STATE OF OHIO) SS: IN THE COURT OF COMMON PLEAS MAHONING COUNTY) CASE NO. 96 CV 2055 DOROTHY A. GONDA, Individually) and as Administratrix of the Estate of David Paul Gonda, Deceased Plaintiff DEPOSITION vs. OF HM HEALTH SERVICES, ET AL) ROBERT D. HOFFMAN, II, M. Defendants DEPOSITION taken before me, Debra M. Moore, a Notary Public within and for the State of Ohio, on the 8th Day of December, A.D., 1998, pursuant to agreement and at the tim and place therein specified, to be used pursuant to the Rules of Civil Procedure or by agreement of counsel in the above cause of action, pending in the Court of Common Pleas, within and for the County of Mahoning, State of Ohio.

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INDEX CROSS EXAMINATION BY MR. TRAVERS - PAGE 5 CROSS EXAMINATION BY MR. FRASURE - PAGE 73 CROSS EXAMINATION BY MR. BLOMSTROM - PAGE 101 RECROSS EXAMINATION BY MR. TRAVERS - PAGE 113 **OBJECTIONS AND MOTIONS:** BY MR. RUF: PAGE(S) 10, 29 31, 32 33, 34, 46, 47, 48, 53, 58, 66, 76, 100 BY MR. MALIK: PAGE(S) 19, 20, 30, 31, 32, 33, 35 39, 47, 58, 65, 72 PLAINTIFF'S EXHIBITS INTRODUCED: NONE DEFENDANT'S EXHIBITS INTRODUCED: EXHIBIT A - PAGE 105

4 1 2 3 4 STIPULATIONS 5 б It is stipulated and agreed by and between 7 counsel for the parties hereto that this deposition may be taken at this time, 10:00 a.m., December 8, 1998, in the 8 9 offices of University Hospitals of Cleveland, 2085 Adelbert Road, Cleveland, Ohio. 10 It is further stipulated and agreed by and 11 12 between counsel that the deposition may be taken in shorthand by Debra M. Moore, a Notary Public within and for 13 14 the State of Ohio, and may be by her transcribed with the use of computer-assisted transcription; that the witness 15 will read and sign the finished transcript of his 16 17 deposition. 18 19 20 21 22 23 24 25

1 WHEREUPON, 2 ROBERT D. HOFFMAN, II, M.D., of lawful age, being by me first duly 3 sworn to testify the truth, the whole 4 truth, and nothing but the truth, as 5 hereinafter certified, deposes and б 7 says as follows: 8 CROSS EXAMINATION: 9 By Mr. Travers Good morning, Dr. Hoffman. My name is 0 10 I'm the attorney in this case for Dr. Ruiz, 11 Tom Travers. 12 and we are here in Cleveland today to conduct your deposition. This is simply an opportunity for us to ask 13 14 questions of you to make sure that we're fully informed of 15 the opinions that you hold in this case and the rationale supporting those opinions in anticipation of the trial of 16 17 this lawsuit. I have a few suggestions for ground rules this 18 morning, if I may. First of all, I would ask if you're 19 20 going to answer questions yes or no, you say yes or no, 21 rather than uh-huh or huh-uh. That helps the court reporter get an accurate transcript back. 22 Secondly, it's important that you understand my 23 24 questions. If you answer them, I'm going to assume you 25 understood what I was asking. If you don't, please make

sure that I'm aware of that, and I'll be happy to address 1 2 whatever problem that you're experiencing. I view this as an informal proceeding, If you need to 3 take a break to use the restroom or answer a page or get a 4 drink of water or talk to the lawyers for the Gonda family, 5 for whatever reason, please just identify that to me, and 6 7 I'll be happy to address your concern. Those ground rules 8 are okay with you today? 9 Α Yes, they are. Would you tell me your full name, please? 10 0 11 Α Robert Hoffman. 0 As I understand it from your CV, Doctor, 12 you presently are the Director of Autopsy Pathology here at 13 14 UH in Cleveland; correct? That's correct. 15 Α And you've held that position since 1992? 16 0 That's correct. 17 Α 18 0 How many other physicians are on staff in the Pathology Department here at the hospital? 19 There are about 20 practicing Α 20 21 pathologists in the department. And it's also a teaching facility for 0 22 23 pathologists? Yes, it is. We have a pathology 24 Α residency training program that I direct. 25

Q I have previously been given your CV, but 1 I see that this one's dated 12/8/98, so this must be a 2 I've not had a chance to look through it brand new one. 3 here this morning. I assume that this is complete and 4 5 accurate? It is. Α 6 7 0 As of today, I guess? 8 Α Yes. I want to be clear at the outset, Doctor, 9 0 how you view your role in this case. Are you here as an 10 expert witness to lend your expertise to some of the 11 12 difficult medical issues, or are you here as an advocate 13 for the Gonda family to assist in the presentation of their claim? 14 I believe my role is to clarify the 15 Α autopsy findings, which is the area of my expertise. 16 As opposed to being an advocate for their 0 17 18 case, as I understand what you're telling me; correct? I'm here to tell you the truth as I see Α 19 20 it. 21 0 Okay. The reason I ask, primarily, is because I view a distinction here. If, as we proceed, if 2.2 you're serving in the role of an expert, I'm going to ask 23 that you just answer my questions, rather than feel 24 25 compelled to explain why they're stupid questions or

misleading, which I would view more in the role of an 1 2 advocate. Do you understand the distinction I'm trying to make? 3 4 Α Not particularly. Q Okay. 5 б MR. RUF: He's just here to answer 7 your questions. And I guess that's all I'm hopeful that 0 8 9 we will do today. That's your plan; correct? That's correct. Α 10 Okay. Now, do you claim any particular 11 0 12 specialized expertise in the pathological diagnosis of infective endocarditis? 13 14 None other than would be held by a А 15 competent pathologist who performs a number of autopsy 16 examinations. I think that's a reasonable degree of 17 expertise. I see a number of cases of infective 18 endocarditis every year. 0 I think you've answered my question, but 19 20 the distinction I'm trying to make is if we went to one of 21 the other 20 pathologists here on staff at University 22 Hospitals, and assuming that they have a reasonable degree 23 of expertise, you don't claim to have more specialized training or understanding in the identification of 24 25 infective endocarditis than they may?

I see many more hearts than essentially Α 1 2 all of them, and I do many more autopsy examinations than any of them, as you're probably aware. Outside of the 3 4 setting of transplantation surgery, the diagnosis of infective endocarditis, you know, in whole-heart specimens 5 is an autopsy procedure. 6 Do you have any particularized training 7 0 in studying hearts at autopsy that a typical pathologist 8 may not have? 9 Α Yes. I mean, I have brought into place 10 11 in our autopsy service a number of procedures that I 12 learned when I was a trainee at the Johns Hopkins University, mostly involved with the diagnosis of coronary 13 artery disease. These are, I think, specialized procedures 14 and techniques that I've brought into play. 15 Do you know whether you have a higher 16 0 degree of expertise than the staff pathologists at 17 Cleveland Clinic? 18 I do not know specifically the staff 19 Α 20 pathologists that you're referring to. Well, do you know any of the individuals 21 Q 22 whose names appear on Mr. Gonda's autopsy report? 23 Α No, I do not. 0 Without knowing their degree of education 24 or expertise, would you agree that you don't claim to have 25

a higher degree of expertise than they may? 1 2 MR. RUF: Objection. 3 Α I wouldn't agree to that. I don't know who these people are. If they walk in this room, I 4 5 wouldn't know them. 6 Well, I quess that's my point. That's 0 7 why I'm suggesting you don't claim to have a higher degree 8 of expertise than they do, because you don't know their expertise; correct? 9 10 MR. RUF: Objection. 11 I reiterate, I don't know who these Α 12 people are, and I don't want to put myself above or below 13 them on that basis. That's all I'm asking, honest. 14 I have 0 15 not reviewed all of the publications that are included here on the updated CV which has been provided to me. Can you 16 tell me whether any of those specifically deal with the 17 identification of bacterial endocarditis on autopsy? 18 No, none of them do. а 19 Ο Any of your other presentations or 20 abstracts? 21 22 Α No, I have not published any 23 presentations or abstracts related to this topic I would like to spend a moment to make 24 0 sure that I am clear on the things that you have done and 25

1 reviewed in order to formulate the opinions which you hold 2 in this case. 3 Α Okay. First of all, is it true that you 4 0 5 reviewed no gross specimens from Mr. Gonda's autopsy? I reviewed some photographs of gross Α б 7 specimens from Mr. Gonda's autopsy. But the actual specimens themselves 8 0 9 you've never seen, certainly? 10 Α No, I have not. Do you hold any importance to actual 11 0 12 review of the gross specimen in order to render a 13 completely informed opinion? I'm not sure I understand that question. 14 Α 15 0 Well, in order for a pathologist to reach an accurate conclusion in his report, do you believe that 16 17 it is advantageous to have had the opportunity to review the gross specimens? 18 Α It would have been an advantage to have 19 20 been able to do that, but I believe that the materials that I had to examine were adequate for the diagnoses that I 21 22 reached. Q Okay. Let's identify what those are, if 23 we may. Are you talking about photographs of gross 24 25 specimens, as opposed to the individual microscopic slides

1 identified in your report? That is correct. Α 2 3 Do you have those with you today? 0 Α I do not, no. 4 Do you have a recollection of what 5 0 photographs you have viewed? 6 Yes, I've seen a photograph of a А 7 cross-section of the fixed heart and a photograph of a 8 cross-section of the unfixed heart and a photograph of a 9 section of one of the lungs. 10 11 0 Do you still have those in your 12 possession? 13 А I do, yes. 14 I assume that the book you have in front 0 of you there, then, is not all of the materials which you 15 have reviewed in this case? 16 That is correct. 17 Α I'm going to ask to see what 'ou have 18 0 here in a moment, but before doing so, can you tell me what 19 else you have looked at or reviewed not included in the 20 21 materials that you have brought with you to the deposition today? 22 Mr. Malik sent me a videotape of a Α 23 24 transesophageal echocardiogram, which was of very little 25 use to me. I can see that there's something there in the

1 chamber of the heart, but I am not an expert in performing those diagnoses, so that was of very little importance to 2 I have done some library research on this case. And 3 me. 4 then these materials here would, I think, be pretty much the extent of it. 5 0 It's not clear to me from my review of 6 7 your report, and I don't have personal knowledge, do you know whether the original slides that you reviewed when you 8 9 authored your first report were copies of the slides in existence at the Clinic, or were they new cuts made from 10 the blocks specifically for your review? 11 Α I believe you just described the same 12 thing twice. They were copies that were made for me for my 13 14 review, but I also did go to the Cleveland Clinic and examine the original slides that were on file. 15 0 Okay. So you have seen both? 16 And I've also had some recut slides 17 Α Yes. 18 made that I've had some stains performed on. And those are the slides identified as 0 19 reviewed by you in your supplementary report? 20 Yes, correct. 21 Α 22 Q Can you identify for me any important distinctions between the slides that are on file at the 23 Cleveland Clinic and those which were cut for your review? 24 25 Α No, I believe that the copies that I had

to review were reasonable and accurate replicas of the 1 original slides at the Cleveland Clinic. 2 Q I apologize, Doctor, if I'm not following 3 you. You went to the Cleveland Clinic and looked at their 4 original slides? 5 That's correct. Α 6 7 0 And there was then a set of their 8 original slides reproduced and provided to you? That's correct. Α 9 10 But other than those recuts that were 0 11 made subsequent to your original report, were there any other cuts made from the block that you reviewed or any of 12 13 the blocks that were not part of the materials that would 14 have been reviewed by the physicians at the Cleveland 15 Clinic? 16 Α I had some unstained sections of a couple 17 of the slides made and sent to me here, which I had stained 18 in our laboratory. And, you know, those specific slides were not available to the doctors at the Cleveland Clinic. 19 And this is the last batch of slides that 20 0 formed the basis of your supplementary report? 21 That's correct. Α 22 23 But at the time you dictated your 0 original report, the only things that you had seen would be 24 identical or copies of the materials that were available to 25

the clinicians at the Clinic? 1 2 Α That's correct. 0 Okay. Have you spoken to any of your 3 4 colleagues concerning the issues presented in this case? Yes, I have. 5 Α Q Have you shown the slides to other б 7 members of the department here for their opinions? Α I don't believe I have, no. 8 9 0 With whom have you spoken here from the department about this case? 10 I have spoken with Dr. Jacobs in the 11 Α department, who trained in Africa. And with -- it's Gretta 12 Jacobs. And also with her husband, Michael Jacobs, who is 13 14 a microbiologist, both of them in the department. 0 And what was the purpose of your 15 16 conversation with them? Α Asking if they had ever been exposed to 17 18 cases of endomyocardial fibrosis when they were practicing 19 in Africa. Had they? 20 0 Α They expressed some doubt about that as a 21 22 diagnostic entity, but they had heard of it, certainly. Was any information provided to you by Ο 23 24 either Dr. Jacob important in the conclusions which you have reached in this case? 25

Not at all. 1 Α 2 Have you spoken with any of your other 0 3 colleagues? А No, I don't think so. 4 0 You mentioned that you had done some 5 6 review of medical literature? 7 Yes. Α Can you tell me, first of all, what you 0 8 reviewed? 9 10 Α Well, the usual procedure to begin a 11 medical review is to look at the literature databases, and in this particular case I would have looked at 12 endomyocardial fibrosis to find out what the most recent 13 papers were on the topic, to review recent papers or recent 14 15 reviews on infective endocarditis, particularly germane to 16 mural endocarditis as we're seeing in this case. This is a computerized literature search? 17 0 Yes. The National Library of Medicine 18 Α runs a very thorough, complete system called Medline, which 19 20 is accessible, really, to everybody. And you can get lots 21 of literature that way. Did you make copies of any of the journal 22 0 23 articles that were identified in your search? 24 Yes. Α Do you have those with you today? 25 Q

I do not. Α 1 Were any of those important in assisting 0 2 3 you to reach the conclusions that you have authored in 4 either of your reports? 5 Α They were, particularly the ones on б endomyocardial fibrosis. I needed a basis against which to compare the observations that I was making when I was 7 looking at the materials from the Gonda case in order to 8 know if this even came close to remotely resembling the 9 diagnostic criteria that are used. 10 11 Do you have any recollection of what 0 journal articles you've reviewed in that regard? 12 I have several. I mean, if it becomes 13 Α 14 important, I could have those provided to you. MR. TRAVERS: Well, I am going to ask 15 Mr. Ruf and Mr. Malik if they would be willing to provide 16 those journal articles that you've reviewed before your 17 deposition today. 18 MR. RUF: Sure. 19 20 MR. MALIK: No problem. 21 0 Did you review any texts? 22 Α There are not a lot of texts written on that subject. Mr. Malik was able to find an obscure text 23 24 from India, I believe, that he had a copy sent to me. Ιt wasn't really very helpful, didn't really add anything 25

1 above what I had learned from the journal articles. Is that because of the language it was 2 0 written in or the information? 3 No, it was in very good English, but it 4 А 5 just didn't add anything. I mean, it was description, and 6 I had already seen enough description, so it came sort of 7 late in the course of events. The journal articles that you reviewed, 8 0 9 any idea how many there were? 10 Α There are not many. It's -- I would say 11 a dozen, at most. 12 0 Were they all from a similar journal or 13 multiple journals? 14 Multiple. Α Can you identify the journals, if not the 15 0 16 articles? They're pretty obscure journals, too, 17 Α 18 most of them. It would be an exercise of extreme amount of 19 memory. 20 Q I'll take that to mean you don't remember 21 the names of the journals? 22 I don't remember, I'm sorry. А You teach residents? 2% Q I do. 24 Α 0 Are there standard texts or journals that 25

you use in the training of your pathology residents? 1 Α Yes. 2 0 Can you identify those for me? 3 Well, I think in autopsy pathology, 4 Α probably one of the best is Robbin's Pathologic Basis of 5 Disease. 6 0 Do you know what the most recent 7 8 publication is of Robbin's? Just came out this year, I believe, 9 Α which I think is the eighth, maybe. 10 There was an earlier edition back at the 11 0 time that Mr. Gonda's autopsy was being performed? 12 Yes. Α 13 Do you find Robbin's to be a reliable 14 0 textbook? 15 Α Yes. 16 Q That's a yes? 17 Α Yes, I'm sorry. 18 And of the various texts available to a 19 Q pathology resident, would you find Robbin's to be the most 20 authoritative of them? 21 MR. MALIK: Objection. 22 It's a good bread-and-butter pathology 23 Α textbook. There are esoteric diagnoses that are not 24 covered, including endomyocardial fibrosis. It's not 25

1 something that makes it into that type of textbook with a lot of descriptive detail. 2 3 0 The information contained in the text, 4 though, if it's in there, it's reliable --5 Α Yes. -- information? б 0 7 Α Yes. 0 Are there journals that also you would 8 9 find to be equally authoritative? 10 MR. MALIK: Objection. I mean, I think that there are 11 Α Yes. 12 journals that I regard highly. New England Journal of 13 Medicine, I believe, is a good journal. American Journal of 14 Pathology. There are reliable journals, but you have to search far and wide to find coverage of that particular 15 16 topic. 17 Those journals and Robbin's text 0 18 certainly do include information, though, concerning autopsy pathology in cases of infective endocarditis? 19 20 Α Oh, yes. 21 Q And you find the information contained in 22 those journals reliable and authoritative on that issue? 23 Α Generally, yes. In addition to -- have we talked about 24 0 25 all of the literature research that you have performed?

Α I believe so, yes. 1 I believe from your report you were also 2 0 provided with clinical records for this patient? 3 I was. 4 Α Have you studied all of those? 5 0 Yes, and they are voluminous. Α 6 0 Would you identify for me what records 7 you have, please? 8 Okay. I have a copy of the autopsy Α 9 report from the Cleveland Clinic. I have a copy of an 10 11 admission to St. Elizabeth Hospital of 4/23/75. I have a 12 University Hospitals of Cleveland record from 5/27/94. Ι have a University Health Services record from -- there's no 13 date. Cover letter says December 6, 1995. That may just 14 have been the day that it was mailed out, I'm sorry. Let's 15 16 see. Well, no, this goes back to -- it goes as far back as 17 1986 through 1995, apparently. 0 I'm sorry to interrupt you. The 5/27/94 18 UH record, that's for an inpatient admission? 19 20 MR. FRASURE: It's University Health Services, isn't it? 21 MR. RUF: It's University Health 22 Services. 23 The one before that, I thought you 0 24 25 identified University Hospitals.

No, this is University Hospitals 1 Α 2 admission. And that is an admission? 0 3 Α It appears to be, yes. 4 5 You have reviewed that admission? 0 Uh-huh. 6 Α 7 0 Do you know what the reason for the 8 patient's admission was? I don't believe that that's a 9 record that's been provided to me previously. It says cellulitis of face. Let's see. 10 Α Then some records from Dr. Adornato in Youngstown. 11 12 Q Okay. 13 А Some records from Pulmonary 14 Rehabilitation Associates; some records from Dr. Juan Ruiz. That's my client. 15 0 Okay. Some admissions from -- some Α 16 records from St. Elizabeth's, 8/15/95 admission; an 17 18 emergency room record apparently from St. Elizabeth's 19 Hospital on -- I'm sorry, I don't see the date on these 20 forms. A history and physical from St. Elizabeth's 21 Hospital from an 8/15/95 admission; progress notes from the 2.2 same admission, St. Elizabeth's Hospital; some 23 consultations from the same admission; a report of an 24 echocardiogram from the same admission; report of a 25 transesophageal echocardiogram from the same admission.

1 Q I'm sorry to interrupt, Doctor. You've never seen tapes of any of the echocardiograms performed on 2 him, have you? 3 Yes, I have. 4 Α 0 Not the TEE. Any others? 5 That's the only one I believe I've seen. б Α 7 0 That's the only one I'm aware of that exists. That's what I wanted to make sure. 8 I have laboratory reports from the same 9 Α admission, apparently. Electrocardiogram from the same 10 admission. Some doctors orders. 11 These are all different tabs for Q 12 different parts of the same admission chart? 13 14 Α Yes. 15 0 You don't have to identify each individual section. 16 Then we jump to an admission at Cleveland Α 17 Clinic Foundation, 8/17/95, which is also broken down into 18 several tabs, and which ends with an Autopsy Report and 19 Death Certificate. 20 I suppose it's a lawyer's nature to be 0 21 nosy, but in addition to the materials in the binder, there 22 seem to be also a lot of loose documents that you've 23 brought with you here as well. 24 25 Α Yes.

Q Can I take a look at those for one 1 2 second? These are mostly experts' reports, copies 3 Α 4 of my own reports. MR. FRASURE: Can I see the Death 5 6 Certificate, Doctor, while he's looking through there? THE WITNESS: (Complying). 7 MR. FRASURE: Thank you. 8 As I understand the sequence of events, 9 0 10 Doctor, you were provided with these medical records and a 11 bunch of slides. You reviewed them, you authored a report, and in that original report back in October of '97, you 12 suggested it might be helpful if you could get some new 13 slides. Those were provided to you, and then you dictated 14 15 a supplementary report? That is correct. Α 16 MR. FRASURE: I think the first 17 report is March of '97. 18 19 0 That's the point I want to get to, the report dated March of '97 I'm guessing is misdated. You 20 21 wrote the first report in October of '97, then issued another report that is dated March of '97 in which you have 22 23 already seen the slides that you had asked for in the 24 report of October of '97. Do you follow me? I quess my 25 question is, do you know when you dictated -- do you know

1 when that March of '97 report was prepared? That does appear to be an error. 2 Α No. Ι usually rely on the word processor to automatically enter 3 the date, and apparently I had locked in the date in the 4 5 word processor, and so it did not update automatically when I authored this. That is -- I do not know. 6 The report dated March 9 of 1997 was a 7 0 report that was done after the report that is dated October 8 of '97; do you agree with that? 9 10 Α Yes, that follows. That is correct, 11 because it clearly has information that was additional to 12 the original report. And -- well, let me see. What was the date that I sent this to -- wait a minute. Oh, it's 13 3/17/98. That's the issue. Yes, the date was -- it's 14 15 probably the year was in error. It appears likely that the report dated 16 0 17 March 9 of '97 was, in fact, dictated in March of '98? That is correct. I believe that's true. 18 Α You have not prepared any additional Q 19 20 reports since that time? 21 А No. Have you authored any earlier drafts of 22 0 23 either of these two reports? I don't believe so, no. That was -- I 24 Α 25 believe you have two reports which just reflect an update

of the information based on the additional material. 1 Would you be able to summarize for me in 2 0 a nutshell any substantial change in opinion between the 3 two reports? I recognize that the narrative includes what 4 additional testing you reviewed and things, but is there a 5 substantial change in your opinion between those two 6 7 reports? Α No, not a substantial change. 8 Is there any change in the opinions that 0 9 10 you hold that you can identify? 11 А No. 12 0 One of the reasons I ask is that my recollection -- and I don't have both of the reports right 13 14 here in front of me right now, but I believe that you indicated in your first report that this was an infective 15 16 endocarditis, and your supplementary report specifically 17 identifies it as a bacterial endocarditis. Do you recognize whether that's a correct distinction between 18 those reports? And I'm referring to --19 Α The bottom of the page? 20 0 Exactly. 21 MR. FRASURE: Where are we, Tom? 2.2 MR. TRAVERS: The final list of his 23 anatomic diagnoses. The first one from the October '97 2.4 report says acute endocarditis, probably infective in 25

etiology. The March of '98 report says acute bacterial 1 endocarditis. 2 MR. FRASURE: Probably polymicrobial? 3 MR. TRAVERS: Yes. 4 Α I believe that is just a refinement of 5 the previous diagnosis based on the additional material, б 7 not really a substantial change. Well, when you dictated your original 0 8 report, my perception was that you thought that the 9 infective endocarditis could have had either a bacterial or 10 a fungal origin? 11 That's true. Α 12 And at the time you dictated your second 13 0 report, then, you have now eliminated fungal endocarditis 14 from the opinions that you hold as to what this autopsy 15 showed? 16 That is -- yes, that is a reasonable 17 Α assumption. 18 Why did you effect that change? Q 19 Because I have positive cultures from the 20 Α autopsy which demonstrate numerous microorganisms, and my 21 special stains that I performed on the additional -- on 22 stained slides that were provided to me indicated the 23 presence of bacterial organisms. 24 But they also indicated the presence of 25 0

1 fungal organisms, did they not?

2 On the culture report, there is a -- I Α believe a Saccharomyces cerevisiae that was identified, but 3 I don't see Saccharomyces in the slides. Fungal organisms 4 tend to stand out like a sore thumb on special stains. 5 6 Bacterial organisms can be much more subtle. Okay. I have reread that portion of your 7 0 8 March report and will acknowledge that perhaps I misread it 9 before. You're not saying that you identified fungal 10 pathogens on the staining that you did. You are commenting 11 that those were indicated on the original autopsy at the Clinic? 12 Α They come from the culture report from 13 14 the Clinic, yes, which was provided to me later. I didn't have that at my first review. 15 In any event, you no longer believe that 16 0 17 there was a fungal etiology for what you believe to be the patient's endocarditis3 18 No, I don't think so. 19 Α Would it be accurate, Dr. Hoffman, that 20 0 21 the major thrust of the opinions that you hold in this case is articulated in your written report of March 9 in what 22 we've deemed to be 1998? 23 24 Α Yes. 0 One of the reasons I ask that is because 25

your report does not address whether the medical care 1 2 rendered to this patient by Dr. Cropp and by my client, Dr. Ruiz, was acceptable or deviated from the standard of care. 3 4 My perception from your report is that it is not your intention to render any opinions concerning the 5 6 reasonableness of the treatment which this patient received? 7 Α I will not comment on any aspects of the 8 patient's care. 9 Do you have some understanding of the 0 nature of the claims that are being made against the 10 11 defendant physicians in this lawsuit? Α Very little, to be honest with you. Ι 12 don't. 13 14 Do you have an understanding that the 0 15 opinions that you have authored here in your report are a 16 prerequisite to the Gonda family proving that the defendant physicians committed medical malpractice in this case? 17 18 MR. RUF: Objection. I assume that there is some process that Α 19 20 brought this case to Mr. Malik's attention. My role in 21 this process is to review the autopsy findings. 22 You do acknowledge that there's a 0 difference of opinion concerning the nature of the disease 23 process which Mr. Gonda suffered, even after he died when 24 25 the autopsy was performed? There's a difference between

1 you and the Cleveland Clinic conclusion; correct? 2 Yes, a very great difference. Α Can you tell me how frequently in your 3 0 profession substantial differences of that nature occur in 4 the interpretation of autopsy findings? 5 6 MR. MALIK: Objection. 7 Α They certainly occur in cases that are 8 performed by individuals who do not have a great deal of 9 experience, who may not have resources to investigate the 10 findings that they're observing. I don't want to interrupt you. Is your 11 Q 12 answer completed? 13 It's complete. Α Ο Would you agree that in circumstances 14 15 where you have pathologists who are well trained, with a reasonable degree of expertise and reasonable resources 16 available to them, that it is a fairly unusual occurrence 17 18 that there would be such a dramatic difference of opinion, 19 as is evidenced in this case? 20 MR. MALIK: Objection. 1 would think that, given a great deal of 21 Α 22 expertise and adequate resources, it would be difficult for this degree of discrepancy to arise. Yes, I am surprised 23 24 that there is this degree of discrepancy, to be honest with 25 you.

0 1 Would you agree that it is reasonable to 2 conclude that if there's such a degree of discrepancy even after the patient died, that it is also reasonable to 3 believe that a clear indication of his disease process 4 would be difficult to ascertain while he was alive? 5 MR. RUF: Objection. 6 MR. MALIK: Objection. 7 Α I would not make that assumption. 8 0 9 Do you hold an opinion, Dr. Hoffman, 10 concerning whether or not the individuals involved in authoring the official Autopsy Report from the Cleveland 11 Clinic acted in a manner that was a violation of the 12 standard of care for practicing pathologists? 13 The practice of pathology in most Α 14 teaching hospitals is a training function, which is often 15 performed by relatively inexperienced individuals, with 16 supervision from more trained staff. And at some point 17 there has to be a transition where pathologists begin to 18 take responsibility for their own Autopsy Reports. 19 This 20 report strikes me as one that was authored by a relatively 21 inexperienced pathologist. I don't know this individual, 22 however. 0 Do you even know who drafted that report? 23 There's three names on it. I think we're going to find out 24 25 that information, perhaps, tomorrow, but I don't claim to

know at this point whose work that is. I think there are 1 two staff physicians and a resident, all whose names appear 2 3 on the cover page of the Autopsy Report. There's a Joseph Schreenan, who I don't 4 Α know, and a Dr. Sharon Hook that I don't know. 5 Q And a resident as well? 6 7 Α Yes, and a resident, Nancy Wagg 8 (phonetic spelling). Well, if you would, at my request, assume 9 0 that no matter who drafted that report, that it, before 10 11 becoming final, was reviewed and approved by an experienced 12 and competent staff pathologist at the Cleveland Clinic, 13 would that individual who rendered final approval of that report have violated the standard of care for practicing 14 15 pathologists? MR. RUF: Objection. 16 Objection. 17 MR. MALIK: 18 Α No, I don't believe that it would pe a violation of standard of care. I'm not sure in autopsy 19 pathology that standard of care really has the same 20 21 meaning. One tries to interpret what one sees as best one 22 can, and these people may very honestly believe that they see what they're seeing here. 23 0 Well, perhaps this isn't entirely 24 accurate from a legal perspective, but the way I'm asking 25

the question from standard of care is whether or not the 1 2 person with ultimate approval upon review of this autopsy 3 who put the final stamp of approval on that report, would that person be acting in a reasonable fashion, or are the 4 5 differences between your conclusions so unreasonable as to constitute a violation of the standard? Basically I'm 6 using the test of reasonableness. 7 MR. MALIK: Objection. 8 MR. RUF: Objection. 9 Let me withdraw that question and ask a 10 0 different one, Dr. Hoffman. Here's all I'm trying to find 11 out with this line of questioning, is are we looking at two 12 pathologists who review the same materials and have a 13 difference of opinion, or are you saying that yours is the 14 15 reasonable interpretation of this study and theirs is an unreasonable interpretation? 16 MR. RUF: Objection. 17 I believe that my interpretation is the 18 Α reasonable interpretation of this study, and I believe 19 that --20 21 I'm sure I knew that before coming today. 0 I guess my question is focused on the Cleveland Clinic 2.2 23 report. Is that an unreasonable conclusion that they 24 reached, or is it just a difference of opinion from what 25 you believe to be the correct conclusion?

I believe it is an --Α 1 MR. RUF: Objection. 2 3 Α It is an unreasonable opinion. 4 0 Let me ask the same question concerning 5 the Death Certificate. Do you disagree with the 6 conclusions of the Death Certificate on cause of death? The causes of death listed on the Death 7 Α 8 Certificate are pulmonary hemorrhage, which is true. At least it is present. The underlying intermediate cause is 9 listed as tumor emboli, which doesn't even agree with the 10 Autopsy Report as was originally written. And the 11 12 underlying cause of death that initiated the train of 13 events is listed as tumor of myocardium, parentheses, right 14 ventricle, which, again, really does not agree with the 15 findings even in the Autopsy Report. 16 I would add that Death Certificates are often written without the benefit of autopsy results. In fact, the box 17 31-A, was an autopsy performed, is not checked, and box 18 31-B, were autopsy findings available prior to completion 19 of cause of death, is also not checked, so there's no 20 21 reason to assume that the physician who filled out the Death Certificate had any clue of the autopsy results. 22 Q Well, do you disagree or do you agree 23 with the primary and secondary causes of death identified 24 25 on the patient's Death Certificate?

1 MR. MALIK: Objection. 2 Α I disagree. Q How would you have filled out that 3 section of the Death Certificate identifying the cause of 4 death? 5 Continuing objection. 6 MR. MALIK: I believe that the immediate cause of Α 7 death was thromboembolism, probably infective, involving 8 the elastic pulmonary arteries. Intermediate cause of 9 death, acute bacterial endocarditis, probably polymicrobial 10 11 in etiology, involving endocardial scar in the right ventricular outflow tract. And the underlying proximate 12 cause of death would be polymicrobial infection, site 13 unknown. 14 0 Okay. Dr. Hoffman, do you know how you 15 were selected to serve in the capacity of reviewing these 16 autopsy findings? 17 Α I really do not. Mr. Malik called me and 18 described to me a fantastic -- that's the best word for 19 20 it -- clinical scenario that just didn't make sense to me and asked if I would review the autopsy slides and attempt 21 22 to come to some sort of an opinion of my own about what I was looking at. But I don't know how he found my name. 23 You've never had any previous dealings 24 0 with him? 25

1 Α No. 2 Q Or Mr. Ruf? No. 4 Have your services been previously 0 5 retained to serve as a consultant in medical-legal disputes? 6 Yes, they have. 7 Α 8 Q On how many occasions? At varying levels, maybe ten or twelve 9 Α cases in the past. 10 11 0 Would they all be in the Cleveland area? 12 Α Yes. 13 0 Have any of them dealt with issues 14 concerning causes of death? 15 Α Yes. 16 All of them? 0 17 Α All of them involve autopsy findings, 18 yes, and expert opinion related to autopsy findings. 19 0 Can you tell me how many of those, approximately, involved cardiac causation? 20 21 Α I'd say two or three of those. 22 And was there a dispute in those cases 0 23 concerning what actual type of cardiac causation occurred? 24 In the other ones, no. Α 25 What would be the reason for your Q
1 participation, then, as an expert? I believe in attempting to put a time 2 Α 3 frame around a particular set of events, particularly germane to coronary artery disease, acute myocardial 4 infarction. 5 Have any of the cases that you've been б 0 7 retained in previously dealt with -- I'm going to take a quess, not with endomyocardial fibrosis probably; right? 8 No, this case is unique in that regard. 9 А How about infective endocarditis? 0 10 Α I don't believe infective endocarditis, 11 although I do believe that one of the cases did involve 12 nonbacterial thrombotic endocarditis. 13 Do you have a recollection of any 14 Q identifying information concerning that case, for example, 15 what lawyers were involved, what the patient's name was, 16 anything of that nature? 17 18 Α I believe it was a guy from Nurenberg, 19 Plevin. It might be Tom Mester was the attorney that was 20 involved. I cannot remember the name of the patient. 0 21 Do you recall whether you rendered a 22 deposition in that case? You know, I don't specifically remember Α 23 whether or not that one made it to deposition. I know that 24 one's also settled at this point, but I don't believe I can 25

1 remember if we did a deposition or not. 2 Have these all been medical malpractice 0 cases that you've been involved in, or is there a wider 3 variety of cases where your expertise has been sought? 4 Medical malpractice I believe they all 5 Α 6 are, yes. 7 Ο Can you tell me how many of those cases 8 you have rendered reports or testimony on behalf of the defendant physician or hospital? 9 10 It's a good mix. I'd say it's almost Α 11 evenly divided. 12 0 Do you take any actions to make it known 13 that you might hold yourself available to act as a 14 consultant in medical-legal matters? There is no reason to do that. People 15 А 16 find you. No, I do not advertise in any way. 17 Have you ever been sued for medical 0 18 malpractice? I have not. 19 Α Can you explain to me, Dr. Hoffman, your 20 Q 21 reasoning in agreeing to act as an expert consultant in this particular case? Why is it that you're doing this? 22 23 What's your motivation? 24 Α I believe that this is a very good way to get exposure to cases that are otherwise considered to be 25

difficult. I do bill for my services, so there's a 2 financial incentive. I believe in this case the original Autopsy Report was not accurate and that the accurate 3 Autopsy Report, even had this case not been pursued into 4 5 litigation, provided some degree of comfort to the relatives of the deceased in knowing, perhaps, a little bit 6 better what caused the death of their son. So there are 7 8 many reasons. I'm from Youngstown and don't claim to 9 0 10 know this, but my sense is that there's sort of an inter-city rivalry between UH and the Clinic that is 11 Is that accurate? ongoing here. 12 13 MR. MALIK: Objection. Α I have a great deal of respect for the 14 15 Pathology Department at the Clinic. I believe our institutions do compete for patient care, and it's, I think, 16 fairly well known that medical care is a competitive field. 17 18 I'm not motivated by that in any sense. 19 Q Depending on the outcome of this case, would it be your inclination to communicate a misdiagnosis 20 by the Pathology Department of the Cleveland Clinic among 21 22 your peers? That would not be my immediate goal, no. 23 Α 0 Well, I don't think that that was the 24 question I asked, if that was your immediate goal. 25 Is it

1 likely that you would do that? It is possible, yes. I mean, should such 2 Α a case ever arise again, I think that it would have to be 3 understood that misdiagnoses do occur. 4 Would you take some delight in being able 5 Q 6 to do that? No, no particular delight. 7 Α You mentioned your monetary compensation. 8 0 9 How is it that you're being paid for your services in this 10 case? Α I am providing bills to Mr. Malik, and he 11 12 is providing me or has provided me with one payment up to this point. 13 14 Certainly you have no -- the amount that 0 15 you bill or are paid is in no way dependent upon the outcome of the lawsuit? 16 17 Α No, absolutely not. Is it strictly an hourly fee arrangem nt? 18 0 That is correct. 19 Α 20 And what is your hourly fee that you are Q 21 charging? \$250 per hour for testimony, not sworn. 2.2 Α 23 And for this procedure here we're going for \$500 an hour. You don't like taking oaths? Or maybe Q 24 25 I'm not clear on why there's such a huge distinction. Does

it depend on who's paying you? 1 No, it really does not. 2 Α 3 Why is it twice as expensive to give 0 sworn testimony as unsworn testimony? I don't understand. 4 I believe that it is customary among 5 Α expert witnesses to make that distinction, and I believe 6 that testimony under oath is a much more formal and much 7 more stressful event. 8 9 Can you tell me how many hours you have 0 spent so far before your deposition today in reviewing this 10 11 matter and authoring your various reports? Α I believe that my account with Mr. Malik 12 13 thus far has included about \$1,800 worth of payments. So if you do the division there, that is all it --14 Q I saw that note, though, but I thought 15 16 that was prior to the time that you got the new slides and 17 authored the addendum report. I have not billed him since, and Right. Α 18 19 I would imagine that the amount of time since then may have 20 been about \$1,000, maybe, beyond that. I'm not absolutely certain. 21 22 Do you keep any independent records of 0 23 the amount of time that you spend prior to preparing your formal invoice? 24 Α Yes, I do. 25

Where do you have those records? 1 Q 2 I keep those at home. Α 3 Doctor, have you ever performed an Q autopsy on a patient with endocardial fibrosis? 4 5 Α I have not. Had you ever heard of that disease Q 6 7 process prior to your involvement in this case? Α Yes, I have. 8 9 Q And what was your knowledge of that 10 disease before the Gonda matter? That it is a rare entity, essentially 11 Α confined to equatorial Africa and equatorial South America; 12 13 that there is some question about the nature of the 14 process, you know, the cause being relatively unknown, 15 completely unknown. 0 You've never been involved in a case 16 where that condition has been diagnosed? 17 18 Α Absolutely not. And you would claim no independent Q 19 information concerning the etiology of that disease 20 21 process? No, I have no information about that. 22 Α 23 0 Do you know whether it's infectious in 24 nature? 25 I don't believe that anybody does, Α

What types of -- I'm going to call it EMF 1 0 for endomyocardial fibrosis, if that's okay with you. 2 That's fine. 3 Α 4 What types of EMF are you familiar with? 0 5 Are you aware of different classifications? I believe that it can be classified on Α 6 the basis of the location of involvement in the heart. 7 There's left-sided and right-sided endomyocardial fibrosis. 8 There is also a spectrum of disease that ranges from that 9 which is described in Africa to an entity which is 10 11 sometimes seen in this country known as Loeffler's endocarditis. 12 13 Do you agree that Loeffler's is a 0 14 sub-category of EMF? I don't believe that's necessarily true, Α 15 16 no. Can you identify any distinctions in the 17 0 way that those diseases manifest themselves at end stage? 18 Not at end stage, necessarily. But the 19 Α classic description of Loeffler's endocarditis involves a 20 prominent blood eosinophils. 21 22 0 I indicated I'm going to use EMF. Can I use EO's too? 23 Α Sure. 24 25 What is your understanding of the 0

1 involvement of the EO's in the development of Loeffler's
2 endocarditis?

I don't believe that the causal mechanism 3 Α is clear. The presentation of high numbers of eosinophils 4 in the blood is somehow believed to cause a scarring 5 6 reaction in the lining of the heart, similar to that which is also seen in a condition known as carcinoid syndrome. 7 Somehow substances released from neuroendocrine tumors or 8 from eosinophils in the blood cause this scarring reaction 9 in the lining of the heart. 10 11 Have you ever been involved in doing an 0 autopsy of a patient with Loeffler's endocarditis? 12 I believe I have seen them, but E have 13 А 14 not performed them. 0 And you've seen the resulting scarring 15 from that condition? 16 17 Α Yes 18 Can you identify it for me, how that 0 19 scarring would be different in substance than the scarring presented by Mr. Gonda? 20 The scarring in that condition is what we 21 Α 22 pathologists call very bland. It's collagen that is laid 23 down in the lining of the heart with little or no inflammatory infiltrate. In contrast is Mr. Gonda's heart, 24 the lining of which is a very hot, acute inflammatory 25

1 reaction.

2	Q Can one tell on post whether scarring
3	was, in fact, the result of eosinophils or not?
4	A Only by association with the other
5	findings at the time of the autopsy. But scar tissue is a
6	fairly stereotypical end stage result of most damage to the
7	heart. You can have scarring in the heart caused by a
8	myocardial infarct, by an infection, by a degenerative
9	process. And once you have a scar, it's a scar. It's very
10	difficult to go further unless you have another clue to
11	help you.
12	Q What findings would you be looking for in
13	other organs if the scarring of the heart was the direct
14	result of eosinophils?
14 15	result of eosinophils? A First of all, I would look for
15	A First of all, I would look for
15 16	A First of all, I would look for eosinophils either in laboratory reports prior to the time
15 16 17	A First of all, I would look for eosinophils either in laboratory reports prior to the time of death or in deposits in tissues. Eosinophlia may result
15 16 17 18	A First of all, I would look for eosinophils either in laboratory reports prior to the time of death or in deposits in tissues. Eosinophlia may result from a neoplastic or preneoplastic condition, in which case
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15 16 17 18 19 20 21	A First of all, I would look for eosinophils either in laboratory reports prior to the time of death or in deposits in tissues. Eosinophlia may result from a neoplastic or preneoplastic condition, in which case one would expect to see abnormalities in the bone marrow which would lead one to suspect that there may be increased production of these cells and their release into the blood.
15 16 17 18 19 20 21 22	A First of all, I would look for eosinophils either in laboratory reports prior to the time of death or in deposits in tissues. Eosinophlia may result from a neoplastic or preneoplastic condition, in which case one would expect to see abnormalities in the bone marrow which would lead one to suspect that there may be increased production of these cells and their release into the blood. Q Are you aware of a disease entity called

not occurred in individuals in Africa, yes. 1 Are you aware of whether there are cases 2 Q of that nature that have occurred in the United States? 3 I believe I received a copy of a report 4 Α 5 from the Cleveland Clinic about that very topic. So that you're aware that there have been 6 0 7 at least two diagnosed conditions of non-African EMF here 8 in Cleveland; correct? 9 I've seen that report. Α 10 MR. RUF: Objection. 11 0 Do you have any reason to doubt the 12 accuracy of that report? 13 Α No. Do you know Dr. Moody? 14 Q No, I do not. 15 Α 0 Well, is part of the reason -- well, let 16 me ask this first. Your opinion is that this patient did 17 18 not have any type of endomyocardial fibrosis; is that 19 accurate? That is accurate. Α 20 21 0 Is that conclusion based at all on the 22 rarity of the disease? Yes, it is. Common things are common. 23 Α 24 We have to work with a certain spectrum of diseases that we 25 see in our population and only with great trepidation go

outside of that. 1 Well, that is generally true of 2 0 clinicians, wouldn't you agree? 3 MR. RUF: Objection. 4 0 Let me ask the question differently. 5 Don't you think that, in light of the rarity of that 6 disease, that the individuals at the Cleveland Clinic would 7 give careful consideration before authoring an Autopsy 8 Report saying that that was the cause of this patient's 9 10 death? MR. RUF: Objection. 11 12 MR. MALIK: Objection. I would think so. Α 13 0 I mean, if you're going to go out on a 14 limb and identify an extremely rare breed of disease, it's 15 not something that a reasonable pathologist does without 16 careful consideration? 17 MR. MALIK: Objection. 18 I believe a pathologist has to consider Α 19 very carefully the reasonableness of the diagnoses that he 20 reaches. And one of the criteria that determines whether a 21 disease is reasonable is whether or not it is a common 22 disease in our population. 23 Q Based upon your review of the journal 24 25 information, are you aware of the characteristic findings

1 of EMF autopsies? 2 Α I believe so, yes. Would you agree that a primary component 3 0 4 of those is a fibrotic lesion of the heart? 5 Α Yes, that is true. Mr. Gonda had such a fibrotic lesion, did 0 б 7 he not? Α He had a fibrotic lesion, but not one a 9 which was typical of the descriptions of endomyocardial 10 fibrosis, either African or the ones that have been reported in the United States. 11 Q Doctor, I'd like to go back to the 12 13 beginning of the deposition today when I was asking about 14 whether you were just an expert or an advocate. And the 15 reason I mention that again is because I'm not looking, 16 hopefully, today for you to advocate your position by 17 supplementing information to the questions that I'm asking, 18 and I would request that you not do that. 19 MR. RUF: I'm going to object. He 20 can answer the questions as he sees fit. And he's here to 21 answer the questions. He doesn't have to answer them 22 exactly as you want him to answer them. Here's my question, Doctor. Did Mr. Q 23 Gonda, on autopsy, present with a fibrotic lesion of his 24 25 heart?

Yes. 1 Α Are you aware of the general clinical 2 0 findings on autopsy as to where fibrotic lesions are 3 located in EMF patients? 4 Α Yes. 5 What is your understanding of that issue? 0 6 Α That they tend to involve the apices of 7 the ventricular cavities and extend from the apices toward 8 the base, progressively involving the AV valve mechanisms. 9 Left tends to be more common than right. 10 Sometimes both? 0 11 Sometimes both. 12 Α But Mr. Gonda's lesion was in his right 13 Q ventricle; correct? 14 15 Α Correct. And that is one of the areas identified 16 0 historically as a common site of EMF fibrotic lesions, the 17 right ventricle? 18 It is the less common of the ventricles, 19 Α 20 yes. I'm not sure how I want to address this Q 21 next issue with you, Dr. Hoffman, but I'm not asking what 22 23 is more suggestive or less suggestive of EMF in these autopsy findings. But what I would like you to do is, from 24 either your review of the original Cleveland record, the 25

1 Autopsy Report, or from your review of the microscopic 2 findings, including the slides that you had prepared for your review, if you can identify for me findings that you 3 believe to be absolutely inconsistent with the existence of 4 EMF? 5 I believe that the presence of 6 Α Okay. lung abscesses in the setting of septic thromboemboli and a 7 suppurating lesion of the endocardial surface are 8 9 inconsistent with the diagnosis of endomyocardial fibrosis. 10 MR. BLOMSTROM: Could I get the 11 second one again? I didn't catch that. Suppurating lesion of the endocardial 12 Α surface. 13 14 You agree that lesions of the endocardial 0 15 surface are common in EMF patients? They are the very nature of EMF. 16 Α So the reason that this particular 17 0 18 finding you identify as inconsistent is because of the 19 adjective you used that I'm not going to try to pronounce? 20 Α Full of pus is what that adjective Yes. 21 means. 22 What is your basis of concluding that the Q 23 lesion was suppurating? 24 Α Suppuration is identified by the presence of abundant neutrophil leukocytes in the lesion. 25

1 0 And you are able to identify abundant 2 leukocytes in this lesion? Abundant polymorphonuclear leukocytes, Α 3 4 yes. And how is it that you reached the 0 5 conclusion that there were abundant leukocytes? 6 To use a lay expression, they were wall 7 Α to wall, whole fields filled with them in the microscope. 8 9 0 Is there anything else about the findings 10 on autopsy or your review of the slides contradictory to the existence of endomyocardial fibrosis, other than the 11 12 lung abscesses and the suppurating nature of the lesion? Examining the materials that I had to 13 Α determine the distribution of the lesions in the heart, and 14 15 here I'm speaking most specifically of the gross photographs of the heart, which I was provided, it appears 16 17 that the lesion spares the apex of the right ventricle. There are case studies of EMF patients 18 0 where the lesion was not in the apex of the ventricle; 19 isn't that true? 20 I don't believe I can adequately answer 21 А 22 that question. 0 Is it your testimony that the lesion must 23 be in the apex of the ventricle in order for it to be an 24 25 EMF lesion?

Α 1 No. I want to ask you some questions about 0 2 infective endocarditis, and I guess based upon your 3 supplementary report, we can limit this now to bacterial 4 5 endocarditis; okay? That's fine. Α б Just as an intellectual pursuit, if you 7 0 would, if I were to present this case, the David Gonda case 8 9 to you with the diagnosis of bacterial endocarditis and ask you to make a list of all of the contraindications that 10 that would be a correct diagnosis, can you help me with 11 12 such a list? Do you mean absolute contraindications or 13 А relative contraindications? 14 I'm going to ask you about both, and I'd 0 15 16 be happy to allow you to answer them together or separately, at your preference. 17 18 Α Okay. I'm going to assume that you don't 19 0 20 believe there are any absolute contraindications or that wouldn't be your diagnosis; right? 21 Right. This case is relatively unusual, 22 Α in that the inflammatory reaction does not appear to 23 specifically involve the valves. That places it in a 24 category of endocarditis called mural endocarditis, which 25

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tends to occur in two different settings. One is overlying 1 2 diseased myocardium, and the other would be in the setting of an infection being spread from elsewhere in a solid 3 form, as perhaps by embolic disease. So this case differs 4 from most examples of infective endocarditis that you will 5 see in this one important aspect. 6 I suppose I shouldn't try to put words in 7 Q your mouth, but it's my impression from my literature 8 review that valvular involvement is a hallmark of infective 9 endocarditis; is that not accurate? 10 MR. RUF: Objection. 11 That is not accurate. Α 12 Can you estimate for me what percentages 13 0 14 of patients who demonstrate infective endocarditis have 15 valvular involvement? The overwhelming preponderance, 98 16 Α percent plus, probably, have valvular involvement, and then 17 there are a rare number of cases that have mural 18 endocarditis. 19 20 0 And just so that we're clear on this 21 point, there is absolutely no demonstration in Mr. Gonda's case that there's involvement of any of his cardiac valves; 22 23 correct? The materials that I have to answer that 24 Α 25 question are limited to the descriptions of the

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I have no sections of pathologists who examined the case. 1 2 the valves, and I have no photographs of the valves, so I 3 take it at their observation that they did not see vegetations, which would be the classic finding in 4 infective endocarditis on the valves. 5 6 0 And, in fact, they note that in their 7 report? Α Yes. 8 Would you help me understand the term 9 0 10 vegetation? Α Sure, 11 What does that mean from a medical 12 0 13 perspective? It's descriptive. It essentially means a 14 А 15 growth, a friable growth that accumulates on the surface of 16 a cardiac valve or on the lining of the heart. It may or may not be infected. It's composed of very soft plasma 17 protein, fibrin, predominantly. 18 19 Are there any findings in this case that 0 20 you're aware of that you would consider to be suggestive of 21 the existence of vegetations? I think that the masses that were Yes. 22 Α 23 observed on the echocardiogram that the autopsy pathologists identified sticking out into the lumen of the 24 25 right ventricular output tract could be considered to be

1 vegetations. Would it be the same type of vegetations 2 0 3 that you would normally find attached to the heart valves in patients with infective endocarditis? 4 No. 5 Α 0 Would it be a correct statement that 6 7 there is no suggestion that the type of vegetations normally found in patients with endocarditis are evidenced 8 9 in Mr. Gonda's case? That's, I think, a reasonable statement. Α 10 0 Would you agree that the percentage of 11 12 patients who have endocarditis and experience vegetations also probably comprise more than 90 percent of endocarditis 13 14 patients? I'm not sure I'm following that question. Α 15 Well, you told me before that more than 16 0 17 98 percent of patients with endocarditis generally have some valve involvement? 18 19 Α Right. Would you agree that more than 98 percent Q 20 21 of the patients with endocarditis present with signs of 22 vegetations? MR. FRASURE: Anywhere or on the 23 valve? 24 25 Q Anywhere. Anywhere in the heart.

That's not necessarily true. Α I mean, are 1 2 you talking present, you mean seek medical attention? No, even upon autopsy if never 0 3 previously -- have, I quess is what I mean. More than 98 4 percent of patients with infective endocarditis develop 5 6 cardiac vegetations? 7 Α Yes. And that is something that, if it is 0 8 9 evident upon autopsy, you would certainly expect to be 10 identified in the Autopsy Report? Α Yes. 11 And, again, there's none in Mr. Gonda's 12 0 13 case? 14 Α That's correct. Have you ever personally done an autopsy 15 0 on a patient with endocarditis that did not have valvular 16 involvement? 17 Α Yes. 18 0 That was a mural? 19 20 Α Yes. 0 In regard to the mural type of 21 22 endocarditis, you indicated that there's two sub-categories 23 there, one where it is overlying a diseased myocardium. Do 24 we have any reason to believe that that was present in Mr. 25 Gonda's case?

Not specifically, no. Α 1 Well, do you have an opinion as to which 2 0 of the two types of mural endocarditis he experienced? 3 I believe that he may be having -- it's 4 Α more likely that he's having embolism of infected material 5 to the heart and lungs. 6 This is, perhaps, just an aside, but of Q 7 some significance to my client, Doctor. When a patient 8 9 with endocarditis develops vegetations on his heart valves, is that something that normally an examining clinician can 10 pick up by auscultation? 11 Α I believe that changing heart murmurs are 12 13 observed in patients with endocarditis, yes, with valve involvement. 14 Q So if you listen to the patient's heart 15 and hear no signs of any changing heart murmurs, you would 16 agree that if that patient had endocarditis, he would be in 17 the two percent of those patients or less who have no 18 valvular involvement? 19 Well, first of all, I do not listen to 20 Α hearts. But without involvement of the valves, the 21 mechanism for the unusual sounds would seem to be absent. 22 Because what clinicians are looking for Q 23 when they listen to the heart valves are signs of 24 developing vegetation? 25

1 MR. RUF: Objection. 2 MR. MALIK: Objection. Never mind. Let me withdraw that. 0 3 4 You've indicated that you don't listen to hearts, so I'll save that for one of the other numerous experts we have in 5 6 the case. Okay. We've talked about vegetations; we've talked about valve involvement. Would you agree that, as a 7 general rule, patients with endocarditis do not have 8 findings of polymicrobial pathogens? 9 I'm sorry? 10 Α 11 0 Let me ask it like the lawyer I am, 12 rather than the materials I read. It's my perception that 13 in patients with endocarditis, that usually upon autopsy, you can see a single pathogen, as opposed to a multiplicity 14 of pathogens; is that accurate? 15 Α That is often the case, yes. 16 17 And that's how generally you can 0 conclude, because you see that one type of microbe, that 18 19 that was the bacteria causing the disease? 20 Α Yes. In this case, you have no opinion 0 21 22 concerning which specific bacterium was the cause of what you believe to be the patient's endocarditis? 23 I believe there are some organisms in the 24 Α 25 culture results that raise my concerns a little bit more

than others. 1 0 But there are multiple pathogens in those 2 results, are there not? 3 Multiple pathogens is actually a Α Yes. 4 5 type of infection. If an infection spreads from the gastrointestinal tract, most often or very often it can be 6 7 polymicrobial, often involving anaerobic organisms, as was seen here. 8 Well, do you hold an opinion as to which 0 9 of those pathogens identified in your report were the cause 10 of what you believe to be endocarditis? 11 I believe in this case the organism that 12 Α 13 was identified as belonging to the Bacteroides fragilis group is of particular concern. 14 Is that the enterococcus? 15 0 Α No, the Bacteroides. 16 0 How many different types of bacteria did 17 you identify in your stain slides? 18 The stain is not a very reliable way to Α 19 20 speciate bacteria. I saw both gram positive and gram negative organisms on the slide that I examined. 21 Q But at least three different species of 22 gram positive, did you not? 23 No, you're looking at the results in 24 Α 25 culture, and you cannot --

Ι You're right. You're right. 1 0 2 apologize. The culture is a reliable source of identifying 3 the existence of pathogens, though, is it not? It certainly provides a more definitive 4 Α 5 identification of an organism than one could ever achieve using staining alone. 6 Well, let's set aside that report for a 7 0 8 moment and concentrate just on your slides. How many species of gram positive bacilli did you identify? 9 I cannot identify their species based on Α 10 the stain. I can just say that it's a gram positive rod. 11 Okay. You say both gram positive and 12 0 13 gram negative? Rods, correct. Α 14 But there's nothing on -- I'm not trying 15 0 to be tricky here. I understand that you cannot identify 16 17 the species from the slides. But for that reason, then, there's nothing on the slides that would dispute the 18 19 existence of at least three different species of gram positive bacilli identified on the Path Report; would that 20 21 be accurate? I think that's accurate, yes. Α 22 And wouldn't you agree that these are all 23 0 24 additional indications that if this patient had 25 endocarditis, he was in an extremely minute type of that

1 disease process? 2 Α These are not usual pathogens seen in endocarditis, if that's what you're driving at. 3 What are the most frequent pathogens 0 4 causing bacterial endocarditis? 5 Staph, Strep, in fact, organisms usually Α 6 7 not considered to be pathogens. The Strep viridans group can get a foothold on a heart valve and create an infective 8 lesion. Gram negatives, much more rarely. I think that's 9 10 the -- probably described 95 percent of them right there. Neither the pathology report nor your 11 0 12 slide review identifies either Staph or Strep pathogens; 13 correct? That's correct. Α 14 15 0 If I could bring you back just a little 16 bit, Dr. Hoffman, in my own mind, at least, I'm still going 17 on the issue of reasons that put into question a diagnosis 18 of endocarditis. And would you agree that the lack of Staph and Strep bacterium would decrease the credence of 19 20 endocarditis as the correct diagnosis? Α No. 21 22 In a patient with infective endocarditis 0 23 on autopsy, would you expect to be able to identify certain 24 expected findings in other organs? 25 MR. FRASURE: Can you repeat that,

1 read that back, please? 2 Q I don't think it was well phrased. Let me just try again. In a patient with infective 3 4 endocarditis, upon autopsy, are there certain expected findings in organs other than the heart? 5 6 Yes. Α Can you identify what some of those are? 7 0 Embolism from the involved chamber to the 8 Α 9 next vascular bed. So in right-sided endocarditis, lung 10 abscess is found very commonly, as seen in this case. In 11 left-sided endocarditis, essentially any vascular bed in 12 the body, brain involved, kidney involved, any tissue can 13 receive a septic embolus in infective endocarditis on the 14 left side. 15 0 This patient had no evidence of infarct 16 to any organ, did he? I believe the Autopsy Report describes 17 Α 18 lung infarct. 0 You're right. I apologize. There are no 19 other organs, other than the lung, where infarct is 20 identified in Mr. Gonda's autopsy; correct? 21 I believe that's correct. 2.2 Α And none of the slides that you've 23 0 reviewed prompt you to disagree with the conclusion on lack 24 25 of infarct?

I don't believe there are infarcts Α 1 outside of the lung, based on what I have seen. 2 Did you review that portion of the 3 0 Autopsy Report concerning what he calls or she calls the 4 external examination? 5 I believe I did at one point, yes. Α б Let me ask first, isn't it generally true 7 0 that patients with infective endocarditis will present with 8 signs of that disease that are observable by an external 9 examination? 10 Not necessarily, and specifically not Α 11 necessarily in a case of right-sided endocarditis. 12 Q Well, I was hopeful that I didn't pose my 13 question by way of necessarily, but isn't it generally true 14 that there is evidence of the existence of a patient's 15 endocarditis upon external examination? 16 Only in left-sided endocarditis. 17 Α 0 We've been at this a while, Doctor. Ιf 18 I don't think I I've asked you this already, I apologize. 19 did. Can you estimate for me the percentages of patients 20 with endocarditis of the left side, as opposed to the right 21 side? 22 Cases of right-sided endocarditis that Α 23 24 I've seen in the autopsies that I've performed have been largely confined to individuals that had infected central 25

1 lines. And the tremendous majority of other cases involve the left side, the mitral and aortic valves. 2 I have not seen a lot of cases of IV drug abusers, but infective 3 4 endocarditis on the right side of the heart certainly 5 raises the possibility of intravenous drug abuse as well. I don't say this critically, because I 6 0 7 think you're trying to answer my question, but can you 8 translate that answer into percentages? 9 MR. FRASURE: Of right-sided versus left-sided? 10 11 MR. TRAVERS: Correct. 12 Α Right-sided, oh, maybe five percent. 13 Or less? 0 14 Α Around in there. I'd say five, ten 15 percent, something like that, and the majority are on the 16 left side. But, again, the clinical setting -- I mean, if 17 you have a hospitalized patient who has had lots of 18 problems with central lines, I mean, you expect to see a certain --19 20 0 Well, when you read standard texts 21 concerning signs and symptoms of endocarditis, are you 22 aware whether they generally make a distinction between 23 right- and left-sided disease? 24 I believe it's an important distinction, Α 25 yes. I think they do.

Well, looking at the disease process of 0 1 endocarditis as a whole, and not distinguishing between 2 right and left, can you tell me or do you know the 3 frequency of presentation of symptomatology by external 4 examination of those patients? 5 MR. MALIK: Objection. б 7 Α I believe I've already commented on that. The presentation of external signs in endocarditis is 8 largely related to the embolization of material into the 9 10 arterial circulation in left-sided disease. In the case of having endocarditis on the right side of the heart, those 11 are effectively filtered out by the capillaries of the 12 13 lung, and they just never make it to the peripheral 14 circulation. So does that answer the question? I'm trying 15 to be helpful. Well, I believe that I have a grip on the 0 16 mechanism why you believe that that's an important 17 18 distinction, and I don't dispute that it is. But my 19 question is not -- I think I prefaced by saying looking at 20 the disease process of endocarditis as a whole, as opposed to trying to distinguish right from left, isn't it true 21 that the majority of patients with that disease will have 22 23 symptoms observable by external examination? 24 MR. MALIK: Objection. Α To be honest with you, the majority of 25

patients that I have seen, even though they have disease on 1 the left side of the heart, I don't think they actually 2 have a lot of the external findings. They can be very 3 subtle and really be absent. 4 I am not a clinician. I don't claim to 0 5 know one if I tripped over one, but I continue to read 6 about petechiae and Osler's nodes and things of that 7 8 nature. Those are not prevalent in endocarditis patients, in your opinion? 9 MR. RUF: Objection. 10 11 Α Not in my opinion. I've seen some spectacular cases of infective endocarditis, and to be 12 13 honest with you, the external examination is often 14 misleading. Okay. You do agree that on post in Mr. 15 0 16 Gonda's case, there is no suggestion of any external 17 symptomatology suggestive that he suffered from 18 endocarditis? Yes, that's correct. 19 Α Again, attempting to identify potential 20 0 21 contraindications to your diagnosis, would you agree that there are certain predisposition factors that patients with 22 endocarditis often have? 23 Α Yes. Oh, absolutely. 24 25 Q Can you identify what those are?

Virtually any intrinsic valvular disease, Α 1 2 for example, classic example, a patient with a history of rheumatic fever who has had rheumatic carditis and has had 3 scarring of the -- one of the valves because of that 4 5 disease, for some reason those damaged valves are real setups for infective endocarditis. That's why those people 6 7 take Penicillin when they have dental procedures and such. Q Certainly patients with artificial 8 9 valves? And artificial valves. Any abnormality Α 10 of a valve seems to cause some sort of change. I'm not 11 sure what the nature of that change is, but the valve acts 12 13 like a magnet for bacteria after that point. Q IV drug use can be a predisposing factor? 14 We've already discussed that, yes. 15 Α 0 Are you aware of any risk factors that 16 17 David Gonda had for endocarditis? Α He appears to have had some infections. 18 19 Having an infection in your body at some point can be a 20 predisposing factor, simply because organisms are on board. 21 And his history seems to indicate that he's had some ENT problems, otitis media, sore throat. I mean, those sorts 22 of things would be risk factors. 23 I don't want to be argumentative, because 24 0 25 it's generally not my nature, Doctor, but that would

2 factor; right? Well, in his particular case, my reading Α 3 of his chart indicates that he really was not well for 4 about 13 weeks before he died. And that does not include 5 most people on the planet. б Again, the sub-categories of potential 7 0 contraindications to endocarditis. Do patients who have 8 that disease generally present on autopsy with the type of 9 10 ventricular lesion that Mr. Gonda had? 11 Α Absolutely not. 12 That exhausts my list of potential 0

include anyone on the planet, then, as having that risk

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contraindications. Are there other things that you're 13 aware of from your review of this case that a reviewing 14 clinician would pause and say, well, this would not appear 15 16 to support my conclusion of endocarditis? Well, Mr. Gonda was treated with Α 17 antibiotics. Again, I'm not an expert in infectious 18 19 disease, so I really cannot comment on the appropriateness 20 of the specific antibiotics that he did receive. But to 21 the extent that he did receive any microbial chemotherapy, 22 I suppose that would be a relative diminution of the 23 possibility. However, you get the wrong bug, and it's 24 completely an open issue. 25 Are you aware of the nature of the 0

antibiotic therapy that he received? I looked through that and did not write a 2 Α specific list. I do know that he received several. 3 It was a pretty broad-spectrum therapy 4 0 that he had? 5 Α That is not mine to determine. I really 6 do not claim to be an expert in infectious diseases. 7 Antibiotics come out faster than I can keep track of them. 8 You used the term in your report acute 0 9 10 endocarditis. 11 Α Yes. Q That is opposed to subacute, I assume? 12 Yes. 13 Α What is the distinguishing factor, in Q 14 15 your mind, between those two types of endocarditis? Α Acute really just implies a more 16 fulminate course. Subacute bacterial endocarditis is one 17 that can smolder along for a period of time and present 18 with a patient with waxing and waning fevers and 19 essentially a more chronic disease. It can be very 20 21 difficult to nail down. It's the one where clinicians will have multiple, multiple blood cultures, and maybe on the 22 sixth of the series find their organism. 23 This acute, in my specific sense, is really an autopsy 24 finding. It's not a chronic lesion in that what I'm seeing 25

is populated with polymorphonuclear leukocytes and not 1 2 chronic inflammatory infiltrate lymphocytes and 3 macrophages, something that might be evidence of a much older inflammatory process. 4 Can you distinguish in terms of days or 0 5 weeks between, in your mind, what you call acute and what 6 you call subacute? 7 Not specifically. It actually turns out 8 Α 9 more to be a description of the visual findings than 10 actually a reliable indication of how long the infection 11 has been there. One thing you mentioned reminded me of a 12 0 The negative 13 note that I neglected to put down before. 14 cultures would be another suggestion that this was not 15 endocarditis; correct? 16 Yes. But, again, multiple negative А 17 cultures sometimes go by in patients with infective endocarditis, and you catch them in a fever spike when 18 they're seating their organisms into the blood, and you 19 have a window of opportunity to make a diagnosis. Also, in 20 the background of antibiotic therapy, the ability to detect 21 2.2 microorganisms can be decreased. Can you tell from your review of the 23 Q slides or of the photographs of the gross specimens how 24 25 long that lesion in the patient's right ventricle had been

1 there?

Well, the fact that it is based on a scar 2 Α 3 would indicate that it must have had a course of at least 4 several weeks just in order for some scar tissue to form. 5 However, the more luminal face of the lesion appears to be very fresh, I mean, actively pouring out neutrophils into 6 7 the lesion. 0 Explain to me, if you would, Dr. Hoffman, а 9 the sequence of events in your mind that prompted the

10 development of the multiple layers of this lesion. I guess 11 I'm unclear. Are they all, in your judgment, the result of 12 the same disease process?

For lack of another disease, I would have 13 Α 14 I believe, you know, he has one process. 1 to say yes. 15 believe he has some form of an infection which manifested 16 itself as various complaints in his head and neck. He 17 subsequently had seating of organisms to the heart and 1.8 lungs. I can't tell in what order those things began to 19 occur, but certainly they're both there by the end. Ι 20 presume that his respiratory symptoms, the intractable 21 cough, and hemoptysis that he evidenced in his final days was probably evidence of the inflammatory involvement of 22 23 his pulmonary arteries. He had a very brisk vasculitis in 24 his lungs.

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Would you agree that that vasculitis of

1 his lungs, that its onset was likely coincidental with the 2 beginning of his hemoptysis? 3 MR. MALIK: Objection. Α That would be reasonable, yes. 4 Do you know how long it was before his 5 0 6 presentation at St. E's that he first began coughing up 7 blood? I don't remember specifically right now, Α а 9 I believe that was toward the end of his course. no. Recognizing that his acute 0 10 11 hospitalization at St. E's, transfer to Cleveland Clinic, 12 and death occurred in the middle of August, is there any way, from your review of these autopsy findings, to 13 establish what the condition of his cardiac chamber and his 14 15 pulmonary status was back in June of that same year? That really, I don't think, can be Α No. 16 17 accurately addressed from the autopsy findings that I have. In the outline of my notes, Doctor, the 18 Q 19 last thing that I have to question you about are specific issues from your dictation and your report. But if you 20 don't mind, we've been at this a while. 21 I would really 22 like to excuse myself, use the restroom. All these other lawyers have the report, too, and I may abdicate for that 23 part of the examination and see if anybody wants to ask you 24 25 about some of these other report findings. Is that okay

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1 with you? That's fine with me. 2 Α MR. RUF: You want to take a break, 3 4 Doctor, or do you want to continue? THE WITNESS: Oh, I can continue. 5 MR. TRAVERS: I'd like to take a 6 7 break. (Whereupon a brief recess was taken.) 8 CROSS EXAMINATION: 9 By Mr. Frasure 10 Doctor, Mark Frasure on behalf of Dr. 0 11 12 Cropp and his partner. You mentioned earlier that because you are the autopsy pathologist in this department, that 13 14 you see more heart autopsies, you might say, than your other colleagues? 15 I think that's reasonable, yes. Α 16 Other than that, do you specialize in the 17 0 18 heart more than your other colleagues? I find it particularly fascinating. It's 19 А 20 an area of interest of mine. But specialization, how -how would you define that? 21 0 I notice you are Board Certified in 22 23 anatomical pathology? Α Correct. 24 Are you Board Certified in clinical 25 Q

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1 pathology? I am not. 2 Α 3 Q You are not? 4 Α I am not. Are some of your colleagues here Board 5 0 Certified in clinical pathology? 6 Yes, I believe so. 7 Α Have you taken that exam? 8 0 9 Α Never have. So what I understand here is you believe 10 0 the patient had a mural endocarditis; correct --11 12 Α That's correct. -- on the right side, and polymicrobial 13 0 14 in nature? 15 Α That's correct. 16 And caused by bugs that are not normally 0 17 causing that type of endocarditis; is that correct? 18 That's correct. Α So we've got an unusual part -- well, 19 Q first of all, you said mural is unusual? 20 Right. 21 Α 22 Within mural, is right-sided less likely 0 than left-sided? 23 Mural endocarditis of the right side 24 Α 25 includes a lot of lesions that are brought in with foreign

bodies, a catheter tip, pacing lead. I mean, those sorts 1 of things where they become infected can create mural 2 lesions. 3 Do you think that's what happened here? 0 4 5 Α I don't believe he had any of those 6 appliances. Well, back to where I was, is right-sided Q 7 mural less common than left-sided mural? 8 I don't believe I know the answer to Α 9 10 that. 11 Same question on the polymicrobial. Is 0 12 that less common within the realm of mural endocarditis than a single cause? 13 I don't believe I know the answer to that А 14 either. 15 Certainly in the nonmural endocarditis, 16 0 17 it is true, is it not, that polymicrobial is less common than single microbial? 18 Yes, that is true. Α 19 20 How many patients do you think you have 0 seen, on autopsy or otherwise, that have had a mural 21 endocarditis? 22 Including ones that were not subsequently Α 23 demonstrated to be infective, I'd say several dozen; but 24 25 infected, very rare, handful maybe.

This was infected, in your opinion; 1 0 2 correct? Yes. Oh, yeah. Α 3 So a handful of infective mural 0 4 5 endocarditis you've seen? Α Yes. 6 7 Can you break it down any further on how 0 many of those handful were polymicrobial versus not? 8 I cannot specifically remember another Α 9 10 case of polymicrobial. 11 When you put all these things together, 0 12 the polymicrobial and the one side versus the other and the 13 bugs and ail that, it is a very rare condition that he had, in your opinion, is it not? 14 15 MR. RUF: Objection. Α I believe so. 16 17 If one makes a study of mural 0 18 endocarditis in the literature, is that typically found in 19 debilitated or immunosuppressed patients, rather than otherwise healthy, young adults? 20 I believe that's correct, yes. А 21 Where would you put Mr. Gonda in that 22 0 23 category? I don't believe he was immunosuppressed. 24 Α 25 And certainly there was no evidence that 0

1 he was debilitated? Until the terminal events, yes. 2 Α So this disease, the mural endocarditis, 0 3 4 when it's found, it's normally not found in the age group 5 and the health situation of this gentleman; correct? Α The reported cases, I believe, б Correct. 7 are not this sort of scenario. 8 Are there certain risk factors for the 0 9 mural that we need to cover, or would those fall within the 10 same risk factors or predisposing factors that you were 11 asked about for bacterial in general? Well, you mentioned the immunosuppressed 12 А 13 I believe that most of the reported cases of patient. 14 mural endocarditis that have been reported are in cancer 15 patients on chemotherapy and are usually fungal infections 16 of the wall. 17 Is mural endocarditis normally a fungal 0 infection? 18 19 А I'm not sure I know how to answer that 20 It's such an unusual disease, to say normally question. 21 is, you know -- when you have an infective lesion adhering 22 to the wall, it's whatever the infection is that you can 23 demonstrate. 24 I quess if you take all mural 0 endocarditis patients, will most of them have a bacteria 25

1 causing it or a fungus causing it?

I don't believe I know the answer to that 2 Α 3 question. I mean, I told you that the one paper which I believe was written by a fellow named Roberts about mural 4 5 endocarditis who described some patients at the National 6 Cancer Institute, all of those were NCI patients. I mean, 7 they were all on protocol for some terminal malignancy, and 8 they -- I believe nearly all of them had fungal 9 endocarditis, but that is not --10 You mentioned earlier the -- before I get Q 11 to that, where do you think the infection started here in 12 the body, Doctor? 13 Α That is hard to know, because 14 symptom-wise, he seems to have been complaining of things 15 in his head and neck. But, unfortunately, the head and 16 neck are things that are not autopsied, and we may never 17 know for sure. 18 I take it you can't say to a reasonable 0 19 medical probability where it started; is that correct? 20 I believe to a reasonable medical Α 21 probability it was somewhere in the head and neck, because 22 he had an autopsy that appears to have addressed most of 23 his internal organs and came up with nothing in particular. 24 There are no complaints in the arms and legs and joints 25 that we could point to, so it's vague and I believe

1 incomplete, but that's a standard defect in autopsies. We 2 don't normally examine the head and neck for funeral reasons. 3 When you looked at the article from the 4 Q Cleveland Clinic on fibrosis --5 б А Yes. -- were you aware of that article before 7 0 8 you got involved in this case? No, I believe that article was sent to me А 9 from one of the authors through Mr. Malik. 10 Q Okay. Had you reached the conclusion 11 that this was not fibrosis before you had seen that 12 article? 13 Α Yes. 14 In your medical training, had you studiec 0 15 endomyocardial fibrosis? 16 I had certainly heard of it. It's kind Α 17 18 of on the list of diseases when you are working up a differential diagnosis for a patient with an unusual 19 ventricular lesion. It also is something that is usually 20 dismissed, simply because of its geographic nature and 21 rarity, but something you should think about when you have 22 23 a patient that has been in those areas or is from those 24 areas. So when you talked to two of your 25 0

colleagues here, the husband-and-wife team, you did that 1 before you were aware of the article from the Cleveland 2 Clinic; right? 3 I don't recall the order of those events, 4 Α to be honest with you. This has been going on a long time 5 6 now. Jumping around here a little bit, a 7 0 question that Mr. Travers asked you, I have down here most 8 9 endocarditis patients don't present with the type of 10 ventricular lesion that this gentleman had. Is that a correct statement? 11 That's correct. 12 А What is it about this ventricular lesion 13 0 14 that is -- maybe we've already covered this. 15 Α I'll repeat it. 16 0 -- that's different from what is normally 17 presented in an endocarditis patient? First of all, it is not involving the 18 Α 19 valves specifically. Q I got that. 20 Well, that's the most important. 21 Α 22 Okay. I understand. On the fibrosis 0 23 condition, doesn't that typically involve the apex -- is 24 that the right word in the singular -- of the ventricle? 25 Α Yes.

Did this, in your opinion, involve the Q 1 2 apex? Α No. 3 That's why I was confused. I took it 4 0 5 from the autopsy that it had some involvement. Α From the photographs and also from No. б 7 the autopsy description, this lesion is described as lying 8 in the ventricular outflow tract, which is a basal 9 structure. 0 Page 4 of the autopsy, where it starts, 10 in the right ventricle --11 Α I'm sorry, I'm not with you yet. 12 13 0 About halfway down on the page. Okay, here we go. Α 14 0 Says, in the right ventricle there is a 15 soft, friable, white-colored mass which extends from the 16 apex of the ventricle to within .5 centimeters of the 17 18 pulmonary valve. Do you take that to mean that there is involvement with the apex? 19 Not necessarily. 20 Α 21 0 Why? Very often, actually, virtually always, 22 Α 23 in autopsy, there will be clotted blood in the chamber of 24 the right ventricle. And, you know, one of the important things that an experienced pathologist develops is an 25

1 appreciation for what is actually real, that is a 2 significant pathologic lesion, and that which is postmortal 3 thrombus. And the fact that somebody found a white-colored lesion in the chamber of the heart could be very easily 4 5 explained as it's just postmortal thrombus. In this case, it's difficult to assess that specific statement 6 7 independently. I think much more reliable information are 8 the photographs. 9 0 And you're relying in part on the 10 photographs showing no apical involvement? That's correct. Α 11 How many photographs were there, do you 0 12 recall? 13 Of the heart, two. 14 Α 15 MR. MALIK: I have a quick question. 16 Did you say you're an M.D.? 17 This fellow over MR. FRASURE: No. 18 here is. 19 I thought you said Dr. MR. MALIK: 20 Mark Frasure. 21 MR. TRAVERS: No. Doctor --22 MR. FRASURE: Doctor, Mark Frasure. 23 I think I was saying Doctor, comma, I'm Mark Frasure. I didn't think you were a doctor. Α 24 You could tell; right? You had two Q 25

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photos of the heart? 1 2 Α Correct. 3 Would you expect to see the finding on Q 4 the gross exam that is in the Autopsy Report about there 5 being a soft, friable mass which extends from the apex, would you expect to see that finding on a case involving 6 7 bacterial endocarditis, that gross description that I just read there? 8 А I wouldn't expect it, no. I would expect 9 to see valvular lesions, is what I would expect to see. 10 So that description I read, you're saying, 0 11 12 then, that that is inconsistent with the photographs? Α Yes. 13 0 Okay. Can the autopsy pathologist see 14 certain things that are not contained within the 15 16 photographs? An inexperienced person can do a 17 А Yes. 18 tremendous amount of damage to vegetations and such. 19 They're very fragile, and, you know, if they got torn off 20 before the photograph, I suppose that we might not see 21 them. Let me ask you, what is it about the 0 2.2 Cleveland Clinic pathology that you think was so 23 unreasonable? Was it what they didn't examine, or was it 24 25 their conclusions, or did they examine the right things,

did they -- was the procedure improper? What is it that's 1 2 unreasonable? 3 I cannot comment on the procedure, Α 4 because I really was not there for that. In order to most properly address this kind of a case, one has to have very 5 6 good attention to the condition in which the cultures are 7 taken. My biggest reservation are the findings that were overlooked. The findings in the lungs, I believe, are 8 9 grossly understated in the Autopsy Report. 10 0 And those are, just so I'm clear, are what? 11 I believe that the abscess, the 12 Α vasculitis, the septic embolism, those are just such 13 14 red-flag conditions that just --15 0 Septic embolism? 16 Α Yes. Those are red-flag conditions for 17 0 bacterial endocarditis? 18 19 Α Well, for a very acute disease that needs 20 to be explained. And it just looks to me as though they got on this primrose path of some unusual disease and 21 2.2 proceeded to pound that square peg into a round hole. Q Were there any photographs of the heart, 23 24 Dr. Hoffman, that you saw? Yes, I just told you there were two 25 Α

1 photographs of the heart.

2QThe lungs, I'm sorry.3AYes, there was at least one photograph of4the lung, I believe one.

5 Q Do you find any of these things that you 6 mentioned, abscesses, vasculitis, septic embolism on photos 7 of the lung?

8 A It's not possible to identify them as
9 such, necessarily, on the photographs. But in the context
10 of the microscopic slides, it's very clear that that's what
11 they are.

12 Q And can you point to me in the Autopsy 13 Report where you believe this is grossly understated so I'm 14 clear I understand what you mean?

15 A Well, in the final diagnoses, they talk
16 about multiple thromboemboli to both lungs. Now, reading
17 that report --

18 Q What page are you on?

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19 A I'm on the front sheet, Page 1.
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20 Q Okay.

A That implies to the reader that these are
sort of garden-variety thromboemboli, bland thromboemboli
as might arise in the leg veins of an old lady, break
loose, and be found in the lung. This is not the picture
of septic thromboembolism that we're seeing here, and

believe me, I see lots and lots of these things. These are 1 2 probably the most common, garden variety -- garden thromboemboli are probably the most common surprise finding 3 4 at autopsy, They're always way up on the list, and we 5 spend a lot of time discussing those with our residents. You know, they describe parenchymal lesions, a remote and 6 7 acute pulmonary infarct, and diffuse alveolar damage. Well, it really falls short of describing the acute 8 9 nature of what's going on. We have a process that is 10 literally creating pus that is working its way through one 11 of the pulmonary arteries, several of the pulmonary arteries, I presume, and causing this fellow to be coughing 12 13 up blood. Pulmonary hypertension, Grade 3, that's just barking up the wrong tree. I mean, that's --14 Q Are you saying you don't find these lung 15 16 final anatomic diagnoses supported by the gross description 17 narrative? 18 Α No, I'm saying my findings just do not agree here. 19 20Q Your findings on slides? 21 А My findings on slides do not match what 22 I'm seeing here. These are things that --23 Q Are your findings on slides more serious 24 for the lung --25 Α Yes.

Q -- you're saying? 1 2 Α Much more serious. And if that's true, does that point away 3 Q or toward or have no effect on whether it's a fibrosis or 4 an endocarditis? 5 I think it makes it less likely that it's Α 6 7 endomyocardial fibrosis. And more likely that it's endocarditis? Q 8 Α Yes. 9 10 Q Why? Because in endomyocardial fibrosis, you 11 Α 12 would not expect to see this rip-roaring, acute inflammatory process going on. 13 Q That would involve the lungs? 14 Α The lungs or the heart. 15 And in mural endocarditis, is this kind Q 16 17 of, as you say, rip-roaring process going on? Is that typical in mural endocarditis? 18 Yes. 19 Α Is the definition of mural endocarditis Q 20 that it does not involve valves? 21 Α Not specifically. It's that it does 2.2 23 involve the wall of the chamber. So some mural endocarditis does involve 24 0 25 the valves?

It is conceivably possible. Mural means 1 Α 2 the wall. Mural means wall, so that really is the definition. 3 4 Q Well, can we agree that the person at the Cleveland Clinic realized on gross examination that this 5 disease, whatever it was, did not involve the valves; 6 7 correct? That seems reasonable, yes. Α 8 0 And that tends to point one away, to 9 10 start with, from endocarditis, doesn't it? Yes. Α 11 12 Q Okay. At that point, was endocardial fibrosis a reasonable differential diagnosis to entertain? 13 I suppose, for the sake of completeness, 14 А 15 I would have to say yes, that you want to, in a differential diagnosis, you want to cast a broad net. 16 17 Did you rule out endocardial fibrosis 0 because you were not aware of any occurring in America? 18 19 Α No. No, I was aware of the entity, but 20 looking at these slides, this was a hot, inflammatory 21 process It doesn't match -- in your opinion, the 22 0 slides don't match the presentation of an endocardial 23 fibrosis? 24 Α That is my impression. 25

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Q Are there any advantages that the 1 Cleveland Clinic personnel had over you in that they saw 2 the tissue come out, rather than just photographs? 3 Is that of some advantage? 4 Yes, it is. I mean, it would be a Α 5 tremendous advantage, really, to be able to, you know, 6 7 perform the autopsy yourself. Going back to the autopsy at the Clinic, 8 0 9 you've told me you think they grossly understated the lung involvement. Going back, do you think the process, the way 10 they did it, or can you not tell from how they describe it 11 whether the process is accurate or reasonable? 12 Α I really cannot comment on that. 13 0 Let me ask you this. 14 Α I don't know the process that they used. 15 Q When you read the autopsy, did it read 16 17 like an autopsy would typically read, the process they go through? Was there something missing, was there --18 Their protocol, this report is Α 19 20 reasonable. It is conspicuously lacking a section that I think is important called microscopic descriptions, where 21 22 you say what it is you saw on the slides. I would have 23 just loved to have seen that, because I just can't imagine 24 how they could not have described the inflammatory process 25 that was going on.

Q Okay. When you went over to the Clinic, did anyone, any pathologist, look with you at anything? а No. 0 And what did you look at there? I believe we had access to all of the А slides from the case, except for No. 16, which still at the time was missing, but which was subsequently sent to me. If this would have occurred, let's say, 8 0 9 in your hospital, if this same report would have occurred, 10 come out of your hospital by someone, not yourself, but 11 someone else, and someone else read it at another hospital 12 in town and felt that this was an unreasonable report, 13 14 15 16 17 18 19 phone call, perhaps a letter. 0 Are there protocols set in place in this 20 21 hospital that if you are informed of that, that it comes to the supervisor's attention, and it's looked into to see if 22 there's any merit in the criticism? 23 Yes. 24 А 0 Did you do that vis-a-vis the Cleveland 25

Clinic here? 1 Not yet. Understanding that this case is Α 2 3 in litigation, I thought it was most prudent not to raise that issue. 4 But the Cleveland Clinic --Q 5 I believe that they will be made aware of А 6 7 this process. So that's the reason you haven't told 8 0 9 anyone at the Clinic, is because the case is in litigation? That is my assumption. А 10 You learned in, what, late '97 that your 0 11 opinion -- you developed your opinion that this was not 12 fibrosis in the October range of '97? 13 That's right, yes. А 14 Q Is endocardial fibrosis the same as 15 16 endomyocardial fibrosis? I've seen it called two different 17 things. I believe that the disease that is Α 18 19 described in Africa is uniformly described as endomyocardial fibrosis. That is a disease entity. 20 Endocardial fibrosis could just be a description. It's 21 hard to know. 22 Q Mr. Travers asked you about two 23 sub-categories of mural endocarditis, and I want to see if 24 I have these correctly. One is overlying a disease of the 25

myocardium, and you believe that was not present here? 1 2 I believe that's right, yes. Α 0 And the other sub-category is an embolism 3 of infected material going to the heart and lungs? 4 Α Yes. 5 And you believe that's probably what was 6 0 7 present here? Probably. Α 8 9 0 Okay. Do you think this was an anaerobic infection that came from the head and neck? 10 Well, I mean, the organisms that we have 11 Α to look at and the polymicrobial nature suggest anaerobic 12 infection, yes. 13 Of all the infections that develop in the 14 Q 15 head and neck, are anaerobic less common than the nonanaerobic, if that makes sense? 16 17 Α Well, I'm not certain what the answer would be. 18 19 Is that outside your area of expertise? Q 20 Α I believe that's outside my area of expertise. 21 More in the area of infectious disease? 22 Q Α Right. 23 0 Did you find some organisms here in the 24 lung that were not, apparently, found in the heart? I'm 25

1 unclear on that. I have not done any special stains on the 2 Α lung tissue, I don't think. I've looked at the heart 3 pretty carefully, but I don't believe I've spent time on 4 the lung. 5 Do you anticipate doing anything else, 6 Q Doctor, as far as reaching any conclusions here, or have 7 8 you --I don't believe I have anything else, 9 Α 10 really, to do. If any additional information arises, I 11 would be very happy to see it. This is a very fascinating 12 case. Q Based on the information you have, you 13 don't see there's any need to do anything further medically 14 to support or not support your opinion; am I correct on 15 that? 16 Α That's correct. 17 On the second page of your latter report, 0 18 19 before you start into the anatomic diagnoses, you mention there's a possibility there might have been contamination 20 of the autopsy lung culture? 21 Α Yes. 22 Could you explain that to me, please? Q 23 Well, as soon as somebody dies, the 24 Α barrier that usually contains the flora that normally 25

inhabits the intestinal tract breaks down, and you have
 hematogenous seating of the whole body with gut flora.
 Usually if death has occurred less than 24 hours before
 autopsy, that is not a significant factor.

5 Any culturing performed at autopsy, however, has to be performed properly in order to avoid contamination during б 7 the process of culture. And we employ a variety of steps in order to maximize the possibility of getting a useful 8 culture. For example, after the body cavities are opened, 9 10 the very first thing that should happen is culturing. And 11 I just don't know, based on the standards or procedures 12 used at the Cleveland Clinic, whether or not that occurred.

13 Another thing that should happen is that, particularly 14 in taking a culture of the lung, we're not interested in 15 sampling the pleural surface of the lung. We're most 16 interested in sampling deep into the culture of the lung. 17 And in order to get a culture that's uncontaminated by 18 pleural surface flora, the pleural surface has to be 19 decontaminated. That's done usually with a hot spatula. 2c You simply burn the surface with a red-hot spatula and make 21 an incision through the seared surface with a sterile 22 blade, put the sterile culture into the lung tissue, and 23 obtain the sample that way.

24 Q And you're saying you don't know if any2e of that was done here or not?

1 Α I have no indication. I sincerely hope 2 that that is the standard of practice at Cleveland Clinic. 3 From everything I know of their department, they probably do things in a reasonable fashion, and that is my 4 expectation here. So I have to interpret it with that 5 б caveat. So when you say there is a possibility of 7 Q contamination caused by suboptimal technique, you don't 8 9 know there is any. You're saying that is always a 10 possibility? I'm just being fair. I'm just trying to Α 11 12 explore all possibilities. Then you give another possible cause of a 13 0 14 possible contamination, that being overgrowth of the intestinal flora postmortum? 15 Α Correct. 16 17 0 Can that occur even in the absence of suboptimal technique? 18 19 Α Yes, it can. But, again, it's unlikely, 20 based on the relatively short postmortum interval here. Q I guess I'm confused on what developed 21 22 from the cultures that you believe show that this is a polymycrobial endocarditis. Where do you draw that from, 23 24 from cultures that were done at the Clinic? Α Yes. 25

Found in the lung or the heart? 1 0 2 In the lung. The cultures, apparently, Α 3 were taken from the lung, and those are the only cultures I 4 know of in this case. 5 What's your explanation for why Okay. 0 6 these would not have grown from the heart? 7 Α Because they were never sampled, 8 apparently. 9 So you're saying apparently never any 0 cultures from the heart? 10 11 А That is the impression I gained from 12 reading the report. 13 And if that's true, is that suboptimal 0 technique, in your opinion? 14 15 Α Well, in trying to be fair to the people who were performing this case, who were probably relatively 16 inexperienced, they may not have thought this looked like 17 endocarditis, and therefore said we don't have to culture 18 I think anytime -- I tell my residents if they find a 19 it. 20 lesion that looks like an abscess or an infected focus, 21 even though it's well into the autopsy, after they've taken their routine surveillance cultures, that they should 22 probably get a sample of it up to microbiology simply just 23 to cover their tail, if you will. 24 Okay. Do you know if there's often a 25 0

thrombus found to be present in myocardial fibrosis or 1 endocardial fibrosis? 2 Α I believe it can occur, yes. 3 And was a thrombus present here? 4 0 5 Α There is thrombus present, yes. If there is such an acute inflammatory б 0 7 process going on, why were the stains negative for 8 organisms on Slide 13? Well, if the patient has been treated 9 Α 10 with antibiotics, partially treated with antibiotics, they may not be very visible. Certain anaerobic organisms do 11 not like to be exposed to air and break down fairly quickly 12 13 on exposure to air. That's a possibility. Gram negative organisms, in general, are much more difficult to detect on 14 even good gram stains, simply because they just shake out a 15 lighter color, There's a variety of reasons. You don't 16 need to have a whole lot of infection in order to entertain 17 18 a diagnosis of infective endocarditis. 0 Now, you did your gram stains when you 19 first got the slides? 20 21 Α I believe it was on the second round. 22 0 So we've got about two years from the 23 time of the autopsy; right? Yes. 24 Α 25 0 Does the passage of two years affect the

1 reliability at all of your gram stains? I don't believe so, no. The tissue has 2 Α 3 been embedded in wax all that time, so there's really no contact with air. They were cut freshly. 4 You found gram negative bacilli in your 5 0 6 stains? 7 Α Yes. Q 8 How many types of bacteria qualify as 9 gram negative? That's a long ist. 10 А Can you be sure the bacteria you found 11 Q 12 were the same as in the lung? No, not certain, but I believe that's Α 13 14 reasonable to tie the case together. It's the same heart 15 and the same lung. Are there many different types of gram 16 0 17 positive bacilli? 18 Α Yes. 19 0 Can you be sure the gram positive bacteria you found were the same as in the lung? 20 The same answer again. 21 Α Why weren't the other organisms that were 2.2 0 23 seen in the lung culture, why were they not found in your stains of the heart? 24 1 do not know. 25 Α

Can this be because of contamination? 1 0 2 That is a possibility. Α 3 0 If that's true, then would we have some organisms found in the lung were contaminated and some were 4 not due to the contamination? 5 6 Α I suppose that has to be possible, again, 7 reiterating that I do not know anything about the specific 8 procedures that were used in performing the autopsy, only 9 assuming they are reasonable procedures. You mentioned the finding of severe acute 10 0 11 necrotizing arteritis in the pulmonary arteries. What time frame are you talking about do you believe that was 12 13 present? I don't think more than several days. 14 Α Speaking of more than several days before 15 0 16 the death? Yes, before the death. 17 Α 18 0 Just so I'm clear here, you've described 19 what you found at autopsy, what you found that you believe 20 was present at autopsy? Yes. 21 Α Are you using any of the events of Mr. 22 0 Gonda's life and his medical care and his presentation to 23 support your diagnosis, or are you basically just going on 24 25 what's found at autopsy? In other words, are you trying to

correlate the clinical and the anatomical or just the 1 2 anatomical? Well, I have to interpret it in the 3 Α context of the clinical presentation. So I quess I do have 4 5 some input from the clinical presentation. He certainly had some complaints that preceded his death, and I believe 6 I've noted those. 7 8 0 Do you have any opinion on how long one can live with an acute mural endocarditis, which you 9 10 believe this gentleman had? 11 Α I wouldn't speculate. You mentioned that the pulmonary infarcts 0 12 13 here were no more than a few days old. What's the 14 significance of that, being no more than a few days old, if 15 any? 16 Α I just believe that that's a piece of information that can be surmised from the appearance of the 17 18 tissue. It may give us some indication of the time course of the disease process that's going on. 19 20 Do you know if people with endocardial 0 21 fibrosis ever develop endocarditis? MR. RUF: Objection. 22 Have you ever heard of that? 0 23 I suppose it is possible. 24 Α 25 MR. FRASURE: Okay. Let me pass to

1 Mr. Blomstrom here, and I may have a few more later. 2 CROSS EXAMINATION: By Mr. Blomstrom 3 4 When you were working through your part 0 of this file, did you make any notations, whether oral, by 5 б dictation, or by your hand or by typing, of your findings on your view of the microscopic slides? 7 Α I may have made some notes of, you know, 8 the slides and what I saw. I have discarded those, I 9 believe, and have summarized those in the report that I've 10 provided here. 11 12 You don't have any notations of your Q 13 findings on individual slides; is that how I'm to interpret 14 what you're saying? There was findings on individual slides 15 А 16 summarized in the report that I provided. Q All right. 17 I think I've been very careful about 18 А that. 19 Q Aside from the two reports that we've 20 21 seen, that being October of 1997 and what we now know to be 22 March of 1998, do you have any notations, either with you or elsewhere, of your findings on interpretation of 23 24 individual slides? I'm not certain that I do. No. 25 Α I mean,

1 I've tried to make this my report. 2 Are you certain that you don't? Q No, I'm not, actually. 3 Α If you have them, where would they be? 4 0 I presume in my office. 5 Α Do you have a portion of records 0 б 7 concerning this case in your office? Α Yes. а What do you have in your office that you 9 0 haven't brought with you today? 10 11 I have a transesophageal echocardiogram Α I have glass slides that were provided to me from 12 tape. 13 the Cleveland Clinic that were stained there. I have some unstained slides. I have the stains that we performed here 14 15 on some of those. I have some library research. I have some -- what else? I believe I have some computer disks 16 that have the -- you know, these reports on them. 17 I think that's the substance of what I have. 18 Is that all of what you have? Q 19 I think that's everything, yeah. 20 Α Is there some specific thing that I'm --21 No, I'm just being --22 0 You're being an attorney, okay. 23 Α 24 Q No, I'm not being an attorney, I'm just -- as an old English major, I am trying to be aware of 25

the nuance of language that you're using so I'm seeing what 1 2 may be there. I think that's everything. Α I have the 3 expert reports that I've shown you here. I mean, that --4 All right. Can you describe for us what 0 5 you would expect to be the natural history of the 6 polymicrobial endocarditis which you believe that Mr. Gonda 7 8 had? The natural course? Α 9 What would you expect to be the natural 10 0 11 history of that type of polymicrobial endocarditis? Untreated, you mean? Α 12 Q Yes. 13 I believe it would have resulted in Α 14 death. 15 Given the interventions that Mr. Gonda 0 16 had, which was essentially the prescription of the 17 antibiotics that he did receive, what would you expect to 18 be the natural history of that type of polymicrobial 19 20 endocarditis? I'm not looking at you would expect it to 21 end up in death, but what stages would he go through? Α I don't think I can comment, from the 22 standpoint that I am not an expert on the nuances of the 23 24 treatment that is used for this type of disease or the types of diseases they may have suspected that he had. 25

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0 All right. 1 2 However, knowing my diagnosis of the Α final outcome, I would have expected that he would have had 3 a chronic febrile illness that terminally would have ended 4 5 in a respiratory symptom complex, that dyspnea would figure very prominently, and that respiratory hemorrhage would be 6 7 a very important component of the terminal course. I gathered from your testimony earlier 8 0 9 that, as far as the initial cause of his problem is 10 concerned, you would expect that he would have had a febrile course from that before he developed the 11 12 endocarditis; correct? 13 Α Yes. So the fact that he has a fever or not is 14 0 15 not necessarily an indication of the onset of endocarditis; correct? 16 17 Α I suppose that's true, yes. And to your belief, you think that he 18 0 19 probably had a cause that was infective arising in the head 20 and neck; correct? 21 That's where his complaints were. Δ 22 0 What type of illness or pathological process would you expect for him to have in those areas 23 that could give rise to a polymicrobial endocarditis? 24 25 Α A pharyngitis, you know. I don't think

there's any indication of it, but I suppose a dental 1 2 abscess is a possibility. An ear infection, a possibility. 3 A tonsillitis. I mean, this is just -- it's a variant of 4 pharyngitis, but that situation. There are -- I've seen young people die from retropharyngeal abscess. Again, we 5 don't have any indication of what was going on up there at 6 7 the time. You've mentioned cultures done at the 0 8 Cleveland Clinic. Can you locate those cultures for me? 9 10 Α Okay. 11 May I see them, please? 0 Α Certainly. 12 Since I don't have a copy of these, I'm 0 13 14 going to ask the court reporter to mark this, and one way or the other, either she can take it and get this back to 15 16 you or --17 (Whereupon Defendant's Exhibit A was marked.) Q I gather that it's fair to say that your 18 19 interpretation of the slides is not consistent with the gross description of the cardiovascular and respiratory 20 21 systems found in the Autopsy Report; is that correct? I believe that my findings are consistent 22 Α 23 with what is reported here. 24 0 Your findings are consistent with the 25 gross descriptions of the cardiovascular system and the

1 respiratory system, just so that I understand; correct? 2 They are reporting a mass in the left А ventricular outflow tract, which I do not dispute. 3 I see something that I would presume would be interpreted as a 4 mass. And they are seeing white, friable material in the 5 б pulmonary vasculature, which I presume the gross findings 7 in the condition that I have described would look something like white, friable material. I mean, they don't have 8 microscopic resolution, as they would have in examining the 9 slides. I have no problem with what they think they've 10 11 seen grossly. I just think they've misinterpreted it. 12 0 Well, earlier I think you told us -- if 13 you didn't, please tell me that I'm wrong -- that your 14 findings on the slides do not match what you are seeing in the gross description on the report. And now you're saying 15 16 that they're consistent. So how is it that they cannot match but be consistent? 17 The findings that I see on the slides I Α 18 19 diagnose as -- I am coming up with diagnoses, can I 20 understand that that may be what they thought they saw, So in that way, I suppose it is consistent. 21 yes. 22 0 Well, then, what did you mean when you earlier said that your findings on the slides do not match 23 24 what you were seeing on the gross description? Perhaps I was taken out of context, but 25 Α

1 the slides that I'm seeing show an acute inflammatory process that I interpret to be infective in nature. The 2 gross description is talking about a mass. 3 Sort of sounds 4 like tumor. I know, because I have the benefit of looking at it under the microscope, that it is not just a mass, but 5 6 it is, in fact, an inflammatory process representing an 7 infection.

I can also understand that an individual performing 8 the autopsy, without the benefit of microscopy yet, that is 9 at the point when they do the gross description, might very 10 well describe what is described here. So I don't think 11 12 those are particularly contradictory statements. 0 On the gross description in the Autopsy 13 Report, under the cardiovascular system, now, if I 14 understand what you said earlier correctly, the friable, 15 white-colored material there you think may simply be clot 16 or blood; correct? 17 Α Yes. 18 Q Underlying that, they describe a mass 3.5 19

20 by 1.5 by .3 centimeters; correct?

21 A Okay.

22 Q How much of that represents the

23 inflammatory process?

A That underlying material is theinflammatory process, to the best of my understanding.

Q Where, with respect to the inflammatory 1 2 process, is the fibrosis that you found or that was found? Underneath it. It is deep, away from the 3 Α 4 lumen of the right ventricle. So that entire mass here is inflammatory Q 5 process, and the fibrosis is really within the heart wall; 6 7 correct? Right. Α 8 With respect to the inflammatory mass, 0 9 10 then, is that the same thing that you said is the luminal face that was very fresh? 11 12 Α Yes. And you may have said how long that was 13 0 14 there. Is that what you were referring to being there as a matter of days? 15 16 Α Yes. And by a matter of days, you don't mean 17 0 so much as a week; right? 18 That's -- yes. I mean, I say days so as Α 19 20 not to say weeks or months or minutes or hours. But just so that we're not clear -- just 21 0 so that we get clear, okay -- I don't think we're clear 22 23 yet, but I want to get clear -- you're not saying that the 24 length of time that that inflammatory process was there 25 exceeded seven days, are you?
1 Α The part of the process that we perceive 2 as scarring, endocarditis, you know, on the surface of it, has to have been there for at least several weeks. 3 Scarring takes time to develop. 4 5 Q That's the part that's within the wall? Α That's the deep part. 6 7 Q Correct? The more superficial parts of it are 8 Α 9 apparently much fresher, and, again, it's a gradient. 10 There are different stages of a process going on, the most 11 recent of which appears to be very, very fresh. 12 Thank you for your statement, but let's 0 try one more time. Is it true that this inflammatory mass 13 which you said accounts for the 3.5 by 1.5 by .3 centimete 14 15 mass, was there less than a week prior to death? That part of it, yes. Α 16 Now, you said that the underlying 17 0 fibrosis within the wall or the scarring would have been 18 there several weeks, in your view; correct? 19 20 Α Yes. So let's go through the same exercise fo 21 0 several weeks. 22 23 Α Okay. Not the exercise, but the term. 24 Q 25 Α Okay.

1 0 How long is several weeks, in your 2 I want to get an outside estimation as to how estimation? 3 long you're saying that was there. Outside? 4 Α Outside. 5 0 The oldest part of that may have been б Α 7 I mean, there is no upper end. from birth. That certainly covers it, but --8 Q 9 Α Scarring is sort of an end stage, and 10 once it gets to a certain point, you just can't tell. 11 0 How much scarring was there, then, do you 12 have a measurement? Do you have another way of quantifying 13 it for us at the time of the autopsy? 14 I did not have the benefit of being able Α 15 to measure it in the gross, and I would have to have the 16 slides in front of me in order to do it based on the 17 microscopy, with a whole lot of caveats based on shrinkage 18 of the tissue and sampling and other things. The gross is 19 really the best way to have that measurement. I don't 20 believe, based on my recollection, that it involved the entire thickness of the wall. 21 22 On, I think, the 16th or the 17th of 0 August, there was a 2-D echo followed by a TEE done 23 24 concerning this young man's heart. And that TEE refers to 25 a prominent mobile right ventricular mass. Do you recall

1 seeing that? I recall seeing that, yes. 2 Α All right. Now, this prominent right 3 0 ventricular mass, was that the inflammatory response? 4 5 Α It might be the inflammatory response. It may be blood clot adherent to that. 6 7 Q So the inflammatory response may have a blood clot adherent to it? 8 9 Α Yes. 10 0 And that inflammatory response would have to be there before the blood clot could be adherent to it; 11 12 right? 13 Α Reasonably, yes. 0 I'm very close to the end, if you'll bear 14 15 with me just a minute. 16 Certainly. Α With respect to the actual immediate 17 0 cause of death, if I understand you correctly -- and please 18 correct me if I'm wrong -- the pulmonary vasculitis that 19 20 existed led to an erosion, if you will, of the wall of the 21 artery, which led to the bleeding that caused his death; is 22 that right? 23 Α That's correct. You referred to the lung abscesses as 24 0 25 septic thromboembolism. How did you come to the conclusion

1 that the thromboemboli were septic in themselves? 2 An extension of the extreme amount of Α 3 inflammation. Thromboemboli in the lung, garden variety, 4 things we see all the time in little old ladies that suddenly die, do not have nearly this degree of 5 inflammation, and the inflammation certainly does not go 6 7 eroding through the wall of the blood vessel. This is a red flag. 8 9 0 The word septic is an inference from what you did see; right? 10 11 А Yes. 12 0 You referred to some slides as being hot, 13 but you didn't indicate which slides. Which slides were 14 hot? I used the term hot to describe --15 Α Q I know how you used the term hot. Which 16 17 ones? Not to imply that they have been obtained 18 Α by illicit means. I've got all these attorneys here. 19 The acute inflammation, as I've described it, I would describe 20 21 as hot. So the slides that I have indicated on my report, 22 11 through 16, inclusive --23 Q Okay. -- 7 and 10, at least those. I'm not 24 Α 25 certain I can say about the others.

1 MR. BLOMSTROM: Thank you. THE WITNESS: You're welcome. 2 3 **RECROSS EXAMINATION:** 4 By Mr. Travers Dr. Hoffman, the septic thromboembolic 0 5 invasion of the pulmonary arteries that caused the 6 patient's death was secondary to the inflammatory process 7 portion of the cardiac lesion, as opposed to the scarring, 8 9 was it not? 10 Α I believe that's true, yes. And there's no way to tell whether that 11 0 12 underlying scarring was a condition that had been present from the patient's birth even? 13 For what it's worth, there are scarring 14 Α conditions that involve the right ventricle, and, you know, 15 some are from birth. 16 But that's not what caused the patient's 17 Q death? 18 I don't think it was. 19 Α It was the inherent inflammatory process 20 0 that threw the thromboemboli? 21 That is correct. 22 А MR. TRAVERS: That's all I have. 23 24 Thanks. MR. FRASURE: Nothing further. 25

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4	REPORTER 'S CERTIFICATE
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6	I HEREBY CERTIFY that the above and foregoing is a
7	true and correct transcript of all the testimony introduced
8	and proceedings had in the taking of the testimony in the
9	above-entitled matter, as shown by my stenotype notes taken
10	by me at the time said testimony was taken.
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12	Debra M. Moore
13	Registered Merit Reporter
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115 1 STATE OF OHIO SS: CERTIFICATE 2 COUNTY I, ROBERT D. HOFFMAN, II, M.D., depose 3 and say that 1 have read the foregoing deposition and find 4 it true and correct, unless otherwise specifically 5 excepted to and indicated on Page 115-A, and any following 6 numbered pages thereafter, if applicable, and I subscribe 7 my signature to the aforesaid deposition this _____ Day 8 1998. Khard 9 of 10 11 12 Before me, a Notary Public within and 13 for the State of Ohio, personally appeared ROBERT D. 14 HOFFMAN, II, M.D., who, being first duly sworn, deposes and 15 16 says that he has read the foregoing deposition and finds it true and correct to the best of his knowledge, information 17 and belief, unless otherwise specifically excepted to and 18 indicated on Page 115-A, and any following numbered pages 19 20 thereafter, if applicable. SWORN AND SUBSCRIBED before me this 21 <u>4th</u> Day of <u>January</u>, 1998. 22 23 Rdy C. Kat 24 My Commission Expires 10-2702 25 NAGY-BAKER COURT REPORTING, INC. (330) 746-7479 1-800-964-3376

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TO THE WITNESS: DO NOT WRITE IN TRANSCRIPT EXCEPT TO SIGN. Please note any word changes/corrections on this sheet only. Thank you.

TO THE REPORTER: I have read the entire transcript of my deposition taken on the <u>S</u> day of <u>DECEMBCE</u>, 1998, or the same has been read to me. I request that the following changes be entered upon the record for reasons indicated. I have signed my name to the signature page and authorized you to attach the following changes to the original transcript:

PAGE	LINE	CORRECTION OR CHANGE & REASON THEREFOR
31	14	PRACTICE OF AUTOPSY PATHOLOGY (WORD OMITTED)
32	7	WANG (NAME OF Physician)
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NEW AUTOPSY INFORMATION SHEET (REQUISTION)

AUTOPSY NO. A75-/	DATE OF AUTOPSY 8/18/8
NAME OF DECEASED DAVI	COMA PROSECTORI NOACO (1)
CLINIC NO. 234719265, CL	INICAL PATHOLOGY RESIDENT Dave OK
	Clinical Summary: <u>Measure</u> himoptysis ATOMICAL FINDINGS: Ventinule, intern
Date cultures received in microbio	10gy;
Type of Specimen A. <u>Lung</u> B.	A badenie Jaryi B. Lacrobii - AMAzerobi
С	C.
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Microbiology Findings: Sp	Resident Final Report: Notified
Bacteriology: Rate Enteriologe Ran Enteriologe Part yest sp Jact Greelly L	with a cuty the start of the st
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AFB	d Date Initial
Virology	Date Initial
Other	Date Initial
Date Reported to Anatomic Patholog	1 29 95 Signed Flororer Elgan

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