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IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
HONORABLE MICHAEL M. ANELLO, DISTRICT JUDGE

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MEDTRONIC SOFAMOR DANEK, USA ) CASE NO. 08 CV 1512-MMA  
ET AL., )  
 )  
PLAINTIFF, )  
 )  
VS. ) AUGUST 30, 2011  
 )  
NUVASIVE, INC., ) TUESDAY, 8:30 AM  
 )  
DEFENDANT. ) TRIAL - DAY ONE  
\_\_\_\_\_

REPORTER'S TRANSCRIPT OF PROCEEDINGS

APPEARANCES:

FOR THE PLAINTIFF: LUKE L. DAUCHOT, ESQ.  
NIMALKA WICKRAMASEKERA, ESQ.  
SHARRE LOTFOLLAHI, ESQ.  
ALEXANDER F. MACKINNON, ESQ.  
MICHAEL DOBSZEWICZ, ESQ.  
KIRKLAND & ELLIS, LLP

JEFF SCHWARTZ, ESQ.  
DEWEY & LEBOEUF

FOR THE DEFENDANT: FRANK SCHERKENBACH, ESQ.  
TODD G. MILLER, ESQ.  
JONATHAN J. LAMBERSON, ESQ.  
NEIL WARREN, ESQ.  
KEELEY I. VEGA, ESQ.  
FISH & RICHARDSON, P.C.

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1 ALL RIGHT, MR. DAUCHOT, YOU READY FOR YOUR FIRST  
2 WITNESS?

3 MR. DAUCHOT: I AM, YOUR HONOR.

4 THE COURT: ALL RIGHT.

5 MR. DAUCHOT: JUST A HOUSEKEEPING, YOUR HONOR.  
6 WHAT TIME WILL WE HAVE THE MID AFTERNOON.

7 THE COURT: TYPICALLY AROUND 3:00 O'CLOCK, UNLESS  
8 THAT TURNS OUT TO BE INCONVENIENT. BUT THAT'S WHAT I HAD  
9 IN MIND, 3:00 O'CLOCK.

10 MR. DAUCHOT: THAT WORKS FOR MY END.

11 FOR OUR FIRST WITNESS, YOUR HONOR, WE'RE CALLING  
12 DR. GARY MICHELSON.

13 EXAMINATION OF DR. GARY CARLIN MICHELSON

14 THE COURT: ALL RIGHT, SIR. IF YOU'D COME ALL THE  
15 WAY UP FRONT, WHEN YOU GET UP HERE, OUR CLERK WILL HAVE YOU  
16 RAISE YOUR RIGHT HAND AND SWEAR YOU IN.

17 THE CLERK: PLEASE RAISE YOUR RIGHT HAND.

18 DO YOU SOLEMNLY SWEAR THAT THE EVIDENCE YOU SHALL GIVE  
19 IN THE CAUSE NOW BEFORE THE COURT IS THE TRUTH, THE WHOLE  
20 TRUTH AND NOTHING BUT THE TRUTH, SO HELP YOU GOD?

21 THE WITNESS: I DO.

22 THE CLERK: PLEASE STATE YOUR FULL NAME FOR THE  
23 RECORD AND SPELL IT, PLEASE.

24 THE WITNESS: YES. GARY CARLIN MICHELSON,  
25 MICHELSON IS M-I-C-H-E-L-S-O-N.

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1 THE COURT: THANK YOU, SIR. THAT CHAIR IS NOT  
2 GOING TO MOVE MUCH. BUT YOU CAN PULL THE MICROPHONE A  
3 LITTLE BIT.

4 THE WITNESS: I'LL SLIDE FORWARD. DOES THAT WORK?

5 THE COURT: ALL RIGHT, SIR.

6 DIRECT EXAMINATION

7 BY MR. DAUCHOT:

8 Q DR. MICHELSON, THE JURY HAS HEARD ABOUT YOU SOME.  
9 BEFORE WE PROCEED INTO YOUR BACKGROUND. A COUPLE OF  
10 UP-FRONT QUESTIONS.

11 FIRST, DO YOU HAVE ANY RELATIONSHIP WITH EITHER  
12 WARSAW ORTHOPEDIC OR THE COMPANY WE CALL SOFAMOR DANEK  
13 MEDTRONIC SOFAMOR DANEK, USA, OR ANY OF THE FAMILY MEDTRONIC  
14 COMPANIES TODAY?

15 A NO.

16 Q DO THEY PAY YOU ANYTHING TODAY?

17 A NO.

18 Q HAVE THEY PAID YOU IN THE PAST, DR. MICHELSON?

19 A YES.

20 Q CAN YOU EXPLAIN WHAT THAT WAS AND WHAT IT WAS FOR?

21 A YES. I ENTERED INTO SOME LICENSING AND PURCHASING  
22 AGREEMENTS, WITH SOFAMOR DANEK AT THE END OF 1993 AND  
23 BEGINNING OF 1994, UNDER WHICH THEY PAID ROYALTIES FOR QUITE  
24 A WHILE AND IN THE YEAR 2005, THEY PURCHASED OUT THE ROYALTY  
25 STREAMS FROM THOSE AGREEMENTS, THEY PURCHASED THE

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1 INTELLECTUAL PROPERTY THAT THEY NEEDED FOR SOME OF THEIR  
2 MOST SUCCESSFUL PRODUCTS AND THEY PURCHASED OUT THOSE  
3 ROYALTY STREAMS AND THEN THEY PURCHASED JUST ABOUT THE  
4 ENTIRE BALANCE OF MY PORTFOLIO OF SPINAL PATENTS AND THEY  
5 PURCHASED THE ROYALTY STREAM OUT FOR THOSE, AND THEN THEY  
6 PURCHASED ALL OF THEIR ROYALTY STREAMS I HAD FROM ALL MY  
7 OTHER LICENSEES UNDER THOSE PATENTS SO THE ROYALTIES WOULD  
8 GO TO THEM.

9 Q DR. MICHELSON, WHY ARE YOU HERE IN COURT TODAY?

10 A FIRST, YOU ASKED ME TO COME AND SECOND, I REALLY  
11 BELIEVE IN THESE PATENTS.

12 Q ALL RIGHT. AND DR. MICHELSON, BEFORE WE PROCEED INTO  
13 SOME OF THE TECHNOLOGY, A LITTLE BIT ABOUT YOUR BACKGROUND.  
14 ROUGHLY, HOW MANY PATENTS HAVE YOU BEEN AWARDED IN THE  
15 UNITED STATES FOR YOUR WORK ON SPINAL TECHNOLOGY?

16 A THE NUMBER IS IN EXCESS OF 250, BUT THAT SOUNDS BIGGER  
17 THAN IT IS REALLY. I WOULD SAY HALF OF THOSE PATENTS  
18 PERTAIN JUST TWO PRODUCT GROUPS.

19 Q WHICH ARE THOSE?

20 A INTER BODY FUSION, WE HAVE HEARD MUCH ABOUT THAT AND  
21 CERVICAL PLATE TECHNOLOGY.

22 Q DR. MICHELSON, HAVE YOU BEEN RECOGNIZED FOR THE  
23 ADVANCES THAT YOUR INVENTIONS HAVE BROUGHT TO THE FIELD OF  
24 SPINAL SURGERY?

25 A YES.

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1 Q AND YOU WERE RECENTLY, AS WE HAVE HEARD, INDUCTED INTO  
2 THE NATIONAL CENTER HALL OF FAME IN WASHINGTON, DC.

3 CAN YOU EXPLAIN TO US WHAT THAT IS?

4 A YES. IN 1973, WITH THE SUPPORT OF THE UNITED STATES  
5 PATENT TRADEMARK OFFICE, IT WAS DECIDED THAT AN AMERICAN  
6 INVENTOR'S HALL OF FAME WOULD BE CREATED, LEAVE ME OUT OF  
7 THIS FOR A MOMENT, TO RECOGNIZE AMERICA'S GREATEST  
8 INVENTORS. IT SUBSEQUENTLY WAS MOVED AND IS NOW ACTUALLY  
9 HOUSED IN THE NATIONAL PORTRAIT GALLERY OF THE SMITHSONIAN  
10 INSTITUTE AND THEY HAVE ANOTHER PART, WHICH IS IN THE USPTO  
11 ITSELF.

12 Q USPTO?

13 A UNITED STATES PATENT AND TRADEMARK OFFICE.

14 Q DR. MICHELSON, HOW DID YOU HAD LEARN ABOUT YOUR  
15 INDUCTION?

16 A A GENTLEMAN NAMED ED GREY ACTUALLY CALLED ME. I DID  
17 NOT KNOW WHO HE WAS. HE SAID, "DOCTOR, I'D LIKE TO ASK YOU  
18 A QUESTION." AND I SAID "SURE." HE SAID, "SO TELL ME, WHAT  
19 DO THOMAS ALBERT EDISON AND ALEXANDER GRAHAM BELL, THE  
20 WRIGHT BROTHERS AND YOU HAVE IN COMMON?" SO I SAID,  
21 "INVENTORS." TO WHICH HE SAID, "THAT'S ABOUT HALF RIGHT."  
22 AND OF COURSE I HAD TO ASK, "WHAT'S THE OTHER HALF?" HE  
23 SAID, "COME MAY 6 OF THIS YEAR, YOU'RE GOING TO JOIN THEM IN  
24 AMERICA'S INVENTORS HALL OF FAME." IT WAS A BIG HONOR.

25 Q AND YOU SAY THAT. THERE WAS A REFERENCE TO IT LOOKING

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1 GOOD ON A RESUME. DOES IT MEAN MORE THAN THAT TO YOU?

2 A SURE. I DON'T THINK I NEED A RESUME ANYMORE. BUT IT  
3 IS A GREAT, GREAT HONOR. THE INAUGURATION TOOK PLACE WHERE  
4 ABRAHAM LINCOLN WAS INAUGERATED. IT WAS QUITE SOMETHING.

5 Q DR. MICHELSON, HAVE YOU BEEN RECOGNIZED BY OTHER GROUPS  
6 FOR YOUR INVENTIONS IN THE FIELD OF SPINAL SURGERY?

7 A YES.

8 Q WHAT OTHER GROUPS?

9 A I'M ACTUALLY PROBABLY PROUDER OF THIS, THE PARALYZED  
10 VETERANS OF AMERICA IS ONE OF THE OLDEST CHARITABLE  
11 ORGANIZATIONS IN THIS COUNTY. IT WAS FORMED DURING THE  
12 CIVIL WAR AND THEY TAKE CARE OF PARALYZED VETERANS AND IN  
13 2006, THEY HONORED ME WITH RECOGNITION AS THE WORLD'S  
14 LEADING RESEARCHER IN SPINE.

15 Q WERE THERE FELLOW HONOREES?

16 A YES. THE OTHER GENTLEMAN WHO WAS THE HONOREE WHO  
17 HAPPENED TO BE THE CHAIRMAN OF THE CHIEF STAFF, THE CHAIRMAN  
18 OF THE JOINT STAFF OF THE ARMED SERVICES OF THE UNITED  
19 STATES.

20 Q DO YOU REMEMBER HIS NAME?

21 A U AND LET ME THINK OF HIS LAST NAME -- U --

22 Q SHELTON.

23 A U SHELTON.

24 Q NOW, DR. MICHELSON, HAVE YOU TESTIFIED BEFORE CONGRESS?

25 A I HAVE BY WRITTEN SUBMISSION AND BY DIRECT TESTIMONY,

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1 YES.

2 Q ON WHAT SUBJECT?

3 A PATENT REFORM AND OVERSIGHT OF THE FDA, THE FOOD AND  
4 DRUG ADMINISTRATION OF THE UNITED STATES.

5 Q HAVE YOU BEEN ASKED BY THE UNITED STATES PATENT AND  
6 TRADEMARK OFFICE TO HELP PROVIDE EDUCATION FOR PATENT  
7 EXAMINERS?

8 A YES.

9 Q CAN YOU EXPLAIN THAT?

10 A YES. WELL THE PATENT OFFICE SEES ALL KINDS OF PATENTS  
11 AND THE WAY IT ACTUALLY WORKS, THERE'S A GROUP CALLED 3775.  
12 AND AT LAST COUNT, THERE WERE 19 PEOPLE IN THAT GROUP.  
13 THOSE PROFESSIONALS ONLY SEE PATENTS THAT RELATE TO SPINE  
14 FUSION, WHETHER IT'S THE PLATES OR INTER BODY TECHNOLOGY AND  
15 AS A GROUP, THESE PEOPLE SIMPLY ARE THE MOST KNOWLEDGEABLE  
16 PEOPLE IN THE ENTIRE WORLD AS TO WHAT THE PRIOR ART IS OR  
17 WHAT'S THE CURRENT ART IS, WHEN IT COMES TO SPINAL FUSION  
18 DEVICES.

19 Q AND IN THE EDUCATION, CAN YOU BRIEFLY EXPLAIN TO US  
20 WHAT TOOK PLACE?

21 A WELL AGAIN, I GOT A PHONE CALL AND IT WAS THE GENTLEMAN  
22 HEADING THAT GROUP UP AND HE SAID, "I'M GOING TO TELL YOU  
23 THIS. THIS IS UNUSUAL. WE GET ONE EDUCATIONAL TRIP A YEAR  
24 AND USUALLY EVERYBODY GETS TO GO TO ORLANDO, FLORIDA, DISNEY  
25 WORLD OR LAS VEGAS. HE SAID BUT AS A GROUP, WE VOTED WE

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1 WOULD LIKE TO COME OUT AND MEET WITH YOU FOR A DAY. SO I  
2 DID IT THE FIRST TIME AND A YEAR LATER, THE ENTIRE GROUP, 17  
3 PEOPLE SHOWED UP. ONE WOMAN WAS OUT ON MATERNITY LEAVE AND  
4 ONE PERSON WAS SICK.

5 Q DR. MICHELSON, ARE YOU STILL INVENTING TODAY?

6 A NO.

7 Q WHAT DO YOU TO DO TODAY? JUST TO ROUND OUT THE  
8 BACKGROUND?

9 A I FOUNDED, I FUNDED AND I DIRECT THREE CHARITABLE  
10 ORGANIZATIONS.

11 Q AND WHICH ARE THOSE?

12 A WELL THE FIRST ONE IS THE FOUND ANIMALS FOUNDATION. WE  
13 HAVE 30 FULL TIME EMPLOYEES AND WE BASICALLY TRY TO SAVE  
14 ANIMALS LIVES. JUST ONE QUICK EXAMPLE, WE OPENED UP A VERY  
15 BEAUTIFUL PET SHOP EXCEPT WE DON'T SELL ANY ANIMALS. WE GO  
16 INTO THE SHELTERS AND WE FIND THE ANIMALS THAT THEY'RE ABOUT  
17 TO KILL AND WE TAKE THEM AND WE HAVE THEM GROOMED, WE TAKE  
18 THEM TO OBEDIENCE CLASS AND THEN WE GIVE THEM TO PEOPLE  
19 INSTEAD OF SELLING THEM, QUOTE AN ADOPT SHOP. THAT'S ONE OF  
20 THE THINGS THAT WE DO.

21 Q WHAT OF THE TWO OTHER FOUNDATIONS?

22 A I HAVE A MUCH, MUCH LARGER FOUNDATION THAT FUNDS  
23 MEDICAL RESEARCH. IN FACT, WE JUST FUNDED A MAJOR PROJECT  
24 HERE AT SCRIPPS AND IT WILL GO ON FOR FIVE YEARS. WE FUND  
25 MEDICAL RESEARCH CONSIDERED TOO CUTTING EDGE FOR NIH OR TO

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1 FUND IT. THEY THINK IT'S TOO EXPERIMENTAL.

2 Q WHAT'S NIH?

3 A THE NATIONAL INSTITUTE OF HEALTH.

4 Q ANY OTHER FOUNDATION, DR. MICHELSON, AS WE WRAP UP THE  
5 BACKGROUND?

6 A YES. I HAVE A FOUNDATION CALLED 20 MILLION MINDS.  
7 IT'S A COLLEGE TEXTBOOK FOUNDATION. SO THREE YEARS AGO, WHY  
8 I DID THIS WAS THAT THE PROBLEM WAS THAT THERE'S 112  
9 COMMUNITY COLLEGES IN CALIFORNIA. THE TUITION AT THAT TIME  
10 WAS 1000 DOLLARS. THE TEXT BOOKS WERE 1200. HOW CAN A  
11 STACK BOOK BE 200, IT'S OUTRAGEOUS AND THE NUMBER ONE REASON  
12 GIVEN FROM KIDS WITH A B OR BETTER AVERAGE WHO FINISHED THE  
13 FIRST YEAR AND DIDN'T COME BACK THE SECOND YEAR WAS THEY  
14 COULD NOT AFFORD THE TEXT BOOKS, SO THEIR PELL GRANTS OR CAL  
15 GRANTS, THAT WENT DIRECTLY FROM THE GOVERNMENT TO THE  
16 COLLEGE TO PAY THEIR TUITION, BUT NOBODY WOULD GIVE THEM THE  
17 MONEY TO BUY THE TEXT BOOKS SO WHAT WE HAVE ALREADY DONE IS  
18 CREATED THE FIRST 25 TEXT BOOKS THAT CONSTITUTES 50 PERCENT  
19 OF ALL THE COURSE WORK AT THE COMMUNITY SCHOOL LEVEL. THESE  
20 TEXT BOOKS ARE SUPERS HIGH QUALITY, THEY HYPERLINK SO IN THE  
21 BIOLOGY TEXT BOOK, IF YOU ARE ON DNA, YOU HIT A HYPERLINK  
22 AND THERE'S WATSON AND CRICK EXPLAINING TO YOU WITH THEIR  
23 MODELS HOW DNA AND RNA WORKS. IT'S INCREDIBLE. AND THE  
24 BOOKS ARE OPEN ARCHITECTURE, THEY'RE FREE. TOTALLY DIGITAL,  
25 DOWNLOADABLE, THE GRAPHICS ARE OFF THE CHARTS AND WE'RE

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1 GOING TO CONTINUE UNTIL WE CREATE EVERY SINGLE ONE OF THE  
2 COLLEGE TEXT BOOKS.

3 Q AND DR. MICHELSON, LET'S SWITCH TO YOUR MEDICAL  
4 BACKGROUND, YOUR PROFESSIONAL BACKGROUND. YOU ARE AN  
5 ORTHOPEDIC SPINE SURGEON.

6 A I AM.

7 Q DO YOU NEED SOME WATER?

8 A I WAS GOING TO GET -- I'M GOOD.

9 Q ARE YOU STILL PRACTICING TODAY DR. MICHELSON?

10 A NO.

11 Q WHEN DID YOU STOP?

12 A 2001.

13 Q AND WHEN DID YOU BEGIN INVENTING IN THE AREA OF SPINE  
14 TECHNOLOGY?

15 A 1983.

16 Q ALL RIGHT. BEFORE MOVING ON TO YOUR INVENTIONS, LET'S  
17 FOCUS ON A BIT ANATOMY. WAS THERE A DEMONSTRATIVE CREATED  
18 IN YOUR REQUEST TO HELP FACILITATE YOUR TESTIMONY AND  
19 EXPLAIN IT TO THE JURY?

20 A YES.

21 MR. DAUCHOT: NO OBJECTION?

22 MR. SCHERKENBACH: NO OBJECTION.

23 MR. DAUCHOT: ALL RIGHT. DAVE, CAN WE PUT UP  
24 NUMBER TWO. HERE WE GO. JUST TO PROVE THAT REALLY IS MY  
25 DEMONSTRATIVE, I'D LIKE TO DRAW YOUR ATTENTION TO THE SIZE

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1 OF THAT HAND AND THE LACK OF HAIR. SO I RECOGNIZE THAT'S  
2 MINE.

3 THE COURT: WE DON'T TALK ABOUT LACK OF HAIR.

4 YOURS IS JUST CUT SHORT? YOU HAVE GOT HAIR.

5 BY MR. DAUCHOT:

6 Q DR. MICHELSON, LET'S FOCUS IN, CAN YOU EXPLAIN TO THE  
7 JURY WHAT THE FUNCTION OF THE SPINE IS? THE HUMAN SPINE?

8 A YES. SOMEBODY ONCE SAID THAT THE SPINE WAS A STACK OF  
9 BLOCKS. YOUR HEAD SAT ON ONE END AND YOU SAT ON THE OTHER.  
10 ESSENTIALLY, IT'S A TENT POLE. IT HOLDS UP OUR BODY BUT  
11 UNLIKE A TENT POLE, BETWEEN EACH SET OF BONES, THERE'S A  
12 RUBBERY SHOCK ABSORBER SO WE CAN HAVE MOTION.

13 Q WHAT IS IT THAT GIVES THE SPINE STABILITY?

14 A IT'S THE VERTEBRAE, THOSE BLOCKS OF BONE AND WHAT GIVES  
15 IT THE MOTION ARE THE RUBBERY SHOCKS IN BETWEEN CALLED THE  
16 DISCS.

17 Q LET'S FOCUS ON THE BONES. DAVE CAN YOU PUT UP SIX,  
18 PLEASE? IS THAT SIX? OKAY, WE HAVE -- AND THEN PUT UP  
19 FOUR. ALL RIGHT. DR. MICHELSON, WHAT ARE WE LOOKING AT  
20 HERE?

21 A MAY I HAVE A POINTER?

22 Q YEAH.

23 A THANK YOU. THANK YOU.

24 Q ALL RIGHT. DR. MICHELSON, WHAT ARE WE LOOKING AT?

25 A THIS IS A TOP DOWN VIEW OF A LUMBAR VERTEBRAE.

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1 Q ALL RIGHT. AND WE HAVE SOME NAMES UP THERE. CAN YOU  
2 WALK US THROUGH THAT?

3 A SURE. AT THE BOTTOM, WE SEE ANTERIOR, THAT SIMPLY  
4 MEANS THE FRONT. IN THE BACK, YOU SEE POSTERIOR, WHICH  
5 MEANS THE BACK. AND THERE'S A LINE GOING FROM FRONT OR THE  
6 BACK, IT'S AN INTERESTING LINE BECAUSE IT'S SUPPOSED TO BE  
7 HALF WAY FROM ONE SIDE OR THE OTHER. WE'RE CALLING IT THE  
8 MIDLINE AND ANYTHING THAT IS OFF TO THE SIDE OF THE MIDLINE,  
9 EVEN IF IT'S GOING THE WAY THAT ARROW POINTS, IS LATERAL TO  
10 THE MIDLINE. THERE'S A COUPLE OF OTHER INTERESTING THINGS  
11 TO SEE HERE.

12 SPECIFICALLY, YOU NOTICE THIS IS A DIFFERENT  
13 COLOR. THIS REGION RIGHT HERE THAN THE PART ON THE OUTSIDE.  
14 THE PART ON THE OUTSIDE WOULD CORRESPONDENCE TO THE WALLS OF  
15 A ROOM IN A HOUSE. THAT WOULD BE THE STRUCTURAL PART OF THE  
16 BUILDING. AND WHILE THIS IS ALL BONE, THE BONINESS.

17 Q WHEN YOU SAY "WHILE THIS IS ALL BONE?"

18 A YEAH. THIS ENTIRE VERTEBRA IS BONE.

19 Q ALL RIGHT. SO THE ENTIRE SURFACE IS AT LEAST ON TOP?

20 A NO. NO. THE ENTIRE STRUCTURE IS MADE OF BONE, BUT  
21 THERE'S DIFFERENT KINDS OF BONE HERE. THIS IS VERY, VERY  
22 STRONG BONE AND THIS RING THAT YOU ARE SEEING, THIS WHITE  
23 DENSE RING, YOU WILL HEAR REFERRED TO AS THE APOPHYSEAL  
24 RING. IN HERE THIS WORKS INTERMITTENT. THIS IS COVERED BY  
25 A VERY THIN LAYER OF BONE THAT LOOKS LIKE AN EGG SHELL.

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1 VERY BRITTLE. IT IS AVASCULAR, THAT MEANS THERE IS NO BLOOD  
2 THAT IS APPARENT THERE. IF YOU SCRAPE THAT THROUGH, YOU  
3 WOULD GET TO WHAT WE CALL CANCELLOUS BONE WHICH LOOKS LIKE A  
4 BLOODY SPONGE. IT'S HARD, BUT IT HAS THE CONSISTENCY OF  
5 SPONGY STRUCTURE AND IT IS FILLED WITH BONE MARROW SO THAT'S  
6 IMPORTANT AND YOU CAN APPRECIATE IT FROM THIS VIEW, IS THAT  
7 THE DISC THAT FITS IN HERE, LOOKS LIKE THIS BULGE IN BOTH  
8 DIRECTIONS SO IN THESE SURFACES, WHETHER IT IS THE ONE ON  
9 TOP OR THE ONE BENEATH IT ARE WHAT WE CALL BI-CONCAVE. THEY  
10 SCOOP DOWN IN BOTH PLANES.

11 Q SO WHEN YOU SAY BI-CONCAVE, WE'RE LOOKING DOWN ON IT?

12 A YES.

13 Q YOU ARE LOOKING AT IT AND YOU SAY BI CONCAVE?

14 A IT'S BI-CONCAVE BECAUSE IT CURVES THIS WAY AND IT  
15 CURVES THIS WAY. WE CAN'T SEE IT BECAUSE WE'RE LOOKING  
16 STRAIGHT DOWN. IF WE WERE LOOKING AT A SIDE VIEW, WE COULD  
17 SEE.

18 Q JUST SO WE'RE CLEAR, THE ENTIRE SURFACE IS HARD,  
19 RELATIVELY SPEAKING?

20 A YES.

21 Q BUT THE INSIDE, THE END OF THE APOPHYSEAL RING IS  
22 HARDER BONE THAN --

23 A AND IT'S STRUCTURALLY MORE SOUND SO THAT ONCE YOU  
24 SCRAPE THE TOP, THE SOUNDNESS AND THE ABILITY TO SUPPORT  
25 WEIGHT OF THAT RIM, WILL REMAIN, THE INNER PART, NOT SO.

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1 Q DR. MICHELSON, I DON'T SEE TRANSLATERAL UP THERE?

2 A THAT'S CORRECT.

3 Q LET'S SPEAK ABOUT THE TERM TRANSLATERAL. THAT'S A TERM  
4 IN OPENING STATEMENT WE SAW IN THE CONTEXT OF YOUR '973  
5 PATENT.

6 TO YOUR KNOWLEDGE, WAS THAT A TERM SPECIFICALLY IN  
7 THIS AREA THAT EXISTED BEFORE THE TIME THAT YOU INVENTED  
8 THIS IMPLANT?

9 A WELL TO THE BEST OF MY KNOWLEDGE, I ACTUALLY CREATED  
10 THAT WORD. WITH THE IDEA OF THE TRANSCONTINENTAL RAILROAD  
11 IN MIND, THAT'S WHY I PICKED THE WORD TRANSLATERAL THAT  
12 TRANSCONTINENTAL RAILROAD CONNECTED THE ATLANTIC OCEAN TO  
13 THE PACIFIC OCEAN AND CROSSED THE ENTIRE CONTINENT AND MY  
14 CONCEPT OF A TRANSLATERAL IMPLANT WAS AN IMPLANT THAT WOULD  
15 ACTUALLY BE CAPABLE OF SITTING ON THIS APOPHYSEAL RING ON  
16 ONE SIDE AND GOING ALL THE WAY ACROSS AND SITTING ON THE  
17 APOPHYSEAL RING ON THE OPPOSITE SIDE.

18 Q CAN WE PUT UP SLIDE FIVE, DAVE? CAN YOU PRESS.

19 DOES THAT DEPICT TRANSLATERAL AS YOU USED IT IN  
20 YOUR '973 PATENT.

21 A YES. AND ALSO ONE OTHER THING. IT'S COMING IN  
22 ESSENTIALLY PERPENDICULAR TO WHAT WE CALL THAT MID SAGITTAL  
23 LINE, SO WHILE THIS WAS THE FRONT AND THAT WAS THE BACK AND  
24 THINGS WENT IN FRONT TO BACK, THIS IS COMING IN AT 90 DEGREE  
25 ANGLE TO THE OLD TECHNOLOGY.

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1 Q NOW DR. MICHELSON, YOU REFERENCED DISCS AND SAID DISCS  
2 IS WHAT PROVIDE US WITH THE FLEXIBILITY IN THE TENT POLE  
3 STRUCTURE THAT YOU CALL THE SPINE. WHAT DOES A DISC LOOK  
4 LIKE GENERALLY SPEAKING?

5 A WELL A DISC ACTUALLY RESEMBLES A CAR TIRE, EVEN THOUGH  
6 A CAR TIRE IS ESSENTIALLY HOLLOW, IT'S VERY, VERY STRONG.  
7 THERE'S NO WAY YOU CAN PULL A CAR TIRE APART AND INSIDE OF  
8 THAT CAR TIRE IS A GELATINOUS MATERIAL, SO A DISC HAS WHAT  
9 WE CALL AN ANNULUS, WHICH IS THE TIRE PART AND HAS A NUCLEUS  
10 WHICH IS THIS VERY GELATINOUS AND MAYBE A BETTER WORD, IT'S  
11 LIKE A GEL AND THAT ALLOWS THIS THING TO MOVE ALL AROUND.

12 Q DAVE, CAN YOU PUT UP SEVEN, PLEASE?

13 DR. MICHELSON, WE'RE LOOKING AT A SPINE AND THERE  
14 ARE DIFFERENT REGIONS NOTED. THE CERVICAL REGION, THE  
15 THORACIC REGION, THE LUMBAR AND THE SACRAL, DO YOU SEE THAT?

16 A YES.

17 Q DO ALL OF THE VERTEBRAL BODIES AND THE DIMENSIONS OF  
18 THE VERTEBRAL BODIES AND THE HEIGHTS AND THE DEPTHS AND THE  
19 WIDTHS AND THE LIKE, IS THAT CONSTANT UP AND DOWN THE SPINE?  
20 IS THAT ALL ONE SIZE?

21 A IT IS NOT.

22 Q ALL RIGHT. LET'S START WORKING UP AND GENERALLY  
23 SPEAKING, HOW AND WHY DO SIZES AND DIMENSIONS PROPERTIES  
24 DIFFER?

25 A SURE. ALL RIGHT. SO THE FIRST GROUP OF VERTEBRAE AND

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1 DISC FORM WHAT WE CALL CERVICAL SPINE, BUT THAT'S YOUR NECK  
2 AND THE PURPOSE OF YOUR NECK ESSENTIALLY IS TO SUPPORT A  
3 RELATIVELY LOW LOAD, A HEAD IS ABOUT 13 POUNDS AND TO ALLOW  
4 FOR GREAT MOTION. SO THERE'S MORE MOTION IN THAT PART OF  
5 THE SPINE THAN ANYWHERE ELSE. YOU CAN SAY YES AND NO. YOU  
6 CAN TURN YOUR HEAD 90 DEGREES TO EITHER SIDE, YOU CAN TILT  
7 IT SO THE DISCS THERE HAVE TO BE RELATIVELY HIGH MOTION TO  
8 ALLOW FOR THAT MOTION AND THE JOINTS THAT ARE BEHIND THE  
9 VERTEBRAL BODIES THAT GUIDE THAT MOTION HAVE TO BE IN A  
10 PLANE TO ALLOW THAT TO HAPPEN.

11 Q AND THEN WE GO DOWN TO THE THORACIC VERTEBRAE?

12 A RIGHT. AND WHAT DEFINES A THORACIC SPINE IS EACH ONE  
13 OF THESE VERTEBRAE HAS A PAIR OF RIBS COMING OUT AND THE 12  
14 RIBS TOGETHER ESSENTIALLY FORM AS BARRELL. NOW IF THE BONES  
15 OF THE RIBS ARE RIGIDLY FIXED TO THE VERTEBRAL BODY, IT'S  
16 OBVIOUS THERE'S NOT GOING TO BE VERY MUCH MOTION, HOW COULD  
17 THERE BE. YOU CAN'T BEND VERY FAR UNTIL ONE RIB IS GOING TO  
18 HIT THE OTHER. AND THUS, THE DISCS ARE VERY, VERY NARROW.  
19 AND BY THE WAY, THE VERTEBRAE IN THIS PORTION OF THE SPINE,  
20 PARTICULARLY IN THIS MIDPORTION, ARE ALMOST TRIANGULAR, SO  
21 EARLIER WHEN WE LOOKED AT THAT LUMBAR VERTEBRAE, IT WAS  
22 ESSENTIALLY SOMETHING THAT WAS CURVED ON THE RECTANGULAR,  
23 BUT NOW AS YOU GET TO THE THORACIC SPINE, THEY START TO  
24 BECOME MORE AND MORE TRIANGULAR.

25 SOMETHING ELSE CHANGES, AND I'LL GET TO IT LATER

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1 WHEN WE GET TO ANOTHER PICTURE AND IT WILL BE EASIER TO SHOW  
2 YOU.

3 Q DR. MICHELSON, WE ARE NOW DOWN TO THE LUMBAR?

4 A YES.

5 Q EXPLAIN TO US WHAT THE FUNCTION OF IT IS AND HOW THAT  
6 FUNCTION CORRELATES WITH THE SPATIAL DIMENSIONS OF THE  
7 VERTEBRA?

8 A RIGHT. YOU CAN SEE THESE VERTEBRAL BODIES ARE GETTING  
9 BIGGER AND BIGGER AS WE GO DOWN, BECAUSE OF THE SUPER  
10 INCUMBENT WEIGHT, THE AMOUNT OF BODY MASS THAT EACH ONE OF  
11 THESE HAS TO SUPPORT IS GETTING LARGER AND LARGER AND LARGER  
12 AS WE COME DOWN TO THE PELVIS, SO THESE VERTEBRAL BODIES ARE  
13 QUITE LARGE. THE DISCS ARE VERY LARGE, THEY'RE VERY TALL.  
14 VERY FAT. AND THAT IS TO ALLOW FOR MOTION.

15 BUT UNLIKE THE SURFACE SPINE, THE MOTION THAT THE  
16 LUMBAR SPINE PERMITS IS ESSENTIALLY FLEXED IN EXTENSION.  
17 YES THERE IS SOME ROTATION. YES THERE'S SOME TILT BUT THE  
18 PREDOMINANT MOTION IS FLEX AND EXTENSION.

19 Q ANY DIFFERENCE BETWEEN THE HEIGHT OF THE VERTEBRA, IF  
20 YOU COMPARE THE LUMBAR TO SAY THE THORACIC AND THEN  
21 CERVICAL?

22 A YES. THESE VERTEBRA AT THE BOTTOM ARE REALLY VERY,  
23 VERY LARGE.

24 Q WHAT HAPPENS AS YOU GO UP THE SPINE?

25 A THEY PROGRESSIVELY GET SMALLER. THE IS VERTEBRAL

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1 BODIES GETTING SUCH THAT THEY HAVE A LESS CROSS SECTIONAL  
2 AREA TO THEM.

3 Q ALL RIGHT. CAN WE, DR. MICHELSON, WE HAVE A  
4 DEMONSTRATIVE HERE?

5 MR. DAUCHOT: YOUR HONOR, THERE IS NO OBJECTION TO  
6 THE USE OF THIS DEMONSTRATIVE.

7 THE COURT: ALL RIGHT.

8 MR. DAUCHOT: I'M GOING TO IDENTIFY FOR THE RECORD  
9 AS PLAINTIFF'S DEMONSTRATIVE 11.

10 BY MR. DAUCHOT:

11 Q DR. MICHELSON, THAT IS A MODEL OF THE LUMBAR PORTION OF  
12 THE SPINE?

13 A YES.

14 Q ALL RIGHT. AND THERE ARE ANATOMICAL STRUCTURES AROUND  
15 THE LUMBAR SPINE, CORRECT?

16 A YES.

17 Q CAN YOU WALK US THROUGH THOSE ANATOMICAL STRUCTURES, AT  
18 LEAST INSOFAR AS THEY ARE PARTICULARLY SIGNIFICANT TO YOUR  
19 INVENTION IN THIS CASE?

20 A YES. THE MODEL IS MEANT TO REPRESENT THAT THIS IS THE  
21 AORTA AND THE VENA CAVA, WHICH ARE THE TWO LARGEST BLOOD  
22 VESSELS IN THE BODY. ONE IS BRINGING ALL THE BLOOD TO THE  
23 LOWER BODY FROM THE HEART AND THE OTHER ONE IS RETURNING IT.  
24 THEY DO SIT RIGHT IN FRONT OF THE LUMBAR SPINE AND THEN AT  
25 THE BOTTOM, WHAT WE CALL L5 S1, THEY KIND OF SPLIT IN HALF

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1 TO BECOME THE ILIAC.

2           THERE'S ACTUALLY SOMETHING ELSE THAT IS WORTH  
3 SEEING. THAT ARE THESE TINY LITTLE BLOOD VESSELS THAT ARE  
4 COMING OFF OF THOSE STRUCTURES AND GOING STRAIGHT BACK. SO  
5 IN REAL LIFE, IF YOU WANT TO OPERATE ON THESE DISCS FROM THE  
6 FRONT, YOU'RE GOING TO NEED TO MOVE THESE OUT OF THE WAY AND  
7 YOU CAN ONLY MOVE THEM SO FAR, AND THE BEST REPRESENTATION I  
8 CAN GIVE YOU FOR WHAT THE CONSISTENCY OF THE VENA CAVA IS,  
9 WHEN THE GUY BLOWS UP THOSE BALLOONS, THE LONG SKINNY ONES  
10 AND HE TWIRLS AND HE MAKES DOGS, WHEN THEY'RE BLOWN UP TOO  
11 MUCH AND THEY BECOME ALMOST TRANSPARENT AND YOU CAN SEE  
12 THROUGH THEM, THAT'S WHAT THE VENA CAVA LOOKS LIKE. YOU CAN  
13 ACTUALLY SEE ALL THE BLOOD IN THIS, IT'S DILATED AND IT'S  
14 THE KIND OF THING WHERE YOU DON'T LOOK TOO HARD. VERY  
15 DELICATE STRUCTURE AND ONE OF THE GREAT DANGERS IN DOING  
16 SURGERY FROM THE FRONT IS OF COURSE INJURING THESE TWO  
17 VESSELS, BUT ACTUALLY MORE FREQUENTLY WHAT HAPPENS IS THEY  
18 GET MOVED AND ONE OF THE SMALL VESSELS THAT ARE GOING  
19 STRAIGHT BACK GET TORN AND WHEN THEY DO THAT, THEY RETRACT  
20 BACK.

21           I PERSONALLY NEVER DID AN OPERATION ON THE FRONT  
22 WITHOUT HAVING A VASCULAR SURGEON DO IT. SO I WOULD DO THE  
23 SPINE PART BUT I ALWAYS HAD A VASCULAR SURGEON MOVE THE  
24 BLOOD VESSELS.

25 Q       ALL RIGHT, DR. MICHELSON. LET'S FLIP THE MODEL AROUND

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1 AND NOW WE'RE IN THE BACK. WHAT STRUCTURE IN THE BACK DO  
2 YOU HAVE TO CONTEND WITH AS A SPINE SURGEON?

3 A SO WE HAVE THIS SORT OF OPENING THAT GOES THROUGH THE  
4 ARCH BETWEEN THE FRONT VERTEBRAL BODY AND THE POSTERIOR  
5 ELEMENTS. IN THERE IS THE DURAL SAC WHICH REALLY BEGINS AT  
6 THE BASE OF THE BRAIN AND CONTINUES DOWN AND THAT'S FILLED  
7 WITH CEREBRAL SPINAL FLUID AND THE SPINAL CORD IS CONNECTED  
8 TO THE BRAIN AND IT'S THE MAIN TRUNK FOR DELIVERING MESSAGES  
9 TO THE MUSCLES IN THE LEGS THAT WHEN YOU THINK, I WANT TO  
10 MOVE MY FOOT, MAKES YOUR FOOT MOVE AND THE INFORMATION  
11 COMING BACK FROM YOUR FOOT, THAT TELLS YOU WHERE YOUR FOOT  
12 IS, THAT GOES UP THE SPINAL CORD AND BACK INTO YOUR BRAIN.  
13 AND ONCE YOU GET DOWN TO THE TOP OF THE LUMBAR SPINE, THERE  
14 IS NO MORE SPINAL CORD. IT ENDS, BUT FLOATING IN THE  
15 CEREBRAL SPINAL FLUID ARE THE NERVE ROOTLETS THAT ARE  
16 EVENTUALLY GOING TO COME TOGETHER AT EACH DISC LEVEL RIGHT  
17 ABOVE, RIGHT BELOW, A PAIR OF THESE NERVES EXIT AND THESE  
18 NERVES GET TOGETHER AGAIN AND FORM YOUR SCIATIC NERVE AND  
19 YOUR FEMORAL NERVE AND AGAIN, GO DOWN YOUR LEG AND GIVE  
20 INNERVATION TO YOUR MUSCLES AND BRING BACK THE SENSORY  
21 INPUT.

22 THERE IS A COUPLE OF OTHER THINGS WORTH SAYING.  
23 THESE LITTLE BONES THAT STICK OUT. THEY ARE JUST LIKE THE  
24 OUTRIGGERS ON THE BIG SAILBOAT. THEY ARE JUST A PLACE FOR  
25 THE MUSCLES AND LIGAMENTS TO TIE ON TO STABILIZE THE SPINE.

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1 YOU KNOW, WE'VE ALL SEEN THE WESTERN WHEN THE GUYS IS ON THE  
2 BAR STOOL GETS SHOT AND FALLS OFF. WELL, THAT'S EXACTLY  
3 WHAT REALLY HAPPENS BECAUSE THE SPINE WOULD NOT BE  
4 INTRINSICALLY STABLE IF HE DIDN'T HAVE THESE LIGAMENTS AND  
5 MUSCLES WRAPPING IT AROUND AND STABILIZING IT.

6 AND THE LAST STRUCTURE, IF I MAY, IS THIS BIG RED  
7 GLOB HERE AND IT'S MEANT TO REPRESENT A MUSCLE CALLED THE  
8 PSOAS MUSCLE. EXCEPT IN REAL LIFE, THE PSOAS DOES NOT LOOK  
9 LIKE THIS AT THE TOP OF THE LUMBAR SPINE.

10 IT STARTS OUT, IT IS VERY FUSE IN FORM, VERY  
11 SKINNY AND SO OTHER THAN THAT THOUGH, I'M REAL GOOD WITH THE  
12 MUSCLE. REALLY, IN REAL LIFE, I WOULD BE VERY SKINNY AT THE  
13 TOP. AT L1, L2, YOU SEE MOST OF THE BODY.

14 Q NOW YOU TOUCHED THE PSOAS IN THAT MODEL, DOES THAT  
15 REPRESENT HOW THE PSOAS ACTUALLY FEELS TO A SURGEON AS HE OR  
16 SHE IS WORKING WITH IT?

17 A WELL, SOMEBODY DID ACTUALLY GO THROUGH A LOT OF  
18 TROUBLE. THIS ISN'T JUST A BIG GLOB OF LATEX. THEY PUT  
19 SOMETHING IN HERE TO DEMONSTRATE THE PRINCIPAL THAT THIS  
20 PARTICULAR MUSCLE HAS KIND OF FIBBERS THAT RUN DOWN. IT  
21 DOES NOT HAVE A HIGH CONTENT OF FIBROUS TISSUE.

22 SO WHAT YOU HAVE ARE VERY, VERY SOFT KIND OF  
23 MUSCLE FIBERS THEMSELVES AND IF YOU ARE GENTLE, AND YOU TAKE  
24 YOUR FINGER AND YOU JUST MOVE SLOWLY, YOUR FINGER WILL  
25 ACTUALLY SINK RIGHT THROUGH THAT AND I'M NOW RUBBING THE

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1 VERTEBRAL BODY, THE DISC SPACE ITSELF. SO IT'S KIND OF  
2 MUSCLE THAT YOU CAN PASS SOMETHING THROUGH YOUR FINGER, OR  
3 WE USE THE WORD OBDURATE AND OBDURATE, IT'S SOMETHING SMOOTH  
4 THAT AS YOU PUSH IT IN, IT ALLOWS THINGS TO MOVE OUT OF THE  
5 WAY. THIS IS A MUSCLE YOU CAN DO THAT WITH.

6 Q DR. MICHELSON, HOW DO YOU KNOW WHAT THE PSOAS FEELS  
7 LIKE TO THE TOUCH?

8 A YES. WELL BACK IN 1979, I HATE TO ADMIT THIS, I DID A  
9 SPINE FELLOWSHIP. THEY WERE VERY INFREQUENT BACK THEN AS  
10 PART OF MY FELLOWSHIP, I WORKED WITH THE TEXAS INSTITUTE OF  
11 REHABILITATION AND THE CASES WE DID WERE BASICALLY SMALL  
12 CHILDREN WHO WERE BORN WITH JUST HORRENDOUS SPINAL  
13 DEFORMITIES. WE WOULD DO THESE MASSIVE SURGERIES, THESE  
14 KIDS COULDN'T EVEN BREATHE, THEIR DIAPHRAGMS HAD NO PLACE TO  
15 GO, THEY WERE TWISTED AROUND SO FAR AND WE WOULD HAVE TO  
16 OPEN THEM UP, THEIR CHEST AND THEIR ABDOMENS, AND TRY TO, IF  
17 YOU WILL, UNTWIST THEM AND JACK THEM BACK UP SO THERE'S  
18 ENOUGH ROOM FOR THE LUNGS TO MOVE OR THE DIAPHRAGMS.

19 Q DID YOU MANIPULATE THE PSOAS IN THE CONTEXT OF THOSE  
20 PROCEDURES?

21 A WELL, WHEN YOU OPENED THEM UP, INSTEAD OF SEEING THE  
22 PSOAS HERE, THEY WOULD BE SO TWISTED, THE PSOAS WOULD BE IN  
23 FRONT OF YOU. YOU HAD NO CHOICE BUT TO DEAL WITH IT.

24 Q THAT'S AN EXAMPLE OF HOW YOU ARE FAMILIAR WITH PSOAS?

25 A VERY FAMILIAR WITH PSOAS, YES.

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1 Q NOW I WANT TO TAKE YOU AND WE'LL COME BACK TO THAT IN A  
2 LITTLE BIT. I WANT TO TAKE A STEP BACK. DR. MICHELSON, AT  
3 THE TIME YOU WERE INVENTING, CAN YOU BRIEFLY EXPLAIN TO  
4 US WHAT IT IS THAT SPINE SURGEONS DID, GENERALLY SPEAKING,  
5 IN TERMS OF PROCEDURES AND FAIRLY BRIEFLY?

6 A YEAH. IN A NUTSHELL, I THINK IT WAS GEORGE BERNARD  
7 SHAW WHO SAID, WHAT'S WRONG WITH INVENTORS. THEY'RE SUCH A  
8 DISGRUNTLED LOT. EVERYBODY ELSE CAN ACCEPT THINGS THE WAY  
9 THEY ARE AND INVENTORS WANT TO FIX IT. WHEN I DID MY  
10 FELLOWSHIP, I WAS STUDYING WITH THE PEOPLE WHO WERE THE BEST  
11 IN THE WORLD AND GOING TO ALL THE MEETINGS AND SO WE WERE  
12 DOING THESE OPERATIONS, I REALLY NEED TO EXPLAIN THE  
13 DIFFERENT OPERATIONS THAT SPINE SURGEONS DO, IT'S NOT GOING  
14 TO MAKE SENSE WITHOUT THAT. MAY I?

15 Q SURE.

16 A SPINE SURGEON, HISTORICALLY ONLY DID THREE TYPES OF  
17 OPERATION. WE DID THE BIG NAME WAS DECOMPRESSION BUT IT IS  
18 NOTHING MORE THAN TAKING AWAY SOMETHING THAT WAS PRESSING  
19 AMONG THE NERVES. I DON'T KNOW IF ANYBODY HERE HAS BACK  
20 PAIN BUT IF YOU EVER HAD AN EYELASH IN YOUR EYE, YOU ARE  
21 REALLY NOT INTERESTED IN DOING MUCH ELSE THAN GETTING THE  
22 EYELASH OFF OF YOUR EYE. WHEN YOU HAVE SOMETHING HARD  
23 PRESSING ON YOUR NERVE, I ASSURE YOU IT'S MUCH WORSE THAN  
24 THAT. SO ONE OF THE OPERATIONS WE DO IS CALLED  
25 DECOMPRESSION AND WE SIMPLY TAKE THE DISC OR A PIECE OF BONE

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1 AND WE TAKE IT AWAY. NOW THOSE ARE THE SMALLEST OPERATIONS  
2 THAT WE DO. IN DOING THAT, WE ACTUALLY CREATE WHAT WE CALL  
3 INSTABILITY. WE TAKE AWAY SO MUCH TO GET TO WHAT THE  
4 PROBLEM IS THAT THE SPINE IS NO LONGER ABLE TO WORK AS A  
5 MACHINE. IN FACT, IT'S UNSTABLE AND THE INSTABILITY IS  
6 PAINFUL. SO THE NEXT GROUP OF OPERATIONS WE DO IS REALLY A  
7 WELD JOB. WE TAKE TWO BONES THAT ARE SEPARATE AND WE WELD  
8 THEM TOGETHER SO THEY BECOME ONE PAINLESS BONE. YES, YOU  
9 LOSE SOME MOTION BUT IT DOESN'T HURT ANYMORE.

10 Q WHEN YOU ARE SPEAKING, YOU ARE REFERRING TO THE TWO  
11 BONES.

12 A SO IF THAT DISC IS SO BAD IT CAN'T HOLD THE BONES IN  
13 PLACE, IT'S PAINFUL, WHAT WE WILL DO IS SIMULATE A FRACTURE  
14 OF ONE OF THE VERTEBRA AND WE WILL SIMULATE A FRACTURE OF  
15 THE OTHER VERTEBRA AND WE DO THAT BY REMOVING THAT KIND OF  
16 HARD OUTER CASING OF THE BONE. WE DO THAT WITH A BURR OR A  
17 HAMMER AND CHISEL.

18 Q NOW JUST SO WE ARE CLEAR, WHEN YOU REFER TO REMOVING  
19 THE HARD OUTER CASING OF THE BONE, ARE YOU TALKING ABOUT THE  
20 APOPHYSEAL RING?

21 A NO. BECAUSE FUSIONS CAN BE DONE ON ANY OF THE SURFACES  
22 THAT YOU CAN GET TO IN THE SPINE. YOU CAN DO IT BACK HERE.  
23 YOU CAN DO IT DOWN HERE Laterally. YOU CAN TAKE THE DISC  
24 OUT. YOU CAN PUT SOMETHING IN FROM BEHIND. YOU CAN TAKE  
25 THE DISC OUT AND PUT SOMETHING IN FROM IN FRONT SO THOSE ARE

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1 ALL THE WAYS IN WHICH TO DO FUSIONS.

2 Q ALL RIGHT.

3 A NOW THE PROBLEM WAS NONE OF THEM, NONE OF THOSE WAYS  
4 WERE PARTICULARLY RELIABLE. BY THAT, I MEAN, THE BEST  
5 SURGEON COULD DO THE BEST OPERATION ON THE VERY BEST PATIENT  
6 AND IT DIDN'T NECESSARILY FUSE AND IT DID NOT NECESSARILY  
7 TURN OUT WELL. SO THAT WAS NOT GOOD. AND THE WAY SPINE  
8 SURGEONS REACTED TO THAT, INCLUDING MYSELF IN PART, WAS WE  
9 DECIDED WELL, IF THIS SPINE OPERATION WOULD GO FROM THE  
10 FRONT WORKS 60 PERCENT OF THE TIME, AND THIS ONE WHEN YOU GO  
11 FROM OVER HERE WORKS 80 PERCENT OF THE TIME, AND IF I DO THE  
12 LAST OF THE THREE THINGS THAT SPINE SURGEONS DO, WHICH IS WE  
13 SOMETIMES DO WHAT WE CALL RECONSTRUCTIONS WHERE A FUSION  
14 ALONE IS NOT ENOUGH, WE HAVE TO BOLT THE SPINE TOGETHER. WE  
15 LITERALLY HAVE TO GET HARDWARE, 3-INCH LONG SCREWS, DRIVE  
16 THEM IN TO THE VERTEBRAE FROM BEHIND, PUT PLATES, RODS  
17 WHATEVER IT TAKES TO LOCK THOSE VERTEBRAE TOGETHER LONG  
18 ENOUGH FOR THE FUSION TO OCCUR.

19 SO WHAT WE, AS A GROUP OF SPINE SURGEONS WERE  
20 DOING IN THE 80'S WAS WHAT WE CALL A 360. 360. YOU PUT THE  
21 PATIENT ON THEIR BACK, THEIR BELLY UP, MAKE A INCISION ON  
22 THEIR ABDOMEN AND BACK IN THOSE DAYS, FREQUENTLY, WE  
23 ACTUALLY WOULD GO THROUGH WHERE THE ORGANS WERE. WE WOULD  
24 GO THROUGH THE PERITONEAL AND WE WOULD MOVE THE INTESTINES  
25 OUT OF THE WAY AND WE LOOK IN THE FRONT OF THE SPINE, WE

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1 WOULD CUT OUT AS MUCH OF THE DISC AS WE COULD AND WE WOULD  
2 GET A RING OF BONE, DONOR BONE, CAME FROM A HUMAN FEMUR AND  
3 WE WOULD TRY TO DRIVE THAT IN WITHOUT BREAKING IT, BECAUSE  
4 IT'S INTERESTING, A FEMUR IS AN IMMENSELY STRONG BONE, BUT  
5 IT IS ONLY STRONG THIS WAY, THE WAY IT WAS MADE TO BE USED,  
6 BUT WHEN YOU MAKE A LIFESAVER SHAPE PIECE OUT OF IT AND YOU  
7 TRY TO TAP A ONE EDGE OF IT, IT'S NOT SO STRONG.  
8 FREQUENTLY, THERE IS A FRAGMENT BUT THE IDEA WAS TO PUT THAT  
9 IN THE DISC, CLOSE THE PATIENT BACK UP, TURN THE PATIENT  
10 OVER AND NOW LITERALLY TAKE EVERY LAST PIECE OF MUSCLE OFF  
11 THE SPINE UNTIL IT LOOKED EXACTLY LIKE THIS MODEL. NOTHING.  
12 NOTHING THERE. TO DO THAT, TO BE ABLE TO PUT A RETRACTOR IN  
13 AND MOVE IT THAT FAR APART REQUIRES A VERY LARGE INCISION  
14 AND NO MATTER HOW METICULOUS YOU ARE AS A JURY SURGEON, THAT  
15 PATIENT IS GOING TO LOSE A LOT OF BLOOD. NORMALLY THREE  
16 PINTS IS WHAT WE TAKE WHEN PATIENT ARE HAVING THESE  
17 SURGERIES--

18 Q DR. MICHELSON, WE'RE NEARING THE BREAK --

19 THE COURT: WOULD THIS BE A CONVENIENT TIME TO  
20 TAKE OUR BREAK NOW.

21 MR. DAUCHOT: IT WOULD BE, YOUR HONOR.

22 THE COURT: ALL RIGHT. WHY DON'T WE TAKE ABOUT 15  
23 MINUTES. LET'S RECONVENE AT 20 MINUTES AFTER THE HOUR.  
24 HAVE A NICE BREAK. SEE YOU BACK HERE AT 3:30. THANKS.

25 (RECESS TAKEN)

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1 THE COURT: BACK ON THE RECORD. OUTSIDE THE HEAR  
2 OF THE JURY. MR. DAUCHOT.

3 MR. DAUCHOT: YOUR HONOR, WE HAVE AN ISSUE THAT WE  
4 SUSPECTED WOULD COME UP AND IT HAS COME UP.

5 MR. SHERKENBACH, I GIVE HIM CREDIT. HE GAVE ME A HEADS UP  
6 ABOUT IT. HE BELIEVES THE DOOR HAS BEEN OPENED TO BRINGING  
7 UP THE LITIGATION BETWEEN DR. MICHELSON AND MEDTRONIC. I  
8 DON'T THINK THAT IT HAS. I THINK THE QUESTION THAT  
9 MR. SHERKENBACH BELIEVES TRIGGERED THAT ISSUE WAS MY  
10 QUESTION OF DR. MICHELSON AS TO WHETHER OR NOT MEDTRONIC  
11 EVER COMPENSATED HIM ANY MONEY. HE SAID, YEAH. THEY  
12 COMPENSATED ME MONEY FOR HIS INVENTIONS. I'M NOT SURE HOW  
13 THAT OPENS THE DOOR FOR LITIGATION, WHY WE GOT INTO THE  
14 LITIGATION. THAT'S MY CONCERN.

15 MR. SCHERKENBACH: I'M NOT SUGGESTING WE'RE  
16 GETTING INTO THE DETAILS. THERE WAS A LONG ANSWER ABOUT  
17 ALL THESE THINGS THAT MEDTRONIC PAID FOR AND IT WAS ALL  
18 ABOUT THE TECHNOLOGY.

19 NUMBER ONE, I INTEND TO BRING THE AMOUNT OUT.

20 NUMBER TWO, THEY PAID, IN ADDITION TO SETTLE PENDING  
21 LITIGATION INCLUDING A CASE IN WHICH THEY HAD A  
22 500 MILLION-DOLLAR JURY VERDICT AGAINST THEM. I DON'T HAVE  
23 TO BRING OUT THE VERDICT AMOUNT AND I'M WILLING TO DRAW THE  
24 LINE. WE CAN'T HAVE THE RECORD SUGGEST HE'S BEEN PAID ALL  
25 THIS MONEY ONLY FOR THE TECHNOLOGY.

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1 THE COURT: I THINK THAT TO A POINT,  
2 MR. SHERKENBACH HAS A POINT. I THINK, I DON'T WANT TO GET  
3 INTO ANY DETAILS OF ANY LITIGATION. I THINK -- WOULD IT  
4 MAYBE BE ENOUGH SAID THAT AMONG OTHER PARTS OF THE DOLLARS  
5 PAID TO HIM, WAS A SETTLEMENT OF LITIGATION FOR X AMOUNT OF  
6 DOLLARS.

7 MR. DAUCHOT: WHAT I CERTAINLY CAN DO IS THAT THE  
8 SETTLEMENT, THE MONIES PAID FOR THE TECHNOLOGY WAS IN THE  
9 CONTEXT OF LITIGATION. THE ISSUE BEING WAS THAT A BIG  
10 CHUNK OF THE VERDICT WAS IN FACT ROYALTIES. NOW  
11 DR. MICHELSON CHARACTERIZED IT AS ROYALTIES. THE JURY  
12 FOUND THAT DR. MICHELSON WAS OWED ROYALTIES ON A SERIES OF  
13 PRODUCTS, PART OF THE CHUNK HE WAS AWARDED WAS FOR THAT SUM  
14 AS WELL AS MONETIZING FUTURE RETURNS AND THE LIKE. SO I'M  
15 CERTAINLY HAPPY TO BRING OUT AND SAY DR. MICHELSON THE  
16 MONEY ACQUIRED ALL OF THIS, WAS THAT IN THE CONTEXT OF A  
17 LEGAL DISPUTE? YES. ALL OF THAT ULTIMATELY WAS DONE IN  
18 THE CONTEXT OF A LEGAL DISPUTE AND LEAVE IT AT THAT.

19 THE COURT: WHY DON'T YOU DO WHATEVER YOU WANT TO  
20 DO? WE'RE NOT YET TO THE POINT WHERE YOU'RE GOING TO  
21 CROSS-EXAMINE HIM. I EXPECT WE HAVE A LONG WAY TO GO  
22 BEFORE WE GET TO THAT POINT. HOW MUCH MORE TIME DO YOU  
23 THINK YOU HAVE.

24 MR. DAUCHOT: I'M THINKING ABOUT AN HOUR, AN HOUR  
25 AND FIVE TO TEN MINUTES. MY ONLY CONCERN, YOUR HONOR, THIS

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1 IS GOING TO COME OUT. IF WE'RE GOING TO ALLOW THIS TO COME  
2 OUT. I JUST ASSUME HAVE THIS COME OUT ON DIRECT RATHER  
3 THAN HAVE IT LOOK AS IF WE'RE TRYING TO HIDE SOMETHING,  
4 WHICH WE'RE NOT. I WAS ACTING IN ACCORDANCE WITH THE  
5 COURT'S IN LIMINE ORDERS.

6 THE COURT: WELL, I DON'T KNOW THE SPECIFICS OR  
7 THE BACKGROUND. OBVIOUSLY, HE'S HERE TESTIFYING, NORMALLY  
8 ON BEHALF OF MEDTRONIC. ANY RELATIONSHIP, GOOD, BAD OR  
9 INDIFFERENT WITH MEDTRONIC IN THE PAST IS PROBABLY FAIR  
10 GAME FOR MR. SHERKENBACH. IF HE'S BEEN PAID A BUNCH OF  
11 MONEY, IT SOUNDS LIKE MAYBE THAT MEANS HE MIGHT BE  
12 FAVORABLE TO IT BUT IS IT AS A RESULT OF A LAWSUIT, MAYBE  
13 IT'S IN APPOSITE, I DON'T KNOW BUT I THINK HE'S ENTITLED TO  
14 INQUIRE GENERALLY INTO THAT.

15 WE'RE NOT GOING TO RETRY THE CASE. I DON'T WANT TO  
16 GET INTO ANY DETAILS ABOUT THE LITIGATION.

17 MR. DAUCHOT: WE'RE NOT GOING TO GET INTO THE  
18 VERDICT AMOUNTS BECAUSE THIS IS A HUGE SUM.

19 THE COURT: WELL, I DON'T KNOW. IS IT ENOUGH FOR  
20 YOU TO JUST HAVE THE JURY KNOW THAT PART OF THE AMOUNTS  
21 PAID HAD TO DO WITH SOME LITIGATION?

22 MR. SCHERKENBACH: IT HAS TO BE MORE THAN JUST  
23 LITIGATION. LIKE I SAID, THERE WERE MULTIPLE CASES  
24 INCLUDING AN ADVERSE VERDICT. I'M WILLING TO LIVE WITHOUT  
25 THE AMOUNT OF THE VERDICT.

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1 THE COURT: I THINK WE'RE OKAY.

2 MR. DAUCHOT: THANK YOU, YOUR HONOR.

3 THE COURT: CAN WE CALL OUR JURORS BACK IN? IS IT  
4 THE APPOINTED HOUR JUST IN CASE -- ONE OTHER THING, FOR THE  
5 WITNESS AND MR. DAUCHOT. I DON'T KNOW IF YOU NOTICED, OUR  
6 JUROR NUMBER TWO START IS STARTING TO GET REAL ANTSY AT  
7 PART OF THE TESTIMONY ABOUT THE CHILDREN AND THE UNWRAPPING  
8 INNARDS AND EVERYTHING AND SHE WAS ABOUT READY TO LOSE IT.  
9 AND I KNOW WE ASKED THE JURORS UP FRONT IF THEY'RE GOING TO  
10 THE BE OKAY WITH SOME KIND OF GRAPHIC TESTIMONY.

11 MAYBE WE CAN AVOID THAT KIND OF -- I DON'T THINK THAT  
12 HAS A LOT TO DO WITH THIS CASE, RIGHT?

13 MR. DAUCHOT: NO. WE'RE DONE.

14 THE COURT: ALL RIGHT. LET'S BRING OUR JURORS IN.

15 (JURY PRESENT)

16 THE COURT: THE RECORD CAN REFLECT ALL OF OUR  
17 JURORS ARE BACK. WE'RE NOW BACK ON THE RECORD. EVERYBODY  
18 IS READY? MR. DAUCHOT?

19 MR. DAUCHOT: THANK YOU, YOUR HONOR.

20 BY MR. DAUCHOT:

21 Q DR. MICHELSON, WE LEFT OFF ON HOW THESE SURGERIES WERE  
22 HISTORICALLY DONE AND I WANT TO MOVE FORWARD AND FOCUS ON  
23 THE GOOD NEWS AND SOME OF THE INNOVATION THAT YOU DID AND  
24 HOW YOU CHANGED YOUR INVENTIONS CHANGED TO THE APPROACH.  
25 HAVE YOU PUT TOGETHER A VIDEO, A DEMONSTRATIVE OF SORTS THAT

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1 WOULD HELP EXPLAIN THAT?

2 A YES, I DID.

3 Q ALL RIGHT. DAVID, CAN WE START UP? OKAY. HERE WE GO.

4 THE COURT: YOU'LL TELL ME IF ANYONE WANTS ME TO  
5 TURN THE LIGHTS DOWN OR LOW, IF ANYONE CAN'T SEE SOMETHING.  
6 IT LOOKS LIKE WE'RE OKAY SO FAR. OKAY BY ME. IF ANY OF  
7 THE JURORS AT ANY POINT CAN'T SEE SOMETHING, OF COURSE, I'M  
8 NOT LOOKING AT WHAT YOU'RE LOOKING AT. I GUESS YOU ARE  
9 FINE.

10 ALL RIGHT. GO AHEAD.

11 BY MR. DAUCHOT:

12 Q DR. MICHELSON, AND JUST BEFORE, BEFORE WE HEAD INTO  
13 THIS, WHAT WE ARE ABOUT TO SEE IS COVERED BY A NUMBER OF  
14 YOUR PATENTS, RIGHT?

15 A YES.

16 Q ROUGHLY HOW MANY SO WE GET A SENSE OF ALL THE  
17 TECHNOLOGY INVOLVED?

18 A YES. WELL THERE ARE 87 ISSUED PATENTS THAT RELATE ONLY  
19 TO WHAT YOU ARE ABOUT TO SEE. YOU HAVE ALREADY SEEN A SMALL  
20 PART OF IT BUT WHAT WE CALL THE THREADED INTER BODY SPINAL  
21 FUSION IMPLANT TECHNOLOGY. THERE ARE 17 MORE THAT ARE  
22 ACTUALLY PENDING ALL RELATE TO THAT ONE SUBJECT.

23 Q DR. MICHELSON, LET'S MOVE FORWARD. DAVE, YOU WANT TO  
24 START.

25 WHAT ARE WE FOCUSING IN ON HERE, DR. MICHELSON?

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1 A WE HAVE NOW ISOLATED THE LUMBAR SPINE WITH VERTEBRAE  
2 AND DISC.

3 Q ALL RIGHT. DAVE, AND WHAT DO WE HAVE HERE?

4 A THIS IS A SHOWING THE -- CAN WE STOP THAT -- THIS IS  
5 SHOWING THE L4 L5 DISC HAS NOW DEGENERATED, WHEN DISCS  
6 DEGENERATE, THEY START TO COLLAPSE DOWN AND THIS ONE HAS  
7 COLLAPSED DOWN.

8 Q THERE'S A REFERENCE TO A DISTRACTER. AND DAVE, WHY  
9 DON'T YOU MOVE FORWARD. WHAT ARE WE DOING HERE?

10 A WE'RE GOING TO RESTORE THE HEIGHT OF THE DISC SPACE  
11 BEFORE WE DO ANYTHING ELSE.

12 Q ALL RIGHT. DAVE, CONTINUE. WHAT ARE WE DOING HERE  
13 NOW?

14 A WE'RE NOW GOING TO PLACE OVER THE DISTRACTER A GUARD  
15 AND A GUARD IS BASICALLY A HOLLOW TUBE THAT SLIDES DOWN AND  
16 ONCE IT'S IN PLACE, IT ACTUALLY IS NOT POSSIBLE TO INJURE  
17 ANY OF THE BLOOD VESSELS OR ANY STRUCTURES AGAIN BECAUSE  
18 THEY'RE ALL ON THE OUTSIDE OF THE TUBE AND WE'RE ONLY GOING  
19 TO OPERATE INSIDE THE TUBE.

20 Q ALL RIGHT. DAVE, MOVING FORWARD. AND WHAT HAVE WE  
21 JUST DONE HERE, DR. MICHELSON?

22 A WE DOCKED THE TUBE SO THAT THE BLOOD VESSELS, THE  
23 URETERS, ALL THESE OTHER STRUCTURES ARE NOW OUTSIDE OR  
24 ISOLATED AWAY FROM THIS CLOSED OPERATIVE SITE WHICH IS ONLY  
25 THROUGH THE TUBE.

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1 Q AND WHAT DID IS WE, WHAT DO WE HAVE INSIDE THE TUBE?

2 A WE PLACED A DRILL IN THERE AND THIS IS NOT AN ORDINARY  
3 DRILL, BUT THE MOST IMPORTANT PART OF THAT IS IT CAN ONLY GO  
4 SO FAR, IT HAS A BUILT IN STOP. IT CAN'T REACH THE FAR SIDE  
5 OF THE DISC SPACE.

6 Q ALL RIGHT, DAVE? AND WHAT ARE WE DOING HERE,  
7 DR. MICHELSON?

8 A NOW WHAT WE'RE DOING IS ACTUALLY DRILLING ACROSS THE  
9 HEIGHT OF THE RESTORED DISC SPACE WHICH LEAVES A ARC OF BONE  
10 THAT HAS BEEN RESECTED IN THE UPPER VERTEBRAE AND THE  
11 MATCHING UPPER BONE HAS BEEN RESECTED IN THE LOWER VERTEBRA.

12 Q OKAY. NEXT WHAT DO WE SEE HERE, DR. MICHELSON?

13 A WELL IF WE COULD SOMEHOW MAGNIFY THE LITTLE THING  
14 HANGING OUT THERE ON THE LEFT SIDE IS ACTUALLY A '247  
15 THREADED INTERBODY SPINAL FUSION IMPLANT THAT HAS BEEN  
16 LOADED UP WITH BONE MARROW.

17 Q WHEN YOU SAY A '247, WE TALKING ABOUT?

18 A MY INVENTION.

19 Q YOUR '247 PATENT?

20 A YES.

21 Q AND SO WHAT WE HAVE IT'S A HOLLOW CYLINDRICAL CAGE?

22 A THAT'S CORRECT. IT'S THREADED AND IT'S PERFORATED.

23 Q JUST SO THE JURY UNDERSTANDS, WHAT IS INSIDE THAT CAGE?

24 A BONE MARROW, BONE NARROW AT THAT TIME WAS THE MOST  
25 OSTEOGENIC MATERIAL WE HAD. OSTEOGENIC SIMPLY MEANS HAVING

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1 THE ABILITY TO INDUCE THE PRODUCTION OF BONE.

2 Q IT HELPS THE WELDING PROCESS?

3 A IT IS A SUBSTRATE, YES.

4 Q SO NOW WE'RE GOING TO ATTACH IT TO A VERY INTERESTING  
5 DRIVER BECAUSE THIS DRIVER WILL ACTUALLY LOCK ON TO THE BACK  
6 OF THE IMPLANT AND HAVE THE ABILITY TO TWIST IT IN EITHER  
7 DIRECTION WITHOUT DISASSOCIATING IT, WITHOUT COMING OFF AND  
8 BEING ABLE TO PUSH AND PULL AT THE SAME TIME.

9 ALL RIGHT, DAVE?

10 A NOW STILL THROUGH THE TUBE, WE'RE GOING TO COME IN AND  
11 WE'RE ACTUALLY GOING TO SCREW THIS ACROSS THAT BORE THAT WE  
12 CREATED.

13 Q DAVE, YOU CAN STOP THERE. WE HAVE TWO THAT WE SEE?

14 A RIGHT. WE NEED TO DO THAT BILATERAL. SO WE DID  
15 LATERAL TO THE LEFT AND THEN WE DID IT LATERAL TO THE RIGHT  
16 SO THERE ARE TWO IMPLANTS.

17 Q SO YOU HAVE TWO DRILLING PROCEDURES TO GET THOSE IN?

18 A YES.

19 Q BASICALLY REPEATING THE SAME PROCESS TWICE?

20 A YES.

21 Q DAVE, KEEP GOING. THAT'S JUST A TOP DOWN VIEW?

22 A THAT'S CORRECT.

23 Q ALL RIGHT. AND DR. MICHELSON, CAN WE STOP FOR ONE  
24 SECOND, DAVE. JUST HOLD IT THERE.

25 WHY DO YOU HAVE TWO IN THERE?

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1 A BIO MECHANICALLY, THAT IS WHAT I BELIEVED TO BE THE  
2 BEST CONSTRUCT AT THAT TIME.

3 Q WHY NOT JUST STICK ONE ON ONE SIDE?

4 A THAT WOULD NOT WORK. THE OTHER SIDE WOULD COLLAPSE  
5 DOWN.

6 Q WHY NOT JUST STICK A HUGE IMPLANT THAT CAPTURES THE  
7 ENTIRE AREA?

8 A WELL, IT WOULD LITERALLY CUT THE VERTEBRAL BODY ABOVE  
9 AND THE VERTEBRAL BODY BELOW IN HALF AND THEY WOULD PROBABLY  
10 DIE.

11 Q ALL RIGHT. YOU DO THIS PROCEDURE THROUGH THE BACK AS  
12 WELL?

13 A YOU CAN DO IT FROM POSTERIOR TO ANTERIOR, YES YOU TURN  
14 THE PATIENT OVER AND INSERT THEM FROM BEHIND.

15 Q BASICALLY, CAN YOU VERY GENERALLY EXPLAIN TO THE JURORS  
16 HOW YOU DO THAT? DO YOU WANT TO USE THAT MODEL?

17 A YOU CAN'T BECAUSE THIS MODEL HAS THAT AREA COVERED. I  
18 HAD PRODUCED SOME SMALL MODELS.

19 Q YOU WANT TO USE THIS?

20 A YOU CAN'T BECAUSE IT NEEDS TO HAVE A LAMINECTOMY FIRST.  
21 LET ME BACK UP. WHEN ONE OF YOUR FRIENDS SAYS TO YOU, GEEZ,  
22 I HAD A LAMINECTOMY AND A DISCECTOMY, THE ONLY PART OF THAT  
23 THAT HELPED HIM WAS THE DISCECTOMY, THE LAMINECTOMY WAS THE  
24 PART THE DOCTOR HAD TO DO JUST TO GET THERE TO TAKE THE DISC  
25 OUT. THESE ARE THE LAMINA AND WE CAN'T EVEN OPERATE IN HERE

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1 UNTIL WE TAKE THE LAMINA AWAY JUST TO GET TO WHERE THE DISC  
2 IS AND ONCE YOU GET THERE WHAT YOU END UP DOING IS ACTUALLY  
3 MOVING THE DURAL SAC OVER TO ABOUT THE MIDLINE AND WORKING  
4 BETWEEN THE TWO NERVE ROOTS WHICH ARE EXITING. THERE IS NOT  
5 A LOT OF ROOM BUT THERE IS ENOUGH ROOM TO PUT DOWN THE  
6 DISTRACTER, AND PUT THE GUARD DOWN AND ONCE YOU HAVE THE  
7 GUARD DOWN AND AGAIN, EVERYTHING IS PROTECTED AND IT'S THE  
8 SAME PROCEDURE. YOU DRILL THROUGH IT AND THEN YOU SCREW IN  
9 THE IMPLANT.

10 Q AND AGAIN, WHEN YOU APPROACH IT FROM THE BACK LIKE  
11 THAT, WHY NOT JUST INSERT ONE BIG IMPLANT SO YOU CAN HAVE  
12 PLENTY OF COVERAGE AND YOU DON'T HAVE THIS IMBALANCE THAT  
13 YOU SPOKE OF?

14 A YOU CAN BARELY GET THE IMPLANT IN THAT ISN'T BIG  
15 BECAUSE YOU HAVE THE DURAL SAC ON ONE SIDE, YOU HAVE THE  
16 NERVE ROOT AND THE NERVE ROOT AND YOU HAVE BONE. SO THERE  
17 IS NO MORE ROOM LEFT.

18 Q DR. MICHELSON, OKAY, DAVE. WHY DON'T WE FINISH THIS UP  
19 JUST SO THE JURORS SEE. WHAT DID WE JUST SEE HAPPEN HERE?

20 A WELL WE SIMULATED OR CREATED, IF YOU WILL, SOMETHING  
21 THAT WAS LIKE A FRACTURE, THROUGH THE END PLATE OF THE  
22 VERTEBRAE WHEN WE DRILLED IT AND THE BODY WILL GO ON TO HEAL  
23 THAT AND WHEN IT HEALS THAT THE BONE MARROW THAT WE PUT IN  
24 THAT CAGE IS ACTUALLY INSIDE OF EACH ONE OF THOSE VERTEBRA  
25 BECAUSE IT'S IN THE CYLINDER, THE CYLINDER IS IN EACH ONE OF

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1 THOSE. SO WHAT HAPPENS IS THAT CAGE LOADED WITH THE BONE  
2 MARROW CAUSES A FUSION BETWEEN THOSE TWO VERTEBRA.

3 AND ONE THING THAT IS VERY NICE ABOUT THIS, IS THE  
4 ONLY BLEEDING WAS FROM WHEN WE DRILLED THE HOLE, THE BONE  
5 STARTED TO WEEP A LITTLE BIT, BUT AS SOON AS WE SCREWED THAT  
6 IMPLANT IN, THAT TAMPONADE, THE CRUST IS ON SO HARD, THERE  
7 IS NO MORE BLEEDING. SO THESE ARE RELATIVELY BLOODLESS  
8 OPERATIONS AND INCIDENTALY, THESE THINGS CAN BE DONE IN DAY  
9 SURGERY. PEOPLE GO HOME THE SAME DAY. THEY GET UP AND  
10 WALK. IT'S A BIG CHANGE.

11 Q DR. MICHELSON, WHAT WE SAW HERE WAS A CYLINDRICAL  
12 THREADED IMPLANTS. AT THE TIME, DID YOU INVENT ANY OTHER  
13 TYPE OF IMPLANTS FOR THESE SORTS OF PROCEDURES?

14 A YES. SO THIS IS ONE TYPE OF AN INTER BODY SIMPLY MEANS  
15 WE'RE GOING TO PUT THE IMPLANT BETWEEN THE TWO VERTEBRAL  
16 BODIES, THAT IS ONE TYPE OF IMPLANT FOR INNER BODY FUSION.  
17 BUT I HAVE OTHER PATENTS THAT ADDRESS, DEVICES THAT LOOK  
18 GENERALLY RECTANGULAR OR THEY LOOK LIKE EXACTLY WHAT THE  
19 SHAPE WOULD BE IF YOU CUT OUT A PIECE OF DISC, LIFTED THE  
20 VERTEBRAE BACK UP AND WANTED TO TAKE A MOLD. IT LOOK  
21 EXACTLY LIKE THAT.

22 Q JUST SO THE JURORS UNDERSTAND. WHEN WE'RE TALKING  
23 ABOUT NON THREADED, THE RECTANGULAR SHAPE CAGE, THE  
24 CYLINDRICAL AND THREADED, YOU'RE IMPACTING, RIGHT?

25 A CORRECT.

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1 Q ARE THERE DIFFERENT STRUCTURAL CONSIDERATIONS, ARE  
2 THERE DIFFERENT BIOMECHANICAL CONSIDERATIONS WHEN YOU  
3 COMPARE THAT TO A THREADED CYLINDRICAL?

4 A YES.

5 Q CAN YOU BRIEFLY WALK US THROUGH THAT?

6 A YES. THERE'S A NUMBER OF STRUCTURAL FACTORS. THE  
7 FIRST ONE IS HOW BIG IS THIS IMPLANT GOING TO BE? THE  
8 BIGGER THE IMPLANT IS, THE MORE STABLE IT IS GOING TO BE.  
9 THE MORE SURFACE AREA IT'S GOING TO HAVE TO INDUCE FUSION,  
10 THE MORE VOLUME IT'S GOING TO HAVE SO THE MORE MASS IT'S  
11 GOING TO CONTAIN, BUT ON THE OTHER HAND, THE BIGGER IS IT,  
12 EVEN FROM THE FRONT, IF YOU WANTED TO TRY TO FILL THE ENTIRE  
13 DISC SPACE, YOU WOULD DISRUPT SO MUCH OF THAT CAR TIRE THAT  
14 IS HOLDING THE PERSON TOGETHER THAT ESSENTIALLY IF THEY  
15 STOOD UP, THE THING WOULD SPIT RIGHT OUT THE FRONT AGAIN.  
16 SO THERE'S COMPETING FACTORS, AND IN ADDITION TO THAT,  
17 THERE'S A SAYING IN ORTHOPEDIC SURGERY THAT THINGS ALWAYS  
18 POP OUT THE EXACT SAME WAY THEY WENT IN. IT MAKES SENSE.  
19 IF YOU HAVE A CAR TIRE THAT'S INTACT AND IF YOU CUT ONE  
20 SECTION OUT AND YOU PUT SOMETHING IN, WELL THE THING IS  
21 GOING TO COME OUT WHERE THE CAR TIRE IS MISSING. SO WHEN  
22 YOU PUT THESE DEVICES IN AND YOU WANT TO CREATE A SURFACE  
23 THAT ALLOWS IT TO GO IN BUT THEN WILL NOT ALLOW IT TO COME  
24 BACK OUT AGAIN, IF YOU CAN.

25 THERE IS OTHER CONSIDERATIONS. WHAT'S THE

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1 MATERIAL YOU MAKE IT OUT OF. IS THAT MATERIAL GOING TO BE  
2 HARD AND SMOOTH OR IS IT GOING TO BE BONE IN GROWN. IN  
3 OTHER WORDS, YOU CAN MICRO TEXTURE THE SURFACE SO THAT THE  
4 BONE THINKS THAT THAT IS BONE AND GROWS RIGHT INTO THE  
5 IMPLANT ITSELF SO THERE'S ALL KINDS OF CONSIDERATIONS.

6 Q ALL RIGHT. NOW DR. MICHELSON, THE TIME PERIOD WE'RE  
7 FOCUSING NOW, MOST OF YOUR, YOU WERE FOCUSING ON ANTERIOR  
8 AND POSTERIOR. AM I CORRECT?

9 A RIGHT. THIS WAS 1986 AND 1987 AND THAT'S WHAT I WAS  
10 DOING.

11 Q ALL RIGHT. NOW AT THIS TIME PERIOD, HAD YOU THOUGHT  
12 ABOUT YOUR TRANSLATERAL IMPLANT?

13 A NO.

14 Q WHEN DID YOU FIRST COME UP WITH THAT CONCEPT?

15 A THE FALL OF 1993.

16 Q ALL RIGHT. NOW BETWEEN DURING 80'S AND THIS IS BEFORE,  
17 BECAUSE YOU HAD QUITE A BIT OF TRAINING TO THE POINT TO  
18 BECOME A DOCTOR. WHEN DID YOU, BY THE WAY, START YOUR  
19 PRACTICE AS A DOCTOR?

20 A WELL, I GOT MY LICENSE IN 1975.

21 Q ALL RIGHT. DR. MICHELSON, AS YOU WERE INVENTING THESE  
22 THINGS, AND AS YOU WERE WORKING THROUGH THESE THINGS, AT THE  
23 TIME YOU WERE DOING SURGERY?

24 A OH, YES.

25 Q WERE YOU READING SCIENTIFIC PUBLICATION?

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1 A YES.

2 Q WERE YOU ATTENDING CONFERENCES?

3 A YES.

4 Q MEETING WITH YOUR PEERS?

5 A YES.

6 Q ALL RIGHT. IN ANY OF THOSE CONVERSATIONS, WHAT YOU  
7 WERE READING, WHAT YOU WERE HEARING, DID YOU HEAR OF A  
8 CONCEPT OF A TRANSLATERAL IMPLANT THAT YOU CAME UP WITH?

9 A NO.

10 Q ALL RIGHT. NOW. I WANT TO SHIFT GEARS JUST A LITTLE  
11 BIT, DURING THIS TIMEFRAME, AND I GUESS NOW WE'RE COMING  
12 CLOSER TO THE 1990. THE VERY EARLY 1990'S, WERE YOU  
13 INTERACTING WITH COMPANIES ON THE SUBJECT OF WHAT WAS THEN  
14 YOUR TECHNOLOGY?

15 A YES.

16 Q WHY WAS THAT?

17 A WELL, I ACTUALLY HAD DEVELOPED A LOT OF NEW TECHNOLOGY  
18 THAT WOULD MAKE THESE OPERATIONS MORE RELIABLE, EASIER ON  
19 THE PATIENTS AND I LIKE TO SAY IT'S SORT OF THE CONCEPT OF  
20 THE BIG BERTHA GOLF CLUB OR THE PRINCE TENNIS RACKET. THESE  
21 SYSTEMS WEREN'T JUST AN IMPLANT. THEY WERE THE INSTRUMENTS  
22 AND ACTUALLY, THE OPERATION AND THEY HAD A HUGE SWEET SPOT.  
23 WHEN I MEAN BY THAT IS THE DOCTOR DIDN'T HAVE TO THINK ABOUT  
24 WHAT WAS MAKING THESE VERY SAFE AND VERY EASY TO USE AND  
25 VERY REPRODUCIBLE, IT WAS BUILT INTO THE INSTRUMENT SYSTEM

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1 SO THAT DOCTORS OF DIFFERING ABILITIES ALL COULD DO THIS FOR  
2 THE PATIENTS AND GET GOOD RESULTS.

3 Q ALL RIGHT. NOW DR. MICHELSON, DID YOU IN FACT LICENSE  
4 YOUR TECHNOLOGY, YOU JUST SAW TWO OTHER SPINE COMPANY?

5 A YES.

6 Q WHICH COMPANIES WERE THOSE?

7 A WELL, I LICENSED IT TO SPINE TECH, WHICH WAS A START UP  
8 BETWEEN STARTED UP BY STEVE KUSLICH AND A GENTLEMAN NAMED  
9 DR. BAGBY AND I LICENSED IT TO SOFAMOR DANEK AND U.S.  
10 SEARCH, STARTED OUT AS AN INFRINGER, THEY EVENTUALLY  
11 OBTAINED THE LICENSE TO MAKE A RIB CAGE UNDER THE SAME '247  
12 PATENT.

13 Q DR. MICHELSON, LET'S FOCUS FOR A MOMENT ON SPINE TECH,  
14 WHAT DOCTORS AT SPINE TECH IN THIS TIMEFRAME, THE 1990S,  
15 WERE YOU AWARE OF WORKING WITH YOUR THEN -- LET'S CALL IT  
16 THE PRE TRANSLATERAL TECHNOLOGY?

17 A DR. KUSLICH WAS THE GENTLEMAN WHO STARTED THE COMPANY.  
18 HE WAS THE LEAD INVESTIGATOR. I BELIEVE THERE WERE LIKE TEN  
19 OTHER INVESTIGATORS. I BELIEVE MCAFFEE DR. REGAN, I THINK  
20 BRADFORD WAS THERE AT SOME POINT.

21 MR. DAUCHOT: YOUR HONOR, JUST AS AN ASIDE, I  
22 DON'T MEAN TO INTERRUPT THE PROCEEDING. WE HAD A  
23 SEQUESTRATION ORDER?

24 THE COURT: DOES THE JURY KNOW THAT TERM  
25 SEQUESTERING. THAT MEANS WE ARE GOING TO PUT YOU ALL UP IN

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1 A HOTEL ROOM. HE'S TALKING ABOUT WITNESSES.

2 MR. DAUCHOT: YOUR HONOR, WE'RE FINE. THE  
3 QUESTION IS JUST HAVING FACT WITNESSES LISTEN TO IT. WE'RE  
4 TRYING TO ABIDE.

5 THE COURT: UNDERSTOOD. I JUST DIDN'T WANT OUR  
6 JURORS TO GET NERVOUS ABOUT BEING SEQUESTERED. MAYBE YOU'D  
7 LIKE TO STAY IN A HOTEL. WE'RE NOT GOING TO DO THAT.

8 MR. DAUCHOT: THEY'LL TAKE CARE OF IT. IT IS NOT  
9 GOING TO BE AN ISSUE. I'LL PROCEED. SORRY ABOUT THE  
10 DISTRACTION.

11 Q DR. MICHELSON, NOW WHEN DID YOUR RELATIONSHIP, YOUR  
12 LICENSING RELATIONSHIP WITH SPINE TECH START?

13 A WELL THEY APPROACHED ME IN 1991 TO SEE IF I WOULD GRANT  
14 THEM A LICENSE, SO THEY COULD COMMERCIALIZE THEIR VERSION OF  
15 MY '247 CAGE TECHNOLOGY.

16 Q WHAT WAS THEIR VERSION OF YOUR '247 CAGE TECHNOLOGY?

17 A IT'S VERY SIMILAR TO WHAT YOU SAW. THEY HAPPENED TO  
18 NAMES THAT AFTER THEMSELVES, SO BAGBY WAS BA AND KUSLICH WAS  
19 K, SO THEY CALLED IT THE BAK IMPLANT.

20 Q ALL RIGHT. DR. MICHELSON, CAN YOU FLIP TO THE ONE TO  
21 YOUR LEFT AND YOUR EXHIBIT MARKED 2343?

22 A YES.

23 Q DR. MICHELSON, THAT IS YOUR LICENSE AGREEMENT WITH  
24 SPINE TECH?

25 A YES.

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1 Q DR. MICHELSON, I JUST WANT TO CONFIRM THAT THAT IS A  
2 COPY OF THE LICENSE WITH SPINE TECH?

3 A YES.

4 Q IS THAT YOUR SIGNATURE THAT APPEARS -- WELL, THIS  
5 ONE -- THAT APPEARS ON?

6 A IT WAS SIGNED IN COUNTER PARTS.

7 Q YEAH, IT WAS. ARE YOU AT THE BACK END OF THE SIGNATURE  
8 PAGE?

9 A I AM. THIS ONE WASN'T SIGNED BY ME.

10 Q SURE. FLIP TO THE OTHER SIDE. YOUR SIGNATURE IS ON  
11 THE OTHER SIDE?

12 A YES, IT IS.

13 Q ANY ISSUE?

14 MR. SCHERKENBACH: NO OBJECTION.

15 MR. DAUCHOT: NO OBJECTION. ALL RIGHT.

16 BY MR. DAUCHOT:

17 Q DR. MICHELSON, LET'S MOVE ON. WHEN YOU MET WITH SPINE  
18 TECH, LET'S JUST TAKE A STEP BACK IN YOUR '247 PATENT, YOU  
19 ACTUALLY DISCLOSED A LENGTH FOR YOUR IMPLANT, DID YOU NOT?

20 A I BELIEVE I DID.

21 Q DO YOU HAVE A MEMORY OF WHAT THE LONGEST LENGTH IMPLANT  
22 DISCLOSED IN YOUR '247 PATENT WAS?

23 A TWENTY-SIX MILLIMETERS.

24 Q 26 MILLIMETERS. NOW AT THE TIME, HAD YOU THOUGHT OF  
25 MAKING THE ANTERIORLY PLACED IMPLANTS LONGER THAN THAT?

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1 A YES.

2 Q DID YOU SHARE THAT INFORMATION WITH SPINE TECH?

3 A YES.

4 Q WITH WHOM AT SPINE TECH?

5 A WELL, I ACTUALLY TURNED OVER TO THEM DOCUMENTS THAT  
6 SHOWED THAT IT WAS DAVE STASSEN AND STEVE KUSLICH.

7 Q ALL RIGHT. AND TURN TO PX 0854 IN YOUR BOOK, PLEASE.  
8 ARE YOU WITH ME?

9 A I AM.

10 Q IF YOU FLIP A SECOND, ACTUALLY WE CALL IT THE SECOND  
11 PAGE, CAN YOU PUT IT UP? THE SECOND PAGE. NEXT ONE.

12 WHAT DO WE HAVE IN THE MIDDLE, DR. MICHELSON?

13 A WELL, IT'S AN IMAGE OF A HOLLOW THREADED CYLINDER.

14 Q ALL RIGHT. AND WHAT ARE THE LENGTHS DISCLOSED IN HERE?  
15 WHAT'S THE LONGEST ONE DISCLOSED?

16 A THIRTY MILLIMETERS.

17 Q AND THERE'S A RANGE OF DIAMETERS, DO YOU SEE THAT IN  
18 ADDITION TO THE RANGE OF LENGTH?

19 A YES.

20 Q AND THAT'S 8 THROUGH 16?

21 A CORRECT.

22 Q NOW THIS DOCUMENT THAT WE'RE LOOKING AT, WAS IT A  
23 PUBLICLY AVAILABLE DOCUMENT DATED NOVEMBER 24, 1989?

24 A THAT IS CORRECT. NO. IT'S A CONFIDENTIAL DOCUMENT.

25 Q DAVE, CAN YOU FLIP THIS TO THE FIRST PAGE SO WE CAN GET

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1 THE DAY. SO YOU SAID IT WAS A CONFIDENTIAL RECORD. THIS IS  
2 SOMETHING YOU SUBMITTED TO THE FDA?

3 A THE FOOD, DRUG ADMINISTRATION OF THE UNITED STATES.

4 Q AND IT WAS A CONFIDENTIAL SUBMISSION?

5 A YES. THAT'S CORRECT.

6 Q YOU SHARED IT WITH SPINE TECH AS WELL, YOU SAY?

7 A THAT'S CORRECT.

8 Q ROUGHLY WHEN, DOCTOR?

9 A IN THE 1991 TIME PERIOD.

10 Q WAS THAT A CONFIDENTIAL SUBMISSION WITH SPINE TECH?

11 A YES, IT WAS.

12 Q WHY WAS IT CONFIDENTIAL SUBMISSION TO SPINE TECH?

13 A BECAUSE WE WERE SHARING INFORMATION UNDER THE  
14 CONFIDENTIALITY AGREEMENT. THEY WERE SEEKING TO OBTAIN A  
15 LICENSE AND I WAS CONSIDERING IT. I WANTED TO KNOW EXACTLY  
16 WHAT THEY PLANNED ON DOING WITH THE LICENSE AND SO FORTH.

17 Q ALL RIGHT, NOW, WHAT WAS YOUR RELATIONSHIP WITH SPINE  
18 TECH LIKE?

19 A IN THE BEGINNING, IT WAS VERY GOOD, BUT IT DIDN'T STAY  
20 THAT WAY AND I GUESS THINGS GOT AS BAD AS THEY COULD IN 1996  
21 WHEN I HAD DISCLOSED SOME IMPROVEMENTS IN THESE INSTRUMENTS  
22 AND IMPLANTS AND SO FORTH TO THE PEOPLE AT SPINE TECH AND  
23 STEVE KUSLICH HAD FILED A PATENT ON BEHALF OF SPINE TECH  
24 CLAIMING THAT HE HAD INVENTED WHAT I HAD SHOWN HIM UNDER THE  
25 NON DISCLOSURE AND THAT PATENT PUBLISHED FOR THE FIRST TIME

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1 BECAME PUBLIC.

2 Q IN TERMS OF THE DISCLOSURE, WAS IT JUST A DISCLOSURE IN  
3 '96 OR THERE WERE A SERIES OF OTHER THINGS AND YOU ARE  
4 PREDATING THAT?

5 A THERE WERE A NUMBER OF DISCLOSURES.

6 Q DR. MICHELSON, WHAT WAS IT ABOUT THE PATENT THAT  
7 TRIGGERED YOUR CONCERN?

8 A IT WAS THE '307.

9 Q CAN WE PUT UP P X 0295. DAVE, CAN YOU PUT IT UP ON THE  
10 SCREEN. DR. MICHELSON, YOU HAVE IT IN YOUR BOOK?

11 A I DO.

12 Q DAVE, CAN YOU BLOW THAT UP FOR US? IS THAT THE PATENT?

13 A YES.

14 Q ALL RIGHT. CAN YOU WALK US THROUGH THE, CAN YOU GET ME  
15 THROUGH TO FIGURE ONE AND FIGURE TWO. THERE WE GO.

16 THESE ARE SOME OF THE DISCLOSURES IN THE PATENT,  
17 DR. MICHELSON?

18 A YES.

19 Q AND AS WE FLIP THROUGH SOME ADDITIONAL ONES, DAVE.

20 ALL RIGHT. WERE THESE SOME OF THE DISCLOSURES  
21 WITH WHICH YOU HAD ISSUES, DR. MICHELSON?

22 A YES.

23 Q WHAT CAME OF YOUR DISPUTE WITH SPINE TECH?

24 A WELL, SPINE TECH WAS AT THAT TIME, ACQUIRED BY A  
25 COMPANY CALLED SOLZAR AND A GENTLEMAN NAMED KEN BARROW WAS

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1 THEIR CHIEF PATENT COUNSEL AND BASICALLY, UNDER THE THREAT  
2 OF A LAWSUIT, THEY DID CONDUCT THEIR OWN DILIGENT REVIEW AND  
3 CONCLUDED THAT IT WAS IRREFUTABLE THAT I HAD CREATED ALL  
4 THESE THINGS AND SHOWED THEM TO STEVE KUSLICH. HE DID NOT  
5 INVENT THEM. NONE OF THEM AND THAT THEY PUT THE PATENT BACK  
6 INTO THE PATENT OFFICE WITH A DECLARATION THAT WAS TRUE.  
7 AND IT NEVER REISSUED.

8 Q CAN YOU SHOW US, DAVE, CAN YOU PUT UP PX 1683 UP,  
9 PLEASE. DR. MICHELSON, IT'S IN YOUR BINDER.

10 A I THINK I HAVE IT, YES.

11 Q IS THAT THE DECLARATION FROM KEN BARROW WHERE THERE WAS  
12 BASICALLY AN ACKNOWLEDGMENT THAT YOU WERE AN INVENTOR OF  
13 SOME THINGS YOU SAW UP ON SCREEN HERE?

14 A YES.

15 Q AND THIS WAS AN ACKNOWLEDGMENT FILED WITH THE UNITED  
16 STATES PATENT TRADEMARK OFFICE?

17 A CORRECT.

18 Q DR. MICHELSON, DAVE, YOU CAN BRING THAT DOWN FOR A  
19 MOMENT?

20 AT THE TIME THAT YOU CAME UP WITH THE INVENTION OF  
21 THE '973, THE '973 TRANSLATERAL, YOUR '247 PATENT HAD BEEN  
22 FILED, AM I CORRECT?

23 A YES.

24 Q AND YOU'RE EXPLAINING TO THE JURY IN OPENING STATEMENTS  
25 THAT THE SPECIFICATION PART OF THE PATENT, THE CLAIMS PART

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1 OF THE PATENT. YOUR '247, ON YOUR '247, YOU WERE AWARDED  
2 CLAIMS BY THE UNITED STATES PATENT TRADEMARK OFFICE,  
3 CORRECT?

4 A YES.

5 Q WHAT WAS THE BROADEST CLAIM YOU WERE AWARDED FOR  
6 PURPOSES OF YOUR '247?

7 A WELL, IN GENERAL TERMS, RATHER THAN READING THE CLAIM.  
8 IT BASICALLY SAID THAT I HAD INVENTED AN INNER BODY SPINAL  
9 FUSION IMPLANT THAT WAS GENERALLY CYLINDRICAL, GENERALLY  
10 HOLLOW, HAD A THREAD ON IT'S OUTER SURFACE, WAS PERFORATED  
11 AND THAT'S THE CLAIM.

12 Q ALL RIGHT. NOW THAT CLAIM, DOES THE LEGAL SCOPE OF  
13 THAT COVER THE '973 IMPLANT OF YOUR INVENTION?

14 A I BELIEVE IT DOES.

15 Q I THOUGHT YOU SAID YOU DID NOT INVENT THE '973 AT THE  
16 TIME YOU GOT TO '247?

17 A YES. THE CLAIM OF THE PARENT OF THE PIONEER PATENTS,  
18 THERE'S PATENTS THAT THEY CALL PIONEERS, THE FIRST ONE OF  
19 ITS KIND. IT'S SO BROAD THAT IT WOULD REALLY COVER ALMOST  
20 ANY HOLLOW THREADED SPINAL FUSION IMPLANT THAT WOULD COME  
21 AFTER IT BECAUSE THE CLAIM IS ALLOWED TO DO THAT.

22 AND THE '973, WHICH IS THIS JUMBO IMPLANT THAT YOU  
23 ARE SEEING, GOING TO SEE MORE OF, I NEVER THOUGHT OF IT BACK  
24 IN THE '247 TIMEFRAME BECAUSE I ONLY DID SURGERY FROM THE  
25 FRONT AND FROM THE BACK AND THIS IMPLANT IS ACTUALLY DEFINED

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1 AS BEING TOO BIG TO DO THAT WITH SO IT COULDN'T BE THAT.  
2 IT'S WHAT WE CALL AN IMPROVEMENT PATENT AND IT'S REALLY A  
3 VERY CONFUSING TERM, EVEN CONFUSING ME, BECAUSE IT REALLY  
4 MEANS THAT MAYBE BETTER IN CERTAIN CIRCUMSTANCES, IT DOES  
5 NOT MEAN NECESSARY IS ALWAYS BETTER, BUT WHAT THE  
6 IMPROVEMENT PART REALLY CONVEYS IS SOMETHING HAS BEEN ADDED.  
7 SOME NEW FEATURE HAS BEEN ADDED WHICH ACTUALLY MAKES THE  
8 CLAIM NARROWER, BECAUSE YOU HAVE TO ADD ANOTHER ELEMENT TO  
9 THE CLAIM. IN THIS CASE, IT HAS TO BE THIS BIG. IT HAS TO  
10 GO COAST TO COAST. NOW IT APPLIES TO LESS IMPLANTS.

11 Q SO THE '973 APPLIES TO FUTURE IMPLANTS.

12 A RIGHT.

13 Q AND THE IMPROVEMENT THAT YOU DISCLOSED TO THE WORLD  
14 REALLY IN YOUR '973 PATENT, WERE THOSE IMPROVEMENTS  
15 IDENTIFIED IN YOUR EARLIER PATENT?

16 A NO.

17 Q SO LET'S TURN TO THE '973 PATENT, AT SOME POINT YOU  
18 THOUGHT OF A TRANSLATERAL IMPLANT I THINK YOU SAID BEFORE.  
19 I THINK YOUR TESTIMONY WAS THE FALL OF 1993, RIGHT?

20 A CORRECT.

21 Q THAT WAS ROUGHLY EIGHT YEARS AFTER YOU STARTED  
22 INVENTING?

23 A YES.

24 Q CAN YOU TELL US WHY YOU HADN'T THOUGHT OF IT BEFORE?

25 A I WASN'T SMART ENOUGH.

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1 Q I'D LIKE TO HAVE YOU EXPLAIN TO OUR JURORS HOW YOU CAME  
2 UP WITH THE CONCEPT OF THE '973.

3 YOUR HONOR, IF THE COURT WILL PERMIT, I THINK AN  
4 EASEL AND A BOARD WOULD BE HELPFUL. IS THAT ALL RIGHT?

5 THE COURT: SURE. THAT'S FINE.

6 BY MR. DAUCHOT:

7 Q DR. MICHELSON, WHY DON'T YOU COME DOWN, IF YOU WOULD  
8 NOT MIND? CAN YOU ALL SEE THE BOARD? ALL RIGHT.

9 DR. MICHELSON, BEFORE I HAVE YOU DRAW, I'LL STAND OVER HERE.  
10 BEFORE I HAVE YOU EXPLAIN THIS. CAN YOU, CAN YOU, WHEN YOU  
11 STARTED THE PROCESS AND WHEN YOU GOT TO THE IDEA, WHAT WAS  
12 THE PROBLEM THAT YOU WERE ADDRESSING? WHAT WAS THE PROBLEM  
13 THAT YOU SAW THERE THAT YOU THOUGHT GEE, WE CAN DO BETTER.

14 A WELL THERE WERE ACTUALLY A NUMBER OF PROBLEMS. ONE OF  
15 THEM WAS I KNOW I KIND OF MADE A BIG DEAL IN THE BEGINNING,  
16 WHEN WE HAD THE PICTURE OF THE VERTEBRAE UP, ABOUT THE  
17 APOPHYSEAL RING BUT IF YOU ACTUALLY TOOK A SLICE THROUGH  
18 THAT BONE, CUT OUT THE MIDDLE AND LEFT THAT RING, WEIGHED  
19 THE RING AND WEIGHED ALL THE BONE INSIDE, THE RING WOULD  
20 WEIGH MORE. IT HAS MORE BONE MASS IN IT. THE BONE MASS IS  
21 STRONGER AND IT IS DENSER. A PROBLEM IS THAT WE HAVE ALL  
22 KINDS OF MATERIALS AT OUR DISPOSAL AND WE CAN MAKE IMPLANTS  
23 AS STRONG AS WE WANT TO MAKE THEM. BUT THE PROBLEM IS THE  
24 WEAK SIDE OF THE EQUATION IS THE HUMAN BODY. THAT BONE MAY  
25 NOT BE AS STRONG AS THE IMPLANT IS. AND WHEN WE DO THESE

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1 OPERATIONS, WELL WHATEVER THE OPERATION IS IN PUTTING THESE  
2 IMPLANTS IN, IT'S ALWAYS POSSIBLE FOR THE IMPLANT, IF YOU  
3 WILL, TO SUBSIDE OR SINK DOWN INTO THE VERTEBRAL BODY. AND  
4 THEY MAY OR MAY NOT GO ON TO FUSE THEM. AND SO IT WAS ONE  
5 OF MY GOALS TO SEE IF THERE WAS NOT A WAY WITHOUT COMPLETELY  
6 DISRUPTING ALL THE SOFT TISSUE AROUND THE DISC SPACE OR TO  
7 GET AN IMPLANT IN THAT WAS ESSENTIALLY MUCH LARGER THAN  
8 ANYTHING THAT WE WERE REALLY ABLE TO GET IN SAFELY AND THAT  
9 SEEMS COUNTER INTUITIVE BECAUSE YOU SAY TO YOURSELF, IF  
10 THERE WAS, BE WOULD HAVE DONE THAT ALREADY.

11 Q WELL YOU HAD AT THAT TIME, YOU HAD AN ANTERIOR IMPLANT,  
12 AND ANTERIORLY INSERTED NOT THREADED IN?

13 A I DID.

14 Q CAN YOU DRAW FOR THE JURORS WHAT THAT LOOKS LIKE?

15 A SURE.

16 Q LUMBAR?

17 A SO IF THIS IS A LUMBAR VERTEBRAE, WE'RE NOW LOOKING  
18 DOWN ON IT. THIS JUST SEEMS TO ME TO BE KIND OF ALMOST  
19 COMMON SENSE. THIS IS, LET ME DRAW IN WHAT WAS THAT RING  
20 AND IT WAS SOMETHING ELSE, YOU DIDN'T QUITE GET TO SEE.  
21 THIS CAR TIRE IS ACTUALLY ATTACHED TO THIS RING AND IT'S  
22 ATTACHING TO THE OUTSIDE OF THIS RIM.

23 Q BY THE CAR TIRE, YOU ARE TALKING ABOUT THE OUTSIDE?

24 A THE ANNULOSE FIBROSIS, THE THING THAT HOLDS THE TWO  
25 VERTEBRAE TOGETHER OF THE DISC AND UP HERE IS A VERY

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1 INTERESTING STRUCTURE. IN SOME INDIVIDUALS, MEN WHO WORK  
2 HARD, THIS LOOKS LIKE A LEATHER BELT. IT'S CALLED THE ALL.  
3 IT DOES NOT REALLY MATTER. IT STANDS FOR THE ANTERIOR  
4 LONGITUDINAL LIGAMENT, IT'S NOT WORTH REMEMBERING, BUT WHEN  
5 YOU SEE SOMETHING THAT IS THAT SUBSTANTIAL, THERE'S NOTHING  
6 IN THE BODY THAT'S WASTED, THERE IS A REASON IT'S SO  
7 SUBSTANTIAL. THE REASON IS SO WHEN YOU LEAN BACK, YOUR  
8 SPINE DOESN'T FALL APART. IT'S LIKE WHEN YOU HAVE A SCREEN  
9 DOOR AND IT'S FINDING A SPRING IN THE CHAIN SO IT DOES NOT  
10 SLAM INTO THE BUILDING. THIS IS A VERY IMPORTANT STRUCTURE.

11 Q SO WHEN YOU PUT YOUR ANTERIOR IMPLANT IN THERE --

12 A GONE. GONE.

13 Q CAN YOU DRAW YOUR ANTERIOR IMPLANT IN THAT SPACE?

14 A I'M GETTING THERE. I'M GETTING THERE. I'M SORRY IF  
15 I'M TOO SLOW. YOU CAN'T PUT AN IMPLANT IN THAT IS THIS BIG  
16 BECAUSE THERE'S WILL BE NOTHING LEFT TO HOLD IT TOGETHER.  
17 SO MAYBE WHAT YOU CAN DO IS PUT AN IMPLANT IN THAT LOOKS  
18 THIS BIG. MAYBE, MAYBE, MAYBE, PUT AN IMPLANT AND IF YOU'RE  
19 GOING TO CUT THIS OUT, THEN THE IMPLANT THAT IS GOING TO GO  
20 BACK IN IS GOING TO LOOK LIKE THIS. LITERALLY, IT CAN HAVE  
21 A SQUARE BACK. IT CAN HAVE A ROUNDED EDGE BECAUSE THE  
22 VERTEBRAE IS AROUND IT AND THEREFORE IT WILL NOT PROTRUDE.  
23 YOU DON'T WANT THINGS PROTRUDING FROM THE SPINE. THERE IS  
24 ALWAYS SOMETHING, THE AORTA, THE VENA CAVA, NOTHING IS  
25 ALLOWED TO PROTRUDE FROM THE SPINE.

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1           OKAY. SO THEN THAT'S THE TOP DOWN VIEW OF THE  
2 IMPLANT. WHAT'S IT LOOK LIKE FROM SIDE? WELL, DO YOU  
3 REMEMBER I TOLD YOU THESE DISCS WERE CONVEX TO THE TOPS OF  
4 THESE SURFACES FEES WERE CONCAVE. YOU HAVE A CHOICE. I CAN  
5 EITHER MACHINE THE BOTTOMS AND THE TOPS OF THESE VERTEBRAS  
6 SO THEY CAN BECOME SLACK. THAT'S A GEOMETRIC SHAPE I CAN  
7 REPRODUCE AND PUT IN IMPLANTS FLAT ON THE TOP AND FLAT ON  
8 BOTTOM OR I CAN ACTUALLY MAKE THE IMPLANT, SO IT HAS A NICE  
9 GENERAL CURVE AT THE TOP, AND A GENERAL CURVE AT THE BOTTOM  
10 AND SO I CAN TACK THAT IN.

11 Q       NOW, WERE THERE ANY OTHER IMPLANTS, THAT IS A SINGLE  
12 IMPLANT IN A SPACE? YOU JUST TALKED ABOUT SOME OF THE  
13 ISSUES, WERE THROUGH.

14           WERE YOU AWARE OF ANY OTHER PHYSICIANS, SURGEONS,  
15 WHO HAVE PLACED SINGLE IMPLANTS INTO THE ENTIRE PLATE, INTO  
16 THE ENTIRE AREA?

17 A       SURE. SURE. I WASN'T THE FIRST GUY TO COME UP WITH  
18 THIS. AN OLD QUOTE BY ISAAC NEWTON, "IF I HAVE SEEN  
19 FURTHER, I STOOD ON SHOULDERS OF GIANTS." I DIDN'T INVENT  
20 EVERYTHING. WHEN I WAS TELLING YOU ABOUT THE '360 AND I'M  
21 SORRY IF I GOT GORY ABOUT THAT. I APOLOGIZE. WHEN I WAS  
22 TELLING YOU, THIS RING OF BONE THAT CAME OUT OF A FEMUR FROM  
23 A DONOR AND WE TRIED TO HAMMER THAT IN AND IT WOULD BREAK.  
24 SO DR. BRANTIGAN DECIDED HE WOULD MAKE THAT RING, THAT  
25 FEMORAL RING OUT OF A PLASTIC THAT'S WOULDN'T BREAK.

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1           NOW IT DIDN'T HAVE TO BE SUPER STRONG BUT HE  
2           BASICALLY MADE A PLASTIC, THIS IS WHAT THE FEMUR LOOKED  
3           LIKE, HE CAME AND MADE A PLASTIC ONE WHICH IS GOOD BECAUSE  
4           IT DIDN'T HAVE TO COME FROM A DONOR, YOU KNEW HOW THE SIZE,  
5           YOU COULD MAKE ANY SIZE YOU WANT. SO THAT WAS ONE OF THE  
6           EARLY IMPLANTS THAT WOULD GO INTO THE FRONT.

7           Q       AND LET'S GO BEFORE DR. BRANTIGAN, THERE'S A DR.  
8           CLOWARD?

9           A       CLOWARD IS A WHOLE DIFFERENT STORY. I NEED TO START  
10          OVER. MAY I? RALPH CLOWARD WAS SIMPLY THE GREATEST  
11          INVENTOR IN SPINE OF OUR MID CENTURY, UP TO THE LAST 20  
12          YEARS. HE WAS A NEURO SURGEON IN HONOLULU WHEN PEARL HARBOR  
13          WAS BOMBED. HE WAS THE ONLY NEURO SURGEON. HE STAYED UP  
14          FOR THREE DAYS SAVING PEOPLE'S LIVES. AMAZING DOCTOR.  
15          NEURO SURGEONS DO AN OPERATION IN THE SKULL CALLED  
16          TREPHIDIN. IT MEANS IF YOU HAVE A BLEED UNDERNEATH YOUR  
17          SKULL, THEY TRY TO MAKE A HOLE AND LET THE BLOOD PRESSURE  
18          COME DOWN SO YOUR BRAIN DOESN'T GET CRUSHED. SO THE OLD  
19          SAYING ABOUT THE GUY WITH THE HAMMER, AND EVERYTHING LOOKS  
20          LIKE A NAIL, THE NEURO SURGEONS WERE RUNNING AROUND WITH  
21          THESE TREPHINES, THEY ARE LIKE HOLLOW DRILLS. SO HE GOT  
22          THIS IDEA. HE SAW A RUPTURED DISC IN THE NECK. NOW SINCE  
23          THE VERTEBRA IN THE NECK ARE VERY SMALL, EVEN THOUGH THE  
24          PART THAT RUPTURES IS IN THE BACK, YOU JUST TAKE OUT THE  
25          WHOLE FRONT OF THE DISC AND YOU CAN REACH BACK THERE AND

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1 TAKE IT OUT. AND THAT WAY, YOU DON'T HAVE TO GO PAST THE  
2 SPINAL CORD WHICH YOU REALLY CAN'T GET PAST ANYWAY, IT  
3 OCCUPIES THE ENTIRE CANAL. SO HE WOULD GO THERE FROM THE  
4 FRONT AND TAKE A DRILL AND DRILL A HOLE. HE WOULD TAKE OUT  
5 THE REST OF THE DISC, TAKE THE DRILL AND TAKE IT OUT. NOW  
6 YOU TAKE A DRILL THAT LOOKED JUST LIKE THAT BUT IT WAS A  
7 LITTLE BIT BIGGER, AND HE WOULD GO OVER TO THE ILIAC CREST,  
8 WHICH IS THAT BONE YOU TAP ON, IT'S NOT REALLY YOUR HIP  
9 BONE, BECAUSE YOUR HIP BEAR WEIGHT AND HE WOULD SIMPLY DRILL  
10 RIGHT THROUGH. THEN HE WOULD TAKE THAT, THESE BIGGER ONES,  
11 THAT AND THEN HE WOULD TAKE THAT, THIS BIGGER ONE AND HAMMER  
12 IT IN THERE AND THAT WAS THE FUSION.

13 Q WHAT'S THE PROBLEM WITH THAT APPROACH IN TERMS OF HE'S  
14 TRYING TO CAPTURE AS MUCH SURFACE AREA FOR THE FUSION?

15 A CORRECT.

16 Q WHAT'S HAPPENING WHEN HE'S TRYING TO CAPTURE THE  
17 SURFACE AREA?

18 A THERE'S A NUMBER OF PROBLEMS. SO IF THIS IS NOT QUITE  
19 BIG ENOUGH AND THERE'S ONE ON THE MIDDLE, THAT'S HOW KIDS  
20 USED TO MAKE SEA SALT. YOU WOULD TAKE A PLANK OF WOOD, YOU  
21 PUT IT OVER A BARRELL, IT ROCKS BACK AND FORTH. IF IT ROCKS  
22 BACK AND FORTH, IT WON'T HEAL.

23 THE BONE GRAFT, UNFORTUNATELY.

24 Q WHEN YOU SAY IF IT ROCKED BACK AND FORTH?

25 A TWO VERTEBRAE.

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1 Q IT'S JUST BECAUSE WHILE THIS THING IS TRYING TO FUSE  
2 YOU HAVE THE BONES MOVING?

3 A SURE. IT'S A BARREL, THEY'RE GOING TO ROCK OVER.

4 Q WHAT DO YOU NEED TO DO WITH THE CLOWARD TRIED, IN  
5 AVOIDING THIS ROCKING MOTION?

6 A WELL, THE BEST WAY TO AVOID IT, IS TO SIMPLY MAKE THE  
7 IMPLANT BIGGER BECAUSE IF YOU GET IT BIG ENOUGH, THERE ISN'T  
8 ANY ROCKING.

9 Q IF YOU MAKE THE IMPLANT BIGGER, DOES THAT SOLVE THE  
10 PROBLEM?

11 A THE PROBLEM IS IT ACTUALLY CREATES A NEW PROBLEM. IT  
12 DOES SOLVE THAT PROBLEM. THE PROBLEM IT CREATES IS THAT  
13 WHEN YOU DO TWO OF THEM, YOU CAN SEE, YOU JUST CUT THE  
14 VERTEBRAE IN HALF AND IT DIES. EVEN WHEN YOU DO ONE OF  
15 THEM, THE BOTTOM PART CAN DIE. WHEN THE BONE DIES, ONE OF  
16 TWO BAD THINGS HAPPENS. IT EITHER DOESN'T HEAL OR IT  
17 ACTUALLY COLLAPSES DOWN AND LEAVES THE PERSON LEFT LIKE THIS  
18 WHICH IS EVEN WORSE. SO THERE WERE A LOT OF PROBLEMS  
19 ASSOCIATED WITH IT AND NOT TOO MUCH LONGER, PEOPLE SAID  
20 WAIT. IT'S A GREAT OPERATION BUT WE DON'T NEED TO DO THAT  
21 AND THEY STARTED DOING WHERE THEY DIDN'T DRILL ANYTHING.

22 Q SO WHAT WAS YOUR, AS YOU ARE WORKING THROUGH THESE  
23 ISSUES AND TRYING TO COME UP WITH A CONCEPT OF A BIG IMPLANT  
24 THAT IS GOING TO GET, YOU KNOW, THE SOLUTIONS FOR THE  
25 PROBLEMS WE'RE IDENTIFYING, WHAT DID YOU REALIZE?

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1 A YEAH. LET'S FORGET ABOUT THAT FOR A MOMENT, JUST FOR A  
2 MOMENT AND GO DOWN TO THE LUMBAR SPINE. NOW WE'RE IN THE  
3 LUMBAR SPINE WHERE THE PROPORTIONS ARE MUCH DIFFERENT. AND  
4 THIS IS SOMETHING IMPORTANT TO KNOW.

5 THESE VERTEBRAE ARE WIDER THAN THEY ARE DEEP AND  
6 THE RATIO IS JUST GENERALLY ABOUT FIVE TO THREE. AND IT CAN  
7 BE MORE THAN THAT. IT CAN BE SIX TO THREE, OR TWO TO ONE.  
8 SO IF THIS IS 50 TO 60 ACROSS, IT CAN BE 30 DEEP IF YOU WERE  
9 GOING BACKWARDS AND I'LL TRY NOT TO BE -- PEOPLE BEFORE ME  
10 DECIDED THEY WOULD DO CROCKS IN THE LUMBAR SPINE. WHAT THEY  
11 DID INSTEAD OF TRYING TO PUT ONE GIGANTIC ONE IN WHICH CUT  
12 THE VERTEBRAE IN HALF, CLEARLY. IT WOULD JUST DESTROY  
13 EVERYTHING. THEY DID THIS INSTEAD.

14 THEY JUST PUT IN TWO VERY SIMILAR TO WHAT YOU SAW.  
15 IT MAKES SENSE BIO MECHANICALLY, THIS IS STABLE, YOU HAVE  
16 ONE ON EACH SIDE AND YOU CUT A LOT LESS BONE AWAY SO  
17 EVERYBODY KNEW THE LESSON THAT I'M TEACHING RIGHT HERE IS  
18 YOU CAN'T PUT ONE BIG ONE IN, BUT THERE IS A LOT OF REASONS  
19 WHY IT MIGHT BE NICE TO PUT ONE BIG ONE BECAUSE THESE THINGS  
20 NEVER WENT ALL THE WAY TO THE BACK SO THEY COUNT SIT ON THE  
21 APOPHYSEAL RING AND THERE'S A GOOD REASON WHY BECAUSE YOU  
22 DIDN'T WANT TO DRILL THAT BONE BACK THERE. NUMBER ONE,  
23 BECAUSE THE DURAL SAC WAS THERE BUT MORE IMPORTANTLY, YOU  
24 WANTED TO SCREW THOSE IN AND HAVE THEM STOP, SO YOU NEEDED  
25 TO LEAVE THAT BONE SO THEY WOULD GET SOMETHING TO STOP

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1 SO --.

2 Q WHEN YOU ARE SAYING HIT THAT BONE AND DIDN'T STOP?

3 A THE BONE YOU DIDN'T DRILL. THE BONE THAT IS IN THE  
4 BACK OF THE APOPHYSEAL RING. AND WE NEVER GET ON THE RIM ON  
5 THE SIDES, SO WE'RE REALLY NOT ON THE RIM. EVEN THE CASES,  
6 AS STRONG AS YOU WANT TO MAKE THEM, THEY STILL SUBSIDE INTO  
7 THE BONE AND OTHER THINGS CAN HAPPEN WHICH ARE UNDESIRABLE.

8 Q SO WHAT'S THE SOLUTION?

9 A WELL, NOBODY KNEW WHAT THE SOLUTION WAS AND ONE DAY I  
10 WAS THINKING ABOUT THIS PROBLEM, AND I WAS LOOKING AT  
11 SOMETHING VERY INTERESTING. SO NOW WE'RE LOOKING AT THAT  
12 SAME VERTEBRAE. AND I WAS THINKING ABOUT THE FACT THAT THIS  
13 IS LONGER THAN IT IS DEEP, SO WHERE I CAN'T PUT THIS ONE  
14 GIGANTIC IMPLANT IN, IF THIS IS THE RIM, LET ME PUT THE  
15 IMPLANT IN NOW. AND IF I TRIED TO GET ON THIS RIM, I  
16 OBVIOUSLY CAN'T DO IT. I CAN'T PUT AN IMPLANT THAT BIG IN.  
17 WHAT'S INTERESTING IS, IF I GO AROUND THE SIDE AND LET ME  
18 GIVE YOU THE SIDES OF THESE THINGS, WE SAY VERTEBRA NOW, SO  
19 THIS IS SIMPLY THE SAME VERTEBRAE NOW, TURNED SIDEWAYS. SO  
20 IT MAY HAVE BEEN 60 MILLIMETERS THIS WAY, BUT LOOKING AT IT  
21 FROM THE SIDE, FROM THIS SIDE, IT'S ONLY  
22 30 MILLION MILLIMETERS.

23 NOW I CAN ACTUALLY FILL THIS WITH AN IMPLANT.  
24 THIS ENTIRE SPACE WITH AN IMPLANT THAT DOESN'T EVEN BEGIN TO  
25 DAMAGE ANYTHING IMPORTANT.

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1 Q ARE THERE ANY OTHER ADVANTAGES TO THE IMPLANT.

2 A I'M NOT THERE, I WANT TO MAKE THIS POINT. I'M NO WHERE  
3 NEAR DAMAGES. RIGHT. I'VE COMPLETELY STUFFED THIS  
4 SPACE AND WHAT DOES THIS LOOK LIKE? IT LOOKS LIKE THIS.  
5 HERE IS AN IMPLANT THAT CAN GO LIKE THIS. ALL I'VE DONE IS  
6 TAKEN THE SMALL WINDOW OVER HERE, I HAVE LEFT ALL OF THE  
7 IMPORTANT STUFF IN THE FRONT. THAT'S WHY IT WAS IMPORTANT  
8 WHEN I SAID, THE LUMBAR SPINE DOES A LOT OF THIS AND THAT.  
9 YOU DON'T WANT TO TAKE THIS AWAY. SIDE BENDING, YOU DON'T  
10 NEED THIS. SO ARE THERE ADVANTAGE, YEAH? THERE IS NO BLOOD  
11 VESSELS. THERE IS NO NERVES.

12 Q BUT YOU HAVE THE PSOAS?

13 A THERE'S A MUSCLE. WE GO THROUGH MUSCLES ALL THE TIME.

14 Q I'LL COME BACK TO THAT IN A MOMENT. WE SORT OF WORKED  
15 WITH A CYLINDRICAL. DID YOU AT THE TIME CONCEIVE OF AN  
16 IMPLANT.

17 A SURE THAT WAS WAY BACK IN '86. NO SOONER DID I GET  
18 THIS WHEN I SAID TO MYSELF --

19 Q WHAT WAS BACK IN 86?

20 A WHEN I INVENTED ED MY OWN NON THREADED CAGES BUT THEY  
21 WERE FOR ANTERIOR AND POSTERIOR. I DIDN'T HAVE ANYTHING  
22 THIS GIGANTIC SIDE. I CALL IT JUMBO. JUST GIGANTIC WHICH  
23 IS ONE OF ITS ADVANTAGES BECAUSE IT'S AMAZINGLY STABLE.  
24 IT'S HITTING ON THE VERY, VERY BEST PART BONE. IT IS NOT  
25 GOING TO SUBSIDE. IT HOLDS A HUGE AMOUNT OF FUSION MASS.

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1 Q WHEN YOU SAY, "IT'S NOT GOING TO SUBSIDE," BRIEFLY  
2 EXPLAIN TO US WHAT YOU MEAN BY THAT?

3 A REMEMBER, WHEN WE DRILLED THESE OTHER CAGES, THEY WERE  
4 SITTING OVER HERE. SO MOST OF THEM WAS THEM WAS ACTUALLY ON  
5 THE SOFT CENTER BONE. THIS IMPLANT IS ACTUALLY SITTING,  
6 SUPPORTED AT BOTH ENDS. IT CAN IN FACT BE SUPPORTED IN THE  
7 BACK AND THE FRONT, IF YOU WANT TO MAKE IT WIDE ENOUGH. IT  
8 CERTAINLY IS SUPPORTED ON BOTH SIDES. THAT'S ENOUGH TO STOP  
9 IT FROM ROCKING.

10 Q ALL RIGHT. DR. MICHELSON, WE WANT TO MARK THESE AS?

11 MR. DAUCHOT: YOUR HONOR, IS IT OKAY, WE'LL MARK  
12 THESE AS DEMONSTRATIVES AND WE WILL HAVE -- I CAN'T READ  
13 THIS -- NEXT AVAILABLE IS 24 SO WE WILL HAVE -- WE'LL HAVE  
14 THE ENTIRE ONE MARKED AS DEMONSTRATIVE 24.

15 THE COURT: ALL RIGHT. I'D LIKE TO HAVE HIM SIGN  
16 IT, BECAUSE I GET FIRST DIBS ON ALL THE ARTWORK CREATED IN  
17 MY COURTROOM.

18 MR. MICKELSEN: THANK YOU FOR THE COMPLIMENT.  
19 THAT WAS UNDESERVED.

20 BY MR. DAUCHOT:

21 Q ALL RIGHT, DR. MICHELSON, LET'S TURN TO PX 0326 IN YOUR  
22 BINDER. DAVE, CAN YOU PUT THAT UP, PLEASE, FOR US. THAT'S  
23 THE '973 PATENT. DO YOU HAVE THAT THERE, DR. MICHELSON?

24 A I'M WORKING ON IT.

25 Q SOME OF WHAT YOU DESCRIBED HERE TODAY, IS THAT LAID OUT

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1 IN THE SPECIFICATION OF YOUR PATENT?

2 A YES.

3 Q AND I DON'T WANT TO GO THROUGH THE ENTIRE THING, I DO  
4 WANT TO FOCUS ON A COUPLE OF THINGS.

5 AND DAVE, AND DR. MICHELSON, CAN YOU GO TO COLUMN  
6 TWO, LINE 62 OF THE PATENT. AND BLOW UP LINE TWO. ALL THE  
7 WAY TO THE BOTTOM, DAVE?

8 A YES, I HAVE IT.

9 Q COLUMN 21, 62 ALL THE WAY DOWN.

10 YOU NOTE IN YOU'RE PATENT, "THEREFORE, THERE  
11 EXISTS A NEED FOR A SPINAL FUSION IMPLANT THAT IS INSERTED  
12 FROM THE TRANSLATERAL APPROACH TO THE SPINE THAT IS CAPABLE  
13 OF STABILIZING THE VERTEBRAE ADJACENT TO THE SUCH AN IMPLANT  
14 IN ORDER TO PERMIT BONE BRIDGING BETWEEN THE VERTEBRA AND  
15 THE IMPLANT ULTIMATELY ACHIEVING THE FUSION OF THE ADJACENT  
16 VERTEBRA. DO YOU SEE THAT?

17 A I DO.

18 Q BEFORE YOU GET TO THE CONCLUSION THAT THERE'S A NEED.  
19 WOULD YOU WALK THROUGH IN YOUR PATENT THAT IS IN EVIDENCE,  
20 SOME OF THE DIFFICULTIES YOU DESCRIBED HERE?

21 A THERE'S MUCH MORE THAN THAT.

22 Q OKAY. WHY DON'T YOU EXPAND ON THAT?

23 A SURE. IT DOESN'T MATTER HOW SKILLFUL A SURGEON IS,  
24 THERE IS NO SUCH THING AS BLOODLESS SURGERY INSIDE THE BODY.  
25 IT DOESN'T EXIST. YOU CAN HAVE THE WOUND AS DRY AS YOU

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1 LIKE, BUT AFTER YOU LEAVE, SOME BLOOD IS GOING TO OOZE OUT.  
2 WHEN IT DOES SO AROUND THE NERVES AND THE BACK OF THE SPINE,  
3 STRUCTURES ARE FORMED. NOW IN MOST PEOPLE, THAT'S NOT A  
4 PROBLEM. IN SOME PEOPLE, THE NERVE ROOTS ACTUALLY GET  
5 TETHERED TO THE FLOOR OF THE SPINE AND THAT BECOMES A VERY  
6 PAINFUL CONDITION.

7 ON THE OTHER HAND, IF YOU OPERATE ON SOMEBODY FROM  
8 THE FRONT AND YOU MOVE THOSE GREAT BLOOD VESSELS, WHEN THEY  
9 COME BACK, THEY'LL SCAR TO THE FRONT OF THE SPINE AND IT IS  
10 LITERALLY A LIFE THREATENING OPERATION TO TRY TO GO BACK A  
11 SECOND TIME.

12 SO EVERYBODY HAS HEARD OF PEOPLE WHO ARE SPINAL  
13 CRIPPLES. THEY HAVE HAD FIVE, SIX, SEVEN, EIGHT OPERATIONS  
14 AND WORSE THAN WHEN THEY STARTED. AS A SPINAL SURGEON, YOU  
15 GET THOSE PATIENTS REFERRED TO YOU. THAT'S THE KIND OF  
16 PATIENTS PEOPLE SEND YOU BECAUSE THEY'RE DONE. THEY DON'T  
17 KNOW WHAT ELSE TO DO AND THERE IS NO GOING BACK FROM THE  
18 FRONT AND THERE IS NOT GOING BACK FROM THE BACK AND IT WAS  
19 CRYING OUT FOR ANOTHER APPROACH.

20 Q DR. MICHELSON, LET'S TURN TO THE SUMMARY OF THE  
21 INVENTION, COLUMN THREE, LINES ONE THROUGH TEN.

22 DAVE, CAN YOU BLOW THAT UP FOR US?

23 YOU USED IN HERE THE TERM "TRANSLATERAL". I THINK  
24 YOU TESTIFIED EARLIER THAT THAT WAS A WORD THAT YOU COINED  
25 TO DESCRIBE THE INVENTION?

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1 A TO THE BEST OF MY KNOWLEDGE, EVEN TO THIS DAY, I  
2 INVENTED THAT WORD.

3 Q YOU ARE SAYING THAT THE TRANSLATERAL IMPLANT SPANS TO  
4 TRANSVERSE THE WIDTH OF THE SPACE AND DAVE, CAN YOU BRING US  
5 TO FIGURE FOUR IN THE PATENT, IT IS SHEET TWO OF EIGHT?  
6 NEXT PAGE.

7 THERE YOU GO. ALL RIGHT. CAN WE BRING UP FIGURE  
8 FOUR? WHAT ARE YOU DESCRIBING HERE, DOCTOR, IN THE FIGURE  
9 FOUR?

10 A AGAIN, I HAVE ACTUALLY GOT THE WORK, THE IDEA OF THE  
11 TRANSCONTINENTAL RAILROAD, CONNECTING THE ATLANTIC TO THE  
12 PACIFIC. I WANTED THIS THING TO GO EAST TO WEST, COAST TO  
13 COAST, SIDE TO SIDE.

14 Q DR. MICHELSON, CAN YOU TURN TO FIGURE 17 AND JUST SO  
15 WE'RE CLEAR THAT AT THE TIME YOU WERE THINKING AS WELL OF A  
16 RECTANGLE CAGE, CAN WE BLOW UP FIGURE 17?

17 A I THINK YOU CAN SEE IT BETTER IN IMAGE ABOVE.

18 Q FIGURE 16?

19 A SIXTEEN, YES.

20 Q CAN WE BLOW THAT UP? THANKS, DAVID.

21 THAT'S THE RECTANGULAR VERSION OF IT?

22 A RIGHT.

23 Q DR. MICHELSON, CAN WE TURN TO COLUMN THREE, LINE 46.  
24 TALK ABOUT SOME ADVANTAGE THAT YOU DISCLOSE AND DAVE, LET'S  
25 GO TO 46 ALL THE WAY DOWN TO 60. THERE WE GO. ALL RIGHT.

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1 YOU NOTE IN HERE, DR. MICHELSON, "THE DIMENSIONS OF THE  
2 TRANSLATERAL SPINAL FUSION IMPLANT OF THE PRESENT INVENTION  
3 PERMITS A SINGLE IMPLANT TO BE INSERTED BY A SINGLE  
4 PROCEDURE INTO THE SPINE AND TO ENGAGE MORE OF THE ADJACENT  
5 VERTEBRA." DO YOU SEE THAT?

6 A I DO.

7 Q WHAT WAS THE PREMIUM THAT YOU HAVE WITH HAVING BEING  
8 ABLE TO DO THIS WITH A SINGLE PROCEDURE AS OPPOSED TO THE  
9 DOUBLE PROCEDURE YOU DESCRIBED EARLIER?

10 A WELL THE OPERATION SHOULD BE SAFER AND IT SHOULD BE  
11 QUICKER, BECAUSE YOU'RE DOING HALF THE WORK.

12 Q AND THEN YOU NOTE IN THE NEXT SENTENCE, DR. MICHELSON,  
13 "AS A RESULT, THE TRANSLATERAL SPINAL FUSION IMPLANT WITH  
14 THE PRESENT INVENTION HAS MORE SURFACE AREA CONTACT AND THUS  
15 PERMITS GREATER STABILITY SO AS TO WITHSTAND TORQUE AND IN  
16 THE CASE OF A THREADED IMPLANT, INCREASES THE DEPTH," ETC.,  
17 ETC. WHAT ARE YOU COMMUNICATING HERE THERE, DR. MICHELSON?

18 A WELL YOU JUST DON'T HAVE THOSE VERY VERY TIGHT SPATIAL  
19 RESTRAINTS YOU HAD FROM BEHIND AND WHAT YOU HAD FROM IN  
20 FRONT. THROUGH THE WINDOW THAT'S AVAILABLE TO YOU WITHOUT  
21 CAUSING DAMAGE TO THE SPINE, YOU CAN PUT IN A PRETTY BIG  
22 IMPLANT.

23 Q THEN IN THE NEXT PARAGRAPH, YOU NOTE "THE TRANSLATERAL  
24 IMPLANTS OF THE PRESENT INVENTION ARE SAFER TO USE THAN  
25 IMPLANTS INSERTED FROM THE FRONT OR THE BACK AS THE AORTA

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1 AND VENA CAVA LIE ANTERIOR TO THE SPINE AND NEURAL SAC AND  
2 NERVES POSTERIOR, ALL OF WHICH STRUCTURES ARE SIMPLY AVOIDED  
3 IN THE LATERAL APPROACH," DO YOU SEE THAT?

4 A I DO.

5 Q AND THAT IS WHAT YOU TESTIFIED TO EARLIER. NOT HAVING  
6 TO MOVE THE VESSELS OUT OF THE WAY OR HAVING TO DEAL WITH  
7 MAKING THE DURAL SAC?

8 A AND THAT'S A GOOD POINT. AN ORTHOPEDIC SURGEON OR A  
9 SURGEON TRAINED IN SPINE CAN DO THIS OPERATION BY HIMSELF  
10 WITHOUT A VASCULAR SURGEON.

11 Q DR. MICHELSON, I WANT TO ADDRESS THE PSOAS ISSUE FOR A  
12 MOMENT. FROM A TRANSLATERAL, TRANSLATERAL IMPLANT, WOULD  
13 THAT IMPLANT HAVE TO, WOULD THE PSOAS MUSCLE COME INTO  
14 CONSIDERATION FOR THE USE OF THAT TRANSLATERAL IN EVERY  
15 PORTION OF THE SPINE?

16 A NO.

17 Q AND WHY NOT?

18 A WELL AGAIN, THIS MODEL IS JUST A LITTLE BIT OFF BECAUSE  
19 THE --

20 Q DR. MICHELSON, I DON'T MEAN TO INTERRUPT YOU. WE HAVE  
21 ANOTHER ONE HERE. DOES THAT HELP AT ALL? THIS IS  
22 DEMONSTRATIVE 02.

23 A IF YOU'LL TURN THAT TO THE JURY TO SEE IT. THAT WOULD  
24 BE FINE. I'LL TRY TO TALK LOUDLY. SO THIS IS MUCH MORE  
25 REALISTIC EXCEPT THAT THE MUSCLE DOESN'T ARISE THIS FAR IN

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1 THE FRONT. IT ARISES UP FROM THE MID PORTION AND GOES  
2 POSTERIOR AND IT DOES HAVE THESE KIND OF FIBERS, SO YOU  
3 ACTUALLY CAN VERY EASILY PASS YOUR FINGER, WHICH IS IN THE  
4 GLOVE, OR SOME OTHER OBJECT SLOWLY AND MOVE THE FIBERS APART  
5 WITHOUT CAUSING BLEEDING OR ANY DAMAGE TO THE MUSCLE. IT  
6 DOES NOT EVEN EXIST AT THE TOP HERE OR IN THE THORACIC  
7 SPINE. IT REALLY IS BEGINNING TO FORM AT ABOUT L1, SOMETIME  
8 THERE'S A TAG AT T 12, THE LAST THORACIC, BUT IT'S VERY  
9 SKINNY UP HERE. IF YOU ARE GOING TO GO OPERATE UP HERE, YOU  
10 PROBABLY DON'T HAVE TO CONSIDER IT. IT'S MUCH MORE OF A  
11 CONSIDERATION WHEN YOU ARE DOWN AT L 3 OR L 4.

12 Q WHEN YOU SAY NOT CONSIDER IT AT THE LEVELS WHERE IT  
13 NARROW, HAVE YOU HEARD OF A PROCEDURE CALLED RETRACTION?

14 A YES. SURE.

15 Q IS THAT A WAY TO RETRACT THE PSOAS?

16 A YES.

17 Q ARE YOU FAMILIAR WITH PHYSICIANS DOING THAT TO DEAL  
18 WITH THE PSOAS?

19 A THAT'S WHEN I WAS WORKING WITH THE PSOAS, VERY  
20 FREQUENTLY, RETRACT IT SIMPLY MEANS, THIS IS A VERSION OF A  
21 MUSCLE, IT'S TENDON, LIKE THE BICEP IS A TENDON, IT IS THIS  
22 THING YOU FEEL OVER HERE, IT'S TENDON IS MUSCLE, IT IS  
23 ACTUALLY UNDERSIDE. WHAT YOU CAN DO IF YOU ARE VERY, VERY  
24 CAREFUL IS TAKE A SHARP INSTRUMENT AND ACTUALLY START TO  
25 LIFT THE MUSCLE AND PEAL IT BACK AND THIS IS A MUSCLE THAT

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1 IS TRANSMITTING NERVES THROUGH THE MUSCLE, BUT YOU HAVE TO  
2 UNDERSTAND SOMETHING, NERVES ARE LIKE FAT OVERCOOKED  
3 SPAGHETTI NOODLES. THEY'RE VERY SOFT AND SOMEBODY ACTUALLY  
4 PUT AN X-RAY MARK ON THE SCIATIC NERVE, TOOK AN X-RAY OF  
5 SOMEBODY STANDING UP AND BENDING OVER AND THE MARKERS MOVED  
6 SEVEN INCHES SO THE NERVE HAD TO ELONGATE TO GO AROUND A  
7 PERSON'S HIP, THESE THINGS ARE RUBBERY, SO YES, THEY ARE  
8 THERE BUT IF YOU ARE GENTLE, EVEN IF YOU WERE TO TOUCH THE  
9 TISSUE AROUND THE NERVE, IT'S PROTECTED BY THE MUSCLE. YES,  
10 YOU CAN GET TO A NERVE, BUT IF YOU ARE GENTLE, THE NERVES  
11 MOVE OUT OF THE WAY WITH THE MUSCLE.

12 Q ARE THE NERVES ALL THROUGH THE ENTIRE PSOAS?

13 A NO.

14 Q I THOUGHT I HAD HEARD DURING OPENING STATEMENTS THAT  
15 THE PSOAS IS JUST RIDDLED WITH THESE NERVES?

16 A WELL, THAT WASN'T QUITE RIGHT. IT WAS A VERY NICE  
17 PICTURE, IT'S AN ACCURATE PICTURE BUT WE WERE SEEING ALL  
18 KINDS OF NERVES THREE DIMENSIONAL. WE'RE SEEING THE NERVES  
19 THAT FORM THE SCIATICA, PLEXUS WHICH IS IN THE BACK, WE WERE  
20 SEEING THE NERVES GO TO THE, THE NERVES THAT ARE IN HERE  
21 FORM WHAT WILL TURN OUT TO BE FEMORAL NERVE, THAT IS THE  
22 NERVE THAT MAKES THE FRONT OF OUR THIGHS, THE OBJURGATOR  
23 NERVE, A LITTLE NERVE FOR THE GENITAL FEMORAL NERVE, SO NO.  
24 AND THEY ARE VERY WELL PLACED. THEY ARE COMING OUT, THE  
25 SAME PLACE I SHOWED YOU THESE OTHER NERVES COMING OUT, THAT

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1 NERVE SPLITS AND ONE BRANCH COMES FORWARD AT EVERY LEVEL AND  
2 THEY GO OUT INTO THE MUSCLE, SO THEY ARE NOT STUCK TO THE  
3 BONE. THEY'RE FREELY MOVABLE.

4 Q DR. MICHELSON, WE HEARD DURING NUVASIVE'S OPENING  
5 STATEMENT THAT DR. MARINO, THE PERSON, THE DOCTOR WHO  
6 FOUNDED NUVASIVE, INVENTED NEURO MONITORING IN ASSOCIATION  
7 WITH THE SPINAL PROCEDURES. AND THAT HE DID THAT IN THE  
8 1997, 1998 TIMEFRAME. MY QUESTION IS, DID YOU, AS A SPINE  
9 SURGEON USE NERVE MONITORING SYSTEMS AS PART OF YOUR  
10 PRACTICE.

11 A YES.

12 Q HOW EARLY IN YOUR PRACTICE DID YOU DO THAT?

13 A LATE 1980S, EARLY 1990S WE HAD A GROUP OF SPINE  
14 SURGEONS AT THE HOSPITAL I WAS WORKING AT AND WE INSTITUTED  
15 A DEPARTMENT WIDE POLICY THAT EVERY SINGLE SPINE CASE, EVERY  
16 SPINE CASE GOT COMPREHENSIVE SPINAL MONITORS.

17 Q WHEN YOU HAVE SAY "COMPREHENSIVE SPINAL MONITORING",  
18 WHAT ARE YOU TALKING ABOUT?

19 A WELL, THERE WERE ACTUALLY NEURO SCIENCE TECHNICIANS  
20 THAT WOULD COME IN AND HAD A VAST ARRAY OF MACHINERY. THEY  
21 WOULD DO WHAT WE CALL CORTICAL SENSORY EVOKE POTENTIALS WITH  
22 LITTLE ELECTRODES ON THE SKULL, THEY WERE DOING NERVE  
23 CONDUCTION STUDIES, THEY WERE DOING EMGS, THEY WERE  
24 MONITORING THE NERVES IN THREE DIFFERENT WAYS, I THINK THESE  
25 GUYS KNEW IF THE PATIENT WAS THINKING ABOUT TWITCHING.

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1 Q DR. MICHELSON, I DON'T MEAN TO PUT YOU ON THE SPOT AND  
2 I KNOW WE HAVEN'T DISCUSSED THIS BEFORE BUT ON THE ONE HAND  
3 YOU ARE SAYING YOU HAD THAT POLICY FOR NEURO MONITORING AND  
4 ON THE OTHER HAND, YOU ARE SAYING THE PSOAS, THAT ONE COULD  
5 PUT THE FINGER THROUGH THE PSOAS AND SLIDE THE NERVE ASIDE,  
6 IF YOU CAN DO THAT WITH YOUR FINGER LIKE THAT, WHY THIS  
7 OTHER EQUIPMENT?

8 A THE FIRST LAW OF MEDICINE IS, "FIRST, DO NO HARM". IT  
9 WOULD ACTUALLY BE RARE THAT A TECHNICIAN WOULD SAY, DOCTORS,  
10 YOU BETTER STOP. SOMETHING IS NOT RIGHT HERE AND USUALLY IT  
11 DIDN'T TURN OUT TO BE WHAT WE WERE DOING, IT TURNED OUT TO  
12 BE THAT THE CUSPS THEY PUT AROUND PATIENT'S CALVES TO BLOW  
13 THEIR CALVES UP SO THEY DON'T GET PHLEBITIS STAYED BLOWN UP  
14 BECAUSE IT GOT A KINK IN THE HOSE OR SOMETHING. BUT THEY  
15 COULD TELL THE SLIGHTEST CHANGE IN THE NERVES. SO WE  
16 MONITORED ALL THESE PATIENTS TO MAKE SURE WE WERE DOING  
17 EVERYTHING TO PROTECT THEM. SINCE THERE WERE A PLURALITY OF  
18 WAYS TO MONITOR THEM, WE WERE DOING ALL OF THEM.

19 Q ALL RIGHT. DR. MICHELSON, NOW IN TERMS OF THE  
20 DIMENSIONALS AND I'M NOT GOING TO WALK YOU THROUGH THE  
21 CLAIMS, BECAUSE YOU'RE NOT HERE AS AN EXPERT ON THE  
22 INFRINGEMENT ISSUE, BUT YOU ARE FAMILIAR GENERALLY. WHO  
23 DRAFTED THE ACTUAL CLAIMS?

24 A THE PATENT ATTORNEYS.

25 Q I'M SORRY?

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1 A THE PATENT ATTORNEYS.

2 Q YOU ARE GENERALLY FAMILIAR NOW THOUGH THAT THERE ARE  
3 CERTAINLY DIMENSIONS IN YOUR CLAIM AND THE LIKE?

4 A YES, I AM.

5 Q WITH RESPECT TO THE PROPERTIES OF THE TRANSLATERAL  
6 IMPLANT. IT HAS TO HAVE CERTAIN DIMENSIONS, AM I CORRECT?

7 A YES, IT DOES.

8 Q NOW ONE OF THE PROPERTIES OF THE TRANSLATERAL IMPLANT  
9 IS THAT IT CANNOT BE INSERTED ANTERIORLY OR POSTERIORLY, IS  
10 THAT CORRECT?

11 A THAT IS CORRECT.

12 Q NOW I WANT TO PUT UP VIDEO 13. CAN YOU PUT THAT UP,  
13 DAVE.

14 ALL RIGHT. DR. MICHELSON, DID YOU HELP US PUT  
15 THESE DEMONSTRATIVES TOGETHER?

16 A YES, I DID.

17 Q ALL RIGHT. THIS IS GKM 13. CAN YOU, DAVE, START?

18 DR. MICHELSON, MAYBE YOU CAN EXPLAIN WHAT WE'RE  
19 SEEING HERE?

20 A YES. SO THIS WOULD BE WHAT I'M DESCRIBING AS A  
21 TRANSLATERAL IMPLANT. IT WENT IN 90-DEGREES TO THE MIDLINE  
22 INSTEAD OF GOING FROM FRONT TO THE BACK OR BACK TO FRONT, IT  
23 WENT IN 90 DEGREES TO THAT AND IT SITS ON THE APOPHYSEAL  
24 RING ON BOTH SIDES OF THE VERTEBRAL BODY.

25 Q ONE OF THE DIMENSIONAL LIMITATIONS IS THAT IT HAS TO

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1 SIT SUBSTANTIALLY OR IT HAS TO CROSS THE TRANSVERSE WIDTH,  
2 CORRECT?

3 A THAT'S CORRECT.

4 Q SO BY THE POSTS?

5 A THAT'S CORRECT.

6 Q WHAT WOULD HAPPEN, LET'S TURN THE GKM 12, DAVE.

7 WHAT HAPPENS IF YOU TAKE THAT AND STICK THAT IN  
8 ANTERIORLY?

9 A WELL, IT'S NOT GOING TO FIT. YOU ARE GOING TO END UP  
10 DAMAGING THE NEURO ELEMENTS BECAUSE IT SIMPLY CAN'T FIT IN  
11 THERE BY DEFINITION.

12 Q OKAY. WE GOT A LITTLE TECHNICAL GLITCH. OKAY. WHILE  
13 DAVE WORKS ON THAT, YOU GOT IT.

14 OKAY. SO WE'RE TAKING YOUR TRANSLATERAL AND  
15 PUTTING IT IN ANTERIORLY. CAN YOU EXPLAIN TO US WHAT'S  
16 HAPPENING HERE? GIVE US THE DIMENSIONS?

17 A YEAH. THE VERY DEFINITION OF THIS IMPLANT IS THAT IT  
18 HAS A LENGTH GREATER THAN THE DEPTH OF THE DISC SPACE SO  
19 THAT BEING THE CASE, YOU CAN INSERT IT WITHOUT SERIOUSLY  
20 INJURING THE PATIENT.

21 Q ALL RIGHT. NOW LET'S SEE, DAVE CAN WE GO TO THE NEXT  
22 ONE, 14.

23 LET'S HAVE THE IMPLANT, THE TRANSLATERAL IMPLANT  
24 IMPLANTED POSTERIORLY. WHAT HAPPENS THERE, DOCTOR?

25 A IT'S GOING TO COME FORWARD, HIT THE GREAT VESSELS,

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1 PROTRUDE OUT OF THE FRONT AND HIT THE VENA CAVE OR THE  
2 AORTA.

3 Q AND I TAKE IT, THAT'S NOT A GOOD THING?

4 A NO.

5 Q NOW DR. MICHELSON, ARE THERE ANY BEYOND, THERE'S A  
6 DEFINITION OF YOUR IMPLANT, IT'S IN THE CLAIMS, IT'S CALLED  
7 A TRANSLATERAL IMPLANT, AN IMPLANT THAT IS CAPABLE OF BEING  
8 INSERTED TRANSLATERALLY?

9 A THAT'S CORRECT.

10 Q ARE THERE ANY CHARACTERISTICS OF THIS IMPLANT,  
11 GENERALLY BEYOND THE STRICT DIMENSIONS THAT APPLY HERE? SO  
12 LET'S TAKE AN IMPLANT THAT FITS ALL OF THE DIMENSIONAL  
13 REQUIREMENTS, IS THERE ANYTHING ELSE THAT CAN MAKE AN  
14 IMPLANT LIKE THAT, NOT FOR TRANSLATERAL IMPLANT?

15 A I DON'T UNDERSTAND THE LAST PART. WHAT WAS THE LAST  
16 PART?

17 Q SO IF YOU MEET THE DIMENSIONS, YOU HAVE SOMETHING THAT  
18 IS DIMENSIONED WHERE YOU WILL FIT FROM COAST TO COAST. IS  
19 THAT ALL THERE IS TO YOUR TRANSLATERAL.

20 A NO. BUT YOU KNOW WHAT, WE REALLY HAVE ONLY TALKED  
21 ABOUT ONE DIMENSION. WE'RE ONLY TALKING ABOUT THE LENGTH  
22 RIGHT NOW AND THERE ARE TWO MORE OTHER DIMENSIONS SO I THINK  
23 WE SHOULD GIVE SOME CONSIDERATION TO THAT.

24 Q CAN YOU EXPLAIN THAT?

25 A THE FIRST ONE IS HOW WIDE ARE THESE IMPLANTS AND THE

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1 ANSWER IS THEY HAVE TO BE SUFFICIENTLY WIDE THAT THE TWO  
2 VERTEBRAL BODIES DON'T ROCK BACK AND FORTH. IT HAS TO HAVE  
3 ENOUGH WIDTH, ENOUGH FOOTPRINT TO MAKE IT SOLID AND HOW TALL  
4 IS IT? IT IS EVERY BIT AS TALL AS IT NEEDS TO BE TO LIFT UP  
5 THE DISC SPACE AND REPOSITION THOSE VERTEBRAE WHERE THEY  
6 NEED TO BE AND TO EMBED SLIGHTLY INTO EACH ONE OF THOSE AND  
7 LOCK THEM TOGETHER AND NO BIGGER, BECAUSE IT IS NOT A  
8 CORPECTOMY DEVICE. CORPECTOMY MEANS WHERE YOU TAKE OUT A  
9 VERTEBRAL BODY. IS NOT THAT. THIS FITS IN THE DISC SPACE.  
10 IT RESTORES THE HEIGHT OF THIS SPACE.

11 Q WHAT ABOUT AN IMPLANT THAT HAS SURFACES DESIGNED FOR  
12 ANTERIOR INSERTION? YOU HAVE SEEN THOSE IMPLANTS.

13 A I WAS GOING TO GET TO THAT. THE FIRST CONSIDERATION IS  
14 ASK ARE THE THREE DIMENSIONS OF THE IMPLANT. THE NEXT  
15 CONSIDERATION IS WHAT DOES THE FRONT OF IT LOOK LIKE? IT  
16 HAS TO GO IN. IF I'M DESIGNING AN IMPLANT, IT HAS TO GO IN  
17 AT THE FRONT. I CERTAINLY WANT TO DO SOMETHING TO  
18 FACILITATE EASY ENTRANCE. MAYBE THAT, CHAMFERING THE EDGES  
19 WHERE IT IS MAKING IT SLIGHTLY BULLET SHAPED BUT YOU WANT TO  
20 DO SOMETHING TO GIVE IT A LEADING END. I'LL CALL THAT THE  
21 FRONT OF THE IMPLANT AND AT THE OPPOSITE END AT THE OTHER  
22 END OF ITS LENGTH, BECAUSE THE FRONT AND THE BACK DEFINE HOW  
23 LONG IT IS, AT THE OTHER END, AT THE TRAILING END, I WOULD  
24 LIKE TO COOPERATIVELY ENGAGE THE DRIVER THAT YOU SAW THE  
25 THREADED IMPLANT, THAT WAY, I HAVE CONTROL OVER THE IMPLANT.

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1 I CAN MOVE IT, I CAN PULL OR PUSH IT. IT DOES NOT COME OFF  
2 THE DRIVER. SO IT NEEDS A SPECIAL TRAILING END AND THEN  
3 WHILE I WANT TO IT GO IN, I DON'T WANT IT TO BACK OUT,  
4 BECAUSE I KNOW THAT'S WHAT IT WANTS TO DO. SO I WOULD DO  
5 SOMETHING TO THE SURFACES TO INCREASE THE FIT INTO THE BONE  
6 AND ONE OF THE BEST DESIGNS FOR THAT IS A SPLINE SO FOR THE  
7 DIRECTION IT'S GOING IN, IT IS DOWN AND WHEN IT'S FACING  
8 BACK, IT HOOKS ON THE BONE. IT'S A SERIES OF LITTLE  
9 RATCHETS ON THE SURFACE. THAT'S ONE OF MY PREFERRED  
10 DESIGNS.

11 Q WHAT IF YOU TAKE AN ANTERIOR, YOU HAVE AN ANTERIOR, YOU  
12 HAVE INVENTED ANTERIORLY RAISED IMPLANTS THAT ARE THREADED  
13 SO RECTANGULAR, RIGHT?

14 A YES.

15 Q DID YOU CONSIDER IN DESIGNING THOSE FOR ANTERIOR OR  
16 POSTERIOR INSERTION THE SURFACE CONTOURS IN EXACTLY WHAT YOU  
17 DESCRIBED TO THE JURY?

18 A YES. OF COURSE. IT'S VERY IMPORTANT WHICH WAY THEY  
19 FACE. THESE RATCHETS HAVE TO FACE IN THE DIRECTION TO STOP  
20 THE IMPLANT FROM COMING OUT EXACTLY THE WAY IT WENT IN.  
21 EVERYTHING IS BIASED FOR THAT. IT'S VERY IMPORTANT.  
22 THERE'S ANOTHER CONSIDERATION, WE SHOULD MENTION. WHAT DOES  
23 THE TOP AND THE BOTTOM LOOK LIKE IN THIS IMPLANT? WELL, IF  
24 YOU ARE GOING TO USE A MACHINE AND MAKE A STRAIGHT LINE  
25 RIGHT ACROSS THE VERTEBRAL BODY, YOU CAN MAKE THE TOP AND

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USDC, SOUTHERN DISTRICT OF CA  
PO BOX 131037, SAN DIEGO, CA 92170

1 THE BOTTOM OF THE IMPLANT FLAT. IF INSTEAD, YOU JUST WANT  
2 TO SCRAPE THE VERTEBRA, IF YOU GET TO WHERE BONE ISN'T WHITE  
3 ANYMORE, YOU JUST STARTING TO SEE IT TURN PINK, WELL THAT IS  
4 GOING TO LOOK LIKE THIS AND THE TOP OF YOUR IMPLANT, YOU ARE  
5 GOING TO HAVE A GENTLE CURVE FROM ONE END TO THE OTHER AND  
6 THE BOTTOM SHOULD HAVE A GENTLE CURVE. NOW, WHILE WE SAY  
7 THE IMPLANT SHOULD BE RECTANGULAR, THAT'S NOT REALLY WHAT WE  
8 MEAN. WE MEAN IT CAN BE RECTANGULAR OR IT'S SILHOUETTE CAN  
9 BE RECTANGULAR BUT THERE IS REALLY NO REASON THE IMPLANT  
10 CAN'T HAVE A FROM CURVE TO IT OR EVEN A BACK CURVE TO IT.

11 Q DR. MICHELSON, YOU WERE HERE FOR NUVASIVE'S OPENING  
12 STATEMENT?

13 A I WAS.

14 Q DO YOU HAVE A MEMORY OF DEMONSTRATIVE VIEWS WITH DR.  
15 BRANTIGAN'S PICTURE AND THERE WAS A BAK IMPLANT, THE ONE  
16 THAT ZIMMER LICENSES FROM YOU SITTING ON TOP OF THE  
17 VERTEBRAL BODY?

18 A I DON'T THINK THAT WAS BRANTIGAN'S, I'M SORRY. I THINK  
19 IT WAS MCAFEE.

20 Q THAT'S CORRECT. DID YOU RECOGNIZE THE VERTEBRAL BODY  
21 ON WHICH THE IMPLANT RESTED?

22 A WELL. IT WAS NON-HUMAN.

23 Q OKAY. IS YOUR PATENT, WHEN YOU CREATED YOUR PATENT,  
24 WERE YOU CREATING TRANSLATERAL IMPLANTS FOR NON-HUMANS?

25 A WELL, I HAVE NEVER INVENTED ANYTHING FOR NON-HUMANS.

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USDC, SOUTHERN DISTRICT OF CA  
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1 NEVER OPERATED ON AN ANIMAL. I'M NOT A VETERINARIAN. I  
 2 DON'T WHAT SPINAL DISORDERS THEY GET, IF ANY, THEY WALK ON  
 3 ALL FOURS. NO. THESE ARE ALL FOR HUMANS.

4 Q YOUR HONOR, THIS IS PROBABLY A GOOD TIME TO TAKE A  
 5 BREAK IF IT'S OKAY.

6 THE COURT: SURE. WE'RE CLOSE TO QUITTING TIME IF  
 7 THIS IS A CONVENIENT TIME FOR YOU, WE'LL DO THAT. WE'LL  
 8 TAKE OUR EVENING RECESS. PLEASE REMEMBER THE ADMONITION WE  
 9 TALKED ABOUT. DON'T TALK TO ANYONE ABOUT THE CASE OR GET  
 10 ANY INFORMATION FROM OUTSIDE. HAVE A NICE EVENING. SEE  
 11 YOU BACK HERE AT 9:00 O'CLOCK TOMORROW. THANKS.

12 (EVENING RECESS TAKEN)

13 SAN DIEGO, CALIFORNIA )  
 14 COUNTY OF SAN DIEGO ) SS:

15 I, ELIZABETH M. CESENA, CSR 12266, AN OFFICIAL  
 16 REPORTER OF THE UNITED STATES DISTRICT COURT, SOUTHERN  
 17 DISTRICT OF CALIFORNIA, DO HEREBY CERTIFY THAT I REPORTED IN  
 18 SHORTHAND THE PROCEEDINGS, TO THE BEST OF MY ABILITY, IN THE  
 19 ABOVE-ENTITLED CAUSE AND THAT THE FOREGOING TRANSCRIPT,  
 20 NUMBERED FROM PAGES 1 TO 183 INCLUSIVE, IS A FULL, TRUE AND  
 21 CORRECT TRANSCRIPT OF PROCEEDINGS HELD ON AUGUST 30, 2011.

22 SAN DIEGO, CALIFORNIA, DATED THIS 31ST DAY OF  
 23 AUGUST, 2011.

24 /S/ ELIZABETH CESENA

25 \_\_\_\_\_  
 ELIZABETH M. CESENA, CSR 12266  
 OFFICIAL COURT REPORTER

ELIZABETH CESENA, CSR 12266, (619) 237-0100  
 USDC, SOUTHERN DISTRICT OF CA  
 PO BOX 131037, SAN DIEGO, CA 92170



1  
2 IN THE UNITED STATES DISTRICT COURT  
3 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
4 HONORABLE MICHAEL M. ANELLO, DISTRICT JUDGE  
5

6 \_\_\_\_\_ )  
7 MEDTRONIC SOFAMOR DANEK, USA ) CASE NO. 08 CV 1512-MMA  
ET AL., )  
8 )  
PLAINTIFF, )  
9 )  
VS. ) AUGUST 31, 2011  
10 )  
NUVASIVE, INC., ) WEDNESDAY, 9:00 AM  
11 )  
DEFENDANT. ) TRIAL - DAY TWO  
12 \_\_\_\_\_ )

13  
14 REPORTER'S TRANSCRIPT OF PROCEEDINGS  
15

16 APPEARANCES:

17 FOR THE PLAINTIFF: LUKE L. DAUCHOT, ESQ.  
18 NIMALKA WICKRAMASEKERA, ESQ.  
19 SHARRE LOTFOLLAHI, ESQ.  
ALEXANDER F. MACKINNON, ESQ.  
MICHAEL DOBSZEWICZ, ESQ.  
KIRKLAND & ELLIS, LLP

20 JEFF SCHWARTZ, ESQ.  
21 DEWEY & LEBOEUF

22 FOR THE DEFENDANT: FRANK SCHERKENBACH, ESQ.  
23 TODD G. MILLER, ESQ.  
JONATHAN J. LAMBERSON, ESQ.  
24 NEIL WARREN, ESQ.  
KEELEY I. VEGA, ESQ.  
25 FISH & RICHARDSON, P.C.

## 1 DIRECT EXAMINATION

2 BY MR. DAUCHOT:

3 Q DR. MICHELSON, GOOD MORNING.

4 A GOOD MORNING.

5 Q YOU ARE STILL UNDER OATH.

6 A YES, SIR.

7 Q TWO QUICK POINTS BEFORE WE PICK UP YOU WHERE WE LEFT  
8 YESTERDAY. ONE, YOU MENTIONED THAT A COMPANY CALLED  
9 SURGICAL DYNAMICS LICENSED YOUR '247 TECHNOLOGY?

10 A YES.

11 Q AND DO YOU REMEMBER THAT YOU RECEIVED ROYALTIES FROM  
12 SDI ON ITS RAY CAGE FOR THAT '247?

13 A THAT'S CORRECT.

14 Q AND YOU TESTIFIED THAT SOFAMOR DANEK AS WELL LICENSED  
15 THEIR '247 PATENT. THIS IS THE ONE, RIGHT?

16 A YES.

17 Q DO YOU RECALL IF THEY WERE PAYING YOU ROYALTIES ON  
18 INNER FIX AND NOVICE WITH RESPECT TO THAT PATENT?

19 A YES.

20 Q ALL RIGHT. I WANT TO SHIFT GEARS AND QUICKLY GO  
21 THROUGH THE CONCEPTION DATE OF THE TRANSLATERAL PATENT -- OR  
22 THE TRANSLATERAL IMPLANT.

23 YOU WITH ME?

24 A I AM.

25 Q APPROXIMATELY WHEN DID YOU INVENT THE TRANSLATERAL

1 IMPLANT?

2 A IT WAS THE SEPTEMBER-OCTOBER 1993 TIME FRAME.

3 Q ALL RIGHT. AND I WANT TO WORK THROUGH WITH THE JURY  
4 FAIRLY QUICKLY HOW IT IS THAT YOU RECALL THAT.

5 CAN YOU TURN TO PX0284. IT'S IN THAT BINDER,  
6 DR. MICHELSON.

7 MR. DAUCHOT: CAN WE PUT THAT UP ON THE SCREEN,  
8 PLEASE.

9 BY MR. DAUCHOT:

10 Q CAN YOU SEE IT? ARE YOU WITH ME, DR. MICHELSON?

11 A I AM.

12 Q OKAY. WHAT ARE WE LOOKING AT HERE?

13 A WELL, DESIDER IMRE WAS THE MACHINIST WHO ACTUALLY MADE  
14 THE SET. AND HE SENT US AN INVOICE THAT WE RECEIVED AT MY  
15 OFFICE ON 12/26/93. AND THAT WAS AFTER TWO SETS OF  
16 INSTRUMENTS HAD ACTUALLY BEEN MADE.

17 SO IF YOU LOOK DOWN THE INVENTORY, IT'S TWO OF  
18 THIS AND TWO OF THAT. THE REASON WAS THAT HE HAD MADE A SET  
19 PREVIOUSLY. AND AFTER WORKING WITH IT, I WAS NOT SATISFIED,  
20 SO I HAD HIM MAKE A SECOND SET. SO THAT'S THE INVOICE.

21 Q LET'S FOCUS ON THE SECOND LINE. YOU HAVE TWO IMPLANTS  
22 24 BY 42 MILLIMETERS -- DO YOU SEE THAT -- WITH CAPS?

23 A YES.

24 Q IS THAT A TRANSCRIPT OF YOUR TRANSLATERAL IMPLANT?

25 A THAT IS ONE OF THE EMBODIMENTS, YES.

1 Q LET'S WORK BACKWARDS HERE -- WELL, ONE QUESTION: DID  
2 THE MACHINIST INVENT THE IMPLANT AND SELL IT TO YOU?

3 A NO. HE ACTUALLY WORKED AT ANOTHER COMPANY AS A GENERAL  
4 MACHINIST. AND ON HIS OVERTIME OR SPARE TIME, WHEN HE  
5 WASN'T A FOREMAN AT THAT COMPANY, AS TIME PERMITTED, HE  
6 WOULD MAKE THINGS FOR ME. I WOULD GIVE HIM A DRAWING, HE  
7 WOULD MAKE IT, I'D REVIEW IT, HE'D CORRECT IT, HE'S REMAKE  
8 IT.

9 MR. DAUCHOT: DAVE, CAN YOU BACK UP. I NEED TO  
10 SEE THE DATE ON THERE.

11 BY MR. DAUCHOT:

12 Q HERE'S A DATE, 12/26/93. DO YOU SEE THAT?

13 A YES.

14 Q THAT'S THE DATE THAT YOU RECEIVED THE INVOICE?

15 A CORRECT.

16 Q SO BY THEN HE HAD MADE THESE?

17 A HE HAD MADE TWO SETS BY THEN.

18 Q TWO SETS BY THEN.

19 NOW, LET'S WORK BACKWARDS. HOW DOES THAT GET YOU  
20 TO, ROUGHLY -- I THINK YOU SAID SEPTEMBER OF '93?

21 A IT WAS EITHER THE END OF SEPTEMBER OR THE BEGINNING OF  
22 OCTOBER.

23 Q SO BASICALLY, YOU'RE SAYING FOR HIM TO HAVE MADE TWO  
24 SETS, YOU ARE WORKING BACKWARDS FROM SEPTEMBER '93, WHEN YOU  
25 APPROACHED HIM THE FIRST TIME?

1 A CORRECT. HE HAD VERY LIMITED MACHINES. BUT IF YOU  
2 LOOK AT ONE OF THE IMPLANTS HE MADE AND HOW MUCH MACHINE  
3 TIME GOES INTO THAT. HE HAD TO WORK ON THOSE THINGS IN HIS  
4 SPARE TIME, SO NORMAL TURNOVER FOR HIM, FROM THE TIME I GAVE  
5 HIM SOMETHING, MET WITH HIM AND GAVE HIM THE DRAWING WAS  
6 USUALLY AT LEAST THREE WEEKS. AND HE DID THAT TWICE, SO  
7 THAT'S AT LEAST SIX WEEKS.

8 I HAD IT FOR TWO WEEKS BEFORE I MET WITH HIM, AND  
9 THEN I HAD IT AGAIN FOR TWO WEEKS BEFORE I MET WITH DANEK.  
10 SO THAT'S LIKE THREE AND THREE IS SIX, AND FOUR IS TEN WEEKS  
11 AT LEAST.

12 Q NOW, DR. MICHELSON, DID YOU DISCLOSE YOUR TRANSLATERAL  
13 IMPLANT TO SOFAMOR DANEK?

14 A I DID.

15 Q TURN TO PX0114 IN YOUR BINDER, PLEASE. PX0114 IS A  
16 DOCUMENT THAT IS IN EVIDENCE -- WELL, IT HASN'T BEEN  
17 FORMALLY INTRODUCED YET, BUT IT WILL BE.

18 THIS IS NOT A DOCUMENT THAT YOU DRAFTED, AM I  
19 CORRECT?

20 A THAT IS CORRECT.

21 Q IN FACT, THIS IS NOT A DOCUMENT THAT WAS SENT TO YOU AT  
22 THE TIME IT WAS DRAFTED, AM I CORRECT?

23 A THAT IS TRUE.

24 Q THERE IS A DOCUMENT WRITTEN BY SOFAMOR DANEK AT THE  
25 TIME, DATED JANUARY 11, 1994.

1 DO YOU SEE THAT?

2 A I DO.

3 Q THE SUBJECT LINE IS MEETING WITH DR. GARY MICHELSON.

4 DO YOU SEE THAT?

5 A YES.

6 Q YOU SEE THAT LUKIANOV IS COPIED?

7 A YES.

8 Q NOW, DR. MICHELSON, DO YOU HAVE A MEMORY THAT YOU MET  
9 WITH SOFAMOR DANEK ON OR ABOUT JANUARY 11, 1994?

10 A WELL, JUST TO BE CORRECT: I ACTUALLY MET WITH THEM IN  
11 DECEMBER, SO ABOUT A WEEK -- TEN DAYS BEFORE I MET. IT WAS  
12 THE END OF DECEMBER.

13 Q NOW, THE FIRST LINE OF THE MEMO, THERE'S A STATEMENT:  
14 "ON TUESDAY, JANUARY 11, A NUMBER OF INDIVIDUALS AND I MET  
15 WITH DR. MICHELSON."

16 DO YOU SEE THAT?

17 A JEEZ, I DON'T RECALL THAT UNLESS THAT'S WHEN THE  
18 MEETING WAS. OKAY. IF I'M MISTAKEN -- I THOUGHT IT WAS  
19 DECEMBER, BUT IT COULD HAVE BEEN THE SECOND WEEK IN JANUARY.

20 Q THERE MAY HAVE BEEN TWO MEETINGS?

21 A YOU KNOW, I DON'T RECALL.

22 Q SO WE HAVE A JANUARY 11 MEETING. NOW, AFTER MEETING,  
23 WHENEVER PRECISELY IT WAS DONE, DID YOU DISCLOSE YOUR  
24 TRANSLATERAL IMPLANT TO SOFAMOR DANEK?

25 A YES.

1 Q JUST SO WE'RE CLEAR, MR. LUKIANOV WAS NOT AT THIS  
2 MEETING, CORRECT?

3 A HE WAS NOT.

4 Q YESTERDAY YOU TESTIFIED FOR THE JURY SOME OF THE  
5 FUNDAMENTAL ELEMENTS OF YOUR TRANSLATERAL IMPLANT THAT  
6 APPEARED IN YOUR '973 PATENT.

7 DO YOU REMEMBER THAT?

8 A YES.

9 Q PLEASE TURN TO PAGE 8 OF THAT MEMORANDUM.

10 MR. DAUCHOT: DAVE, CAN YOU BLOW UP THE MIDDLE  
11 PARAGRAPH.

12 BY MR. DAUCHOT:

13 Q ARE YOU WITH ME?

14 A I AM.

15 Q ALL RIGHT. NOW, IN HERE MR. BOYD -- I THINK YOU RECALL  
16 MR. BOYD?

17 A I DO.

18 Q WHO WAS MR. BOYD AT THAT TIME?

19 A HE WAS THE CHIEF ENGINEER FOR INTERBODY'S SPINAL FUSION  
20 AT SOFAMOR DANEK.

21 Q NOW, MR. BOYD STATES, AND I QUOTE, WE DISCUSSED THE  
22 POTENTIAL FOR A RETROPERITONEAL LATERAL APPROACH TO THE  
23 SPINE.

24 DO YOU SEE THAT?

25 A I DO.

1 Q EXPLAIN TO US WHAT RETROPERITONEAL LATERAL APPROACH TO  
2 THE SPINE WAS?

3 A YES. SO I HAD MENTIONED YESTERDAY THAT IN DAYS GONE  
4 BY, SURGEONS WOULD SOMETIMES MAKE AN INCISION RIGHT THERE IN  
5 THE MIDDLE OF THE ABDOMEN AND GO STRAIGHT THROUGH WHERE THE  
6 INTESTINES ARE AND EVERYTHING ELSE, MOVE THOSE OUT OF THE  
7 WAY, AND GET TO THE SPINE.

8 BUT ALL THOSE ORGANS ARE SITTING IN WHAT LOOKS  
9 LIKE A DUFFEL BAG, AND WE CALL THAT THE "PERITONEAL CAVITY."

10 SO AS SURGEONS WHO DID THE ACCESS, LIKE VASCULAR  
11 SURGEONS, GOT MORE SKILLFUL AND MORE FAMILIAR WITH DOING  
12 SURGERY FOR SPINE SURGEONS, THEY LEARNED TO GO AROUND THIS  
13 DUFFEL BAG AND SLIDE IT OVER.

14 SO EVEN THOUGH THE INCISION WAS ON THE FRONT, THEY  
15 WERE KIND OF GOING TO THE SIDE AND GOING BEHIND THE DUFFEL  
16 BAG, MOVING IT OVER.

17 SO RETRO JUST MEANS BEHIND. PERITONEAL MEANS THAT  
18 DUFFEL SAC. WE CALL IT THE "PERITONEUM."

19 WHAT MR. BOYD IS SAYING IS VERY INTERESTING,  
20 BECAUSE THAT IS AN ANTERIOR RETROPERITONEAL APPROACH.  
21 ANTERIOR MEANS WE MADE THE INCISION IN THE FRONT, AND YET WE  
22 REACHED AROUND, MOVED THE DUFFEL BAG OVER, SO BEHIND -- WE  
23 MOVED IT TO THE SIDE, AND NOW WE DO THE SURGERY.

24 THIS IS THE FIRST TIME HE'S EVER SEEN A LATERAL  
25 RETROPERITONEAL, WHERE YOU DON'T EVEN HAVE TO MOVE THE



1 PERITONEUM SAC. LEAVE IT ALONE. BUT YOU'RE SO FAR BEHIND  
2 IT, YOU JUST GO STRAIGHT IN.

3 Q SO I UNDERSTAND, MAYBE I DON'T HAVE -- LET ME TRY THIS,  
4 DR. MICHELSON. WE DON'T HAVE A MODEL HERE. IF WE LOOK AT  
5 THE FRONT OF THE SPINE, RIGHT?

6 A YES.

7 Q OR ACTUALLY, LET'S LOOK AT THE SIDE OF THE SPINE.  
8 OKAY. WITH ME?

9 A UH-HUH.

10 Q WE'RE LOOKING AT THE SIDE HERE. SO THERE IS THE FRONT,  
11 ANTERIOR, THIS IS THE BACK. WE HAVE THESE BONY PROTRUSIONS  
12 OUT HERE, RIGHT?

13 A YES.

14 Q THE PERITONEAL SAC, JUST SO WE'RE CLEAR, DOES IT ATTACH  
15 ALONG THE SIDE LIKE THIS?

16 A NO. IT LAYS UP AGAINST THE FRONT.

17 Q THIS IS THE FRONT OF THE SPINE?

18 A WELL, THE FRONT WAS TOWARDS YOU, YOU SAID.

19 Q RIGHT.

20 A YES. SO THE SAC DOESN'T GO ONTO THE VERTEBRAL BODIES.  
21 IT JUST LAYS UP. IT'S SELF-CONTAINED.

22 Q SO THE IDEA IS TO MOVE THE SAC OUT OF THE WAY AS YOU  
23 ARE APPROACHING INTO THE SPINE?

24 A WHEN WE DID AN ANTERIOR, FROM THE FRONT,  
25 RETROPERITONEAL DISSECTION TO GET THE SPINE, WHAT WE WERE

1 REALLY DOING WAS MOVING IT OVER.

2 Q OKAY. NOW, DR. MICHELSON, THE NEXT STATEMENT STATES,  
3 "AS YOU MAY KNOW, A RETROPERITONEAL APPROACH, PAREN, AS  
4 OPPOSED TO A TRANSPERITONEAL APPROACH" --

5 THE TRANSPERITONEAL WAS WHAT WE DESCRIBED EARLIER,  
6 JUST GOING RIGHT THROUGH THE SAC, AM I CORRECT?

7 A CORRECT.

8 Q -- "IS USED BY MANY SPINE SURGEONS FOR ANTERIOR  
9 SURGERY, ESPECIALLY AT THE L5-S1 LEVEL"?

10 A CORRECT.

11 Q NOW, WHAT YOU WERE NOT DESCRIBING WAS AN ANTERIOR  
12 SURGERY, AM I CORRECT?

13 A CORRECT. IF YOU LOOK AT THE FIRST LINE, HE'S NOW  
14 TALKING ABOUT A LATERAL RETROPERITONEAL. THE HUGE  
15 DIFFERENCE IS, YOU DON'T EVEN TOUCH THE PERITONEUM.

16 Q YOU STATE, "THE RETROPERITONEAL APPROACH FOR LATERAL  
17 SPINE AT L4-L5 AND L3-L4."

18 L4-L5, L3-L4 REFERENCES TO THE VERTEBRAL BODIES  
19 ALONG THE SPINE?

20 A CORRECT. WE NUMBER THEM 1 THROUGH 5. ONE STARTS RIGHT  
21 BENEATH THE LAST RIB.

22 Q SO WHAT WE HAVE WE -- WE SHOWED THE JURORS THE SPINE  
23 YESTERDAY. WE HAD DIFFERENT AREAS, THE CERVICAL THORACIC,  
24 THE LUMBER. WHEN YOU'RE DEALING WITH -- WHOOPS. LET ME  
25 MOVE THIS. WHEN YOU'RE DEALING WITH THE LUMBAR SPINE DOWN

1 HERE, YOU HAVE A NUMBER OF VERTEBRAL BODIES, AND YOU JUST  
2 CALL THEM L-1, L-2, L-3, L-4?

3 A CORRECT.

4 Q OKAY. NOW, MR. BOYD STATES, THAT YOU COMMUNICATED,  
5 "THE RETROPERITONEAL APPROACH TO THE LATERAL SPINE AT L4-L5  
6 AND L3-L4 WOULD AVOID THE NEED FOR MANIPULATION OF THE BLOOD  
7 VESSELS."

8 THOSE ARE THE BLOOD VESSELS IN THE FRONT BECAUSE  
9 YOU ARE COMING IN THROUGH THE SIDE, CORRECT?

10 A CORRECT.

11 MAY I ADD SOMETHING? WHEN YOU SAY THE BLOOD  
12 VESSELS, I WANT THE JURY TO UNDERSTAND, THAT PERITONEAL SAC  
13 WHICH DOESN'T TO THE SPINE PUSHES THOSE BIG BLOOD VESSELS  
14 RIGHT AGAINST THE SPINE. THEY'RE SANDWICHED. THEY ARE  
15 RETRO -- THEY ARE SANDWICHED BETWEEN THE SPINE AND THAT  
16 PERITONEAL SAC.

17 Q ALL RIGHT. MR. BOYD CONTINUES -- SO THIS APPROACH THAT  
18 YOU TAUGHT HIM PROVIDES FOR -- AVOIDS THE NEED FOR  
19 MANIPULATION OF BLOOD VESSELS.

20 AND HE STATES, "PROVIDES FOR THE GREATER DEPTH  
21 ACROSS THE LARGER TRANSVERSE DIMENSION."

22 DO YOU SEE THAT?

23 A YES. BECAUSE I HAD EMPHASIZED TO HIM HOW IMPORTANT IT  
24 WAS THAT HE GO ACROSS THE TRANSVERSE.

25 Q SO THAT'S TRANSLATERAL?

1 A RIGHT. THAT'S WHY I'M SAYING ACROSS, NOT JUST IN  
2 TRANSVERSE, BUT ACROSS.

3 Q FROM ONE END TO THE OTHER?

4 A YES.

5 Q ONE COAST TO THE OTHER COAST?

6 A YES.

7 Q AND THEN HE STATES, "ALLOWS FOR AN INCREASED SURFACE  
8 AREA CONTACT DUE TO THIS GREATER TRANSVERSE STEP."

9 DO YOU SEE THAT?

10 A YES.

11 Q "AND RESULT IN LESS DANGER YOUR OF NEUROVASCULAR DAMAGE  
12 DUE TO THE PROTRUSION INTO THE RELATIVELY BENIGN PSOAS  
13 MUSCLE ON THE OPPOSITE LATERAL SIDE OF THE PROCEDURE."

14 DO YOU SEE THAT?

15 A I DO.

16 Q WHAT YOU EXPLAINED TO MR. BOYD WAS, LOOK, THIS LATERAL  
17 APPROACH, RATHER THAN GOING THROUGH THE FRONT -- OR I GUESS  
18 THE BACK YOU GO THROUGH THE LATERAL, AND REALLY ALL YOU ARE  
19 FACING IS THIS RELATIVELY BENIGN PSOAS MUSCLE?

20 A COMPARED TO THE NERVE BEHIND AND THE BLOOD VESSELS IN  
21 FRONT, YES, IT IS PSOAS.

22 Q MR. BOYD STATES, "DR. MICHELSON REVIEWED WITH US SOME  
23 EXCELLENT INSTRUMENTATION DEVELOPED FOR PLACING OF THE  
24 THREADED DOWEL, VIA A LATERAL ANTERIOR APPROACH."

25 DO YOU SEE THAT?

1 A YES.

2 Q JUST SO WE'RE CLEAR, MR. BOYD, YOU HAVE READ THIS,  
3 RIGHT?

4 A I HAVE READ THIS.

5 Q DO YOU RECALL MR. BOYD IN YOUR DISCUSSIONS REFERRING TO  
6 THE ACTUAL IMPLANT, BE IT THE METAL OR WHATEVER, AS A  
7 "DOWEL"?

8 A WELL, YES.

9 THERE'S A GOOD REASON FOR THAT, IF I MAY. IF  
10 YOU LOOK UP IN THE DICTIONARY THE MEANING OF "DOWEL," IT  
11 WILL SAY A CYLINDRICAL FASTENER THAT IS PRESSED INTO  
12 CAVITIES WHEN TWO OBJECTS ARE TO BE BOUND TOGETHER.

13 SO THAT'S LITERALLY WHAT THESE ARE. NOW, THESE  
14 AREN'T SOLID. WE MAKE THEM HOLLOW. BUT THEY TRULY ARE  
15 DOWELS. AND WE GO TO READ, THEY ARE THREADED DOWELS.

16 SO IT'S ACTUALLY A VERY GOOD WORD FOR AN ENGINEER  
17 TO USE.

18 Q NOW, HE ALSO REFERENCES INSTRUMENTATION THAT YOU SHOWED  
19 HIM, CORRECT?

20 A CORRECT.

21 Q ALL RIGHT. AND HE NOTES IN THE SECOND PARAGRAPH --

22 MR. DAUCHOT: DAVE, CAN YOU GO TO THE NEXT ONE  
23 VERY QUICKLY.

24 BY MR. DAUCHOT:

25 Q "THESE WEDGES ALSO, THEN, PROVIDE PROTECTION DURING THE

1   PROCEDURE BY ACTING AS SHIELDS OF THE ANTERIOR VESSELS IN  
2   THE POSTERIOR SPINAL CANAL."

3                   DO YOU SEE THAT?

4   A     YES.

5   Q     AND WHAT WERE YOU REFERRING TO THEN, WHEN YOU WERE  
6   COMMUNICATING WITH MR. BOYD?

7   A     WHAT WAS HE REFERRING TO?

8   Q     CORRECT -- WELL, LET ME PUT IT DIFFERENTLY.  YOU DIDN'T  
9   WRITE.  AS YOU WERE EXPLAINING THIS TO MR. BOYD, AND AS YOU  
10  SEE MR. BOYD RECOUNT THIS IN THE MEMO, DO YOU HAVE A MEMORY  
11  OF WHAT YOU WERE EXPLAINING TO MR. BOYD?

12  A     YES.  I SHOWED HIM IN A SAWBONES KIND OF DEMONSTRATION  
13  HOW ONCE YOU PLACED THE OUTER SLEEVE DOWN, EVERYTHING IS  
14  PROTECTED.

15  Q     NOW, YOU WERE HERE FOR NUVASIVE'S OPENING STATEMENT?

16  A     I WAS.

17  Q     AND DO YOU RECALL A STATEMENT TO THE EFFECT THAT  
18  NUVASIVE WAS THE FIRST TO REALLY CREATE THIS DIRECT LATERAL  
19  APPROACH TO THE SPINE.  DO YOU RECALL THAT?

20  A     I DID HEAR IT, YES.

21  Q     IS THAT CORRECT?

22  A     I DON'T KNOW, IF THEY DID IT BEFORE SEPTEMBER OF 1993,  
23  THEN THAT'S A TRUE STATEMENT.

24  Q     NOW, YOUR APPROACH TO THE SPINE IS REFERENCED IN  
25  YOUR -- ACTUALLY, TURN TO PX326, WOULD YOU PLEASE.

1 MR. DAUCHOT: DAVE, CAN YOU PUT THAT UP.

2 BY MR. DAUCHOT:

3 Q CAN YOU TURN TO COLUMN 6, LINES 29 THROUGH 37.

4 MR. DAUCHOT: DAVE, BLOW THAT UP FOR ME, PLEASE.

5 THANK YOU.

6 BY MR. DAUCHOT:

7 Q YOU WITH ME, DR. MICHELSON?

8 A I AM.

9 Q YOU STATE IN YOUR PATENT THERE THAT "THE TRANSLATERAL  
10 IMPLANTS OF THE PRESENT INVENTION ARE INSERTED BY THE  
11 TRANSLATERAL METHOD DISCLOSED IN THE WHOLE PENDING  
12 APPLICATION."

13 DO YOU SEE THAT?

14 A YES.

15 Q AND THE TITLE OF THAT WHOLE PENDING APPLICATION IS  
16 CALLED IMPROVED METHODS AND INSTRUMENTATION, THE SURGICAL  
17 CORRECTION OF HUMAN THORACIC AND LUMBAR SPINAL DISEASE FROM  
18 THE LATERAL ASPECT OF THE SPINE.

19 DO YOU SEE THAT?

20 A YES.

21 Q NOW, THE '973 PATENT IS NOT A PATENT ON AN APPROACH?

22 A JUST AN IMPLANT.

23 Q NOT AN APPROACH ON INSTRUMENTATION?

24 A JUST AN IMPLANT.

25 Q WHY DID YOU NOT STUFF IT ALL IN THE SAME PATENT AND GET

1 ALL THE CLAIMS ON IT AT ONCE?

2 A FIRST OF ALL, THE PATENT OFFICE WON'T LET YOU DO THAT.  
3 THEY WANT TO COLLECT FEES ON EACH PART. SO WHEN WE FILED  
4 '247, FOR EXAMPLE, THE ORIGINAL THREADED IMPLANT, WE DID DO  
5 THAT AND LEARNED A LESSON.

6 AND THEY SAID, "OH, NO. YOU HAVE TO FILE A PATENT  
7 FOR THE IMPLANT, YOU HAVE TO FILE A PATENT FOR THE  
8 INSTRUMENTS, YOU HAVE TO FILE A PATENT APPLICATION FOR A NEW  
9 SURGICAL PROCEDURE THAT MAKES USE OF THE INSTRUMENTATION."

10 THEY KEPT DIVIDING.

11 Q ALL RIGHT. DR. MICHELSON, YOU DID HAVE THIS PATENT  
12 REFERENCED IN YOUR '973 PATENT APPLICATION, ULTIMATELY  
13 MATURED IN THE 661 PATENT, CORRECT?

14 A YES.

15 MR. DAUCHOT: DAVE, COULD YOU PUT UP PX310, AND  
16 TURN US TO FIGURE TWO, AND BLOW THAT UP FOR US.

17 BY MR. DAUCHOT:

18 Q ALL RIGHT. SO THAT IS HOW YOU CONTEMPLATE PUTTING IN  
19 YOUR TRANSLATERAL IMPLANT?

20 DR. MICHELSON, I DON'T KNOW IF THAT'S IN THERE.  
21 LET'S LOOK UP HERE.

22 A YES.

23 Q THAT'S HOW YOU CONTEMPLATED THE INSERTION OF THE  
24 TRANSLATERAL IMPLANT?

25 A YES.



1           THERE'S AN IMAGE WHERE IT SHOWS THE SPECIAL -- THE  
2    GUARD.  AND IF YOU CAN BRING THAT UP, I THINK IT WOULD BE  
3    USEFUL.  IT HAS THE TWO PROJECTIONS.  I DON'T HAVE IT IN  
4    FRONT OF ME TO TELL YOU WHICH ONE IT IS.

5           MR. DAUCHOT:  LET'S GO TO FIGURE FOUR, DAVID.

6           THE WITNESS:  THAT'S IT.  BUT WE NEED TO SEE THE  
7    INSTRUMENT WITHOUT THAT TO MAKE IT MORE CLEAR WHAT'S GOING  
8    ON.

9           MR. DAUCHOT:  ALL RIGHT.  FIGURE 7A, DAVID.

10          THE WITNESS:  YES.  YES.  YES.  OKAY.

11          SO YOU NOTICE THIS TUBE LOOKS A LITTLE BIT DIFFERENT  
12    THAN THE ONE YOU HAVE SEEN BEFORE BECAUSE IT'S GOT THAT  
13    THING STICKING OUT.

14          WELL, THAT THING STICKING OUT ARE ACTUALLY GOES INTO  
15    THE DISC SPACE AND SHIELDS OFF THE BLOOD VESSELS.  SO NOW  
16    IT'S LITERALLY IMPOSSIBLE TO INJURE ANYTHING.  YOU CAN TURN  
17    THE LIGHTS OUT.  BECAUSE THE INSTRUMENT IS GOING DOWN THE  
18    TUBES.  THIS PIECE OF METAL IN THE DISC IS ACTUALLY STOPPING  
19    ANYTHING FROM FALLING IN OR ANYTHING FROM GOING OUT.

20    BY MR. DAUCHOT:

21    Q       ALL RIGHT.  DR. MICHELSON, HAVE YOU SEEN THE  
22    MEDTRONIC'S DIRECT LATERAL INTERBODY FUSION APPROACH?  AND  
23    JUST FROM MATERIALS, INSTRUMENTATION?

24    A       I DON'T THINK SO.

25    Q       HAVE YOU HEARD IT DESCRIBED WHERE MEDTRONIC APPROACHES

1 THE SPINE DIRECTLY FROM THE SIDE?

2 A I DON'T THINK SO. I'VE NEVER SEEN MATERIALS. WHEN YOU  
3 SAY I HEARD THAT, I HEARD THEY DO THAT. THAT'S IT. I'M NOT  
4 KNOWLEDGEABLE.

5 Q HAVE YOU DISCLOSED ALL OF THIS TO SOFAMOR DANEK BACK IN  
6 THE, WHAT 1994-1995 TIME FRAME?

7 A NO. 1993-'94.

8 Q MR. LUKIANOV WAS AT THE COMPANY WHEN YOU WERE  
9 DISCLOSING ALL OF THIS?

10 A YES.

11 Q LET'S TURN TO PX193 IN YOUR BINDER, PLEASE.

12 MR. DAUCHOT: NOW, DAVE, CAN YOU BLOW UP THE TOP  
13 THIRD OF THAT, PLEASE. AND INCLUDE THE DATE FOR US,  
14 PLEASE. THANK YOU.

15 BY MR. DAUCHOT:

16 Q THIS A LETTER DATED JANUARY 13, 1994, FROM MR. LARRY  
17 BOYD TO YOU, CORRECT?

18 A YES.

19 YOU KNOW WHAT? I'M SORRY. I THINK I DIDN'T  
20 UNDERSTAND THE QUESTION YOU ASKED BEFORE. WHEN I WAS  
21 WORKING WITH THEM, I MADE THEM THE SETS OF INSTRUMENTS THAT  
22 COULD GO STRAIGHT LATERAL. THEN YOU ASKED ME IF I KNEW IF  
23 THEY WERE. I TOOK THAT TO MEAN DO I KNOW WHAT THEY'RE DOING  
24 TODAY, AND I DON'T. SO I'M SORRY.

25 Q FAIR ENOUGH.

1                   BUT IN ANY EVENT, MR. BOYD WRITES YOU ON  
2 JANUARY 13, '94, RIGHT?

3 A       YES.

4 Q       THIS IS TWO DAYS AFTER THE JANUARY 11TH MEETING, RIGHT?

5 A       YES.

6 Q       HE NOTES, "I'M VERY ENTHUSIASTIC ABOUT MOVING FORWARD  
7 WITH THE MANY FUSION DEVICES CONCEPTS."

8                   DO YOU SEE THAT? THAT'S THE SECOND SENTENCE.

9 A       YES.

10 Q       NOW, AMONG THE THINGS THAT HE REQUIRES YOU TO MAKE FOR  
11 SOFAMOR DANEK BACK IN '94 --

12                   MR. DAUCHOT: CAN YOU GO TO E, PLEASE, DAVID,  
13 SECOND PAGE, E.

14 BY MR. DAUCHOT:

15 Q       HE SAYS, "ANTERIOR LATERAL IMPLANT AND INSTRUMENTS 24  
16 DIAMETER BY 42 LENGTH SIZE ONLY."

17                   DO YOU SEE THAT?

18 A       YES.

19 Q       IS THAT A REFERENCE TO THE TRANSLATERAL IMPLANT, THE  
20 "JUMBO," AS YOU CALLED IT, THAT YOU HAD DISCLOSED?

21 A       YES. IT WAS VERY JUMBO.

22 Q       AND IT'S JUMBO BECAUSE YOU WANTED AT LEAST -- THE LOWER  
23 PART OF THE SPINE, I GUESS, YOU NEED THE 42 TO GET IT ACROSS  
24 ALL THE WAY?

25 A       THIS IS AN IMPORTANT CONCEPT. THE WIDER THE IMPLANT

1 IS, NECESSARILY THE SHORTER IT'S GOING TO BECOME, IT WILL  
2 REACH THE APOPHYSEAL RIM. BUT IF THE IMPLANT IS SKINNIER,  
3 IT CAN ACTUALLY BE LONGER.

4 BUT WHAT HAPPENS IS SINCE YOU ARE UP AGAINST A  
5 CURB, IF YOU GET REAL WIDE, THEN CORNERS WILL START TO COME  
6 THROUGH THE DISCS. SO THAT'S A VERY LARGE DIAMETER. SO BY  
7 NECESSITY, THE IMPLANT HAS TO BE SHORTER.

8 Q BUT IN ANY EVENT THIS IS ONE OF THE JUMBO COAST TO  
9 COAST TRANSLATERAL IMPLANTS THAT YOU DISCLOSE?

10 A CORRECT.

11 Q THEY'RE INTERESTED IN IT AND THEY WANT YOU TO MAKE SOME  
12 PROTOTYPES FOR IT?

13 A CORRECT.

14 Q ALONG WITH THE INSTRUMENTATION FOR THE LATERAL APPROACH  
15 TO THE SPINE?

16 A STRAIGHT LINE, RIGHT THROUGH THE SIDE.

17 Q NOW, DO YOU REMEMBER MAKING THESE MATERIALS FOR  
18 MR. BOYD?

19 A YES.

20 Q AND DO YOU RECALL HANDING THESE MATERIALS TO MR. BOYD?

21 A WELL, I ACTUALLY SHIPPED THEM TO HIM, BUT YES.

22 Q NOW, WERE YOUR DISCLOSURES TO SOFAMOR DANEK DURING THIS  
23 TIME FRAME LIMITED TO THE TRANSLATERAL DISCLOSURE -- LIMITED  
24 TO THE THREADED CYLINDRICAL?

25 A NO.

1 MR. DAUCHOT: CAN WE PUT PX0991 UP ON THE SCREEN,  
2 PLEASE.

3 BY MR. DAUCHOT:

4 Q DR. MICHELSON, THAT IS IN YOUR BENDER.

5 A I'M SORRY -- OH, YES -- YES. YES.

6 MR. DAUCHOT: THAT'S THE WRONG ONE. PX0285.

7 THERE YOU GO. CAN WE BLOW THAT UP FOR US.

8 BY MR. DAUCHOT:

9 Q ALL RIGHT. THAT'S THIS TRANSLATERAL IMPLANT. DO YOU  
10 HAVE A MEMORY OF MAKING A MODEL LIKE THIS FOR MEDTRONIC OR  
11 SOFAMOR DANEK?

12 A YES.

13 Q DO YOU ROUGHLY HAVE A MEMORY OF WHEN YOU DID THAT?

14 A YES. IN THAT TIME FRAME. IT FOLLOWED SHORTLY.  
15 BECAUSE I REALLY DO THINK, IN MY OPINION, THAT THE ONES THAT  
16 AREN'T LARGE AND THREADED HAVE DISTINCT ADVANTAGES OVER THE  
17 ONE THAT ARE THREADED.

18 Q AS YOU WERE HAVING THESE MEETINGS AT SOFAMOR DANEK AND  
19 THESE PEOPLE WERE LOOKING AT IS, CAN YOU GIVE US A SENSE OF  
20 THE LEVEL -- BECAUSE YOU UNDERSTOOD THESE PEOPLE -- OF  
21 EXPERIENCE THAT THEY HAD IN THE SPINE INDUSTRY?

22 A RON PICKARD WAS THE PRESIDENT OF THE COMPANY AT THE  
23 TIME. ALEX LUKIANOV WAS HIS COMMANDER IN CHIEF, AND HE WAS  
24 IN CHARGE OF NEW BUSINESS. LARRY BOYD WAS THE CHIEF  
25 ENGINEER OF INTERBODY. AND JOHN PAFFORD, WHOSE NAME WE

1 HAVEN'T HEARD, WAS THE CHIEF ENGINEER, PERIOD.

2           THEY SIMPLY ATTENDED EVERY SPINE MEETING, EVERY  
3 SPINE CONFERENCE, THEY TRAVELED THE WORLD, NOT JUST THE  
4 UNITED STATES.

5           THEY ALSO HAD INTERACTIONS WITH, AND NONDISCLOSURE  
6 AGREEMENTS WITH OTHER DOCTOR INVENTORS THAT NOBODY ELSE  
7 WOULD GET TO SEE THOSE SECRET THINGS.

8           THEY KNEW MORE ABOUT WHAT WAS GOING ON IN THE  
9 CUTTING EDGE OF SPINE THAN JUST ABOUT ANYBODY.

10 Q       DID ANY OF THE PEOPLE WHEN YOU WERE SHOWING THEM THIS  
11 TECHNOLOGY, DID ANY OF THEM SAY, "DR. MICHELSON, THIS STUFF  
12 IS NOT NEW"?

13 A       NO.

14 Q       DID ANYBODY SAY, "HEY, DR. MICHELSON, DR. MCAFEE HAS  
15 BEEN WORKING ON THIS"?

16 A       NO.

17 Q       "DR. KUSLICH HAS BEEN WORKING ON THIS"?

18 A       WHEN I SHOWED THIS TO DR. KUSLICH, AND I ASKED HIM IF  
19 HE COULD POSSIBLY GET HIS INVESTIGATOR, BECAUSE HE WAS  
20 RUNNING INVESTIGATIONS TO DO IT, HE ACTUALLY SAID NO. THAT  
21 WAS HIS FIRST RESPONSE, NO.

22 Q       I'LL GET BACK TO THAT.

23           BUT BACK IN THAT TIME FRAME, FAIR TO SAY THAT WHAT  
24 YOU WERE SHOWING THESE PEOPLE, THESE PROFESSIONALS, CAUGHT  
25 THEIR EYE?

1 A WELL, LET ME GIVE YOU BETTER THAN MY SAYING YES. THE  
2 NORMAL ROYALTY THAT THESE COMPANIES WERE PAYING VETERANS IN  
3 THOSE DAYS WAS BETWEEN 3 AND 5 PERCENT. THE MOST SUCCESSFUL  
4 PRODUCT THAT DANEK HAD EVER HAD AT 5 PERCENT ROYALTY. THEY  
5 AGREED TO PAY A 10 PERCENT ROYALTY ON THIS PRODUCT, AND TO  
6 USE BEST EFFORTS AVAILABLE.

7 Q DR. MICHELSON, LET'S TURN TO PX2338 AND PX0273 IN YOUR  
8 BINDER.

9 DO YOU SEE THOSE?

10 A I DO.

11 Q ARE THESE THE TWO LICENSES -- THE TWO AGREEMENTS THAT  
12 GAVE SOFAMOR DANEK PERMISSION TO USE YOUR LATERAL  
13 INSTRUMENTATION AND YOUR LATERAL IMPLANTS AND YOUR LATERAL  
14 APPROACH?

15 A CORRECT.

16 Q DR. MICHELSON, BACK TO THE SPINE TECH AT ISSUE. DID  
17 YOU DISCLOSE YOUR TRANSLATERAL IMPLANT TO SPINE TECH?

18 A I DID.

19 Q AND YOU DISCUSSED IT, I THINK, YOU SAID WITH  
20 DR. KUSLICH?

21 A I DID.

22 Q ABOUT WHEN?

23 A I KNOW WHEN IT WAS. IT WAS FEBRUARY OF 1994.

24 Q AND YOU WERE GIVEN AN EXPLANATION AS TO WHY SPINE TECH  
25 WAS NOT INTERESTED?

1 A YES.

2 Q WHAT WAS THE EXPLANATION?

3 A WELL, TO SPINE TECH'S CREDIT -- IT REALLY IS  
4 REMARKABLE -- THEY WERE RUNNING THREE INVESTIGATIONAL  
5 DEVICES, SIMULTANEOUSLY. EACH ONE OF THOSE COSTS MILLIONS  
6 OF DOLLARS. THEY'RE INCREDIBLY DIFFICULT TO DO.

7 THAT'S THE PROCESS BY WHICH THE FDA, THE FOOD AND  
8 DRUG ADMINISTRATION OF THE UNITED STATES, MAKES A  
9 MANUFACTURER GATHER CLINICAL INFORMATION TO THE PROVE THAT  
10 AN ALTOGETHER NEW DEVICE THAT'S NEVER EXISTED BEFORE IS SAFE  
11 AND EFFECTIVE FOR THE INTENDED PURPOSE.

12 AND DANEK WAS ACTUALLY OVERWHELMED DOING ONE, AND  
13 HERE'S SPINE TECH DOING THREE.

14 SO WHEN I APPROACHED STEVE KUSLICH, WHO WAS MY  
15 FRIEND AND LICENSEE AT THE TIME, I SAID, "STEVE, LET ME SHOW  
16 YOU THIS GREAT STUFF." HE GOT REAL EXITED. I SAID, "SO DO  
17 YOU THINK YOU CAN DO IT?"

18 HE THOUGHT ABOUT IT, AND HE WENT, "NO. NO. I  
19 CAN'T DO THAT."

20 AND HE GRABS THIS THING, THIS STACK OF PAPERS --  
21 IT'S A BINDER OF PAPERS, AND HE STARTS GOING THROUGH IT.  
22 IT'S NOTHING BUT DRAWINGS OF ALL THEIR IMPLANTS, TECHNICAL  
23 DRAWINGS, MACHINE DRAWINGS.

24 HE SAYS, "THIS IS WHAT WE HAD TO GIVE THE FDA TO  
25 GET PERMISSION TO USE THESE PARTICULAR IMPLANTS FOR OUR



1 STUDIES."

2 Q AND THOSE PARTICULAR IMPLANTS BEING WHAT?

3 A WELL, HE HAD 3 DIAMETERS -- I THINK THREE, BUT THOSE  
4 WERE THE ONES THAT WERE IN HIS STUDIES.

5 AND HE SAID, "I AM NOT GOING BACK TO THE FDA."

6 Q THOSE WERE TRANSLATERAL IMPLANTS?

7 A NO. THEY WERE FRONT TO BACK, SO THEY WERE ALL TOO  
8 SHORT.

9 Q NOW, DR. MICHELSON, DID SOFAMOR DANEK ACTUALLY MAKE,  
10 AFTER YOU SHOWED THEM THESE MATERIALS, YOUR TRANSLATERAL  
11 SET, IF YOU WILL?

12 A THEY DID.

13 Q NOW, I WANT TO SHIFT GEARS -- AND BY "TRANSLATERAL  
14 SET," I'M TALKING ABOUT INSTRUMENTATION AND THE GENERAL  
15 IMPLANT"?

16 A YES.

17 Q YOU KNOW THAT THEY MADE THAT AFTER YOU DISCLOSED IT IN  
18 EARLY '94, LATE '93?

19 A THAT IS CORRECT.

20 Q NOW, DR. MICHELSON, DID YOU PERSONALLY USE YOUR  
21 TRANSLATERAL APPROACH FOR PURPOSES OF SPINAL FUSION ON YOUR  
22 PATIENTS?

23 A NO.

24 Q AND BRIEFLY, DR. MICHELSON, WHY IS THAT?

25 A YES. AT THAT POINT, I WAS VERY, VERY SKILLFUL IN DOING

1 ANTERIOR APPROACHES. AND I WOULD HAVE HAD TO LEARN TO BE AS  
2 GOOD DOING THE TRANSLATERAL.

3 AND THE ISSUE IS REGULATORY. THAT DEVICE WAS  
4 NEVER APPROVED BY THE FOOD AND DRUG ADMINISTRATION TO USE ON  
5 A HUMAN BEING. THERE IS NO APPROVAL.

6 IN ALL THE YEARS THAT I INVENTED AND IN ALL THE  
7 YEARS I WAS A PHYSICIAN, I NEVER ONCE MADE SOMETHING THAT  
8 DIDN'T HAVE SOME APPROVAL FROM THE FDA OR AN EXEMPTION FROM  
9 THE FDA TO DO SO, AND PUT IT IN A HUMAN BEING. I DON'T  
10 THINK THAT'S THE RIGHT THING TO DO.

11 NOW, IF THERE'S A PHYSICIAN -- THIS IS THE TEST BY  
12 THE WAY. IF A PHYSICIAN CAN JUSTIFY IN HIS OWN MIND AND TO  
13 AN AUTHORITY, THAT THERE WAS A PATIENT IN A CIRCUMSTANCE  
14 THAT WAS SO UNUSUAL THAT IN HIS BEST BELIEF AS A PHYSICIAN  
15 WITH THE PATIENT'S BEST INTEREST AT HEART, HE DECIDED THAT  
16 NO CONVENTIONAL THERAPY WOULD BE AS GOOD AS HIS EXPERIMENTAL  
17 THERAPY, THEN HE'S LITERALLY ALLOWED TO WRITE A PRESCRIPTION  
18 TO A MANUFACTURER AND HAVE A ONE OFF IMPLANT MANUFACTURED.

19 Q DR. MICHELSON, HOW WERE YOU TRAINED AS A SURGEON?

20 A I ACTUALLY DID A FELLOWSHIP IN SPINAL SURGERY, WHICH  
21 WAS PRETTY UNUSUAL BACK THEN.

22 Q MY QUESTION IS WHAT WERE THE APPROACHES THAT YOU WERE  
23 TRAINED IN?

24 A ANTERIOR.

25 Q ANTERIOR. AND IS THAT APPROACH THAT YOU USED ON YOUR

1 PATIENTS?

2 A YES.

3 Q PUTTING THE APPROVAL ISSUE ASIDE, IS THAT SOMETHING  
4 THAT YOU COULD DO OVERNIGHT WITH RESPECT TO YOUR PATIENTS,  
5 SWITCHING FROM USING YOUR ANTERIOR APPROACH, IN WHICH YOU  
6 WERE TRAINED, THAT TO ALL OF A SUDDEN, DOING THE LATERAL?

7 A IN MY OWN CONSCIENCE, I WOULD NOT BE ABLE TO DO AS GOOD  
8 A JOB STARTING TO DO AN OPERATION I, ESSENTIALLY, HAD NEVER  
9 DONE BEFORE, AS I COULD DO AN OPERATION I'VE DONE HUNDRED OF  
10 TIMES.

11 Q ALL RIGHT. NOW, DR. MICHELSON, WERE YOU SATISFIED WITH  
12 THE SPEED AT WHICH SOFAMOR DANEK WAS ACTUALLY TRYING TO GET  
13 THE TRANSLATERAL TECHNOLOGY OUT TO -- YOU KNOW, TRYING TO  
14 GET THE SURGEON COMMUNITY TO ACCEPT IT AND USE IT?

15 A PICTURE A KID BEFORE CHRISTMAS. NO YESTERDAY WOULD  
16 HAVE BEEN THE RIGHT TIME. NO. I WANTED TO DO IT RIGHT  
17 AWAY. NOW, THERE WERE SOME VERY GOOD REASONS WHY THEY  
18 DIDN'T DO IT RIGHT AWAY. BUT LATER ON, I THINK THEY THAT  
19 JUST DETERIORATED TO THEM JUST NOT DOING IT.

20 Q NOW, DR. MICHELSON, WAS YOUR RELATIONSHIP WITH SOFAMOR  
21 DANEK FREE OF LEGAL DISPUTES?

22 A MY RELATIONSHIP WITH SOFAMOR DANEK WAS FABULOUS. LATER  
23 ON, THEY GOT BOUGHT. THEN THEY BECAME MEDTRONIC, AND THINGS  
24 STARTED TO CHANGE.

25 Q AT SOME POINT WERE THERE CLAIMS FILED BETWEEN YOU AND

1 MEDTRONIC SOFAMOR?

2 A INDEED, THERE WAS A LEGAL DISPUTE BETWEEN US.

3 Q WHAT HAPPENED?

4 A WELL, THE DISPUTE WAS RESOLVED IN THE CONTEXT OF A  
5 BUSINESS AGREEMENT THAT WE CAME TO IN 2005 THAT WE TALKED  
6 ABOUT YESTERDAY.

7 Q NOW, DID YOU WIN ALL OF YOUR CLAIMS?

8 A NO.

9 Q THEY WON SOME, YOU WON SOME?

10 A WELL, I DID NOT PREVAIL ON ALL MY CLAIMS. I'M PRETTY  
11 SURE ABOUT THAT.

12 Q AND YOU DID OBTAIN A JUDGMENT?

13 A I DID.

14 Q AND ALL OF THAT WAS RESOLVED AS PART OF THE BUSINESS  
15 RESOLUTION YOU DESCRIBED EARLIER?

16 A CORRECT.

17 Q DR. MICHELSON, ON THE SUBJECT OF DISPUTES, DID NUVASIVE  
18 EVER CONTACT YOU ABOUT GETTING A LICENSE TO YOUR TECHNOLOGY?

19 A YES.

20 Q DO YOU REMEMBER, ROUGHLY, WHEN THAT WAS?

21 A I ONLY HAVE ONE GUIDEPOST. AND I'M GOING TO SAY THAT I  
22 DO BELIEVE WITHIN SIX MONTHS PERHAPS, OR A YEAR, ONE WAY OR  
23 ANOTHER, I THINK IT WAS THE BEGINNING OF 2001.

24 Q ALL RIGHT. AND WHEN YOU SAY THE "GUIDEPOST," IT'S  
25 BECAUSE IN, ROUGHLY, MAY OR SO OF 2001, THE LEGAL DISPUTES

1 STARTED UP?

2 A CORRECT.

3 Q AND YOU HAVE A MEMORY THAT IT ALL CAME IN BEFORE THAT?

4 A THAT'S MY BEST RECOLLECTION.

5 Q NOW, WHO FROM NUVASIVE CALLED YOU?

6 A MR. LUKIANOV.

7 Q WHAT DID MR. LUKIANOV ASK YOU IN, ROUGHLY, EARLY 2001  
8 TIME FRAME?

9 A WELL, TO THE BEST OF MY MEMORY, HE WANTED TO KNOW IF  
10 THERE WOULD BE A LICENSE AVAILABLE FOR MINIMALLY INVASIVE  
11 LUMBAR INTERBODY FUSION.

12 Q DR. MICHELSON, WHAT DID YOU TELL HIM?

13 A I TOLD HIM THAT THERE WERE NOW THREE LICENSEES, AND  
14 THAT MY UNDERSTANDING OF THEIR AGREEMENTS ARE THAT THEY DID  
15 HAVE THE RIGHT TO SUBLICENSE. SO THAT HE COULD CONTACT THEM  
16 AND COME TO A BUSINESS ARRANGEMENT WITH THEM. HE COULD  
17 OBTAIN LICENSING RIGHTS TO MAKE WHATEVER HE LIKES.

18 Q DID HE RESPOND?

19 A HE THANKED ME FOR THE CALL, THANKED ME FOR THE  
20 INFORMATION.

21 Q DR. MICHELSON, I WANT TO TURN TO THE SUBJECT OF PLATES.  
22 I DON'T MEAN TO TRIVIALIZE YOUR PLATE TECHNOLOGY, BUT WE ARE  
23 RUNNING OUT OF TIME. AS HIS HONOR EXPLAINED TO EVERYBODY IN  
24 THE COURTROOM, WE ARE ON A CLOCK, WHICH I'M SURE THE JURY IS  
25 HAPPY ABOUT.

1 SO LET ME JUST GET TO THE PLATE ISSUE.

2 MR. DAUCHOT: CAN WE PUT THE DEMONSTRATIVE 15 UP.

3 BY MR. DAUCHOT:

4 Q AND DR. MICHELSON, CAN YOU FLIP TO PX0327 IN YOUR BOOK.

5 ALL RIGHT?

6 A 0327? I DON'T THINK I HAVE IT UNLESS I'M JUST NOT

7 FINDING IT. OH, YOU KNOW WHAT, WAIT. I'M SORRY. I HAVE

8 MORE BOOKS.

9 Q ALL RIGHT. NOW, DR. MICHELSON, PX327 IS WHAT, SIR?

10 A IT IS A UNITED STATES PATENT AND TRADEMARK

11 OFFICE-ISSUED PATENT ON CERVICAL PLATE TECHNOLOGY.

12 Q AND WHILE JUST FOR A HOUSEKEEPING MATTER, I'M GOING TO

13 HAND YOU --

14 MR. DAUCHOT: MIKE, CAN WE HAVE THE EXHIBITS?

15 BY MR. DAUCHOT:

16 Q WE'RE GOING TO DEAL WITH THIS HOUSEKEEPING. WHAT I'M

17 GOING TO HAND YOU, DR. MICHELSON, ARE WHAT I'VE MARKED

18 PLAINTIFFS' EXHIBIT 326 AND 327. THESE ARE THE SAME

19 VERSIONS OF OTHER COPIES OF THAT, THAT ARE ACTUALLY MARKED.

20 WHAT ARE THOSE TWO DOCUMENTS?

21 A THIS ONE, 327 --

22 Q SO PX327?

23 A PX327 CORRESPONDS TO THE ACTUAL ISSUED PATENT FOR '586,

24 WHICH IS A CERVICAL PLATING PATENT.

25 Q OKAY.

1 A AND PX326 IS THE ACTUAL PATENT AT ISSUE IN REGARD TO  
2 THAT '973 PATENT.

3 Q SO THOSE ARE THE ACTUAL ORIGINALS?

4 A YES.

5 Q ALL RIGHT. NOW, JUST FOR POINT OF CLARIFICATION, WHEN  
6 WE'RE REFERRING TO THE '973 AND THE '586 AND THE 933 AND THE  
7 236, DEALING WITH NUVASIVE'S PATENT, WHAT DO WE COME UP WITH  
8 THOSE LAST THREE DIGITS?

9 A THE PATENT OFFICE LAST MONTH JUST ISSUED 8 MILLION  
10 PATENTS. THE PATENT OFFICE WAS FOUND IN 1790. IT NOW JUST  
11 REACHED PATENT NUMBER 8 MILLION. SO WE DON'T BOTHER -- WHEN  
12 ARE PEOPLE -- ACTUALLY, ATTORNEYS. WHEN THEY REFER TO  
13 PATENTS, THEY ONLY GO 6, 592, '586. THEY USE THE LAST THREE  
14 NUMBERS, LIKE YOU CALL YOUR FRIEND BY HIS FIRST NAME.

15 Q DR. MICHELSON, AS WE'RE LOOKING AT THE '586 PATENT, CAN  
16 YOU BRIEFLY TELL US WHAT THAT PATENT IS ABOUT?

17 A YES. FIRST LET ME SAY SOMETHING SINCE IT'S SLIGHTLY  
18 CONFUSING. YOU CAN PUT A LOT OF INVENTIONS INTO ONE PATENT.  
19 AND THE REASON YOU CAN THAT IS THEY HAVE TO BE BOUND  
20 TOGETHER BY SOMETHING THAT ALLOWS YOU TO DO THAT.

21 SO ACTUALLY, THIS SUBMISSION OF THIS SPECIFICATION  
22 HAS ALREADY RESULTED IN 20 PATENTS ISSUED. SO THERE WERE AT  
23 LEAST 20 DIFFERENT INVENTIONS IN HERE. THERE'S SEVEN MORE  
24 IN THE PROCESS RIGHT NOW. SO THERE'S A LOT OF STUFF IN  
25 HERE.

1           BUT IT ALL RELATES TO CERVICAL PLATES, JUST A BAND  
2 OF METAL, STRAP METAL LIKE PIECE OF BELT MADE OUT OF METAL  
3 THAT YOU LAY ONTO THE FRONT OF THE VERTEBRAE IN THE CERVICAL  
4 SPINE TO PUT SCREWS THROUGH TO LOCK THOSE VERTEBRAE TOGETHER  
5 WHILE YOU'RE TRYING TO GET THE FUSION.

6 Q       NOW, YOU WERE FAMILIAR WITH PLATES OUT THERE ON THE  
7 MARKET BEFORE?

8 A       YES.

9 Q       WHY DID YOU DECIDE THAT WHAT WAS OUT THERE IN THE  
10 MARKET NEEDED IMPROVEMENT?

11 A       LOTS AND LOTS OF PEOPLE HAD CERVICAL PLATES BEFORE  
12 GARY. I DID NOT INVENT CERVICAL PLATES. THE PROBLEM WAS  
13 THERE WERE TWO PLATES AT THE TIME THAT ALL THE DOCTORS WERE  
14 USING.

15           ONE OF THEM WAS CALLED SYNTHES.

16           THE WITNESS: CAN WE PERHAPS BRING UP THE CHART?

17           CAN I TALK A LITTLE BIT ABOUT THIS? I KNOW. TIME IS  
18 ON THE CLOCK.

19           JUST SO THE JURY UNDERSTANDS. THESE TWO SCREWS  
20 WOULD GO INTO ONE VERTEBRAL BODY, WOULD LAY ACROSS THE FRONT  
21 OF THE SPINE, AND THESE TWO SCREWS COULD GO INTO A DIFFERENT  
22 VERTEBRAL BODY.

23           NOW, WHAT I'D LIKE YOU TO SEE IS THAT THE SCREW  
24 ITSELF IS COMPLETELY HOLLOW AT ITS NECK. AND IF YOU COULD  
25 PICTURE A DIVING BOARD, WHERE ONE END IS BOLTED AND THE



1 OTHER END IS GOING LIKE THIS.

2           SCREWS BREAK, AND WHERE THEY BREAK IS RIGHT WHERE  
3 THEY CONNECT TO THE PLATE. AND YOU SAY, WELL, HOW CAN A  
4 SCREW BREAK? WELL, IF YOU WERE TO TAKE A WIRE HANGER AND  
5 PULL IT, YOU COULD NOT BREAK IT. THERE'S NOBODY HERE STRONG  
6 ENOUGH TO DO IT.

7           IF YOU TOOK THAT HANGER AND JUST WENT LIKE THIS A  
8 FEW TIMES, IT WOULD BREAK APART IN YOUR HANDS BECAUSE THE  
9 MATERIAL FATIGUES.

10           WHEN YOU PERFORATE AND THAT SCREW IN LIKE THAT,  
11 IT'S PROFOUNDLY WEAK. SO ONE OF THE PROBLEMS WITH THIS  
12 PLATE SYSTEM WAS, THE SCREWS WOULD LITERALLY -- FROM THE  
13 PATIENT BREATHING AND MOVING WOULD JUST BREAK OFF.

14           THE NEXT PROBLEM WAS THAT CERVICAL PLATE SCREWS  
15 TEND TO BACK OUT, AND WHEN THEY DO, THEY GO THROUGH THE  
16 ESOPHAGUS. AND THAT IS NOT GOOD.

17           SO ALL THE MANUFACTURERS BY THIS POINT IN TIME HAD  
18 RECOGNIZED THE NEED TO TRY TO LOCK THE SCREW TO THE PLATE SO  
19 IT WOULD NOT BACK OUT.

20           NOW, THIS LOCK IS THIS TINY, TINY LITTLE SCREW  
21 THAT ACTUALLY LOOKS BIGGER THERE. IF I SHOWED YOU ONE,  
22 YOU'D GO THAT CAME OUT LIKE A WRISTWATCH. IT'S  
23 MICROSCOPICALLY SMALL.

24           AND THERE WAS A REAL PROBLEM OF HOLDING ONTO THE  
25 SCREW AND GETTING IT THERE AND TRYING TO GET IT IN. AND

1 THEY FALL OFF IN THE PATIENT'S NECK. YOU'D HAVE TO GET AN  
2 X-RAY MACHINE AND SPEND 45 MINUTES TO AN HOUR LOOKING AROUND  
3 UNDERNEATH ALL THE STRUCTURES TO FIND THIS LITTLE SCREW AND  
4 TAKE IT BACK OUT AGAIN.

5 NOW, WHAT WAS WORSE WAS, THIS PLATE IS ALMOST FLAT  
6 IN THIS PLANE. BUT THE VERTEBRAE THEMSELVES HAD AN ARC  
7 RADIUS THE SIZE OF A QUARTER, HAD A 25 MILLIMETER ARC. SO  
8 THE PLATE WOULD KIND OF SIT THERE AND ROCK.

9 SO THE SCREWS WHEN YOU PUT THEM IN WERE ACTUALLY  
10 IN DANGER OF WINDING THE TISSUES UP IN THE CORNER BETWEEN  
11 THE CURB AND THE STRAIGHT PLATE. SO IF YOU TOOK THE PLATE  
12 AND TRIED TO BEND IT, WHERE DO YOU THINK IT'S GOING TO BEND?  
13 WELL, IT'S GOES TO BEND RIGHT THROUGH THE HOLES, AND THAT'S  
14 THE WEAKEST PLACE.

15 NOW, WHEN YOU'RE TRYING TO PUT THE SCREW IN, THE  
16 SCREW WOULDN'T GO ALL THE WAY DOWN. SO NOW YOU HAVE THE  
17 SHARP FOUR CORNERS OF THIS SCREW HERE STICKING UP ABOVE THE  
18 PLATE. AND EVEN IF YOU WERE LUCKY ENOUGH TO GET THE SCREW  
19 IN, GET THE OTHER SCREW IN, AND START TIGHTENING IT, IF THE  
20 SCREW HAD NOT GONE DOWN THE HOLE ABSOLUTELY PERFECTLY -- A  
21 WORD YOU WILL HEAR IS "COAX." IT MEANS DOWN THE MIDDLE --  
22 IF IT DID NOT DO THAT, WHEN YOUR TIGHTEN THE LITTLE SCREW,  
23 THE BIG ONE POPPED OUT. SO THIS SYSTEM HAD LOTS OF  
24 PROBLEMS.

25 ALONG CAME SOFAMOR DANEK, A COMPANY YOU'RE HEARD

1 ABOUT, AND THEY SAW AN OPPORTUNITY TO IMPROVE ON THEIR  
2 PLATE. AND THEY DID, BECAUSE THEY TOOK AWAY A HUGE MARKET  
3 SHARE FROM THIS PRODUCT.

4 AND HERE'S WHAT THEY CAME UP WITH. NOW, WHAT'S  
5 INTERESTING ABOUT THIS PRODUCT -- IT'S CALLED THE ORION  
6 PLATE. AND IN MANY WAYS, IT WAS BETTER.

7 BUT YOU SEE THIS LITTLE THING HERE, THAT IS THE  
8 LOCK. AND THE PROBLEM THEY HAD -- YOU SEE THE SCREWS HAD A  
9 BIG HOLE -- A BIG HOLE AND THEN ANOTHER HOLE IN BETWEEN.  
10 GUESS WHERE THAT PLATE IS GOING TO BREAK? YOU LINE UP THE  
11 HOLE, IT TEARS RIGHT OUT.

12 SO THIS PLATE HAD A BIG PROBLEM. AND ORIGINALLY,  
13 THAT HOLE WAS MUCH, MUCH BIGGER, BECAUSE THE SCREW IS HUGE.  
14 AND THEY DECIDED TO MAKE THE LITTLE HOLE SMALLER AND SMALLER  
15 AND SMALLER TO NOT WEAKEN THE PLATE.

16 SO WHAT HAPPENED IS, YOU HAVE A HUGE HEAD, A SMALL  
17 HOLE, AND WHEN THE DOCTOR WOULD TURN THE HEAD, HE'D RIP THE  
18 HEAD OFF THE LITTLE SCREW.

19 NOW, THE SHAFT OF THE LITTLE SCREW IS STUCK IN A  
20 PLATE, THE BIG THING WAS BROKEN OFF, AND YOU COULDN'T LOCK  
21 THE SCREWS.

22 BUT EVEN IF THINGS WENT WELL, YOU COULD NEVER LOCK  
23 THE CENTER. SO IF YOU BELIEVED THAT THE SCREWS SHOULD BE  
24 LOCKED, THEN WHERE ARE THESE LOCKS? THEY'RE MISSING.

25 THE NEXT PROBLEM IS LOOK HOW STRAIGHT THIS PLATE

1 IS. THE SPINE IS CURVING LIKE THIS, AS WELL AS LIKE THIS,  
2 AND AGAIN YOU ARE BACK INTO THE BENDING THING.

3 AND LAST, BUT NOT LEAST -- TWO THINGS. NOTICE HOW  
4 THESE SCREWS ARE ACTUALLY FLARING OUT AWAY FROM THE PLATE.  
5 THE PROBLEM IS THE VERTEBRAE THERE ARE VERY, VERY SMALL.  
6 AND WHEN YOU PUT THIS PLATE ON, THERE WAS A TENDENCY FOR  
7 THIS SCREW TO GO THROUGH THE TOP OF THE VERTEBRAE INTO THE  
8 DISC ABOVE AND THE DISC BELOW, AND ACTUALLY GREW IN THE  
9 DISC.

10 FINALLY, LOOK AT THIS SCREW. THERE'S SOMETHING  
11 VERY INTERESTING GOING ON. THERE ARE THREADS AT THE BOTTOM,  
12 BUT AS YOU GO UP, THE THREADS START TO DISAPPEAR.

13 AND IT TURNS OUT THAT A VERTEBRAE HAS CANCELLOUS  
14 BONE ALL THE WAY UP TO THE TOP, AND THEN IT'S GOT THE BEST  
15 BONE THERE IS, WHICH IS THAT OUTER CASING BONE.

16 AND THIS SCREW DID NOT HAVE A THREAD WHERE THE  
17 VERY BEST BONE WAS. SO WHAT HAPPENS IS WHEN THE SURGEON  
18 TIGHTENS IT, HE DOES NOT SEE THE SCREW INSIDE. HE'S WAITING  
19 TO FEEL THAT RESISTANCE TO KNOW THAT IT'S TIGHT. BECAUSE  
20 THE PLATE IS LYING THERE. IT'S A DECORATION. IT'S NOT  
21 STABILIZING ANYTHING.

22 BUT AS HE WAS TRYING TO TIGHTEN IT, HE'S WAITING  
23 TO FEEL THAT PROGRESSIVE RESISTANCE. THERE WASN'T ANY. AND  
24 SO THESE SCREWS HAD A VERY HIGH STRIP RATE WHERE YOU STRIP  
25 IT. NOW THE SCREW IS GOING TO BE NOTHING.

1 SO THOSE WERE THE PROBLEMS WITH THE ART AT THAT  
2 TIME.

3 Q ALL RIGHT. DR. MICHELSON, I'M GOING TO SHOW YOU PX717.

4 MR. DAUCHOT: AND YOUR HONOR, AT SOME POINT, IS IT  
5 BE OKAY TO HAND IT TO THE JURY FOR THE JURY TO OBSERVE?

6 THE COURT: YEAH, I THINK SO.

7 BY MR. DAUCHOT:

8 Q NOW, I HANDED YOU PX717. CAN YOU, AGAIN, BECAUSE WE'RE  
9 GOING TO BE RUNNING OUT OF TIME HERE.

10 THE WITNESS: CAN YOU PUT IT UP.

11 BY MR. DAUCHOT:

12 Q WHAT IS THIS?

13 A COULD YOU PUT THIS UP THERE SO THE JURY CAN SEE IT?

14 Q ON THE ELMO.

15 MR. DAUCHOT: YOUR HONOR, IS IT OKAY IF --

16 THE WITNESS: YOU DON'T HAVE A PICTURE? IT'S A  
17 PATENT.

18 MR. DAUCHOT: DO YOU HAVE A PICTURE OF THE PATENT?

19 THE WITNESS: WHY DON'T WE JUST TAKE --

20 MR. DAUCHOT: IS THAT IT?

21 THE WITNESS: -- FIGURE 43. THAT'S FINE. THE ONE  
22 HE'S GOT IS FINE. ABSOLUTELY, FINE.

23 SO I TOLD YOU WHAT THE PROBLEMS WERE THAT NEEDED  
24 SOLVING. SO LET'S SEE WHAT HAPPENS NOW. SO LOOK AT THIS  
25 SCREW. AND ANYBODY WOULD SAY THERE IS NO NEW SCREW TO GET

1 INVENTED.

2 YOU GO TO THE HARDWARE STORE, EVERY SCREW THAT EVER  
3 WAS NEEDED HAD BEEN INVENTED. BUT, NO, THIS SCREW LOOKS A  
4 LOT LIKE A GOLF TEE. WHY? BECAUSE THE SCREWS NEVER, EVER  
5 BREAK. THE TIPS ARE DOWN HERE, SO WHY NOT MAKE THE THREADS  
6 AS BIG AS YOU POSSIBLY CAN. BUT NOTICE, NO BIGGER THAN THE  
7 REST OF THE THREADS.

8 SO WHAT'S HAPPENING IS THE DIAMETER THAT YOU NEED TO  
9 PUT THE SCREW IN IS STAYING CONSTANT. BUT AS YOU GO DOWN,  
10 THE SWEAT THREAD AREA IS GETTING BIGGER AND BIGGER. WHY?  
11 BECAUSE THE SCREW IS 400 TIMES STRONGER THAN A CANCELLOUS  
12 BONE.

13 YOU DON'T NEED FOR THAT THREAD TO BE THICK. YOU NEED  
14 FOR IT TO BE THIN. AND WHAT YOU NEED TO DO, THE WEAK SIDE  
15 OF THE EQUATION, WHEN YOU PUT IT ON METAL, BECAUSE THE BONE,  
16 YOU NEED TO PRESERVE ALL OF THAT BONE THAT YOU CAN AND GET  
17 AS GOOD A BITE AS YOU CAN TO MAKE THAT SCREW STAY IN.

18 SO IN SOMEBODY WHO IS YOUNG AND HEALTHY, ANY OF THESE  
19 SCREWS WILL WORK. BUT WHEN YOU GET THE PEOPLE WHO ARE IN  
20 THEIR 60S OR 70S OR WHATEVER, AND YOU TAKE ONE OF THESE  
21 OTHER THAT WERE OUT THERE, AND YOU TIGHTEN IT, THEY ALL  
22 STRIP. SO THIS WAS A VERY RESISTANT-STRIPPING SCREW.

23 NOW, IT ALSO IS TRUE THAT IN THAT SYNTHES SET I SHOWED  
24 YOU, THAT YOU HAD TO TAKE A VERY, VERY SHARP INSTRUMENT THAT  
25 WAS A SHARP THREAD, LIKE THIS ONE WAS, AND KIND OF PUT THAT

1 IN, TAKE IT OUT, AND THEN PUT THE SCREW IN.

2 AND THEY CALLED THAT A "TAP." THESE SCREWS ARE  
3 SELF-TAPPING. THEY HAVE THIS LITTLE END THAT BITES IN AND  
4 PULLS THE SCREW RIGHT IN WITHOUT HAVING TO MAKE A SPECIAL  
5 HOLE. I DIDN'T HAVE TO DRILL A HOLE FOR THIS SCREW.

6 NOW, I'D LIKE YOU TO SEE THIS PLATE CUT RIGHT THROUGH  
7 THE MIDDLE, AND YOU ARE LOOKING AT IT. I WANT YOU TO SEE  
8 SOME INTERESTING THINGS. YOU REMEMBER WHEN I SHOWED YOU  
9 THAT ORION PLATE THAT THAT LOCK WAS SITTING UP IN THE AIR ON  
10 TOP OF THE OTHER.

11 AND WHEN YOU SAW THE SYNTHES THING, IT HAD THIS FOUR  
12 PRONGS STICKING OUT WITH A SCREW. LOOK HOW FLUSH THE TOP OF  
13 THIS THING IS. YOU SEE THE PARTS WHERE IT'S ABSOLUTELY  
14 SMOOTH ACROSS THE TOP, AND IT'S REMARKABLY THIN, LOW  
15 PROFILE.

16 Q IF I CAN JUST INTERRUPT ONE MOMENT HERE.

17 IN TERMS OF THE LOCKING MECHANISM, IF WE CAN JUST  
18 GET TO THE LOCKING MECHANISM.

19 A YES. OKAY. WELL, YOU KNOW WHAT? LET'S PASS THIS  
20 AROUND, IF IT'S OKAY WITH HIS HONOR, SO THEY CAN LOOK AT  
21 THIS. AND THEN HAVE THEM TELL ME WHAT THE LOCK IS.

22 MR. DAUCHOT: NO. NO.

23 THE WITNESS: THE ANSWER IS WHEN YOU LOOK AT THIS,  
24 YOU'LL THINK THAT THE SCREWS ARE PART OF THE PLATE. YOU  
25 CAN'T SEE ANYTHING. THERE IS NOTHING TO SEE. IT LOOKS

1 LIKE SOMEHOW THE SCREW IS WELDED TO THE PLATE. THAT'S HOW  
2 SOLID IT IS.

3 SO WE TALKED EARLIER, THOUGH -- IF YOU WANT TO LOCK A  
4 SCREW TO A PLATE TO KEEP IT FROM BACKING OUT. BUT YOU CAN  
5 DO MUCH BETTER THAN THAT. SO TRY TO MOVE THOSE SCREWS  
6 AROUND. THEY DON'T MOVE. THEY'RE RIGID.

7 NOW, PLATES BEFORE THAT --

8 BY MR. DAUCHOT:

9 Q DR. MICHELSON --

10 A OH, I'M SORRY. TIME.

11 Q I DON'T --

12 A I STOP. I'M ENTHUSIASTIC. I STOP.

13 Q THAT'S ALL RIGHT.

14 I WANT TO FOCUS ON ONE THING IN PARTICULAR, AND  
15 THAT IS THE LOCKING MECHANISM. THE SYNTHES MECHANISM THAT  
16 WE WATCHED, YOU ACTUALLY HAD THE WATCHMAKER PART PUT ON TOP,  
17 RIGHT?

18 A YES.

19 Q AND THEN WE HAD THE OTHER THING THAT WE SAW FROM  
20 SOFAMOR DANEK, RIGHT?

21 A YES.

22 Q THAT THING ON THE SIDE?

23 A YES.

24 Q CAN YOU BRIEFLY EXPLAIN TO US WHAT WAS UNIQUE ABOUT THE  
25 LOCKING MECHANISM THAT YOU DEVELOPED FOR THE SINGLE LOCK.



1 IN ADDITION TO THE CURVATURE, THE DIFFERENT SCREWS THAT YOU  
2 JUST DESCRIBED FOR US, AND THE INWARD ANGLE OF THE SCREWS.

3 A LET ME REPEAT SOMETHING YOU SAID. THE PLATE ITSELF IS  
4 DRAMATICALLY AND SUBSTANTIALLY DIFFERENT THAN ANY CERVICAL  
5 PLATE THAT EVER EXISTED BEFORE. THE SCREWS ARE DRAMATICALLY  
6 DIFFERENT, AND NOW THE LOCK.

7 THE WITNESS: I WOULD LIKE SOMEBODY TO PUT UP  
8 SHEET 18 TO 20.

9 BY MR. DAUCHOT:

10 Q DR. MICHELSON?

11 A YES.

12 Q OKAY. EIGHTEEN TO 20.

13 A YEAH. I'M GOING TO ANSWER YOUR QUESTION, I PROMISE.

14 Q ALL RIGHT.

15 A OKAY. SO THIS LOCK LOOKS LIKE A DOUGHNUT. SOME PEOPLE  
16 CALL IT A "MANHOLE COVER." I DON'T LIKE THAT. MANHOLE  
17 COVERS DON'T HAVE A BIG HOLE IN THE MIDDLE. IT LOOKS LIKE A  
18 DOUGHNUT.

19 AND THE BEAUTY OF THIS LOCK, WHICH IS BEING HELD  
20 BY A SPECIAL DRIVER RIGHT NOW, IS THE SCREW AND THE LOCK  
21 GETS SCREWED IN AT THE SAME TIME THAT THIS DOUBLE  
22 SCREWDRIVER ACTUALLY HOLDS THE LITTLE LOCK. YOU SCREW DOWN  
23 THE SCREW, AND THEN THE LOCK COMES DOWN AND LOCKS OVER IT.  
24 IT LOCKS OVER IT BY GOING INTO THE HOLE ITSELF, WHAT WE CALL  
25 "CONSENT," IT FITS IN THE HOLE, THE SAME WHERE THE HOLE

1 GOES, AND IT COVERS A PORTION OF THE HEAD, OR THE TRAILING  
2 END, IF YOU WISH, OF THIS SCREW, THAT IF YOU LOOK AT IT, IT  
3 DOESN'T LOOK LIKE ANY SCREW YOU'VE EVER SEEN BEFORE.

4 THIS DESIGN NEVER EXISTED BEFORE, WITH THIS WIDE  
5 RIM, THIS FLAT LITTLE TOP, TO COMPLEMENT -- TO COOPERATE  
6 WITH BOTH THE PLATE AND THE LOCK.

7 Q DR. MICHELSON, TWO THINGS IN PARTICULAR. ONE THING,  
8 WHEN THE JURORS ARE LOOKING AT THE PLATE, YOU SEE THE SCREWS  
9 GOING INWARD, AS OPPOSED TO FLARING OUT LIKE THE ORION,  
10 FORTY-FIVE SECONDS, CAN YOU EXPLAIN TO US WHY THAT WAS  
11 IMPORTANT?

12 A YES. SO AS RIGID AS THOSE SCREWS ARE, IF I TOOK THE  
13 CAP OFF AND DROPPED ONE OUT AND DROPPED IN AN ORDINARY, THE  
14 SCREW WOULD WIGGLE ALL AROUND. YOU COULD PUT IT ANYWHERE  
15 YOU WANTED, BUT IT WOULDN'T BE RIGID. WE CALL THAT  
16 "VARIABLE ANGLE." SO THE ADVANTAGE IS YOU PUT IT WHEREVER  
17 YOU WANT. BUT THIS ADVANTAGE, IT'S NOT REALLY FIXED.

18 SO THIS CAP WILL LOCK THAT SCREW SO IT CAN'T BACK  
19 OUT. BUT MORE IMPORTANTLY, THIS CAP AND THIS SCREW AND THIS  
20 PLATE WORKING TOGETHER CAN RIGIDLY FIX THE SCREWS LIKE THIS.

21 AND I DID EXPERIMENTS AND THE WRIGHT MEDICAL DID  
22 EXPERIMENTS, AND WHAT WE FOUND OUT WAS YOU CAN STRIP THESE  
23 SCREWS. PUT IN BLANKS, PUT IN PIECES OF METAL THAT NEVER  
24 HAD BEEN MACHINED. THERE WERE NO THREADS.

25 YOU COULD NOT REMOVE THE PLATE FROM THE SPINE.

1 BECAUSE WHEN THE TWO PIECES CAME TOGETHER LIKE THIS, THEY  
2 TRAPPED ALL THE BONE THAT WAS INSIDE, AND WITH NO THREADS AT  
3 ALL, THE PLATE WAS UNREMOVABLE.

4 Q DR. MICHELSON, ONE LAST EXHIBIT, PX0841 IN YOUR BINDER.

5 MR. DAUCHOT: DAVE, CAN YOU PUT THAT UP, PLEASE.

6 BY MR. DAUCHOT:

7 Q NOW, THAT IS A DOCUMENT THAT WE CALL A "CONCEPTION  
8 DOCUMENT," DR. MICHELSON. WHAT'S THE DATE OF THE DOCUMENT.

9 MR. DAUCHOT: DAVE, CAN YOU BLOW THAT UP.

10 THE WITNESS: SEPTEMBER 14TH, 1994.

11 BY MR. DAUCHOT:

12 Q OKAY. NOW, WERE THESE DRAWINGS THAT YOU CREATED ON OR  
13 ABOUT THE TIME THAT YOU CONCEIVED THIS INVENTION?

14 A YES.

15 Q I QUICKLY WANT TO WALK THROUGH. ON THE FRONT PAGE, THE  
16 FIRST PAGE, WE'RE LOOKING AT A TYPE OF LOCK. YOU TALKED  
17 ABOUT THE DOUGHNUT LOCK. THAT'S ONE VERSION OF THE  
18 DOUGHNUT-TYPE LOCK?

19 A YES.

20 Q COULD YOU BRIEFLY DESCRIBE FOR US WHY THAT IS ONE  
21 VERSION OF THE DOUGHNUT-TYPE LOCK THAT YOU CLAIM IN '586?

22 A I'M SORRY. WHAT WAS THE QUESTION?

23 Q CAN YOU BRIEFLY EXPLAIN WHY THAT'S A VERSION OF THE  
24 DOUGHNUT LOCK IN YOUR '586 --

25 A YES. THE LOCKING MECHANISM IS SIMPLY IS A DOUGHNUT.

1 IT COMES DOWN AND LOCKS. I WOULD LIKE TO SAY THIS: IT CAN  
2 EITHER LOCK TO THE PLATE ITSELF SO THE SCREW CAN WIGGLE, OR  
3 IT CAN LOCK TO THE SCREW SO THE SCREW CANNOT MOVE.

4 Q DR. MICHELSON, CAN YOU GO TO PAGE 3.

5 A PAGE 3, YES.

6 Q OF YOUR CONCEPTION DOCUMENT.

7 A YES, SIR.

8 Q IS THIS ANOTHER VERSION OF THE LOCK THAT YOU CONCEIVED  
9 AND IS PART OF YOUR '586?

10 A YES.

11 Q HOW IS THIS DIFFERENT?

12 A CAN WE MAGNIFY THE UPPER LEFT-HAND CORNER SOMEHOW?  
13 WHAT'S HAPPENED HERE -- I SHOOT MYSELF IN THE EYE. OKAY.  
14 WHAT'S HAPPENED HERE IS THIS PLATE, THE RIM OF IT HAS BEEN  
15 UNDERCUT AND A FLANGE HAS BEEN MACHINED. AND THIS FLANGE IS  
16 NOW OPERATING AS IF IT WERE A SPRING.

17 SO WHEN THE MANUFACTURER WOULD MAKE THIS PLATE, HE  
18 WOULD BEND THAT IN SO IT PROTRUDED INTO THE OPENING. WHEN  
19 THE SCREW CAME DOWN, SO LONG AS THE NECK OF THE SCREW WAS  
20 FUNNELIZED, IT WOULD PUSH THE SPRING BACKWARDS, AND AS SOON  
21 AS IT GOT PAST IT, THAT'S TERRET-HEADED SCREW I SHOWED YOU,  
22 THE SPRING WOULD LOCK IN THE HOLE OVER THE TOP OF THE SCREW.

23 Q SO AGAIN, WE HAVE A SURFACE THAT POPS ON OVER THE  
24 SCREW?

25 A RIGHT. SO THE SPRING IS OPENED UP FIRST, AND THEN IT

1 FLIPS BACK AND LOCKS THE SCREW IN.

2 Q RIGHT, DR. MICHELSON, ONE MOMENT.

3 A CAN I ADD SOMETHING TO YOU? WOULD THAT BE OKAY? GIVE  
4 ME 12 SECONDS.

5 Q YOU'RE CUTTING INTO MY CLOSING ARGUMENT.

6 A AS I SAID TO THE JURY, THERE'S 20 INVENTIONS IN HERE  
7 ALREADY. BUT THESE OTHER LOCKS ARE IMPORTANT. SO ONE OF  
8 THE LOCKS WE TEACH BEYOND THIS IS A FLEXIBLE-FLANGE LOCK.  
9 AND IT'S MADE TO BEND.

10 AND ONE OF THE OTHER THINGS WE TEACH THIS PATENT  
11 IS A LOCK THAT'S INSTALLED EVEN BEFORE YOU PUT THE SCREWS  
12 IN. SO THAT'S AN EXAMPLE OF THAT.

13 SO YOU CAN HAVE A LOCK IN BEFORE THE SCREWS GOES  
14 IN.

15 THAT'S IT. I'M DONE.

16 MR. DAUCHOT: THANK YOU, DR. MICHELSON.

17 THE COURT: MR. SCHERKENBACH, YOU DON'T HAVE ANY  
18 QUESTIONS, DO YOU?

19 MR. SCHERKENBACH: NOT NEARLY AS MANY, WE'LL PUT  
20 IT THAT WAY.

21 THE COURT: ALL RIGHT. CROSS EXAM?

22 MR. SCHERKENBACH: SHALL WE BEGIN?

23 WOULD YOU LIKE ONE AS WELL?

24 THE COURT: YES, IF YOU CAN HAND IT UP.

25 GREAT. THANKS.

1  
2 IN THE UNITED STATES DISTRICT COURT  
3 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
4 HONORABLE MICHAEL M. ANELLO, DISTRICT JUDGE  
5

6 \_\_\_\_\_ )  
7 MEDTRONIC SOFAMOR DANEK, USA ) CASE NO. 08 CV 1512-MMA  
ET AL., )  
8 )  
PLAINTIFF, )  
9 )  
VS. ) AUGUST 31, 2011  
10 )  
NUVASIVE, INC., ) WEDNESDAY, 9:00 AM  
11 )  
DEFENDANT. ) TRIAL - DAY TWO  
12 \_\_\_\_\_ )

13  
14 REPORTER'S TRANSCRIPT OF PROCEEDINGS  
15

16 APPEARANCES:

17 FOR THE PLAINTIFF: LUKE L. DAUCHOT, ESQ.  
18 NIMALKA WICKRAMASEKERA, ESQ.  
19 SHARRE LOTFOLLAHI, ESQ.  
ALEXANDER F. MACKINNON, ESQ.  
MICHAEL DOBSZEWICZ, ESQ.  
KIRKLAND & ELLIS, LLP

20 JEFF SCHWARTZ, ESQ.  
21 DEWEY & LEBOEUF

22 FOR THE DEFENDANT: FRANK SCHERKENBACH, ESQ.  
23 TODD G. MILLER, ESQ.  
JONATHAN J. LAMBERSON, ESQ.  
24 NEIL WARREN, ESQ.  
KEELEY I. VEGA, ESQ.  
25 FISH & RICHARDSON, P.C.

## 1 CROSS-EXAMINATION

2 BY MR. SCHERKENBACH:

3 Q ALL RIGHT. SO HELLO AGAIN.

4 A GOOD MORNING.

5 Q NICE TO SEE YOU.

6 WE MET BEFORE IN THE CONTEXT OF YOUR DEPOSITION IN  
7 THIS CASE, RIGHT?

8 A THAT IS CORRECT.

9 Q I WANT TO TALK, FIRST OF ALL, ABOUT YOUR EXPERIENCE A  
10 LITTLE BIT AS A SURGEON.11 OBVIOUSLY, ON DIRECT EXAMINATION, YOU SPENT A LONG  
12 TIME DESCRIBING TO THE JURY THE ADVANTAGES OF YOUR  
13 TRANSLATERAL IMPLANT, RIGHT?

14 A YES.

15 Q OKAY. BUT YOU HAVE ACTUALLY NEVER DONE, YOURSELF, A  
16 DIRECT LATERAL FUSION USING ANY KIND OF IMPLANT ON A HUMAN  
17 PATIENT, RIGHT?

18 A THAT IS CORRECT.

19 Q I BELIEVE YOU SAID TOWARD THE END OF YOUR EXAMINATION  
20 HERE THAT ONE OF THE REASONS WAS BECAUSE OF SOMETHING TO DO  
21 WITH FDA APPROVAL, IS THAT RIGHT?

22 A THAT'S CORRECT.

23 Q THE FDA DOESN'T REGULATE THE PRACTICE OF MEDICINE,  
24 RIGHT?

25 A IT'S ALMOST RIGHT, EXCEPT THAT NO DOCTOR CAN WORK

1 OUTSIDE THE HOSPITAL DUTIES. AND THEY HAVE WHAT IS CALLED  
2 "UTILIZATION REVIEW." NO HOSPITAL I WORKED AT WILL LET YOU  
3 DO SOMETHING THAT'S OFF LABEL IN THE WAY OF A MEDICAL DEVICE  
4 IN WITHOUT SOME APPROVAL. YOU ARE NOT SUPPOSED TO DO THAT.  
5 Q YOU PRACTICED SURGERY -- YOU STARTED IN, WHAT, '75?  
6 A YES.  
7 Q AND YOU STOPPED IN 2001?  
8 A THAT'S CORRECT.  
9 Q TWENTY-SIX YEARS, YOU DID SURGERY?  
10 A YES.  
11 Q AND IN THAT ENTIRE TIME, YOU NEVER DID A DIRECT LATERAL  
12 FUSION ON A LIVE PATIENT, RIGHT?  
13 A THAT IS CORRECT.  
14 Q NOW, YOU DID DO ONE DIRECT LATERAL PROCEDURE, AS I  
15 UNDERSTAND IT, ON A CADAVER ON ONE OCCASION?  
16 A RIGHT, THAT'S CORRECT.  
17 Q AND THAT WAS IN THE 1995 OR 1996 TIME FRAME, TRUE?  
18 A I DO THINK IT WAS ON OR ABOUT 1995, YES.  
19 Q ALL RIGHT. AND YOUR EXPERIMENT ON THAT CADAVER WAS NOT  
20 A PLEASANT ONE, WAS IT?  
21 A I AGREE WITH THAT.  
22 Q SMELLED BAD?  
23 A IT DID.  
24 Q THEY'RE SLIPPERY?  
25 A IT WAS.



1 Q THE TISSUE IS MUSHY?

2 A IT WAS.

3 Q AS YOU PUT IT IN DEPOSITION, IT'S NOTHING LIKE A REAL  
4 PATIENT, RIGHT?

5 A I AGREE WITH THAT.

6 Q SO WHAT YOU GOT OUT OF WORKING ON A CADAVER WAS TO  
7 CONVINCING YOURSELF NOT TO DO THAT ANYMORE, RIGHT?

8 A THAT IS CORRECT.

9 Q YOU PREFERRED TO TRY YOUR PROCEDURES ON AN ANATOMY  
10 MODELS, RIGHT?

11 A ABSOLUTELY.

12 Q THEY'RE DRY AND THEY'RE CLEAN AND YOU PUT THEM IN A  
13 VICE, RIGHT?

14 A ABSOLUTELY.

15 Q AND IT'S MUCH EASIER TO SEE WHAT YOU'RE DOING WHEN YOU  
16 ARE WORKING ON A MODEL THAN ON A CADAVER OR A REAL PATIENT,  
17 RIGHT?

18 A THAT IS RIGHT.

19 Q NOW, YOU SHOWED THE JURY A NUMBER OF MODELS OF THE  
20 SPINE, TRUE?

21 A YES.

22 Q AND IF I'M NOT MISTAKEN, IN MOST, IF NOT ALL, OF THEM  
23 HAD SOME MUSCLES OR MUSCULATURE AS PART OF THE MODEL, RIGHT?

24 A I THINK YOU ARE RIGHT.

25 Q BUT WHEN YOU WORKED WITH MODELS OUTSIDE THE COURTROOM,

1 YOUR MODELS DIDN'T HAVE ANY OF THE MUSCULATURE, DID THEY?

2 A THAT IS ALSO CORRECT.

3 Q SO ANY MODEL THAT YOU WORKED ON IN THE REAL WORLD, IF I  
4 CAN PUT IT OUTSIDE THIS COURTROOM, IT DIDN'T HAVE A PSOAS  
5 MUSCLE ON IT, RIGHT?

6 A THAT IS CORRECT.

7 Q ALL RIGHT. SO YOU HAVE NEVER DONE A DIRECT LATERAL ON  
8 A PATIENT WITH ANY KIND OF IMPLANT, THEN YOU'VE OBVIOUSLY  
9 NEVER DONE ONE USING YOUR JUMBO CAGE, RIGHT?

10 A THAT IS CORRECT.

11 Q OR USING ANY OTHER KIND OF THREADED CYLINDRICAL CAGE,  
12 RIGHT?

13 A YES.

14 Q I BELIEVE YOU WENT THROUGH THE '973 PATENT AND YOU  
15 POINTED OUT, IN DIFFERENT FIGURES THERE ARE DIFFERENT SHAPES  
16 THAT YOU'VE ENVISIONED FOR YOUR TRANSLATERAL IMPLANT, RIGHT?

17 A YES.

18 Q YOU DIDN'T TRY ANY OF THOSE IN A REAL PATIENT EITHER,  
19 RIGHT?

20 A I DID NOT.

21 Q OKAY. NOW, IN PRACTICE YOU DID DO FUSIONS, CORRECT?

22 A YES, I DID.

23 Q ALL RIGHT. AND AS I UNDERSTAND IT, WHEN YOU FIRST  
24 STARTED, YOU DID POSTEROLATERAL FUSIONS, RIGHT?

25 A YES.

1 Q THOSE ARE DONE WITH THE PATIENT LYING FACE-DOWN ON THE  
2 TABLE?

3 A YES.

4 Q OKAY. AND IN THAT PROCEDURE, YOU ARE COMING INTO THE  
5 SPINE THROUGH THE PATIENT'S BACK, RIGHT?

6 A YES.

7 Q OKAY. AND LATER IN YOUR CAREER, YOU SWITCHED TO  
8 ANTERIOR FUSIONS, RIGHT?

9 A I ADDED THAT, BUT, YES.

10 Q YOU ADDED IT?

11 A YES.

12 Q YOU CONTINUED TO DO SOME POSTEROLATERAL?

13 A YES.

14 Q AND THESE ANTERIOR FUSIONS, THE PATIENT IS ON HIS BACK,  
15 RIGHT?

16 A YES.

17 Q YOU'RE COMING IN THROUGH THE FRONT?

18 A CORRECT.

19 Q AND IN THOSE PROCEDURES, YOU WORKED -- YOU TEAMED WITH  
20 AN ACCESS SURGEON, WHO WOULD ACTUALLY MOVED THE STUFF OUT OF  
21 THE WAY FOR YOU SO YOU COULD GET TO THE SPINE, RIGHT?

22 A YES.

23 Q AND AS I UNDERSTAND IT, YOU STOPPED DOING THOSE AS WELL  
24 IN 2001. YOU RETIRED FROM SURGERY, RIGHT?

25 A YES.

1 Q SO YOU HADN'T PERFORMED A FUSION SURGERY OF ANY KIND  
2 FOR ABOUT TEN YEARS, RIGHT?

3 A THAT IS CORRECT.

4 Q NOW, "APOPHYSEAL RING," WE HEARD THAT TERM DURING YOUR  
5 DIRECT, DIDN'T WE?

6 A YES.

7 Q AND I BELIEVE YOU TESTIFIED THAT YOU THINK A  
8 TRANSLATERAL IMPLANT, WITHIN THE MEANING OF YOUR '973  
9 PATENT, HAS TO REST ON THE APOPHYSEAL RING OF THE VERTEBRAL  
10 BODY. DO I HAVE THAT RIGHT?

11 A YES.

12 Q AND YOU SAID THAT YOU CAME UP WITH THE PHRASE  
13 "TRANSLATERAL IMPLANT" BY ANALOGY TO A TRANSCONTINENTAL  
14 FLIGHT, RIGHT?

15 A A TRANSCONTINENTAL RAILROAD, THE ATLANTIC PACIFIC.  
16 STARTED AT THE ATLANTIC, WENT TO THE PACIFIC.  
17 TRANSCONTINENTAL RAILROAD.

18 Q COAST TO COAST?

19 A COAST TO COAST.

20 Q AND IN FACT, YOU SAID THAT WAS THE PROBLEM YOU WERE  
21 TRYING TO ADDRESS WITH THE '973 PATENT, RIGHT?

22 A I'M SORRY. I DIDN'T HEAR IT. WHAT IS THE PROBLEM?

23 Q TO HAVE TO MAXIMIZE THE AMOUNT OF THE VERTEBRAL BODY  
24 THAT WOULD BE -- THE SURFACE AREA THAT WOULD BE COVERED BY  
25 THE AREA?

1 A THAT WOULD BE A BENEFIT.

2 Q OKAY. NOW, YOU DIDN'T SHOW THE JURY ANY LANGUAGE FROM  
3 THE '973 PATENT REFERRING TO THE APOPHYSEAL RING, DID YOU?

4 A NO.

5 Q AND IF THE JURY WERE TO READ YOUR '973 PATENT, THEY'RE  
6 NOT GOING TO SEE ANY MENTION OF THE APOPHYSEAL RING, ARE  
7 THEY?

8 A I THINK THAT IS CORRECT.

9 Q IN FACT, IF WE LOOK AT THE CLAIM -- YOU UNDERSTAND,  
10 HAVING AS MANY PATENTS AS YOU DO, YOU KNOW WHAT A CLAIM TO A  
11 PATENT IS, RIGHT?

12 A YES.

13 Q YOU UNDERSTAND THAT TO DETERMINE WHETHER SOMEBODY IS  
14 USING ONE OF YOUR PATENTS OR WHETHER THE PRIOR ART IS THE  
15 SAME THING AS ONE OF YOUR PATENTS, YOU LOOK AT THE CLAIMS IN  
16 THE PATENT, RIGHT?

17 MR. SCHERKENBACH: CAN WE HAVE CLAIM 35.

18 BY MR. SCHERKENBACH:

19 Q THIS IS THE WHOLE CLAIM OF CLAIM 35 FROM THE '973  
20 PATENT, RIGHT? TRANSLATERAL SPINAL IMPLANT FOR INSERTION  
21 FROM THE LATERAL ASPECT OF THE SPINE IN THE DISC SPACE  
22 BETWEEN TWO ADJACENT VERTEBRAE.

23 WE JUST STOP THERE. ARE YOU WITH ME?

24 A YES, SIR.

25 Q OKAY. AND THEN SAID IMPLANT HAS TO HAVE CERTAIN

1 CHARACTERISTICS. THE LENGTH THAT IS GREATER THAN ONE-HALF  
2 THE TRANSVERSE WIDTH OF THE VERTEBRA, RIGHT?

3 A YES.

4 Q SO 51 PERCENT WOULD BE GOOD ENOUGH, WOULDN'T IT?

5 A FOR THAT, YES.

6 Q FIFTY-ONE PERCENT ISN'T COAST TO COAST. WE'RE STOPPING  
7 IN KANSAS CITY, OR SOMETHING, AREN'T WE?

8 A UH-HUH. I AGREE WITH YOU.

9 Q NOW, YOU TESTIFIED YESTERDAY ABOUT WHAT AN IMPROVEMENT  
10 THE PATENT IS AS WELL. DO YOU RECALL THAT?

11 A YES. I WASN'T QUOTING IT AS A LEGAL SCHOLAR, BUT I  
12 UNDERSTAND IT, YES.

13 Q YOU ARE BY NOW, I THINK.

14 AND YOU SAID, I THINK, THE '973, YOU DESCRIBED IT  
15 AS AN "IMPROVEMENT" ON THE '247, DIDN'T YOU?

16 A YES.

17 Q I'M GOING TO COME BACK TO THE SUBJECT OF THE '247. BUT  
18 I WANT TO ASK YOU ABOUT ANOTHER IMPROVEMENT PATENT YOU HAVE.

19 YOU HAVE ANOTHER PATENT THAT'S AN IMPROVEMENT ON  
20 THE '973, DON'T YOU?

21 A I KNOW I HAVE OTHER PATENTS THAT RELATE TO THAT  
22 TECHNOLOGY, AND, TECHNICALLY, LEGALLY MAYBE IT'S AN IMPROVED  
23 PATENT.

24 Q TAKE A LOOK AT YOUR BINDER AT THE TAB THAT'S LABELED  
25 DTX5769, 5769.

1 LET ME KNOW WHEN YOU HAVE THAT.

2 A OH, I HAVE IT.

3 YOU WANT ME TO TELL YOU NEXT TIME?

4 Q GREAT.

5 DO YOU RECOGNIZE THAT PATENT?

6 A I DO.

7 Q THAT'S ONE OF YOUR PATENTS?

8 A IT'S THE 770.

9 Q OKAY. ANYWAY, SO YOU'RE OBVIOUSLY THE MICHELSON LISTED  
10 ON THE PATENT, RIGHT?

11 A YES.

12 Q AND IT'S TITLED INTERBODY SPINAL FUSION IMPLANT HAVING  
13 AN ANATOMICALLY CONFORMED TRAILING END, CORRECT?

14 A YES.

15 Q ALL RIGHT. AND IF WE LOOK AT THE FILING DATE, MARCH 5,  
16 1999, RIGHT?

17 A YES.

18 Q IF WE WERE TO LOOK AT THE FILING DATE FOR THE '973  
19 PATENT -- EXCUSE ME -- THE ISSUE DATE, THAT ISSUE IN JANUARY  
20 '99, DO YOU RECALL THAT?

21 A NO, BUT I TRUST YOU ARE TELLING ME THE TRUTH.

22 Q OKAY. SO THIS PATENT, THIS 770 PATENT, YOU FILED TWO  
23 MONTHS AFTER THE '973 ISSUE. OKAY?

24 A OKAY.

25 Q ALL RIGHT. AND I WANT TO DIRECT YOUR ATTENTION IN THIS

1 770 PATENT, COLUMN 3 -- THAT'S BETTER. THANK YOU --  
2 STARTING AT LINE 57. LINE 57. WE'LL BLOW IT UP ON THE  
3 SCREEN, IF THAT'S EASIER FOR YOU, DR. MICHELSON, EITHER WAY.

4 I'LL LET YOU READ IT. YOU SEE THE PARAGRAPH  
5 BEGINNING --

6 A I DO. I READ IT.

7 Q SO IT'S REFERRING TO A FIGURE 11.

8 MR. SCHERKENBACH: CAN WE PUT UP FIGURE 11 QUICK,  
9 PLEASE, AND THEN WE'LL COME BACK TO THE TEXT.

10 BEAR WITH US A MINUTE.

11 BY MR. SCHERKENBACH:

12 Q YOU SEE FIGURE 11?

13 A I DO.

14 MR. SCHERKENBACH: LET ME BLOW THAT UP, JEFF.

15 BY MR. SCHERKENBACH:

16 Q IT'S LABELED "PRIOR ART," RIGHT?

17 A YES, IT IS.

18 Q AND IT IS PRIOR ART TO YOUR 770 PATENT, CORRECT?

19 A I DON'T KNOW. THAT'S A LEGAL CONCLUSION.

20 Q THIS IS A REPRESENTATION OF YOUR '973, ISN'T IT?

21 THAT'S HOW IT'S DESCRIBED IN THE '770, RIGHT?

22 A I BELIEVE THAT'S ITS PURPOSE THAT'S ROLLING, YES.

23 Q OKAY. NOW LET'S GO BACK TO THE TEXT. SO THIS IS PRIOR

24 ART, AND IT'S TALKING ABOUT YOUR '973 AS PRIOR ART. IT

25 SAYS, "FIGURE 11 SHOWS THE BEST FILL OBTAINED WHEN A PRIOR



1 ART IMPLANT IS INSERTED FROM A LATERAL APPROACH TO THE SPINE  
2 PAREN FROM A POSITION ANTERIOR TO THE TRANSFERRED PROCESSES  
3 OF THE VERTEBRAE, REFERRED TO HEREIN AS THE "TRANSLATERAL  
4 APPROACH" OR TRANSLATERALLY ACROSS THE TRANSVERSE WIDTH, W,  
5 OF THE VERTEBRAL BODY, V."

6 JUST STOP THERE.

7 SO WE'RE TALKING ABOUT YOUR TRANSLATERAL IMPLANT  
8 OF THE '973, RIGHT?

9 A I BELIEVE SO, YES.

10 Q "SOME EXAMPLES OF IMPLANTS INSERTED FROM THE  
11 TRANSLATERAL APPROACH ARE THE IMPLANTS DISCLOSED IN U.S.  
12 PATENT '973 TO MICHELSON, AND PREFERABLY INSERTED WITH THE  
13 METHOD DISCLOSED IN THE 661 PATENT TO MICHELSON."

14 YOU JUST TALKED ABOUT THE 661 WITH MR. DAUCHOT  
15 TODAY, RIGHT?

16 A YES.

17 Q "IMPLANT C DOES NOT ENTIRELY OCCUPY THE CROSS SECTIONAL  
18 AREA OF THE ENDPLATE REGION, AND LEADS CROSS-HATCHED AREA,  
19 Z, OF THE VERTEBRAL BODY, V, UNOCCUPIED BY THE IMPLANT,  
20 WHICH AREA WOULD BE USEFUL FOR CONTACT FOR FUSION AND FOR  
21 SUPPORT OF THE IMPLANT."

22 MR. SCHERKENBACH:

23 CAN WE GO BACK TO THE FIGURE.

24 BY MR. SCHERKENBACH:

25 Q SO IT'S SAYING THAT THE IMPLANT ISN'T FILLING ALL THIS

1 CROSS-HATCHED AREA, RIGHT?

2 A I AGREE WITH THAT, YES.

3 MR. SCHERKENBACH: LET'S GO BACK TO THE TEXT.

4 BY MR. SCHERKENBACH:

5 Q AND THAT'S THE '973 IMPLANT VISIBLE IN THAT AREA,  
6 RIGHT?

7 A YES.

8 Q OKAY. "THE CONFIGURATION OF THE TRAILING CORNER, LC,  
9 DOUBLE PRIME, OF THE PRIOR IMPLANT C PREVENTS IMPLANT C" --  
10 AND AGAIN IMPLANT C IS YOUR '973 IMPLANT, RIGHT?

11 A THAT'S CORRECT.

12 Q -- PREVENTS IMPLANT C FROM BEING SIZED LARGER AND  
13 PREVENTS THE FULL UTILIZATION OF THE SURFACE AREA OF CONTACT  
14 OF THE VERTEBRAL BODY CROSS-SECTIONAL AREA, RESULTING IN A  
15 SUBOPTIMAL FILL OF THE DISC SPACE WITH THE IMPLANT, AND  
16 LITTLE OF THE IMPLANT SITTING ON THE APOPHYSEAL RIM," RIGHT?

17 A THAT'S RIGHT.

18 Q THAT'S HOW YOU DESCRIBED YOUR '973 IMPLANT IN YOUR '770  
19 PATENT, TRUE?

20 A THAT IS DESCRIBING A PARTICULAR PROBLEM WITH THE  
21 TRANSLATERAL IMPLANT, BUT THE CURE FOR THAT IS TO PUT IN A  
22 WIDER IMPLANT THAT IS SLIGHTLY SHORTER AND YOU CAN, THEN,  
23 GET MUCH MORE OF A APOPHYSEAL CONTACT.

24 WHAT THE PROBLEM IS THAT THIS IS ADDRESSING, THE  
25 LONGER THE IMPLANT THE LESS WIDE IT HAS TO BE. THE WIDER

1 THE IMPLANT, THE SHORTER IT HAS TO BE. THAT IS THE PROBLEM.

2 Q YOU ARE NOT DISPUTING WHAT IT SAYS ABOUT THE IMPLANT?

3 A I AGREE WITH YOU.

4 Q LAST SENTENCE. IT CONTINUES. OKAY. THIS IS FROM THE  
5 '770 PATENT. "THE CONFIGURATION OF PRIOR ART IMPLANTS  
6 PREVENTS THE UTILIZATION OF THE APOPHYSEAL RING LOCATED AT  
7 THE PERIMETER OF THE VERTEBRAL BODY TO SUPPORT THE IMPLANTS  
8 AFTER TRAILING ENDS."

9 THE UTILIZATION OF THIS DENSE BONE WOULD BE IDEAL,  
10 RIGHT?

11 A THE MORE YOU CAN GET, THE BETTER.

12 Q AND THE PRIOR ART IMPLANTS REFERRED TO HERE INCLUDE  
13 YOUR '973 IMPLANT?

14 A RIGHT.

15 Q ALL RIGHT. NOW LET'S TALK ABOUT ANIMAL VERSUS HUMAN.  
16 I BELIEVE YOU SAID YESTERDAY -- WELL, ACTUALLY, HOLD ON A  
17 MINUTE.

18 MR. SCHERKENBACH: CAN WE PUT UP DTX5198.

19 BY MR. SCHERKENBACH:

20 Q DO YOU RECOGNIZE THIS PICTURE?

21 A I THINK YOU OR SOMEBODY -- I THINK I SAW IT YESTERDAY.

22 Q YEAH. I USED IT IN OPENING. YOU WERE HERE FOR  
23 OPENING, RIGHT?

24 A I WAS.

25 Q I ACTUALLY THINK THAT YOU REFERRED TO THIS IN YOUR

1 TESTIMONY, IN FACT, CORRECTED MR. DAUCHOT WHEN HE SAID THAT  
2 THAT WAS MAYBE BRANTIGAN. YOU SAID, "OH, NO, I THINK THAT'S  
3 ASSOCIATED WITH DR. MCAFEE." DO YOU RECALL THAT?

4 A YES, I THINK THAT IS CORRECT.

5 Q YOU ARE FAMILIAR AT LEAST WITH DR. MCAFEE BY  
6 REPUTATION?

7 A I AM.

8 Q HE'S A FAMOUS SPINE SURGEON, RIGHT?

9 A YES.

10 Q HE'S NOT A VETERINARIAN, IS HE?

11 A I DON'T BELIEVE SO. I THINK HE'S A HUMAN SPINE  
12 SURGEON.

13 Q SO HE WASN'T DOING RESEARCH WITH SHEEP AND OTHER  
14 ANIMALS, BECAUSE HE WANTED TO BE A BETTER VETERINARIAN. HE  
15 WAS DOING THAT BECAUSE HE WANTED TO BE A BETTER SURGEON FOR  
16 HUMANS?

17 A I'M GOING TO GO ALONG WITH YOU ON THAT.

18 Q ALL RIGHT. GOOD.

19 AND LIKE MANY SURGEONS DO, HE DID STUDIES TO  
20 DETERMINE THE SUITABILITY OF IMPLANTS FOR USE IN HUMANS,  
21 RIGHT?

22 A YES.

23 Q NOW, GRANTED THIS IS A SHEEP VERTEBRA. YOU WOULD AGREE  
24 THAT'S COAST TO COAST, WOULD YOU NOT?

25 A MORE THAN.

1 Q MORE THAN. OKAY.

2 BUT YOU WOULD SAY THIS IS NOT YOUR INVENTION  
3 BECAUSE IT IS A SHEEP VERTEBRA AND NOT A HUMAN VERTEBRA, IS  
4 THAT RIGHT?

5 A WELL, I CAN'T ANSWER THE QUESTION BECAUSE I DON'T KNOW  
6 HOW BIG THAT VERTEBRA IS. I DON'T INVENT FOR SHEEP. SHEEP  
7 RARELY COMPLAIN OF BACK PAIN. AND MY EXPERIENCE IS, THESE  
8 ANIMALS HAVE VERY LITTLE SIMILARITY TO HUMAN BEINGS BECAUSE  
9 THEY WALK ON ALL FOURS.

10 THERE ARE A NUMBER OF OTHER CONSIDERATIONS. THESE  
11 ACTUAL VERTEBRAE DON'T REALLY HAVE THE SAME PROPORTIONS AS  
12 HUMAN BEINGS. SO I HAVE NO IDEA HOW BIG THAT VERTEBRA IS  
13 WITHOUT SEEING IT.

14 Q MY QUESTION IS WHETHER IT'S YOUR VIEW THAT THE '973  
15 PATENT -- THIS DOESN'T RELATE TO YOUR '973 PATENT BECAUSE  
16 IT'S A SHEEP VERTEBRA INSTEAD OF A HUMAN VERTEBRA.

17 A AS I UNDERSTAND YOUR QUESTION, I'M GOING TO SAY YES TO  
18 THAT, THEN.

19 Q THAT'S BECAUSE IN YOUR VIEW YOUR PATENT DOESN'T RELATE  
20 TO NON-HUMAN VERTEBRAE, IS THAT RIGHT?

21 A YES.

22 Q LET'S GO BACK TO CLAIM 35. THERE'S NOTHING IN THE  
23 CLAIM THAT REQUIRES IT TO BE A HUMAN VERTEBRA, IS THERE?

24 A I DON'T BELIEVE IT HAS TO BE THERE IF THE SPECIFICATION  
25 ONLY DEALS WITH HUMANS. I BELIEVE THE UNDERSTANDING OF A

1 SPINE SURGEON WOULD BE THAT'S FOR HUMANS.

2 Q YOU'LL AGREE THE CLAIM DOESN'T SAY "HUMAN"?

3 A I DON'T THINK IT HAS TO. I AGREE WITH YOU IT DOESN'T.

4 Q THIS ISSUE OF HUMAN VERSUS VERTEBRA CAME UP DURING THE  
5 PROSECUTION OF YOUR '973 PATENT?

6 A I'M NOT AWARE OF THAT.

7 Q YOUR NOT AWARE OF THAT?

8 A NO.

9 Q LET ME SHOW YOU PX281. HAVE YOU EVER READ THE  
10 PROSECUTION HISTORY OF YOUR '973 PATENT?

11 A I HAVE NOT.

12 Q SO YOU WOULDN'T HAVE ANY BASIS TO COMMENT ON OR DISPUTE  
13 ANYTHING IF A PATENT EXAMINER SAID IN THE PROSECUTION  
14 HISTORY OF YOUR PATENT?

15 A AS I SIT HERE NOW, ARE YOU ASKING ME IF AGREE WITH  
16 EVERYTHING SOMEBODY SAID THAT I HAVE NEVER READ?

17 Q ALL RIGHT. WELL, HOW ABOUT THIS: YOU KNOW AS AN  
18 INVENTOR, ONE OF THE THINGS YOU HAVE TO DO WHEN YOU APPLY  
19 FOR A PATENT IS YOU SIGN AN OATH THAT A COMPANY USE THE  
20 APPLICATION?

21 A I DO.

22 MR. SCHERKENBACH: LET'S PUT THE OATH UP FROM THE  
23 PX291.

24 BY MR. SCHERKENBACH:

25 Q YOU HAVE THE WHOLE THING. DR. MICHELSON, IT MIGHT BE

1 EASIER TO SHOW IT ON THE SCREEN. IT'S A PAGE ENDING IN 91.

2 DO YOU HAVE THAT, DR. MICHELSON?

3 A IT'S PAGE 91?

4 Q WELL, IT ENDS IN 91. IT'S A VERY LONG NUMBER. IT'S  
5 140-1091 IS THE SPECIFIC PAGE ON THE PROSECUTION HISTORY.  
6 THAT'S THE FIRST PAGE OF THE OATH.

7 A JUST GIVE ME A MOMENT.

8 Q WE HAVE IT ON THE SCREEN HERE, TOO. I DON'T KNOW IF  
9 THAT'S EASIER.

10 A REMARKABLY, I CAN READ THAT FROM HERE.

11 Q CAN YOU READ THAT?

12 A I THINK I CAN, YES.

13 Q GREAT.

14 SO THIS IS THE OATH YOU FILED WITH THE PATENT ON  
15 TRANSLATERAL SPINAL IMPLANT, RIGHT?

16 A YES.

17 Q AND THIS OATH IS A PARTICULAR FORM THAT THE PATENT  
18 OFFICE REQUIRES INVENTORS TO SIGN, RIGHT?

19 A YES.

20 Q SO YOU SIGNED THIS THING HUNDREDS OF TIMES, HAVEN'T  
21 YOU?

22 A YES.

23 Q AND IT REQUIRES YOU TO ATTEST TO CERTAIN THINGS WHEN  
24 YOU FILE YOUR PATENT, RIGHT?

25 A YES.

1 Q ONE OF WHICH IS THAT YOU'VE REVIEWED AND UNDERSTAND THE  
2 CONTENTS OF THE SPECIFICATION INCLUDING THE CLAIMS AS  
3 AMENDED BY ANY AMENDMENT REFERRED TO ABOVE, RIGHT?

4 A YES.

5 Q OKAY. AND YOU SIGNED THIS OATH. LET'S JUST GO TO THE  
6 NEXT PAGE AND SHOW YOUR SIGNATURE. THAT'S YOUR SIGNATURE  
7 THERE, I BELIEVE, YES?

8 A IT IS.

9 Q JUNE 7TH, 1995, RIGHT?

10 A YES.

11 Q WHY IS THE HANDWRITING OF ALL DOCTORS ILLEGIBLE? THIS  
12 IS JUST A TOTAL ASIDE?

13 A WELL, I WANT TO ANSWER. I HAVE THREE BROTHERS, AND MY  
14 MOTHER HAD US ALL SIGN OUR NAME. THE THREE WHO WERE  
15 ILLEGIBLE, SHE SAID, "YOU GUYS ARE DOCTORS." THE ONE WHO  
16 WAS LEGIBLE, SHE SAID, "YOU'RE AN ATTORNEY."

17 Q WHO IS THE FAVORITE BROTHER?

18 THAT'S THE BEST ANSWER I'VE EVER HAD TO THAT  
19 QUESTION.

20 A IT'S TRUE, THOUGH.

21 Q ALL RIGHT. I BELIEVE YOU.

22 SO WE CAN AGREE YOU HAD AN UNDERSTANDING OF THE  
23 CONTENT OF YOUR '973 APPLICATION WHEN IT WAS FILED, RIGHT?

24 A OF THE CONTENT, YES.

25 Q AND YOU HAVE AN UNDERSTANDING OF THAT CONTENT TODAY AS



1 WELL, RIGHT?

2 A I DO.

3 Q GREAT.

4 AND I ASSUME YOU HAVE REVIEWED THAT PATENT IN  
5 PREPARATION FOR YOUR TESTIMONY, RIGHT?

6 A WHICH PATENT ARE WE TALKING ABOUT?

7 Q YOUR '973 PATENT.

8 A I DID LOOK AT IT, YES.

9 Q GOOD.

10 SO NOW I WANT TO TALK AT THE PATENT ITSELF, OR  
11 LOOK AT SOME SPECIFIC PARTS OF IT. WE TALKED A LITTLE BIT  
12 ABOUT THE PSOAS MUSCLE AND YOU TALKED ABOUT THAT IN YOUR  
13 DIRECT EXAM, RIGHT, THE PSOAS MUSCLE?

14 A YES.

15 Q AGAIN, IF THE JURY WERE TO READ YOUR '973 PATENT,  
16 THEY'RE NOT GOING TO SEE ANY MENTION OF THE PSOAS MUSCLE?

17 A THAT'S CORRECT.

18 Q THERE'S NO DRAWING OF THE PSOAS MUSCLE TO '973?

19 A THAT'S CORRECT.

20 Q THERE IS NO DISCUSSION IN THE PATENT OF WHETHER YOU GO  
21 THROUGH IT, AROUND IT, OR WHAT YOU DO WITH THE PSOAS MUSCLE,  
22 RIGHT?

23 A WELL, I'M NOT GOING TO BE ABLE TO AGREE WITH THAT  
24 BECAUSE WHEN YOU DO THIS, THAT'S WRONG. IF YOU GO  
25 90-DEGREES TO THE SPINE, ANY SPINE SURGEON, ANY GENERAL

1 SURGEON KNOWS, THERE IS NOTHING OTHER THAN TO GO THROUGH THE  
2 PSOAS.

3 SO YOU ARE ASKING A QUESTION, AND THEN YOU ARE  
4 GIVING AN ANSWER THAT'S WRONG.

5 Q WELL, WAIT A MINUTE. THE PSOAS IS A AN ISSUE IN THE  
6 LUMBAR SPINE, RIGHT?

7 A CORRECT.

8 Q NOT IN THE THORACIC, RIGHT?

9 A SO THERE WOULD BE NOT ISSUE, THEN. IT'S EITHER THERE  
10 OR IT'S NOT THERE. IF IT'S THERE, ANY DOCTOR OR SURGEON  
11 KNOWS THE PSOAS.

12 Q WE DON'T HAVE TO ARGUE ABOUT IT. THE PATENT SAYS WHAT  
13 IT SAYS. BUT THERE'S NO DISCUSSION OF THE PSOAS MUSCLE IN  
14 YOUR THE '973 PATENT, RIGHT?

15 A I AGREE WITH THAT.

16 Q THERE'S NO PICTURES OF PATIENTS IN YOUR '973 PATENT OUT  
17 OF POSITION ON ANY OF THAT STUFF, RIGHT?

18 A NO, THERE IS NOT.

19 Q NOW, THERE ARE EXAMPLES OF VARIOUS EMBODIMENTS OF YOUR  
20 TRANSLATERAL IMPLANTS SHOWN IN THE PATENT, RIGHT?

21 A YES.

22 Q I WANT TO RUN THROUGH THOSE QUICKLY, SO WE HAVE THEM IN  
23 MIND. FIGURE ONE IS A THREADED CYLINDRICAL IMPLANT. THAT'S  
24 ONE EXAMPLE OF YOUR TRANSLATERAL IMPLANT, RIGHT?

25 A YES.

1 Q FIGURE SEVEN, THIS IS A CYLINDRICAL DOWEL, RIGHT, NO  
2 THREADS?

3 A THAT IS CORRECT.

4 Q AND THAT ALSO CAN BE AN EMBODIMENT OF YOUR TRANSLATERAL  
5 IMPLANT, RIGHT?

6 A IF IT MEETS THE OTHER REQUIREMENTS, YES.

7 Q ALL RIGHT. FIGURE 16, THAT'S A RECTANGULAR BLOCK OF  
8 MATERIAL. THAT'S AN EXAMPLE OF A TRANSLATERAL IMPLANT,  
9 RIGHT?

10 A YES.

11 Q AND IN FIGURE 20, WE HAVE GOT A DIFFERENT SHAPE.  
12 THAT'S AN EXAMPLE OF YOUR TRANSLATERAL IMPLANT, RIGHT?

13 A YES.

14 Q AND THE PATENT ACTUALLY DESCRIBES THAT ARE AS  
15 "GENERALLY RECTANGULAR," DOESN'T IT?

16 A YES.

17 Q OKAY. SO VARIOUS SHAPES AND SIZES ARE GIVEN AS  
18 EXAMPLES IN YOUR SPECIFICATION, RIGHT?

19 A YES.

20 Q AND IF WE TALK ABOUT THE MATERIAL, YOUR PATENT SAYS  
21 THAT THE IMPLANT CAN BE MADE OF ANY MATERIAL SUITABLE FOR  
22 HUMAN IMPLANTATION, RIGHT?

23 A WELL, IT HAS TO BE SUITABLE FOR ITS INTENDED PURPOSE,  
24 SO IT HAS TO BE SUFFICIENT FOR ITS INTENDED PURPOSE. THAT  
25 WOULD MAKE IT SAFE AND EFFECTIVE.

1 MR. SCHERKENBACH: LET'S GO TO '973, COLUMN 7,  
2 LINES 39 TO 45.

3 THE WITNESS: YOU WANT ME TO FIND IT?  
4 BY MR. SCHERKENBACH:

5 Q NO. I THINK WE'LL PUT IT UP. IT MIGHT BE EASIER,  
6 FASTER.

7 SO THIS IS COLUMN 7 OF YOUR '973 PATENT FROM LINES  
8 39 THROUGH 45. AND IT'S CORRECT, ISN'T IT, THAT THE PATENT  
9 SAYS "THE SPINAL FUSION IMPLANT" -- THIS IS 199 -- "CAN BE  
10 MADE OF ANY MATERIAL SUITABLE FOR HUMAN IMPLANTATION, MAY  
11 COMPROMISE FUSION PROMOTING AND/OR BIOACTIVE MATERIAL TO  
12 ACTIVELY PARTICIPATE IN THE FUSION PROCESS." LET ME JUST  
13 STOP THERE.

14 SO ANY MATERIAL SUITABLE FOR HUMAN IMPLANTATION,  
15 RIGHT?

16 A WELL, THE PROBLEM IS YOU DID NOT WANT TO READ THE  
17 SECOND SENTENCE, WHICH THEN GOES ON TO SAY "IT MUST BE  
18 SUITABLE FOR THE INTENDED PURPOSE, WHICH IS WHAT I SAID TO  
19 YOU.

20 YOU CAN'T MAKE ANY MATERIAL THAT'S IMPLANTABLE IN  
21 A BODY. WE IMPLANT LENSES IN PEOPLES' EYES. WE IMPLANT  
22 BLOOD VESSELS.

23 IT HAS TO BE SUITABLE FOR THE INTENDED PURPOSE,  
24 WHICH THE SPINE SURGEONS WOULD KNOW, IS IT STRONG ENOUGH, IS  
25 IT LARGE ENOUGH, IS IT CAPABLE OF DOING WHAT IT NEEDS TO BE

1 DOING.

2 Q ALL RIGHT. LET ME CUT TO THE CHASE. WHEN YOU DID YOUR  
3 ANTERIOR FUSIONS, YOU PREFERRED TO USE BONE AS THE MATERIAL  
4 THAT YOU IMPLANTED IN THOSE PATIENTS, RIGHT?

5 A STRONG YES.

6 Q YOU DID HUNDREDS OF THEM, RIGHT?

7 A WELL, I DID HUNDREDS OF ANTERIOR INTERBODY FUSIONS. I  
8 WOULD SAY THEY WERE ABOUT 45 METAL, 60 PERCENT BONE.

9 Q BUT STRONGLY PREFERRED BONE, RIGHT?

10 A FOR THE PATIENTS IN WHOM IT WOULD WORK. THE BONE ISN'T  
11 AS STRONG, AND YOU COULDN'T GET GRAFTS LARGE ENOUGH BECAUSE  
12 THEY WERE PRETTY MUCH LIMITED TO ABOUT 24 MILLIMETERS.

13 SO FOR THAT SUBGROUP OF PATIENTS WHERE I HAD A  
14 CHOICE, AND I THOUGHT IT WOULD BE STRONG ENOUGH AND LARGE  
15 ENOUGH FOR THAT PATIENT, YES, I'D RATHER PUT IN A GOOD PIECE  
16 OF STRONG BONE THAN PUT IT METAL OR PLASTIC.

17 Q YOU WOULDN'T DISPUTE FOR A MINUTE THAT AN IMPLANT MADE  
18 OF BONE WOULD BE AN EXAMPLE OF YOUR TRANSLATERAL IMPLANTS IF  
19 IT MET THE OTHER REQUIREMENTS?

20 A I AGREE WITH THAT.

21 Q NOW, I TOLD YOU WE'D GET BACK TO THE '247 PATENT. YOU  
22 TALKED ABOUT THAT QUITE A BIT ON YOUR DIRECT EXAM, RIGHT?

23 A YES.

24 MR. SCHERKENBACH: LET'S PUT UP THE FACE OF THAT  
25 PATENT. IT'S PX318, PLEASE.

1 BY MR. SCHERKENBACH:

2 Q AND IT'S TITLED THREADED SPINAL IMPLANT, CORRECT?

3 A YES.

4 Q AND YOU FILED THIS PATENT JUNE 13TH, 1988, CORRECT?

5 A YES.

6 Q AND IT ISSUED IN MAY OF 1991, RIGHT?

7 A YES.

8 Q SO IT WAS FILED ALMOST SEVEN YEARS BEFORE THE EARLIEST  
9 EFFECTIVE FILING DATE OF THE '973 PATENT, CORRECT?

10 A YES.

11 Q SO THERE IS NO DOUBT THIS PATENT IS PRIOR ART TO THE  
12 '973, RIGHT?

13 A THAT'S A LEGAL QUESTION. I DON'T KNOW THE ANSWER TO  
14 THAT BECAUSE I'M NOT SURE IF YOU DO PRIOR ART YOURSELF, BUT  
15 I'M GOING TO ASSUME THE ANSWER IS YES, BUT I'M NOT A LAWYER.

16 Q WE MAY COME BACK TO THAT.

17 YOU, I BELIEVE, SAID ON DIRECT THAT YOUR JUMBO  
18 CAGE WAS COVERED BY YOUR '247 PATENT, RIGHT?

19 A YES.

20 Q IN FACT, YOU SAID THAT ANY THREADED HOLLOW PERFORATED  
21 CAGE WAS COVERED BY YOUR '247 PATENT, RIGHT?

22 A I AGREE WITH THAT.

23 Q ALL RIGHT. SO THERE IS NO DOUBT THAT YOUR '247 RELATES  
24 TO THREADED CYLINDRICAL IMPLANTS FOR USE IN FUSION, CORRECT?

25 A IN HUMANS, CORRECT.

1 MR. SCHERKENBACH: CAN YOU GO DOWN TO THE BOTTOM  
2 OF THE FIRST PAGE THERE, JEFF.

3 BY MR. SCHERKENBACH:

4 Q SO RIGHT ON THE COVER -- WELL, FIGURE FIVE ON THE  
5 COVER, THE '247 HAS VARIOUS PICTURES OF A THREADED  
6 CYLINDRICAL CAGE INSERTED INTO THE DISC SPACE, RIGHT?

7 A YES, IT DOES.

8 Q ALL RIGHT. NOW, IN THIS PARTICULAR FIGURE FIVE, THAT  
9 IMPLANT IS INSERTED POSTERIORLY, OR FROM THE BACK OF THE  
10 PATIENT, TRUE?

11 A YOU ARE RIGHT.

12 Q BUT YOU WOULD AGREE THAT THIS SAME IMPLANT COULD BE PUT  
13 IN EITHER FROM THE FRONT, FROM THE BACK, OR FROM THE SIDE,  
14 WOULDN'T YOU?

15 A I WOULD AGREE YOU COULD PUT IT IN, IN ANY DIRECTION YOU  
16 LIKE, BUT FROM THE SIDE, IT WOULD NOT WORK.

17 Q TURN TO TAB FOUR IN YOUR BINDER THERE. THIS IS SOME  
18 TESTIMONY FROM A PRIOR PROCEEDING, WHICH YOU GAVE UNDER  
19 OATH.

20 AND YOU HAVE BEEN INVOLVED IN PRIOR LITIGATION,  
21 YES?

22 A UNFORTUNATELY, YES.

23 Q OKAY. AND YOU'VE BEEN DEPOSED IN PRIOR CASES, RIGHT?

24 A YES.

25 Q YOU TESTIFIED IN TRIAL PREVIOUSLY, RIGHT?

1 A YES.

2 Q OKAY. THIS IS ONE OF THOSE TRANSCRIPTS, JUST TRYING TO  
3 ORIENT YOU. OKAY?

4 A I'M ORIENTED.

5 Q ALL RIGHT. NOW, LET ME DIRECT YOUR ATTENTION TO PAGE  
6 977 OF THIS TRANSCRIPT, BEGINNING AT ABOUT LINE 15.

7 DO YOU SEE THAT?

8 A LINE 15? I DO SEE LINE 15, YES.

9 Q OKAY. I JUST WANT TO GO THROUGH LINE 39. I WANT TO  
10 ORIENT YOU THAT YOU WERE TALKING HERE, BEING ASKED QUESTIONS  
11 HERE ABOUT YOUR '247, THREADED SPINAL IMPLANT.

12 A OKAY.

13 Q IS THAT CORRECT?

14 A WELL, I HAVEN'T READ IT TO KNOW, BUT IT SEEMS TO BE  
15 WHAT THE SUBJECT MATTER IS, YES.

16 Q OKAY. NOW, TURN TWO PAGES, PLEASE, TO 979, BEGINNING  
17 AT LINE 33 AND RUNNING TO LINE 49 AT THE BOTTOM OF THAT  
18 PAGE. ISN'T IT CORRECT, DR. MICHELSON, THAT YOU WERE ASKED  
19 THE FOLLOWING QUESTION AND GAVE THE FOLLOWING ANSWER UNDER  
20 OATH ABOUT YOUR '247 IMPLANT:

21 "QUESTION: FROM WHAT DIRECTION DO YOU INSERT OR  
22 SCREW IN THIS IMPLANT?

23 "ANSWER: TRICK QUESTION, BECAUSE THE ANSWER IS  
24 YOU CAN DO IT FROM THE FRONT, YOU CAN DO IT FROM BEHIND, YOU  
25 CAN DO IT FROM THE SIDE. BUT IN THIS ILLUSTRATION, IT WAS



1 PUT IN THIS WAY, SO IT CAME IN FROM BEHIND. AND THE REASON  
2 I KNOW THAT IS THAT THE REAR END OF THIS IMPLANT HAS A  
3 SOCKET ALSO THAT RECEIVES A DRIVER THAT CONNECTS TO IT TO  
4 SCREW IT IN."

5 THAT WAS YOUR TESTIMONY, RIGHT?

6 A I'M A HUNDRED PERCENT GOOD WITH THAT.

7 MR. SCHERKENBACH: ALL RIGHT. YOUR HONOR, THE  
8 SAME PAGE.

9 BY MR. SCHERKENBACH:

10 Q NOW LET'S TALK ABOUT THE DIMENSIONS OF THAT IMPLANT  
11 FROM YOUR '247 PATENT. OKAY? THERE IS A SPECIFIC LENGTH  
12 DISCLOSED FOR THAT IMPLANT OF 26-MILLIMETERS IN YOUR '247  
13 PATENT, RIGHT?

14 A I AGREE.

15 Q LET'S JUST LOOK AT THAT.

16 MR. SCHERKENBACH: CAN YOU PUT THAT UP, JEFF.

17 BY MR. SCHERKENBACH:

18 Q THIS IS TAKEN FROM THE '247, WHERE YOU SAY THE IMPLANT  
19 IS ONLY 26-MILLIMETERS IN LENGTH, RIGHT?

20 A YES.

21 Q OKAY. NOW, YOUR '973 PATENT, THE TRANSLATERAL IMPLANT  
22 OF THAT PATENT, YOU SAY IT CAN BE USED IN THE THORACIC  
23 SPINE, RIGHT?

24 A IT CAN.

25 Q AND CAN BE USED IN THE LUMBAR SPINE, RIGHT?

1 A IT CAN.

2 Q AND YOUR '973 PATENT ACTUALLY DISCLOSES A RANGE OF  
3 LENGTHS WHICH ARE SUITABLE FOR THE THORACIC SPINE, TRUE?

4 A YES.

5 Q ALL RIGHT.

6 MR. SCHERKENBACH: CAN WE PUT THAT UP, THE '973  
7 PATENT.

8 BY MR. SCHERKENBACH:

9 Q WELL WE'RE LOOKING AT THE '973. I DON'T HAVE A COLUMN  
10 AND LINE.

11 ANYWAY, THIS IS FROM YOUR '973, YOUR TRANSLATERAL  
12 IMPLANT. IT SAYS, "IN THE PREFERRED EMBODIMENT" -- LET ME  
13 SKIP DOWN -- "IN THE THORACIC SPINE" --

14 A WHAT EXHIBIT IS THAT? I APOLOGIZE.

15 Q I'M SORRY. IT'S COLUMN 7 --

16 A BUT WHAT EXHIBIT NUMBER?

17 Q THAT'S A FAIR QUESTIONS.

18 MR. DAUCHOT: IT'S 326.

19 BY MR. SCHERKENBACH:

20 Q THIRTY-EIGHT. I'M ADVISED IN THAT BINDER, IT MIGHT BE  
21 38. YEAH, 38.

22 A OKAY.

23 Q IF YOU'RE IN THE BIG BINDER.

24 A OKAY. THANK YOU.

25 Q SO WE'RE AT COLUMN SEVEN, LINES 21 THROUGH 29, WHERE

1 YOU TALK ABOUT SOME SPECIFIC IMPLANTS. OKAY? IT SAYS, "IN  
2 THE THORACIC SPINE" -- I'LL LET YOU GET THERE.

3 A I'M THERE. THANK YOU.

4 Q OKAY. "IN THE THORACIC SPINE, SUCH IMPLANTS WOULD HAVE  
5 A LENGTH IN THE RANGE OF 12 TO 30 MILLIMETERS," RIGHT?

6 A YES.

7 Q SO WE'RE NOT GOING TO DISPUTE THE 26 MILLIMETERS IS IN  
8 THE RANGE OF 12 TO 30 MILLIMETERS, ARE WE?

9 A NO. IT'S RIGHT HERE.

10 Q ALL RIGHT. AND SO AS A LAYPERSON, YOU WOULD AGREE THAT  
11 THE SAME IMPLANT CAN BE AN EXAMPLE OF BOTH YOUR '247 PATENT  
12 AND YOUR '973 PATENT, RIGHT?

13 A OKAY. I'M GOING TO HAVE TO DISAGREE ON TWO DIFFERENT  
14 BASIS.

15 Q LET ME REPEAT THE QUESTION BECAUSE I WANT TO BE VERY  
16 CLEAR YOU ARE DISAGREEING WITH EXACTLY WHAT I'M SAYING.

17 OKAY?

18 A YES.

19 Q AS A LAYPERSON YOU WOULD AGREE THAT THE SAME IMPLANT  
20 CAN BE AN EXAMPLE OF BOTH YOUR '247 PATENT AND YOUR '973  
21 PATENT, TRUE?

22 A I HAVE TO DISAGREE ON TWO BASIS.

23 Q ALL RIGHT. I WANT YOU TO TURN IN YOUR BINDER TO YOUR  
24 DEPOSITION FROM THIS CASE.

25 THE COURT: IT IS JUST ABOUT WHEN WE WOULD

1 NORMALLY BE TAKING OUR MID-MORNING BREAK. IS THIS A  
2 CONVENIENT TIME?

3 MR. SCHERKENBACH: CAN I JUST DO THIS ONE THING?  
4 I'M SORRY. I LOST TRACK OF TIME.

5 THE COURT: THAT'S FINE.

6 BY MR. SCHERKENBACH:

7 Q I BELIEVE THAT'S TAB ONE, DR. MICHELSON. AND I WANT TO  
8 DIRECT YOUR ATTENTION TO PAGE 77.

9 A SEVENTY-SEVEN, RIGHT?

10 Q YES. BEGINNING AT LINE 24.

11 A GIVE ME ONE MOMENT.

12 THE COURT: THE JURORS PROBABLY KNOW WHAT A  
13 DEPOSITION IS. MAYBE WE SHOULD EXPLAIN THAT, MAKE SURE  
14 WE'RE ALL ON THE SAME PAGE.

15 A DEPOSITION IS A PROCEEDING, USUALLY BEFORE TRIAL,  
16 OFTENTIMES IN A LAWYER'S OFFICE, WHERE A WITNESS IS PLACED  
17 YOUR OATH, AND IS ASKED QUESTIONS, GIVES ANSWERS. THERE'S  
18 USUALLY A STENOGRAPHER THERE WHO TYPES UP THE QUESTIONS AND  
19 ANSWERS, AND ULTIMATELY PRINTS IT UP IN THE FORM OF A  
20 DEPOSITION TRANSCRIPT.

21 IT IS TESTIMONY GIVEN UNDER OATH, ALBEIT, NOT IN  
22 COURT, IN SOME OFFICE. SO IF DEPOSITION TESTIMONY IS READ  
23 TO IN COURT, YOU CAN GIVE IT THE SAME FORCE AND EFFECT AS IF  
24 THAT PERSON IS ACTUALLY TESTIFYING AT TRIAL. IT IS  
25 TESTIMONY UNDER OATH.

1           YOU HAVE PROBABLY ALL KNEW THAT, RIGHT.

2           THANK YOU. GO AHEAD.

3 BY MR. SCHERKENBACH:

4 Q       ALL RIGHT. SO LET'S JUST TRY TO DO IT ONE MORE TIME SO  
5 WE CAN GET IT ALL STRAIGHTENED OUT. WE'RE AT PAGE 77,  
6 BEGINNING AT LINE 24.

7 A       YES.

8 Q       THAT'S THE QUESTION. AND THEN YOUR ANSWER IS ON PAGE  
9 78, FROM LINES 4 THROUGH 6, RIGHT?

10 A       YES.

11 Q       OKAY. AND IT'S CORRECT, ISN'T IT, THAT YOU WERE ASKED  
12 THE FOLLOWING QUESTION AND GAVE THE FOLLOWING ANSWER IN YOUR  
13 DEPOSITION:

14               "QUESTION: IN YOUR VIEW CAN THE SAME IMPLANT BE  
15 AN EMBODIMENT OF BOTH YOUR '247 PATENT AND THE '973 PATENT?

16               "ANSWER: I JUST THINK I SHOULD BE A PATENT  
17 ATTORNEY HERE. IT'S A LEGAL QUESTION. IF YOU'RE ASKING A  
18 LAYPERSON, I GUESS MY ANSWER WOULD BE YES."

19               THAT WAS YOUR TESTIMONY, RIGHT?

20 A       THAT IS CORRECT.

21 Q       AND YOU ARE NOT WALKING AWAY FROM IT, ARE YOU?

22 A       WELL, THAT'S WHY I NEEDED TO BE A PATENT ATTORNEY,  
23 BECAUSE THE RIGHT WORDS -- THE RIGHT WORD WOULD HAVE BEEN  
24 THE CLAIMS OF '247 COVERING '973. BUT '973 IS NOWHERE IN  
25 '247. '247 DIDN'T CONTEMPLATE '973. IT TOOK ME EIGHT YEARS

1 TO GET SMART ENOUGH TO COME UP WITH '973.

2 SO THE RIGHT WORD HERE WOULD HAVE BEEN "THE CLAIMS  
3 OF '247 COVER ANY HOLLOW-THREADED INTERBODY SPINAL IMPLANT."  
4 '973 IS ONE OF THOSE, SO YES, I STAND BY THIS. THE RIGHT  
5 WORD IN THE CLAIMS OF '247, READ UPON THE '973.

6 MR. SCHERKENBACH: LET'S TAKE A BREAK.

7 THE COURT: ALL RIGHT. LET'S TAKE ABOUT 16  
8 MINUTES. HOW ABOUT THAT? LET'S RECONVENE AT TEN MINUTES  
9 OF THE HOUR. HAVE A NICE BREAK. WE'LL SEE YOU BACK HERE  
10 AT TEN MINUTES OF THE HOUR.

11 (RECESS TAKEN)

12 (10:51 AM)

13 THE COURT: REMAIN SEATED AND COME TO ORDER.  
14 OKAY. CAN WE CALL OUR JURORS IN?

15 MR. SCHERKENBACH: YES.

16 THE COURT: LET'S BRING THEM IN.

17 (JURY PRESENT)

18 THE COURT: THE RECORD CAN REFLECT ALL OUR JURORS  
19 ARE IN AND PARTIES AND COUNSEL. MR. SCHERKENBACH HAS MORE  
20 QUESTIONS. GO AHEAD.

21 MR. SCHERKENBACH: THANK YOU, YOUR HONOR.

22 BY MR. SCHERKENBACH:

23 Q DR. MICHELSON, BEFORE WE RETURN TO YOUR '247 PATENT, I  
24 WANTED TO ASK A COUPLE OF FOLLOW-UPS ABOUT YOUR INFUSION  
25 EXPERIENCE. THIS IS WHAT HAPPENS WHEN LAWYERS TAKE BREAKS.

1 SO WHAT YOU DID EITHER POST DURA LATERAL FUSION OR ANTERIOR  
2 LATERAL FUSION, IN YOUR OWN PRACTICE, DID YOU DO ALL SINGLE  
3 LEVEL OR SOMETIMES DO MULTIPLE LEVELS, IN YOUR OWN PATIENTS?

4 A YES. DID MULTIPLE LEVELS.

5 Q IF YOU LOOK AT YOUR TOTAL CASES, WHAT PERCENTAGE DO YOU  
6 THINK WOULD HAVE BEEN MULTIPLE LEVEL VERSUS SINGLE LEVEL  
7 CASES?

8 A FOR FUSIONS?

9 Q YES?

10 A MY GUESS WOULD PROBABLY BE 75 TO 80 PERCENT WOULD BE  
11 SINGLE LEVEL.

12 Q SO 20 TO 25 PERCENT ARE MULTIPLE?

13 A I THINK SO.

14 Q YOU KNOW, AT THE TIME YOU WERE DOING MULTIPLE LEVEL  
15 FUSIONS, THE FDA HAD NOT APPROVED ANY DEVICE FOR MULTIPLE  
16 LEVEL FUSIONS, CORRECT?

17 A I THINK THAT'S CORRECT.

18 Q SO YOU WERE DOING PROCEDURES THE FDA HAD NOT APPROVED?

19 A NO. YOU DIDN'T ASK THE QUESTION. THE NEXT QUESTION,  
20 BUT, NO TO THAT.

21 Q I WANT TO TALK ABOUT ACTUAL IMAGES TURNING FROM THE  
22 FIGURES AND THE DESCRIPTION IN THE PATENT, THE '247 PATENT,  
23 THE ACTUAL IMPLANTS, EMBODIMENT PATENT. I THINK YOU TALKED  
24 ABOUT ON DIRECT, ABOUT THE FACT THAT MR. IMRE WAS A  
25 MACHINIST WHO MADE IMPLANTS FOR YOU, RIGHT?

1 A AND MORE. HE MADE INSTRUMENTS.

2 Q BUT INCLUDING IMPLANTS, RIGHT?

3 A UNLESS HE COULD NOT. YES. SOMETIMES THERE WERE THINGS  
4 HE COULD NOT MAKE.

5 Q RIGHT. BUT HE DID MAKE IMAGES THAT EMBODIED, IN YOUR  
6 VIEW, EMBODIED YOUR '247 PATENT, RIGHT?

7 A YES.

8 Q AND SOME, WE TALKED ABOUT THIS IN DEPOSITION. SOME  
9 WERE 16-MILLIMETERS IN DIAMETER. YOU THOUGHT SOME WERE 18,  
10 RIGHT?

11 A AMONG OTHERS, YES.

12 Q YOUR BEST RECOLLECTION IS THAT THE LENGTH OF THOSE  
13 IMPLANTS, MR. IMRE MADE EMBODIED THE '247, WERE IN THE RANGE  
14 OF 27 TO 28 MILLIMETERS?

15 A I'M SORRY. SO I DON'T UNDERSTAND THE WRONG QUESTION.  
16 I'M MAYBE CONFUSING MYSELF. WHEN YOU SAY EMBODIED IN THE  
17 '247 CLAIMS, ANY AND ALL HOLLOW THREAD EVIDENCE, CYLINDRICAL  
18 PERFORATED INFUSION IMAGES, FOR THAT THERE IS NO RANGE, IF  
19 YOU ARE ASKING ME WHAT THE SPECIFICATIONS ARE, I'M NOT SURE  
20 WHAT YOU'RE ASKING ACTUALLY.

21 Q LET ME PUT THAT IN A DIFFERENT WAY? IN WHAT TIMEFRAME  
22 WAS MR. IMRE MAKING IMPLANTS THAT WERE 16 TO 18 MILLIMETERS  
23 IN DIAMETER AND 23 TO 28 MILLIMETERS IN LENGTH.

24 A I'M NOT SURE IF HE ACTUALLY MADE THOSE. THAT'S WHY I'M  
25 HAVING A LITTLE BIT OF TROUBLE. BEFORE HIM, I USED SOMEBODY



1 ELSE AND ONCE I HAD A RELATIONSHIP WITH THE DEVICE  
2 MANUFACTURERS, THEY STARTED MAKING THEM THEMSELVES. I'M NOT  
3 SURE. I HAVE TO SCAN MY MEMORY BACK TO SEE IF HE ENDED UP  
4 MAKING THOSE.

5 Q LET ME REFRESH YOUR RECOLLECTION. TURN TO THE  
6 DEPOSITION?

7 A OKAY.

8 Q LET'S START ON PAGE 104 OF YOUR DEPOSITION IN THIS  
9 CASE?

10 A SURE.

11 Q BEGINNING ABOUT LINE 25? OKAY. ARE YOU THERE?

12 A I'M GETTING THERE. OKAY. I'M THERE.

13 Q 104, LINE 25. LET'S START UP ON 104, LINE EIGHT TO  
14 REFRESH YOUR RECOLLECTION. HE'S THE ONE WE'RE TALKING ABOUT  
15 HERE?

16 A YES.

17 Q AND STRIKE THAT. REFRESH YOUR RECOLLECTION. START  
18 READING AT LINE EIGHT AND LINE 104 THROUGH LINES SEVEN ON  
19 105. AND I'LL ASK THE QUESTION. JUST READ TO YOURSELF,  
20 PLEASE.

21 A I HAVE.

22 Q ALL RIGHT. YOU AGREE THAT YOU OR MR. IMRE MADE ACTUAL  
23 IMPLANTS, IN YOUR VIEW, EMBODYING THE '247, RIGHT?

24 A I THOUGHT THE QUESTION WAS -- I'M NOT SURE IF IMRE DID  
25 IT OR -- I'M SURE I HAD THEM MADE.

1 Q SO YOU HAD IMPLANTS MADE EMBODYING THE '247 IMPLANT?

2 A IT IS POSSIBLE IMRE MAY HAVE MADE THEM. I DON'T RECALL  
3 IF HE WAS THE MANUFACTURER.

4 Q WHOEVER MADE THE IMPLANTS, YOU RECALL THAT EMBODIMENT  
5 OF THE '247 HAD DIAMETERS OF SOME WERE 16 MILLIMETER AND  
6 SOME WERE 18 MILLIMETERS, RIGHT?

7 A I AGREE WITH THAT.

8 Q ALL RIGHT. AND YOUR BEST RECOLLECTION IS THAT THE  
9 LENGTH OF THOSE IMPLANTS EMBODYING THE '247 WAS THE RANGE OF  
10 23 TO 28 MILLIMETERS?

11 A A AGREE WITH THAT, YES.

12 Q ALL RIGHT. THOSE RANGES AGAIN, FALL WITHIN THE RANGES  
13 FOR THE TRANSLATERAL IMPLANTS DISCLOSED IN YOUR '973 PATENT  
14 FOR USE IN THE THORACIC SPINE, TRUE?

15 A I DON'T KNOW IF THOSE MEASUREMENTS ARE WORKABLE BECAUSE  
16 WHAT'S HAPPENING HERE, IT IS TRUE. THERE ARE RANGES GIVEN  
17 IN EACH ONE OF THESE EXCEPT YOU CAN'T TAKE ANY NUMBER FROM  
18 ONE GROUP AND JUST PEAR IT UP WITH THE NUMBER FROM THE OTHER  
19 GROUP AND SAY, "OH, THAT'S THE IMPLANT. IT WAS EXACTLY WHAT  
20 YOU WERE SHOWING EARLIER." AS AN IMPLANT GETS LONGER IT  
21 WILL HAVE TO GET NARROWER OR IT WON'T FIT IT. AS THE  
22 IMPLANT GETS WIDER AND WIDER, IT GETS SHORTER AND SHORTER,  
23 SO YOU CAN'T TAKE ANY NUMBER IN THE LENGTH AND ANY NUMBER OF  
24 THE WIDTH AND SAY, "OH, THAT IS YOUR IMPLANT. NO. IT  
25 DOESN'T WORK THAT WAY."

1 Q THE IMPLANTS THAT WERE MADE EMBODYING THE '247 WITH THE  
2 THREADED CYLINDERS, RIGHT?

3 A THAT IS CORRECT.

4 Q WE PUT BACK UP HERE A DISCLOSURE FROM YOUR '973 PATENT,  
5 COLUMN SEVEN, LINES 21 THROUGH 29, WHERE IT SAYS, "IN THE  
6 THORACIC SPINE, SUCH IMPLANTS WOULD HAVE A LENGTH IN THE  
7 RANGE OF 12 TO 30, CORRECT?

8 A IT DOES SAY THAT, YES.

9 Q AND THE DIAMETER WOULD BE IN THE RANGE OF 14 TO 26,  
10 RIGHT.

11 A RIGHT.

12 Q YES. SO WHETHER YOU HAD A LENGTH OF 23 OR  
13 28 MILLIMETERS, OR SOMEWHERE IN BETWEEN, THAT WOULD FALL  
14 WITHIN THE RANGE OF THE THORACIC IMPLANTS AS DISCLOSED IN  
15 YOUR PATENT, RIGHT?

16 A THAT'S CORRECT.

17 Q AND WHETHER THE DIAMETER OF THESE '247 EMBODIMENTS WAS  
18 16 MILLIMETERS OR 18 MILLIMETERS, IT DOESN'T MATTER.  
19 THEY'RE BOTH WITHIN THE RANGE OF 14 TO 26?

20 A THAT'S INCORRECT. THAT'S IGNORING THE EXPLANATION I  
21 JUST GAVE YOU. AN IMPLANT THAT IS LONGER WON'T FIT IN IF  
22 IT'S ALSO WIDER. SO YOU MAY NEED TO FIND AN IMPLANT THAT IS  
23 VERY LONG AND LESS WIDE, OR IF IT'S VERY WIDE IT'S GOING TO  
24 NECESSARILY BE LESS LONG. I THINK THAT'S THE RIGHT ANSWER.

25 Q SO YOUR TESTIMONY IS THAT AN IMPLANT THAT FALLS HAS THE

1 LENGTH THAT FALLS BETWEEN 12 AND 30 AND THE DIAMETER BETWEEN  
2 14 AND 26, ISN'T NECESSARILY A TRANSLATERAL IMPLANT WITHIN  
3 THE MEANING OF YOUR PATENT?

4 A RIGHT. NOT EVERY PERMUTATION OF NUMBERS IN THOSE  
5 RANGES WILL AUTOMATICALLY RESULT IN THERE, THAT IS CORRECT.

6 Q WELL, WHICH ONES ARE EXCLUDED?

7 A LET ME EXPLAIN THIS AGAIN.

8 Q USING SPECIFIC NUMBERS?

9 A A SPINE SURGEON WOULD LOOK AT THE CT SCAN OR AN MRI OF  
10 THE VERTEBRAS TO BE FUSED WHICH WOULD LIKE THE SKELETON YOU  
11 JUST CUT IN HALF AND WHAT THAT WOULD RESULT IN A TOP DOWN  
12 PICTURE OF IS THE VERTEBRAL BODY AND FROM THAT, THEY COULD  
13 MAKE A FOOTPRINT, OF HOW LONG AND HOW WIDE THEY WANT THAT  
14 IMPLANT TO FIT. THEY CAN'T TAKE ANY NUMBER AND MATCH IT UP  
15 WITH ONE OR THE OTHER BECAUSE THEY'RE GOING TO GET A CHOICE.  
16 THE CHOICE IS GOING TO BE, WOULD I PREFER FOR THIS TO BE  
17 LONGER AND NARROWER SO IT WOULD FIT IN OR WOULD I PREFER FOR  
18 IT TO BE WIDER AND LESS LONG SO IT WILL FIT IN, OTHERWISE  
19 THE CORNERS ARE GOING TO PROTRUDE BECAUSE IT IS CURVED.  
20 UNLESS I DON'T UNDERSTAND WHAT YOU ARE ASKING, THAT IS YOUR  
21 ANSWER.

22 Q THERE ISN'T ANY DISCUSSION IN YOUR '973 PATENT SAYING  
23 THAT, WHEN I MEAN THESE RANGES, I MEAN ONLY CERTAIN  
24 COMBINATIONS OF NUMBERS FOR THESE RANGES, IS THERE?

25 A THERE IS NO SPINE SURGEON THAT WOULD NOT KNOW THAT. WE

1     TEMPLATE EVERY PATIENT BEFORE WE PUT IN IMPLANTS.  WE DON'T  
2     WALK THEM TO THE OR, GEE I SURE HOPE WE HAVE THE RIGHT  
3     IMPLANT.  WE TEMPLATE THESE IN OUR OFFICE, WE HAVE CT SCANS,  
4     MRI'S AND WE KNOW WHAT SIZE IMPLANT IS GOING ON.

5     Q     OKAY.  LET'S DO THIS.  WE ESTABLISHED, I THINK, THERE  
6     WERE AT LEAST TWO DIAMETERS FOR THESE CAGES THAT EMBODY THE  
7     '247, 16 AND 18, RIGHT?

8     A     YES.

9     Q     OKAY.  AND THAT THE LENGTHS WERE IN THE RANGE OF 23 TO  
10    28, RIGHT?

11    A     YES.

12    Q     IS IT YOUR TESTIMONY THAT IF YOU HAD ONE THAT WAS 16  
13    MILLIMETERS IN DIAMETER AND 28-MILLIMETERS LONG, THAT THAT  
14    WOULD NOT FALL WITHIN THE RANGE YOU DISCLOSES IN THE '973  
15    PATENT FOR THORACIC IMPLANT?

16    A     YES.  THAT WOULD BE MY TESTIMONY.  UNEQUIVOCALLY, YES.  
17    IT WOULD NOT BE.

18    Q     SO 16 BY 28, NO GOOD?

19    A     NO GOOD.

20    Q     HOW ABOUT AN BY 18 BY 28.  THAT'S NO GOOD EITHER?

21    A     NO.

22    Q     OKAY.  LET ME JUST ASK, YOU AS YOU SIT HERE TODAY, ARE  
23    THERE ANY OTHER SPECIFIC COMBINATIONS OF LENGTH AND DIAMETER  
24    THAT FALL WITHIN THE RANGE THE RANGE THAT IS DISCLOSED IN  
25    YOUR PATENT BUT YOU WOULD SAY NO WAY.  THAT'S NOT A

1 TRANSLATERAL IMPLANT?

2 A YES. THE LOWER RANGE OF THE DIAMETER OR THE WIDTH IF  
3 NON THREADED WILL NOT MATCH UP WITH THE OPPOSITE. I JUST  
4 KEEP SAYING THE SAME THING. BUT IF THE IMPLANT IS LONG,  
5 IT'S THAT PICTURE YOU SHOWED ME, SHOWING THE '770, IF THE  
6 IMPLANT IS LONG, TO GET IT IN, IT CAN'T BE WIDE. THAT'S WHY  
7 THERE IS '770. '770, THE ONE YOU SHOWED WHERE THE BACK WAS  
8 CURVED ACTUALLY ALLOWED THE DOCTOR TO GET A COMBINATION OF  
9 LONGER AND WIDER RIM SO THAT MORE OF APOPHYSEAL RING WAS  
10 THERE. THEY ALL SIT IN THE APOPHYSEAL RIM BUT BY CURVING  
11 IT, YOU CAN PUT ALL OF ONE END ON THE RIM, AND AT LEAST THE  
12 TWO CORNERS OF THE OTHER END ON THE RIM, SO THAT'S THE  
13 ANSWER.

14 Q HOW ABOUT, YOU FAMILIAR WITH THE INNER FIX CAGE?

15 A I AM.

16 Q AND YOU AGREE THAT THAT WAS A CAGE MADE BY SOFAMOR  
17 DANEK?

18 A YES.

19 Q THAT WAS AN EMBODIMENT OF YOUR '247?

20 A YES.

21 Q AND THAT ONE, THE SMALLEST SIDE DIAMETER THERE WAS 14,  
22 RIGHT?

23 A I BELIEVE THAT TO BE CORRECT.

24 Q AND THE LONGEST LENTH WAS 28, RIGHT?

25 A IN THEIR STANDARD ONES, THAT'S CORRECT.

1 Q ALL RIGHT. THOSE NUMBERS FALL WITHIN THE RANGES FOR  
2 DIAMETER IN LENGTH AND SHOWN IN YOUR '973 PATENT, RIGHT?

3 A CORRECT.

4 Q SO WOULD YOU SAY A 14 BY 28; NEVERTHELESS, IS NOT A  
5 TRANSLATERAL IMPLANT FROM THE MINUTES OF YOUR '973?

6 A YOU KNOW WHAT. I CAN GIVEN YOU A BETTER ANSWER. IF  
7 ANY IMPLANT CAN FIT FROM FRONT TO BACK OR BACK TO FRONT,  
8 WHICH THOSE WERE MADE TO DO, IT'S NOT A '973. THE  
9 DEFINITION SAYS IT CAN'T BECAUSE PART OF THE DEFINITION  
10 SAYS, IF IT HAS A LENGTH GREATER THAN THE DEPTH AND DISC  
11 SPACE. ALL THE IMPLANTS YOU ARE RECITING AND ALL THESE  
12 OTHERS COMBINATIONS WILL WORK, FRONT TO BACK OR BACK TO  
13 FRONT, BUT YOU CAN'T PUT THE BIG ONES IN, EITHER LONGER THAN  
14 THE DEPTH IN THE DISK SPACE BECAUSE IT WILL GO THROUGH  
15 EITHER THE SPINAL CORD OR THE BLOOD VESSELS. SO PART OF THE  
16 ACTUAL DEFINITION, WHAT MAKES A TRANSLATERAL, TRANSLATERAL,  
17 IT IS LONGER THAN THE DEPTH IN DISC SPACE. NONE OF THESE  
18 IMPLANTS YOU ARE TALKING NOW ARE EVEN AS DEEP AS THE DISC  
19 SPACE.

20 Q WHAT DISCS ARE YOU TALKING ABOUT, DOCTOR?

21 A WHAT DISKS WERE YOU TALKING ABOUT?

22 Q SO WOULD IT BE YOUR TESTIMONY THAT A 14 BY 28 WOULDN'T  
23 BE A TRANSLATERAL IMPLANT IF IMPLANTED IN THE THORACIC?

24 A THAT'S CORRECT.

25 Q YOU HAVE NEVER DONE THAT, HAVE YOU?

1 A I HAVE DONE IT ON MODELS AND I DON'T THINK THE  
2 DIMENSIONS OF THE VERTEBRAL MODELS ARE ANY DIFFERENT THAN  
3 HUMAN BEINGS SINCE THEY MOLD THOSE FROM HUMAN BEINGS.

4 Q I WANT TO ASK YOU ABOUT THE BAK CAGE, YOU ARE FAMILIAR  
5 WITH THAT, RIGHT?

6 A VERY.

7 Q THAT WAS ANOTHER THREADED CYLINDRICAL CAGE, RIGHT?

8 A CORRECT.

9 Q AND THAT CAGE; AGAIN, YOU WOULD AGREE IS AN EMBODIMENT  
10 OF YOUR '247, RIGHT?

11 A YES, IT WAS.

12 Q IN FACT, YOU WERE PAID A ROYALTY FOR THAT, WEREN'T YOU?

13 A YES, I WAS.

14 Q AND THE ROYALTY WAS BASED ON YOUR '247 PATENT, RIGHT?

15 A CORRECT.

16 Q AND YOU KNOW THAT SOME SPINE SURGEONS IMPLANTED BAKS  
17 Laterally in humans, right?

18 A I DO KNOW THAT THERE CAME A POINT IN TIME WHEN THAT  
19 HAPPENED. THAT'S CORRECT.

20 Q ALL RIGHT. NOW I WANT TO SWITCH GEARS AND TALK ABOUT  
21 YOUR INTERACTIONS WITH MR. LUKIANOV. WE TALKED A LITTLE BIT  
22 ABOUT THAT ON DIRECT, RIGHT?

23 A YES.

24 Q YOU KNOW HE'S THE CEO OF NUVASIVE TODAY, RIGHT?

25 A I DO.



1 Q AND HE USED TO WORK BACK IN THE ARE 90S, THE EARLY 90S  
2 AT SOFAMOR DANEK, RIGHT?

3 A YES.

4 Q AND YOU INTERACTED WITH HIM TO SOME DEGREE WHEN HE WAS  
5 AT SOFAMOR DANEK?

6 A NOT VERY MUCH, BUT I DID.

7 Q ALL RIGHT. YOUR OPINION OF HIM FROM INTERACTIONS AT  
8 SOFAMOR DANEK WAS THAT HE WAS PROFESSIONAL AND  
9 KNOWLEDGEABLE, RIGHT?

10 A VERY KNOWLEDGE.

11 Q AND I BELIEVE YOU TESTIFIED THAT YOU HAD A MEETING WITH  
12 SOFAMOR DANEK IN SEPTEMBER OF 1993, RIGHT?

13 A I DID.

14 Q THAT WAS IN MEMPHIS?

15 A IT WAS.

16 Q MR. LUKIANOV WAS THERE?

17 A HE WAS.

18 Q YOU DON'T REMEMBER MEETING HIM EVER BEFORE THAT  
19 MEETING, RIGHT?

20 A I ACTUALLY DON'T RECALL, BUT I DO NOT HAVE ANY CLEAR  
21 MEMORY OF HAVING MET HIM BEFORE, THAT IS CORRECT.

22 Q SO AS YOU SIT HERE TODAY, AS FOR AS YOU KNOW, THE  
23 SEPTEMBER '93 MEETING IS THE FIRST TIME YOU MET ALEX  
24 LUKIANOV, TRUE?

25 A TO THE BEST OF MY RECOLLECTION. THAT IS CORRECT.

1 Q WE CAN ALSO AGREE IN THAT MEETING, YOU DID NOT DESCRIBE  
2 YOUR TRANSLATERAL CONCEPT?

3 A TRUE. ABSOLUTE TRUE.

4 Q SO THERE'S NO CHANCE MR. LUKIANOV LEARNED ANYTHING  
5 ABOUT YOUR TRANSLATERAL IMPLANT AT THAT MEETING?

6 A I HAD NOT EVEN THOUGHT OF IT YET.

7 Q GOOD. AND IF WE TALK ABOUT OTHER, ANY OTHER MEETINGS  
8 YOU MAY HAVE HAD AT DANEK, WHERE MR. LUKIANOV WAS THERE THE  
9 WHOLE TIME IN OR OUT, WHATEVER, YOU DON'T HAVE A  
10 RECOLLECTION OF EVER DESCRIBING YOUR TRANSLATERAL CONCEPT IN  
11 A MEETING WHERE MR. LUKIANOV WAS PRESENT, TRUE?

12 A I CAN'T ANSWER THE WAY YOU'VE ASKED THE QUESTION.

13 Q ALL RIGHT. LET ME ASK IT A DIFFERENT WAY. OKAY?

14 A OKAY.

15 Q YOU HAVE NO SPECIFIC MEMORY OF DESCRIBING OR SHOWING  
16 YOUR TRANSLATERAL SPINAL IMPLANTS OR INSTRUMENTATION IN ANY  
17 OTHER DANEK MEETING, WHILE MR. LUKIANOV WAS THERE, TRUE?

18 A I AGREE WITH IT THE WAY YOU HAVE NOW ASKED THE  
19 QUESTION, YES.

20 Q AS YOU SAID EARLIER, YOU ONLY INFREQUENTLY INTERACTED  
21 WITH MR. LUKIANOV, RIGHT?

22 A THAT IS CORRECT ALSO.

23 Q ALL RIGHT. IN FACT ISN'T IT TRUE THAT REALLY AFTER  
24 THAT SEPTEMBER '93 MEETING, YOU DON'T HAVE A RECOLLECTION,  
25 ANY RECOLLECTION OF THE CONTENT OF ANY SPECIFIC CONVERSATION

1 WITH MR. LUKIANOV?

2 A I'D SAY THAT'S TRUE.

3 Q AS LONG AS WE'RE ON THE SUBJECT OF INTERACTIONS WITH  
4 NUVASIVE. MR. VALENTINE, WHEN I ASKED YOU IN DEPOSITION  
5 ABOUT MR. VALENTINE, I BELIEVE YOU TOLD ME YOU COULD NOT  
6 PICK HIM OUT OF LINE UP, RIGHT?

7 A ABSOLUTELY CORRECT.

8 Q YOU CAN NOW?

9 A NO, OFFENSE.

10 Q AND PAT MILES, NUVASIVE?

11 A WOULD NOT BE ABLE TO PICK HIM OUT.

12 Q DOESN'T EVEN RING A BELL THAT DAY?

13 A CORRECT.

14 Q NOW LET'S TALK IN TURN BRIEFLY TO YOUR '586 PATENT,  
15 YOUR PLATE PATENT?

16 A DO I NEED TO?

17 Q NO. I DON'T THINK SO. IT'S GOING TO BE BRIEF. SO  
18 THAT PATENT RELATES, AS YOU SAY, IT'S A BIG LONG PATENT,  
19 THERE'S LOTS OF STUFF IN IT. THIS CASE IS ABOUT THE PIECE  
20 OF THE PATENT RELATING TO SINGLE LOCK MECHANISMS, RIGHT?

21 A YES.

22 Q AND AS YOU SAID ON DIRECT, ANTERIOR CERVICAL PLATES  
23 WERE KNOWN BEFORE GARY CAME ALONG?

24 A ABSOLUTELY.

25 Q YOU DIDN'T INVENT ANTERIOR CERVICAL PLATES?

1 A NONE OF THE ONES THAT CAME BEFORE IT.

2 Q SAY IT BEGIN?

3 A NONE OF THE ONES THAT CAME BEFORE IT.

4 Q FAIR ENOUGH. NOW YOU, I BELIEVE YOU ON DIRECT  
5 DESCRIBED YOUR DISCLOSED LOCKING MECHANISM AS A DOUGHNUT  
6 LOCK. DO I HAVE THAT RIGHT?

7 A WELL IT'S A MUCH BETTER PHYSICAL DESCRIPTION THAN A  
8 MANHOLE COVER, A MANHOLE COVER DOESN'T HAVE A HOLE IN THE  
9 CENTER. AT LEAST DONUTS HAVE A HOLE AND A RING.

10 Q YOU DIDN'T HAPPEN TO USE THAT PHRASE BECAUSE MEDTRONICS  
11 EXPERT IN THIS CASE HAS USED THAT PHRASE TO DESCRIBE  
12 NUVASIVE'S PRODUCTS, DID YOU?

13 A WELL I USED TO CALL IT A RING. SO IT'S VERY POSSIBLE I  
14 DID SEE THAT. I DON'T WANT TO SAY NO. IT'S VERY POSSIBLE.

15 Q YOU DIDN'T SHOW THE ANY DOCUMENTS DESCRIBING YOUR  
16 INVENTION AS A DOUGHNUT LOCK, DID YOU?

17 A I DID NOT.

18 Q ALL RIGHT. NOW WE AGREE YOU DIDN'T INVENT ANTERIOR  
19 CERVICAL PLATES PER SE. THERE WERE PLATES WITH LOCKING  
20 MECHANISM'S BEFORE YOU CAME ALONG, RIGHT?

21 A CORRECT. WE SAW TWO OF THEM.

22 Q YOU SHOWED SOME TO THE JURY, RIGHT? THOSE WERE MULTI  
23 LOCKS, WEREN'T THEY?

24 A NO. NO. THE SYNTHES PLATE HAS ONE LITTLE WATCHMAKER  
25 SCREW THAT GOES INTO THE HEAD OF EACH INDIVIDUAL SCREW IN

1 EACH INDIVIDUAL HOLE, SO THAT'S A SINGLE LOCK.

2 Q OKAY. THERE WERE SINGLE LOCK MECHANISMS THAT EXISTED  
3 BEFORE YOUR '586 PATENT?

4 A YES.

5 Q AND YOU'LL ALSO AGREE YOU'RE NOT THE FIRST PERSON TO  
6 COME UP WITH THE IDEA FOR HAVING A LOCKING MECHANISM THAT IS  
7 CONNECTED TO THE PLATE PRIOR TO THE INSERTION OF THE BONE  
8 SCREW, TRUE?

9 A I ABSOLUTELY AGREE WITH THAT.

10 Q AND YOU'LL AGREE, YOU ARE NOT THE FIRST PERSON TO HAVE  
11 THE IDEA OF A LOCKING ELEMENT THAT IS COAXIAL WITH THE BONE  
12 SCREW HOLE, TRUE?

13 A WELL THAT LITTLE SCREW THAT WE SAW WAS COAXIAL.

14 Q OKAY. SO IT'S POSSIBLE TO HAVE AN ANTERIOR CERVICAL  
15 PLATE THAT HAS A SINGLE LOCK MECHANISM, COAXIAL WITH THE  
16 BONE SCREW HOLE, WITHOUT NECESSARILY USING YOUR '586 PATENT?

17 A INDEED IT IS.

18 Q ALL RIGHT. NOW YOU ARE NOT BEING, I THINK YOU SAID ON  
19 DIRECT YOU'RE NOT BEING PAID FOR YOUR TIME HERE TODAY?

20 A DID SOMEBODY ASK ME THAT? OKAY. I'M NOT BEING PAID.

21 Q IT SEEMS A LONG TIME AGO.

22 A NO. I'M NOT BEING PAID.

23 Q YOU ARE HERE BECAUSE THE SYSTEM DOESN'T WORK IN YOUR  
24 VIEW IF PEOPLE DON'T TESTIFY TO WHAT THE FACTS ARE?

25 A AMONGST OTHER REASONS. I THINK THAT IS TRUE. I THINK

1 IF YOU ARE A FACT WITNESS, YOU NEED TO SHOW UP.

2 Q AND IN YOUR VIEW, THE FACTS ARE WHAT THEY ARE, RIGHT?

3 A YES.

4 Q IF SOMEBODY ELSE INVENTED SOMETHING, OH, WELL. YOU  
5 CAN'T INVENT EVERYTHING?

6 A I DID NOT INVENT EVERYTHING. IF SOMEBODY CAME UP WITH  
7 THE SAME IDEA I DID AND DID IT BEFORE ME, THEN THEY'RE THE  
8 RIGHT INVENTOR.

9 Q WHATEVER IT IS, IT IS AS YOU SAID IN YOUR DEPOSITION?

10 A THAT'S WHAT I BELIEVE.

11 Q IN FACT, WE DISCUSSED THIS, WHY DO YOU CARE? YOU HAVE  
12 NO FINANCIAL INTEREST IN THIS CASE, RIGHT?

13 A NO. I THINK THE CONTEXT, THE CONTEXT IS, IT DOES NOT  
14 BOTHER ME THAT OTHER PEOPLE INVENT THINGS. I LOVE THAT. I  
15 CAN'T INVENT EVERYTHING. IN TEN YEARS; HOPEFULLY, NONE OF  
16 MY INVENTIONS WILL BE IN USE, SOMETHING BETTER WILL COME  
17 ALONG. THAT'S HOW IT'S SUPPOSED TO WORK.

18 Q BUT ONE OF THE REASONS YOU SORT OF LET THE CHIPS FALL  
19 WHERE IT MAY IS BECAUSE YOU HAVE NO FINANCIAL INTEREST IN  
20 THE CASE, RIGHT?

21 A NO. PEOPLE THINK THAT SOMETHING COMES IN AND ARE HIRED  
22 AS AN EXPERT, THEY ARE BEING PAID. BUT SOMEBODY WHO IS NOT  
23 BEING PAID AND DOESN'T HAVE A FINANCIAL INTEREST, I THINK,  
24 IT'S PERHAPS A LITTLE MORE TRUSTABLE IN THAT SENSE. THEY  
25 DON'T HAVE ANOTHER MOTIVE. NOW I HAVE ANOTHER MOTIVE, I

1 BELIEVE DEEPLY IN THESE PATENTS. I HAVE LIVED THROUGH THEIR  
2 INVENTION. I KNOW WHAT THE CONTRIBUTION WAS AND YES, I  
3 WOULD LIKE THIS JURY TO FIND THIS PATENT AVAILABLE.

4 Q YOU REFERRED AT THE VERY BEGINNING OF YOUR TESTIMONY TO  
5 MEDTRONIC ACQUIRING A BUNCH OF RIGHTS FROM YOU IN THE SPINAL  
6 FIELD, DO YOU RECALL THAT?

7 A YES.

8 Q AND THEN AGAIN TODAY, MR. DAUCHOT CAME BACK TO THAT  
9 ISSUE AND SAID, WELL, ACTUALLY THERE WAS SOME LITIGATION  
10 BETWEEN YOU AND MEDTRONIC, RIGHT?

11 A THERE WAS.

12 Q AND YOU SAID THAT YOU HAD RECEIVED WHATEVER PAYMENT YOU  
13 HAD RECEIVED, NOT ONLY FOR YOUR SPINAL RIGHTS AND YOUR  
14 INVENTIONS BUT TO SETTLE THE LITIGATION, RIGHT?

15 A THAT IS CORRECT.

16 Q HOW MUCH WERE YOU PAID?

17 A IN TOTAL? FOR THAT ONE TRANSACTION?

18 Q YES.

19 A \$1.35 BILLION DOLLARS WITH A B.

20 Q A BILLION WITH A B?

21 A CORRECT.

22 Q LAST SUBJECT. THE INVENTOR HALL OF FAME. ALSO SEEMS  
23 LIKE A LONG TIME AGO. YOU DIDN'T MEAN TO SUGGEST TO THE  
24 JURY THAT YOU WERE INDUCTED BECAUSE OF THE PATENTS, THE  
25 SPECIFIC PATENTS AT ISSUE IN THIS CASE, RIGHT?

1 A I NEVER SAID THAT.

2 Q IN FACT, IF WE LOOK AT THIS CERTIFICATE OR LITTLE BLURB  
3 ABOUT YOUR INDUCTION, THERE'S A PATENT LISTED BUT IT IS NOT  
4 THE '973 OR THE '586, RIGHT?

5 A I'M GOING TO TRUST YOU ON THAT.

6 Q NO FURTHER QUESTIONS.

7 THE COURT: REDIRECT, MR. DAUCHOT?

8 MR. DAUCHOT: YES, YOUR HONOR.

9 BY MR. DAUCHOT:

10 Q DR. MICHELSON, LET ME PICK UP ON JUST THE LAST POINT.  
11 CAN YOU EXPLAIN TO THE JURY HOW IT CAME THAT YOUR PROFILE IN  
12 THE INVENTOR HALL OF FAME INCLUDES ONE PARTICULAR PATENT?  
13 AND MY OTHER QUESTION IS, DOES THAT HAVE SOMETHING TO DO  
14 WITH THE RECOGNITION YOU RECEIVED FROM THE NATIONAL  
15 INVENTOR'S HALL OF FAME?

16 A WHEN I WAS TOLD I WAS GOING BE INDUCTED, MR. GREY SAID,  
17 "ACTUALLY YOU ARE A VERY UNUSUAL CASE." HE SAID, "WHEN  
18 PEOPLE THINK OF EDISON, THEY THINK OF THE LIGHT BULB, BUT  
19 EDISON ACTUALLY HAD A THOUSAND PATENTS." HE SAID, "YOU ARE  
20 LIKE THE NEXT GUY IN LINE." HE SAID "YOU KNOW, WE'RE NOT  
21 INDUCTING YOU FOR ONE INVENTION. YOU HAVE GOT SO MANY OF  
22 THEM, PICK ANYONE YOU WANT AND THAT WILL BE THE ONE WE PUT  
23 UP ON THE PLAQUE."

24 Q ALL RIGHT. NOW DR. MICHELSON, I WANT TO, I WANT TO  
25 PICK UP ON ONE ADDITIONAL POINT BEFORE I DELVE INTO IT.



1  
2 IN THE UNITED STATES DISTRICT COURT  
3 FOR THE SOUTHERN DISTRICT OF CALIFORNIA  
4 HONORABLE MICHAEL M. ANELLO, DISTRICT JUDGE  
5

6 \_\_\_\_\_ )  
7 MEDTRONIC SOFAMOR DANEK, USA ) CASE NO. 08 CV 1512-MMA  
ET AL., )  
8 )  
PLAINTIFF, )  
9 )  
VS. ) AUGUST 31, 2011  
10 )  
NUVASIVE, INC., ) WEDNESDAY, 9:00 AM  
11 )  
DEFENDANT. ) TRIAL - DAY TWO  
12 \_\_\_\_\_ )

13  
14 REPORTER'S TRANSCRIPT OF PROCEEDINGS  
15

16 APPEARANCES:

17 FOR THE PLAINTIFF: LUKE L. DAUCHOT, ESQ.  
18 NIMALKA WICKRAMASEKERA, ESQ.  
19 SHARRE LOTFOLLAHI, ESQ.  
ALEXANDER F. MACKINNON, ESQ.  
MICHAEL DOBSZEWICZ, ESQ.  
KIRKLAND & ELLIS, LLP

20 JEFF SCHWARTZ, ESQ.  
21 DEWEY & LEBOEUF

22 FOR THE DEFENDANT: FRANK SCHERKENBACH, ESQ.  
23 TODD G. MILLER, ESQ.  
JONATHAN J. LAMBERSON, ESQ.  
24 NEIL WARREN, ESQ.  
KEELEY I. VEGA, ESQ.  
25 FISH & RICHARDSON, P.C.

1 A I NEVER SAID THAT.

2 Q IN FACT, IF WE LOOK AT THIS CERTIFICATE OR LITTLE BLURB  
3 ABOUT YOUR INDUCTION, THERE'S A PATENT LISTED BUT IT IS NOT  
4 THE '973 OR THE '586, RIGHT?

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13 AND MY OTHER QUESTION IS, DOES THAT HAVE SOMETHING TO DO  
14 WITH THE RECOGNITION YOU RECEIVED FROM THE NATIONAL  
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19 EDISON ACTUALLY HAD A THOUSAND PATENTS." HE SAID, "YOU ARE  
20 LIKE THE NEXT GUY IN LINE." HE SAID "YOU KNOW, WE'RE NOT  
21 INDUCTING YOU FOR ONE INVENTION. YOU HAVE GOT SO MANY OF  
22 THEM, PICK ANYONE YOU WANT AND THAT WILL BE THE ONE WE PUT  
23 UP ON THE PLAQUE."

24 Q ALL RIGHT. NOW DR. MICHELSON, I WANT TO, I WANT TO  
25 PICK UP ON ONE ADDITIONAL POINT BEFORE I DELVE INTO IT.

1 MR. SHERKENBACH HAD ASKED YOU A QUESTION ABOUT WHETHER YOU  
2 REMEMBERED ANY CONVERSATIONS WITH MR. LUKIANOV AFTER SAY  
3 AFTER DECEMBER '93, MAYBE, AND I THINK YOU SAID NO.

4 AND I JUST WANT TO MAKE THE RECORD CLEAR, YOU  
5 TESTIFIED ON DIRECT ABOUT A CONVERSATION THAT YOU HAD WITH  
6 MR. LUKIANOV, I THINK IN EARLY 2001, ABOUT THE LICENSING OF  
7 THE INTERBODY TECHNOLOGY. DO YOU REMEMBER THAT TESTIMONY?

8 A YES.

9 Q IS THAT A CONVERSATION YOU REMEMBER WITH MR. LUKIANOV?

10 A OH, VERY CLEARLY. I'M SORRY. I THOUGHT HE WAS ASKING  
11 IN THE CONTEXT OF WHEN MR. LUKIANOV WAS AT SOFAMOR DANEK.

12 I APOLOGIZE.

13 Q THAT'S ALL RIGHT. YOU HAD QUITE A BIT OF DISCUSSION  
14 ABOUT THE '247. DAVE, CAN YOU PUT THE '973 UP, PLEASE.

15 DO YOU HAVE OUR BINDERS, DR. MICHELSON?

16 A NO. YES, I DO.

17 Q IT'S 326, ARE YOU WITH ME?

18 A I'M SORRY. ONE MORE TIME.

19 Q 326 IS THE EXHIBIT NUMBER?

20 A I GOT IT.

21 Q AND I WOULD ASK -- GOING ON MEMORY, HERE COLUMN TWO. I  
22 THINK IT IS. DAVID. CAN YOU BLOW UP, I CAN READ BUT THE  
23 FIRST FULL PARAGRAPH IN COLUMN TWO, THE SPECIFICATION? CAN  
24 YOU BLOW THAT WAY UP. SEE THAT, DR. MICHELSON?

25 A YES.

1 Q NOW YOU EXPLAINED WHEN THE UNITED STATES PATENT AND  
2 TRADEMARK OFFICE ISSUED, GRANTED YOU THE '973, A CLAIM ON  
3 THE '973 INVENTION, DID THE UNITED STATES PATENT AND  
4 TRADEMARK OFFICE KNOW ABOUT YOUR '247?

5 A YES. IT WAS CITED.

6 Q WHEN YOU SAY CITED. IT WAS MORE THAN CITED. YOU  
7 SPECIFICALLY REFERRED TO THE PATENT?

8 A I CALLED OUT ATTENTION TO IT.

9 Q YOU SPECIFICALLY REFERRED TO THIS PATENT IN YOUR  
10 APPLICATION, RIGHT?

11 A YES. YES.

12 Q AND DAVID, COULD YOU BLOW THAT UP A LITTLE BIT MORE?  
13 YOU SPECIFICALLY EXPLAINED TO THE UNITED STATES PATENT AND  
14 TRADEMARK OFFICE WHY YOUR INVENTION OF THE '247 WAS NOT, WHY  
15 YOUR INVENTION OF THE '973 WAS AN IMPROVEMENT OVER THE '247,  
16 CORRECT?

17 A THAT'S CORRECT.

18 Q AND THEY GRANTED YOU YOUR PATENT?

19 A THEY DID.

20 Q THE EXAMINERS WERE EXPERTS WERE IN THIS, DECIDED THE  
21 '973 IS ENTITLED TO CLAIMS, TO PATENT CLAIMS, TRANSLATERAL,  
22 CORRECT?

23 A RIGHT. CORRECT.

24 Q KNOWING FULL WELL ABOUT THE '247?

25 A YES.

1 Q NOW MR. SHERKENBACH POINTED TO SOME EARLIER TESTIMONY,  
2 DO YOU REMEMBER THAT WHERE YOU DISCUSSED THE LAY PERSON  
3 VERSION, DO YOU REMEMBER THAT, THE EMBODIMENT?

4 A YES, I DO.

5 Q YOU TRIED TO EXPLAIN YOURSELF TO THE JURY. I JUST WANT  
6 TO MAKE SURE THAT THE JURY UNDERSTANDS THAT THE SAME  
7 EXPLANATION YOU GAVE THEM TODAY IS THE EXPLANATION YOU GAVE  
8 MR. SHERKENBACH IN YOUR DEPOSITION.

9 YOU RECALL ELABORATING ON THIS POINT DURING YOUR  
10 DEPOSITION?

11 A I DON'T RECALL AS I SIT HERE.

12 Q OKAY. THE QUESTION WAS ON PAGE 99 IN YOUR DEPOSITION,  
13 LINE 21?

14 MR. SCHERKENBACH: OBJECTION. THIS IS NOT THE Q  
15 AND A I USED. IT'S A DIFFERENT PART OF THE DEPOSITION.

16 MR. DAUCHOT: WELL, THAT'S MY POINT.

17 THE COURT: WELL, IT STILL IS FROM THE SAME  
18 DEPOSITION?

19 MR. DAUCHOT: IT IS, YOUR HONOR.

20 MR. SCHERKENBACH: SAME DEPOSITION.

21 THE COURT: SO FAR, SO GOOD, IF YOU WANT TO POINT  
22 OUT LATER IT'S FROM A DIFFERENT PART OR SOMETHING.

23 MR. DAUCHOT: ALL RIGHT.

24 BY MR. DAUCHOT:

25 Q THAT'S MY POINT, DR. MICHELSON. IT'S THE SAME

1 DEPOSITION, WE'RE ELABORATING.

2 THE QUESTION WAS, "DO I UNDERSTAND YOU TO SAY THAT  
3 THE EMBODIMENT BODY OF THE '247 IS ALSO ONE OF THE  
4 EMBODIMENTS OF THE '973?"

5 AND I OBJECTED AND ALL THAT.

6 AND YOU THEN YOU CONTINUED AND YOU SAID, HERE WE  
7 GO, "I MAYBE USING THE WRONG WORD BECAUSE I DON'T KNOW  
8 EXACTLY WHAT EMBODIMENT MEANS IN THE LEGAL CONTEXT. WHAT  
9 I'M SAYING IS '247 IS THE FIRST TEACHING OF A HOLLOW  
10 THREADED CYLINDRICAL INTERBODY FUSION IMPLANT --"

11 A CAN YOU SPEAK UP A LITTLE BIT? I AM HAVING TROUBLE  
12 HEARING YOU.

13 Q SURE, "WHAT I'M SAYING IS THE '247 IS THE FIRST  
14 TEACHING OF A HOLLOW BODIED THREADED CYLINDRICAL INTERBODY  
15 FUSION IMPLANT FOR USE IN THE HUMAN SPINE AND IT DOES NOT  
16 DISCLOSE THE PARTICULARS OF THE '973 TRANSLATERAL IMPLANT.  
17 NEVERTHELESS, THE WHILE THE '973 IMPLANT IS DIMENSIONED IN A  
18 WAY THAT IS NOT DISCLOSED HERE, IT IS NEVERTHELESS STILL A  
19 THREADED CYLINDRICAL IMPLANT, ONE OF THE VERSIONS OF IT. DO  
20 YOU SEE THAT?

21 A I WAS ACTUALLY READING ALONG WITH YOU, YES.

22 Q NOW DR. MICHELSON, AGAIN THE '247 YOU DESCRIBE AS A  
23 FOUNDATIONAL PATENT? CORRECT?

24 A YES. IT'S A PIONEERING PATENT.

25 Q AND THE '973 IS AN IMPROVEMENT, IF YOU WILL, ON THAT

1 PATENT?

2 A CORRECT.

3 Q DO YOU HAVE OTHER PATENTS WHERE THE PATENT TRADEMARK  
4 OFFICE GRANTED YOU IMPROVEMENTS ON PRE-EXISTING PATENTS?

5 A MOST OF MY PATENTS.

6 Q ALL RIGHT. I WANT TO SHIFT TO -- HOLD ON A SECOND.  
7 THE RANGE ISSUE. DAVE, CAN YOU PUT IT UP AGAIN?

8 THANKS. THE RANGES. I THINK ARE WHAT COME IN  
9 FIVE. COLUMN SEVEN. ALL RIGHT AND LINE 21, DAVID. ALL  
10 RIGHT.

11 YOU START YOUR PARAGRAPH BY SAYING, "IN THE  
12 PREFERRED EMBODIMENT, THE SPINAL FUSION IMPLANT OF THE  
13 PRESENT INVENTION."

14 DO YOU SEE THAT?

15 A YES.

16 Q ALL RIGHT. "THE SPINAL FUSION IMPLANT OF THE PRESENT  
17 INVENTION, DR. MICHELSON, IS THAT AN IMPLANT THAT CAN BE  
18 INSERTED FROM THE FRONT OR THE BACK OF THE VERTEBRA WITHOUT  
19 CAUSING EXTRAORDINARY HARM TO A PATIENT?

20 A IT CANNOT.

21 Q NOW IT IS A FACT, THAT IF YOU LOOK AT THESE RANGES AND  
22 YOU START PLUCKING NUMBERS IN THESE BOTH THESE DIMENSIONS,  
23 THAT YOU ARE GOING TO HAVE A NUMBER OF IMPLANTS THAT FALL  
24 WITHIN THAT, THOSE TWO SEPARATE RANGES, PIECE THEM TOGETHER  
25 AND YOU'RE GOING TO BE ABLE TO IMPLANT THEM SAFELY WITHIN

1 THE FRONT AND THE BACK, RIGHT?

2 A CORRECT.

3 Q I WANT TO TURN, DAVID, CAN YOU BRING, THAT BRINGS ME  
4 TO?

5 A MAY I MAKE ONE LITTLE COMMENT? I THINK THE CLAIM MAKES  
6 THAT ABUNDANTLY CLEAR BY SAYING THAT A TRANSLATERAL IMPLANT  
7 MUST HAVE A LENGTH THAT IS GREATER THAN DEPTH OF THE DISC  
8 SPACE.

9 Q I'M GOING TO GET THERE?

10 A YEAH. OKAY.

11 Q JUST ANOTHER QUESTION, DR. MICHELSON, MR. SCHERKENBACH,  
12 WHEN HE BEGAN YOUR QUESTIONING, ASKED YOU IF THE WORD  
13 APOPHYSEAL RING APPEARS ANYWHERE IN YOUR PATENT.

14 DO YOU REMEMBER THAT QUESTION?

15 A I DO.

16 Q AND YOU ANSWERED YES, RIGHT?

17 A NO. I SAID, I DON'T THINK IT DOES.

18 Q OH, YOU SAID NO. RIGHT. YOU SAID NO.

19 A I HAVEN'T READ THAT RECENTLY.

20 Q WELL I WISHED YOU HAD FOUGHT BACK A LITTLE BIT, I WOULD  
21 NOT HAVE TO SPEND TIME ON REDIRECT. BUT THAT ASIDE.

22 ANATOMICALLY SPEAKING, DOES ANY SURGEON UNDERSTAND THAT THE  
23 OUTER EDGES OF THE VERTEBRAL BODY CONSTITUTES THE APOPHYSEAL  
24 RING?

25 A IF SOMEBODY SAID THAT THEY WENT TO MEDICAL SCHOOL, I



1 THINK EVERYONE WOULD ASSUME YOU WENT TO COLLEGE. YOU CAN'T  
2 GET COAST TO COAST WITHOUT TRAVERSING THE APOPHYSEAL RING  
3 FROM BOTH SIDES. ANY DOCTOR WOULD KNOW THAT.

4 Q SO ANY DOCTOR KNOWS WHEN YOU ARE TALKING COAST TO  
5 COAST, YOU ARE TALKING APOPHYSEAL RING?

6 A YES.

7 Q BECAUSE WHAT LIES ON THE COAST OF THE VERTEBRAL RIDE?

8 A YOU GOT IT.

9 Q THE APOPHYSEAL RING.

10 A THE APOPHYSEAL RING.

11 Q NOW CAN YOU PUT COLUMN THREE, LINES ONE THROUGH TEN.  
12 JUST TO MAKE SURE WE'RE CLEAR, WHEN WE'RE TALKING APOPHYSEAL  
13 RING, IT DOES NOT APPEAR, THAT WORD IN THE PATENT, BUT YOU  
14 DO STATE IN THE SECOND SENTENCE, THE TRANSLATERAL SPINAL  
15 FUSION IMPLANT OF THE PRESENT INVENTION IS INSERTED INTO THE  
16 SPINE OF THE PATIENT ACROSS THE TRANSVERSE WIDTH OF THE  
17 VERTEBRA TO BE FUSED AND THE NEXT SENTENCE, THE TRANSVERSE  
18 WIDTH OF A VERTEBRA IS MEASURED FROM ONE LATERAL ASPECT OF  
19 THE SPINE TO THE OPPOSITE LATERAL ASPECT. IS THAT,  
20 DR. MICHELSON, COAST TO COAST?

21 A THAT'S IT.

22 Q ANYBODY WHO HAS HAD, AND LOOK, I NEVER KNEW WHAT THE  
23 APOPHYSEAL RING WAS UNTIL I MET YOU. BUT ANYBODY GOING TO  
24 MEDICAL SCHOOL OR GOING INTO SPINE SURGERY IS GOING TO  
25 UNDERSTAND THAT WHEN YOU ARE TALKING ABOUT THE LATERAL

1 ASPECT, YOU ARE TALKING ABOUT THE APOPHYSEAL RING?

2 A CORRECT.

3 Q THAT'S SOMETHING YOU NEED TO SPELL OUT TO A SURGEON?

4 A NO.

5 Q ALL RIGHT. DAVID, CAN YOU TURN TO CLAIM 35. CAN YOU  
6 BLOW THAT UP FOR US? THANK YOU. OKAY. NOW YOU WERE ASKED  
7 A QUESTION ABOUT 35 AND THE QUESTION WAS, "WELL, WAIT A  
8 SECOND. OH. SO WE BEGIN WITH A TRANSLATERAL SPINE IMPLANT.

9 DAVID, CAN YOU BLOW THAT UP. A SPINAL IMPLANT  
10 CAPABLE OF TRANSLATERAL, RIGHT? NOW TRANSLATERAL YOU JUST  
11 SAID, LOOKING AT COLUMN THREE, LINES ONE THROUGH TEN, YOU  
12 DEFINED AS COAST TO COAST?

13 A ABSOLUTELY.

14 Q NOW DR. MICHELSON, DAVID, CAN YOU BLOW UP SAID IMPLANT  
15 HAVING A LENGTH THAT IS GREATER THAN ONE HALF THE TRANSVERSE  
16 WIDTH OF THE VERTEBRAE, DO YOU SEE THAT, DAVID? RIGHT  
17 THERE. YEAH. AND THEN THE NEXT LINE. IF YOUR TRANSLATERAL  
18 IMPLANT IS COAST TO COAST, WHY THE CLAIM LANGUAGE IN HERE  
19 SETTING AND HAVING A LENGTH THAT IS ONLY GREATER OR GREATER  
20 THAN ONLY ONE HALF THE DISTANCE FROM ONE COAST TO ANOTHER?

21 A IT IS A GREAT QUESTION BECAUSE THIS IS NOT OBVIOUS. AS  
22 SOON AS I WROTE TRANSLATERAL SPINE IMPLANTS. SINCE I AM THE  
23 LEXICOGRAPHER OR THE DICTIONARY WRITER FOR THAT WORD, IT  
24 MEANS COAST TO COAST AND NOW IT SEEMS WE ARE CONTRADICTING  
25 THAT BY SAYING IT MEANS BIGGER THAN ONE HALF OF THE WIDTH.

1 WHAT I WAS TRYING TO AVOID IS THE PEOPLE WHO ARE MAKING MY  
2 '247 IMPLANT, WE ALREADY SAID THEY WEREN'T LONG ENOUGH.  
3 WHAT I DIDN'T WANT THEM TO DO WAS TO TAKE TWO OF THOSE AND  
4 PUT THEM IN TOGETHER AND SAY, OH, THAT'S YOUR DEVICE.  
5 BECAUSE IT'S NOT. IT WOULD NOT BE STRONG IN THE SAME WAY.  
6 YOU CAN DO IT. AND I'M NOT SAYING IT IS NOT GOING TO WORK.  
7 I WANTED TO MAKE IT VERY, VERY CLEAR, THAT'S NOT A '973. SO  
8 IF YOU THINK ABOUT IT, WHERE IT SAYS IT HAS TO BE BIGGER  
9 THAN ONE HALF, THEN YOU COULDN'T PUT TWO IN BECAUSE THIS ONE  
10 IS BIGGER THAN ONE HALF, THIS ONE IS BIGGER THAN ONE HALF,  
11 IT WOULD BE STICKING OUT BOTH SIDES, SO THE PURPOSE OF THE  
12 CLAIM, IS YES, IT HAS TO GO COAST TO COAST BUT IT CAN'T BE  
13 TWO, IT CAN'T BE TWO PIECES.

14 Q JUST AS AN ASIDE, ARE THERE AREAS OF THE SPINE WE  
15 WALKED YESTERDAY THROUGH DIFFERENT REGIONS OF THE SPINE, ARE  
16 THERE REGIONS OF THE SPINE WHERE IT'S ACTUALLY POSSIBLE TO  
17 GO COAST TO COAST, BUT YOU DON'T GO BEYOND HALF THE  
18 TRANSVERSE WIDTH?

19 A SURE. I HAVE TO DRAW IT, WHEN YOU GET UP TO THE T  
20 SEVEN, IN SOME PEOPLE, THE VERTEBRA DON'T HAVE A FRONT, THEY  
21 JUST HAVE A TRIANGLE AND IF YOU WERE TO PUT A PIECE UP HERE,  
22 IT WOULD BE SITTING ON THE APOPHYSEAL RING ON BOTH SIDES BUT  
23 IT WOULD NOT BE ONE HALF THE WIDTH. SURE. IT'S POSSIBLE.

24 Q ALL RIGHT. DR. MICHELSON, I THINK TWO MORE QUESTIONS.  
25 WE HAD THE '770 IMPLANT THAT WAS PUT UP. DO YOU HAVE THAT,

1 DAVID?

2 MR. SCHERKENBACH: WE CAN PUT IT UP FOR YOU? '770  
3 PATENT?

4 MR. DAUCHOT: AND WOULD YOU MIND GOING TO THE NEXT  
5 PAGE, NEXT PAGE, NEXT, NEXT. WHAT WAS THE ONE. THAT  
6 FIGURE RIGHT THERE.

7 BY MR. DAUCHOT:

8 Q FIGURE 11 WAS THE SUBJECT OF DISCUSSION, DO YOU  
9 REMEMBER THAT?

10 A YES.

11 Q IS THAT IMPLANT THAT WE ARE LOOKING ON FIGURE 11 COAST  
12 TO COAST?

13 A WELL, WHEN YOU FINISH SCREWING IT IN, IT WILL BE.

14 Q AS IT'S SHOWING HERE, IS IT COAST TO COAST?

15 A THE REASON IT'S SHOWING HERE IS TO SHOW THE PROBLEM.  
16 THE PROBLEM IS IF THAT IMPLANT WERE ANY WIDER, IT WOULD BE  
17 STICKING OUT AND WHEN YOU FINISH TURNING THIS IT. YES, IT'S  
18 GOING TO BE COAST TO COAST, SURE. OKAY? SO WHAT THE  
19 PROBLEM WAS IS EXACTLY WHAT WE KEEP TALKING ABOUT. ABOUT  
20 THE RANGES. IF I MAKE THAT FATTER, IT CAN'T BE AS LONG  
21 BECAUSE IT WILL STICK OUT EVEN SOONER. IF I MAKE IT  
22 SKINNER, I CAN MAKE IT LONGER SO THE '770 WAS TRYING TO  
23 SOLVE THAT PROBLEM AND IT MADE AN IMPROVEMENT ON THE '973.

24 Q ALL RIGHT. SHEEPS AND GOATS.

25 A SHEEPS AND GOATS.

1 Q IT IS A FACT THAT IN YOUR AREA OF TECHNOLOGY,  
2 PHYSICIANS -- AND I WANT TO BE, I DON'T MEAN TO GET GRAPHIC  
3 HERE, BUT WORK IS DONE ON VERTEBRA OF FOUR LEGGED ANIMALS?

4 A YES.

5 Q OKAY. NOW THE WORK IS DONE BECAUSE -- LET ME ASK YOU  
6 THIS. AND I'LL ASK YOU AN OPENING QUESTION. I'M NOT SURE  
7 HOW YOU'LL ANSWER IT SO, ARE THERE THINGS THAT SUCH  
8 EXPERIMENTATION IS GOOD FOR AND ARE THERE THINGS WHERE IT'S  
9 JUST INAPPROPRIATE TO TRY TO FIGURE OUT ABOUT THE IMPLANT.  
10 AM I MAKING SENSE?

11 A YES. PERFECT. THIS IS MY PROFESSIONAL OPINION.

12 Q ALL RIGHT.

13 A IF YOU WANT TO STUDY WHETHER A CHEMICAL THAT IS COMMON  
14 TO ALL MAMMALS OR BONE MORPHOGENETIC PROTEIN WILL IN FACT  
15 CAUSE THE BONE TO FUSE, YOU CAN DO THAT IN ANY MAMMAL.  
16 DOESN'T HAVE TO BE DONE IN HUMAN BEINGS. IF YOU WANT TO  
17 STUDY WHETHER A NEW MATERIAL, LET'S JUST SAY POLY URETHANE  
18 KETONE, IT IS A VERY STRONG PLASTIC THAT IMPLANTS ARE MADE  
19 OF, IS IT A SAFE MATERIAL TO PUT THAT IN THE HUMAN BODY?  
20 WELL, YOU PROBABLY SHOULD PUT THAT IN ANOTHER MAMMAL FIRST.  
21 IF NOTHING HAPPENS BAD, YOU CAN THINK ABOUT DOING IT. IF  
22 SOMETHING BAD HAPPENS TO THE MAMMAL, YOU DON'T WANT TO TRY  
23 TO DO IT IN THE HUMAN. NOW, IF YOU ARE TALKING ABOUT  
24 BIOMECHANICS. NO. NO. THERE ARE ANIMALS THAT FUSE IF YOU  
25 JUST RUB THEM. YOU CAN'T USE THEM BECAUSE AS SOON AS YOU

1 ANNOY THE BONE YOU FUSE, IT DOES NOT MATTER WHAT YOU PUT IN.  
2 THERE'S OTHER ANIMALS, IT'S VERY VERY DIFFICULT TO GET A  
3 FUSION. AND COWS AND SHEEPS AND PIGS ARE SO BAD, SO VERY  
4 BAD FOR STUDYING WHAT HAPPENS IN A HUMAN, THAT IT WAS  
5 SUGGESTED THEY USE PRIMATES. NOW I THINK MOST PEOPLE HERE  
6 WOULD REACT VERY STRONGLY TO DOING THIS IN CHIMPANZEES AND  
7 GORILLAS SO AS AN ALTERNATIVE, PEOPLE ACTUALLY STARTED DOING  
8 IT IN KANGAROO'S BECAUSE AT LEAST THE KANGAROO IS MOVING  
9 AROUND ON TWO. THE SPINE OF A BIPED IS NOTHING LIKE A  
10 QUADRUPED. YOU CAN'T STUDY THE BIOMECHANICS.

11 Q OKAY. ONE FINAL QUESTION, DR. MICHELSON, WHEN WE ARE  
12 TALKINGS ABOUT SPECIFICATIONS OF CLAIMS IN THE PATENT, DID  
13 YOU PERSONALLY DRAFT THE CLAIMS IN YOUR PATENTS?

14 A NO.

15 Q AND WHO DOES THAT?

16 A I HAVE PATENT ATTORNEYS.

17 Q ALL RIGHT. DR. MICHELSON, LET ME JUST DOUBLE CHECK.  
18 DR. MICHELSON, THANK YOU. THAT'S ALL I HAVE?

19 THE COURT: MR. SCHERKENBACH, ANY FURTHER  
20 QUESTIONS?

21 MR. SCHERKENBACH: I DO, YOUR HONOR. I'LL BE  
22 BRIEF AS I CAN. I APPRECIATE IT'S BEEN A LONG TIME WITH  
23 DR. MICHELSON. OKAY. THANK YOU.

24 RECROSS-EXAMINATION

25

1 BY MR. SCHERKENBACH:

2 Q DR. MICHELSON, CAN WE PUT UP THE '973 PATENT? PLEASE?  
3 AT COLUMN TWO, LINES 13 THROUGH 19.

4 A MR. SHERKENBACH, WHAT NUMBER IS THAT?

5 Q WE'RE GOING TO PUT IT ON THE SCREEN.

6 A I'D LIKE TO SEE IT IN THE CONTEXT, IF I CAN. CAN I SEE  
7 THE EXHIBIT?

8 Q OKAY. IF YOU REALLY NEED TO DO THAT.

9 A I DON'T KNOW BUT I'D LIKE TO AT LEAST SEE IT IN  
10 CONTEXT.

11 Q THIS IS EXACTLY WHAT MR. DAUCHOT JUST SHOWED YOU,  
12 PUTTING THE SAME THING ON THE SCREEN. HE DIRECTED YOU TO  
13 THE '973 AND SUGGESTED THAT THE EXAMINER CONSIDERED IT AND  
14 ALLOWED YOUR PATENT OVER IT.

15 DO YOU RECALL THAT TESTIMONY?

16 A I DO.

17 Q NOW YOU KNOW AT THE TIME YOU FILED YOUR APPLICATION FOR  
18 THE '973, YOU CLAIMED PRIORITY TO YOUR '247 PATENT?

19 A I DON'T HAVE ANY KNOWLEDGE OF THAT AT ALL.

20 Q THE '247 WAS NOT PRIOR ART DURING THE ENTIRE  
21 PROSECUTION OF YOUR '973, WAS IT?

22 MR. DAUCHOT: OBJECTION, YOUR HONOR. THAT  
23 MISCHARACTERIZES THE PROSECUTION HISTORY.

24 THE COURT: OVERRULED. GO AHEAD.

25 THE WITNESS: I HAVE NO IDEA WHETHER THAT IS

1 CORRECT OR INCORRECT. I DON'T BELIEVE IT'S CORRECT, BUT I  
2 HAVE NO IDEA.

3 BY MR. SCHERKENBACH:

4 Q YOU KNOW YOUR LAWYERS CHANGED THE PRIORITY DATE CLAIM  
5 TO THIS PATENT AFTER YOUR CLAIMS WERE ALLOWED, DON'T YOU?

6 A WELL NOT ONLY DO I DON'T KNOW, BUT I'LL TELL YOU WHAT I  
7 DO KNOW, IF YOU WANT TO KNOW.

8 Q NO. I WANT YOU TO ANSWER MY QUESTION?

9 A I HAVE NO KNOWLEDGE OF WHAT YOU ARE SAYING, YOU DO  
10 KNOW. YOU DO KNOW. I HAVE NO KNOWLEDGE.

11 Q BACK TO THIS OATH THAT I TALKED ABOUT WITH YOU ON  
12 DIRECT. YOUR OATH FOR THE '973 PATENT, OKAY?

13 A YES.

14 Q I SHOWED YOU THE FIRST PAGE, WHICH I'M PUTTING UP HERE  
15 NOW AT THE BOTTOM, THERE'S ANOTHER PIECE TO THIS OATH, ISN'T  
16 THERE?

17 A YES, THERE IS.

18 Q "I HEREBY CLAIM THE BENEFIT UNDER TITLE 35, UNITED  
19 STATES CODE SECTION 120, OF ANY UNITED STATES APPLICATION  
20 LISTED BELOW.

21 AND LISTED BELOW, AT THE TIME, SEE IF IT WILL  
22 FOCUS, I HOPE IT WILL. OKAY. THAT'S BETTER. AND THESE  
23 WERE THE APPLICATIONS LISTED BELOW THAT YOU WERE CLAIMING  
24 THE BENEFIT OF A PRIORITY DATE TO, RIGHT?

25 A IF YOU TELL ME THAT'S WHAT THAT IS, THEN I TRUST THAT'S



1 CORRECT.

2 Q ZOOM IN ON THE THIRD ENTRY, PLEASE, MR. SAYERS, ONE OF  
3 THE ONES YOU CLAIM THE BENEFIT OF THE PRIORITY TO WAS THE  
4 APPLICATION ENDING IN '935. DO YOU SEE THAT?

5 A I DO.

6 Q DATED JUNE 13, 1988, RIGHT?

7 A YES.

8 Q AND IT SAYS IT'S PATENTED, RIGHT?

9 A I CAN'T ACTUALLY READ THAT.

10 Q IT SAYS PATENTED?

11 A OH. I SEE IT, YES.

12 Q SO IT WAS AN APPLICATION FILED ON MAY THAT DATE IN 88  
13 THAT WAS PATENTED THAT YOU CLAIMED PRIORITY TO, RIGHT?

14 A I'M NOT SURE WHAT THAT MEANS, IF IT WAS A PATENT, DID  
15 YOU HAVE A PATENT NUMBER, NOT AN APPLICATION NUMBER, BUT I'M  
16 NOT SURE. IT SAYS WHATEVER YOU SAY IT DOES.

17 Q NOW LET'S GO TO THE FACE OF THE '247 PATENT. REMEMBER  
18 THIS APPLICATION NUMBER, 935. ALL RIGHT? BLOW IT UP HERE  
19 ON THE LEFT HAND SIDE, RIGHT HERE, MR. SAYERS, PLEASE.  
20 THANK YOU.

21 APPLICATION 205935 FILED JUNE 13, 1988, IS YOUR  
22 '247 PATENT, RIGHT?

23 A IT APPEARS TO BE SO.

24 Q NOW GO BACK TO WHERE WE WERE, PLEASE. SO WHEN YOU  
25 FILED THE '973, YOU CLAIMED THE BENEFIT OF THE FILING DATE

1 OF THE '247?

2 A THAT IS WHAT IT SEEMS TO BE DOING, YES.

3 Q SO WHEN YOU SAY TO MR. DAUCHOT AND HE SHOWS YOU, NOW GO  
4 BACK TO THE '973 IN COLUMN TWO, LINES 13 THROUGH 18. THANK  
5 YOU.

6 THIS STATEMENT IN YOUR APPLICATION IS FILED. THE  
7 EXAMINER LOOKS AT THAT AND SAYS, "WELL YOU CLAIMED PRIORITY  
8 TO IT, IT'S INTERESTING, BUT IT NOT PRIOR ART," RIGHT?

9 A I HAVE NO IDEA WHAT THE EXAMINER SAID. I WAS NOT  
10 THERE.

11 Q ALL RIGHT. OKAY NOW LATER IN THE PROSECUTION, SEE IF I  
12 CAN GET THAT TO FOCUS AGAIN?

13 MR. DAUCHOT: YOUR HONOR, I'M JUST, THERE IS NO  
14 FOUNDATION. THERE IS NO FOUNDATION. HE WAS NOT INVOLVED  
15 IN THE ACTUAL PROSECUTION ISSUE. I'LL MAKE THE OBJECTION.

16 THE COURT: OVERRULED. AT THIS POINT. HE CAN  
17 CERTAINLY INDICATE THAT HE HAS NO KNOWLEDGE, IF THAT'S THE  
18 CASE.

19 BY MR. SCHERKENBACH:

20 Q I DON'T WANT YOU TO TAKE MY WORD FOR IT, OKAY? THIS IS  
21 FROM THE PROSECUTION HISTORY OF YOUR '973 PATENT. SO YOU  
22 DIDN'T READ THE PROSECUTION HISTORY?

23 A I'M SORRY. I CAN'T QUITE READ THAT. IS IT HERE IN  
24 FRONT OF ME?

25 Q YOU CAN'T READ THAT ON THE SCREEN.

1 A I'M SORRY. WHAT IS THE NUMBER?

2 Q OKAY. YES, IT IS. IT'S PART OF THE EXHIBIT YOU HAVE.  
3 YOU HAVE THE WHOLE PROSECUTION HISTORY THERE.

4 A WHAT'S THE NUMBER?

5 Q JUST A MINUTE, PLEASE. I BELIEVE IT'S PX 281. BEAR  
6 WITH ME, PLEASE. IF YOU TURN TO THE PAGE ENDING IN 159?

7 A IS IT 281?

8 Q PX 281?

9 A I'M LOOKING FOR IT. LOOKING FOR IT.

10 Q IN THE LARGE BINDER THAT WE GAVE YOU? THIS MIGHT BE S  
11 BLACK BINDER. MIGHT BE A DIFFERENT ONE THAN WHAT YOU HAVE.

12 A OKAY. OKAY.

13 Q BEHIND YOU. SORRY.

14 A I HAVE IT.

15 Q ALL RIGHT. SO IN THAT TAB, PX 281, IF YOU TURN TO THE  
16 PAGE ENDING IN 159, THAT IS WHAT IS SHOWN ON THE SCREEN  
17 HERE?

18 A I HAVE THAT PAGE.

19 Q OKAY. AND THAT IS YOUR ATTORNEY SUBMITTING AN  
20 AMENDMENT TO THE PATENT OFFICE, RIGHT? IT'S TITLED  
21 AMENDMENT?

22 A CAN I HAVE ONE SECOND TO READ IT? I CAN ANSWER WHAT IT  
23 IS.

24 Q YES. ABSOLUTELY.

25 A OKAY. I HAVE NOW READ IT.

1 Q OKAY. MAYBE WE CAN HIGHLIGHT AMENDMENT, THIS IS AN  
2 AMENDMENT SUBMITTED BY YOUR ATTORNEY DURING THE PROSECUTION  
3 OF YOUR '973 PATENT, RIGHT?

4 A THAT IS CORRECT.

5 Q YOUR ATTORNEY SIGNED IT THERE ON THE SECOND PAGE,  
6 RIGHT?

7 A YES.

8 Q AND UNDER REMARKS, THE FIRST THING HE SAYS IS, "A  
9 NOTICE OF ALLOWANCE WAS RECEIVED," RIGHT?

10 A YES.

11 Q MEANING THE EXAMINER HAS DONE HIS WORK. HE'S LOOKED AT  
12 EVERYTHING AND HE HAS ALLOWED THE CLAIMS, RIGHT?

13 A THAT'S CORRECT.

14 Q BUT THEN YOUR ATTORNEY SAYS THAT HE WANTS TO AMEND THE  
15 SPECIFICATION TO DELETE THE REFERENCE TO RELATED  
16 APPLICATIONS FILED PRIOR TO FEBRUARY 27 1995, RIGHT?

17 A THAT MAKES SENSE, YES.

18 Q SO AFTER THE FACT, HE SAID, "OH DELETE THE PRIORITY  
19 CLAIMS TO THOSE EARLIER APPLICATION, RIGHT?

20 A IT'S NOT AFTER THE FACT. NO PATENT IS ISSUED.

21 Q WELL AFTER THE NOTICE OF ALLOWANCE?

22 A RIGHT. AND IT IS OFTEN TIMES MUCH TO DO AFTER THE  
23 NOTICE OF ALLOWANCE.

24 Q IN ANY EVENT, YOU UNDERSTAND THE EFFECT OF THIS WAS TO,  
25 AT THIS POINT, MAKE THE '247 PATENT PRIOR ART, RIGHT?

1 A NO. I THINK THE EFFECT IS WHAT HE SAYS THE EFFECT IS.  
2 HE SAYS THE EFFECT IS TO REMOVE WHAT IS NOT NECESSARY. HE  
3 DIDN'T NEED IT TO SUPPORT THE CLAIM. THE CLAIMS WERE OF  
4 THEMSELVES SUPPORTABLE WITHOUT '247. THAT'S WHAT HE SAYS.  
5 SO HE'S GIVING A REASON WHY. IT'S A PERFECTLY SENSIBLE  
6 REASON. IT'S NOT TO DO ILL OR DO SOMETHING UNETHICAL.

7 Q I'M NOT SUGGESTING FOR A MOMENT. I JUST WANT THE  
8 RECORD TO CLEAR, WHERE THE PRIORITY CLAIM WAS CHANGED AFTER  
9 THE NOTICE OF ALLOWANCE WAS RECEIVED?

10 A RIGHT AND BEFORE THE PATENT ISSUE.

11 Q NOW SECOND TOPIC. MR. DAUCHOT SHOWED YOU A PORTION, A  
12 DIFFERENT PORTION OF YOUR DEPOSITION THAN I DID ON THE  
13 QUESTION OF THE RELATIONSHIP BETWEEN YOUR '247 PATENT AND  
14 YOUR '973 PATENT. OKAY. AND YOU HAVE IN THE BINDER, THE  
15 BLACK BINDER THAT WE GAVE YOU, YOUR DEPOSITION TRANSCRIPT.  
16 I'M GOING TO PUT IT ON THE SCREEN OR YOU CAN LOOK AT IT IN  
17 FRONT OF YOU OR CHECK ON IT, IF YOU LIKE AND MR. DAUCHOT,  
18 THIS IS PAGE 99?

19 A WHAT IS THE EXHIBIT NUMBERS?

20 Q THIS IS TAB ONE. I THINK IT'S TAB ONE?

21 A TAB ONE.

22 Q YEAH. MR. DAUCHOT STARTED READING AT LINE 21 ON PAGE  
23 99. I'M ASKING YOU RIGHT NOW IF YOU RECALL THAT. HE  
24 STARTED READING AT LINE 21 AND ASKED YOU QUESTIONS BEGINNING  
25 AT LINE 21, RIGHT?

1 A I BELIEVE THAT IS CORRECT, YES.

2 Q IMMEDIATELY PRIOR TO THAT TESTIMONY, BEGINNING AT LINE  
3 13, ISN'T IT CORRECT YOUR TESTIMONY WAS AS FOLLOWS:

4 "QUESTION, IS THERE ANY RELATIONSHIP IN YOUR MIND  
5 BETWEEN THE SUBJECT MATTER OF YOUR '247 PATENT AND YOUR '973  
6 PATENT?

7 ANSWER: YES.

8 QUESTION: WHAT IS THE RELATIONSHIP?

9 ANSWER: WELL, ONE OF THE EMBODIMENTS OF '973 IS A  
10 THREADED CYLINDRICAL CAGE SUCH AS IS TAUGHT IN '247."

11 THAT'S ONE EMBODIMENT, RIGHT?

12 A THAT IS CORRECT.

13 Q OKAY. THIRD TOPIC. SHEEP, GOATS AND VARIOUS OTHER  
14 ANIMALS. YOU SHOWED THE JURY DURING YOUR TESTIMONY,  
15 ACTUALLY CAN YOU BRING UP PX 285? PX 285. DO YOU RECALL  
16 THIS?

17 A I DO.

18 Q THAT IS AN EXAMPLE OF YOUR TRANSLATERAL IMPLANT, RIGHT?

19 A THAT IS.

20 Q THAT'S YOUR HANDWRITING?

21 A THAT IS.

22 Q OKAY. THIS IS PART OF A LARGER DOCUMENT, ISN'T IT?

23 A I'M NOT SURE ABOUT THAT.

24 Q LET'S GO BACK TO THE FULL PAGE VIEW. GO TO THE NEXT  
25 PAGE OF THE DOCUMENT. THOSE ARE SOME, I APOLOGIZE FOR

1 QUALITY, BUT THAT'S HOW THEY WERE PRODUCED TO US. THOSE  
2 WERE SOME INSTRUMENTS THAT WERE USED TO PUT IN OR COULD BE  
3 USED TO PUT IN YOUR IMPLANTS, RIGHT?

4 A NO. THAT'S ACTUALLY THE SINGLE LOCK. THE MULTI LOCK  
5 AND THE INSTRUMENTS FOR PUTTING IN THE CERVICAL PLATES THAT  
6 WAS MADE IN, I THINK THE END OF '94, THE BEGINNING OF '95.

7 Q LET'S GO TO THE NEXT PAGE OF THE EXHIBIT. DO YOU  
8 RECOGNIZE THIS. SAME DOCUMENT?

9 A YOU KNOW, I GOT TO TELL YOU. IT REALLY IS NOT THE SAME  
10 DOCUMENT. I DON'T KNOW HOW IT GOT TOGETHER. THESE WERE  
11 DIFFERENT THINGS. SOMEHOW ALONG THE PROCESS, SOMEBODY PUT  
12 IT TOGETHER. BUT THEY'RE NOT TOGETHER.

13 Q SHEEP VERTEBRA SECTION?

14 A RIGHT.

15 Q THAT'S NOT YOUR SHEET, IS IT?

16 A I'M SORRY. DO YOU WANT ME TO ANSWER THE QUESTION?

17 Q IS THIS YOUR WRITING OR DRAWING?

18 A NO. THAT WAS DRAWN BY LARRY BOYD, I BELIEVE AT SOFAMOR  
19 DANEK, WHEN THEY WANTED ME TO MAKE A LATERAL SET SO THEY  
20 COULD TEST BONE MORPHOGENETIC PROTEIN, THAT CHEMICAL I  
21 TALKED ABOUT THAT WAS SUPPOSED TO MAKE MAMMALS MAKE BONE AND  
22 THEY ASKED ME IF I COULD HAVE MY MACHINIST MAKE A  
23 TRANSLATERAL SET THAT THEY COULD IMPLANT ON SHEEP AND TEST  
24 THE B AND P. THAT'S WHERE THAT'S FROM.

25 Q SO IT'S YOUR TESTIMONY THAT CROSS SECTIONS OF VERTEBRA

1 AND SHOWING THE COLUMN WILL NEVER, ONLY FOR THE PURPOSE OF  
2 TESTING THE BIOLOGIC AND HAVING NOTHING TO DO WITH THE  
3 INSTRUMENTATION.

4 A RIGHT. THERE IS VERY GOOD WRITTEN PROOF OF THAT.

5 Q AND YOU WOULD, YOU WOULD SAY TO ANY SURGEON WHO USED A  
6 SHEEP OR A GOAT AS A MODEL FOR INSTRUMENTATION IS WHAT?  
7 INCOMPETENT? DIDN'T KNOW WHAT THEY WERE DOING?

8 A NOW YOU KNOW I DIDN'T SAY THAT.

9 Q WELL, YOU KNOW --

10 A YOU KNOW I DIDN'T SAY THAT.

11 Q YOU KNOW MANY SURGEONS HAVE USED SHEEP AND GOATS AS  
12 MODELS FOR INSTRUMENTATION INCLUDING IMPLANTS, RIGHT?

13 A OKAY. LET ME BE VERY CLEAR, WHAT I DID SAY AND WHAT I  
14 DO BELIEVE. I DON'T BELIEVE THAT COWS AND SHEEPS AND PIGS  
15 AND THINGS LIKE THAT ARE A GOOD PLACE TO TEST SPINE  
16 INSTRUMENTATION THAT IS DESIGNED FOR HUMAN BEINGS. KNOW,  
17 HAVE PEOPLE DONE IT? THEY HAVE. IS IT BETTER THAN  
18 EXPERIMENTING ON HUMAN BEINGS? YES, IF THAT'S WHAT IT COMES  
19 TO. BUT IT'S NOT A GOOD MODEL FOR HUMAN BEINGS.

20 I DIDN'T SAY ANYTHING ABOUT THEM BEING BAD PEOPLE  
21 OR WHATEVER ELSE YOU SAID. THAT WAS JUST WRONG.

22 Q YOU HAVE NEVER DONE AN ANIMAL TEST OF A FUSION IMPLANT,  
23 HAVE YOU?

24 A I WILL DO BETTER THAN THAT. I HAVE NEVER OPERATED ON  
25 AN ANIMAL.



1 Q THANK YOU, FAIR ENOUGH. NO FURTHER QUESTIONS.

2 THE COURT: MR. DAUCHOT, ANY REDIRECT?

3 MR. DAUCHOT: YEAH. ONE SINGLE FOLLOW-UP, YOUR  
4 HONOR.

5 REDIRECT EXAMINATION

6 BY MR. DAUCHOT:

7 Q DR. MICHELSON, WHEN A PATENT ISSUES, THERE'S AN  
8 ALLOWANCE, A CLAIM ALLOWANCE, RIGHT?

9 A I BELIEVE SO, YES.

10 Q WHEN THE EXAMINER INDICATES THAT THE CLAIMS ARE GOING  
11 TO BE ALLOWED, DOES THAT MEAN THAT THE PATENT IS ACTUALLY  
12 ISSUED?

13 A NO.

14 Q WHEN THE PATENT FINALLY ISSUES, DOES THE PATENT OFFICE  
15 ON THE COVERSHEET OF THE PATENT, LAY OUT ALL OF THE ART THAT  
16 IT CONSIDERED PRIOR ART?

17 A YES.

18 Q CAN YOU TURN TO THE FIRST PAGE OF THE '973 THAT FINALLY  
19 ISSUED. DAVID, CAN YOU GO TO, CAN YOU BLOW UP WHERE IT SAYS  
20 '247.

21 SEE THAT?

22 A I DO.

23 Q THAT'S IS YOUR '247, RIGHT?

24 A IT IS. IT WAS CITED TO THE EXAMINER.

25 Q CITED TO THE EXAMINER CONSIDERED AS PRIOR ART ON THE

1 FACE SHEET. DR. MICHELSON, QUICK QUESTION, WHEN IT'S ALL  
2 SAID AND DONE. WHAT I WAS HEADED WITH THE '247 DID YOU  
3 EXPLAINED TO THE PATENT OFFICE WHY YOUR '247, WHY YOUR '973  
4 INVENTION WAS NOT IN THE '247?

5 A CORRECT. AND IT'S SO SIMPLE. A '247 WOULD COVER ANY  
6 HOLLOW THREADED CYLINDER, PERFORATED FOR WHOLE INFUSION MASS  
7 THAT GOES INTO THE DISC SPACE. AND I WAS NOT SMART ENOUGH.  
8 NO ONE ELSE WAS SMART ENOUGH TO AT THAT TIME, THINK WELL,  
9 JEEZ, WE'LL PUT THEM IN FROM THE SIDE. THE ONLY IMPLANTS  
10 THAT ARE DISCUSSED ARE THE ONES THAT CAN ONLY FIT FRONT TO  
11 BACK AND BACK TO FRONT. SO WHEN LATER ON, I GOT THE IDEA TO  
12 MAKE ON THAT WAS MUCH BIGGER, YEAH, IT'S STILL COVERED BY  
13 THE CLAIMS AT '247 BUT IF IT WASN'T TAUGHT AT '247, YOU ARE  
14 ENTITLED TO GET AN IMPROVEMENT PACKET, AND THAT'S WHAT IT  
15 IS.

16 MR. DAUCHOT: ALL RIGHT. THANK YOU, DR.  
17 MICHELSON. I HAVE NO FURTHER QUESTIONS.

18 THE COURT: MR. SHERKENBACH, ANYTHING ELSE IN  
19 LIGHT OF THOSE?

20 MR. SCHERKENBACH: NO, YOUR HONOR.

21 THE COURT: ALL RIGHT, THANK YOU, SIR. YOU CAN  
22 STEP DOWN. THANKS.

23 NEXT WITNESS, MR. DAUCHOT?

24 WELL, IT IS ABOUT EIGHT MINUTES OF. WOULD YOU PREFER  
25 TO TAKE A BREAK NOW OR CAN WE DO SOMETHING IN ABOUT EIGHT OR

1 TEN MINUTES.

2 MS. WICKRAMASEKERA: YOUR HONOR, WE NEED ABOUT A  
3 HALF AN HOUR. IT'S PROBABLY A GOOD TIME TO TAKE A BREAK.

4 THE COURT: ALL RIGHT. IT LOOKS LIKE IT'S GOING  
5 TO TAKE A LITTLE TIME TO SET UP OUR NEXT WITNESS, SO LET'S  
6 GO AHEAD AND TAKE A BREAK. LET'S RECONVENE AT 1. 30  
7 PLEASE REMEMBER THE LONG ADMONITION I WAS TALKING ABOUT.  
8 HAVE A NICE LUNCH.

9 SEE YOU BACK HERE AT 1:30. THANKS.

10 (END OF PROCEEDING)

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SAN DIEGO, CALIFORNIA                    )  
  ) SS:   308/309  
COUNTY OF SAN DIEGO                    )

I, ELIZABETH M. CESENA, CSR 12266, AN OFFICIAL  
REPORTER OF THE UNITED STATES DISTRICT COURT, SOUTHERN  
DISTRICT OF CALIFORNIA, DO HEREBY CERTIFY THAT I REPORTED IN  
SHORTHAND THE PROCEEDINGS, TO THE BEST OF MY ABILITY, IN THE  
ABOVE-ENTITLED CAUSE AND THAT THE FOREGOING TRANSCRIPT,  
NUMBERED FROM PAGES 184 - 307/309, A FULL, TRUE AND CORRECT  
TRANSCRIPT OF PROCEEDINGS HELD IN THE AM OF AUGUST 31, 2011.

SAN DIEGO, CALIFORNIA, DATED THIS 1ST DAY OF  
SEPTEMBER, 2011.

/S/ ELIZABETH CESENA  
\_\_\_\_\_

ELIZABETH M. CESENA, CSR 12266  
OFFICIAL COURT REPORTER

(NO PAGES OMITTED - BLOCK NUMBERING)