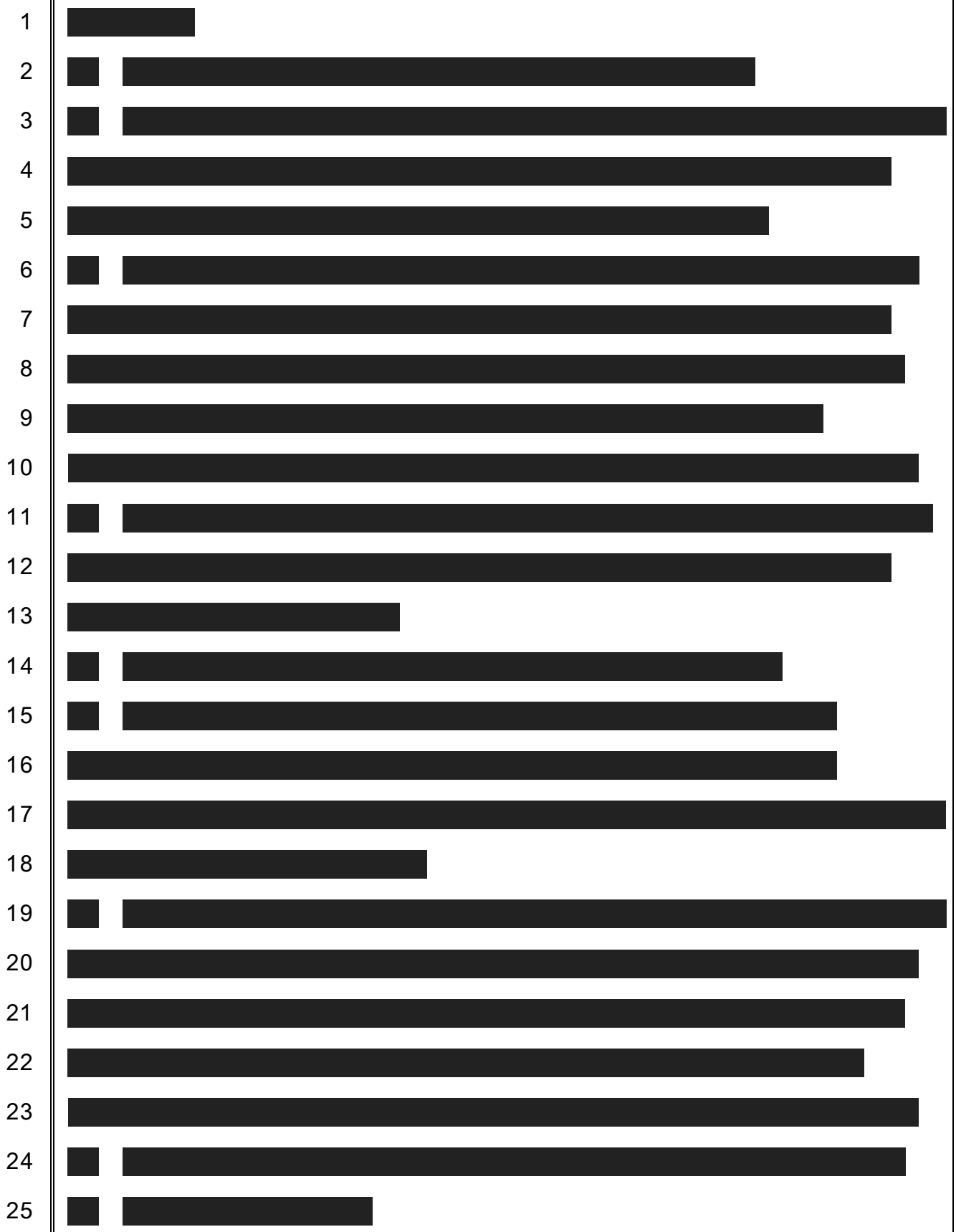
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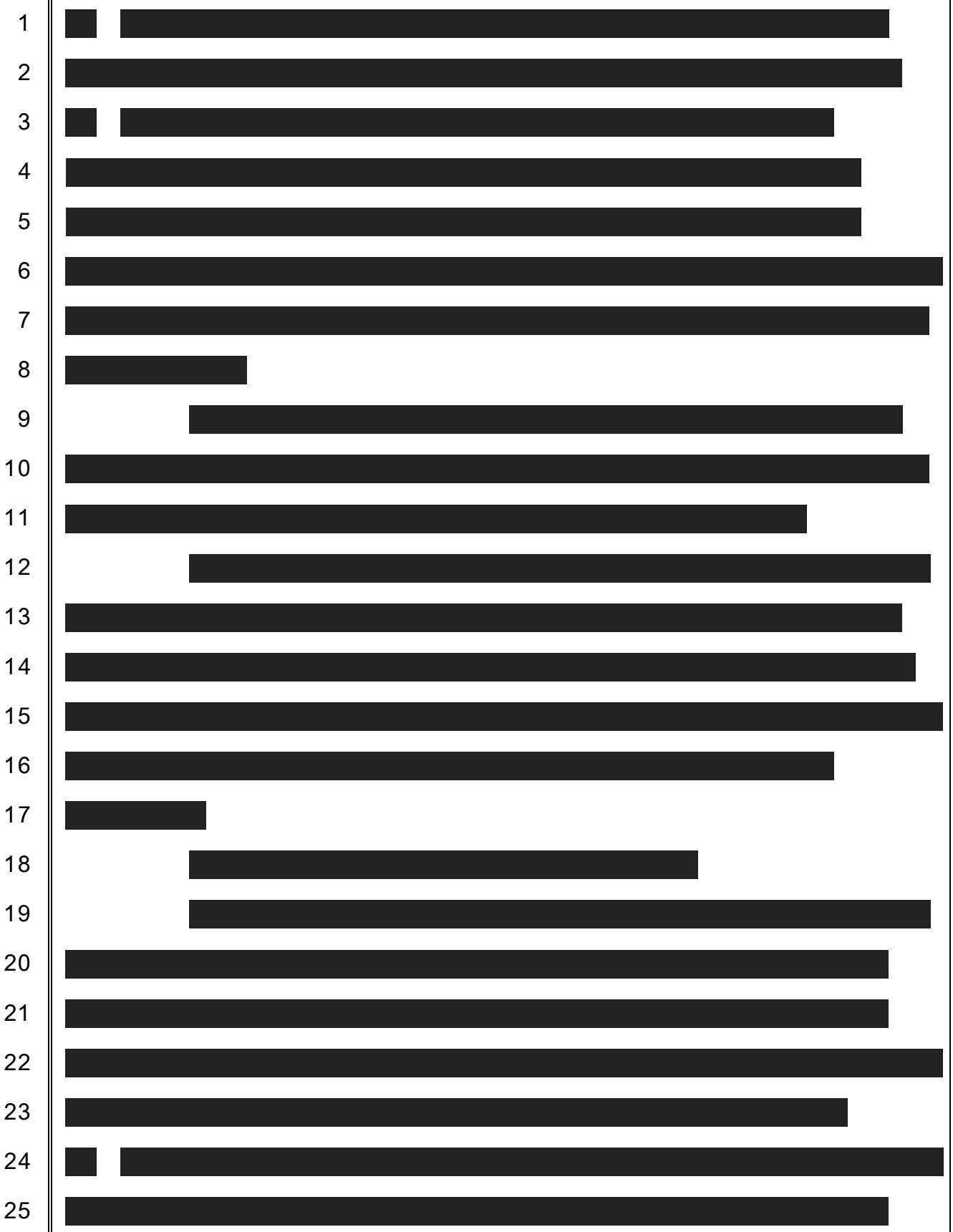
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(Recess at 11:59 a.m., until 1:00 p.m.)

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

FEDERAL TRADE COMMISSION, STATE OF ILLINOIS, and STATE OF MINNESOTA,	)	Case No. 25 C 2391
Plaintiffs,	)	
v.	)	
GTCR LLC, GTCR BC HOLDINGS, LLC, and SURMODICS, INC.,	)	Chicago, Illinois
	)	August 27, 2025
Defendants.	)	1:07 p.m.

TRANSCRIPT OF PROCEEDINGS
BEFORE THE HONORABLE JEFFREY I. CUMMINGS

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PROCEEDINGS REPORTED BY STENOTYPE
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(Proceedings heard in closed court:)

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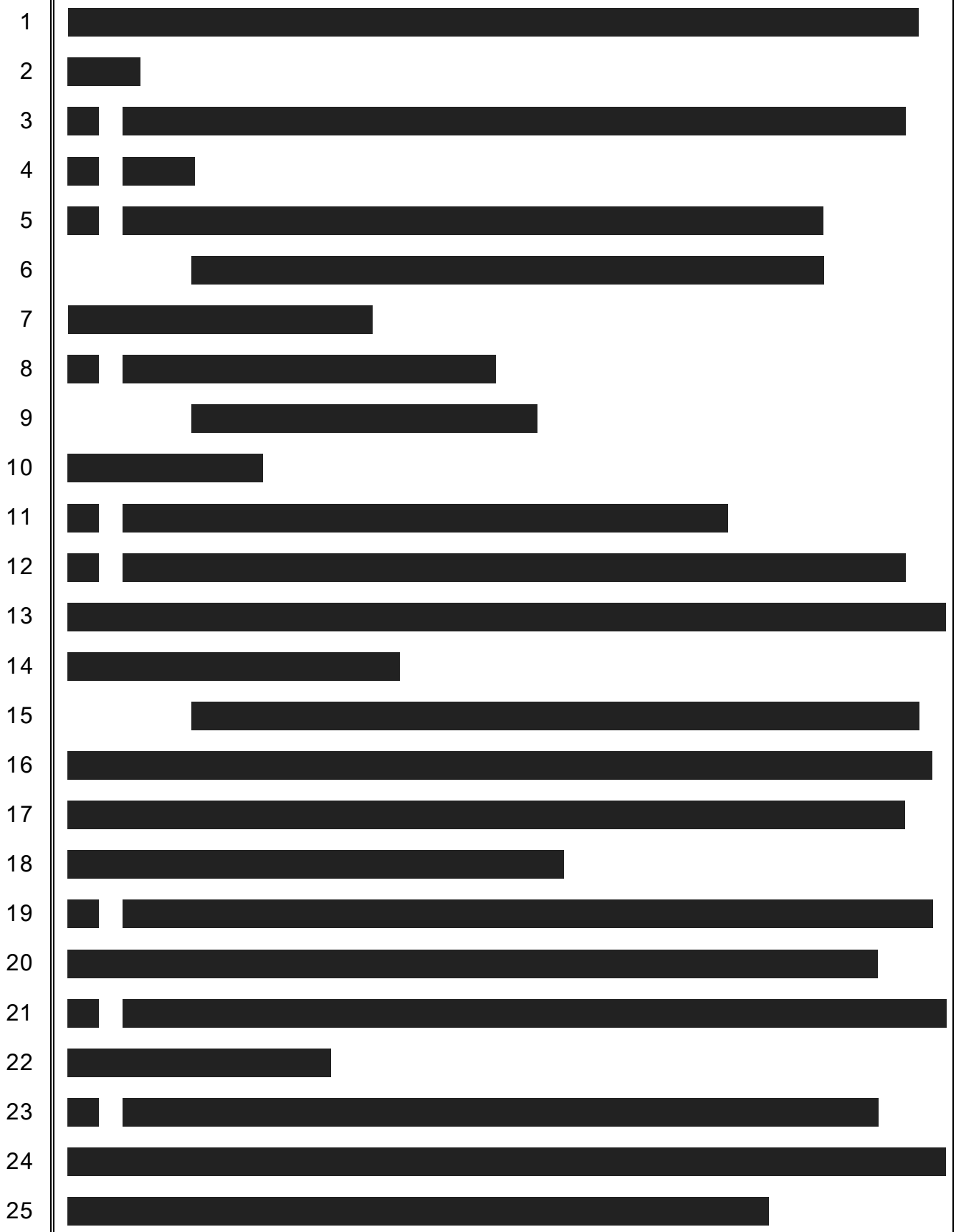
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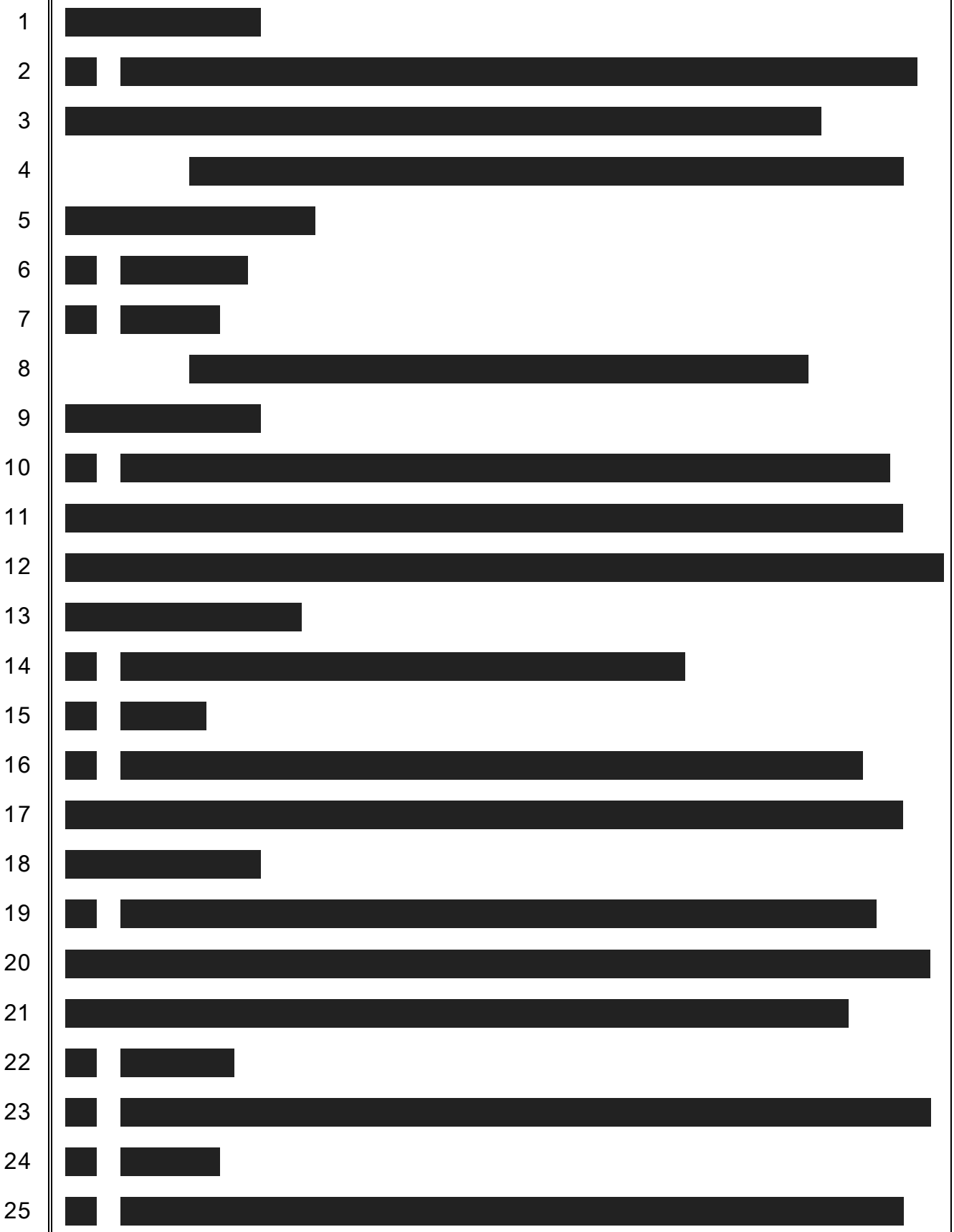
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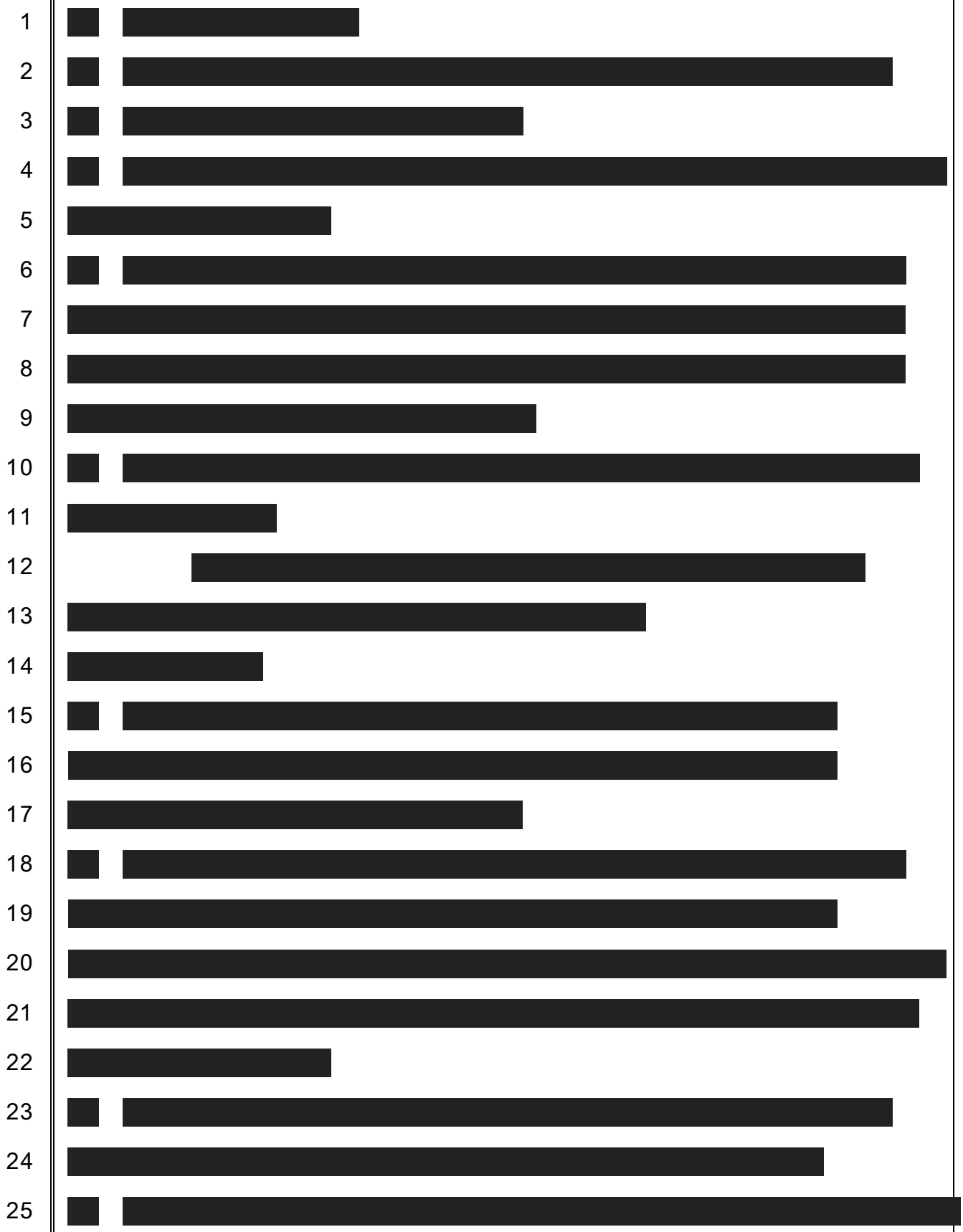
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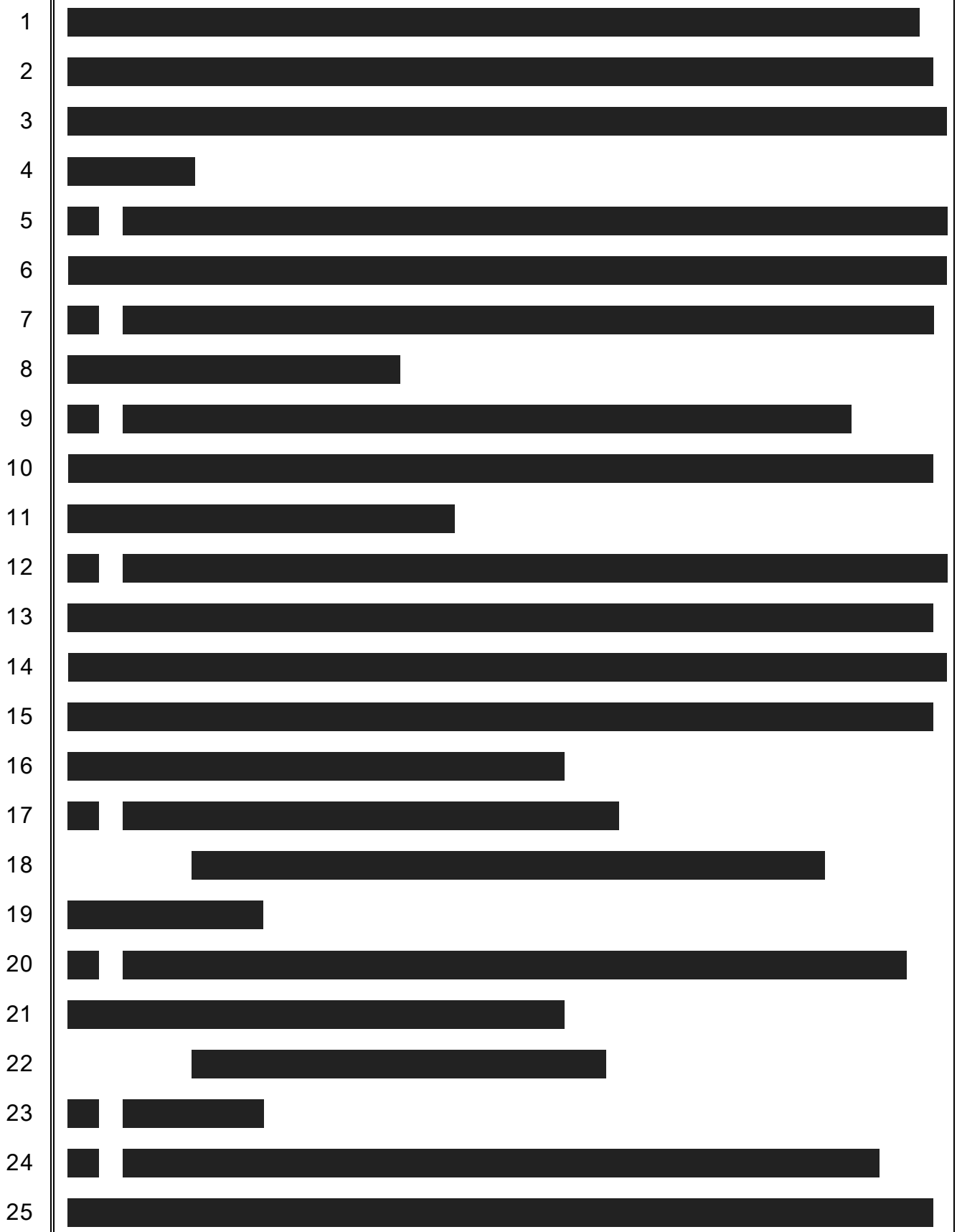
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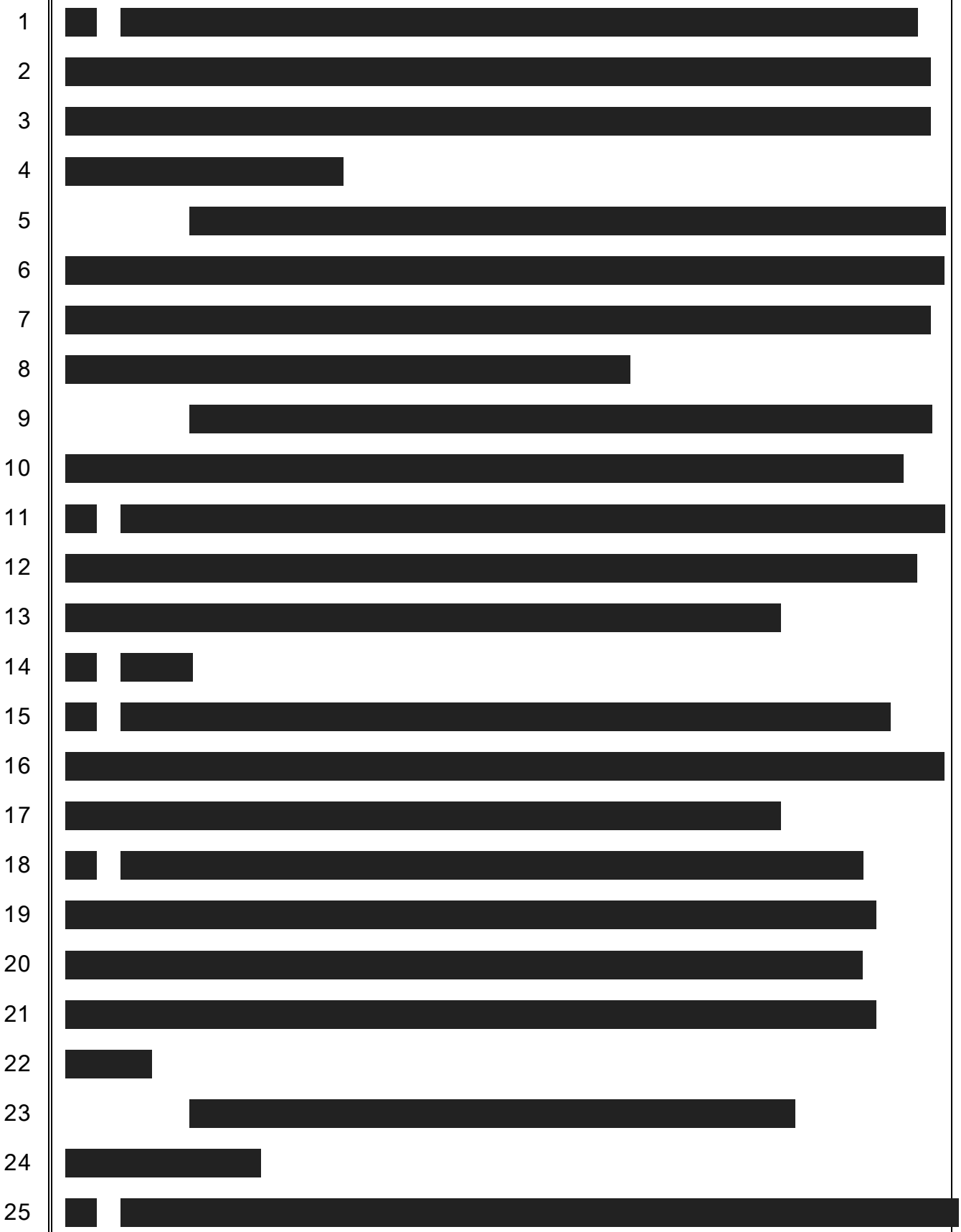


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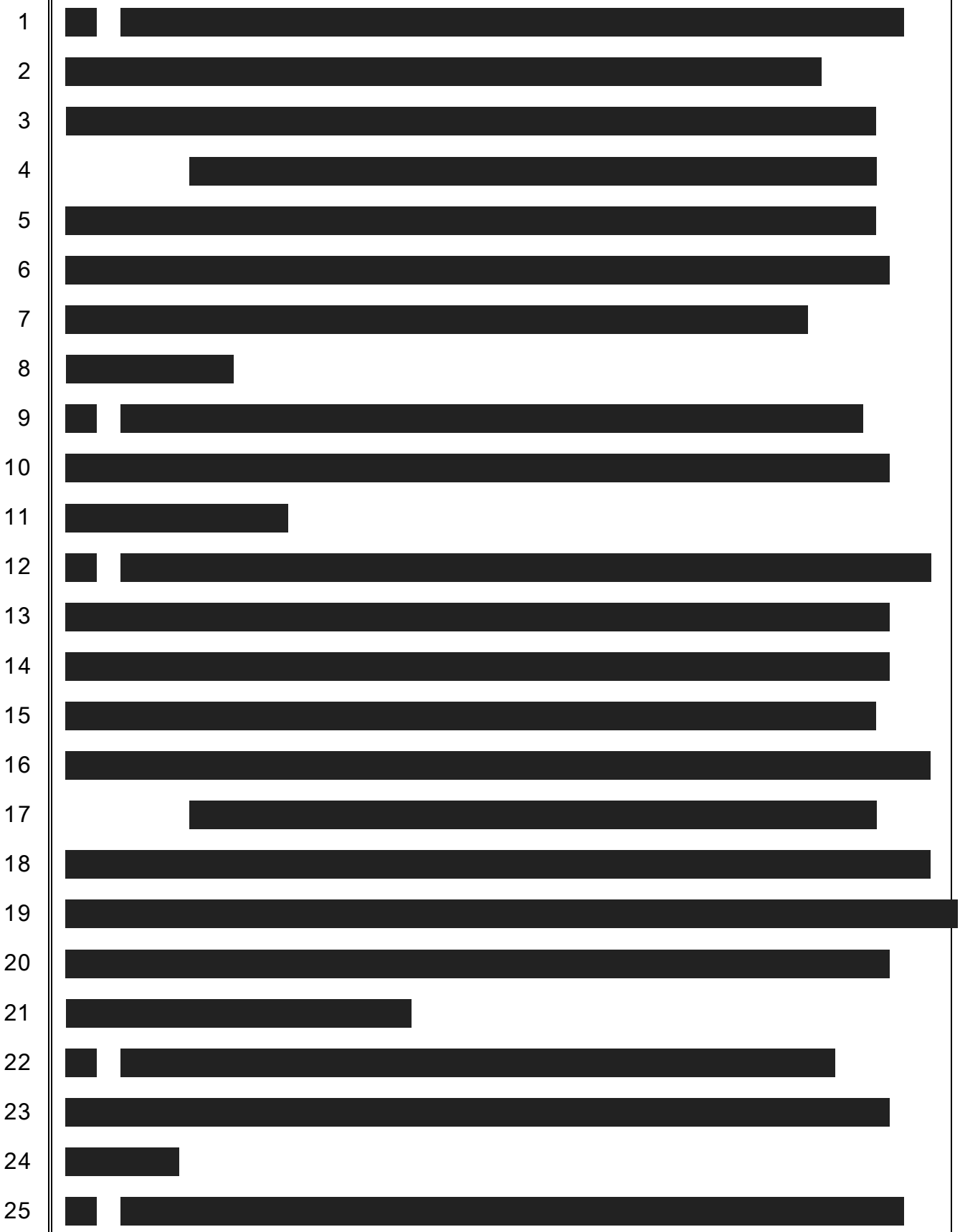


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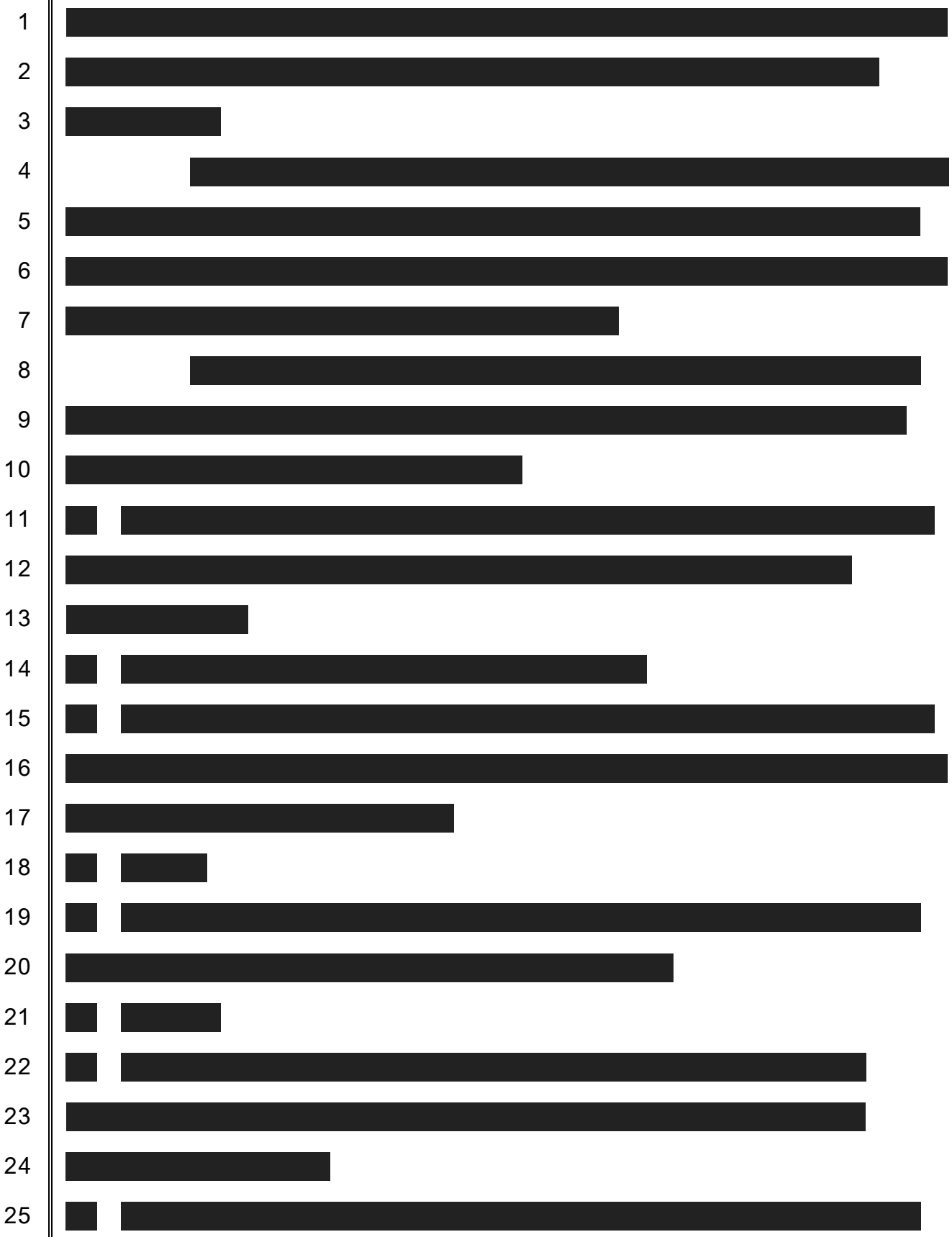

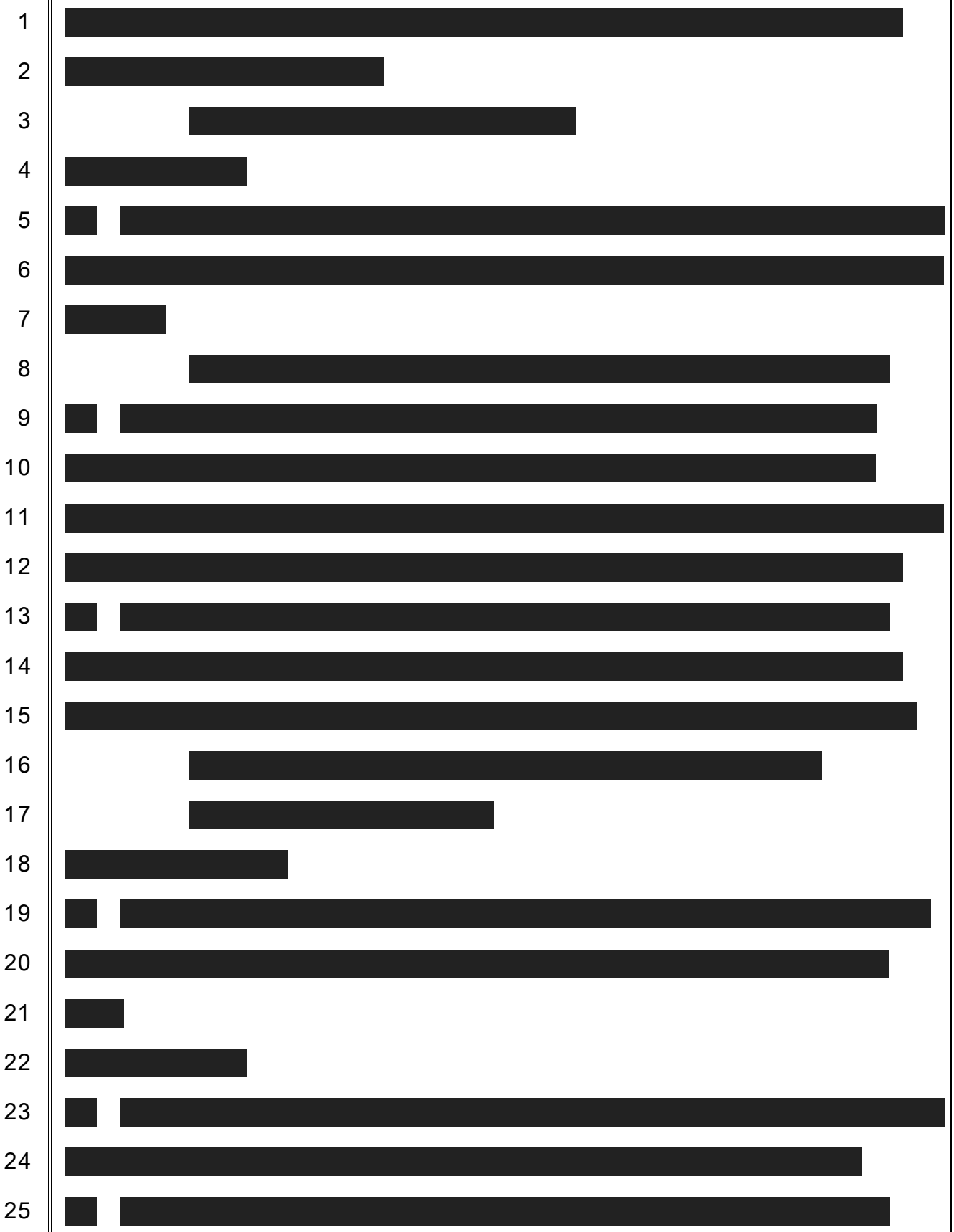

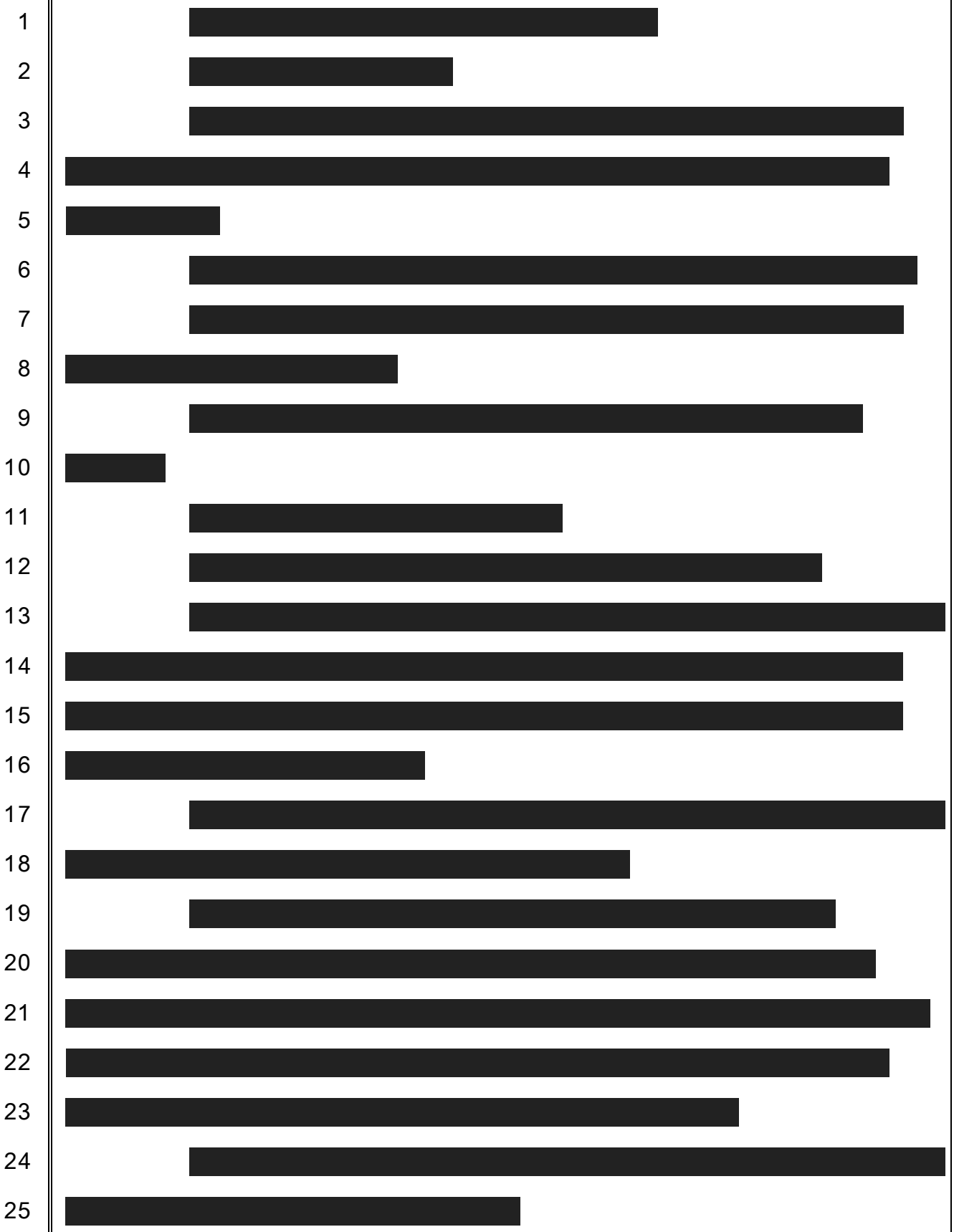

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(Recess at 2:32 p.m., until 2:46 p.m.)

(Proceedings heard in open court:)

THE COURT: If you can give me just a second, I'm going to change out my binders.

MR. BUTERMAN: Of course, Your Honor.

THE COURT: Okay. We're all set.

Ms. Chambers, you want to restore the feed to the overflow courtroom?

THE CLERK: Sure, Judge.

THE COURT: Okay.

You may proceed, Mr. Buterman.

MR. BUTERMAN: Thank you, Your Honor. Just to follow up on the conversation we were having right before the break, we have conferred with the Federal Trade Commission, plaintiffs. We have no objection to the introduction of that one deposition transcript going in via written submissions, and we agree that that should not count against anyone's time. It's our understanding that that's the only one that that applies to at this point.

THE COURT: Okay. Thank you for working that out. So that's the deposition of Mr. Patel, formerly of Avinger Medical?

MR. BUTERMAN: Yes, Your Honor.

MS. MALTAS: Yes, Your Honor.

THE COURT: Okay.

MR. BUTERMAN: And then, Your Honor, one other

housekeeping matter for Friday. Defendants will be calling a witness from Boston Scientific, Mr. Matthew Sprader, remotely. He's only available on Friday. Defendants also anticipate that our expert, Dr. Paul Wong, will testify on Friday.

In order to ensure that we cover both, we wanted to see if it would be possible to start at 8:30 in the morning on Friday.

THE COURT: That's possible. Let me think about that, and if I could let you know tomorrow morning. I do have one other matter I was thinking about sliding into that 8:30 slot, but let me think about that.

MR. BUTERMAN: Can I -- Your Honor, if the 8:30 -- if 8:30 doesn't work, I think what we just want to ensure is that Dr. Wong can be off before the weekend, that we can get through his testimony all on Friday.

We -- we believe we should be able to, given the time allotments that have been proposed. I just think that it would be really -- it would be really rough if -- if Dr. Wong is -- has to stay over for the holiday weekend and doesn't finish his testimony.

THE COURT: Would you want him to go before Mr. Sprader? It looks like you have Mr. Sprader listed first.

MR. BUTERMAN: I don't believe that that works with Mr. Sprader's schedule, Your Honor.

THE COURT: Okay. Well, Mr. Cunningham, is he -- he

would be the third person?

MR. BUTERMAN: That will -- we'll -- we're willing -- we'll work on that. I think right now what we're -- we'll -- we can move other things around if need be. Certainly our priority is to get Mr. Sprader and Mr. Wong up and down on Friday.

And, Your Honor, I will say that, given the amount of time that we have and the remaining time, we, on the defense side, are considering whether we can either shorten some of our examinations or, frankly, even, in the interest of ensuring that we have sufficient time for Dr. Wong, cut some witnesses. And so that's an ongoing process right now.

THE COURT: Okay. Well, we will -- we will make sure that we can get through those two witnesses. It looks like you have a total of five hours, I think, roughly, between the two sides. But, as we've seen, that can stretch out a little bit. But I think we could get through five, five and a half hours on Friday.

MR. BUTERMAN: Thank you, Your Honor. We appreciate it.

THE COURT: Okay. So we're ready to go forward if you are right now.

MR. BUTERMAN: Yes, Your Honor. And with that, the defense calls Robert "Chip" Hance of Biocoat, Inc.

THE COURT: Good afternoon, sir. You can come up here

and have a seat.

Okay. And if you could please raise your right hand and state your name for the record. I'm going to have my deputy swear you in.

THE WITNESS: My name is Robert Hance.

(Witness sworn.)

THE COURT: Okay. You may proceed, Mr. Culley.

MR. CULLEY: Thank you, Your Honor.

ROBERT HANCE, DEFENDANT'S WITNESS, DULY SWORN,

DIRECT EXAMINATION

BY MR. CULLEY:

Q. Good afternoon, Mr. Hance.

A. Good afternoon.

Q. And you go by Chip?

A. I do.

Q. What's your current position, Mr. Hance?

A. I am CEO and chairman of Biocoat.

Q. And how long have you been in the medical device industry?

A. 35 years.

Q. What kind of roles have you had over time?

A. I've had a lot of different roles. I've guided product development and R&D. I've launched global medical products. I have overseen operations. I have overseen quality, clinical, and regulatory activities. I've built businesses in medical devices. I've found myself on the supply chain side of things.

And I've been an investor in both start-ups and in larger companies.

Q. What was your undergraduate training?

A. I'm a chemical engineer. I graduated from MIT in 1981.

Q. What did you do after graduating?

A. Started working R&D for Procter & Gamble in Cincinnati.

Q. Did you go back to school after that?

A. Yes. I had the ambition to get into the life sciences industry, so I chose to go back to business school, and I graduated from Harvard in 1988 with a master's of business administration.

Q. Were you successful in getting into the life sciences?

A. I was. I was able to join a great medical products company called Abbott Laboratories.

Q. And what was your first role at Abbott?

A. I started out in marketing roles and product definition. We call it strategic marketing, you know, defining a -- you know, medical products features, benefits.

I did market segmentation of the global hospital market as it related to medical diagnostics, so visited hospitals all around to -- the world to define the products and then, you know, put together the specifications for what was a complex robotic analyzer. So assay specifications and, you know, the -- even the software that operated the system.

So what was Abbott's largest R&D program at the time,

I did all the market definition.
Q. And what did you learn from that role?
A. I learned I really love medical products and love working in the space of innovation and, you know, the power of, you know, large companies to do transformative products that make a -- you know, make a difference in the medical device industry.
Q. At some point did Abbott ask you to go to Europe?
A. Yes. Yeah.
Q. And what were your roles there?
A. Well, I was sent to Europe first as a marketing manager. Then I ran the emerging markets business of diagnostics for Abbott. And then I ran, you know, the $1 billion European diagnostics business all based in Germany.
Q. And was that your first exposure to manufacturing operations?
A. Yes. Yes. I was -- had oversight of one of two of Abbott's blood screening products manufacturing, so hepatitis, HIV assays that are used in blood screening around the world. And I got to see first-hand what, you know, real capable, high-production, quality manufacturing looks like and operates, and, you know, it was a tremendous experience.
Q. And at some point you came back to the United States?
A. Yes, I was asked to return to the U.S.
Q. And what role did you take when you came back?

A. I became president of a nascent interventional cardiology business based in California. It was a $100 million division, or roughly so, of Abbott, and Abbott wanted to build a, you know, a global cardiovascular device player, you know, based off of this business.
Q. And what did you take away from that role?
A. Well, I learned how to build businesses. And, you know, off and on I spent more than ten years overseeing R&D, clinical regulatory operations, sales and marketing, and really how to, you know, put together a business that would have complementary capabilities that were, you know, relevant for the marketplace. And, you know, it was an exciting proposition.
Q. At some point you left Abbott. What did you do after that?
A. I was invited by the FDA to become an entrepreneur in residence. My -- at -- in Washington. My -- my experience in clinical studies and oversight of clinical affairs made me an interesting person for them to consider to help streamline their review processes for IDEs that the FDA conducts.
Q. And what did you do after you left the FDA?
A. I landed my first CEO role, and I was, you know, very excited to do that. So I became the CEO of a -- of a contract manufacturer called Creganna based in Galway, Ireland.
Q. And what did you take away from your role at Creganna?
A. It was a great experience to build a business yet again. And, secondly, I observed that all my customers were the

competitors that I had previously competed against in building the cardiovascular device division of Abbott. So, you know, Boston, Medtronic, and Edwards, who were my competitors in the past, were now my customers. And it was interesting to see that, you know, some of the supply chain frustrations that I had were seen by other customers as well. And, you know, it seemed like the entire industry was frustrated with the supply chain overall.

Q. And did that lead into your career as an investor?

A. It did, yeah. I repatriated back to the U.S. after my time at Creganna and considered, you know, becoming an investor in the -- in the space.

Q. And over the time that you've described, did you have any experience with coatings on medical devices?

A. I did. I first began, you know, having experience back in 2002. One of the early acquisitions that I was involved with at Abbott was for a company called Biocompatibles that was, you know, making drug-release coatings. We also manufactured many products with hydrophobic coatings, hydrophilic coatings. We also were involved with polymeric scaffolds as an alternative to metallic stents and medical fabrics that were used, you know, in conjunction with medical devices.

Q. In terms of your career as an investor, what is the investment thesis that you've been pursuing?

A. Well, the investment thesis I've been seeing is that, you

know, when you are on the customer side, you have this fragmented supply chain with its vulnerabilities to quality issues, to the lack of investment to build, you know, appropriate capabilities, and a great frustration that, you know, mom-and-pop suppliers still dominate the supply chain. And the opportunity to be able to, you know, put together complementary businesses, lift them up to the standards that would be expected by, you know, medical device manufacturers, and, you know, that you could become an effective, you know, one-stop shop with the technical capabilities that would be relevant for a, you know, a medical device manufacturer and, you know, to become a strategic partner to those very companies.

Q. Did anything from your time at Abbott and Creganna inform that investment thesis?

A. Excuse me.

I -- you know, at Abbott, you know, I built a hundred-million-dollar business to, you know, by the time I left nearly 3 billion in sales. I did, you know, roughly -- anywhere from 50 to 60 licensing acquisitions, transactions to build technical capabilities and assemble, you know, a business. So it was very analogous to that situation.

Likewise, at Creganna I also pursued acquisitions to -- of complementary technologies to the core capabilities of Creganna and added that to the portfolio.

Q. And what other criteria are you looking for in selecting companies to invest in?
A. Well, I like a company with a, you know, core technical capability that's relevant for the medical device industry that they have mastered.

I like that there is a management team with, you know, experience in medical devices so that they understand the needs of -- of the customers.

And then I like that it's in a place where there are nearby business adjacencies and technical applications that will allow for scaling of the business to be more significant.
Q. And does the potential for acquisitions factor at all into the companies you invest in?
A. Yeah, absolutely. It -- to be able to add adjacent capabilities to a company in order to make them more relevant for the medical device industry is, you know, a core part of the proposition.
Q. And why is that important for the investment strategy?
A. Well, to be able to make the investments in quality, the capital investments, the management team to lift it up to a higher level and be more relevant for the customers, so to professionalize the company in the -- in the industry space, as well as to lift it into the eyes of the -- of the, you know, large medical device and midsize start-ups to be, you know, fully relevant to those customers.

Q. And what was the first company you invested in under this thesis?
A. It was a company called Resonetics.
Q. And why did you choose Resonetics as an investment target?
A. Well, it fit a lot of the criteria that I was talking about. So, you know, starting with they probably had the premier laser processing capability in the medical device industry focused on micromachining of small components that were, you know, especially relevant for interventional products.

It had a management team that was almost completely dedicated to medical device experiences, had some limited acquisition experience, had done, you know, some small acquisitions.

And it seemed like it was in a space where there were some adjacent markets that, you know, you could, you know, put a business together that would be, you know, a terrific business.

Q. And what did you do to execute on your investment thesis with Resonetics?
A. Well, when we got started, it was a little less than $50 million in revenue and a couple hundred employees. And then we, you know, executed more than ten acquisitions over a couple of years to add complementary capabilities to the -- to the overall capability of the company, and then invested

heavily in R&D, heavily in capital equipment. We were spending 8 to 10 percent of our revenue on capital equipment to, you know, support the growth and breadth of them. And we professionalized the acquisitions as we -- we brought them under the suite to have a common quality system and, you know, lift the standards relative to the medical device industry overall.

Q. Now, you mentioned some acquisitions of complementary capabilities.

Could you very briefly give us a quick overview of -- of what you acquired?

A. Sure.

So Resonetics had capabilities in laser processing of metals and polymers. So frequently they were cutting metal tubing so -- with a laser. So we added, you know, metal tubing.

You know, a complementary capability is -- is centerless grinding that's sort of the grinding of the edge of a tube that -- you know, to give it a unique feature that was there.

There was additions of CNC machinings.

There was electropolishing of both stainless steel and Nitinol, which is a key component used in the medical device industry.

Added a design services capability, so, you know --

you know, examples of extensions of that technology.
Q. Were any of these acquisitions of competitors?
A. No. They were all -- all complementary. There was one product overlap. We did buy a -- a company in Israel that was prominent in Israel and in Asia. And, you know, the geographic complementary aspect was useful for us.
Q. And, in your view, how has the strategy performed at Resonetics?
A. Well, it's performed well. I think from a small company that maybe was relevant to, you know, a small number of customers, you know, today it's well in excess of 500 million in revenue, several thousand employees. But I think, more importantly, it's a strategic supplier for many of the large multinationals and then a trusted supplier for many start-ups because of the breadth and relevance and the one-stop shopping aspect of the company that it provides.
Q. Now, turning to Biocoat, how did you identify Biocoat as an investment opportunity?
A. Well, at the same time that I was beginning work thinking about, you know, laser processing of metals and polymers, I also thought that there was always a major gap in the sophistication of the supply chain for biomaterials. Very broadly, I'd spent a lot of time working in that field, and so I thought about that quite a bit; explored trying to find acquisitions that fit my criteria; really couldn't make one

work until, you know, Biocoat came along in 2022. An investment banker approached us and said, you know, we're going to run an auction to sell this business. I'd been aware of it and thought that it was relevant to my thesis.

Q. And what were the strengths and weaknesses of Biocoat's products at the time?

A. You know, Biocoat had a thermal-cured coating that, you know, was very unique and differentiated and, you know, was well preferred by the users of the -- of the product, had a good management team that was -- seemed to be experienced with some, you know, relevance in the medical device industry.

And then, you know, thirdly, it seemed to have that kind of overall capability. It was, you know, use -- that I could do further acquisitions and pursue it in -- in that regard.

You know, on the weaknesses side, it was, you know, pulling the obvious from my experience that they were gapped in having a UV coatings product line. They had worked to do some product development and, you know, had hopes for being successful with a UV product line, but, you know, that hadn't yet been realized, and that was a gap that we saw.

Q. And how did having only an established thermal coating impact your assessment of Biocoat?

A. It definitely impacted it because it was -- thermal-cured coatings seemed to be the niche in the marketplace.

Q. And did you prepare a demonstrative to help explain the role that each of these coatings plays?
A. I did.
MR. CULLEY: Can we put up DDX 001 on the screen, with Your Honor's permission?
THE COURT: You may.
BY MR. CULLEY:
Q. And, Mr. Hance, could you walk me systematically through the three reasons that you have here up on your demonstrative?
A. Sure.
This compares thermal-cured versus UV-cured coatings. You know, what we found is that, categorically, you know, certain devices as designed by R&D engineers work with only thermal or UV.
We've also found that many of these devices have very different combinations. Even though you could think they might work, you don't really know until you test and see how they perform given the -- the variation.
And that customers are -- you know, their point is that customers who are invested in equipment, are, you know, very committed to what they have done in the past, and that's relevant to the choice.
Q. Now, one of the things you mentioned was certain projects only working with thermal or UV.
Do you have a couple of examples of that?

A. Yes.
Q. And what are those?
A. Well, a good example is an inner diameter coating. So, you know, you can only reach an inner diameter with a coating via heat. So you put it an oven and -- and treat it in that fashion. UV can't access that. It needs line of sight in order for the light to cure the thermal.

You know, conversely, soft balloon angioplasty catheters, you know, utilize exclusively, in my experience, UV-cured coatings because the soft balloon materials and the soft materials used to assemble that, you know, can soften or melt in, you know, an oven. You know, we cure our thermal-cured coatings at 140 degrees Fahrenheit. And I think everyone has the experience of a black car on a hot day and the back seat and what that feels like and how things soften in that.

So, you know, these are, you know, some of the key parameters that define the applications.
Q. Now, on the inner diameter use case that you've mentioned, we've heard some suggestion that inner diameter opportunities are a small part of demand.

What's your reaction to that?
A. Well, I haven't seen any report on that, but, you know, every outer diameter has an inner diameter in a -- in a catheter. And there's a very big market for inner diameter

lubricity in Teflon liners, and we've had some success with some key customers that seem to be pioneers in changing that.

Q. And then, similarly, you talked a little bit about the heat sensitivity of certain materials, such as this balloon angioplasty catheter.

Are you seeing any trends in the industry that are relevant to that?

A. Well, in general, you know, as people develop catheters to access complex parts of the heart or, you know, deeper into the brain or treat other organs throughout the body, you know, flexibility, softness, being able to navigate tortuous anatomy is, you know, a real critical parameter. So people are using softer and softer polymers and, you know, making it more sensitive to thermal, not less.

Q. And turning to your second category here, could you walk us through that?

A. Sure.

So just because you design a catheter doesn't mean that it's going to work with the complex chemistries that we're talking about with coatings.

So, you know, we're now developing catheters that have three or four different regions of different polymers across the length of the -- the catheter. Engineers are modifying the -- the polymers to make them softer or -- or more robust in any fashion. So they are adding additives, mold controls,

other sorts of things that bloom to the surface of the polymer and, you know, can change how a coating adheres.

And then there's a move in the sterilization area for -- you know, historically a lot of medical devices have been using ethylene oxide, which has been in the news quite a bit for environmental issues. And more and more people are exploring gamma and e-beam sterilization as alternatives. But these react differently with materials and, you know, need to be considered quite a bit as -- as part of the process.

Q. Are there any chemical differences between UV-cured and thermally-cured hydrophilic coatings?

A. Yes, I think -- I'm not entirely the expert, but, you know, essentially the -- the two-coat Biocoat thermal system, it starts with a hydrophobic base layer which bonds covalently to the -- the surface.

You know, UV-cured coatings start with an aqueous PVP -- excuse me -- PVP-based coating and, you know, are challenged to be able to attach to, you know, some kinds of surfaces.

So, you know, very different core methodologies that are associated with these.

Q. And the -- the surfaces that you mentioned that might have difficulty attaching to a UV cure, are there any particular types of materials that come to mind?

A. I think UV works, you know, in general, better with

polymers and also, you know, with the concerns about heat and the polymers.

Thermal works better with metals broadly because you're less concerned about heating the metal in order to achieve, you know, a good cure to the surface. So, you know, it's more able to, you know, deal with the metals.

Q. There's been some suggestion that UV and thermal coatings work on pretty much all the same substrates.

What's your view about that?

A. Well, I think at a high level, you know, that's probably true. You know, like, you know, a common catheter construction is Pebax, and it's very well-known. Except when you dive into the details, every manufacturer is picking different extrusion companies to produce those materials. They have different additives to achieve some minor modification. So, you know, in the effort to, you know, really achieve a certain performance characteristic to, you know, a complex delivery system for an aortic valve, they're making a lot of little modifications to the components, which makes the -- you know, the high-level thought process not as relevant when you get down into the details.

Q. Could you walk us through the third category on your demonstrative.

A. Yeah. The third point is the customers who are invested in the equipment, you know, will not switch.

And for any given catheter line, you might have sunk capital cost of hundreds to millions of dollars. And there's some, you know, significant differences between UV and thermal and the way that they're processed and how the equipment lines up with how a catheter line is, you know, put together.

Q. Is it difficult for a customer to switch the coating equipment that they have on a line?

A. I think within UV-cured coatings, if you've already established your line for UV-cured coatings, you know, you can consider another UV-cured coating, but to switch between UV and thermal is, you know, not only a change in equipment but an overhaul in how you, you know, construct the -- the -- the process that you're conducting inside the cleanroom to be -- you know, to be able to produce these products.

Q. Does either curing method have an advantage in terms of customers' manufacturing operations?

A. Yes. I think UV has an enormous advantage for high-volume, medium-volume, you know, and some advantages in low-volume production. You know, we would set up at Abbott our catheter lines. You know, we'd run 20, 30, 40 lines. We'd fit, you know, one -- one line in a room like this and, you know, 25, 30 people are in an assembly process for a hand assembly of a, you know, balloon angioplasty catheter or a coronary stent delivery system. We, you know, would design the process that every 30 to 60 seconds a unit operation would be complete, and an

operator would move it to the next line.

So you can imagine you start with extrusions, you make bonds, you add component after component, and then the final step in the process is to, you know, apply a coating and then pass it on to, you know, packaging for final, you know, sending it to sterilization.

So that continuous inline process, UV coating process of, you know, call it two minutes or less, you know, is extremely conducive to, you know, the principal way that, you know, a lot of these devices are manufactured.

You know, thermal requires 30 to 60 minutes of cure time. So you have to produce your units. Then you have to take them into a -- in a batch and then cure them, hope that there's no contamination in the cleanroom, and then bring them back and process. And that's just something that most people at scale are not willing to consider.

Q. And what's the bottom line in terms of the impact that what you just described has on customers' decision-making about curing methodology?

A. Well, that UV is faster, it's cheaper, less labor, and, you know, more conducive to scaling.

Q. Are there a lot of options for UV-cured coatings?

A. Yeah, there's several options.

There are Surmodics. There's Harland. There's ISurTec. There's DSM. A number of companies make their own

coatings. At Abbott we made our own UV-cured coatings, Boston, Terumo, others. And then, you know, there's a growing Asian cohort of companies who seem to be offering UV coating capabilities too.

Q. You discussed some of the manufacturing operations at Abbott. But just in terms of the bottom line of the decision-making, how did the factors we just discussed play out when you were running Abbott's cardiovascular business?

A. Well, at Abbott we exclusively used UV-cured coatings across all our different product lines, and I think that was not uncommon.

Q. There's been a suggestion that most customers have both types of equipment.

Do you have a view on that, based on your industry experience?

A. I think you could absorb -- observe that at a corporate level. You know, a lot of these companies are -- most of these companies are assemblies of acquisitions. So when you aggregate a number of acquisitions at a corporate level, you're going to see differences across those, yes.

Q. Do you have any examples of customers like that?

A. J&J is a good example. They have an ophthalmology division that makes IOL cartridges for glaucoma that exclusively uses thermal-cured coatings for their IOL cartridges. They have a -- an endovascular business they recently acquired called

Shockwave that is higher volume applications as well. They're exclusively UV. And that's kind of how it sits, you know, reflecting the various different acquisitions they've done in the past.

Q. And would a customer like that share the coating equipment across their divisions?

A. I have not observed that. I -- you know, they're in different locations. They're different factories. Everyone is optimizing the manufacturing line for the product at hand. I can't imagine anybody, you know, taking a catheter to Puerto Rico and trying out a thermal line in the ophthalmology division. You know, all that -- I don't even know if the quality systems would permit that.

Q. We can go ahead and take that down, but let's take a look at some documents of how you considered this distinction over time.

MR. CULLEY: Can we put up DX 335, with Your Honor's permission?

THE COURT: You may.

BY MR. CULLEY:

Q. Mr. Hance, this is an e-mail you are on with several individuals from GTCR in September 2022 discussing Biocoat's CDD.

What does CDD mean?

A. It stands for commercial due diligence.

Q. And you were part of that due diligence process?
A. I was.
Q. Okay.
MR. CULLEY: We would move to admit DX 335, Your Honor.
THE COURT: Any objection?
MS. PEREZ: No, Your Honor.
THE COURT: DX 335 will be admitted.
(Defendants' Exhibit No. 335 was received in evidence.)
BY MR. CULLEY:
Q. Now, in the top message, in the second-to-last sentence, Mr. Pelisek writes: "We think most of the market is in UV cure because the faster drying times are more conducive to high-volume cardio production."
Do you see that?
A. Yes.
Q. Could you explain what's referred to there as the faster drying times?
A. Yeah. That's referring to curing in, you know, one to two minutes.
Q. And Mr. Pelisek also mentions cardio.
What does that refer to?
A. Cardiovascular.
Q. And could you explain how what he's discussing there has an impact on customer choices or not?

A. Well, it's along the lines of what I was just describing, that, you know, once you set up your line in volume production or want to consider volume production in the future, you have a strong preference for a UV cure. And that's where the -- the balance of -- or the bulk of the market is.

Q. And why was that relevant to the diligence work for whether or not to invest in Biocoat?

A. Well, we were acquiring a company that was, you know, predominantly in thermal-cured coatings and had, you know, recently launched a UV-cured coatings, and so the prospect for growth was, you know, central to the business case.

MR. CULLEY: We can take that down.

I would like to display another document. This one has some confidential material in it, although I think we can talk around it. But if we can publish it only to the witness, Court, and lawyers, I would appreciate that.

THE COURT: That's fine.

Ms. Chambers.

MR. CULLEY: That's DX 373.

There we go.

BY MR. CULLEY:

Q. Now, Mr. Hance, this is a September 9, 2022, presentation titled Biocoat Due Diligence. And I noticed at the top is a logo for LEK.

What is LEK?

A. Excuse me.

LEK is a prominent consulting firm that does market intelligence in support of business acquisitions.

Q. And what aspect of the diligence did LEK assist with?

A. LEK did an independent review of the market, called, you know, numerous participants in the market to be able to do a, you know, market intelligence of -- of the -- the business.

Q. And did you review this presentation as part of deciding whether or not to invest in Biocoat?

A. I did.

MR. CULLEY: And we'd move to admit DX 373.

THE COURT: Any objection?

MS. PEREZ: Your Honor, it's our understanding this is not a final document, that this is a draft.

BY MR. CULLEY:

Q. Do you have it there in front of you, Mr. Hance?

A. Yes.

Q. And I think you have the full version in your binder.

Can you let me know whether you think this is the draft or the final. DX 373.

A. To my knowledge, it's labeled Update 2, so it would be the final of Update 2.

THE COURT: Overruled.

DX 373 will be admitted.

(Defendants' Exhibit No. 373 was received in evidence.)

BY MR. CULLEY:
Q. Taking a look at slide 18 in that document, could you explain to us what you understand the takeaways of this slide to be?
A. Well, from the top, the thermal curings share of the hydrophilic coatings market is, you know, expected to remain steady or marginally decline with several barriers insulating the market from significant shifts.

Then it goes on to, you know, consider the thermal curing market and its, you know, percentage of application and the -- you know, at 15 to 25 percent and the UV coating market to be, you know, 75 to 85 percent.
Q. Now, one fact that we discussed was about use cases that were thermal only or UV only, such as inner diameters.

Is that distinction reflected on this slide?
A. Yes.
Q. And you also talked about distinctions between different types of materials.

Is -- is that a concept reflected here?
A. Yes. The material advantage for metals for thermal curing, yeah.
Q. And another point we discussed was the customer's curing equipment.

Does this slide reflect that factor?
A. Yes. The high-volume outer surface coatings, that UV

coating provides a faster alternative to thermal coating and will continue to be the preferred curing methodology for higher-volume continuously processed devices, such as cardiovascular catheters.

Q. And how did that information impact your decision to invest in Biocoat?

A. Well, it was useful in that it -- it indicated that, you know, thermal curing had a niche application that was valuable, but the bigger part of the market was in UV coating. And so that was relevant for our business attempt.

MR. CULLEY: We can take that one down.

I have another similarly confidential document, Your Honor, that I think we can talk around, DX 402.

So if we could publish it in the same way.

THE COURT: That's fine.

BY MR. CULLEY:

Q. This is a presentation from September 12, 2022, entitled Regatta Biomaterials Platform Acquisition: Biocoat Investment Committee Review.

What was the purpose of this document, Mr. Hance?

A. This was to summarize the, you know, diligence on the acquisition of -- of Biocoat and, you know, to provide information to make a business decision relative to acquiring it.

Q. And did you get a chance to review this document?

A. I did.

MR. CULLEY: We'd move to admit DX 402.

THE COURT: Any objection?

MS. PEREZ: No, Your Honor.

THE COURT: DX 402 will be admitted.

(Defendants' Exhibit No. 402 was received in evidence.)

BY MR. CULLEY:

Q. If we turn to page 7, in the third row down, there's a reference to a consolidation play.

Do you see that?

A. Yes.

Q. We've heard a little bit about that at this trial, but could you explain, sir, what -- what's meant by consolidation play?

A. Well, for me it means assembling complementary capabilities to be a more relevant supplier to, you know, the medical device industry.

Q. Did any of that strategy involve acquiring companies to consolidate competitors?

A. No.

Q. What did it mean?

A. Well, it meant, you know, looking at the core company capability and then seeing near-term biomaterials businesses that would enable a more complete offering of a -- of a specialist biomaterials provider to the medical device

industry.
Q. Now, in the second bullet under that section there's a list of four companies. And the fact that they were acquisition targets is confidential, so please don't say their names.
But if you could go through each of them and explain to me why they were of interest for your strategy just by number, that would be -- that would be helpful.
A. Sure.
The first one there is a specialty polymers provider and thin film provider, extruded -- extruded film that was used by medical device companies and incorporated into their medical products.
The second company was a specialist in absorbable polymers, so both medical fabrics and the construct of, you know, drug-release polymer capabilities that would be utilized in medical devices.
The third company there is -- was a polymer compounder with -- you know, both with capabilities in medical devices and consumer products.
And then the fourth company was a specialist in UV-cured coatings.
Q. And what ultimately happened with each of these potential acquisitions?
A. Unfortunately, none of these happened.
MR. CULLEY: We can take that down.

BY MR. CULLEY:

Q. Let's step back and talk a little bit about how Biocoat got to where it is today.

What has been the primary driver of Biocoat's revenues?

A. The -- the primary driver has been thermal-cured coatings, you know, over the last 20 to 30 years.

Q. And how did those come to be?

A. I think it was a fantastic innovation from a -- you know, a chemist in Pennsylvania, you know, Dr. Ellington Beavers, who had, you know, polymer chemistry experience and uniquely had figured out how to take hyaluronic acid, which is a naturally occurring component in the -- in the body and figure out how to polymerize that and then turn it into a lubricious coating.

So, you know, from that, you know, he created a thermal-cured coating that was very appealing to the medical device industry, particularly some start-ups in the early days of the neurovascular market.

And those coatings, you know, got selected by a couple of start-ups, and the -- one of those was MicroVention, and Biocoat's been riding the coattails of, you know, some of those growth ever since.

Q. And you mentioned those early customers.

What about with new customers?

A. Well, you know, the -- the business has somewhat matured.

It's been a shortage of new customers over the last five to ten years. So 90 percent of the -- the Biocoat revenue, you know, predates five years or more. More than half the revenue dates from these original three neurovascular start-ups. There's been attempts to try and develop, you know, new customers and new areas and, you know, launch UV coating, but, you know, those yet to have materialized to be a major part of the growth strategy.

Q. You mentioned Biocoat launching a UV coating.

How has that gone?

A. Well, it didn't go as well as we would like originally. I mean, it was a fantastic, you know, patented invention to develop a UV-cured coating, and, you know, I applaud the R&D group for doing that. But, you know, there were some gaps in the product in the first generation that, you know, got out to the marketplace, and some -- I think some word of mouth might have gotten out there about the product.

We reformulated and recast it, and, you know, that's what we're currently offering and seems to perform well in the reformulated version.

Q. What are the prospects for Biocoat's thermal coating today?

A. Well, I think they're modest. You know, we're -- have some appeals to -- with emerging start-ups in the neurovascular market, but we're looking hard for new applications in -- where thermal-cured coatings have, you know, distinctive aspects to

them.
Q. You mentioned neurovascular. How has that end-use evolved over time?
A. Well, the neurovascular market and the competition in the companies there has, you know, experienced some great growth, but more recently it's been maturing. There are, you know, five leading companies that all have very similar products in their portfolio. Most everybody has an aspiration catheter. Most everybody has a ClotTriever to extract clot from the brain. Most everybody has catheter delivery systems. So, in a fashion, the market has matured into, you know, some stability, and there's, you know, maybe less innovation in the coronary or vascular market.
Q. And among the established players that you mentioned, would you expect any of them to change curing methodologies?
A. I would not. Those who have, you know, had a long track record and experience in a, you know, portfolio of products, they're -- they're going to stick with that, you know.

We enjoyed good growth at Biocoat with the, you know, SOFIA catheter from MicroVention.

Penumbra has competitive products. They chose DSM a long time ago and, you know, they're going to stick to UV-cured coatings.

And I think, you know, what's happened over the last 20 years is, you know, the original excitement about hyaluronic

acid and, you know, a thermal-cured application when volumes were low, you know, some of that has passed as the volumes have grown, and experience with UV-cured coatings has shown that people can, you know, get a good result with that going forward.

So, you know, I think we're going to have fewer opportunities in the future.

Q. What are the clinical areas that have, you know, good future opportunities for coatings for medical devices?

A. There's a lot of innovation going on in the endovascular space. So, you know, beyond the heart, treatment of, you know, the legs and other organs of the body with endovascular treatments. There's just a lot of innovation going on in those spots. And so being able to get catheters into difficult spots is an appropriate thing to do.

Structural heart, which is, you know, delivering complex implants to treat the various different valves or appendages of the heart, so the aortic valve, the mitral valve, the tricuspid valve, left atrial appendage, and, you know, being able to deliver a complex delivery system to these and being able to treat patients there is, you know, is a really exciting area where there's a lot of innovation going on. So, you know, I continue to see that as a real promising area.

Q. And what generally are the prospects for thermally cured coatings in these clinical areas?

A. Well, given that these are largely, you know, polymer constructs, we've seen fewer opportunities than we would like.

There is one exciting opportunity that is an inner diameter coating. It's a structural heart device to, you know, treat the leaflets of the aortic valve that, you know, because of the sterilization method and what they're trying to achieve, an inner diameter coating works especially well.

Q. And what's the plan for where you'll take Biocoat in its thermal coating if the acquisition of Surmodics does not close?

A. Well, we intend to, you know, develop the use cases for thermal curing.

I think this inner diameter replaced PTFE liners, as, you know, the R&D developers come to understand that device -- or that -- that aspect of its performance, very likely we'll find that really interesting to replace PTFE liners.

And then, secondly, you know, we are seeing use cases on metals particularly around needles where in order to get, you know, an awful lot of drug delivery or -- or sensors into the body via a needle, less trauma, less -- you know, more lubricious, a thermal-cured coating could be very additive to that.

Q. In your view, do Biocoat's current revenues reflect its future competitive significance?

A. I think its current revenues are, you know, reflective of the competition that has happened, you know, more than a decade

ago relative to the early days of launching a, you know, hyaluronic acid based thermal-cured coatings.

You know, I think the future revenue has got to be -- you know, growth has got to be adding to the product portfolio in order to -- and targeting the R&D towards new use applications.

Q. Now, the FTC showed a slide during their opening, and we saw it again for -- from Dr. Fix, calculating shares for each hydrophilic coating supplier.

Do you recall seeing that slide in the opening?

A. Yes, I did.

MR. CULLEY: I would like to bring the redacted version of that slide back up.

BY MR. BUTERMAN:

Q. And I think it's in the back leaf of your binder, if you want the printed copy, sir.

MR. CULLEY: If that's all right, Your Honor.

THE COURT: That's fine.

BY MR. CULLEY:

Q. Now, I understand you had a bit of reaction to this slide, Mr. Hance.

Could you -- could you tell us about that?

A. Yeah.

I've been a customer of -- of hydrophilic coatings. I've been a supplier of hydrophilic coatings. And I've been an

applier of hydrophilic coatings during my time at Creganna. So, you know, when I look at this market structure, it's extremely difficult for me to relate to it given my experience in the industry.

Q. Could you walk us through what issues you have with it.

A. Yeah, I have a couple of issues with it.

I guess the -- the first issue is the distinction that lumps UV-cured coatings directly with thermal-cured coatings. I -- I am blinded to the actual identity of the folks there, but I think Biocoat is principally the only one that's thermal cured on the left-hand side of the page.

And if you were to examine the UV-cured coatings of Biocoat and did an apples-to-apples comparison, Biocoat would be way over on the right-hand side of the page.

So that's kind of the first thing I noticed.

The second thing I -- I noticed is the omission of what I think are the largest appliers of UV-cured coatings. You know, the largest use case in this space is balloon angioplasty catheters for, you know, opening a blockage in the heart and the stent delivery systems that go along with them, which are essentially a stent mounted on a balloon angioplasty catheter. And, you know, that's three big players, Abbott, Boston, and Medtronic. And I look at this data, and I say, well, where -- where is Abbott and Boston. I find that striking to be omitted. You know, given the scale of

operations that I experienced in this space, they would be, you know, right there certainly somewhere around Surmodics in terms of the volume scale. I'm not sure why we're not looking at volume data versus, you know, sales data, but, you know, I think that's an omission.

You know, the -- the third thing I've observed is, you know, this is supposed to be a -- a depiction of current competition. And, you know, with Biocoat's revenue reflecting consumer -- or, excuse me -- customer decisions made a decade or more ago, it seems odd that, you know, all of Biocoat's revenue is contemplated here when, you know, only 10 percent will be reflective of current competition.

And then I don't quite understand how this relates to, you know, the international market that I have lived in for the last 20, 30 years. This is a global medical device industry. It's, you know, an American success story in terms of creating new innovation. The manufacturing is arrayed between the U.S., Ireland, Mexico, Costa Rica, Southeast Asia, and they're all intertwined with complex supply chains. And I don't see how that's reflected in -- in this particular depiction.

MR. CULLEY: Let's go ahead and take that down.

BY MR. CULLEY:

Q. How did you wind up identifying Surmodics as an acquisition opportunity?

A. Well, we had a great interest in complementing Biocoat with

UV-cured coatings as a complementary technology.

You know, in February 2024, investment bankers, you know, approached us from Surmodics and indicated that they were going to begin a formal process to sell the -- the company and were we interested in being part of that auction.

Q. You mentioned the UV-cured coating. Were there any other reasons why you were interested in pursuing Surmodics?

A. Yeah. I think there was some really significant opportunities to improve the business in the way that it was run. And, you know, that could be, you know, rewarding to both the industry and to investors.

Q. Could you explain what some of those issues were?

A. Well, over the years, the -- you know, the coatings business, which has some core capabilities that are really valuable, as well as the profitable IVD diagnostics business, a lot of the profits from those businesses were being reinvested in, you know, developing medical devices that competed with the customers in the space. And, unfortunately, those were, you know, significant, heavy loss investments for the business.

So rather than, you know, plow the investments back into the -- you know, enhancement of the -- the core franchise, you know, they were -- you know, there's a real opportunity to, you know, change the deployment of the capital.

Q. And when you say "change the deployment of the capital," where would you be deploying the capital if you were running

the business?
A. We would like to, you know, put it back into the core business that's serving the medical device industry technology, capital equipment that would be -- you know, enhance innovation and make them relevant.
And I think taking the competition off the table, we've found that, you know, companies -- you know, that the buyers of these coatings were, you know, frankly, irritated that the profits from the coatings they were buying were being invested in products that were competing directly with the multinationals, and they were less likely to consider Surmodics as a strategic partner in the future given that.
Q. I would like to turn to DX 390.
MR. CULLEY: This is another confidential document, but I think we can talk around it.
With Your Honor's permission, we'd publish it to the witness and the Court and the lawyers, but not to the gallery.
THE COURT: You may do so.
BY MR. CULLEY:
Q. The title here is Project Edgar Due Diligence.
Mr. Hance, what is Project Edgar?
A. Project Edgar refers to Surmodics.
Q. And this, again, has LEK's logo up on the top left.
Do you see that?
A. Yes.

Q. And what was -- what role did LEK play here in the Surmodics acquisition?
A. LEK did, you know, market diligence, again, calling, you know, any number of participants in the industry and, you know, collecting feedback and -- and trying to frame the market in an independent market research report.
Q. And did you review this presentation as part of considering the acquisition of Surmodics?
A. I did.
MR. CULLEY: We'd move to admit DX 390.
THE COURT: Any objection?
MS. PEREZ: No, Your Honor.
THE COURT: DX 390 will be admitted.
(Defendants' Exhibit No. 390 was received in evidence.)
BY MR. CULLEY:
Q. Could you go ahead and turn to page 13, Mr. Hance.
Could you explain to us what you took away from this slide?
A. Yeah.
That, you know, in the cardiovascular and neurovascular therapeutic areas, most coatings are cured by ultraviolet light, and thermal curing is more typically used for surfaces that UV light cannot reach, with the example being inner diameters. And this shows, again, you know, the estimates for UV curing and thermal curing; you know, UV as

much as 90 -- greater than 90 percent of devices in cardiovascular and neurovascular, and thermal curing being less than 10 percent of devices in cardiovascular and neurovascular.

Q. And I won't go through back them one by one, but of the factors that distinguish UV and thermal curing that we discussed before, are those reflected here in the slide?

A. Yes.

Q. I see some quotes here at the -- at the bottom.

Do you know what process was used to collect those?

A. Yes. It's my understanding LEK, you know, interviewed a great number of participants in the industry and did interviews and collected, you know, feedback. In order to try and, you know, summarize, they selected representative quotes from their conversations that made the points that they were trying to describe in the market above.

Q. And are the sentiments expressed here consistent with your experience in the medical device industry?

A. Yes.

MR. CULLEY: We can go ahead and take that down.

BY MR. CULLEY:

Q. Apart from refocusing Surmodics' business on its core coatings, are there efficiencies you expect to realize from combining Biocoat and Surmodics?

A. Yes.

Q. Did you prepare a demonstrative to help walk us through

those?
A. I did.
MR. CULLEY: With Your Honor's permission, we'd put DDX 002 up on the screen, and this can be published.
THE COURT: You may publish.
MR. CULLEY: To everybody.
BY MR. CULLEY:
Q. Can you just walk us through these, starting with the first item here, Freight Cost Reduction?
A. Sure.
These items here broadly fall into either cost reduction or sharing of best practices across the -- the -- the two companies that I think will yield a significant benefit.
But, you know, speaking to freight cost reduction, you know, Surmodics is located in Minneapolis. Biocoat is in the Philadelphia suburbs. We're both shipping to customers around the United States. And the -- you know, we've done an analysis, as much as we can do, to take a look of stocking both companies' products in both locations to put the inventory closer to the customer.
And given, you know, the size and freight aspects to that, and since the customer pays for the freight, there's significant cost savings from, you know, employing both locations to serve the customers in the -- in the United States.

Q. And how will that benefit the customers?
A. Reduced costs and, you know, potentially some faster delivery times.
Q. The next item on this list is Operational Cost Reductions.
Could you walk us through that one?
A. Sure.
Biocoat has a robust -- what's called a CIP program, or cost improvement program, that's standard for anyone in the medical device industry or the supply side but, you know, in our estimation has been absent from Surmodics. So that methodology we would intend to apply to, you know, the Surmodics facility and drive annual operational cost improvements, which accrue over years into substantial reduced costs.
Q. And how will that benefit customers?
A. Well, lower the cost of production and, you know, give the opportunity for reduced costs for their -- you know, down the line to customers.
Q. The next item here is Administrative Cost Elimination.
Could you explain that one?
A. Yes.
Surmodics is a public company with the burden of a number of costs that aren't present for privately held companies. So there's insurance, there's accounting, quite a bit of expense. You would be surprised how much it was as

associated with being a public company; and then, you know, by taking Surmodics private, we can eliminate those costs.

Q. And the next item is Coating Services in Galway.

What is that?

A. Yeah.

Surmodics exclusively does some services on a limited basis in the Minneapolis area, but we have at Biocoat, and I suspect there are Surmodics customers too, have -- would like to see services closer to production. We have two customers who've asked for it directly because they have manufacturing operations in Ireland, like many in the medical device industry. So by being able to put those coating services in the Galway, Ireland, Surmodics facility, which is not currently being utilized for that, you know, we can put our production close to the customer. And right now people are shipping catheters from Ireland through U.S. customs to be coated, and then we round-trip it back to the customer for further on distribution.

So, you know, this really avoids significant costs and turnaround time for the customer.

Q. The medical device companies that are operating in Galway, are they -- are they just selling in Europe, or are they selling other places too?

A. No, all the production sells globally. So these would be delivered globally.

Q. Including the United States?
A. Yes.
Q. And the next one there is Supply Chain Resiliency.
Could you walk us through that one?
A. Yeah.
I'm not sure that everyone appreciates how much time and attention the medical device industry puts into thinking through ensuring that there's no interruptions in supply. Many quality agreements from the large companies require a detailed supply chain resiliency such that you have duplicate production in locations. And it seems like every one of these quality conversations starts with what happens if a hurricane hits, what happens if a tornado hits, and what's your backup plan so that we don't put, you know, the global supply of a, you know, a significant medical device at risk.
So the -- the ability to duplicate the production in both Minnesota and Pennsylvania would fully alleviate that. We haven't observed that in Surmodics. So, you know, that -- there's a real potential here to address a significant concern about the supply chain.
Q. And this last box is Knowledge Sharing.
What does that mean?
A. Yeah.
I put down some specifics, although I've seen lots of great success stories from acquisitions bringing two things

together and surprises coming out of that combination, but these are -- we haven't had a chance to do that yet here in this combination, but this is what we can immediately observe.

We can -- you know, we have observed that the lyophilization technology, that's freeze-drying, you know, coatings that Surmodics has and has developed over many years promises to, you know, really improve shelf life for the Biocoat products. You know, when you take the water out through freeze-drying, it lowers the weight, it reduces the shipping costs, and it makes, you know, a much longer shelf life of the products in the customers' hands.

Surmodics also has a -- an exceptionally good lab for testing of polymer extrusions and metal components to identify the contaminants that sit on the surface of those materials. So, you know, being able to take advantage of that capability and knowledge, from a Biocoat perspective, I think has some real potential, especially as Biocoat turns its attention towards, you know, metal based and/or, you know, replacing Teflon liners.

Biocoat has exceptionally good automation and expertise with its engineering skill set, and I think applied to the Surmodics operation, you know, promises some significant benefits as well.

Q. And I think you discussed a little bit of this, but do you expect these to be exhaustive?

A. No, this is a -- a very short list.

I mean, I'm embarrassed, Judge Cummings, to pick a trivial example, but I'm old enough to remember the old Reese's Peanut Butter Cup commercials, and people bumped into the -- the street, and I got chocolate in your peanut butter, and you got peanut butter in your chocolate.

And I've been doing this for 20 years and putting these complementary capabilities, and every single time over dozens of examples there's a -- a pleasant surprise when you bring the capabilities together. And I think that's going to improve, you know, the innovation that we're able to offer in terms of coatings, but difficult to quantify. Just my experience applied to the situation.

Q. And do you think it's possible to realize these benefits as separate companies?

A. No.

Q. Now, there's a divestiture that's on the table here we'll discuss in a minute.

Does that impact your ability to realize any of these benefits?

A. No, with the divestiture I think we could still realize these benefits.

Q. Who's going to be accountable for realizing these benefits?

A. That will be me.

MR. CULLEY: We can take that down.

BY MR. CULLEY:
Q. We've already heard a bit about a divestiture to Integer.
At a high level, could you describe what role you played in that?
A. Yeah.
Broadly, I played two roles.
One was in determining the assets for an appropriate divestiture, so the scope of the -- the offering.
And, secondly, you know, vetting some of the prospective buyers of -- for the divested assets.
Q. Let's take the first of those first.
How did you approach planning for the scope of the divestiture?
A. Well, I had a chance to be a part of, you know, one of -- one of the most exciting medical device transactions, that being the acquisition of Guidant by Boston Scientific with the divestiture of specific assets to Abbott, and then to be, you know, the recipient of those divested assets, and then, you know, to then compete in the marketplace, you know, with those assets going forward. So that formed an awful lot of my view on how -- how to construct this in a procompetitive fashion.
Q. And, sorry, you mentioned Abbott. So you were in the role of a divestiture buyer at Abbott?
A. Right. I was the president of Abbott Vascular Devices with, you know, full responsibility for the division, R&D,

clinical, regulatory, all global commercial operations, operations, et cetera.

Q. And could you explain a little bit the role that you had with respect to the divestiture purchase that you made in that transaction?

A. Yeah. The actual negotiation of the agreement was done by our corporate development, but the planning for how a divestiture could actually occur and the transition services agreements that would be required in order to, you know, conduct that kind of agreement, I was looking at it from the Abbott side of the transaction.

Q. How was the actual sale from Boston Scientific to Abbott structured? Do you recall?

A. Well, I'm not a lawyer, but it's my understanding is that the entire Guidant corporation was directly acquired by Boston Scientific. There were overlapping assets in the endovascular and the cardiovascular businesses and PTCA guidewires, stents, and -- and -- yeah, PTCA catheters, guidewires, and stents, and that those needed to be divested for Boston Scientific as well as the endovascular business.

The cardiac surgery and the cardiac rhythm management businesses of Guidant went to Boston Scientific. And then Abbott became the divested partner -- or the divestiture recipient of those overlapping assets.

Q. And was there any technology sharing that was part of that

divestiture package?
A. Yeah, there was a major technology sharing in that, you know, a very specific part of Guidant was the development of a novel drug-eluting stent called Xience. And, you know, the divestiture involved Abbott Laboratories receiving the Xience and then Boston Scientific sharing that same product. Abbott, you know, had it as a product called Xience, and Boston Scientific had it branded as Promus. Same product.
Q. And was it fair to characterize that as a license back?
A. That's my understanding, yes.
Q. Did you have a role in post-closing integration for this divestiture purchase?
A. I did. I -- the complexity of the integration involved was such that I took the whole endovascular business to integrate, and another person took over the cardiovascular business to integrate. So I, you know, managed the integration of that endovascular business and, you know, was involved with performing, you know, the various different transition aspects associated with it.
Q. You mentioned that it was a complex integration.
Were there any issues with the integration?
A. No. I mean, it's a complex regulated device, but it was well planned, and, you know, it yielded, you know, a phenomenal result for the industry, for patients, and, you know, for public policy in, you know, my experience.

Q. Now, you at Abbott and the combined Boston Scientific Guidant, you were competing immediately after the divestiture closed, right?
A. We were competing commercially on a day-to-day basis. And we were competing to differentiate our products with R&D inventions as quickly as we possibly could. And we were cooperating extensively in that we were supplying the -- the same product from one location to -- in two different-colored boxes for further on sale. And we were cooperating on the disentanglement of the -- of the two businesses in a very unique fashion.
Q. And is what you're describing reliance on transition services?
A. Yes, that's what transition service agreements are about.
Q. And what effect, if any, did the competitive relationship between Abbott and the combined Boston Scientific Guidant have on how those transition services were delivered?
A. You know, these are big organizations, professional, sophisticated organizations in a highly regulated environment, and we can walk and chew gum at the same time. So commercially we competed with the intensity that I have never experienced in my professional career, and we worked extremely hard to develop, you know, unique R&D inventions relative to the product to further differentiate.
On the other hand, you know, the operations

organization was, you know, completely focused on fully cooperating with both parties and making sure that both parties had everything they needed, the transfer of the intellectual property, the transfer of the knowledge, you know, that was associated with those products.

And, you know, that's kind of the nature of these organizations, in my experience.

Q. Was there anything that Abbott needed in transition services that it didn't get during that process?

A. No.

Q. Turning back to the current transaction, you mentioned you were involved in vetting potential divestiture buyers.

What were you looking for?

A. Well, mirroring the situation that, you know, I had experienced with -- with Boston's acquisition of Guidant, we wanted a divestiture buyer that was familiar with the -- you know, the market space that was going to be a participant, had a track record of competing aggressively for new business and, you know, to be able to perform against, you know, the procompetitive aspects of that, and that had the, you know, the sophistication and financial wherewithal to be able to, you know, perform against those investments.

Q. How did Integer come to be the buyer?

A. Well, there were several buyers that, you know, kind of ticked the categories of they were experienced in the -- in the

space or in adjacent areas, they had the commitment to commercialize, and they had the financial wherewithal to, you know, to be successful and participate and invest aggressively against that, and they bid the highest price.

Q. Were you surprised they bid the highest price?

A. No, I'm not surprised they bid the highest price. I think that they probably found the greatest value in the assets that we were providing, and it fit very well their, you know, recent acquisition activities that were complementary to, you know, hydrophilic coating. And, you know, it's clear they've been interested in entering this space for some time.

Q. What is your view of Integer as a buyer?

A. I think Integer is an outstanding buyer. They have the -- you know, one of the largest medical device contract-focused businesses that is in this area. They have strategic relationships with all the large customers. They've got a global footprint from Europe to U.S. to Asia to, you know, Latin America. And, you know, they're committed to the space and have been putting their, you know, resources against being successful. So I think they represent, you know, formidable competition.

Q. Do you know if Integer has experience with this type of transaction?

A. They've done a number of transactions, and, you know, the large -- you know, recently I think the Aran Biomedical one is,

you know, a nice example, an Irish company that they acquired. And then more recently Precision Coating and VSi Parylene, you know, a commitment to, you know, hydrophobic and parylene coatings that are, you know, complementary to, you know, the UV-cured and thermal-cured coatings that were there.

It's going to be nice to see them offering one-stop shopping for, you know, product solutions with this, you know, full array of coating solutions to, you know, customers. So I think they will be quite successful with it.

Q. The FTC has raised that the price Integer is paying for the divestiture is quite a bit lower than the cost of the original GTCR investment in Biocoat.

Do you have a reaction to that?

A. Well, the original acquisition of Biocoat, you know, mind you, the private equity buyers are -- you know, the limited partners behind them are insurance companies and pension firms, and they're, you know, very focused on durable annuity investments. And, you know, far and away the value proposition and the way they analyze the relevance of the business is durability of the economics.

So the vast majority of the original acquisition I think ties to, you know, those annuities, if you will, of the -- you know, those original products from, you know, more than a decade ago and a small fraction to, you know, the current and pipeline that's going forward.

So I think you need to break apart the -- the history with what was purchased back then, and I think, you know, that's certainly a consideration.

It can't escape, though, the fact that, you know, when, you know, when you're in a lawsuit with the FTC, that -- and you're exploring a divestiture, that, you know, the prospective buyers are going to factor that in and think they might get a good deal. So that's -- you know, that's, you know, another consideration in this situation.

Q. Let's -- let's go a little deeper into the perimeter of the divestiture.

Did you prepare a demonstrative to explain what's included in the divestiture?

A. I did.

MR. CULLEY: And with Your Honor's permission, may we publish that?

THE COURT: You may.

MR. CULLEY: That's DDX 003.

BY MR. CULLEY:

Q. Mr. Hance, at a high level, could you walk us through the five categories of assets that are included in the divestiture that you've listed here?

A. Yes.

So these are the, you know, five categories. There's, you know, the actual coatings products, the intellectual

property, and the equipment to manufacture them.

There's the branding that Biocoat has been using.

There are talented and capable employees to operate the divestiture.

There's a facility.

And then there's the, you know, transition services which have been planned to make sure a seamless transition of this business and intellectual property to Integer.

Q. Now, looking across these components, is one of them more important than the others?

A. The most important here is, you know, the coatings, IP, and equipment.

So, you know, as a layman, I'm not -- I mean, the first time I learned the divestiture language, Your Honor, is, you know, in this process.

To me this is a -- a licensing deal and a business transfer combined together. And so, you know, the most important part is the -- you know, the coatings products, the intellectual property, and the equipment to manufacture.

Q. Let's go to the -- your next slide and look a little deeper into the coatings, IP, and equipment.

Could you walk us through what you're trying to convey here?

A. Yeah.

First off is, in the divestiture, is all the

overlapping UV business which competes with the Surmodics UV business. So it's all the customers, it's all the products, it's the intellectual property, including the foundational patents behind the UV curing, which, you know, we're proud to have achieved. But it's also the detailed know-how on how to make those coatings and how to apply them and, you know, the master file on file with the FDA, and the detailed work instructions to be able to, you know, operate, you know, this business going forward.

There's the equipment upon which these coatings are both produced and applied.

And then talented and experienced people to be able to run this.

And a facility to go along with it.

Q. Could you explain the -- the thermal coatings that you selected here? Why those coatings?

A. Yeah.

The thermal-cured coatings, you know, date all the way back to the 1990s, and there's been a steady evolution of improvements over the years.

This is our latest, best generation of the -- thermal-cured coatings. The T stands for topcoat, T-72, and B, base, basecoat, B-96. So these are the products that we currently market, our flagship thermal-cured coatings that we offer to customers.

Q. And is Biocoat currently marketing any thermal coatings that aren't going to Integer?
A. No, these are all the coatings for thermal curing that we're currently marketing.
Q. Do you know what portion of testing runs that Biocoat did for new thermal projects last year that are represented by these coatings?
A. Yeah. We went back and looked, and 95 percent of the feasibility testings that we did in 2024 were with T-72 and B-96.
Q. And what about the other 5 percent?
A. The other 5 percent, there's two customers who had actually done feasibility testing some years past and specifically asked, just for continuity and their comparison purposes, would they -- you know, would we be allowed to coat a historic coating.
Q. And the FTC's economist, Dr. Fix, testified that he believes Integer will be at a competitive disadvantage because it can't offer as many thermally cured coatings as Biocoat.
Do you have any reaction to that?
A. I don't see that. This is -- these are the flagship coatings, and I -- I don't even understand why anyone would want the old coatings unless they were, you know, baked into their regulatory filings from the past.
You know, in the old days, we started out with

cosmetic hyaluronic acid, less purified. You know, some years back we switched to pharmaceutical-grade hyaluronic acid. I don't know why someone would want to go back to -- you know, for implantable medical devices, to an inferior kind of hyaluronic acid.

We've observed over the years things like complement activation, which is, you know, a first step in, you know, the coagulation cascade. And why we would -- why someone would expect that to be in some bio -- you know, an issue for biocompatibility for a customer, why we would continue to produce that as something you really should try, Mr. Customer, if we know that this has some biocompatibility issues.

So these are our flagship formulations, and they're transferring to Biocoat, and, you know, we certainly look forward to competing against Integer with these same formulations.

Q. And I think you said "transferred to Biocoat." Do you mean transferred to Integer?

A. Excuse me. Transferred to Integer.

Q. Now, Dr. Fix gave an example of a customer that didn't use T-72 on a new device out of concern that it hadn't had FDA approval.

Is that a current concern?

A. That's no longer the case. I'm not sure what he's -- his experience would be.

Q. And then there's a legacy coating up there that you have marked as transferring.

Why did you choose that one?

A. Well, if you're running a business and you wanted to be fully capable, you need to transfer scaled production along with that. So I wanted to select a high-volume legacy coating that reflected all the core aspects of producing products in the entire history of -- of Biocoat. And, you know, we found that A-14/G-23, which is, you know, if not the original coating, was high volume focused on a -- on a single customer that really transferred the most complex production capabilities, and we wanted to do it at scale. So this was the product that was selected.

Q. And can you explain how the equipment will allow for scaled production?

A. So, you know, for producing UV business, T-72/B-96, all of the above or -- sorry.

Q. Yes, for all of the above.

A. Yeah.

So we're transferring all the equipment in order to be able to produce these at, you know, the various different scale levels. And, you know, a good part of this is modular so that there's additions. You know, some allow for future growth. For example, there's incremental equipment on UV that allows for a future growth. And then the thermal production, the

current -- currently marketed products are, you know, just, frankly, easier to make when you start with pharmaceutical-grade hyaluronic acid.

So the production is pretty straightforward equipment for chemical manufacturing, and we'll transfer that to -- to Integer in a, you know, very well-planned process.

Q. Now, why include a license back for the -- the thermal coating formulations?

A. Well, it was to mirror the competitive intensity that, you know, we experienced with, you know, Boston and Abbott sharing the drug-eluting stent technology. And, you know, the -- the thought was that both players would be able to offer the same products and then compete intensively both commercially as well as from an R&D perspective.

And, you know, I'll remember to the end of my days, day one when the shotgun fired and both Abbott and Boston raced into the marketplace with commercial activity offering the same product and, you know, intensively competed on, you know, all the parameters besides just the product, the customer service and availability of other products.

And we wanted to mimic that same intensity commercially with a -- you know, a committed partner. And, you know, you can see pretty clearly from -- that Integer's business model is to be a very successful player just like when I was at Abbott and we wanted to be a successful player in the

cardiovascular business. So this license back enables competition for thermal-cured coatings which have largely been in the hands of Biocoat to date. So you'll now have in the marketplace two players with UV and thermal coatings competing intensively for future offerings.

Q. The next item on your list is Branding. Let's turn to that.

And can you walk us through a little bit what's transferring?

A. Is the page going to advance? Thank you.

Yeah. So the Biocoat brand name.

Probably most importantly, the Biocoat website, which is the access point by which customers find us.

And the Hydak brand names, which is the principal branding that we use for both the thermal-cure and the UV-cure coatings.

Q. Now, if somebody looks up the contact on the website the day after the divestiture closes, who are they going to get routed to?

A. Again, I view this as a shotgun start, and so, you know, the next day someone who looks up Biocoat, you know, that -- and says, you know, I'm interested, they pass to Integer.

Q. Why transfer the branding to Integer at all?

A. Well, I think it adds to the halo of this is a proven technology and, you know, well-understood products that you

might be familiar with or have heard of in the past and, you know, forces, you know, us to rename, rebrand, and reestablish the -- the value of the product in the marketplace. So it's putting a little thumb down on the Integer side to transfer the branding.

Q. Next up is Employees.

MR. CULLEY: Can you turn to that slide, please.

BY MR. CULLEY:

Q. Could you walk us through the -- the types of roles that are transferring?

A. Yes.

There are, you know, 11 employees. These were the ones that Integer requested.

It's -- you know, starts with the R&D chemistry manager, Dr. Tyler Long, very hands-on manager, you know, the key inventor behind the UV-cured coatings and, you know, drives many of the hands-on projects associated for thermal-cured coatings as well.

There's two application development engineers. All our application development engineers are cross-trained and very familiar with prototyping both thermal and UV, and there's no specialization in the group. We picked two of our best, one especially experienced in interacting with large multinational companies and a second very strong troubleshooting person that, you know, Integer had a chance to meet and felt very pleased

with their profiles.

Next, coating -- coatings production specialists.

Two coatings technicians. These support the application development.

Quality assurance specialists who, you know, do the testing in the lab and, you know, support operations.

A really talented process engineer, very familiar with all the equipment. Our only person capable in that area.

And then a warehouse associate.

Q. Now, the FTC's economist suggested that some of the people transferring have only a couple years of experience.

What do you make of that?

A. Well, you know, I've looked at the -- the tenure of these folks, and it very much mirrors Biocoat's tenure. We have a very young employee population in the organization, and so this is pretty consistent with that.

Q. The one named person up here is -- is Dr. Long. You mentioned he was the inventor of the UV coating.

Could you tell us a little bit more about him?

A. Yeah.

He's a Ph.D. polymer chemist with, you know, a very strong educational background, did his postdoc work in absorbable polymers, worked in the Army lab in the -- I think in the Pennsylvania area for a couple of years doing some really unique and relevant projects, and then was specifically

hired in order to drive and invent UV-cured chemistries. So hands-on manager, super talented, very capable individual.

Q. Is Dr. Long working on any ongoing research?

A. Yeah. He's now working on the application of thermal-cured coatings on the inner diameter application.

Q. Is that project transferring to Integer?

A. All the patents and know-how associated with inner diameter thermal-cured coatings, all the know-how, together with Dr. Long and -- and the people who all have experience, are also transferring to -- to Integer.

Q. Why Dr. Long and not the more senior scientist, Dr. Hergenrother?

A. Well, first of all, Integer selected Dr. Tyler Long after a review of -- of -- whatever process they conducted to select him. So they specifically came and requested Dr. Long from that.

Both of these are, you know, talented people. I think, you know, my -- my guess and speculation is that, you know, Dr. Tyler Long is a hands-on manager and, you know, that practical hands-on aspect of his experience, including his role in the UV-cured coatings, made him their preferred selection.

Integer has a former employee of Biocoat working for them. I presume there was some insight that was provided there.

You know, Dr. Hergenrother is super talented and --

but most of his activity I think in recent years has been outward bound towards customers. And I think Integer thought that this was the appropriate choice for them.

Q. The former Biocoat employee you mentioned, is that Mr. Dhruv Patel?

A. Yes.

Q. Okay. Why not include any salespeople?

A. Integer didn't ask for any, and I'm -- I'm not surprised. They have dozens of salespeople around the globe. They have extensive relationships with all the top customers. Biocoat's struggled to access those, and they have direct access to, you know, many of the customers and portfolios. So it was overlap unnecessary staff to be added.

Q. And why not include any management employees?

A. Again, Integer didn't feel they needed that. You know, they've recently done two acquisitions, Precision Coating and VSi Parylene, and felt that, you know, their ability to absorb this without additional management is -- wasn't necessary.

Q. The next component of the transaction that you have here is Facility.

Why is a facility part of the divestiture?

A. Well, it was -- you know, there was some feedback from FTC that the divestiture would be more appropriate to have a facility. Integer didn't originally request it. I think when you kind of look at this, you know, the operations are -- you

know, this looks like a -- a graduate chemistry lab. You can see the benches in both facilities and, you know, the kinds of capabilities. I'm not sure what people think production looks like in a coatings manufacturer, but I think that Integer felt originally that, you know, maybe they could readily absorb this in another facility.

You know, with closer consideration, it made a lot of sense to transfer a facility with this idea of a shotgun start to competition and make sure that Integer day one could start, you know, immediately prototyping with both thermal and UV-cured facilities. And to have a facility that was already, you know, qualified for coatings production and -- and feasibilities made a lot of sense.

Q. Which of the two facilities pictured here is going to Integer?

A. The Witmer facility on the left.

Q. And how do the Witmer and the Rock Road facilities compare with one another?

A. The -- you know, they have comparable capabilities, comparable capacity. The operations' footprints are roughly the same. The Biocoat overall footprint is larger because it includes warehouse, cafeteria space, and management, you know, administrative offices so, you know, has more spaciousness, if you will, for these adjunct aspects of the business.

Q. Why not provide the additional administrative space,

cafeteria, warehouse, at Rock Road to Integer?
A. It costs money, and Integer didn't want to take on additional incremental expense that they didn't already have. Integer has, you know, many facilities around the globe, well over a million square feet of operating capability. I don't have the specifics, but, you know, taking on excess expense and space that was deemed unnecessary was something they weren't interested in.
Q. Is there anything unique about either of these facilities?
A. No, not in my opinion.
Q. You mentioned that Biocoat uses Witmer as a backup to Rock Road today.

If you divest Witmer, will the combined company no longer have a backup facility?
A. Yes. We'll need to, you know, identify a backup and -- and qualify that accordingly. And so, you know, that's where we would use the Surmodics Minneapolis location as a -- as a backup for the Biocoat production. And, likewise, we would use the Biocoat facility as a backup for the Surmodics production.
Q. And if Integer only gets one facility in the divestiture, does that mean Integer won't have a backup facility?
A. No, they'll, you know, do -- go through the same exercise that we will. They have a very capable facility about 30 minutes away in Pennsylvania, and they have a very capable operation that's currently applying coatings in Chaska,

Minnesota, and I'm sure they'll consider those as options for backup.

Q. The last category here is Transition Services.

Just at a high level, what are transition services?

A. Well, these are the activities that the -- the seller provides to the buyer to ensure a smooth and comprehensive and complete transfer of the business in a timely fashion.

Q. And working off your summary here, could you describe the types of transition services that you'll be providing to Integer?

A. Yeah.

So, you know, it starts with, you know, the UV customers, introducing the customers within a few days of the acquisition directly to their counterparts at -- at Integer.

It's the coating production and know-how. You know, on day one, Integer will receive, you know, a thumb drive with -- with the patents, all the work instructions, all the bill of materials, all the details on the key components, the quality inspection. You know, there's hundreds of documents, and there will be thousands of pages of transfer that go along with that.

And then there's coating application equipment for UV and -- and also thermal that goes along with this.

So, yeah, the knowledge is transferred, you know, formally, just like any kind of license agreement in the life

sciences business, but there's also experienced people that are transferring with this, as I've described earlier.

And so these TSAs codify, you know, the steps that we'll take and are obligated to perform for Integer.

Q. And this bullet Training, what is that referring to?

A. Well, that's the backup training. So, you know, we're -- we're transferring trained, experienced people who, you know, completely know how to operate all this. They're -- you know, Integer is likely to request, you know, Integer employees for additional incremental training as backup to the transfer, and we'll be fully providing that along with all the training documentation that goes along with it.

Q. And what do the Back-Office Services refer to here?

A. You know, that would refer to, you know, basic administrative activities, invoicing, collection of receivables, IT, transfer of e-mail addresses, you know, these kinds of not-related-to-the-business activities.

Q. What you're describing sounds pretty straightforward, but I noticed there are about 22 pages of the TSA schedules. Why do you need all that ink?

A. Well, these are two sophisticated players, and we've been through in great, great detail, you know, all the steps that are required. You know, these are sophisticated manufacturing services operations. You know, my VP of ops tells me -- you know, when I first met him, he says, The first thing you got to

know about me is I make a lot of lists. And, you know, that's the way everybody in a regulated industry operates. We, you know, plan in excruciating detail, and, you know, we know when we've done that then this will happen without, you know, a flaw.

Q. Is doing this type of integration something you have experience with?

A. Yeah. I've been experienced with it, and Integer is experienced with it. This is -- this is standard operating procedure, to move equipment, to revalidate it, to move it from one location to another. You know, at Creganna we were, you know, doing a dozen product transfers all the time. And this is very similar if not easier than many of the ones that both Integer and ourselves would be familiar with.

Q. You mentioned revalidation. Is that a process that will have to occur here?

A. Yeah. There's a, you know, a process to -- for customers to accept the transfer. I think that will likely take some weeks, maybe outside months, but, you know, I think it's pretty straightforward. And, you know, we've anticipated that to make this, you know, as simple and easy as possible for the customers, so I don't really expect it to be an issue.

Q. Is any of that requalification required for Integer to compete for new business?

A. No. You know, that -- that first catheter that they've

probably got in the back of their mind that they've already identified that they'll want to come day one with, you know, they can start prototyping and testing immediately with the current staff and coatings and capabilities day one.

Q. Now, the FTC's economist testified that the combined company will have -- not have an incentive to perform on the transition services. So I just want to ask you very directly, sir.

Do you intend to fully perform the transition services in this divestiture?

A. Absolutely, yes. No question about it.

Q. And besides the assets we just covered, was there anything that Integer wanted or needed that they didn't get?

A. No.

Q. Just to step back at a high level, how do you view Integer's ability to compete with the assets that are being divested to them?

A. I think they will be a very formidable competitor.

They've built a complementary set of -- of coatings for the medical device industry with their recent acquisitions, and this -- you know, this will add to that. And they'll be able to provide one-stop shopping.

I think they have the greatest array of strategic relationships and partnerships with the large OEMs and -- and start-ups in the medical device industry, and they'll be able

to leverage that successfully.

And they've got the financial wherewithal and the intent to invest in the future. I think they will represent extremely, you know, competitive intensity in the -- in the marketplace.

MR. CULLEY: Thank you, Mr. Hance.

No further questions, unless there's redirect, Your Honor.

THE COURT: Thank you.

So I think what we'll do right now is we'll take a 15-minute break until 4:55, and then we can resume with the plaintiffs' cross-examination.

(Recess at 4:40 p.m., until 4:58 p.m.)

MS. PEREZ: Good afternoon, your Honor. Maia Perez on behalf of the Federal Trade Commission. May we approach?

THE COURT: You may approach.

CROSS-EXAMINATION

BY MS. PEREZ:

Q. Good afternoon, Mr. Hance.

A. Good afternoon.

Q. So, on direct, Mr. Culley asked you about efficiencies. Do you recall that?

A. I do.

Q. So, I wanted to talk a little bit about those efficiencies that you went through.

You first talked about freight cost reduction. You haven't actually quantified the freight cost reduction, have you?

A. We have quantified or put an analysis together with an estimate, yes.

Q. And what was the estimate?

A. Between 100 and $200,000.

Q. And that estimate was based off an initial assessment by your employee, correct?

A. I think it was an independent consultant who actually did that analysis.

Q. And when would they have done that?

A. I can't recall exactly, sometime in the last six, nine

months, something like that.
Q. So, Mr. Hance, is it your testimony that it was not Mr. Tom Brugnoli, your employee, who conducted the initial assessment that -- of the freight costs that would be saved by this merger?
A. My understanding is that he provided some information to a third-party consultant who did the analysis.
Q. I see. So, it was information that Mr. Brugnoli -- it was his -- Brugnoli, it was his estimates that were provided?
A. No. He provided the information on customer distances and then allowed for analysis of the two-location approach.
Q. Mr. Hance, do you remember taking a deposition in this case?
A. I do.
Q. And that was in -- that was July 22nd, 2025?
A. Yes.
Q. And you took an oath to tell the truth in that deposition, correct?
A. I did.
MS. PEREZ: Mr. Campos, can you bring up Mr. Hance's deposition, page 344.
BY MS. PEREZ:
Q. Mr. Hance, I'm going to direct your attention to line 22 through page 345, line 1.
And in your deposition, you were asked:

"Q. So the support for the freight cost savings and the cost improvement cost savings is based on Mr. Brugnoli's estimates, given his expertise as an officer of Biocoat?"

And you answered:

"A. I think that's well characterized."

Do you see that?

A. I do.

Q. Did I read that correctly?

A. Yes, you did.

Q. And again on page 339 of your deposition, at line 23 -- I'm going to put that aside, actually.

All right. So then you talked about operational cost efficiencies. Have you quantified those?

A. Modeled those.

Q. Okay. So, you've not performed any cognizable, verifiable analysis of those, correct?

A. I think that's correct.

I'm sorry. Can I clarify the private company costs, I think, which I also mentioned. Are you referring to those as well?

Q. Well, the public company items, I think, were categorized differently. So, operational cost reductions were the second efficiency, and public company reporting costs were administrative cost eliminations, which was the third category, is that right?

A. Yes, that's right. Thanks for clarifying.
Q. So then, there was no analysis, quantitative analysis of the administrative cost eliminations, was there?
A. No. It was a modeling exercise.
Q. And No. 4, the coating services in Galway, Ireland, were those -- there was no quantifiable or quantitative analysis of those, right?
A. It wasn't an analysis done, but we have had two customers specifically request for that service to be located there.
Q. Okay. But you haven't quantified that efficiency, correct?
A. No.
Q. And the fifth category, supply chain resiliency, that was from having more than one location, right?
A. Yes.
Q. But this supply chain resiliency is not -- it's not really a cost reduction, isn't that right?
A. Correct.
Q. And Biocoat already has two production facilities, correct?
A. Correct.
Q. But GTCR is proposing to divest one of those facilities to Integer, is that right?
A. That's correct.
Q. So the proposed acquisition won't actually change the number of U.S.-based facilities that the merged firm would have compared to Biocoat today, right?

A. On the Biocoat side, yes.
Q. And on No. 6, you talked about knowledge sharing. Did you -- that doesn't have any quantified value associated with it, does it?
A. No, we have not done that exercise.
Q. Mr. Hance, on direct, Mr. Culley asked you about the Boston Scientific/Guidant divestiture. Do you recall that?
A. Yes.
Q. And I think you said that the divestiture was very smooth, right?
A. That's my recollection, yes.
Q. You thought it was a successful divestiture?
A. I did.
Q. So, that divestiture happened in 2006, correct?
A. That's right.
Q. That's about 20 years ago?
A. Yes.
Q. And you were not personally involved in the negotiations related to that divestiture, right?
A. I did not conduct the negotiations, that's correct.
Q. So, Mr. Hance, in that divestiture, Guidant was required to divest its entire vascular business, isn't that right?
A. I believe so.
Q. So, that wasn't a partial divestiture; that was a full divestiture of their vascular business, correct?

A. Legally, I think it was a full divestiture within the shared key asset being the drug-eluding stent program.
Q. Well, there were three things divested, three products divested, right, or three areas? There was the -- the PTCA balloon catheters, the coronary guidewires, and the drug-eluding stents; those were all divested, correct?
A. Yes, and also the endovascular business, and there were other products associated, too.
Q. So at the time of the divestiture, Guidant had not entered the U.S. market with a drug-eluding stent, correct?
A. I believe that's correct, yeah.
Q. So when the drug-eluding stent IP was licensed back to Guidant after the divestiture, both parties, the divestiture buyer, Abbott, and the divestiture seller, Guidant, were starting out without any customers, isn't that right?
A. For drug-eluding stents broadly or --
Q. For the drug-eluding stents involved in the divestiture.
A. For those particular drug-eluding stents, of course Boston Scientific had a drug-eluding stent that was already on the market.
Q. But Guidant did not, right?
A. We had a bare metal stent.
Q. And the other two items that were divested, the coronary guidewires and the PTCA balloon catheters, those were already on the market, correct?

A. Correct.
Q. And those already had customers associated with them, correct?
A. Yes.
Q. So they already were generating revenue?
A. For -- for Guidant, and then to Abbott, yes.
Q. Um-hum. And as part of that full divestiture of the vascular business, all of those customers went to Abbott, correct?
A. I can't think of something that didn't transfer, yes.
Q. So, once Abbott acquired the Guidant vascular business, Abbott began selling catheters and guidewires to customers and realizing the revenues from those customers and contracts right away, isn't that right?
A. For those particular products, yes.
Q. But Integer will not receive Biocoat's entire hydrophilic coatings business, isn't that right?
A. Integer will receive the UV coatings curing business in its entirety, and then will -- for -- will start to compete with the thermal-cure coatings.
Q. Well, it's interesting that you say they'll receive their entire business. There are a lot of employees who work on UV who are not being divested to Integer, isn't that right?
A. Well, I'm not sure exactly how to -- how to respond to your question. Many people work partially on -- it's one company.

I guess you could say everybody works on UV and everybody works on thermal.

Q. So, there are -- your testimony is that there are employees who work on UV who are not being divested to Integer, isn't that right?

A. It's a cross-trained employee base, and it's the relevant experience.

Q. Is that a yes?

A. Maybe you could rephrase your question.

Q. There are -- isn't it true that there are employees who work in coatings, UV coatings at Integer -- I'm sorry, at Biocoat that are not being divested to Integer?

A. Yes.

Q. And Integer is not receiving all of the manufacturing plants, isn't that right?

A. They're receiving one of two, yes.

Q. In fact, let's just look at the number of the assets that were involved in the Boston Scientific/Guidant divestiture.

MS. PEREZ: Mr. Campos, can you pull up PX 6092.

THE COURT: You may approach.

MS. PEREZ: Permission to publish, your Honor?

THE COURT: You may publish.

BY MS. PEREZ:

Q. So, Mr. Hance, I'm showing you what's been marked as PX 6092. This is the publicly available decision and order of

the Boston Scientific and Guidant Corporation divestiture or agreement.

And if I could direct your attention to page 3, at J, and the top of page 4, so, Mr. Hance, if you see here, in the Boston Scientific/Guidant divestiture, there were a number of things divested. The assets to be divested included all vascular intellectual property; all Guidant Vascular plants; all vascular manufacturing technology; all vascular scientific and regulatory material; all respondent Guidant's books, records, and files related to the foregoing or to vascular products; all Guidant Vascular manufacturing equipment; all rights, titles, and interests in and to the contracts entered into in the ordinary course of business with customers, suppliers, sales representatives, distributors, agents, personal property lessors, personal property lessees, licensors, licensees, consignors, consignees, including without limitation all contracts with any third-party for the supply of components used in the manufacture of Guidant Vascular products; all inventory, including raw materials, packaging materials, work in process, and finished goods; all commitments and orders for the purchase of goods that have not yet been shipped; all rights under warranties and guarantees express or implied; and all items of prepaid expenses.

Did I read all that correctly?

A. Yes, you did.

Q. And further to that, there were, going to page 13, at L-1 and 2, you can see that, "Not later than 25 days before the closing date, the respondent shall provide to the Commission-approved acquirer" -- that would be Abbott -- "a list of all Guidant Vascular employees."

And further down at No. 2, that, "The Commission-approved acquirer," that's Abbott," would be permitted to make offers of employment to any one or more of the Guidant Vascular employees."

Do you see that?

A. Yes.

Q. So, that is a full divestiture of Guidant's vascular business, correct?

A. I do note some carve-outs on page 4, and, you know, I don't see the points about the drug-eluding stent technology; but I follow you along very clearly.

Q. And as part of the proposed divestiture to Integer, it will not receive all of the manufacturing plants, correct?

A. It will receive one of the two.

Q. And it won't receive all of the manufacturing technology?

A. Correct.

Q. And it won't receive all of your books, records, files related to all of your hydrophilic coatings technology, correct?

A. That's correct.

Q. And it won't receive all of your contracts with business customers, isn't that right?
A. That's correct.
Q. Or all of your commitments and orders for the purchase of goods that have not been shipped?
A. That's correct.
Q. Or all of your inventory?
A. Yes.
Q. All right. So, is it fair to say that the Boston Scientific/Guidant success story is a story of the success of a full divestiture?
A. Well, I might put some more context around it relative to, you know, I would note Boston Scientific had several drug-eluding stent plants that they already had, so there was no interest in -- they were only interested in sharing the technology, and then they were going to transfer that technology into their own production plants.

So, you know, it's a different situation in that particular regard, but, you know, I take your point.
Q. It is a different situation than the divestiture at hand, isn't it?
A. Yes.
Q. And, Mr. Hance, Mr. Culley asked you about Biocoat's competition. Do you recall that?
A. During my testimony you're referring to?

Q. Um-hum.
A. Yes.
Q. Do you agree that neurovascular devices are a key end market for Biocoat's hydrophilic coatings?
A. For its current sales? Yes.
Q. In fact, neurovascular devices are the largest market segment by revenue for Biocoat's hydrophilic coatings, right?
A. Yes.
Q. And cardiovascular devices are the second largest?
A. I don't know that that's true.
Q. Well, they're about 15 percent, isn't that right?
A. I'm not sure that that's true. I'd have to go and examine, look at the figures.
Q. Okay. Well, we can pull up those figures quickly.
MS. PEREZ: Mr. Campos, can you pull up PX 1095.
BY MS. PEREZ:
Q. And we're not going to publish this, but going to page 7, Mr. Hance, do you see here a figure associated with neurovascular?
A. I do.
Q. And that figure associated with cardiovascular?
A. Yes, I see the 15 percent figure for cardiovascular, and I note the ophthalmic is slightly larger.
Q. That's right. All right.
So, moving forward, I'm going to direct your attention

to PX 1018.

And, Mr. Hance, this is an email that purports to be from you to Mr. Moran on October 31st, 2023. Do you see that?

A. I do.

MS. PEREZ: I move to admit PX 1018.

THE COURT: Any objection?

MR. CULLEY: No objection, your Honor.

THE COURT: Okay.

MR. CULLEY: I would ask, though, that we might notify Mr. Hance that the full documents are in the binder next to him.

THE COURT: Okay. The exhibit will be admitted.

(Plaintiffs' Exhibit No. 1018 was received in evidence.)

THE COURT: Mr. Hance, the full document is in that big binder that you're touching with your left hand.

BY MS. PEREZ:

Q. And, Mr. Hance, I'm going to direct you to the middle of the page. It says, "Maybe this is" -- this is an email from you to Mr. Moran on October 31st, 2023, saying, "Maybe this is the neuro coating Charlie was crowing to Mark and me about at MD&M, that he was coming to get the Biocoat neurovascular business."

Do you see that?

A. I do.

Q. And Charlie refers to Charlie Olson?

A. Yes.
Q. Who is that?
A. He's the head of the coatings business at Surmodics.
Q. And what is -- and Mark, is that Mark Weishaar?
A. That's correct.
Q. Who is Mark Weishaar?
A. Mark Weishaar is my partner at Regatta in business development.
Q. And MD&M, what is that?
A. The Medical Devices and Manufacturing meeting.
Q. That's a conference, an annual conference?
A. That's one of several. This one was in Minneapolis.
Q. And in it, you write that Charlie was crowing to you that he was coming to get the Biocoat neurovascular business, correct?
A. That's right.
Q. And that's, again, Biocoat's largest segment, correct?
A. Yes, that's right.
Q. So, let's look at another discussion about competition.

MS. PEREZ: Mr. Campos, can you pull up PX 1097.

BY MS. PEREZ:
Q. And, Mr. Hance, that's also in your binder.

And, Mr. Hance, this is an email from you to Rahul Nair, Mike Weishaar, Ari Sunshine, Brad Pelisek, and Kenny Kiratli dated May 6, 2024.

A. Um-hum.
Q. Do you see that?
A. I do.
Q. And you sent this in your capacity as an individual with Biocoat or as Regatta Medical?
A. This was being Regatta Medical.
Q. Okay.
MS. PEREZ: Move to admit PX 1097.
THE COURT: Any objection?
MR. CULLEY: No objection, your Honor.
THE COURT: Plaintiffs' Exhibit 1097 will be admitted.
(Plaintiffs' Exhibit No. 1097 was received in evidence.)
BY MS. PEREZ:
Q. And so Mr. Hance, in this email, Rahul Nair -- the first email in the chain, Rahul Nair writes to you. Who is Rahul Nair?
A. He was a -- or was an analyst at GTCR working on the deal team.
Q. Okay. And for what deal?
A. The Surmodics deal.
Q. Okay. And this is in May 2024, when GTCR was looking at acquiring Surmodics, correct?
A. Correct.
Q. So, Mr. Nair writes to you and Mark, or Mr. Weishaar, "We had a positive conversation with our IC today."

IC, is that the GTCR investment committee?
A. That's correct.
Q. "We had a positive conversation with our IC today on the Surmodics process. One of the follow-ups coming out of the meeting was a deeper dive on some of the other top hydrophilic coatings companies that directly compete with Surmodics and Biocoat. We were going to make profiles of each of the following companies: Harland, with a mention of ISurTec, DSM, and Hydromer. Can you please confirm that these are the names that you would recommend including."
Did I read that correctly?
A. Yes, you did.
Q. And so Harland, that's a UV hydrophilic coatings company, right?
A. That's correct.
Q. And DSM is also UV?
A. Yes.
Q. And Hydromer is a thermal coatings company, isn't it?
A. You know, I just -- frankly, I'm less familiar, but that could be correct, yeah.
Q. You don't recall whether Hydromer is a thermal or UV-cured coatings company?
A. You know, I honestly haven't studied Hydromer as closely, so that's probably correct.
Q. And so in this email, Mr. Nair is saying that the companies

that directly compete with Surmodics and Biocoat are two UV companies and a thermal hydrophilic coatings company, isn't that right?

A. Harland is UV, DSM is UV, ISurTec is UV, correct.

Q. And he asked you to confirm that these are the names that you would recommend when assessing the companies that directly compete with Surmodics and Biocoat, right?

A. Yes.

Q. And you respond, "Hi, Rahul. That seems like the right list. Chip."

A. Yes.

Q. And you wrote that?

A. I did.

Q. So, you agreed with Mr. Nair that these were the three -- that these two UV companies and one thermal company were all direct competitors with Surmodics and Biocoat in May 2024, didn't you?

A. On that day in that casual conversation, I agreed with that, yes.

Q. And this was for an investment -- GTCR investment committee project, correct?

A. Yes. This is, you know, standard, routine follow-up questions. I see there were other comments down below that you haven't mentioned, but yes.

Q. And it's important that the GTCR investment committee gets

accurate information, isn't it?
A. Excuse me.
Yes, I would -- I would hope so.
Q. And so when you had confirmed for Mr. Nair that those were the correct companies that directly competed with Surmodics and Biocoat, that was -- you felt that that was accurate information, correct?
A. I thought this was a reasonable list to respond to the -- the follow-up probe that the investment committee asked, yes.
Q. And, Mr. Hance, on direct, Mr. Culley asked you about the applications of UV and thermal coatings. Do you recall that?
A. Yes.
Q. And you testified about substrates, but you have to dive into the details, isn't that right?
A. Yes.
Q. Mr. Hance, when was the last time that you worked in application development?
A. I have not worked in application development.
Q. Now, you haven't worked in application development with hydrophilic coatings?
A. I have supervised people who have worked in application development.
Q. But you haven't yourself done it?
A. That's correct.
Q. So, wouldn't someone who works in application development

be more familiar with the details of the types of curing that works on a majority of surfaces?

A. I think they would have great experience, yes.

MS. PEREZ: I'll reserve my further questions for the *in camera* session, your Honor.

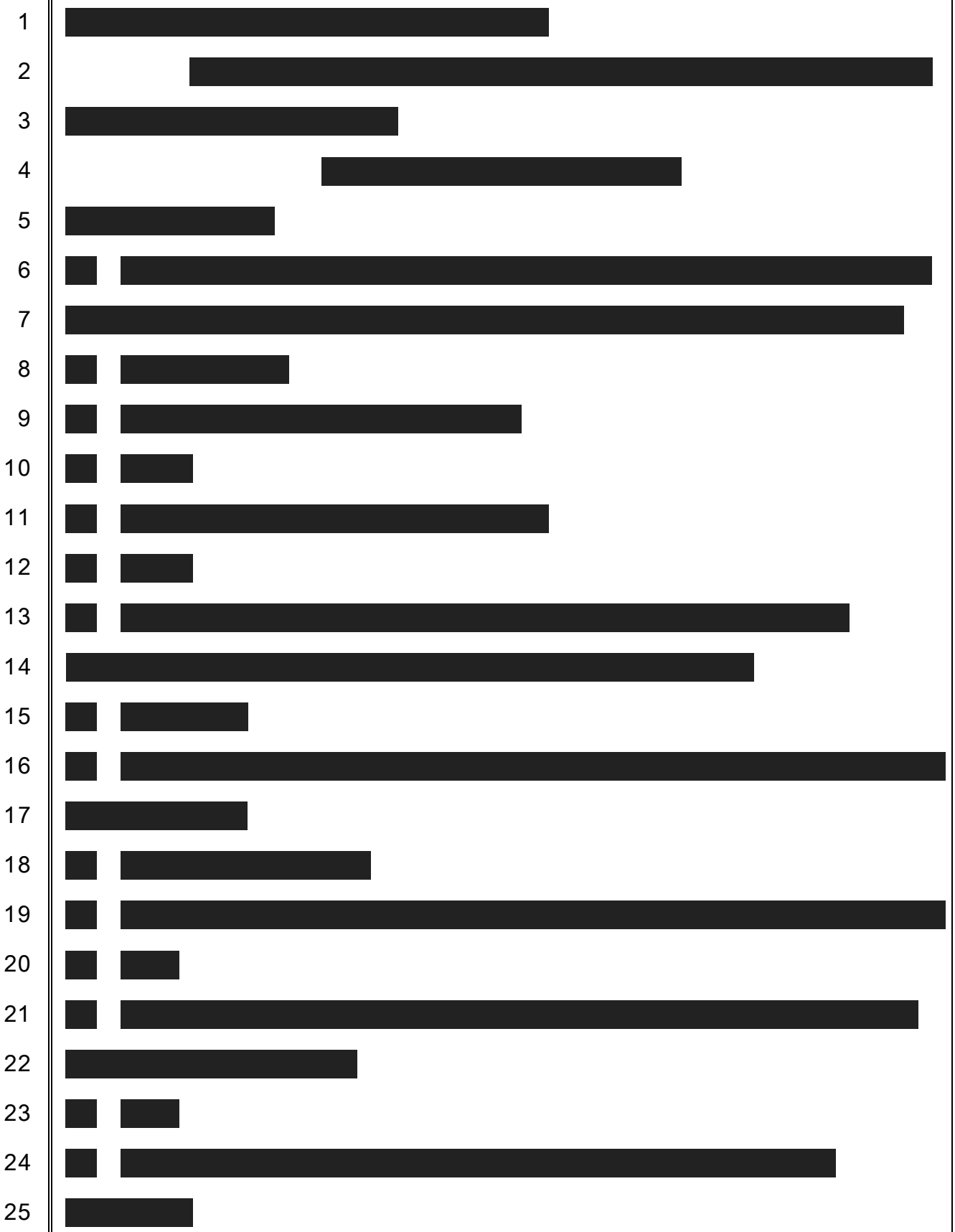
THE COURT: Okay. Mr. Culley, do you have any follow-up questions for the public session?

MR. CULLEY: No, your Honor.

THE COURT: Okay. So, at this point, I think we'd like to have the members of the public who are not members of the legal team please exit the room.

Ms. Chambers, if you could cut the audio feed to the remote courtroom.

[redacted]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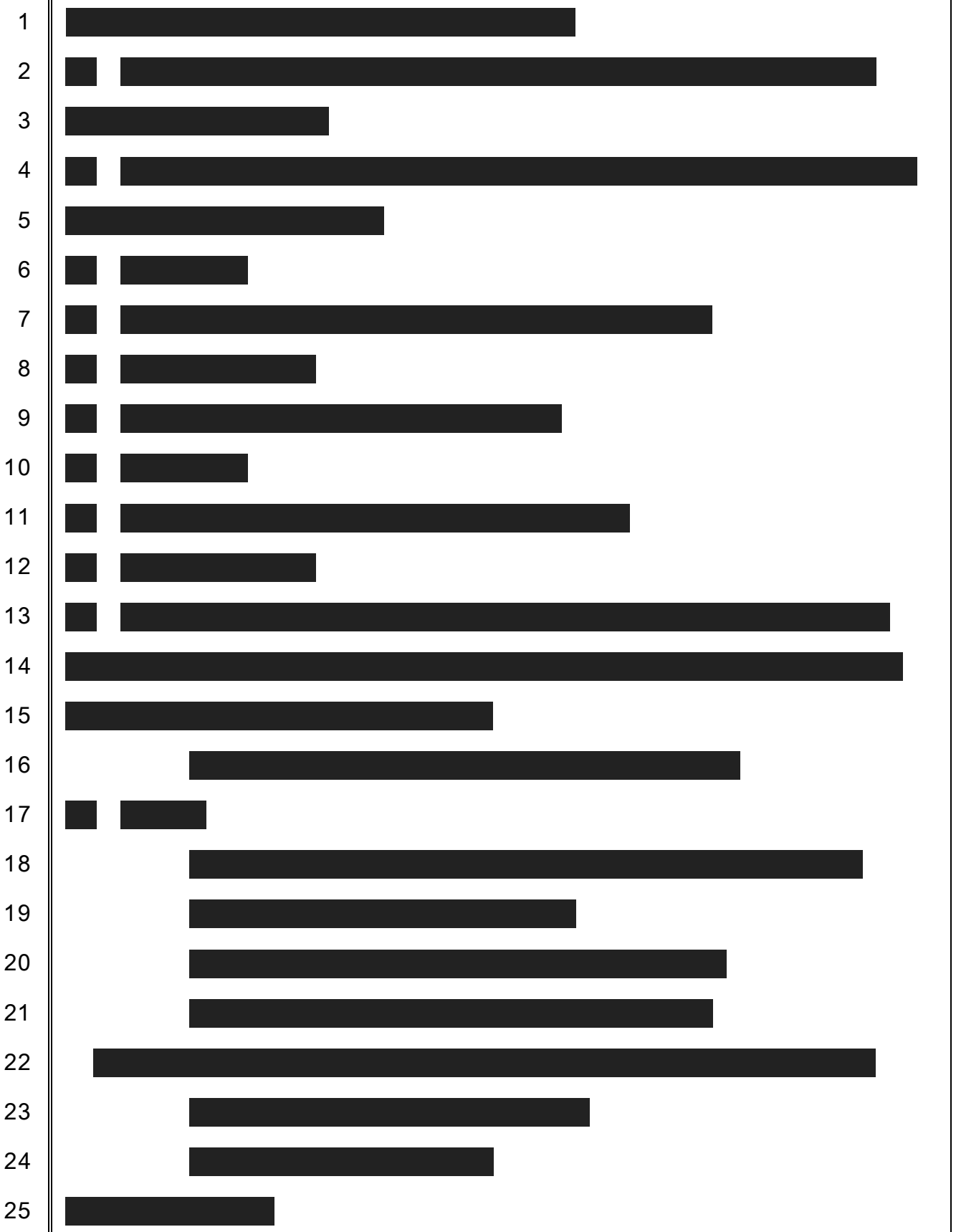
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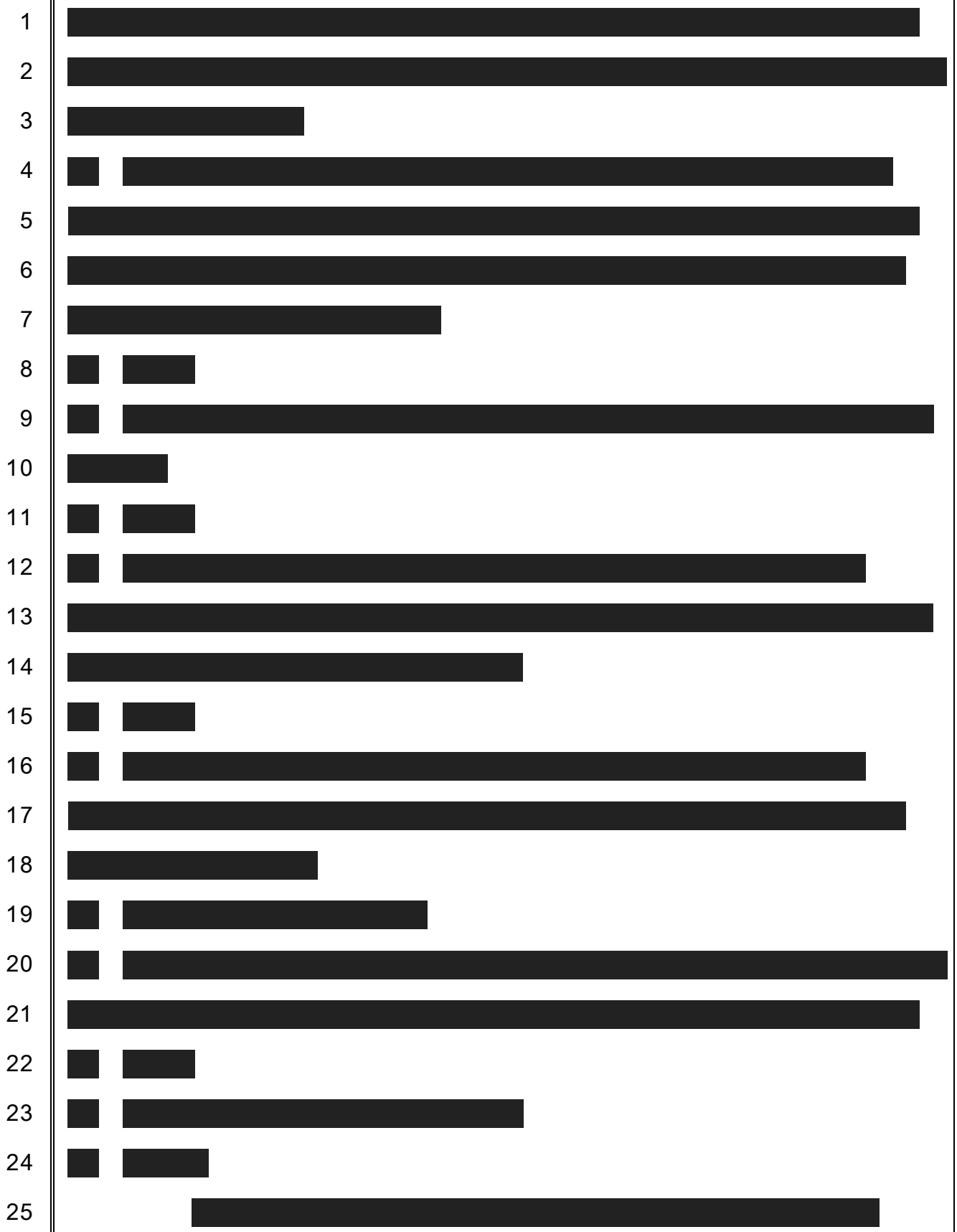
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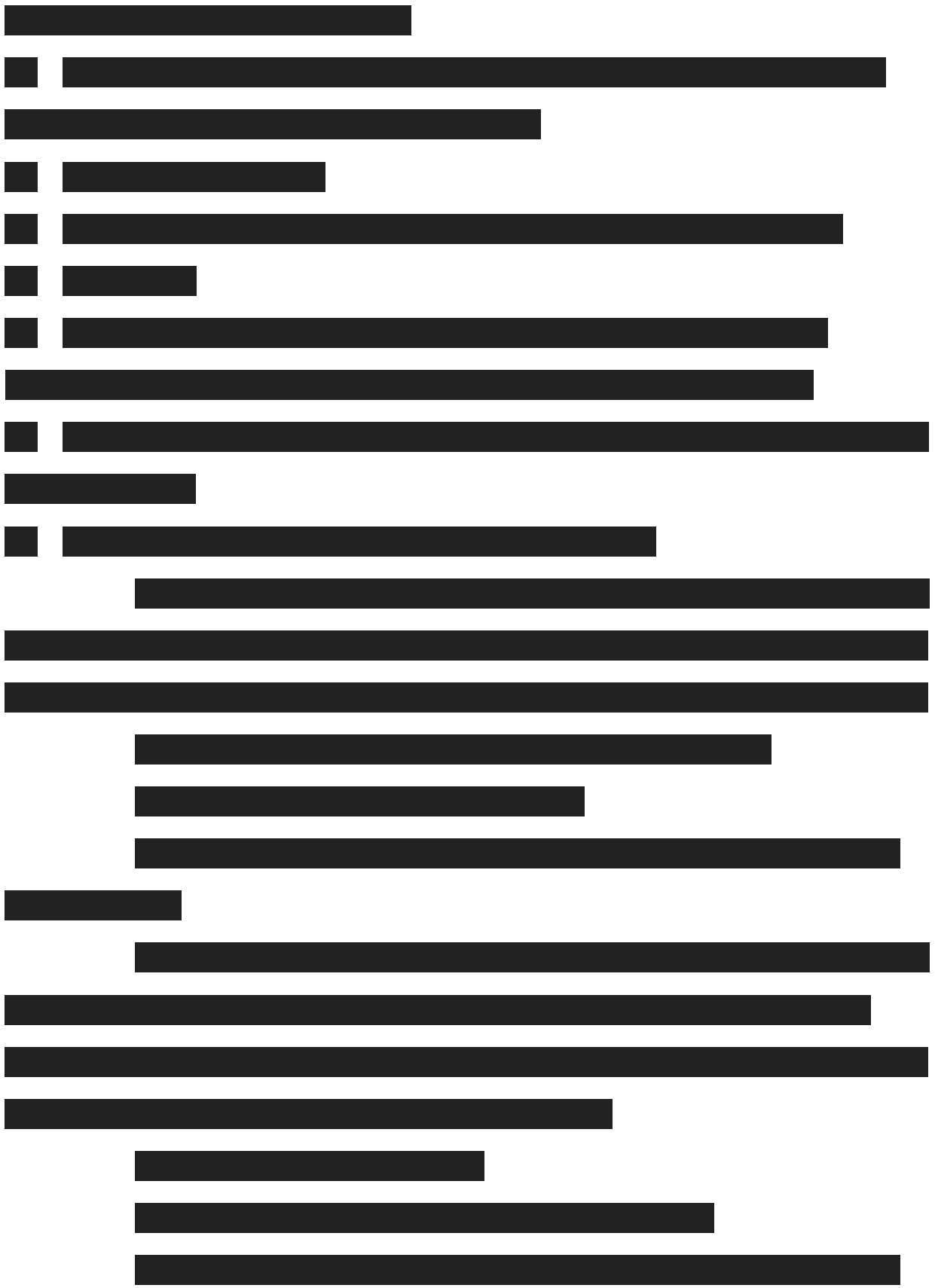
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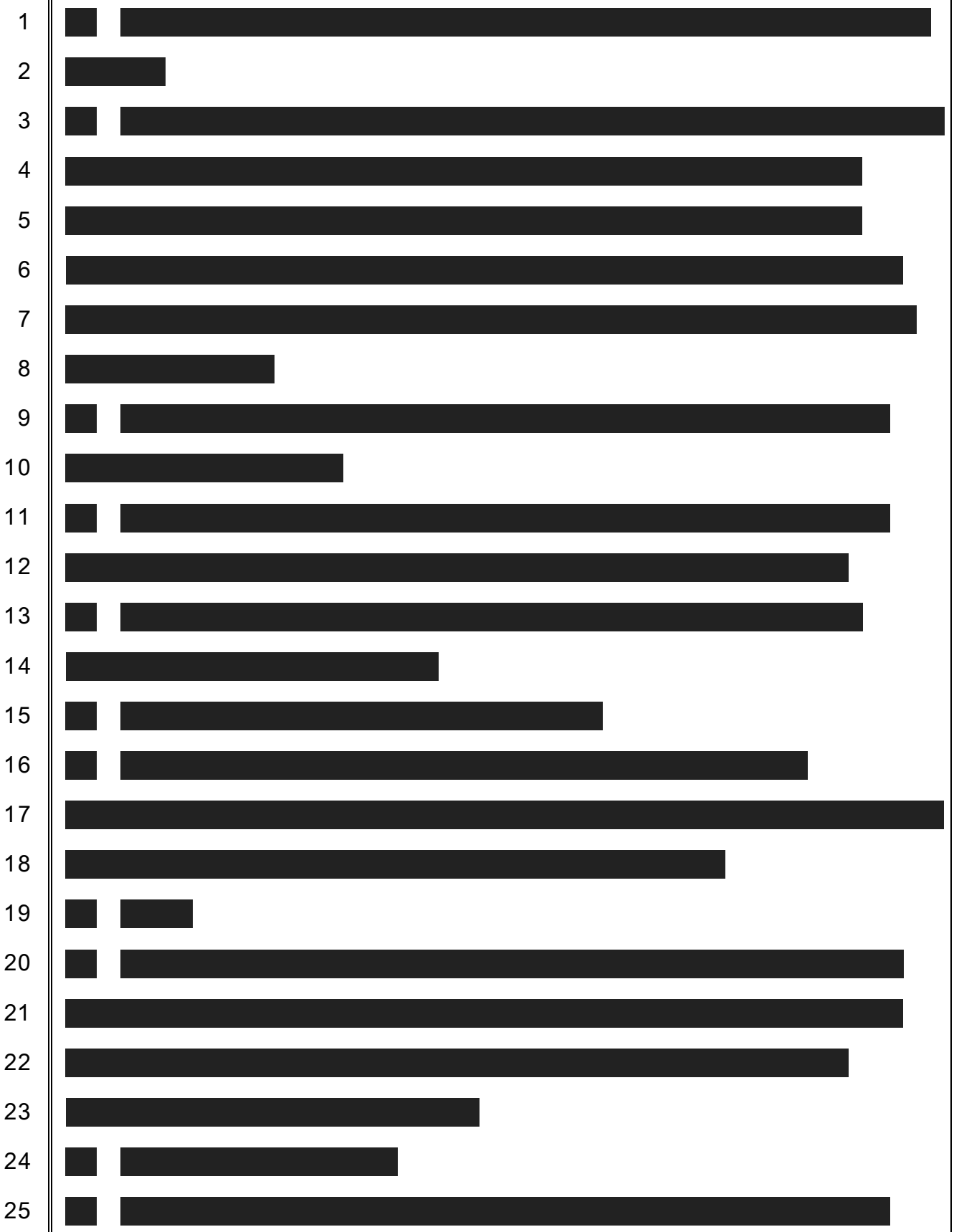

[redacted]

THE COURT: And to wrap up for the day, we'll get started tomorrow at 9:30. And we'll cover as much ground as possible.

THE CLERK: The court stands in recess. All rise.

(Court adjourned at 6:06 p.m., to reconvene at 9:30 on 8/28/25.)

* * * * *

I certify that the foregoing is a correct transcript from the record of proceedings in the above-entitled matter.

/s/Charles R. Zandi *August 28, 2025*
Charles R. Zandi
Official Court Reporter

/s/Joseph Rickhoff *August 28, 2025*
Joseph Rickhoff
Official Court Reporter

/s/Kelly M. Fitzgerald *August 28, 2025*
Kelly M. Fitzgerald
Official Court Reporter

I N D E X