

WEBVTT

NOTE duration:"00:56:59"

NOTE recognizability:0.839

NOTE language:en-us

NOTE Confidence: 0.890419992142857

00:00:00.000 --> 00:00:02.429 Once again, thank you everyone for joining

NOTE Confidence: 0.890419992142857

00:00:02.429 --> 00:00:05.678 in on our Perspectives on Medicine series.

NOTE Confidence: 0.890419992142857

00:00:05.680 --> 00:00:09.360 That's our last one for the school year.

NOTE Confidence: 0.890419992142857

00:00:09.360 --> 00:00:11.304 Very excited to introduce our guest

NOTE Confidence: 0.890419992142857

00:00:11.304 --> 00:00:13.248 speaker for today, Doctor Duncan.

NOTE Confidence: 0.890419992142857

00:00:13.248 --> 00:00:15.668 Doctor Charles Duncan is a

NOTE Confidence: 0.890419992142857

00:00:15.668 --> 00:00:17.120 Senior Research Scientist,

NOTE Confidence: 0.890419992142857

00:00:17.120 --> 00:00:19.045 Professor of Neurosurgery and Pediatrics

NOTE Confidence: 0.890419992142857

00:00:19.045 --> 00:00:21.600 at the Yale School of Medicine.

NOTE Confidence: 0.890419992142857

00:00:21.600 --> 00:00:23.100 He has been a neurosurgeon

NOTE Confidence: 0.890419992142857

00:00:23.100 --> 00:00:24.972 at Yale since 1997 or 1977,

NOTE Confidence: 0.890419992142857

00:00:24.972 --> 00:00:26.592 where he became the Chief

NOTE Confidence: 0.890419992142857

00:00:26.592 --> 00:00:28.120 of Pediatric Neurosurgery,

NOTE Confidence: 0.890419992142857

00:00:28.120 --> 00:00:30.612 and has also established the first pediatric

NOTE Confidence: 0.890419992142857

00:00:30.612 --> 00:00:32.360 neurosurgery program in Connecticut.

NOTE Confidence: 0.890419992142857

00:00:32.360 --> 00:00:34.040 He also served as the Program

NOTE Confidence: 0.890419992142857

00:00:34.040 --> 00:00:35.623 Director for the Yale Neurosurgery

NOTE Confidence: 0.890419992142857

00:00:35.623 --> 00:00:37.638 Residency Program for 18 years.

NOTE Confidence: 0.890419992142857

00:00:37.640 --> 00:00:38.984 Doctor Duncan's research focuses

NOTE Confidence: 0.890419992142857

00:00:38.984 --> 00:00:41.000 on the prevent focus on the

NOTE Confidence: 0.890419992142857

00:00:41.056 --> 00:00:42.592 prevention of intraventricular

NOTE Confidence: 0.890419992142857

00:00:42.592 --> 00:00:44.640 hemorrhage and premature infants.

NOTE Confidence: 0.890419992142857

00:00:44.640 --> 00:00:46.670 He's developed the cerebral blood

NOTE Confidence: 0.890419992142857

00:00:46.670 --> 00:00:48.294 flow measurement systems for

NOTE Confidence: 0.890419992142857

00:00:48.294 --> 00:00:50.618 the immature brain by positron

NOTE Confidence: 0.890419992142857

00:00:50.618 --> 00:00:52.466 emission tomography and adaptation

NOTE Confidence: 0.890419992142857

00:00:52.466 --> 00:00:54.438 to developing brain to injury.

NOTE Confidence: 0.890419992142857

00:00:54.440 --> 00:00:56.444 His Endomethicine Project for

NOTE Confidence: 0.890419992142857

00:00:56.444 --> 00:00:57.947 Prevention of Intraventricular

NOTE Confidence: 0.890419992142857

00:00:57.947 --> 00:01:00.208 Hemorrhage in Preterm Infants has

NOTE Confidence: 0.890419992142857

00:01:00.208 --> 00:01:02.296 adopted has been adopted in over

NOTE Confidence: 0.890419992142857

00:01:02.296 --> 00:01:04.826 75 countries and his work have led

NOTE Confidence: 0.890419992142857

00:01:04.826 --> 00:01:06.596 over 100 peer reviewed publications.

NOTE Confidence: 0.890419992142857

00:01:06.600 --> 00:01:06.944 Dr.

NOTE Confidence: 0.890419992142857

00:01:06.944 --> 00:01:09.008 Duncan is also very deeply committed

NOTE Confidence: 0.890419992142857

00:01:09.008 --> 00:01:10.040 to medical education.

NOTE Confidence: 0.890419992142857

00:01:10.040 --> 00:01:11.368 He and his colleagues,

NOTE Confidence: 0.890419992142857

00:01:11.368 --> 00:01:13.360 Doctor Bill Stewart and Shanta Kapadia,

NOTE Confidence: 0.890419992142857

00:01:13.360 --> 00:01:15.230 have developed online resources on

NOTE Confidence: 0.890419992142857

00:01:15.230 --> 00:01:17.680 human anatomy and the Coursera platform.

NOTE Confidence: 0.890419992142857

00:01:17.680 --> 00:01:19.605 They've also developed a human

NOTE Confidence: 0.890419992142857

00:01:19.605 --> 00:01:20.760 anatomy video project,

NOTE Confidence: 0.890419992142857

00:01:20.760 --> 00:01:22.958 a series of iBooks on human anatomy,

NOTE Confidence: 0.890419992142857

00:01:22.960 --> 00:01:25.240 and the Apple Bookstore.

NOTE Confidence: 0.890419992142857

00:01:25.240 --> 00:01:27.205 Doctor Duncan completed his Bachelor's  
NOTE Confidence: 0.890419992142857

00:01:27.205 --> 00:01:29.936 at Vanderbilt University and his MD in  
NOTE Confidence: 0.890419992142857

00:01:29.936 --> 00:01:31.352 residency training and neurosurgery  
NOTE Confidence: 0.890419992142857

00:01:31.352 --> 00:01:33.878 at the Duke University School of Medicine.  
NOTE Confidence: 0.890419992142857

00:01:33.880 --> 00:01:36.036 We're very excited to have Doctor Duncan  
NOTE Confidence: 0.890419992142857

00:01:36.036 --> 00:01:38.678 join us today for his talk titled Pitfalls,  
NOTE Confidence: 0.890419992142857

00:01:38.680 --> 00:01:40.066 Clinical Research,  
NOTE Confidence: 0.890419992142857

00:01:40.066 --> 00:01:41.452 Education Life.  
NOTE Confidence: 0.890419992142857

00:01:41.452 --> 00:01:42.838 Doctor Duncan,  
NOTE Confidence: 0.890419992142857

00:01:42.840 --> 00:01:43.252 again,  
NOTE Confidence: 0.890419992142857

00:01:43.252 --> 00:01:46.136 thank you so much for joining with  
NOTE Confidence: 0.890419992142857

00:01:46.136 --> 00:01:48.458 us today and we will turn it over to  
NOTE Confidence: 0.890419992142857

00:01:48.458 --> 00:01:49.838 you whenever you're ready to begin.  
NOTE Confidence: 0.827979219

00:01:51.280 --> 00:01:52.960 Thank you. Thank you Wilton  
NOTE Confidence: 0.827979219

00:01:52.960 --> 00:01:54.640 and and thank thank you,  
NOTE Confidence: 0.827979219

00:01:54.640 --> 00:01:58.204 the Medical Student Council and

NOTE Confidence: 0.827979219

00:01:58.204 --> 00:02:00.759 Doctor Mint for inviting me.

NOTE Confidence: 0.827979219

00:02:00.760 --> 00:02:02.040 This is a real pleasure.

NOTE Confidence: 0.924748

00:02:08.480 --> 00:02:12.320 Make sure I get the sharing going.

NOTE Confidence: 0.87437136375

00:02:22.520 --> 00:02:26.600 This is just a bit of a soundtrack.

NOTE Confidence: 0.87437136375

00:02:26.600 --> 00:02:30.982 Barbara Watt Barb Watts. They reset

NOTE Confidence: 0.87437136375

00:02:30.982 --> 00:02:35.479 this so that it actually hear hear this

NOTE Confidence: 0.835156713333333

00:02:37.880 --> 00:02:41.200 maybe you know what it is and

NOTE Confidence: 0.835156713333333

00:02:41.200 --> 00:02:43.600 whom bird learned the song and

NOTE Confidence: 0.835156713333333

00:02:43.600 --> 00:02:44.960 which might have learned it.

NOTE Confidence: 0.835156713333333

00:02:44.960 --> 00:02:46.000 But if you don't know,

NOTE Confidence: 0.835156713333333

00:02:46.000 --> 00:02:49.720 it's a Bob White quail.

NOTE Confidence: 0.835156713333333

00:02:49.720 --> 00:02:52.185 And they learned this from

NOTE Confidence: 0.835156713333333

00:02:52.185 --> 00:02:54.680 their father before they hatch.

NOTE Confidence: 0.9502940775

00:02:59.560 --> 00:03:04.040 So I don't know if you ever feel

NOTE Confidence: 0.9502940775

00:03:04.040 --> 00:03:07.736 like you're tracking up Everest in a

NOTE Confidence: 0.9502940775

00:03:07.736 --> 00:03:11.080 long line or if you might feel like  
NOTE Confidence: 0.9502940775

00:03:11.080 --> 00:03:13.438 you're just being tossed in a pond.  
NOTE Confidence: 0.9502940775

00:03:13.440 --> 00:03:15.960 Or maybe sometimes you feel like both.  
NOTE Confidence: 0.7979108

00:03:19.400 --> 00:03:21.280 Mr. Mr. Jones. I'm doctor Anderson.  
NOTE Confidence: 0.815678101538462

00:03:21.280 --> 00:03:22.438 I'm the neurosurgeon.  
NOTE Confidence: 0.815678101538462

00:03:22.438 --> 00:03:23.982 The paediatricians called me  
NOTE Confidence: 0.815678101538462

00:03:23.982 --> 00:03:25.880 because Jimmy had an MRI scan,  
NOTE Confidence: 0.815678101538462

00:03:25.880 --> 00:03:28.508 and it looks like the MRI  
NOTE Confidence: 0.815678101538462

00:03:28.508 --> 00:03:30.960 scan shows a brain tumor.  
NOTE Confidence: 0.815678101538462

00:03:30.960 --> 00:03:32.941 I looked at it myself and it  
NOTE Confidence: 0.815678101538462

00:03:32.941 --> 00:03:35.040 shows a lesion in the cerebellum,  
NOTE Confidence: 0.815678101538462

00:03:35.040 --> 00:03:36.980 tumor in the cerebellum that  
NOTE Confidence: 0.815678101538462

00:03:36.980 --> 00:03:39.759 we're going to have to deal with.  
NOTE Confidence: 0.815678101538462

00:03:39.760 --> 00:03:41.508 So we've checked out my OR schedule  
NOTE Confidence: 0.815678101538462

00:03:41.508 --> 00:03:43.479 on the way up here and it looks like  
NOTE Confidence: 0.815678101538462

00:03:43.480 --> 00:03:45.398 Tuesday afternoon we can do a surgery.

NOTE Confidence: 0.945261257777778  
00:03:45.400 --> 00:03:46.910 Are you sure you were  
NOTE Confidence: 0.945261257777778  
00:03:46.910 --> 00:03:48.118 talking about the right?  
NOTE Confidence: 0.774472555  
00:03:49.040 --> 00:03:49.550 Yeah, a little.  
NOTE Confidence: 0.774472555  
00:03:49.550 --> 00:03:50.400 Jimmy, about four years old.  
NOTE Confidence: 0.774472555  
00:03:50.400 --> 00:03:51.336 I walked by his bed when  
NOTE Confidence: 0.774472555  
00:03:51.336 --> 00:03:52.200 I was coming up here.  
NOTE Confidence: 0.774472555  
00:03:52.200 --> 00:03:53.120 He was still just coming  
NOTE Confidence: 0.774472555  
00:03:53.120 --> 00:03:54.040 out of the MRI scanner,  
NOTE Confidence: 0.78944732  
00:03:54.040 --> 00:03:57.520 but but he we, we thought he had the flu.  
NOTE Confidence: 0.78944732  
00:03:57.520 --> 00:03:59.932 I mean, he's just had some nausea  
NOTE Confidence: 0.78944732  
00:03:59.932 --> 00:04:01.720 and and some headaches. Sometimes  
NOTE Confidence: 0.922372512  
00:04:01.720 --> 00:04:03.421 these brain tumors can push on the  
NOTE Confidence: 0.922372512  
00:04:03.421 --> 00:04:05.382 back of the brain and where they  
NOTE Confidence: 0.922372512  
00:04:05.382 --> 00:04:07.152 push can cause nausea and vomiting.  
NOTE Confidence: 0.922372512  
00:04:07.160 --> 00:04:09.616 And sometimes it mimics well, no,  
NOTE Confidence: 0.922372512

00:04:09.616 --> 00:04:12.480 it's not the flu, It's a brain tumor.  
NOTE Confidence: 0.922372512

00:04:12.480 --> 00:04:15.680 So we set up the surgery for Tuesday.  
NOTE Confidence: 0.922372512

00:04:15.680 --> 00:04:18.190 The pediatricians will come in and  
NOTE Confidence: 0.922372512

00:04:18.190 --> 00:04:19.280 tell you what Betty's going to.  
NOTE Confidence: 0.922372512

00:04:19.280 --> 00:04:20.480 I don't know what Betty's going to yet.  
NOTE Confidence: 0.922372512

00:04:20.480 --> 00:04:21.704 We're going to keep him in  
NOTE Confidence: 0.922372512

00:04:21.704 --> 00:04:22.520 the hospital till Tuesday.  
NOTE Confidence: 0.922372512

00:04:22.520 --> 00:04:24.880 Surgery looks like it'll be in the afternoon.  
NOTE Confidence: 0.9611472

00:04:27.040 --> 00:04:28.200 Any other questions? We  
NOTE Confidence: 0.54838115

00:04:30.560 --> 00:04:32.440 didn't see him  
NOTE Confidence: 0.723558131111111

00:04:32.440 --> 00:04:33.880 in. He'll be up here in a little while.  
NOTE Confidence: 0.723558131111111

00:04:33.880 --> 00:04:34.874 I don't know. I didn't see him.  
NOTE Confidence: 0.723558131111111

00:04:34.880 --> 00:04:36.000 I just saw him laying in the bed.  
NOTE Confidence: 0.723558131111111

00:04:36.000 --> 00:04:38.265 The the the nurses are  
NOTE Confidence: 0.723558131111111

00:04:38.265 --> 00:04:40.360 taking care of him. But  
NOTE Confidence: 0.91659313

00:04:43.200 --> 00:04:44.160 any other questions,



NOTE Confidence: 0.51257093

00:04:45.040 --> 00:04:48.720 I just can't leave it, but

NOTE Confidence: 0.960271994166667

00:04:48.720 --> 00:04:50.328 we may have some time to talk before

NOTE Confidence: 0.960271994166667

00:04:50.328 --> 00:04:51.680 the surgery on Tuesday. All right.

NOTE Confidence: 0.689154

00:04:55.800 --> 00:04:56.498 All right. Well, the pediatricians

NOTE Confidence: 0.689154

00:04:56.498 --> 00:04:57.800 will be in, in a little bit. OK.

NOTE Confidence: 0.93966035

00:05:05.880 --> 00:05:08.676 Well, that's one perspective on medicine.

NOTE Confidence: 0.904789238333333

00:05:11.760 --> 00:05:13.170 I thought we talked today about

NOTE Confidence: 0.904789238333333

00:05:13.170 --> 00:05:14.799 some some of the pitfalls that

NOTE Confidence: 0.782784098

00:05:18.400 --> 00:05:21.184 I've encountered you may

NOTE Confidence: 0.782784098

00:05:21.184 --> 00:05:24.120 encounter and it and falls into

NOTE Confidence: 0.782784098

00:05:24.120 --> 00:05:27.000 just about everything we do.

NOTE Confidence: 0.782784098

00:05:27.000 --> 00:05:28.240 I don't have any conflicts.

NOTE Confidence: 0.782784098

00:05:28.240 --> 00:05:30.676 I do receive royalties from Coursera.

NOTE Confidence: 0.782784098

00:05:30.680 --> 00:05:31.680 They're not very much.

NOTE Confidence: 0.928852241428571

00:05:35.120 --> 00:05:40.792 There was a man named Charles Drake and very,

NOTE Confidence: 0.928852241428571

00:05:40.792 --> 00:05:45.880 very prominent vascular neurosurgeon  
NOTE Confidence: 0.928852241428571

00:05:45.880 --> 00:05:51.176 from London ON he he he didn't  
NOTE Confidence: 0.928852241428571

00:05:51.176 --> 00:05:52.716 tout all of his successes.  
NOTE Confidence: 0.928852241428571

00:05:52.720 --> 00:05:55.240 He would, he would talk about  
NOTE Confidence: 0.928852241428571

00:05:55.240 --> 00:05:58.648 the problems he had and the  
NOTE Confidence: 0.928852241428571

00:05:58.648 --> 00:06:01.500 disappointments and the the the the  
NOTE Confidence: 0.928852241428571

00:06:01.500 --> 00:06:04.160 times when it was just a disaster  
NOTE Confidence: 0.920031468

00:06:07.120 --> 00:06:09.560 after after he was gone.  
NOTE Confidence: 0.920031468

00:06:09.560 --> 00:06:13.345 This is the the the fish named  
NOTE Confidence: 0.920031468

00:06:13.345 --> 00:06:15.280 Charlie that's at the the  
NOTE Confidence: 0.93323535

00:06:17.680 --> 00:06:22.758 entrance to that that area in in the  
NOTE Confidence: 0.93323535

00:06:22.760 --> 00:06:24.660 Medical Center in the University  
NOTE Confidence: 0.93323535

00:06:24.660 --> 00:06:26.560 Hospital at his Medical Center.  
NOTE Confidence: 0.781229511666667

00:06:32.640 --> 00:06:35.408 So as you as you heard, I I did my  
NOTE Confidence: 0.781229511666667

00:06:35.408 --> 00:06:38.720 residency at Duke and it's been a while.  
NOTE Confidence: 0.781229511666667

00:06:38.720 --> 00:06:42.352 Two of my Co residents had been in Vietnam.

NOTE Confidence: 0.781229511666667  
00:06:42.352 --> 00:06:46.200 One was a General Medical officer and he  
NOTE Confidence: 0.781229511666667  
00:06:46.200 --> 00:06:49.439 was dropped out of a helicopter and a wire.  
NOTE Confidence: 0.781229511666667  
00:06:49.440 --> 00:06:51.516 The other was a major and  
NOTE Confidence: 0.781229511666667  
00:06:51.516 --> 00:06:53.600 then later became a general.  
NOTE Confidence: 0.781229511666667  
00:06:53.600 --> 00:06:56.665 So what do you think that most chief  
NOTE Confidence: 0.781229511666667  
00:06:56.665 --> 00:07:00.200 residents might do right after they finish?  
NOTE Confidence: 0.781229511666667  
00:07:00.200 --> 00:07:03.116 Well, he went to Ranger School.  
NOTE Confidence: 0.781229511666667  
00:07:03.120 --> 00:07:05.712 He was certainly a great guy to have around.  
NOTE Confidence: 0.781229511666667  
00:07:05.720 --> 00:07:09.038 When disputes arose.  
NOTE Confidence: 0.781229511666667  
00:07:09.040 --> 00:07:11.749 The one who dropped out of was  
NOTE Confidence: 0.781229511666667  
00:07:11.749 --> 00:07:14.040 dropped out of helicopters,  
NOTE Confidence: 0.781229511666667  
00:07:14.040 --> 00:07:18.485 came back straight out of Tim O'Brien's.  
NOTE Confidence: 0.781229511666667  
00:07:18.485 --> 00:07:22.160 The the thing they things they carried.  
NOTE Confidence: 0.781229511666667  
00:07:22.160 --> 00:07:24.603 Another resident went on to become a  
NOTE Confidence: 0.781229511666667  
00:07:24.603 --> 00:07:27.076 chicken farmer in his in his off hours.  
NOTE Confidence: 0.781229511666667

00:07:27.080 --> 00:07:31.076 So I think everybody needs a distraction.  
NOTE Confidence: 0.781229511666667

00:07:31.080 --> 00:07:33.438 This guy on the on the right is a  
NOTE Confidence: 0.870286786666667

00:07:36.440 --> 00:07:38.558 weekend warrior at that time and  
NOTE Confidence: 0.871918196666667

00:07:41.920 --> 00:07:44.706 mostly took care of cuts and scratches  
NOTE Confidence: 0.871918196666667

00:07:44.706 --> 00:07:47.312 for people who were training in  
NOTE Confidence: 0.871918196666667

00:07:47.312 --> 00:07:48.720 the occasional lightning injury.  
NOTE Confidence: 0.97046720875

00:07:51.920 --> 00:07:54.640 We worked every other night for six years.  
NOTE Confidence: 0.97046720875

00:07:54.640 --> 00:07:57.251 The tough ones were in medicine, though.  
NOTE Confidence: 0.97046720875

00:07:57.251 --> 00:08:00.197 They worked five out of seven.  
NOTE Confidence: 0.97046720875

00:08:00.200 --> 00:08:02.332 Pediatrics had Sam Katz,  
NOTE Confidence: 0.97046720875

00:08:02.332 --> 00:08:05.708 who brought measles vaccine to us.  
NOTE Confidence: 0.97046720875

00:08:05.708 --> 00:08:09.080 OBGYN had Charles Hammond to help  
NOTE Confidence: 0.97046720875

00:08:09.080 --> 00:08:11.000 develop cures for trophoblasts.  
NOTE Confidence: 0.97046720875

00:08:11.000 --> 00:08:12.731 Plastic disease, well,  
NOTE Confidence: 0.97046720875

00:08:12.731 --> 00:08:15.039 Surgery had David Savaston,  
NOTE Confidence: 0.97046720875

00:08:15.040 --> 00:08:17.504 who was one of the great figures

NOTE Confidence: 0.97046720875  
00:08:17.504 --> 00:08:19.530 of American surgery and medicine,  
NOTE Confidence: 0.97046720875  
00:08:19.530 --> 00:08:21.955 was led by Jim Weingarten,  
NOTE Confidence: 0.97046720875  
00:08:21.960 --> 00:08:24.480 who later had the LED the NIH.  
NOTE Confidence: 0.97046720875  
00:08:24.480 --> 00:08:27.839 The top left was was Main Chief Guy,  
NOTE Confidence: 0.97046720875  
00:08:27.840 --> 00:08:32.112 Guy Odom and Barnes.  
NOTE Confidence: 0.97046720875  
00:08:32.112 --> 00:08:35.184 Woodall was the the former chief  
NOTE Confidence: 0.97046720875  
00:08:35.184 --> 00:08:38.136 and still still an active person.  
NOTE Confidence: 0.97046720875  
00:08:38.136 --> 00:08:42.448 He went went on to be Dean of the medical  
NOTE Confidence: 0.97046720875  
00:08:42.448 --> 00:08:45.720 school and then president of the university.  
NOTE Confidence: 0.97046720875  
00:08:45.720 --> 00:08:47.600 It was a great turmoil  
NOTE Confidence: 0.97046720875  
00:08:47.600 --> 00:08:49.480 over the war in Vietnam.  
NOTE Confidence: 0.97046720875  
00:08:49.480 --> 00:08:51.175 On many campuses,  
NOTE Confidence: 0.97046720875  
00:08:51.175 --> 00:08:53.435 including including New Haven,  
NOTE Confidence: 0.699436855  
00:08:55.600 --> 00:08:57.300 Doctor Woodall would operate when  
NOTE Confidence: 0.699436855  
00:08:57.300 --> 00:08:59.000 he's president of the university.  
NOTE Confidence: 0.699436855

00:08:59.000 --> 00:09:01.922 He'd operate in the morning and  
NOTE Confidence: 0.699436855

00:09:01.922 --> 00:09:05.763 then he'd walk out to the so-called  
NOTE Confidence: 0.699436855

00:09:05.763 --> 00:09:09.004 quadrangle at at Duke and then sit  
NOTE Confidence: 0.699436855

00:09:09.004 --> 00:09:11.731 with the students in the grass  
NOTE Confidence: 0.699436855

00:09:11.731 --> 00:09:14.600 or on a wall and listen to them.  
NOTE Confidence: 0.699436855

00:09:14.600 --> 00:09:16.680 Just listen to them for as  
NOTE Confidence: 0.699436855

00:09:16.680 --> 00:09:18.080 long as they wanted to,  
NOTE Confidence: 0.699436855

00:09:18.080 --> 00:09:21.452 wanted to speak in the evening.  
NOTE Confidence: 0.699436855

00:09:21.452 --> 00:09:23.636 He did whatever university presidents do.  
NOTE Confidence: 0.843119649

00:09:26.360 --> 00:09:27.840 Bill Anlian was the Dean  
NOTE Confidence: 0.843119649

00:09:27.840 --> 00:09:29.320 of of the medical school,  
NOTE Confidence: 0.843119649

00:09:29.320 --> 00:09:31.840 and in the top right is John Anlian.  
NOTE Confidence: 0.843119649

00:09:31.840 --> 00:09:36.680 He's the person for for whom  
NOTE Confidence: 0.843119649

00:09:36.680 --> 00:09:38.880 the Anlian Center is named.  
NOTE Confidence: 0.843119649

00:09:38.880 --> 00:09:41.078 Here he's pictured with with his wife,  
NOTE Confidence: 0.843119649

00:09:41.080 --> 00:09:44.616 Betty. He he was a general

NOTE Confidence: 0.843119649

00:09:44.616 --> 00:09:47.720 surgeon in San Francisco.

NOTE Confidence: 0.843119649

00:09:47.720 --> 00:09:49.120 He and Bill Anlian

NOTE Confidence: 0.819900543333333

00:09:51.680 --> 00:09:55.825 came to Yale, immigrating from Egypt to

NOTE Confidence: 0.819900543333333

00:09:55.825 --> 00:09:57.945 Yale College and then went on to the

NOTE Confidence: 0.819900543333333

00:09:57.945 --> 00:10:00.502 Yale Medical School and and remained

NOTE Confidence: 0.819900543333333

00:10:00.502 --> 00:10:03.357 very devoted to the institution.

NOTE Confidence: 0.819900543333333

00:10:03.360 --> 00:10:05.096 I think most of you have been

NOTE Confidence: 0.819900543333333

00:10:05.096 --> 00:10:07.392 in our our labs or somebody's

NOTE Confidence: 0.819900543333333

00:10:07.392 --> 00:10:10.080 lab in in the Anlian Center.

NOTE Confidence: 0.819900543333333

00:10:10.080 --> 00:10:12.120 Alan Friedman was my junior resident

NOTE Confidence: 0.819900543333333

00:10:12.120 --> 00:10:14.718 when I was chief and and I think

NOTE Confidence: 0.819900543333333

00:10:14.718 --> 00:10:16.940 there's always a particularly fine

NOTE Confidence: 0.819900543333333

00:10:16.940 --> 00:10:19.620 relationship between between residents

NOTE Confidence: 0.819900543333333

00:10:19.620 --> 00:10:23.272 and particularly between the the chief

NOTE Confidence: 0.819900543333333

00:10:23.272 --> 00:10:26.394 resident and his and his junior resident.

NOTE Confidence: 0.819900543333333

00:10:26.400 --> 00:10:30.200 There were some memorable lessons

NOTE Confidence: 0.819900543333333

00:10:30.200 --> 00:10:33.680 from mentors across this time.

NOTE Confidence: 0.792233751111111

00:10:36.320 --> 00:10:38.805 Doctor Odom informed us that

NOTE Confidence: 0.792233751111111

00:10:38.805 --> 00:10:40.793 Medicare would wreck medicine.

NOTE Confidence: 0.792233751111111

00:10:40.800 --> 00:10:42.695 Doctor Woodall was about 5

NOTE Confidence: 0.792233751111111

00:10:42.695 --> 00:10:45.400 feet two inches on a good day.

NOTE Confidence: 0.792233751111111

00:10:45.400 --> 00:10:47.745 You know, he always stood at a

NOTE Confidence: 0.792233751111111

00:10:47.745 --> 00:10:49.675 stool when we operated together

NOTE Confidence: 0.792233751111111

00:10:49.675 --> 00:10:52.636 so I wouldn't need to bend over.

NOTE Confidence: 0.792233751111111

00:10:52.640 --> 00:10:54.395 Doctor Odom fired me week

NOTE Confidence: 0.792233751111111

00:10:54.395 --> 00:10:56.580 after week after he found out

NOTE Confidence: 0.792233751111111

00:10:56.580 --> 00:10:58.360 I'd voted for Jimmy Carter,

NOTE Confidence: 0.958229046

00:11:00.520 --> 00:11:04.186 and on some occasion I managed

NOTE Confidence: 0.958229046

00:11:04.186 --> 00:11:06.502 to annoy him or make some

NOTE Confidence: 0.958229046

00:11:06.502 --> 00:11:08.879 grievous error in his estimation.

NOTE Confidence: 0.958229046

00:11:08.880 --> 00:11:11.970 And he did tell me that I was



NOTE Confidence: 0.958229046  
00:11:11.970 --> 00:11:14.640 chief resident at the time and  
NOTE Confidence: 0.958229046  
00:11:14.640 --> 00:11:16.800 planned to come to New Haven.  
NOTE Confidence: 0.958229046  
00:11:16.800 --> 00:11:18.096 He told me that he was going to  
NOTE Confidence: 0.958229046  
00:11:18.096 --> 00:11:19.095 send me to Pittsburgh instead  
NOTE Confidence: 0.958229046  
00:11:19.095 --> 00:11:20.551 of Yale if I did that again.  
NOTE Confidence: 0.634162203333333  
00:11:31.760 --> 00:11:33.320 I I love being a resident.  
NOTE Confidence: 0.634162203333333  
00:11:33.320 --> 00:11:35.632 I'm sure I I hurt a number of  
NOTE Confidence: 0.634162203333333  
00:11:35.632 --> 00:11:37.465 people when I was learning  
NOTE Confidence: 0.634162203333333  
00:11:37.465 --> 00:11:39.037 and probably still have,  
NOTE Confidence: 0.931196872  
00:11:42.000 --> 00:11:45.244 but I hope I helped some in  
NOTE Confidence: 0.931196872  
00:11:45.244 --> 00:11:48.154 a in a reasonable number.  
NOTE Confidence: 0.931196872  
00:11:48.160 --> 00:11:52.234 Try to imagine taking care of folks  
NOTE Confidence: 0.931196872  
00:11:52.240 --> 00:11:54.928 without computerized imaging,  
NOTE Confidence: 0.931196872  
00:11:54.928 --> 00:11:59.960 without CT, without MRI.  
NOTE Confidence: 0.931196872  
00:11:59.960 --> 00:12:03.830 You know, we became an awful lot  
NOTE Confidence: 0.931196872

00:12:03.830 --> 00:12:05.678 smarter with the introduction  
NOTE Confidence: 0.931196872

00:12:05.678 --> 00:12:07.999 of computerized imaging.  
NOTE Confidence: 0.931196872

00:12:08.000 --> 00:12:11.381 Before you see on the left a  
NOTE Confidence: 0.931196872

00:12:11.381 --> 00:12:13.407 pneumoencephalogram where air was  
NOTE Confidence: 0.931196872

00:12:13.407 --> 00:12:15.837 injected with a lumbar puncture  
NOTE Confidence: 0.931196872

00:12:15.840 --> 00:12:17.320 on the right and arteriogram.  
NOTE Confidence: 0.931196872

00:12:17.320 --> 00:12:21.280 We did direct stick carotid arteriograms,  
NOTE Confidence: 0.823245408571428

00:12:26.160 --> 00:12:28.200 but now we're a whole lot smarter. I hope  
NOTE Confidence: 0.88726411

00:12:31.240 --> 00:12:32.536 these are the original  
NOTE Confidence: 0.88726411

00:12:32.536 --> 00:12:34.156 devices in in New Haven,  
NOTE Confidence: 0.88726411

00:12:34.160 --> 00:12:37.472 the CT scanner that had a water bag  
NOTE Confidence: 0.88726411

00:12:37.472 --> 00:12:41.157 around it instead of being a big circle.  
NOTE Confidence: 0.88726411

00:12:41.160 --> 00:12:44.392 And I came in the early 70s and  
NOTE Confidence: 0.88726411

00:12:44.392 --> 00:12:47.895 then in the mid 80s we we got our  
NOTE Confidence: 0.88726411

00:12:47.895 --> 00:12:50.950 first first magnet and this is that  
NOTE Confidence: 0.88726411

00:12:50.950 --> 00:12:53.678 magnet the devices you see now or

NOTE Confidence: 0.88726411

00:12:53.680 --> 00:12:58.360 considerably more sophisticated.

NOTE Confidence: 0.88726411

00:12:58.360 --> 00:13:01.742 The left is ACT scanner and the mid as

NOTE Confidence: 0.88726411

00:13:01.742 --> 00:13:06.440 a mid one is a Siemens 3 Tesla MRI device.

NOTE Confidence: 0.88726411

00:13:06.440 --> 00:13:09.606 And then one of the rights the the

NOTE Confidence: 0.88726411

00:13:09.606 --> 00:13:12.236 pediatric magnet which has been

NOTE Confidence: 0.88726411

00:13:12.240 --> 00:13:14.120 decorated like a little castle.

NOTE Confidence: 0.966677515714286

00:13:16.320 --> 00:13:19.650 This is what we have in our operating

NOTE Confidence: 0.966677515714286

00:13:19.650 --> 00:13:23.640 room in Smilo so-called Emer system,

NOTE Confidence: 0.966677515714286

00:13:23.640 --> 00:13:26.484 where there's a magnet on a

NOTE Confidence: 0.966677515714286

00:13:26.484 --> 00:13:28.516 overhead railroad that can

NOTE Confidence: 0.966677515714286

00:13:28.520 --> 00:13:31.320 travel into two operating rooms.

NOTE Confidence: 0.966677515714286

00:13:31.320 --> 00:13:34.596 Does men mean that we we have,

NOTE Confidence: 0.966677515714286

00:13:34.600 --> 00:13:38.114 we're happy to have a very compulsive

NOTE Confidence: 0.966677515714286

00:13:38.120 --> 00:13:40.360 staff in the operating room to make

NOTE Confidence: 0.966677515714286

00:13:40.360 --> 00:13:42.972 sure we haven't left needles or

NOTE Confidence: 0.966677515714286

00:13:42.972 --> 00:13:46.560 instruments anywhere near the my field.

NOTE Confidence: 0.789431566

00:13:53.030 --> 00:13:54.270 My first came to Yale,

NOTE Confidence: 0.8140192

00:13:56.960 --> 00:13:59.480 or actually it was my second

NOTE Confidence: 0.8140192

00:13:59.480 --> 00:14:02.024 visit in 1977 on July 9th.

NOTE Confidence: 0.8140192

00:14:02.024 --> 00:14:05.361 First time I'd been was to A to

NOTE Confidence: 0.8140192

00:14:05.361 --> 00:14:07.800 a meeting and my my second visit

NOTE Confidence: 0.8140192

00:14:07.800 --> 00:14:09.560 was for a faculty interview.

NOTE Confidence: 0.8140192

00:14:09.560 --> 00:14:13.280 Well, I had a cold a fever Coraza.

NOTE Confidence: 0.8140192

00:14:13.280 --> 00:14:16.096 There was 9 inches of snow that fell

NOTE Confidence: 0.8140192

00:14:16.096 --> 00:14:18.552 that day and they sent me to the

NOTE Confidence: 0.8140192

00:14:18.552 --> 00:14:20.358 VA for more interviews on a bus.

NOTE Confidence: 0.930039748888889

00:14:23.320 --> 00:14:25.630 I'm sure you recognize some

NOTE Confidence: 0.930039748888889

00:14:25.630 --> 00:14:28.142 of these places and a lovely

NOTE Confidence: 0.930039748888889

00:14:28.142 --> 00:14:29.797 photograph of our Medical Center.

NOTE Confidence: 0.865613778888889

00:14:32.960 --> 00:14:36.560 When I was 29, I joined the Yale faculty.

NOTE Confidence: 0.865613778888889

00:14:36.560 --> 00:14:39.836 Nevertheless, this has been my only job.

NOTE Confidence: 0.865613778888889

00:14:39.840 --> 00:14:44.240 I was an electrician's assistant, an orderly.

NOTE Confidence: 0.865613778888889

00:14:44.240 --> 00:14:46.090 I thought medical school would

NOTE Confidence: 0.865613778888889

00:14:46.090 --> 00:14:49.300 be less work, and a glass washer

NOTE Confidence: 0.865613778888889

00:14:49.300 --> 00:14:51.400 and microbiology during college.

NOTE Confidence: 0.865613778888889

00:14:51.400 --> 00:14:52.800 Otherwise, I've been here.

NOTE Confidence: 0.90815284

00:14:56.080 --> 00:14:59.293 Once I arrived, it took me a while to

NOTE Confidence: 0.90815284

00:14:59.293 --> 00:15:01.960 realize that my chief Doctor Collins

NOTE Confidence: 0.90815284

00:15:01.960 --> 00:15:03.880 had divided his office in half for me.

NOTE Confidence: 0.914101291666667

00:15:06.880 --> 00:15:11.116 While this place can seem harsh,

NOTE Confidence: 0.914101291666667

00:15:11.120 --> 00:15:12.716 there are aspects that define it,

NOTE Confidence: 0.914101291666667

00:15:12.720 --> 00:15:16.880 that define it. Why did you choose it?

NOTE Confidence: 0.914101291666667

00:15:16.880 --> 00:15:18.760 And why did I just decide to stay?

NOTE Confidence: 0.90949193

00:15:21.080 --> 00:15:23.040 Well, we all have obligations.

NOTE Confidence: 0.90949193

00:15:23.040 --> 00:15:24.680 You perhaps to study medicine.

NOTE Confidence: 0.90949193

00:15:24.680 --> 00:15:27.208 And while I'm sure I've still

NOTE Confidence: 0.90949193

00:15:27.208 --> 00:15:28.672 been learning and needed to take  
NOTE Confidence: 0.90949193

00:15:28.672 --> 00:15:30.968 care of patients, write grants,  
NOTE Confidence: 0.90949193

00:15:30.968 --> 00:15:33.728 do research teach published papers,  
NOTE Confidence: 0.90949193

00:15:33.728 --> 00:15:34.880 the usual things.  
NOTE Confidence: 0.790240336363636

00:15:37.040 --> 00:15:39.350 The critical piece I thought and I  
NOTE Confidence: 0.790240336363636

00:15:39.350 --> 00:15:44.200 and I still believe is that our role  
NOTE Confidence: 0.790240336363636

00:15:44.200 --> 00:15:50.284 and my role was to think sounds right  
NOTE Confidence: 0.790240336363636

00:15:50.284 --> 00:15:52.794 until you appreciate the incredible  
NOTE Confidence: 0.790240336363636

00:15:52.800 --> 00:15:56.478 environment in the opportunities we have.  
NOTE Confidence: 0.5769612

00:16:00.760 --> 00:16:01.480 Clinically  
NOTE Confidence: 0.952992278333333

00:16:03.640 --> 00:16:05.920 we have lots of obligations and  
NOTE Confidence: 0.952992278333333

00:16:05.920 --> 00:16:08.239 lots of patients that need care.  
NOTE Confidence: 0.952992278333333

00:16:08.240 --> 00:16:11.909 This is in early days,  
NOTE Confidence: 0.952992278333333

00:16:11.909 --> 00:16:14.590 the young man with a with a  
NOTE Confidence: 0.952992278333333

00:16:14.688 --> 00:16:17.520 tumor that's bulging out of the  
NOTE Confidence: 0.952992278333333

00:16:17.520 --> 00:16:19.968 craniotomy side on the left and

NOTE Confidence: 0.952992278333333  
00:16:19.968 --> 00:16:23.900 on the right after it's out.  
NOTE Confidence: 0.952992278333333  
00:16:23.900 --> 00:16:30.120 This was in our operating rooms  
NOTE Confidence: 0.952992278333333  
00:16:30.120 --> 00:16:32.822 and what was then called the the  
NOTE Confidence: 0.952992278333333  
00:16:32.822 --> 00:16:34.915 New Haven Pavilion on the right  
NOTE Confidence: 0.952992278333333  
00:16:34.915 --> 00:16:37.285 by Tompkins for her offices are  
NOTE Confidence: 0.952992278333333  
00:16:37.285 --> 00:16:39.572 now and now the actual location  
NOTE Confidence: 0.952992278333333  
00:16:39.572 --> 00:16:41.116 of the neurosurgery labs.  
NOTE Confidence: 0.952992278333333  
00:16:41.120 --> 00:16:44.492 We had 10 operating rooms and we  
NOTE Confidence: 0.952992278333333  
00:16:44.492 --> 00:16:46.354 operated in room one of the 10  
NOTE Confidence: 0.926527  
00:16:50.960 --> 00:16:56.400 and after taking out the tumor,  
NOTE Confidence: 0.926527  
00:16:56.400 --> 00:16:59.120 this little white spider just  
NOTE Confidence: 0.926527  
00:16:59.120 --> 00:17:02.508 shot down on the little little  
NOTE Confidence: 0.926527  
00:17:02.508 --> 00:17:06.840 spinneret on the on the thread right  
NOTE Confidence: 0.926527  
00:17:06.840 --> 00:17:08.760 onto the brain and then crawled  
NOTE Confidence: 0.926527  
00:17:08.760 --> 00:17:11.170 under the dura and disappeared.  
NOTE Confidence: 0.926527

00:17:11.170 --> 00:17:14.795 Well, we irrigated a lot  
NOTE Confidence: 0.926527

00:17:14.800 --> 00:17:16.240 and hopefully we washed out.  
NOTE Confidence: 0.926527

00:17:16.240 --> 00:17:18.320 This creature  
NOTE Confidence: 0.904956051111111

00:17:21.040 --> 00:17:22.240 patient did well,  
NOTE Confidence: 0.904956051111111

00:17:22.240 --> 00:17:24.640 never seemed to have any problems.  
NOTE Confidence: 0.904956051111111

00:17:24.640 --> 00:17:26.524 Some not too long after that  
NOTE Confidence: 0.904956051111111

00:17:26.524 --> 00:17:28.439 we did move to the new,  
NOTE Confidence: 0.904956051111111

00:17:28.440 --> 00:17:30.808 newer operating rooms in  
NOTE Confidence: 0.904956051111111

00:17:30.808 --> 00:17:32.708 the in the South pavilion.  
NOTE Confidence: 0.904956051111111

00:17:32.708 --> 00:17:35.120 And then later came the smile O ours  
NOTE Confidence: 0.8855424

00:17:57.620 --> 00:18:00.944 This is a preview of the  
NOTE Confidence: 0.8855424

00:18:00.944 --> 00:18:02.846 Neurobiology 500B course.  
NOTE Confidence: 0.8855424

00:18:02.846 --> 00:18:06.084 With apologies to the 1966  
NOTE Confidence: 0.8855424

00:18:06.084 --> 00:18:07.716 film Fantastic Voyage.  
NOTE Confidence: 0.8855424

00:18:07.716 --> 00:18:10.436 We'll talk about some anatomy,  
NOTE Confidence: 0.8855424

00:18:10.440 --> 00:18:11.919 Physiology and pathology.



NOTE Confidence: 0.8855424

00:18:11.919 --> 00:18:14.877 Then Alina Hopkins will tell us

NOTE Confidence: 0.8855424

00:18:14.877 --> 00:18:17.958 her experiences with hydrocephalus.

NOTE Confidence: 0.8855424

00:18:17.960 --> 00:18:19.932 Finally, you'll do endoscopic

NOTE Confidence: 0.8855424

00:18:19.932 --> 00:18:22.397 surgery on green and red

NOTE Confidence: 0.8855424

00:18:22.397 --> 00:18:24.879 Peppers to retrieve their seeds.

NOTE Confidence: 0.8855424

00:18:24.880 --> 00:18:26.760 I hope you enjoy it.

NOTE Confidence: 0.8855424

00:18:26.760 --> 00:18:28.278 Let me give you a preview.

NOTE Confidence: 0.88707143375

00:18:30.640 --> 00:18:33.000 In the lateral ventricle,

NOTE Confidence: 0.88707143375

00:18:33.000 --> 00:18:37.440 you'll see the septum, pellucidum,

NOTE Confidence: 0.88707143375

00:18:37.440 --> 00:18:42.440 choroplexis, foramen and Monroe.

NOTE Confidence: 0.88707143375

00:18:42.440 --> 00:18:47.720 The frame of the foramen is the fornix.

NOTE Confidence: 0.88707143375

00:18:47.720 --> 00:18:50.960 That is the pipeline that lays down memory,

NOTE Confidence: 0.88707143375

00:18:50.960 --> 00:18:52.604 all new memory.

NOTE Confidence: 0.88707143375

00:18:52.604 --> 00:18:55.824 In the third ventricle you see

NOTE Confidence: 0.88707143375

00:18:55.824 --> 00:19:00.240 the mammary bodies at 6:00,

NOTE Confidence: 0.88707143375

00:19:00.240 --> 00:19:04.360 the posterior optic chiasm at 12:00.

NOTE Confidence: 0.88707143375

00:19:04.360 --> 00:19:07.960 Just below is the infundibular

NOTE Confidence: 0.88707143375

00:19:07.960 --> 00:19:11.830 recess or the top of the pituitary

NOTE Confidence: 0.88707143375

00:19:11.830 --> 00:19:16.902 stalk In the center billowing up is

NOTE Confidence: 0.88707143375

00:19:16.902 --> 00:19:19.194 the floor of the third ventricle.

NOTE Confidence: 0.88707143375

00:19:19.200 --> 00:19:21.688 Maybe you can see a red hint below

NOTE Confidence: 0.88707143375

00:19:21.688 --> 00:19:24.440 it That is the basilar artery.

NOTE Confidence: 0.88707143375

00:19:24.440 --> 00:19:26.932 In the next frame you see the

NOTE Confidence: 0.88707143375

00:19:26.932 --> 00:19:28.760 basilar artery itself below this

NOTE Confidence: 0.88707143375

00:19:28.760 --> 00:19:30.660 billowing membrane that is the

NOTE Confidence: 0.88707143375

00:19:30.660 --> 00:19:32.999 floor of the third ventricle.

NOTE Confidence: 0.88707143375

00:19:33.000 --> 00:19:35.808 The goal of this operation is

NOTE Confidence: 0.88707143375

00:19:35.808 --> 00:19:38.764 to create a passageway for CSF,

NOTE Confidence: 0.88707143375

00:19:38.764 --> 00:19:42.005 flow from the third ventricle to

NOTE Confidence: 0.88707143375

00:19:42.005 --> 00:19:44.630 basilar cisterns and bypass the

NOTE Confidence: 0.88707143375

00:19:44.630 --> 00:19:48.186 aqueduct and the outlets of the 4th

NOTE Confidence: 0.88707143375  
00:19:48.186 --> 00:19:50.638 ventricle to treat hydrocephalus.  
NOTE Confidence: 0.956366394444444  
00:19:52.920 --> 00:19:55.832 To get there, we need to plan an  
NOTE Confidence: 0.956366394444444  
00:19:55.832 --> 00:19:58.216 operation. The approach is right  
NOTE Confidence: 0.956366394444444  
00:19:58.216 --> 00:20:00.238 frontal along the trajectory  
NOTE Confidence: 0.95413063  
00:20:00.440 --> 00:20:02.040 you see on the MRI.  
NOTE Confidence: 0.938185511666667  
00:20:05.120 --> 00:20:08.480 Access is from a scalp incision and a  
NOTE Confidence: 0.938185511666667  
00:20:08.480 --> 00:20:11.040 hole in the skull called a Burr hole.  
NOTE Confidence: 0.938185511666667  
00:20:11.040 --> 00:20:14.480 In the lower frame you see the endoscope  
NOTE Confidence: 0.938185511666667  
00:20:14.480 --> 00:20:17.720 you will use on Peppers in January.  
NOTE Confidence: 0.938185511666667  
00:20:17.720 --> 00:20:20.023 Are you ready? Watch out for the  
NOTE Confidence: 0.938185511666667  
00:20:20.023 --> 00:20:22.189 basal artery and the big fat  
NOTE Confidence: 0.938185511666667  
00:20:22.189 --> 00:20:24.034 veins on the appendable surface.  
NOTE Confidence: 0.938185511666667  
00:20:24.040 --> 00:20:25.440 They can ruin your day.  
NOTE Confidence: 0.94484186  
00:20:28.480 --> 00:20:31.864 We are descending through a 6mm  
NOTE Confidence: 0.94484186  
00:20:31.864 --> 00:20:34.920 tube into the ventricular system.  
NOTE Confidence: 0.94484186

00:20:34.920 --> 00:20:37.760 The septum pellucidum is waving on our left  
NOTE Confidence: 0.729695095555556

00:20:43.520 --> 00:20:45.410 and we follow the cori plexus  
NOTE Confidence: 0.729695095555556

00:20:45.410 --> 00:20:47.160 to the frame of Monroe.  
NOTE Confidence: 0.746810677142857

00:20:49.840 --> 00:20:53.235 Remember, the door frame is the fornix  
NOTE Confidence: 0.918827735

00:21:05.480 --> 00:21:07.400 as we enter the third ventricle.  
NOTE Confidence: 0.918827735

00:21:07.400 --> 00:21:10.360 Orient yourself, mammary bodies,  
NOTE Confidence: 0.6490041

00:21:12.600 --> 00:21:14.040 optic chiasm,  
NOTE Confidence: 0.41999912

00:21:16.160 --> 00:21:19.840 infundibular recess. Walls  
NOTE Confidence: 0.8910238275

00:21:19.840 --> 00:21:21.000 of the third ventricle  
NOTE Confidence: 0.773623

00:21:21.960 --> 00:21:25.080 are the hypothalamus.  
NOTE Confidence: 0.773623

00:21:25.080 --> 00:21:27.440 Now we're going to score the floor of  
NOTE Confidence: 0.773623

00:21:27.440 --> 00:21:29.796 the third ventricle with a YAG laser.  
NOTE Confidence: 0.773623

00:21:29.800 --> 00:21:32.240 The heat at the tip is very focal.  
NOTE Confidence: 0.773623

00:21:32.240 --> 00:21:35.440 The laser tip is .8mm.  
NOTE Confidence: 0.773623

00:21:35.440 --> 00:21:37.198 Notice how the floor of the  
NOTE Confidence: 0.773623

00:21:37.198 --> 00:21:38.077 third ventricle shrinks.

NOTE Confidence: 0.941242474666667  
00:21:40.680 --> 00:21:42.498 Now we need to perforate the  
NOTE Confidence: 0.941242474666667  
00:21:42.498 --> 00:21:44.188 floor of the third ventricle  
NOTE Confidence: 0.941242474666667  
00:21:44.188 --> 00:21:45.836 and widen the opening.  
NOTE Confidence: 0.941242474666667  
00:21:45.840 --> 00:21:49.638 For this we're using steel forceps.  
NOTE Confidence: 0.941242474666667  
00:21:49.640 --> 00:21:51.520 The summit of the basilar  
NOTE Confidence: 0.941242474666667  
00:21:51.520 --> 00:21:53.400 artery is just below us.  
NOTE Confidence: 0.890960875294118  
00:21:58.580 --> 00:22:00.624 Now we need to look through our  
NOTE Confidence: 0.890960875294118  
00:22:00.624 --> 00:22:02.611 opening to make sure we are  
NOTE Confidence: 0.890960875294118  
00:22:02.611 --> 00:22:03.999 in a subarachnoid location.  
NOTE Confidence: 0.890960875294118  
00:22:04.000 --> 00:22:06.916 The basal artery is very apparent.  
NOTE Confidence: 0.894090478  
00:22:10.600 --> 00:22:13.660 We're done. This should treat the  
NOTE Confidence: 0.894090478  
00:22:13.660 --> 00:22:15.999 hydrocephalus. Enjoy the course.  
NOTE Confidence: 0.881573889090909  
00:22:19.760 --> 00:22:21.350 Some of you may recall trying  
NOTE Confidence: 0.881573889090909  
00:22:21.350 --> 00:22:22.920 this out with the Peppers,  
NOTE Confidence: 0.850599135  
00:22:26.720 --> 00:22:27.836 but how did we get there?  
NOTE Confidence: 0.7058759325

00:22:30.280 --> 00:22:32.410 The image in the upper left  
NOTE Confidence: 0.7058759325

00:22:32.410 --> 00:22:36.280 is A pediatric cystoscope.  
NOTE Confidence: 0.7058759325

00:22:36.280 --> 00:22:42.916 The urologist would look at the  
NOTE Confidence: 0.7058759325

00:22:42.916 --> 00:22:46.122 bladder with the with their eye right  
NOTE Confidence: 0.7058759325

00:22:46.122 --> 00:22:48.676 right against that black eyepiece.  
NOTE Confidence: 0.7058759325

00:22:48.676 --> 00:22:50.456 Well, we tried that a  
NOTE Confidence: 0.7058759325

00:22:50.456 --> 00:22:52.360 couple of times with brain,  
NOTE Confidence: 0.7058759325

00:22:52.360 --> 00:22:57.976 but it just gave us too much  
NOTE Confidence: 0.7058759325

00:22:57.976 --> 00:23:00.440 risk for for sterility.  
NOTE Confidence: 0.7058759325

00:23:00.440 --> 00:23:04.244 Then along came the camera that  
NOTE Confidence: 0.7058759325

00:23:04.244 --> 00:23:08.440 would fit directly onto the scope  
NOTE Confidence: 0.877804861428572

00:23:10.560 --> 00:23:14.537 and the image On the right are some  
NOTE Confidence: 0.877804861428572

00:23:14.537 --> 00:23:18.704 of our later in the scopes for the  
NOTE Confidence: 0.877804861428572

00:23:18.704 --> 00:23:21.400 third ventriculostomy for for example,  
NOTE Confidence: 0.818348693

00:23:25.480 --> 00:23:27.160 we didn't have any of this  
NOTE Confidence: 0.818348693

00:23:27.160 --> 00:23:28.280 equipment in in neurosurgery.

NOTE Confidence: 0.818348693

00:23:28.280 --> 00:23:29.880 The urologist used it,

NOTE Confidence: 0.84778374375

00:23:34.520 --> 00:23:38.011 but it took a group of people to be

NOTE Confidence: 0.84778374375

00:23:38.011 --> 00:23:41.197 able to bring this into neurosurgery.

NOTE Confidence: 0.84778374375

00:23:41.200 --> 00:23:44.110 Now it's commonplace, almost all

NOTE Confidence: 0.84778374375

00:23:44.110 --> 00:23:46.438 operations are done laparoscopically,

NOTE Confidence: 0.84778374375

00:23:46.440 --> 00:23:49.320 endoscopically, but this,

NOTE Confidence: 0.84778374375

00:23:49.320 --> 00:23:54.664 this was in many instances developed

NOTE Confidence: 0.84778374375

00:23:54.664 --> 00:24:00.840 by a small Group, A small group here

NOTE Confidence: 0.84778374375

00:24:00.840 --> 00:24:03.040 in the left and then the blue jacket.

NOTE Confidence: 0.84778374375

00:24:03.040 --> 00:24:06.400 You see Ina Williams,

NOTE Confidence: 0.84778374375

00:24:06.400 --> 00:24:09.515 I couldn't find a photograph of Reuben

NOTE Confidence: 0.84778374375

00:24:09.515 --> 00:24:13.000 Perea and there's Joe Warshaw who

NOTE Confidence: 0.84778374375

00:24:13.000 --> 00:24:15.275 as Chair of Pediatrics at the time,

NOTE Confidence: 0.84778374375

00:24:15.280 --> 00:24:17.240 you might wonder his contribution

NOTE Confidence: 0.7240794

00:24:19.800 --> 00:24:25.565 Mr. Perea built an endoscope for us

NOTE Confidence: 0.7240794

00:24:25.565 --> 00:24:29.659 or the the endoscope tower that held  
NOTE Confidence: 0.7240794

00:24:29.659 --> 00:24:32.430 all the electronics for materials  
NOTE Confidence: 0.7240794

00:24:32.430 --> 00:24:36.108 that were in the discard area in  
NOTE Confidence: 0.7240794

00:24:36.108 --> 00:24:40.356 the lower levels of the hospital.  
NOTE Confidence: 0.7240794

00:24:40.360 --> 00:24:44.315 We we we still needed some funds  
NOTE Confidence: 0.7240794

00:24:44.320 --> 00:24:46.756 and while there was some reluctance  
NOTE Confidence: 0.7240794

00:24:46.756 --> 00:24:48.869 to provide funds for something  
NOTE Confidence: 0.7240794

00:24:48.869 --> 00:24:52.160 new like this in in neurosurgery,  
NOTE Confidence: 0.7240794

00:24:52.160 --> 00:24:55.175 when this was I was borrowing  
NOTE Confidence: 0.7240794

00:24:55.175 --> 00:24:56.475 things from the urologist  
NOTE Confidence: 0.704026465

00:24:58.640 --> 00:24:59.480 Joe Warshaw  
NOTE Confidence: 0.8628526933333333

00:25:01.760 --> 00:25:07.600 used to hold court in the in the hallways  
NOTE Confidence: 0.8628526933333333

00:25:07.600 --> 00:25:10.597 asked me what I was doing what what were  
NOTE Confidence: 0.8628526933333333

00:25:10.597 --> 00:25:14.117 we accomplishing which was typical for him.  
NOTE Confidence: 0.8628526933333333

00:25:14.120 --> 00:25:17.225 And I explained to him about how we were  
NOTE Confidence: 0.8628526933333333

00:25:17.225 --> 00:25:20.720 trying to bring endoscopy, ventriculscopy



NOTE Confidence: 0.883344524

00:25:23.000 --> 00:25:27.960 into neurosurgery and he he Pediatrics

NOTE Confidence: 0.883344524

00:25:27.960 --> 00:25:30.120 has never had that much money.

NOTE Confidence: 0.883344524

00:25:30.120 --> 00:25:32.688 He offered to to contribute for

NOTE Confidence: 0.883344524

00:25:32.688 --> 00:25:35.121 whatever it would take to make

NOTE Confidence: 0.883344524

00:25:35.121 --> 00:25:37.968 this viable and available for

NOTE Confidence: 0.883344524

00:25:37.968 --> 00:25:41.320 kids in the Children's Hospital.

NOTE Confidence: 0.883344524

00:25:41.320 --> 00:25:43.496 Fortunately the hospital came

NOTE Confidence: 0.883344524

00:25:43.496 --> 00:25:46.038 through on the right hand of Huggins.

NOTE Confidence: 0.883344524

00:25:46.040 --> 00:25:48.648 Many of you have met when you've

NOTE Confidence: 0.883344524

00:25:48.648 --> 00:25:50.592 worked with the Peppers has been

NOTE Confidence: 0.883344524

00:25:50.592 --> 00:25:53.300 very instrumental in keeping this

NOTE Confidence: 0.883344524

00:25:53.300 --> 00:25:57.004 effort ongoing and and Anna Williams

NOTE Confidence: 0.883344524

00:25:57.004 --> 00:26:00.440 who I wrote papers with when she was

NOTE Confidence: 0.883344524

00:26:00.440 --> 00:26:04.045 a young nurse pictured in our our

NOTE Confidence: 0.883344524

00:26:04.045 --> 00:26:08.315 scrubs is now the the the senior vice

NOTE Confidence: 0.883344524

00:26:08.315 --> 00:26:10.800 president in nursing for the for our  
NOTE Confidence: 0.883344524

00:26:10.800 --> 00:26:12.944 institution and was very instrumental  
NOTE Confidence: 0.883344524

00:26:12.944 --> 00:26:16.718 in having the the hospital bring  
NOTE Confidence: 0.883344524

00:26:16.718 --> 00:26:20.319 bring this into forefront for us.  
NOTE Confidence: 0.830731705555556

00:26:25.560 --> 00:26:28.245 The endoscope really has revolutionized  
NOTE Confidence: 0.830731705555556

00:26:28.245 --> 00:26:30.393 the treatment of hydrocephalus.  
NOTE Confidence: 0.830731705555556

00:26:30.400 --> 00:26:34.168 Before, we would treat children with  
NOTE Confidence: 0.830731705555556

00:26:34.168 --> 00:26:38.436 shunts and continue to in many instances.  
NOTE Confidence: 0.830731705555556

00:26:38.440 --> 00:26:42.318 But shunts have a high infection rate.  
NOTE Confidence: 0.830731705555556

00:26:42.320 --> 00:26:46.960 They aren't but so durable.  
NOTE Confidence: 0.830731705555556

00:26:46.960 --> 00:26:50.325 However, an endoscopic third ventriculostomy  
NOTE Confidence: 0.830731705555556

00:26:50.325 --> 00:26:55.476 has a high high rate of success.  
NOTE Confidence: 0.830731705555556

00:26:55.480 --> 00:27:00.080 However, if we think back about Doctor Drake,  
NOTE Confidence: 0.830731705555556

00:27:00.080 --> 00:27:02.156 it may seem safe to say,  
NOTE Confidence: 0.830731705555556

00:27:02.160 --> 00:27:06.560 oh, point 4% have a serious  
NOTE Confidence: 0.830731705555556

00:27:06.560 --> 00:27:07.720 intracerebral hemorrhage.

NOTE Confidence: 0.830731705555556

00:27:07.720 --> 00:27:09.532 That means that every couple of

NOTE Confidence: 0.830731705555556

00:27:09.532 --> 00:27:10.960 years somebody's going to have

NOTE Confidence: 0.830731705555556

00:27:10.960 --> 00:27:12.990 a severe injury from us just

NOTE Confidence: 0.830731705555556

00:27:12.990 --> 00:27:15.360 passing that tube in their brain.

NOTE Confidence: 0.92513527

00:27:17.520 --> 00:27:19.635 I don't. I don't know how to eliminate that.

NOTE Confidence: 0.966019224

00:27:24.280 --> 00:27:27.720 I've been very fortunate to be involved

NOTE Confidence: 0.966019224

00:27:27.720 --> 00:27:32.026 in a number of investigative and research

NOTE Confidence: 0.966019224

00:27:32.026 --> 00:27:36.478 projects through my through my time.

NOTE Confidence: 0.966019224

00:27:36.480 --> 00:27:40.680 Once once a week for about 5 years,

NOTE Confidence: 0.966019224

00:27:40.680 --> 00:27:44.215 I I commuted to Brookhaven

NOTE Confidence: 0.966019224

00:27:44.215 --> 00:27:46.475 National Laboratory to work

NOTE Confidence: 0.966019224

00:27:46.475 --> 00:27:49.800 on positron emitting tracers.

NOTE Confidence: 0.966019224

00:27:49.800 --> 00:27:52.068 This is during the time of the

NOTE Confidence: 0.966019224

00:27:52.068 --> 00:27:54.680 development of auto antipyrine

NOTE Confidence: 0.966019224

00:27:54.680 --> 00:27:57.520 and fluorodeoxyglucose for

NOTE Confidence: 0.77593008

00:28:00.240 --> 00:28:02.685 positron emission tomography.  
NOTE Confidence: 0.77593008

00:28:02.685 --> 00:28:05.945 Now they're far more  
NOTE Confidence: 0.77593008

00:28:05.945 --> 00:28:08.198 complex emitters available.  
NOTE Confidence: 0.77593008

00:28:08.198 --> 00:28:13.231 I worked on the DRG Revision project  
NOTE Confidence: 0.77593008

00:28:13.231 --> 00:28:16.004 at the School of Management. Dr.  
NOTE Confidence: 0.77593008

00:28:16.004 --> 00:28:18.720 GS are the way hospitals are paid  
NOTE Confidence: 0.780272419230769

00:28:20.960 --> 00:28:24.440 and I managed to be a bit player  
NOTE Confidence: 0.780272419230769

00:28:24.440 --> 00:28:27.998 in the IBH prevention studies.  
NOTE Confidence: 0.909828020909091

00:28:30.400 --> 00:28:33.142 The big question was how does  
NOTE Confidence: 0.909828020909091

00:28:33.142 --> 00:28:35.640 developing brain adapt to injury.  
NOTE Confidence: 0.909828020909091

00:28:35.640 --> 00:28:38.720 Doctor Mint let let all of these  
NOTE Confidence: 0.909828020909091

00:28:38.720 --> 00:28:41.400 projects in here photographed or some  
NOTE Confidence: 0.909828020909091

00:28:41.400 --> 00:28:46.208 of the the key people who were involved.  
NOTE Confidence: 0.909828020909091

00:28:46.208 --> 00:28:50.640 Doctor Mint, Doctor Stewart, Dolores Montoya.  
NOTE Confidence: 0.805045151428571

00:28:53.200 --> 00:28:57.477 There there many talents around this place.  
NOTE Confidence: 0.805045151428571

00:28:57.480 --> 00:29:01.519 Dolores Montoya was one of the great

NOTE Confidence: 0.805045151428571

00:29:01.520 --> 00:29:05.520 masters in small animal surgery.

NOTE Confidence: 0.805045151428571

00:29:05.520 --> 00:29:10.486 We see Doctor Mint with some of her staff.

NOTE Confidence: 0.805045151428571

00:29:10.486 --> 00:29:13.116 Carol Katz who did Biostatistics.

NOTE Confidence: 0.805045151428571

00:29:13.120 --> 00:29:13.910 Karen Schneider,

NOTE Confidence: 0.805045151428571

00:29:13.910 --> 00:29:16.886 who was really the major domo through

NOTE Confidence: 0.805045151428571

00:29:16.886 --> 00:29:19.916 many projects and more janely,

NOTE Confidence: 0.805045151428571

00:29:19.920 --> 00:29:25.438 who incredibly kept patients

NOTE Confidence: 0.805045151428571

00:29:25.440 --> 00:29:28.440 involved in our studies for years.

NOTE Confidence: 0.965018854

00:29:36.160 --> 00:29:37.400 So how did this happen?

NOTE Confidence: 0.93406886

00:29:39.840 --> 00:29:40.520 We

NOTE Confidence: 0.921599669

00:29:42.800 --> 00:29:46.544 I went, I went to a meeting in Saint

NOTE Confidence: 0.921599669

00:29:46.544 --> 00:29:49.156 Louis the cerebral brain metabolism

NOTE Confidence: 0.921599669

00:29:49.156 --> 00:29:51.901 cerebral blood flow and metabolism

NOTE Confidence: 0.921599669

00:29:51.901 --> 00:29:54.832 meeting and there was a a short talk

NOTE Confidence: 0.921599669

00:29:54.832 --> 00:29:58.246 about maybe in the in the methicine is

NOTE Confidence: 0.921599669

00:29:58.246 --> 00:30:01.876 influential to developing blood vessels.  
NOTE Confidence: 0.921599669

00:30:01.880 --> 00:30:03.476 As Doctor Min and I spoke,  
NOTE Confidence: 0.921599669

00:30:03.480 --> 00:30:07.834 we thought about how how this might  
NOTE Confidence: 0.921599669

00:30:07.840 --> 00:30:10.948 translate into something useful for babies  
NOTE Confidence: 0.921599669

00:30:10.948 --> 00:30:14.400 and the methicine was already used for  
NOTE Confidence: 0.921599669

00:30:14.400 --> 00:30:18.504 for treating a patent ductus arteriosus.  
NOTE Confidence: 0.921599669

00:30:18.504 --> 00:30:21.240 So how do you bring something  
NOTE Confidence: 0.921599669

00:30:21.240 --> 00:30:24.516 that's an idea into the clinic?  
NOTE Confidence: 0.921599669

00:30:24.520 --> 00:30:27.958 This meant developing an animal model.  
NOTE Confidence: 0.921599669

00:30:27.960 --> 00:30:31.302 This meant thinking about what influences  
NOTE Confidence: 0.921599669

00:30:31.302 --> 00:30:34.520 and finding out what influences  
NOTE Confidence: 0.832368718

00:30:36.640 --> 00:30:41.430 in the medicine might have on newborns,  
NOTE Confidence: 0.832368718

00:30:41.430 --> 00:30:47.448 on preemies and when when did infants,  
NOTE Confidence: 0.832368718

00:30:47.448 --> 00:30:49.560 premature infants actually have  
NOTE Confidence: 0.47309327

00:30:52.320 --> 00:30:53.800 intraventricular hemorrhage.  
NOTE Confidence: 0.880895302857143

00:31:00.840 --> 00:31:05.355 We we carried out studies to show

NOTE Confidence: 0.880895302857143

00:31:05.360 --> 00:31:07.985 that in the methicine prevented

NOTE Confidence: 0.880895302857143

00:31:07.985 --> 00:31:10.959 hemorrhage in a large proportion of

NOTE Confidence: 0.880895302857143

00:31:10.959 --> 00:31:13.630 the of the and of the animal models

NOTE Confidence: 0.880895302857143

00:31:13.630 --> 00:31:17.013 and compare it to the thameslate and

NOTE Confidence: 0.880895302857143

00:31:17.013 --> 00:31:20.332 superoxide dismutase as well as in

NOTE Confidence: 0.880895302857143

00:31:20.332 --> 00:31:24.440 the methicine in the in the nursery.

NOTE Confidence: 0.880895302857143

00:31:24.440 --> 00:31:28.033 With Bob Lang we were able to determine

NOTE Confidence: 0.880895302857143

00:31:28.033 --> 00:31:30.398 cerebral blood flow changes through

NOTE Confidence: 0.880895302857143

00:31:30.398 --> 00:31:32.840 stable xenon studies in infants

NOTE Confidence: 0.939768800909091

00:31:35.480 --> 00:31:38.340 and timing of hemorrhage which

NOTE Confidence: 0.939768800909091

00:31:38.340 --> 00:31:41.800 occurred in the first three days.

NOTE Confidence: 0.939768800909091

00:31:41.800 --> 00:31:46.620 This meant that a large number of people

NOTE Confidence: 0.939768800909091

00:31:46.620 --> 00:31:50.280 were involved to from the nursery,

NOTE Confidence: 0.939768800909091

00:31:50.280 --> 00:31:52.680 from ultrasound technicians,

NOTE Confidence: 0.939768800909091

00:31:52.680 --> 00:31:56.760 we Doctor Mint organized that.

NOTE Confidence: 0.939768800909091

00:31:56.760 --> 00:31:59.628 Babies would have ultrasounds every six  
NOTE Confidence: 0.939768800909091

00:31:59.628 --> 00:32:03.157 hours for the first three days of life.  
NOTE Confidence: 0.939768800909091

00:32:03.160 --> 00:32:04.800 This meant consenting the parents,  
NOTE Confidence: 0.939768800909091

00:32:04.800 --> 00:32:07.266 making sure that what we were  
NOTE Confidence: 0.939768800909091

00:32:07.266 --> 00:32:10.920 doing was acceptable to the IRB,  
NOTE Confidence: 0.939768800909091

00:32:10.920 --> 00:32:12.612 to the nursery,  
NOTE Confidence: 0.939768800909091

00:32:12.612 --> 00:32:16.560 and as as well as to ourselves.  
NOTE Confidence: 0.939768800909091

00:32:16.560 --> 00:32:20.057 This ultimately led to a multicentermer  
NOTE Confidence: 0.939768800909091

00:32:20.057 --> 00:32:24.142 randomized trial that showed the  
NOTE Confidence: 0.939768800909091

00:32:24.142 --> 00:32:28.630 advantage in these and with the the help  
NOTE Confidence: 0.939768800909091

00:32:28.630 --> 00:32:35.200 of the the people I'd shown earlier,  
NOTE Confidence: 0.939768800909091

00:32:35.200 --> 00:32:37.990 we were able to follow these  
NOTE Confidence: 0.939768800909091

00:32:37.990 --> 00:32:40.040 children into young adulthood.  
NOTE Confidence: 0.905385441818182

00:32:42.160 --> 00:32:47.137 And while many drugs we we read about are  
NOTE Confidence: 0.905385441818182

00:32:47.137 --> 00:32:49.720 extraordinarily expensive, for example, the  
NOTE Confidence: 0.695861214

00:32:51.800 --> 00:32:56.060 drug Surfacta to help mature preemies



NOTE Confidence: 0.695861214

00:32:56.060 --> 00:33:00.286 lungs is over \$1000 a dose and

NOTE Confidence: 0.695861214

00:33:00.286 --> 00:33:02.516 the medicine remained dirt cheap,

NOTE Confidence: 0.695861214

00:33:02.520 --> 00:33:06.916 about 1000, about a dollar per dose.

NOTE Confidence: 0.695861214

00:33:06.920 --> 00:33:11.132 So it was usable by any country that could

NOTE Confidence: 0.695861214

00:33:11.132 --> 00:33:15.960 actually maintain premature infants.

NOTE Confidence: 0.8897984

00:33:19.760 --> 00:33:23.710 Well, what I didn't know or

NOTE Confidence: 0.8897984

00:33:23.710 --> 00:33:25.860 hadn't thought about was that

NOTE Confidence: 0.8897984

00:33:25.946 --> 00:33:28.557 surgery has a time stamp on it.

NOTE Confidence: 0.8897984

00:33:28.560 --> 00:33:32.320 So after a lot of cases and a lot of

NOTE Confidence: 0.8897984

00:33:32.426 --> 00:33:36.552 brain tumors and and leading this

NOTE Confidence: 0.8897984

00:33:36.552 --> 00:33:39.424 leading pediatric neurosurgery and

NOTE Confidence: 0.8897984

00:33:39.424 --> 00:33:43.638 the residency for quite a while,

NOTE Confidence: 0.8897984

00:33:43.640 --> 00:33:47.438 the time came to change direction.

NOTE Confidence: 0.8897984

00:33:47.440 --> 00:33:50.275 You may or may not want an old president,

NOTE Confidence: 0.8897984

00:33:50.280 --> 00:33:52.704 but I don't think anyone wants

NOTE Confidence: 0.8897984

00:33:52.704 --> 00:33:54.320 wants an old surgeon.  
NOTE Confidence: 0.836173211818182

00:33:56.600 --> 00:33:59.795 Fortunately, we have a an  
NOTE Confidence: 0.836173211818182

00:33:59.795 --> 00:34:02.990 institution that has such such  
NOTE Confidence: 0.836173211818182

00:34:03.109 --> 00:34:04.544 depth that there are many,  
NOTE Confidence: 0.836173211818182

00:34:04.544 --> 00:34:05.840 many things for us to do.  
NOTE Confidence: 0.836173211818182

00:34:05.840 --> 00:34:10.800 I mean the residency program,  
NOTE Confidence: 0.836173211818182

00:34:10.800 --> 00:34:12.400 teaching, neurobiology,  
NOTE Confidence: 0.859078428571429

00:34:14.960 --> 00:34:15.976 professional responsibility,  
NOTE Confidence: 0.859078428571429

00:34:15.976 --> 00:34:18.516 ILCE for a few years.  
NOTE Confidence: 0.859078428571429

00:34:18.520 --> 00:34:20.260 That's the bottom left with  
NOTE Confidence: 0.859078428571429

00:34:20.260 --> 00:34:22.000 Linda Honan and the group,  
NOTE Confidence: 0.859078428571429

00:34:22.000 --> 00:34:24.040 and now most of you have  
NOTE Confidence: 0.859078428571429

00:34:24.040 --> 00:34:27.360 seen me through anatomy.  
NOTE Confidence: 0.918485608888889

00:34:31.760 --> 00:34:34.490 As we looked at anatomy  
NOTE Confidence: 0.918485608888889

00:34:34.490 --> 00:34:36.674 and how times changed,  
NOTE Confidence: 0.918485608888889

00:34:36.680 --> 00:34:39.248 we developed what we call the

NOTE Confidence: 0.918485608888889

00:34:39.248 --> 00:34:40.960 Human Anatomy Video Project.

NOTE Confidence: 0.918485608888889

00:34:40.960 --> 00:34:42.478 In the top left you see

NOTE Confidence: 0.52797304

00:34:44.760 --> 00:34:49.008 Doctor Kapadia, who is now retired.

NOTE Confidence: 0.52797304

00:34:49.008 --> 00:34:52.548 In the lower left you see Levi Squire,

NOTE Confidence: 0.52797304

00:34:52.548 --> 00:34:54.918 who's kindly letting us paint,

NOTE Confidence: 0.52797304

00:34:54.920 --> 00:34:59.040 paint his chest for surface landmarks.

NOTE Confidence: 0.52797304

00:34:59.040 --> 00:35:03.680 We we embarked on a project

NOTE Confidence: 0.52797304

00:35:03.680 --> 00:35:07.000 to video record and video

NOTE Confidence: 0.52797304

00:35:07.000 --> 00:35:09.440 the whole dissection cycle.

NOTE Confidence: 0.52797304

00:35:09.440 --> 00:35:12.000 This took us two years.

NOTE Confidence: 0.52797304

00:35:12.000 --> 00:35:16.440 You see in the right frame,

NOTE Confidence: 0.52797304

00:35:16.440 --> 00:35:17.984 Doctor Capatia with the

NOTE Confidence: 0.52797304

00:35:17.984 --> 00:35:19.914 with the camera in place,

NOTE Confidence: 0.976163666666667

00:35:23.280 --> 00:35:27.520 we had a lot of help and a lot

NOTE Confidence: 0.976163666666667

00:35:27.520 --> 00:35:31.360 of funding to make this happen.

NOTE Confidence: 0.976163666666667

00:35:31.360 --> 00:35:32.920 And many of these names,  
NOTE Confidence: 0.976163666666667

00:35:32.920 --> 00:35:36.408 you know, Lei Wang and Kelly  
NOTE Confidence: 0.976163666666667

00:35:36.408 --> 00:35:37.918 Perry are from the library.  
NOTE Confidence: 0.976163666666667

00:35:37.920 --> 00:35:40.704 We had two librarians for the  
NOTE Confidence: 0.976163666666667

00:35:40.704 --> 00:35:43.286 first year of the the project.  
NOTE Confidence: 0.976163666666667

00:35:43.286 --> 00:35:45.464 Ray Hill, who you may or  
NOTE Confidence: 0.976163666666667

00:35:45.464 --> 00:35:47.399 may not have ever met,  
NOTE Confidence: 0.976163666666667

00:35:47.400 --> 00:35:49.344 is responsible for the  
NOTE Confidence: 0.976163666666667

00:35:49.344 --> 00:35:52.200 Guided Anatomy website.  
NOTE Confidence: 0.976163666666667

00:35:52.200 --> 00:35:54.960 But the the Caplow family,  
NOTE Confidence: 0.976163666666667

00:35:54.960 --> 00:35:56.118 the Rossetti family  
NOTE Confidence: 0.59902114

00:35:58.360 --> 00:36:02.280 provided almost all the funding  
NOTE Confidence: 0.59902114

00:36:02.280 --> 00:36:05.931 with some help from the Office of  
NOTE Confidence: 0.59902114

00:36:05.931 --> 00:36:08.913 Education in the Poor View Center.  
NOTE Confidence: 0.59902114

00:36:08.920 --> 00:36:10.840 We weren't the first ones to do this.  
NOTE Confidence: 0.74380657

00:36:21.520 --> 00:36:22.399 In part A

NOTE Confidence: 0.84442491625

00:36:22.640 --> 00:36:25.440 of the section #4, the anterior thoracic wall

NOTE Confidence: 0.863731185

00:36:25.440 --> 00:36:26.760 is reflected and bound

NOTE Confidence: 0.9713659375

00:36:26.760 --> 00:36:29.760 down to the head. This allows

NOTE Confidence: 0.884086768571429

00:36:29.840 --> 00:36:31.004 a complete study.

NOTE Confidence: 0.884086768571429

00:36:31.004 --> 00:36:32.556 The internal thoracic vessels,

NOTE Confidence: 0.884086768571429

00:36:32.560 --> 00:36:35.079 the artery arising from the subclavian

NOTE Confidence: 0.884086768571429

00:36:35.080 --> 00:36:37.660 and the venicomatons draining

NOTE Confidence: 0.884086768571429

00:36:37.660 --> 00:36:40.800 into the brachiocephalic anterior

NOTE Confidence: 0.884086768571429

00:36:40.800 --> 00:36:43.359 intercostal branches should be exposed

NOTE Confidence: 0.884086768571429

00:36:43.360 --> 00:36:46.480 as well as parasternal lymph nodes.

NOTE Confidence: 0.884086768571429

00:36:46.480 --> 00:36:48.270 And the transverse asthosis muscle

NOTE Confidence: 0.884086768571429

00:36:48.270 --> 00:36:50.800 is to be slit and reflected to

NOTE Confidence: 0.884086768571429

00:36:50.800 --> 00:36:55.220 show how the vessels pass to the

NOTE Confidence: 0.884086768571429

00:36:55.220 --> 00:36:57.960 abdomen and they change. A view

NOTE Confidence: 0.7511009125

00:36:59.080 --> 00:37:00.240 will show a reflection

NOTE Confidence: 0.77642872

00:37:00.240 --> 00:37:02.146 of the cost of margin where the  
NOTE Confidence: 0.77642872

00:37:02.146 --> 00:37:04.080 vessels internal thoracic vessels  
NOTE Confidence: 0.77642872

00:37:04.080 --> 00:37:05.880 terminate as a lateral branch,  
NOTE Confidence: 0.712326

00:37:05.880 --> 00:37:07.500 they're reflecting the  
NOTE Confidence: 0.712326

00:37:07.500 --> 00:37:09.120 transversus thoracis muscle,  
NOTE Confidence: 0.712326

00:37:09.120 --> 00:37:10.120 they're the lateral branch.  
NOTE Confidence: 0.712326

00:37:10.120 --> 00:37:11.744 The musculophrenic going along  
NOTE Confidence: 0.712326

00:37:11.744 --> 00:37:12.800 with the diaphragm attaches  
NOTE Confidence: 0.712326

00:37:12.800 --> 00:37:15.215 to the cost of margin and  
NOTE Confidence: 0.712326

00:37:15.215 --> 00:37:17.355 they're the superior epigastric  
NOTE Confidence: 0.712326

00:37:17.355 --> 00:37:20.000 passing into the rectus sheath.  
NOTE Confidence: 0.8019983375

00:37:21.720 --> 00:37:23.800 Now if you'll just help hold that down.  
NOTE Confidence: 0.96925955

00:37:25.720 --> 00:37:27.020 That's right. Put it in.  
NOTE Confidence: 0.96925955

00:37:27.020 --> 00:37:29.078 That's a good boy. Thank you.  
NOTE Confidence: 0.53740911

00:37:31.760 --> 00:37:36.240 Doctor Creeland would would probably need  
NOTE Confidence: 0.53740911

00:37:36.240 --> 00:37:39.988 to revise some of his language today.

NOTE Confidence: 0.53740911

00:37:39.988 --> 00:37:42.358 This was recorded in pneumatic

NOTE Confidence: 0.53740911

00:37:42.358 --> 00:37:45.064 and we thought that the all

NOTE Confidence: 0.53740911

00:37:45.064 --> 00:37:47.760 these videotapes had been lost,

NOTE Confidence: 0.53740911

00:37:47.760 --> 00:37:51.183 but we were able to recover them, find.

NOTE Confidence: 0.53740911

00:37:51.183 --> 00:37:54.970 We found a company in Pennsylvania that

NOTE Confidence: 0.53740911

00:37:55.066 --> 00:37:58.386 was able to digitize them for us and

NOTE Confidence: 0.53740911

00:37:58.386 --> 00:38:01.152 now they're in the library archive.

NOTE Confidence: 0.53740911

00:38:01.152 --> 00:38:03.816 Back in Doctor Creelin's time,

NOTE Confidence: 0.53740911

00:38:03.816 --> 00:38:05.832 he was the predecessor to Doctor Stewart.

NOTE Confidence: 0.94749255625

00:38:08.760 --> 00:38:10.880 All the students would sit and watch these

NOTE Confidence: 0.82640575

00:38:13.040 --> 00:38:16.622 small televisions. You'll notice

NOTE Confidence: 0.82640575

00:38:16.622 --> 00:38:19.077 that he wasn't wearing gloves.

NOTE Confidence: 0.82640575

00:38:19.080 --> 00:38:21.544 I think that we're all a lot happier

NOTE Confidence: 0.82640575

00:38:21.544 --> 00:38:24.240 that we have nitrile gloves. For us.

NOTE Confidence: 0.948640858333333

00:38:27.440 --> 00:38:30.560 We we started with the videos,

NOTE Confidence: 0.948640858333333

00:38:30.560 --> 00:38:32.388 putting them on panopto,  
NOTE Confidence: 0.9486408583333333

00:38:32.388 --> 00:38:36.480 and then moved to a series of iBooks.  
NOTE Confidence: 0.9486408583333333

00:38:36.480 --> 00:38:42.238 Apple and its wisdom or finance  
NOTE Confidence: 0.9486408583333333

00:38:42.240 --> 00:38:43.878 did not support these so much.  
NOTE Confidence: 0.9486408583333333

00:38:43.880 --> 00:38:45.080 And then we moved to  
NOTE Confidence: 0.837476385789473

00:38:47.720 --> 00:38:50.051 guided anatomy and and I I think  
NOTE Confidence: 0.837476385789473

00:38:50.051 --> 00:38:52.310 this has been the the most  
NOTE Confidence: 0.837476385789473

00:38:52.310 --> 00:38:54.674 successful and the most flexible for  
NOTE Confidence: 0.9124015011111111

00:38:57.160 --> 00:38:59.824 as a primary resource.  
NOTE Confidence: 0.9124015011111111

00:38:59.824 --> 00:39:03.154 We also have Coursera courses,  
NOTE Confidence: 0.9124015011111111

00:39:03.160 --> 00:39:04.920 we have several Coursera courses.  
NOTE Confidence: 0.9124015011111111

00:39:04.920 --> 00:39:06.915 This is the one on the trunk.  
NOTE Confidence: 0.9124015011111111

00:39:06.920 --> 00:39:11.720 Overall, we have approximately 135,000  
NOTE Confidence: 0.9124015011111111

00:39:11.720 --> 00:39:14.879 learners through through Coursera.  
NOTE Confidence: 0.841199822592593

00:39:20.160 --> 00:39:21.592 There there there's life.  
NOTE Confidence: 0.841199822592593

00:39:21.592 --> 00:39:24.680 I I will tell you if the the



NOTE Confidence: 0.841199822592593  
00:39:24.680 --> 00:39:26.820 bottom left has circles around  
NOTE Confidence: 0.841199822592593  
00:39:26.820 --> 00:39:29.323 our our children and then you  
NOTE Confidence: 0.841199822592593  
00:39:29.323 --> 00:39:31.114 see them at different points,  
NOTE Confidence: 0.841199822592593  
00:39:31.114 --> 00:39:33.580 on on the right of the left is a  
NOTE Confidence: 0.841199822592593  
00:39:33.657 --> 00:39:36.193 school that a number of them went to.  
NOTE Confidence: 0.841199822592593  
00:39:36.200 --> 00:39:39.800 I must tell you, going back to Doctor Drake,  
NOTE Confidence: 0.841199822592593  
00:39:39.800 --> 00:39:42.398 that there was only one occasion  
NOTE Confidence: 0.841199822592593  
00:39:42.400 --> 00:39:44.560 that I brought them to school  
NOTE Confidence: 0.841199822592593  
00:39:44.560 --> 00:39:46.360 one morning and left them  
NOTE Confidence: 0.974714716666667  
00:39:48.520 --> 00:39:52.068 to find out later that  
NOTE Confidence: 0.974714716666667  
00:39:52.068 --> 00:39:54.838 school was closed that day.  
NOTE Confidence: 0.974714716666667  
00:39:54.840 --> 00:39:57.964 Fortunately their grandparents lived  
NOTE Confidence: 0.974714716666667  
00:39:57.964 --> 00:40:00.474 a short walking distance away.  
NOTE Confidence: 0.9344720125  
00:40:03.040 --> 00:40:06.400 I was sent out with the kids periodically.  
NOTE Confidence: 0.9344720125  
00:40:06.400 --> 00:40:08.864 The bottom left is what we would call  
NOTE Confidence: 0.9344720125

00:40:08.864 --> 00:40:10.999 the cousins camping trip the other.  
NOTE Confidence: 0.9344720125

00:40:11.000 --> 00:40:16.760 People in the photograph or are a  
NOTE Confidence: 0.9344720125

00:40:16.760 --> 00:40:19.728 large cadre of their of their cousins,  
NOTE Confidence: 0.9344720125

00:40:19.728 --> 00:40:21.800 and this is in the White Mountains.  
NOTE Confidence: 0.9344720125

00:40:21.800 --> 00:40:24.728 But I was periodically sent  
NOTE Confidence: 0.9344720125

00:40:24.728 --> 00:40:27.680 out with the with the kids.  
NOTE Confidence: 0.961451116

00:40:30.200 --> 00:40:31.901 Some people in the household thought I  
NOTE Confidence: 0.961451116

00:40:31.901 --> 00:40:33.920 spent too much time in the operating room.  
NOTE Confidence: 0.969183528888889

00:40:39.210 --> 00:40:42.594 You know, life around here tends to be hard,  
NOTE Confidence: 0.969183528888889

00:40:42.600 --> 00:40:45.560 fast, and unforgiving, Unforgiving.  
NOTE Confidence: 0.286091365

00:40:49.080 --> 00:40:53.564 Claire Forscolo, I'm sure most of  
NOTE Confidence: 0.286091365

00:40:53.564 --> 00:40:55.319 you know about Claire's cornucopia,  
NOTE Confidence: 0.286091365

00:40:55.320 --> 00:40:59.060 but she's the she's the lady who  
NOTE Confidence: 0.286091365

00:40:59.060 --> 00:41:01.680 started that business in the mid 70s.  
NOTE Confidence: 0.286091365

00:41:01.680 --> 00:41:04.080 She was a nurse or she still is a nurse,  
NOTE Confidence: 0.286091365

00:41:04.080 --> 00:41:07.820 but that's her business and

NOTE Confidence: 0.286091365

00:41:07.820 --> 00:41:10.960 this is this is her new cup.

NOTE Confidence: 0.286091365

00:41:10.960 --> 00:41:16.188 She told me last week that a philosophy

NOTE Confidence: 0.286091365

00:41:16.188 --> 00:41:19.612 professor came in and said that he had

NOTE Confidence: 0.286091365

00:41:19.612 --> 00:41:23.120 used an image of her cup in his lecture,

NOTE Confidence: 0.286091365

00:41:23.120 --> 00:41:26.560 so I thought I'd do that as well.

NOTE Confidence: 0.286091365

00:41:26.560 --> 00:41:29.480 Below are some of some of our friends,

NOTE Confidence: 0.286091365

00:41:29.480 --> 00:41:31.034 so it can be a tough place.

NOTE Confidence: 0.286091365

00:41:31.040 --> 00:41:34.368 But we need to to think about how

NOTE Confidence: 0.286091365

00:41:34.368 --> 00:41:37.200 we can make it better for everyone.

NOTE Confidence: 0.965497459090909

00:41:41.040 --> 00:41:42.954 If you haven't read your New

NOTE Confidence: 0.965497459090909

00:41:42.954 --> 00:41:44.600 England Journal for the week,

NOTE Confidence: 0.965497459090909

00:41:44.600 --> 00:41:49.400 you might put a pen on Lisa

NOTE Confidence: 0.965497459090909

00:41:49.400 --> 00:41:53.160 Rosenbaum's editorial from last week.

NOTE Confidence: 0.8705175225

00:41:55.680 --> 00:41:56.600 This should be fun.

NOTE Confidence: 0.8053699

00:42:01.120 --> 00:42:03.476 Hi, Mr. Misses Jones. I'm Doctor Anderson,

NOTE Confidence: 0.925175782857143

00:42:03.480 --> 00:42:06.434 the neurosurgeon. It's nice to meet you.

NOTE Confidence: 0.925175782857143

00:42:06.440 --> 00:42:07.726 Can you tell me a little bit about

NOTE Confidence: 0.925175782857143

00:42:07.726 --> 00:42:11.880 what's been going on with Jimmy? Well,

NOTE Confidence: 0.798622878333333

00:42:11.880 --> 00:42:13.800 he's, he was sick last week,

NOTE Confidence: 0.798622878333333

00:42:13.800 --> 00:42:16.544 just all this week having, you know,

NOTE Confidence: 0.798622878333333

00:42:16.544 --> 00:42:19.250 throwing up and headaches and

NOTE Confidence: 0.798622878333333

00:42:19.250 --> 00:42:21.575 just really intensely sick and

NOTE Confidence: 0.798622878333333

00:42:21.575 --> 00:42:24.110 just not kicking it. Yeah, so.

NOTE Confidence: 0.798622878333333

00:42:24.110 --> 00:42:25.784 And we know there's a flu going around,

NOTE Confidence: 0.798622878333333

00:42:25.784 --> 00:42:27.691 so we just wanted to make sure

NOTE Confidence: 0.798622878333333

00:42:27.691 --> 00:42:28.844 it wasn't anything more serious.

NOTE Confidence: 0.798622878333333

00:42:28.844 --> 00:42:33.400 And then they wanted to give him an MRI here.

NOTE Confidence: 0.798622878333333

00:42:33.400 --> 00:42:36.052 So yeah, just they said to roll things out,

NOTE Confidence: 0.798622878333333

00:42:36.052 --> 00:42:38.160 but he's been gone for four hours

NOTE Confidence: 0.63663997

00:42:38.160 --> 00:42:40.048 now. We've been waiting.

NOTE Confidence: 0.63663997

00:42:40.048 --> 00:42:42.984 So, so you've he's been sick for about

NOTE Confidence: 0.63663997

00:42:42.984 --> 00:42:46.159 a week and throwing up and headaches,

NOTE Confidence: 0.63663997

00:42:46.160 --> 00:42:47.798 and I know you've been waiting a long time,

NOTE Confidence: 0.63663997

00:42:47.800 --> 00:42:48.800 and I'm sorry about that.

NOTE Confidence: 0.63663997

00:42:48.800 --> 00:42:50.711 They have to, they have to sedate

NOTE Confidence: 0.63663997

00:42:50.711 --> 00:42:52.775 him a little bit to get him to

NOTE Confidence: 0.63663997

00:42:52.775 --> 00:42:54.320 hold still for the MRI scan.

NOTE Confidence: 0.8753722533333333

00:42:52.600 --> 00:42:54.320 Is he scared? Is he OK? He's OK.

NOTE Confidence: 0.941418598571429

00:42:54.320 --> 00:42:55.916 I just saw him and I was.

NOTE Confidence: 0.941418598571429

00:42:55.920 --> 00:42:57.296 He was basically like

NOTE Confidence: 0.941418598571429

00:42:57.296 --> 00:42:59.360 waking up from a long nap.

NOTE Confidence: 0.941418598571429

00:42:59.360 --> 00:43:01.240 So he's moving around and he looks fine.

NOTE Confidence: 0.941418598571429

00:43:01.240 --> 00:43:03.032 He's opened his eyes, but he's still

NOTE Confidence: 0.941418598571429

00:43:03.032 --> 00:43:05.078 not kind of back to his normal self yet.

NOTE Confidence: 0.941418598571429

00:43:05.080 --> 00:43:07.504 The nurses are watching him really

NOTE Confidence: 0.941418598571429

00:43:07.504 --> 00:43:09.759 closely and everything's fine with him.

NOTE Confidence: 0.941418598571429

00:43:09.760 --> 00:43:11.888 I looked at the MRI scan and I'm  
NOTE Confidence: 0.941418598571429

00:43:11.888 --> 00:43:14.239 afraid I have some bad news for you.  
NOTE Confidence: 0.941418598571429

00:43:14.240 --> 00:43:15.598 Looks like he's got a brain tumor.  
NOTE Confidence: 0.947476923333333

00:43:26.800 --> 00:43:29.413 Are you sure? Yeah. I checked  
NOTE Confidence: 0.947476923333333

00:43:29.413 --> 00:43:31.279 very carefully the scan and him,  
NOTE Confidence: 0.947476923333333

00:43:31.280 --> 00:43:33.560 and it fits with the symptoms he's having.  
NOTE Confidence: 0.947476923333333

00:43:33.560 --> 00:43:35.792 And he's got a small brain tumor back here  
NOTE Confidence: 0.947476923333333

00:43:35.792 --> 00:43:37.960 in his cerebellum on the right side. I  
NOTE Confidence: 0.75617036

00:43:47.680 --> 00:43:49.320 just thought he had the,  
NOTE Confidence: 0.75617036

00:43:49.320 --> 00:43:50.636 you know, he just thought it was.  
NOTE Confidence: 0.75617036

00:43:50.640 --> 00:43:51.444 I mean we just,  
NOTE Confidence: 0.75617036

00:43:51.444 --> 00:43:53.000 we thought it was kind of silly.  
NOTE Confidence: 0.75617036

00:43:53.000 --> 00:43:54.120 We even came in today  
NOTE Confidence: 0.771540875

00:43:56.320 --> 00:43:58.276 sometimes. These present that way people,  
NOTE Confidence: 0.771540875

00:43:58.280 --> 00:43:59.729 the the little kids are sick and  
NOTE Confidence: 0.771540875

00:43:59.729 --> 00:44:00.760 they're nausea and vomiting.

NOTE Confidence: 0.771540875  
00:44:00.760 --> 00:44:02.074 But it turns out it's actually  
NOTE Confidence: 0.771540875  
00:44:02.074 --> 00:44:03.685 pressure on the back of the brain  
NOTE Confidence: 0.771540875  
00:44:03.685 --> 00:44:05.053 that's causing him to have the  
NOTE Confidence: 0.771540875  
00:44:05.053 --> 00:44:06.319 headaches and that kind of thing.  
NOTE Confidence: 0.837282368  
00:44:12.800 --> 00:44:14.040 This is really a shock.  
NOTE Confidence: 0.837282368  
00:44:14.040 --> 00:44:17.200 I just don't just.  
NOTE Confidence: 0.837282368  
00:44:17.200 --> 00:44:19.319 I'm so just done.  
NOTE Confidence: 0.837282368  
00:44:19.319 --> 00:44:20.314 Didn't even know why they  
NOTE Confidence: 0.837282368  
00:44:20.314 --> 00:44:21.439 wanted to get him an MRI.  
NOTE Confidence: 0.837282368  
00:44:21.440 --> 00:44:23.000 Where? Oh my God.  
NOTE Confidence: 0.959475312  
00:44:23.640 --> 00:44:24.840 I know this must be really  
NOTE Confidence: 0.959475312  
00:44:24.840 --> 00:44:25.720 hard news to hear. Is  
NOTE Confidence: 0.72273369  
00:44:29.520 --> 00:44:30.560 he going to be OK?  
NOTE Confidence: 0.747824648  
00:44:30.680 --> 00:44:32.156 He's going to be OK. We're going to  
NOTE Confidence: 0.747824648  
00:44:32.156 --> 00:44:33.560 be with you every step of the way.  
NOTE Confidence: 0.747824648

00:44:33.560 --> 00:44:35.728 Would you mind if I tell you a little  
NOTE Confidence: 0.747824648

00:44:35.728 --> 00:44:36.836 bit about what the plan's going to be,  
NOTE Confidence: 0.747824648

00:44:36.840 --> 00:44:37.836 what we're going to,  
NOTE Confidence: 0.747824648

00:44:37.836 --> 00:44:39.796 what the next step is so we can  
NOTE Confidence: 0.747824648

00:44:39.796 --> 00:44:42.440 keep taking good care of him? Yeah.  
NOTE Confidence: 0.747824648

00:44:42.440 --> 00:44:44.519 So that I can tell you one thing and  
NOTE Confidence: 0.747824648

00:44:44.519 --> 00:44:46.175 looking at the MRI scan sometimes  
NOTE Confidence: 0.747824648

00:44:46.175 --> 00:44:47.916 these you can tell whether they're  
NOTE Confidence: 0.747824648

00:44:47.916 --> 00:44:49.806 more slow growing benign tumors or  
NOTE Confidence: 0.747824648

00:44:49.806 --> 00:44:51.326 more fast growing aggressive tumors.  
NOTE Confidence: 0.747824648

00:44:51.326 --> 00:44:53.590 And the good news is it's the more  
NOTE Confidence: 0.747824648

00:44:53.648 --> 00:44:55.358 small growing benign type tumor.  
NOTE Confidence: 0.747824648

00:44:55.360 --> 00:44:56.596 It looks like we won't know  
NOTE Confidence: 0.747824648

00:44:56.596 --> 00:44:58.040 for sure till we take it out,  
NOTE Confidence: 0.747824648

00:44:58.040 --> 00:45:00.028 but we're going to have to do  
NOTE Confidence: 0.747824648

00:45:00.028 --> 00:45:02.070 surgery to get it out and try to



NOTE Confidence: 0.747824648  
00:45:02.070 --> 00:45:03.480 cure him from this brain tumor.  
NOTE Confidence: 0.576181673333333  
00:45:04.040 --> 00:45:06.116 So it's just a benign 1.  
NOTE Confidence: 0.576181673333333  
00:45:06.120 --> 00:45:07.280 If you think it's, we  
NOTE Confidence: 0.931718966666667  
00:45:07.280 --> 00:45:08.438 hope so. We'll know once we  
NOTE Confidence: 0.931718966666667  
00:45:08.438 --> 00:45:09.920 look at it under the microscope.  
NOTE Confidence: 0.931718966666667  
00:45:09.920 --> 00:45:11.318 But looking at the MRI scan,  
NOTE Confidence: 0.931718966666667  
00:45:11.320 --> 00:45:12.862 that's that would be the the  
NOTE Confidence: 0.931718966666667  
00:45:12.862 --> 00:45:13.800 more likely scenario. That's  
NOTE Confidence: 0.751035365  
00:45:13.800 --> 00:45:14.718 what it looks like. You're not,  
NOTE Confidence: 0.751035365  
00:45:14.720 --> 00:45:15.920 it's not just that you're going  
NOTE Confidence: 0.751035365  
00:45:15.920 --> 00:45:17.771 to rule out. I mean, it's,  
NOTE Confidence: 0.751035365  
00:45:17.771 --> 00:45:19.880 it's probably benign then. So where  
NOTE Confidence: 0.927658523333333  
00:45:19.880 --> 00:45:21.639 it's located, it looks like that, Yes.  
NOTE Confidence: 0.927658523333333  
00:45:21.639 --> 00:45:23.871 OK. So, so we've looked at the schedule  
NOTE Confidence: 0.927658523333333  
00:45:23.871 --> 00:45:26.446 and we want to admit him to the hospital  
NOTE Confidence: 0.927658523333333

00:45:26.446 --> 00:45:28.554 tonight and we'll keep him here over  
NOTE Confidence: 0.9276585233333333

00:45:28.554 --> 00:45:31.096 tomorrow and give him some steroids to get  
NOTE Confidence: 0.9276585233333333

00:45:31.096 --> 00:45:33.560 the swelling down so he'll feel better.  
NOTE Confidence: 0.9276585233333333

00:45:33.560 --> 00:45:34.712 And then Tuesday morning,  
NOTE Confidence: 0.9276585233333333

00:45:34.712 --> 00:45:36.440 we'll do the surgery and the  
NOTE Confidence: 0.9276585233333333

00:45:36.493 --> 00:45:38.197 surgery will last about 3 hours.  
NOTE Confidence: 0.9276585233333333

00:45:38.200 --> 00:45:39.320 A couple days. Yeah.  
NOTE Confidence: 0.60155237

00:45:46.680 --> 00:45:49.760 So can we see you Missy? Yeah, he's  
NOTE Confidence: 0.811239521538462

00:45:49.760 --> 00:45:51.120 going to be right up by the nurses  
NOTE Confidence: 0.811239521538462

00:45:51.120 --> 00:45:52.446 were just about ready to, you know,  
NOTE Confidence: 0.811239521538462

00:45:52.446 --> 00:45:53.544 they were getting him already in  
NOTE Confidence: 0.811239521538462

00:45:53.544 --> 00:45:54.795 the bed and he was like I said,  
NOTE Confidence: 0.811239521538462

00:45:54.800 --> 00:45:56.116 waking up from like a long nap.  
NOTE Confidence: 0.811239521538462

00:45:56.120 --> 00:45:57.597 And he's going to be up here  
NOTE Confidence: 0.811239521538462

00:45:57.597 --> 00:45:59.240 in about 5 minutes. And  
NOTE Confidence: 0.93308748375

00:46:01.720 --> 00:46:03.160 I know that's a lot to take in,

NOTE Confidence: 0.93308748375

00:46:03.160 --> 00:46:05.278 but what questions do you have?

NOTE Confidence: 0.73741574

00:46:06.200 --> 00:46:08.320 I know I'm just so floored right now.

NOTE Confidence: 0.73741574

00:46:08.320 --> 00:46:11.920 I just do you, how long do

NOTE Confidence: 0.73741574

00:46:11.920 --> 00:46:12.880 you think he's going to be in,

NOTE Confidence: 0.73741574

00:46:12.880 --> 00:46:14.320 in the hospital after the surgery?

NOTE Confidence: 0.73741574

00:46:14.320 --> 00:46:15.600 If things go, things

NOTE Confidence: 0.958345848

00:46:15.600 --> 00:46:16.520 go well. He should be

NOTE Confidence: 0.965488345714286

00:46:16.520 --> 00:46:18.235 able to go home by next weekend.

NOTE Confidence: 0.965488345714286

00:46:18.240 --> 00:46:19.304 So tonight, Sunday nights,

NOTE Confidence: 0.965488345714286

00:46:19.304 --> 00:46:20.020 have surgery, Tuesday,

NOTE Confidence: 0.965488345714286

00:46:20.020 --> 00:46:21.280 should be able to go home by,

NOTE Confidence: 0.965488345714286

00:46:21.280 --> 00:46:22.560 you know, Friday, Saturday, he's

NOTE Confidence: 0.677891991666667

00:46:22.880 --> 00:46:24.236 going, he's going to be OK.

NOTE Confidence: 0.677891991666667

00:46:24.240 --> 00:46:26.240 We just, he's going to be OK. We're

NOTE Confidence: 0.910475007692308

00:46:26.240 --> 00:46:27.314 going to be with him every

NOTE Confidence: 0.910475007692308

00:46:27.314 --> 00:46:28.678 step of the way with you guys.  
NOTE Confidence: 0.910475007692308

00:46:28.680 --> 00:46:30.526 And if you want to, I'll come back  
NOTE Confidence: 0.910475007692308

00:46:30.526 --> 00:46:32.240 in a little bit and we can talk.  
NOTE Confidence: 0.910475007692308

00:46:32.240 --> 00:46:33.752 You know, once you've got a chance to kind  
NOTE Confidence: 0.910475007692308

00:46:33.752 --> 00:46:35.275 of process a little bit of this stuff,  
NOTE Confidence: 0.910475007692308

00:46:35.280 --> 00:46:36.928 we can talk and with him and tell  
NOTE Confidence: 0.910475007692308

00:46:36.928 --> 00:46:38.477 him he's going to have to have,  
NOTE Confidence: 0.910475007692308

00:46:38.480 --> 00:46:40.118 you know, a little surgery on Tuesday.  
NOTE Confidence: 0.788997421111111

00:46:40.800 --> 00:46:41.451 Yeah, that would.  
NOTE Confidence: 0.788997421111111

00:46:41.451 --> 00:46:43.600 I think that would be helpful. Yeah.  
NOTE Confidence: 0.788997421111111

00:46:43.600 --> 00:46:45.400 Yeah. I'm not sure what helps.  
NOTE Confidence: 0.788997421111111

00:46:45.400 --> 00:46:46.440 Yeah. I don't know.  
NOTE Confidence: 0.66004455

00:46:48.760 --> 00:46:51.074 Your job just to be mom and dad.  
NOTE Confidence: 0.738048954

00:46:51.080 --> 00:46:52.605 Well, we'll be the neurosurgeons, OK?  
NOTE Confidence: 0.738048954

00:46:52.605 --> 00:46:54.906 We'll take good care of them. All right.  
NOTE Confidence: 0.738048954

00:46:54.906 --> 00:46:56.280 Thanks. All right. Take care.

NOTE Confidence: 0.755673

00:47:02.600 --> 00:47:06.118 Well, you might not do brain surgery,

NOTE Confidence: 0.734239875454546

00:47:06.120 --> 00:47:07.835 but they're going to be plenty of

NOTE Confidence: 0.734239875454546

00:47:07.835 --> 00:47:09.080 tough issues you'll encounter.

NOTE Confidence: 0.734239875454546

00:47:09.080 --> 00:47:12.280 So I I need to apologize to Tim

NOTE Confidence: 0.734239875454546

00:47:12.280 --> 00:47:15.920 O'Brien for the things they carried.

NOTE Confidence: 0.734239875454546

00:47:15.920 --> 00:47:20.120 I come to this Yale School of Medicine,

NOTE Confidence: 0.734239875454546

00:47:20.120 --> 00:47:22.520 a quiet, thoughtful sort of person.

NOTE Confidence: 0.734239875454546

00:47:22.520 --> 00:47:25.238 A college grad, Phi Beta Kappa,

NOTE Confidence: 0.734239875454546

00:47:25.240 --> 00:47:26.299 summa \*\*\* laude.

NOTE Confidence: 0.734239875454546

00:47:26.299 --> 00:47:27.358 All the credentials.

NOTE Confidence: 0.734239875454546

00:47:27.360 --> 00:47:30.360 But after seven months in class,

NOTE Confidence: 0.734239875454546

00:47:30.360 --> 00:47:33.798 in the lab, on the floors and the clinic,

NOTE Confidence: 0.734239875454546

00:47:33.800 --> 00:47:37.594 the Ed, the, OR the delivery room,

NOTE Confidence: 0.734239875454546

00:47:37.600 --> 00:47:40.532 I realized those high,

NOTE Confidence: 0.734239875454546

00:47:40.532 --> 00:47:42.944 civilized trappings had somehow

NOTE Confidence: 0.734239875454546

00:47:42.944 --> 00:47:45.304 been crushed under the weight  
NOTE Confidence: 0.734239875454546

00:47:45.304 --> 00:47:47.640 of simple daily realities.  
NOTE Confidence: 0.734239875454546

00:47:47.640 --> 00:47:49.120 I'd turn mean inside.  
NOTE Confidence: 0.7802682625

00:47:55.610 --> 00:47:59.302 I want to thank Michael Haglund  
NOTE Confidence: 0.7802682625

00:47:59.302 --> 00:48:01.086 for sharing those videos.  
NOTE Confidence: 0.7802682625

00:48:01.090 --> 00:48:03.430 Wilton Son, the Medical Student  
NOTE Confidence: 0.7802682625

00:48:03.430 --> 00:48:05.170 Council and Doctor Mint.  
NOTE Confidence: 0.64386135

00:48:21.240 --> 00:48:22.880 Awesome. Thank you so much, Doctor Duncan.  
NOTE Confidence: 0.959195483333333

00:48:22.880 --> 00:48:26.276 That was a really great talk.  
NOTE Confidence: 0.959195483333333

00:48:26.280 --> 00:48:28.520 If anyone has any questions,  
NOTE Confidence: 0.959195483333333

00:48:28.520 --> 00:48:30.815 there should be AQ and a box for you  
NOTE Confidence: 0.959195483333333

00:48:30.815 --> 00:48:33.880 to type them in and we'll just go by  
NOTE Confidence: 0.959195483333333

00:48:33.880 --> 00:48:35.497 them by the order that were received  
NOTE Confidence: 0.959195483333333

00:48:35.497 --> 00:48:37.397 with the last few minutes that we have.  
NOTE Confidence: 0.703893431666667

00:49:04.640 --> 00:49:05.652 Well, if questions occur  
NOTE Confidence: 0.703893431666667

00:49:05.652 --> 00:49:08.360 to you, we come to the lab.

NOTE Confidence: 0.61151725

00:49:15.280 --> 00:49:17.200 We just have one comment,

NOTE Confidence: 0.61151725

00:49:17.200 --> 00:49:19.840 just thanking you for the talk.

NOTE Confidence: 0.907916340769231

00:49:19.840 --> 00:49:21.660 I guess while other people are typing

NOTE Confidence: 0.907916340769231

00:49:21.660 --> 00:49:23.518 their questions or thinking of questions,

NOTE Confidence: 0.907916340769231

00:49:23.520 --> 00:49:27.192 sort of one small question that I had with,

NOTE Confidence: 0.907916340769231

00:49:27.200 --> 00:49:28.896 you know, some of the things, oh,

NOTE Confidence: 0.907916340769231

00:49:28.896 --> 00:49:31.590 actually we do have one question.

NOTE Confidence: 0.907916340769231

00:49:31.590 --> 00:49:33.720 So this attending says that attendee

NOTE Confidence: 0.907916340769231

00:49:33.720 --> 00:49:36.114 says that they are pursuing a post

NOTE Confidence: 0.907916340769231

00:49:36.114 --> 00:49:38.458 baccalaureate and very much at the beginning

NOTE Confidence: 0.907916340769231

00:49:38.458 --> 00:49:40.754 of their Med school journey For you,

NOTE Confidence: 0.907916340769231

00:49:40.760 --> 00:49:42.657 you know, did you always know what

NOTE Confidence: 0.907916340769231

00:49:42.657 --> 00:49:44.379 specialty you were aiming for when

NOTE Confidence: 0.907916340769231

00:49:44.379 --> 00:49:46.200 you were going through, you know,

NOTE Confidence: 0.907916340769231

00:49:46.200 --> 00:49:48.240 the the training process and education?

NOTE Confidence: 0.881857768461538

00:49:49.720 --> 00:49:51.880 I didn't. And I think it's a a  
NOTE Confidence: 0.881857768461538

00:49:51.880 --> 00:49:53.479 fascinating question when people decide.  
NOTE Confidence: 0.881857768461538

00:49:53.480 --> 00:49:55.640 I mean I think they're plenty of  
NOTE Confidence: 0.881857768461538

00:49:55.640 --> 00:49:58.400 people who come to medical school.  
NOTE Confidence: 0.881857768461538

00:49:58.400 --> 00:50:01.520 Sure they're going to be whatever,  
NOTE Confidence: 0.881857768461538

00:50:01.520 --> 00:50:04.416 but the the part of the beauty of  
NOTE Confidence: 0.881857768461538

00:50:04.416 --> 00:50:06.985 medical school is being able to try  
NOTE Confidence: 0.881857768461538

00:50:06.985 --> 00:50:09.258 out so many different different areas  
NOTE Confidence: 0.881857768461538

00:50:09.258 --> 00:50:11.403 that particularly in the clerkships  
NOTE Confidence: 0.881857768461538

00:50:11.403 --> 00:50:13.889 for example that you get to put on a  
NOTE Confidence: 0.881857768461538

00:50:13.889 --> 00:50:16.240 a hat that says you're a cardiologist  
NOTE Confidence: 0.881857768461538

00:50:16.240 --> 00:50:20.113 for a while or a pediatrician and  
NOTE Confidence: 0.881857768461538

00:50:20.113 --> 00:50:23.357 everyone has interesting problems.  
NOTE Confidence: 0.881857768461538

00:50:23.360 --> 00:50:27.184 I worry that if a team is too friendly,  
NOTE Confidence: 0.881857768461538

00:50:27.184 --> 00:50:29.920 that might push you to in that direction,  
NOTE Confidence: 0.881857768461538

00:50:29.920 --> 00:50:32.158 or if a team is unfriendly,



NOTE Confidence: 0.881857768461538

00:50:32.160 --> 00:50:35.480 that might push you away. So.

NOTE Confidence: 0.881857768461538

00:50:35.480 --> 00:50:38.140 But the the, the, the, the,

NOTE Confidence: 0.881857768461538

00:50:38.140 --> 00:50:42.610 the times that people spend learning

NOTE Confidence: 0.881857768461538

00:50:42.610 --> 00:50:44.890 about specialties certainly seems

NOTE Confidence: 0.881857768461538

00:50:44.890 --> 00:50:48.440 to be the most decisive factor.

NOTE Confidence: 0.881857768461538

00:50:48.440 --> 00:50:50.120 And don't be afraid to change your mind.

NOTE Confidence: 0.2738604

00:50:57.400 --> 00:50:57.520 Yeah.

NOTE Confidence: 0.78540665

00:51:17.640 --> 00:51:19.200 So I guess some more you know

NOTE Confidence: 0.78540665

00:51:19.200 --> 00:51:20.160 technical question that I

NOTE Confidence: 0.761589205

00:51:20.215 --> 00:51:21.797 had you know regarding some of the

NOTE Confidence: 0.761589205

00:51:21.797 --> 00:51:24.101 stuff that you know you had done with

NOTE Confidence: 0.761589205

00:51:24.101 --> 00:51:25.357 Indomethacin for intra ventricular

NOTE Confidence: 0.761589205

00:51:25.357 --> 00:51:27.480 hemorrhage is you know did you were

NOTE Confidence: 0.761589205

00:51:27.480 --> 00:51:30.138 there any sort of risk factors or

NOTE Confidence: 0.761589205

00:51:30.138 --> 00:51:32.370 prognostic factors that that you've

NOTE Confidence: 0.761589205

00:51:32.370 --> 00:51:34.680 noticed you know throughout the project  
NOTE Confidence: 0.761589205

00:51:34.680 --> 00:51:36.784 that made it you know more efficacious  
NOTE Confidence: 0.761589205

00:51:36.784 --> 00:51:38.981 in certain you know patients or was it  
NOTE Confidence: 0.761589205

00:51:38.981 --> 00:51:40.701 you know just wanted to kind of hear  
NOTE Confidence: 0.761589205

00:51:40.760 --> 00:51:42.552 a little bit more thoughts about that  
NOTE Confidence: 0.761589205

00:51:42.552 --> 00:51:45.340 if there were any resistance or non  
NOTE Confidence: 0.761589205

00:51:45.340 --> 00:51:47.360 responsiveness to the endomethacin.  
NOTE Confidence: 0.8846276183333333

00:51:48.240 --> 00:51:51.240 Well since hemorrhages occur so early  
NOTE Confidence: 0.836172224444445

00:51:53.440 --> 00:51:55.768 we tried giving in the methicine  
NOTE Confidence: 0.836172224444445

00:51:55.768 --> 00:51:58.210 early and and quickly we're reminded  
NOTE Confidence: 0.836172224444445

00:51:58.210 --> 00:52:00.640 and learned an awful lot about  
NOTE Confidence: 0.940732062

00:52:02.680 --> 00:52:05.800 renal blood flow after transition. So  
NOTE Confidence: 0.8460290533333333

00:52:09.600 --> 00:52:11.972 renal blood flow increasing  
NOTE Confidence: 0.8460290533333333

00:52:11.972 --> 00:52:15.899 post natally post delivery is  
NOTE Confidence: 0.8460290533333333

00:52:15.899 --> 00:52:18.638 is prostaglandin dependent.  
NOTE Confidence: 0.8460290533333333

00:52:18.640 --> 00:52:21.160 So we and and dose dependent.

NOTE Confidence: 0.8460290533333333  
00:52:21.160 --> 00:52:27.800 So our early trials were adjusting  
NOTE Confidence: 0.8460290533333333  
00:52:27.800 --> 00:52:29.720 dose and adjusting timing  
NOTE Confidence: 0.90344087  
00:52:35.280 --> 00:52:36.720 and we would want to see  
NOTE Confidence: 0.809786598  
00:52:40.040 --> 00:52:42.760 child, child is born prematurely.  
NOTE Confidence: 0.809786598  
00:52:42.760 --> 00:52:45.714 Everyone's anxious before we can do anything.  
NOTE Confidence: 0.809786598  
00:52:45.720 --> 00:52:51.066 We have to consent the mom and make  
NOTE Confidence: 0.809786598  
00:52:51.066 --> 00:52:53.117 sure they understand what we're up to.  
NOTE Confidence: 0.809786598  
00:52:53.120 --> 00:52:57.312 Do an ultrasound and have a a baseline  
NOTE Confidence: 0.809786598  
00:52:57.312 --> 00:53:00.120 for whether there's a hemorrhage or not.  
NOTE Confidence: 0.809786598  
00:53:00.120 --> 00:53:02.232 If there's a hemorrhage,  
NOTE Confidence: 0.809786598  
00:53:02.232 --> 00:53:05.010 there's we we we didn't do a  
NOTE Confidence: 0.809786598  
00:53:05.010 --> 00:53:07.160 study to prevent progression.  
NOTE Confidence: 0.73614220875  
00:53:10.400 --> 00:53:11.496 So these were there,  
NOTE Confidence: 0.73614220875  
00:53:11.496 --> 00:53:13.517 there there you you plan plan a  
NOTE Confidence: 0.73614220875  
00:53:13.517 --> 00:53:15.743 project and there are always lots of  
NOTE Confidence: 0.73614220875

00:53:15.743 --> 00:53:17.477 confounding factors to move along with.  
NOTE Confidence: 0.73614220875

00:53:17.480 --> 00:53:21.540 But we wound up with over 500 children  
NOTE Confidence: 0.73614220875

00:53:21.540 --> 00:53:25.320 in our multi center randomized trial.  
NOTE Confidence: 0.73614220875

00:53:25.320 --> 00:53:32.745 The NIH had a looked at the the 10  
NOTE Confidence: 0.73614220875

00:53:32.745 --> 00:53:35.210 most significant clinical trials  
NOTE Confidence: 0.73614220875

00:53:35.210 --> 00:53:40.019 over a period of time and in in the  
NOTE Confidence: 0.73614220875

00:53:40.019 --> 00:53:42.120 methicine was at the top in terms of  
NOTE Confidence: 0.797735922

00:53:44.200 --> 00:53:47.304 reducing morbidity and morbidity  
NOTE Confidence: 0.797735922

00:53:47.304 --> 00:53:51.874 mortality, morbidity of any  
NOTE Confidence: 0.797735922

00:53:51.874 --> 00:53:55.159 any just about anything else.  
NOTE Confidence: 0.797735922

00:53:55.160 --> 00:53:57.890 Oh this is this is thanks to Doctor  
NOTE Confidence: 0.797735922

00:53:57.890 --> 00:53:59.440 Min a huge huge achievement.  
NOTE Confidence: 0.797735922

00:53:59.440 --> 00:54:01.785 Like I said I I enjoy being  
NOTE Confidence: 0.797735922

00:54:01.785 --> 00:54:03.879 more of a bit player.  
NOTE Confidence: 0.950791636666667

00:54:07.960 --> 00:54:10.360 Awesome. The next question for you,  
NOTE Confidence: 0.950791636666667

00:54:10.360 --> 00:54:11.806 just wanted to hear your thoughts

NOTE Confidence: 0.950791636666667

00:54:11.806 --> 00:54:13.703 on what do you think is next

NOTE Confidence: 0.950791636666667

00:54:13.703 --> 00:54:14.879 in pediatric nerve surgery.

NOTE Confidence: 0.724820556666667

00:54:16.880 --> 00:54:21.600 Well, boy, I I think that whether

NOTE Confidence: 0.829157413

00:54:23.800 --> 00:54:26.488 nanoparticles are going to be able to

NOTE Confidence: 0.829157413

00:54:26.488 --> 00:54:31.600 deliver drugs to to tumors what other

NOTE Confidence: 0.829157413

00:54:31.600 --> 00:54:36.200 other therapies we can devise. Certainly

NOTE Confidence: 0.860206624285714

00:54:38.240 --> 00:54:41.957 endoscopy has come come to the head.

NOTE Confidence: 0.860206624285714

00:54:41.960 --> 00:54:44.100 What are There's plenty of

NOTE Confidence: 0.860206624285714

00:54:44.100 --> 00:54:46.240 smart people in your class.

NOTE Confidence: 0.860206624285714

00:54:46.240 --> 00:54:49.488 It seems to me instead of having a

NOTE Confidence: 0.860206624285714

00:54:49.488 --> 00:54:52.344 fiber optic tube to look down that

NOTE Confidence: 0.860206624285714

00:54:52.344 --> 00:54:56.270 we could develop the engineers in the

NOTE Confidence: 0.860206624285714

00:54:56.270 --> 00:55:00.676 crowd to where they the the the chip

NOTE Confidence: 0.860206624285714

00:55:00.676 --> 00:55:02.881 would be at the end of a flexible rod

NOTE Confidence: 0.860206624285714

00:55:02.881 --> 00:55:05.198 and and provide a lot more flexibility.

NOTE Confidence: 0.756656675

00:55:07.800 --> 00:55:10.928 You look at the, the camera on your  
NOTE Confidence: 0.756656675

00:55:10.928 --> 00:55:13.799 iPhone or your Android, It's tiny.  
NOTE Confidence: 0.659022

00:55:16.000 --> 00:55:16.120 Yeah.  
NOTE Confidence: 0.910419606

00:55:18.360 --> 00:55:20.794 Next question, wanted to hear, you know,  
NOTE Confidence: 0.910419606

00:55:20.794 --> 00:55:22.690 if you if you went through sort of  
NOTE Confidence: 0.910419606

00:55:22.751 --> 00:55:24.480 a midlife crisis and if you did,  
NOTE Confidence: 0.910419606

00:55:24.480 --> 00:55:26.240 you know, what did you do about it  
NOTE Confidence: 0.910419606

00:55:26.240 --> 00:55:28.317 and did you sort of reinvent yourself?  
NOTE Confidence: 0.6960742075

00:55:30.280 --> 00:55:33.465 I I hope that we're all reinventing  
NOTE Confidence: 0.6960742075

00:55:33.465 --> 00:55:37.228 ourselves more frequently than midlife.  
NOTE Confidence: 0.6960742075

00:55:37.228 --> 00:55:40.732 I mean, we all have complicated times.  
NOTE Confidence: 0.6960742075

00:55:40.732 --> 00:55:45.200 I think that it sure helps to have a a  
NOTE Confidence: 0.6960742075

00:55:45.200 --> 00:55:48.800 family and a support system of of some sort  
NOTE Confidence: 0.896039774166667

00:55:52.040 --> 00:55:53.825 and you know we we all have  
NOTE Confidence: 0.896039774166667

00:55:53.825 --> 00:55:55.320 our our ups and downs.  
NOTE Confidence: 0.896039774166667

00:55:55.320 --> 00:55:58.520 I think that you know no no matter

NOTE Confidence: 0.896039774166667  
00:55:58.520 --> 00:56:01.912 how how tough can things can be.  
NOTE Confidence: 0.896039774166667  
00:56:01.912 --> 00:56:04.184 You know, in in my business,  
NOTE Confidence: 0.896039774166667  
00:56:04.184 --> 00:56:06.751 you could win big or you can lose  
NOTE Confidence: 0.896039774166667  
00:56:06.751 --> 00:56:08.917 big when you're operating on kids  
NOTE Confidence: 0.941657084545455  
00:56:12.360 --> 00:56:14.655 and you have to be able to to talk  
NOTE Confidence: 0.941657084545455  
00:56:14.655 --> 00:56:19.920 to people about this. You know,  
NOTE Confidence: 0.941657084545455  
00:56:19.920 --> 00:56:23.518 I decided marathon running wasn't for me,  
NOTE Confidence: 0.941657084545455  
00:56:23.520 --> 00:56:25.038 That I like fly fishing better.  
NOTE Confidence: 0.855438300909091  
00:56:28.600 --> 00:56:30.055 Awesome. Well, it looks like  
NOTE Confidence: 0.855438300909091  
00:56:30.055 --> 00:56:31.840 we're just running out of time.  
NOTE Confidence: 0.855438300909091  
00:56:31.840 --> 00:56:34.054 Want to thank everyone again for  
NOTE Confidence: 0.855438300909091  
00:56:34.054 --> 00:56:36.400 joining us on this talk today.  
NOTE Confidence: 0.855438300909091  
00:56:36.400 --> 00:56:37.720 And thank you so much again,  
NOTE Confidence: 0.855438300909091  
00:56:37.720 --> 00:56:40.758 Doctor Duncan, for your time and for  
NOTE Confidence: 0.855438300909091  
00:56:40.758 --> 00:56:43.484 sharing a little bit more about your  
NOTE Confidence: 0.855438300909091

00:56:43.484 --> 00:56:45.878 life and you know what you've done.

NOTE Confidence: 0.855438300909091

00:56:45.880 --> 00:56:47.399 And thank you for those of you

NOTE Confidence: 0.855438300909091

00:56:47.399 --> 00:56:48.915 who've joined in all our talks

NOTE Confidence: 0.855438300909091

00:56:48.915 --> 00:56:49.999 throughout the school year.

NOTE Confidence: 0.855438300909091

00:56:50.000 --> 00:56:52.240 So thank you, Doctor Duncan once again.

NOTE Confidence: 0.855438300909091

00:56:52.240 --> 00:56:53.936 And thank you everyone,

NOTE Confidence: 0.855438300909091

00:56:53.936 --> 00:56:55.640 and have a good weekend.

NOTE Confidence: 0.759716741666667

00:56:56.200 --> 00:56:58.996 Thank, thank you, Wilton. Thank you.