

WEBVTT

NOTE duration:"00:54:49"

NOTE recognizability:0.726

NOTE language:en-us

NOTE Confidence: 0.2990538712

00:00:00.000 --> 00:00:04.840 Quantum everyone for the forest.

NOTE Confidence: 0.2990538712

00:00:04.840 --> 00:00:06.908 In person grand wrong

NOTE Confidence: 0.2990538712

00:00:06.908 --> 00:00:08.459 of pathology department.

NOTE Confidence: 0.2990538712

00:00:08.460 --> 00:00:13.010 After two years and then required this.

NOTE Confidence: 0.2990538712

00:00:13.010 --> 00:00:16.442 This is a special marker lectureship for

NOTE Confidence: 0.2990538712

00:00:16.442 --> 00:00:19.984 excellence in search of the apology and,

NOTE Confidence: 0.2990538712

00:00:19.990 --> 00:00:24.184 very fittingly, it goes through the area.

NOTE Confidence: 0.2990538712

00:00:24.184 --> 00:00:29.308 It's so it's pretty because Mike

NOTE Confidence: 0.2990538712

00:00:29.310 --> 00:00:32.670 was the one who actually started

NOTE Confidence: 0.2990538712

00:00:32.670 --> 00:00:35.880 raising funds for this lecture ship

NOTE Confidence: 0.2990538712

00:00:35.880 --> 00:00:39.169 to honor his teacher and mentor,

NOTE Confidence: 0.2990538712

00:00:39.170 --> 00:00:41.390 William Barry.

NOTE Confidence: 0.2990538712

00:00:41.390 --> 00:00:45.029 Listen junior Barry McAllister was

NOTE Confidence: 0.2990538712

00:00:45.029 --> 00:00:49.003 a graduate of the college and of the
NOTE Confidence: 0.2990538712

00:00:49.003 --> 00:00:52.429 Johns Hopkins Medical School and the
NOTE Confidence: 0.2990538712

00:00:52.429 --> 00:00:55.040 Department of Pathology at Johns.
NOTE Confidence: 0.2990538712

00:00:55.040 --> 00:00:57.400 Pockets after this training he
NOTE Confidence: 0.2990538712

00:00:57.400 --> 00:01:00.382 came back as chief of surgical
NOTE Confidence: 0.2990538712

00:01:00.382 --> 00:01:03.012 typology for the memorial dynamic
NOTE Confidence: 0.2990538712

00:01:03.012 --> 00:01:06.668 of the year new in the hospital.
NOTE Confidence: 0.2990538712

00:01:06.670 --> 00:01:10.526 In that position, he said for 25 years,
NOTE Confidence: 0.2990538712

00:01:10.530 --> 00:01:14.590 from 1953 to 1978.
NOTE Confidence: 0.2990538712

00:01:14.590 --> 00:01:18.310 It was during that period that.
NOTE Confidence: 0.2990538712

00:01:18.310 --> 00:01:21.040 Michael was a resident in the topology,
NOTE Confidence: 0.2990538712

00:01:21.040 --> 00:01:25.289 rotated with him, and learned from him.
NOTE Confidence: 0.2990538712

00:01:25.290 --> 00:01:28.752 This too was a consumer diagnostic
NOTE Confidence: 0.2990538712

00:01:28.752 --> 00:01:32.270 apologist and educator whose teachings were
NOTE Confidence: 0.2990538712

00:01:32.270 --> 00:01:36.183 not limited to the science of medicines,
NOTE Confidence: 0.2990538712

00:01:36.190 --> 00:01:38.698 but they also extended to to

NOTE Confidence: 0.2990538712
00:01:38.698 --> 00:01:40.370 the art of living.
NOTE Confidence: 0.2990538712
00:01:40.370 --> 00:01:43.983 She was an extraordinary motor advisor,
NOTE Confidence: 0.2990538712
00:01:43.983 --> 00:01:48.048 friend and confidant to students,
NOTE Confidence: 0.2990538712
00:01:48.050 --> 00:01:51.628 residents, who workers and
NOTE Confidence: 0.2990538712
00:01:51.628 --> 00:01:54.740 physicians from all disciplines.
NOTE Confidence: 0.2990538712
00:01:54.740 --> 00:01:59.738 With that introduction from the department,
NOTE Confidence: 0.2990538712
00:01:59.740 --> 00:02:04.750 we have a 200 gratitude.
NOTE Confidence: 0.2990538712
00:02:04.750 --> 00:02:06.255 Owner Mike,
NOTE Confidence: 0.2990538712
00:02:06.255 --> 00:02:08.780 as well as the listener.
NOTE Confidence: 0.95122722
00:02:12.030 --> 00:02:13.530 Thank you so much Mike.
NOTE Confidence: 0.1122148
00:02:20.030 --> 00:02:23.212 Hello, a long time colleague
NOTE Confidence: 0.1122148
00:02:23.212 --> 00:02:25.138 of mine. When they get short.
NOTE Confidence: 0.88755476
00:02:30.770 --> 00:02:32.760 OK, thank you, Manju.
NOTE Confidence: 0.88755476
00:02:32.760 --> 00:02:35.940 And it is a great honour.
NOTE Confidence: 0.835104895
00:02:38.480 --> 00:02:41.860 For me to introduce today's
NOTE Confidence: 0.835104895

00:02:41.860 --> 00:02:44.499 McAllister Memorial Lecture, speaker,
NOTE Confidence: 0.835104895

00:02:44.499 --> 00:02:48.110 Doctor Mike Fisherian Mike came to
NOTE Confidence: 0.835104895

00:02:48.110 --> 00:02:51.505 Yale 68 years ago to attend medical
NOTE Confidence: 0.835104895

00:02:51.505 --> 00:02:54.050 school after graduating from NYU.
NOTE Confidence: 0.835104895

00:02:54.050 --> 00:02:57.010 And he has been associated
NOTE Confidence: 0.835104895

00:02:57.010 --> 00:02:59.410 with the ever since,
NOTE Confidence: 0.835104895

00:02:59.410 --> 00:03:02.041 was just short interruption of internship
NOTE Confidence: 0.835104895

00:03:02.041 --> 00:03:06.067 at Barnes Hospital in Saint Louis
NOTE Confidence: 0.835104895

00:03:06.067 --> 00:03:08.739 and Research Fellowship in Germany.
NOTE Confidence: 0.835104895

00:03:08.739 --> 00:03:12.393 Might is known for being one of the
NOTE Confidence: 0.835104895

00:03:12.393 --> 00:03:15.627 founders of the field of renal pathology.
NOTE Confidence: 0.835104895

00:03:15.630 --> 00:03:18.422 And he has worked all of his professional
NOTE Confidence: 0.835104895

00:03:18.422 --> 00:03:21.371 life to move the field forward and
NOTE Confidence: 0.835104895

00:03:21.371 --> 00:03:24.330 disseminate the knowledge of renal pathology.
NOTE Confidence: 0.835104895

00:03:24.330 --> 00:03:26.745 But then he was giving the lifetime
NOTE Confidence: 0.835104895

00:03:26.745 --> 00:03:28.437 achievement award the Robert

NOTE Confidence: 0.835104895
00:03:28.437 --> 00:03:30.210 Heptinstall Lifetime Achievement
NOTE Confidence: 0.835104895
00:03:30.210 --> 00:03:34.190 award by the Renal Pathology Society.
NOTE Confidence: 0.835104895
00:03:34.190 --> 00:03:35.790 Moreover, Mike would say
NOTE Confidence: 0.835104895
00:03:35.790 --> 00:03:37.890 quintessential physician scientist.
NOTE Confidence: 0.835104895
00:03:37.890 --> 00:03:39.076 During residency,
NOTE Confidence: 0.835104895
00:03:39.076 --> 00:03:43.015 he spent a year in the Physiology department
NOTE Confidence: 0.835104895
00:03:43.015 --> 00:03:45.590 of Cuttington University in Germany,
NOTE Confidence: 0.835104895
00:03:45.590 --> 00:03:48.290 working with the renowned leaders
NOTE Confidence: 0.835104895
00:03:48.290 --> 00:03:50.990 of German Physiology that called
NOTE Confidence: 0.835104895
00:03:51.072 --> 00:03:53.197 Krama Cal Orey had called.
NOTE Confidence: 0.835104895
00:03:53.200 --> 00:03:55.435 Throughout his professional career as
NOTE Confidence: 0.835104895
00:03:55.435 --> 00:03:58.079 an academic pathologist here at Yale,
NOTE Confidence: 0.835104895
00:03:58.080 --> 00:04:00.430 he forged many collaborations with
NOTE Confidence: 0.835104895
00:04:00.430 --> 00:04:02.780 faculty and Department of Physiology,
NOTE Confidence: 0.835104895
00:04:02.780 --> 00:04:05.480 Cell biology and Internal Medicine,
NOTE Confidence: 0.835104895

00:04:05.480 --> 00:04:08.888 which led to over 350 peer
NOTE Confidence: 0.835104895
00:04:08.888 --> 00:04:12.330 reviewed papers in top journals.
NOTE Confidence: 0.835104895
00:04:12.330 --> 00:04:13.980 And these collaborations
NOTE Confidence: 0.835104895
00:04:13.980 --> 00:04:16.730 were very dear to him.
NOTE Confidence: 0.835104895
00:04:16.730 --> 00:04:19.803 I remember when I started out in
NOTE Confidence: 0.835104895
00:04:19.803 --> 00:04:22.865 renal pathology at Yale that very
NOTE Confidence: 0.835104895
00:04:22.865 --> 00:04:25.069 prominent physicians and scientists
NOTE Confidence: 0.835104895
00:04:25.069 --> 00:04:28.279 would walk in and ask for Mike.
NOTE Confidence: 0.835104895
00:04:28.280 --> 00:04:30.908 They never asked for Professor Casparian.
NOTE Confidence: 0.835104895
00:04:30.910 --> 00:04:32.986 They always ask this Mike here.
NOTE Confidence: 0.835104895
00:04:32.990 --> 00:04:34.350 Can I meet with them?
NOTE Confidence: 0.835104895
00:04:34.350 --> 00:04:37.570 So he had this very personal relationship
NOTE Confidence: 0.835104895
00:04:37.570 --> 00:04:40.999 to all these stranded collaborators?
NOTE Confidence: 0.835104895
00:04:41.000 --> 00:04:42.280 Umm?
NOTE Confidence: 0.835104895
00:04:42.280 --> 00:04:47.756 So Mike's achievements and the list of his
NOTE Confidence: 0.835104895
00:04:47.756 --> 00:04:50.336 achievements in the city is sold on all

NOTE Confidence: 0.835104895

00:04:50.336 --> 00:04:52.870 the leadership positions that he has held.

NOTE Confidence: 0.835104895

00:04:52.870 --> 00:04:56.285 All of the prizes he has won all the

NOTE Confidence: 0.835104895

00:04:56.285 --> 00:04:58.915 communities that it would take another

NOTE Confidence: 0.835104895

00:04:58.915 --> 00:05:01.320 hour to go through all of that.

NOTE Confidence: 0.835104895

00:05:01.320 --> 00:05:04.776 I just want to mention that in addition to

NOTE Confidence: 0.835104895

00:05:04.776 --> 00:05:08.500 being an exceptional physician and scientist,

NOTE Confidence: 0.835104895

00:05:08.500 --> 00:05:12.040 Mike is also exceptional human being.

NOTE Confidence: 0.835104895

00:05:12.040 --> 00:05:14.015 This specific activities over many

NOTE Confidence: 0.835104895

00:05:14.015 --> 00:05:16.550 years in the Church of Christ,

NOTE Confidence: 0.835104895

00:05:16.550 --> 00:05:16.997 Yale,

NOTE Confidence: 0.835104895

00:05:16.997 --> 00:05:18.680 New Haven Symphony Orchestra,

NOTE Confidence: 0.835104895

00:05:18.680 --> 00:05:21.276 and in the Connecticut Fund for the

NOTE Confidence: 0.835104895

00:05:21.276 --> 00:05:24.160 Environment show his deep and broad interest,

NOTE Confidence: 0.835104895

00:05:24.160 --> 00:05:26.600 dedication in the local community,

NOTE Confidence: 0.835104895

00:05:26.600 --> 00:05:30.100 where he has lived over 65 years.

NOTE Confidence: 0.835104895

00:05:30.100 --> 00:05:32.684 I think that we are the best would
NOTE Confidence: 0.835104895

00:05:32.684 --> 00:05:35.330 have Michael Sharian as a leader and
NOTE Confidence: 0.835104895

00:05:35.330 --> 00:05:37.255 Mayor Thomas and our department,
NOTE Confidence: 0.835104895

00:05:37.260 --> 00:05:39.348 and especially for the
NOTE Confidence: 0.835104895

00:05:39.348 --> 00:05:41.436 junior faculty and trainees.
NOTE Confidence: 0.835104895

00:05:41.440 --> 00:05:43.800 Mikes life achievements are
NOTE Confidence: 0.835104895

00:05:43.800 --> 00:05:47.140 great template for their all
NOTE Confidence: 0.835104895

00:05:47.140 --> 00:05:50.220 professional professional life model.
NOTE Confidence: 0.835104895

00:05:50.220 --> 00:05:52.460 So when it's title is the birth
NOTE Confidence: 0.835104895

00:05:52.460 --> 00:05:54.639 and growth of renal pathology,
NOTE Confidence: 0.835104895

00:05:54.640 --> 00:05:56.872 today's Macalister Memorial lecturer
NOTE Confidence: 0.835104895

00:05:56.872 --> 00:05:59.104 please welcome micro sharing.
NOTE Confidence: 0.58974761

00:06:06.770 --> 00:06:09.570 Well, it's a particular,
NOTE Confidence: 0.58974761

00:06:09.570 --> 00:06:11.670 particularly wonderful honor,
NOTE Confidence: 0.58974761

00:06:11.670 --> 00:06:13.434 but also an interesting
NOTE Confidence: 0.58974761

00:06:13.434 --> 00:06:16.578 experience to be here in the at

NOTE Confidence: 0.58974761

00:06:16.578 --> 00:06:19.050 the podium instead of up there.

NOTE Confidence: 0.58974761

00:06:19.050 --> 00:06:21.534 And I noticed that you that

NOTE Confidence: 0.58974761

00:06:21.534 --> 00:06:23.650 things have improved around here.

NOTE Confidence: 0.58974761

00:06:23.650 --> 00:06:25.925 You all have a box ledge instead

NOTE Confidence: 0.58974761

00:06:25.925 --> 00:06:28.249 of having to go and get pieces

NOTE Confidence: 0.58974761

00:06:28.249 --> 00:06:30.157 of of of whatever is left.

NOTE Confidence: 0.58974761

00:06:30.160 --> 00:06:33.784 Over one of the the attractions

NOTE Confidence: 0.58974761

00:06:33.784 --> 00:06:36.200 of the of the.

NOTE Confidence: 0.58974761

00:06:36.200 --> 00:06:37.808 Grand rounds at but of pathology

NOTE Confidence: 0.58974761

00:06:37.808 --> 00:06:39.820 is that it brought in an enormous

NOTE Confidence: 0.58974761

00:06:39.820 --> 00:06:41.290 number of people because there

NOTE Confidence: 0.58974761

00:06:41.290 --> 00:06:43.147 were there were good lunches here.

NOTE Confidence: 0.793814894666667

00:06:48.480 --> 00:06:51.760 I'd like to make one a couple of

NOTE Confidence: 0.793814894666667

00:06:51.760 --> 00:06:54.160 comments about Barry McAllister.

NOTE Confidence: 0.793814894666667

00:06:54.160 --> 00:06:58.486 I think he was a consummate

NOTE Confidence: 0.793814894666667

00:06:58.486 --> 00:06:59.928 surgical pathologist.
NOTE Confidence: 0.793814894666667

00:06:59.930 --> 00:07:02.866 He was he was a general surgical pathologist.
NOTE Confidence: 0.793814894666667

00:07:02.870 --> 00:07:05.430 Everything he and everything that
NOTE Confidence: 0.793814894666667

00:07:05.430 --> 00:07:08.354 came to him, he would look at.
NOTE Confidence: 0.793814894666667

00:07:08.354 --> 00:07:12.332 He would be an expert in the memorial
NOTE Confidence: 0.793814894666667

00:07:12.332 --> 00:07:17.087 unit was populated primarily by.
NOTE Confidence: 0.793814894666667

00:07:17.090 --> 00:07:19.702 Community physicians and surgeons.
NOTE Confidence: 0.793814894666667

00:07:19.702 --> 00:07:23.620 And they actually really look to
NOTE Confidence: 0.793814894666667

00:07:23.720 --> 00:07:26.840 him for for help and assistance.
NOTE Confidence: 0.793814894666667

00:07:26.840 --> 00:07:30.382 Now it was this very small room
NOTE Confidence: 0.793814894666667

00:07:30.382 --> 00:07:33.452 and with the way we did frozen
NOTE Confidence: 0.793814894666667

00:07:33.452 --> 00:07:35.786 sections was kind of interesting.
NOTE Confidence: 0.793814894666667

00:07:35.786 --> 00:07:39.230 We I would take get the specimen,
NOTE Confidence: 0.793814894666667

00:07:39.230 --> 00:07:41.426 take a small piece of it,
NOTE Confidence: 0.793814894666667

00:07:41.430 --> 00:07:44.166 put it in a bottle cap with full
NOTE Confidence: 0.793814894666667

00:07:44.166 --> 00:07:47.060 formalin and put it over a Bunsen burner.

NOTE Confidence: 0.793814894666667
00:07:47.060 --> 00:07:48.038 To cook it,
NOTE Confidence: 0.793814894666667
00:07:48.038 --> 00:07:50.959 and once it was cooked then I put it.
NOTE Confidence: 0.793814894666667
00:07:50.960 --> 00:07:54.124 I froze it on a freezing microtome
NOTE Confidence: 0.793814894666667
00:07:54.124 --> 00:07:57.738 and and and and that made sections
NOTE Confidence: 0.793814894666667
00:07:57.740 --> 00:08:01.868 which we stay in primarily with H&E.
NOTE Confidence: 0.793814894666667
00:08:01.868 --> 00:08:03.002 But if necessary,
NOTE Confidence: 0.793814894666667
00:08:03.002 --> 00:08:05.270 we had the opportunity to use
NOTE Confidence: 0.793814894666667
00:08:05.350 --> 00:08:07.390 some special stains as well.
NOTE Confidence: 0.793814894666667
00:08:07.390 --> 00:08:08.398 So it was.
NOTE Confidence: 0.793814894666667
00:08:08.398 --> 00:08:10.078 It was really an interesting
NOTE Confidence: 0.793814894666667
00:08:10.078 --> 00:08:11.779 way of doing things,
NOTE Confidence: 0.793814894666667
00:08:11.780 --> 00:08:14.545 but it was one where at least
NOTE Confidence: 0.793814894666667
00:08:14.545 --> 00:08:16.909 for residents who worked there,
NOTE Confidence: 0.793814894666667
00:08:16.910 --> 00:08:19.815 we there was a broad ordering experience
NOTE Confidence: 0.793814894666667
00:08:19.815 --> 00:08:23.547 on how to deal with different surgeons.
NOTE Confidence: 0.793814894666667

00:08:23.550 --> 00:08:25.725 And there was one surgeon
NOTE Confidence: 0.793814894666667

00:08:25.725 --> 00:08:27.030 that the gynecology,
NOTE Confidence: 0.793814894666667

00:08:27.030 --> 00:08:29.984 who thought that he knew it all.
NOTE Confidence: 0.793814894666667

00:08:29.990 --> 00:08:31.770 And he would come down.
NOTE Confidence: 0.793814894666667

00:08:31.770 --> 00:08:34.170 And it was, if it was a particularly
NOTE Confidence: 0.793814894666667

00:08:34.170 --> 00:08:36.347 if it was an ovarian tumor,
NOTE Confidence: 0.793814894666667

00:08:36.350 --> 00:08:39.746 he would never take a Barry
NOTE Confidence: 0.793814894666667

00:08:39.746 --> 00:08:41.444 diagnosis for granted.
NOTE Confidence: 0.793814894666667

00:08:41.450 --> 00:08:43.508 He would have to look at it
NOTE Confidence: 0.793814894666667

00:08:43.508 --> 00:08:45.210 himself and finally decide that,
NOTE Confidence: 0.793814894666667

00:08:45.210 --> 00:08:47.240 yeah, it was a bit what it,
NOTE Confidence: 0.793814894666667

00:08:47.240 --> 00:08:47.520 what,
NOTE Confidence: 0.793814894666667

00:08:47.520 --> 00:08:50.040 what Barry was saying is really what it was.
NOTE Confidence: 0.793814894666667

00:08:50.040 --> 00:08:51.588 He had been in in Boston.
NOTE Confidence: 0.793814894666667

00:08:51.590 --> 00:08:53.780 And so he thought that some
NOTE Confidence: 0.793814894666667

00:08:53.780 --> 00:08:55.609 of that Bostonian stuff had

NOTE Confidence: 0.793814894666667
00:08:55.609 --> 00:08:57.385 rubbed off of him on him.
NOTE Confidence: 0.6028164064
00:08:59.720 --> 00:09:02.780 And I actually, you know,
NOTE Confidence: 0.6028164064
00:09:02.780 --> 00:09:05.580 we have a student plays.
NOTE Confidence: 0.6028164064
00:09:05.580 --> 00:09:08.788 And I actually was.
NOTE Confidence: 0.6028164064
00:09:08.790 --> 00:09:13.074 Took his part and I sang song
NOTE Confidence: 0.6028164064
00:09:13.074 --> 00:09:15.690 that my name is John McCain.
NOTE Confidence: 0.6028164064
00:09:15.690 --> 00:09:16.860 John McCain.
NOTE Confidence: 0.443532809928571
00:09:19.340 --> 00:09:25.244 And and and a marvelous GYN surgeon, am I?
NOTE Confidence: 0.443532809928571
00:09:25.244 --> 00:09:27.932 And and that's sadistic
NOTE Confidence: 0.443532809928571
00:09:27.932 --> 00:09:30.620 statistic is my characteristic,
NOTE Confidence: 0.443532809928571
00:09:30.620 --> 00:09:34.548 and I'm in love with a wonderful guy.
NOTE Confidence: 0.443532809928571
00:09:34.550 --> 00:09:37.730 And and but, but he really.
NOTE Confidence: 0.443532809928571
00:09:37.730 --> 00:09:40.052 But Barry was able to handle
NOTE Confidence: 0.443532809928571
00:09:40.052 --> 00:09:42.290 any anything that came as well.
NOTE Confidence: 0.443532809928571
00:09:42.290 --> 00:09:43.830 And it was. It was.
NOTE Confidence: 0.443532809928571

00:09:43.830 --> 00:09:48.070 It was a joy to work with him as a.
NOTE Confidence: 0.443532809928571

00:09:48.070 --> 00:09:49.710 As a matter of fact,
NOTE Confidence: 0.443532809928571

00:09:49.710 --> 00:09:52.126 I started working with him in the summer
NOTE Confidence: 0.443532809928571

00:09:52.130 --> 00:09:55.034 and he would always leave at 4:00 o'clock.
NOTE Confidence: 0.443532809928571

00:09:55.040 --> 00:09:57.110 The reason he had to leave at 4:00 o'clock
NOTE Confidence: 0.443532809928571

00:09:57.110 --> 00:09:59.039 is that was he had to catch the the
NOTE Confidence: 0.443532809928571

00:09:59.040 --> 00:10:02.199 the ferry out to his island in the thimbles,
NOTE Confidence: 0.443532809928571

00:10:02.200 --> 00:10:03.248 and so I would.
NOTE Confidence: 0.443532809928571

00:10:03.248 --> 00:10:06.401 I would be I would be left taking care of
NOTE Confidence: 0.443532809928571

00:10:06.401 --> 00:10:09.440 all of these private surgeons all by myself,
NOTE Confidence: 0.443532809928571

00:10:09.440 --> 00:10:12.956 and it was quite an experience.
NOTE Confidence: 0.443532809928571

00:10:12.960 --> 00:10:16.290 Well. Uh.
NOTE Confidence: 0.443532809928571

00:10:16.290 --> 00:10:20.528 It knows surgical pathology is
NOTE Confidence: 0.443532809928571

00:10:20.528 --> 00:10:23.792 relatively new as a sort of a discipline.
NOTE Confidence: 0.443532809928571

00:10:23.800 --> 00:10:25.368 You know people were
NOTE Confidence: 0.443532809928571

00:10:25.368 --> 00:10:26.936 doing autopsies for many,

NOTE Confidence: 0.443532809928571
00:10:26.940 --> 00:10:27.802 many years,
NOTE Confidence: 0.443532809928571
00:10:27.802 --> 00:10:30.819 but none of them ever really made
NOTE Confidence: 0.443532809928571
00:10:30.819 --> 00:10:33.869 a connection with the with the.
NOTE Confidence: 0.443532809928571
00:10:33.869 --> 00:10:35.784 With the clinical experience they
NOTE Confidence: 0.443532809928571
00:10:35.784 --> 00:10:38.922 just did it mostly for anatomy and
NOTE Confidence: 0.443532809928571
00:10:38.922 --> 00:10:41.217 anatomists were the primarily dissectors,
NOTE Confidence: 0.443532809928571
00:10:41.220 --> 00:10:43.620 but surgeons would also dissect,
NOTE Confidence: 0.443532809928571
00:10:43.620 --> 00:10:47.764 but they they would not really use the
NOTE Confidence: 0.443532809928571
00:10:47.764 --> 00:10:51.233 their findings in an academic way until
NOTE Confidence: 0.443532809928571
00:10:51.233 --> 00:10:54.098 Giovanni Battista Morgani, who is?
NOTE Confidence: 0.443532809928571
00:10:54.100 --> 00:10:58.172 Who we can call the father of modern
NOTE Confidence: 0.443532809928571
00:10:58.172 --> 00:11:00.342 anatomic pathology, he wrote this book.
NOTE Confidence: 0.443532809928571
00:11:00.342 --> 00:11:02.460 They said it was a crisis mode.
NOTE Confidence: 0.443532809928571
00:11:02.460 --> 00:11:06.030 All of them that are in the in the goddess.
NOTE Confidence: 0.443532809928571
00:11:06.030 --> 00:11:09.634 In 1917. Sixty one.
NOTE Confidence: 0.443532809928571

00:11:09.634 --> 00:11:11.436 And the.
NOTE Confidence: 0.443532809928571

00:11:11.440 --> 00:11:13.660 That's translated and I'm not,
NOTE Confidence: 0.443532809928571

00:11:13.660 --> 00:11:16.188 and I will somebody else translated for me.
NOTE Confidence: 0.443532809928571

00:11:16.190 --> 00:11:17.722 I'm not good at.
NOTE Confidence: 0.443532809928571

00:11:17.722 --> 00:11:21.210 At Latin the seats and causes of
NOTE Confidence: 0.443532809928571

00:11:21.210 --> 00:11:24.840 disease are as investigated by anatomy.
NOTE Confidence: 0.443532809928571

00:11:24.840 --> 00:11:26.094 And in him,
NOTE Confidence: 0.443532809928571

00:11:26.094 --> 00:11:29.672 and in his thesis he just says the
NOTE Confidence: 0.443532809928571

00:11:29.672 --> 00:11:32.280 description of gross pathology.
NOTE Confidence: 0.443532809928571

00:11:32.280 --> 00:11:35.340 Represents the cry of suffering
NOTE Confidence: 0.443532809928571

00:11:35.340 --> 00:11:37.176 from the organs,
NOTE Confidence: 0.443532809928571

00:11:37.180 --> 00:11:39.658 so the organs sang to him and
NOTE Confidence: 0.443532809928571

00:11:39.658 --> 00:11:42.358 and and and he really and his.
NOTE Confidence: 0.443532809928571

00:11:42.360 --> 00:11:46.802 His book was really one one of
NOTE Confidence: 0.443532809928571

00:11:46.802 --> 00:11:49.512 the only theses that that had
NOTE Confidence: 0.443532809928571

00:11:49.512 --> 00:11:50.826 used anatomic pathology.

NOTE Confidence: 0.443532809928571
00:11:50.830 --> 00:11:53.382 Anatomic pathology as part
NOTE Confidence: 0.443532809928571
00:11:53.382 --> 00:11:55.568 of overall part of medicine.
NOTE Confidence: 0.327771245
00:11:59.500 --> 00:12:00.210 That's it.
NOTE Confidence: 0.9027126675
00:12:05.170 --> 00:12:09.030 Nephrology in those days was
NOTE Confidence: 0.9027126675
00:12:09.030 --> 00:12:12.238 didn't really exist unless you
NOTE Confidence: 0.9027126675
00:12:12.238 --> 00:12:15.346 wanted to and because most of the
NOTE Confidence: 0.9027126675
00:12:15.346 --> 00:12:17.860 diagnosis was done by **** prophets.
NOTE Confidence: 0.6140612
00:12:20.420 --> 00:12:23.100 And they juggled the *****
NOTE Confidence: 0.6140612
00:12:23.100 --> 00:12:24.830 and we have to juggling.
NOTE Confidence: 0.6140612
00:12:24.830 --> 00:12:27.630 The ***** would come up with a
NOTE Confidence: 0.6140612
00:12:27.630 --> 00:12:30.415 diagnosis and now that wasn't that
NOTE Confidence: 0.6140612
00:12:30.415 --> 00:12:34.429 it was not with one single profit,
NOTE Confidence: 0.6140612
00:12:34.430 --> 00:12:37.140 but the profits used to
NOTE Confidence: 0.6140612
00:12:37.140 --> 00:12:38.766 help and consultation.
NOTE Confidence: 0.6140612
00:12:38.770 --> 00:12:41.584 And you could see runners coming going
NOTE Confidence: 0.6140612

00:12:41.584 --> 00:12:44.279 across the city carrying despots from
NOTE Confidence: 0.6140612

00:12:44.279 --> 00:12:47.105 one place to another for diagnosis.
NOTE Confidence: 0.6140612

00:12:47.110 --> 00:12:51.900 Well this was this. Uh.
NOTE Confidence: 0.6140612

00:12:51.900 --> 00:12:56.068 This treatise here is a criticism of of
NOTE Confidence: 0.6140612

00:12:56.068 --> 00:13:00.734 of the process and and and and and it,
NOTE Confidence: 0.6140612

00:13:00.740 --> 00:13:03.650 Brian says the fraudulent use
NOTE Confidence: 0.6140612

00:13:03.650 --> 00:13:07.396 of uroscopy by by examining the
NOTE Confidence: 0.6140612

00:13:07.396 --> 00:13:11.520 patients by is by some physicians.
NOTE Confidence: 0.6140612

00:13:11.520 --> 00:13:14.420 He called them quacks.
NOTE Confidence: 0.6140612

00:13:14.420 --> 00:13:17.880 And so you're right,
NOTE Confidence: 0.6140612

00:13:17.880 --> 00:13:21.340 Nephrology was really that
NOTE Confidence: 0.6140612

00:13:21.340 --> 00:13:23.300 much well developed.
NOTE Confidence: 0.92418399

00:13:28.470 --> 00:13:31.620 However, Richard Bright.
NOTE Confidence: 0.92418399

00:13:31.620 --> 00:13:34.350 In English physician.
NOTE Confidence: 0.92418399

00:13:34.350 --> 00:13:38.160 Decided that he was be that the.
NOTE Confidence: 0.92418399

00:13:38.160 --> 00:13:41.240 The physicians were seeing

NOTE Confidence: 0.92418399

00:13:41.240 --> 00:13:43.550 patients with dropsy.

NOTE Confidence: 0.92418399

00:13:43.550 --> 00:13:47.480 And and where they had.

NOTE Confidence: 0.92418399

00:13:47.480 --> 00:13:49.630 Albuminuria.

NOTE Confidence: 0.92418399

00:13:49.630 --> 00:13:52.210 And so they were swollen.

NOTE Confidence: 0.92418399

00:13:52.210 --> 00:13:55.410 They had the nephrotic syndrome.

NOTE Confidence: 0.92418399

00:13:55.410 --> 00:13:57.576 And he decided that he should

NOTE Confidence: 0.92418399

00:13:57.576 --> 00:14:00.457 look at all of the patients with

NOTE Confidence: 0.92418399

00:14:00.457 --> 00:14:02.350 them and he came across him.

NOTE Confidence: 0.92418399

00:14:02.350 --> 00:14:04.252 He created a,

NOTE Confidence: 0.92418399

00:14:04.252 --> 00:14:07.422 a categorization of the diseases

NOTE Confidence: 0.92418399

00:14:07.422 --> 00:14:11.358 which were associated with dropsy.

NOTE Confidence: 0.92418399

00:14:11.360 --> 00:14:15.015 And they they covered into

NOTE Confidence: 0.92418399

00:14:15.015 --> 00:14:17.208 the inflammatory diseases.

NOTE Confidence: 0.92418399

00:14:17.210 --> 00:14:20.136 And and he talks about acute and

NOTE Confidence: 0.92418399

00:14:20.136 --> 00:14:23.030 chronic popular in Ireland on Fridays,

NOTE Confidence: 0.92418399

00:14:23.030 --> 00:14:23.734 lipoid,
NOTE Confidence: 0.92418399

00:14:23.734 --> 00:14:26.550 nephrosis acute and chronic
NOTE Confidence: 0.92418399

00:14:26.550 --> 00:14:28.662 pyelonephritis and nephrosclerosis
NOTE Confidence: 0.92418399

00:14:28.662 --> 00:14:31.789 associated with cardiac hypertrophy.
NOTE Confidence: 0.92418399

00:14:31.790 --> 00:14:34.352 And that and and that combination
NOTE Confidence: 0.92418399

00:14:34.352 --> 00:14:36.060 of of nephrosclerosis and
NOTE Confidence: 0.92418399

00:14:36.136 --> 00:14:38.416 hypertrophy was actually looking
NOTE Confidence: 0.92418399

00:14:38.416 --> 00:14:40.696 at patients with hypertension.
NOTE Confidence: 0.92418399

00:14:40.700 --> 00:14:41.515 Umm?
NOTE Confidence: 0.92418399

00:14:41.515 --> 00:14:46.405 And his categorization of of renal
NOTE Confidence: 0.92418399

00:14:46.405 --> 00:14:49.104 diseases lasted not because there
NOTE Confidence: 0.92418399

00:14:49.104 --> 00:14:52.492 was no real nobody else who even
NOTE Confidence: 0.92418399

00:14:52.492 --> 00:14:56.202 took on the attempt to look at the
NOTE Confidence: 0.92418399

00:14:56.202 --> 00:14:59.296 cause of dropsy and and and whatnot.
NOTE Confidence: 0.92418399

00:14:59.300 --> 00:15:02.580 So his.
NOTE Confidence: 0.92418399

00:15:02.580 --> 00:15:04.640 But on the other hand,

NOTE Confidence: 0.92418399

00:15:04.640 --> 00:15:08.791 the in the and in the 19th

NOTE Confidence: 0.92418399

00:15:08.791 --> 00:15:11.760 century there were several.

NOTE Confidence: 0.92418399

00:15:11.760 --> 00:15:12.159 Anatomists,

NOTE Confidence: 0.92418399

00:15:12.159 --> 00:15:14.154 who were interested in the

NOTE Confidence: 0.92418399

00:15:14.154 --> 00:15:16.520 kidney and one was the Alcop,

NOTE Confidence: 0.92418399

00:15:16.520 --> 00:15:18.640 had Henley.

NOTE Confidence: 0.92418399

00:15:18.640 --> 00:15:23.416 And he was the one who was

NOTE Confidence: 0.92418399

00:15:23.420 --> 00:15:25.472 looked at the kidney and saw

NOTE Confidence: 0.92418399

00:15:25.472 --> 00:15:27.978 that it was made up of tubules.

NOTE Confidence: 0.92418399

00:15:27.980 --> 00:15:31.400 And the tubules were the organ,

NOTE Confidence: 0.92418399

00:15:31.400 --> 00:15:33.184 and not the not,

NOTE Confidence: 0.92418399

00:15:33.184 --> 00:15:35.414 not the the overall organ,

NOTE Confidence: 0.92418399

00:15:35.420 --> 00:15:36.947 and he I,

NOTE Confidence: 0.92418399

00:15:36.947 --> 00:15:40.510 I think you probably all remember that

NOTE Confidence: 0.92418399

00:15:40.622 --> 00:15:45.078 that we talked about the the Henleys loop,

NOTE Confidence: 0.92418399

00:15:45.080 --> 00:15:48.035 which was is responsible for

NOTE Confidence: 0.92418399

00:15:48.035 --> 00:15:50.268 maintaining our internal environment

NOTE Confidence: 0.92418399

00:15:50.268 --> 00:15:52.888 and the concentration of your.

NOTE Confidence: 0.92418399

00:15:52.890 --> 00:15:55.260 So.

NOTE Confidence: 0.92418399

00:15:55.260 --> 00:15:56.780 As it turned out,

NOTE Confidence: 0.92418399

00:15:56.780 --> 00:15:59.840 when I had a fellowship in Germany,

NOTE Confidence: 0.92418399

00:15:59.840 --> 00:16:01.592 I went to Gottingen which was

NOTE Confidence: 0.92418399

00:16:01.592 --> 00:16:03.576 the same place that he had been

NOTE Confidence: 0.92418399

00:16:03.576 --> 00:16:05.082 so kind of a double honor.

NOTE Confidence: 0.744731295555555

00:16:08.580 --> 00:16:11.142 And the other person of of of

NOTE Confidence: 0.744731295555555

00:16:11.142 --> 00:16:13.100 prominence in the 19th century

NOTE Confidence: 0.744731295555555

00:16:13.100 --> 00:16:15.434 was been a glaupe bell now.

NOTE Confidence: 0.744731295555555

00:16:15.440 --> 00:16:20.210 He described the the million terrier.

NOTE Confidence: 0.744731295555555

00:16:20.210 --> 00:16:23.610 He he was saying that the the the,

NOTE Confidence: 0.744731295555555

00:16:23.610 --> 00:16:26.130 the fluid that exists in

NOTE Confidence: 0.744731295555555

00:16:26.130 --> 00:16:28.146 our bodies surrounding it,

NOTE Confidence: 0.744731295555555

00:16:28.150 --> 00:16:31.528 surrounding the cells with very important,

NOTE Confidence: 0.744731295555555

00:16:31.530 --> 00:16:36.778 and it had to be kept in relatively.

NOTE Confidence: 0.744731295555555

00:16:36.780 --> 00:16:40.580 Close concentration and of ions

NOTE Confidence: 0.744731295555555

00:16:40.580 --> 00:16:45.548 and also in terms of its tonicity

NOTE Confidence: 0.744731295555555

00:16:45.548 --> 00:16:49.594 and that it had to be stable.

NOTE Confidence: 0.744731295555555

00:16:49.600 --> 00:16:51.850 And so the interstitial fluids

NOTE Confidence: 0.744731295555555

00:16:51.850 --> 00:16:54.100 had to be actively maintained

NOTE Confidence: 0.744731295555555

00:16:54.175 --> 00:16:55.900 around stable settings,

NOTE Confidence: 0.744731295555555

00:16:55.900 --> 00:16:58.763 so that and that the stability was

NOTE Confidence: 0.744731295555555

00:16:58.763 --> 00:17:01.041 a prerequisite for the development

NOTE Confidence: 0.744731295555555

00:17:01.041 --> 00:17:03.466 of a complex nervous system.

NOTE Confidence: 0.744731295555555

00:17:03.470 --> 00:17:04.070 Umm?

NOTE Confidence: 0.707904406285714

00:17:07.260 --> 00:17:10.004 Uh, so that the fluids where it

NOTE Confidence: 0.707904406285714

00:17:10.004 --> 00:17:12.430 being interested were were were of

NOTE Confidence: 0.707904406285714

00:17:12.430 --> 00:17:14.920 interest and but we're not really

NOTE Confidence: 0.707904406285714

00:17:14.920 --> 00:17:16.600 being investigated very well,
NOTE Confidence: 0.707904406285714

00:17:16.600 --> 00:17:19.618 so I'm jumping to the Yale
NOTE Confidence: 0.707904406285714

00:17:19.618 --> 00:17:22.400 University to Yale Medical School,
NOTE Confidence: 0.707904406285714

00:17:22.400 --> 00:17:24.779 the Internal medicine,
NOTE Confidence: 0.707904406285714

00:17:24.779 --> 00:17:27.816 internal Medicine department in the
NOTE Confidence: 0.707904406285714

00:17:27.816 --> 00:17:29.732 early 20th century, relatively small.
NOTE Confidence: 0.707904406285714

00:17:29.732 --> 00:17:33.460 They had maybe had four or five professors,
NOTE Confidence: 0.707904406285714

00:17:33.460 --> 00:17:40.109 and. The giant planet Peters.
NOTE Confidence: 0.707904406285714

00:17:40.110 --> 00:17:41.794 There was a case,
NOTE Confidence: 0.707904406285714

00:17:41.794 --> 00:17:45.133 and so he established chemical laboratories.
NOTE Confidence: 0.707904406285714

00:17:45.133 --> 00:17:49.970 And and he saw almost every patient
NOTE Confidence: 0.707904406285714

00:17:50.076 --> 00:17:53.456 in the in the hospital and to
NOTE Confidence: 0.707904406285714

00:17:53.456 --> 00:17:57.132 look at at at their electrolyte
NOTE Confidence: 0.707904406285714

00:17:57.132 --> 00:18:00.287 balance and and water balance.
NOTE Confidence: 0.707904406285714

00:18:00.290 --> 00:18:04.730 And he set up these laboratories and he
NOTE Confidence: 0.707904406285714

00:18:04.730 --> 00:18:08.909 became with a with a a chemist colleague.

NOTE Confidence: 0.707904406285714
00:18:08.910 --> 00:18:10.486 He wrote this book,
NOTE Confidence: 0.707904406285714
00:18:10.486 --> 00:18:12.062 the clinical Chemistry which
NOTE Confidence: 0.707904406285714
00:18:12.062 --> 00:18:13.300 established a whole.
NOTE Confidence: 0.893082265
00:18:15.520 --> 00:18:17.756 Science of clinical chemistry.
NOTE Confidence: 0.893082265
00:18:17.756 --> 00:18:21.739 So there was interest in looking at the
NOTE Confidence: 0.893082265
00:18:21.740 --> 00:18:24.806 body's fluids, but not the we weren't.
NOTE Confidence: 0.893082265
00:18:24.810 --> 00:18:28.142 They weren't really looking at how the
NOTE Confidence: 0.893082265
00:18:28.142 --> 00:18:31.130 body fluids were being maintained.
NOTE Confidence: 0.893082265
00:18:31.130 --> 00:18:36.400 Aside story about. Leaders.
NOTE Confidence: 0.893082265
00:18:36.400 --> 00:18:43.080 Is that during the time when?
NOTE Confidence: 0.893082265
00:18:43.080 --> 00:18:45.845 People were being examined for
NOTE Confidence: 0.893082265
00:18:45.845 --> 00:18:48.610 being communists and and whatnot.
NOTE Confidence: 0.893082265
00:18:48.610 --> 00:18:51.730 He was that he was attacked
NOTE Confidence: 0.893082265
00:18:51.730 --> 00:18:55.640 and and and his his he.
NOTE Confidence: 0.893082265
00:18:55.640 --> 00:19:00.169 Famously, his NIH grants were cut off.
NOTE Confidence: 0.893082265

00:19:00.170 --> 00:19:06.578 Uh, and he went and he. Umm?
NOTE Confidence: 0.893082265

00:19:06.578 --> 00:19:11.306 He challenged that in the courts.
NOTE Confidence: 0.893082265

00:19:11.310 --> 00:19:14.510 All the way up to the Supreme Court.
NOTE Confidence: 0.893082265

00:19:14.510 --> 00:19:18.269 And the Supreme Court upheld his position.
NOTE Confidence: 0.893082265

00:19:18.270 --> 00:19:18.827 Unfortunately,
NOTE Confidence: 0.893082265

00:19:18.827 --> 00:19:23.283 he never heard it because he died just
NOTE Confidence: 0.893082265

00:19:23.283 --> 00:19:26.438 before the Supreme Court made its.
NOTE Confidence: 0.893082265

00:19:26.440 --> 00:19:30.690 Decision that that and so.
NOTE Confidence: 0.893082265

00:19:30.690 --> 00:19:35.860 It he's his, his legal.
NOTE Confidence: 0.8607169875

00:19:38.650 --> 00:19:40.078 History is also important.
NOTE Confidence: 0.8607169875

00:19:40.078 --> 00:19:42.220 It's in that it's in the
NOTE Confidence: 0.8607169875

00:19:42.298 --> 00:19:44.938 archives here at the library.
NOTE Confidence: 0.716564974285714

00:19:49.020 --> 00:19:50.031 The brides characterization
NOTE Confidence: 0.716564974285714

00:19:50.031 --> 00:19:51.379 is the renal disease,
NOTE Confidence: 0.716564974285714

00:19:51.380 --> 00:19:54.112 which remain the standard.
NOTE Confidence: 0.716564974285714

00:19:54.112 --> 00:19:56.844 Until the 20th century.

NOTE Confidence: 0.716564974285714

00:19:56.850 --> 00:20:03.060 And in the early 20th century. 2 Germans.

NOTE Confidence: 0.716564974285714

00:20:03.060 --> 00:20:06.756 Full height when far wrote a textbook.

NOTE Confidence: 0.716564974285714

00:20:06.760 --> 00:20:10.710 I'm diseases of the kidney. And.

NOTE Confidence: 0.40396756

00:20:13.110 --> 00:20:17.950 Are made pet plants painstakingly accurate?

NOTE Confidence: 0.40396756

00:20:17.950 --> 00:20:20.065 Drawings of the Histology of

NOTE Confidence: 0.40396756

00:20:20.065 --> 00:20:22.627 rights disease and if you look

NOTE Confidence: 0.40396756

00:20:22.627 --> 00:20:25.154 at at at his drawings you think

NOTE Confidence: 0.40396756

00:20:25.154 --> 00:20:27.210 that they were microscope.

NOTE Confidence: 0.40396756

00:20:27.210 --> 00:20:29.274 They were microscopically produced,

NOTE Confidence: 0.40396756

00:20:29.274 --> 00:20:32.730 but no, he did it by drawing.

NOTE Confidence: 0.40396756

00:20:32.730 --> 00:20:36.328 Umm? And there's this was

NOTE Confidence: 0.40396756

00:20:36.328 --> 00:20:38.156 published in the British.

NOTE Confidence: 0.6832737793

00:20:40.320 --> 00:20:43.320 And early in 1914,

NOTE Confidence: 0.6832737793

00:20:43.320 --> 00:20:47.820 so there was beginning interest in.

NOTE Confidence: 0.6832737793

00:20:47.820 --> 00:20:51.088 Renal diseases and their

NOTE Confidence: 0.6832737793

00:20:51.088 --> 00:20:53.539 effects in patients.
NOTE Confidence: 0.6832737793

00:20:53.540 --> 00:20:58.760 It was not until the 1950s that.
NOTE Confidence: 0.6832737793

00:20:58.760 --> 00:21:01.430 There was a lot of valuable
NOTE Confidence: 0.6832737793

00:21:01.430 --> 00:21:03.786 to take biopsies of the
NOTE Confidence: 0.6832737793

00:21:03.786 --> 00:21:06.248 kidney and examine them and.
NOTE Confidence: 0.854552308

00:21:08.850 --> 00:21:11.538 Robert Clark and Robert Merky at
NOTE Confidence: 0.854552308

00:21:11.538 --> 00:21:13.540 the University of Illinois decided
NOTE Confidence: 0.854552308

00:21:13.540 --> 00:21:15.010 that they would try and do it,
NOTE Confidence: 0.854552308

00:21:15.010 --> 00:21:17.394 so they actually started
NOTE Confidence: 0.854552308

00:21:17.394 --> 00:21:21.908 to do needle biopsies of.
NOTE Confidence: 0.854552308

00:21:21.910 --> 00:21:24.418 Of the kidney, and they needed
NOTE Confidence: 0.854552308

00:21:24.418 --> 00:21:26.820 a pathologist to look at them.
NOTE Confidence: 0.88460529875

00:21:28.910 --> 00:21:31.160 And the chairman of Pathology
NOTE Confidence: 0.88460529875

00:21:31.160 --> 00:21:34.460 there went to the the youngest
NOTE Confidence: 0.88460529875

00:21:34.460 --> 00:21:37.710 pathologist in the in the.
NOTE Confidence: 0.88460529875

00:21:37.710 --> 00:21:39.888 In the department because he didn't

NOTE Confidence: 0.88460529875

00:21:39.888 --> 00:21:41.759 think anything would come of it.

NOTE Confidence: 0.88460529875

00:21:41.760 --> 00:21:44.364 That was that what it was

NOTE Confidence: 0.88460529875

00:21:44.364 --> 00:21:46.660 totally useless to do this.

NOTE Confidence: 0.88460529875

00:21:46.660 --> 00:21:50.140 The pathologist was Conrad Pirani.

NOTE Confidence: 0.88460529875

00:21:50.140 --> 00:21:54.908 Ohh became one of the leaders of retail

NOTE Confidence: 0.88460529875

00:21:54.908 --> 00:21:58.790 pathology in the 20th century. Umm?

NOTE Confidence: 0.783177434

00:22:00.800 --> 00:22:03.200 In 19 six enough people.

NOTE Confidence: 0.783177434

00:22:03.200 --> 00:22:04.838 Not very many people were doing.

NOTE Confidence: 0.783177434

00:22:04.840 --> 00:22:07.498 If I have this other kidney,

NOTE Confidence: 0.783177434

00:22:07.500 --> 00:22:12.847 but it was in in in in 1961 the Ciba

NOTE Confidence: 0.783177434

00:22:12.847 --> 00:22:17.530 Foundation hold held a symposium in London.

NOTE Confidence: 0.783177434

00:22:17.530 --> 00:22:22.600 And 29 physicians and pathologists met.

NOTE Confidence: 0.783177434

00:22:22.600 --> 00:22:25.981 To discuss what they thought was the

NOTE Confidence: 0.783177434

00:22:25.981 --> 00:22:28.030 utility of doing needle biopsies of

NOTE Confidence: 0.783177434

00:22:28.030 --> 00:22:30.600 the kidney and what it would find out.

NOTE Confidence: 0.808903872222222

00:22:35.550 --> 00:22:38.256 It was it they came through
NOTE Confidence: 0.808903872222222

00:22:38.256 --> 00:22:39.609 some interesting conclusions.
NOTE Confidence: 0.808903872222222

00:22:39.610 --> 00:22:41.346 One is they felt that if if
NOTE Confidence: 0.808903872222222

00:22:41.346 --> 00:22:42.760 the biopsies were being done,
NOTE Confidence: 0.808903872222222

00:22:42.760 --> 00:22:44.559 they should be looked at by people
NOTE Confidence: 0.808903872222222

00:22:44.559 --> 00:22:46.359 who were expert in looking at them.
NOTE Confidence: 0.872182185

00:22:48.820 --> 00:22:49.540 And that.
NOTE Confidence: 0.8211857426

00:22:51.880 --> 00:22:54.706 And that they should be done
NOTE Confidence: 0.8211857426

00:22:54.706 --> 00:22:57.280 in an organized fashion. And.
NOTE Confidence: 0.9163564

00:23:01.330 --> 00:23:03.941 And they came up with some standards
NOTE Confidence: 0.9163564

00:23:03.941 --> 00:23:07.150 of Care now this this is a little
NOTE Confidence: 0.9163564

00:23:07.150 --> 00:23:09.078 bit of expansion of the standards
NOTE Confidence: 0.9163564

00:23:09.078 --> 00:23:11.070 of care that they came up with,
NOTE Confidence: 0.9163564

00:23:11.070 --> 00:23:13.490 but the standard of care.
NOTE Confidence: 0.9163564

00:23:13.490 --> 00:23:16.328 For the medical renal biopsy became
NOTE Confidence: 0.9163564

00:23:16.328 --> 00:23:20.570 serial thin section paraffin embedded.

NOTE Confidence: 0.9163564

00:23:20.570 --> 00:23:24.610 Umm? Slides stained with HEPS Jones

NOTE Confidence: 0.9163564

00:23:24.610 --> 00:23:27.870 silver triple that bottle of water.

NOTE Confidence: 0.635909965

00:23:39.560 --> 00:23:40.220 Thank you.

NOTE Confidence: 0.860582097777778

00:23:48.290 --> 00:23:50.830 Some immunologists were also becoming

NOTE Confidence: 0.860582097777778

00:23:50.830 --> 00:23:55.510 interested in in in the renal disease.

NOTE Confidence: 0.860582097777778

00:23:55.510 --> 00:23:58.070 And they decided that that some of the

NOTE Confidence: 0.860582097777778

00:23:58.070 --> 00:24:00.068 diseases that they were looking at,

NOTE Confidence: 0.860582097777778

00:24:00.070 --> 00:24:02.034 like commercial or Fridays,

NOTE Confidence: 0.860582097777778

00:24:02.034 --> 00:24:04.680 were immune mediated and so they

NOTE Confidence: 0.860582097777778

00:24:04.680 --> 00:24:07.410 started to look at that real biopsies

NOTE Confidence: 0.860582097777778

00:24:07.498 --> 00:24:10.082 using fluorescence techniques where

NOTE Confidence: 0.860582097777778

00:24:10.082 --> 00:24:13.312 the antibodies were directed against.

NOTE Confidence: 0.860582097777778

00:24:13.320 --> 00:24:15.464 Immunoglobulin is kind of

NOTE Confidence: 0.860582097777778

00:24:15.464 --> 00:24:16.536 complement components,

NOTE Confidence: 0.860582097777778

00:24:16.540 --> 00:24:19.885 and if there if was known of any

NOTE Confidence: 0.860582097777778

00:24:19.885 --> 00:24:23.210 specific antibodies to the antigens.
NOTE Confidence: 0.860582097777778

00:24:23.210 --> 00:24:28.880 And and, and and and so that fluorescence
NOTE Confidence: 0.860582097777778

00:24:28.880 --> 00:24:31.454 examination of the biopsies became also
NOTE Confidence: 0.860582097777778

00:24:31.454 --> 00:24:34.930 part of the of the standard of care.
NOTE Confidence: 0.791707936666667

00:24:38.370 --> 00:24:43.319 Are they some centers? Also felt that
NOTE Confidence: 0.791707936666667

00:24:43.319 --> 00:24:48.020 electron microscopy might be useful and.
NOTE Confidence: 0.858696465

00:24:50.260 --> 00:24:52.636 But the cell biologist felt that
NOTE Confidence: 0.858696465

00:24:52.636 --> 00:24:55.419 that was in there first purview,
NOTE Confidence: 0.858696465

00:24:55.420 --> 00:24:57.800 that that wasn't for pathologists.
NOTE Confidence: 0.858696465

00:24:57.800 --> 00:25:00.768 They got to be a cell biologist
NOTE Confidence: 0.858696465

00:25:00.768 --> 00:25:04.268 to look at and Marilyn Farquhar.
NOTE Confidence: 0.858696465

00:25:04.270 --> 00:25:06.839 Decided that she would look at the
NOTE Confidence: 0.858696465

00:25:06.839 --> 00:25:09.853 at the kidney and she did look at
NOTE Confidence: 0.858696465

00:25:09.853 --> 00:25:12.194 the kidney and then actually found
NOTE Confidence: 0.858696465

00:25:12.194 --> 00:25:14.762 the that that the effacement of
NOTE Confidence: 0.858696465

00:25:14.762 --> 00:25:18.453 the foot processes in patients with

NOTE Confidence: 0.858696465

00:25:18.453 --> 00:25:23.088 dropsy or or nephrotic syndrome. Yes.

NOTE Confidence: 0.858696465

00:25:23.088 --> 00:25:27.264 But that expanded very quickly to

NOTE Confidence: 0.858696465

00:25:27.264 --> 00:25:31.400 other electronic microscopists and.

NOTE Confidence: 0.858696465

00:25:31.400 --> 00:25:38.920 I'm I was in. I came back from my my.

NOTE Confidence: 0.858696465

00:25:38.920 --> 00:25:41.982 My fellowship in Germany in 1962

NOTE Confidence: 0.858696465

00:25:41.982 --> 00:25:45.678 and I was able to not only establish

NOTE Confidence: 0.858696465

00:25:45.678 --> 00:25:48.879 my micropuncture laboratory,

NOTE Confidence: 0.858696465

00:25:48.880 --> 00:25:55.972 but I went and started to do a kidney

NOTE Confidence: 0.858696465

00:25:55.972 --> 00:25:59.470 biopsies, but I needed a clinician.

NOTE Confidence: 0.858696465

00:25:59.470 --> 00:26:02.914 Because you can't do it by yourself.

NOTE Confidence: 0.858696465

00:26:02.920 --> 00:26:07.140 And the nephrology section who

NOTE Confidence: 0.858696465

00:26:07.140 --> 00:26:12.369 helped me in establishing my my my.

NOTE Confidence: 0.858696465

00:26:12.370 --> 00:26:16.549 My laboratory also sent me a fellowship,

NOTE Confidence: 0.858696465

00:26:16.550 --> 00:26:18.080 a fellow.

NOTE Confidence: 0.858696465

00:26:18.080 --> 00:26:21.922 His name was John Hazlett and he was he.

NOTE Confidence: 0.858696465

00:26:21.922 --> 00:26:24.337 He was beginning to learn how to
NOTE Confidence: 0.858696465

00:26:24.337 --> 00:26:26.668 do a micropuncture and we did a
NOTE Confidence: 0.858696465

00:26:26.668 --> 00:26:29.390 number of studies looking at at
NOTE Confidence: 0.858696465

00:26:29.390 --> 00:26:31.855 the maintenance of the electrical
NOTE Confidence: 0.858696465

00:26:31.855 --> 00:26:34.300 potential across proximal 2 views so
NOTE Confidence: 0.858696465

00:26:34.300 --> 00:26:36.525 that we absorption could occur but
NOTE Confidence: 0.858696465

00:26:36.525 --> 00:26:38.725 at the same time he ran a clinic.
NOTE Confidence: 0.858696465

00:26:38.730 --> 00:26:42.996 The clinic for patients with lupus.
NOTE Confidence: 0.858696465

00:26:43.000 --> 00:26:47.140 And so he he talked to me, and he said,
NOTE Confidence: 0.858696465

00:26:47.140 --> 00:26:48.640 well, maybe we should biopsy them.
NOTE Confidence: 0.858696465

00:26:48.640 --> 00:26:50.928 I said, OK, if you can biopsy them,
NOTE Confidence: 0.858696465

00:26:50.930 --> 00:26:53.208 we can look at them together and
NOTE Confidence: 0.858696465

00:26:53.208 --> 00:26:54.440 that any any did,
NOTE Confidence: 0.858696465

00:26:54.440 --> 00:26:59.138 and we we collected and biopsies
NOTE Confidence: 0.858696465

00:26:59.140 --> 00:27:04.726 from some 200 patients with lupus.
NOTE Confidence: 0.858696465

00:27:04.730 --> 00:27:07.638 Uh, we we actually.

NOTE Confidence: 0.800039888684211

00:27:10.030 --> 00:27:13.456 And engaged a British epidemiologist who

NOTE Confidence: 0.800039888684211

00:27:13.456 --> 00:27:17.413 is in the Department of Medicine at that

NOTE Confidence: 0.800039888684211

00:27:17.413 --> 00:27:21.094 time to help us in in analyzing what,

NOTE Confidence: 0.800039888684211

00:27:21.094 --> 00:27:24.506 what, what we found. And we found some

NOTE Confidence: 0.800039888684211

00:27:24.506 --> 00:27:26.210 very interesting things by this time.

NOTE Confidence: 0.809494367777778

00:27:28.440 --> 00:27:30.729 By this time I had a small

NOTE Confidence: 0.809494367777778

00:27:30.729 --> 00:27:31.383 electron microscope,

NOTE Confidence: 0.809494367777778

00:27:31.390 --> 00:27:35.221 so we were doing EM here and one

NOTE Confidence: 0.809494367777778

00:27:35.221 --> 00:27:37.930 and we found one of the interesting

NOTE Confidence: 0.809494367777778

00:27:38.012 --> 00:27:40.887 thing is that the the patients

NOTE Confidence: 0.809494367777778

00:27:40.887 --> 00:27:44.541 with the most severe disease had

NOTE Confidence: 0.809494367777778

00:27:44.541 --> 00:27:47.357 subendothelial electron dense deposits

NOTE Confidence: 0.809494367777778

00:27:47.357 --> 00:27:50.867 and they had my immunofluorescence.

NOTE Confidence: 0.809494367777778

00:27:50.870 --> 00:27:53.318 Multiple immunoglobulins and compliment.

NOTE Confidence: 0.8875311

00:27:55.350 --> 00:27:59.955 And so we. We were able to look

NOTE Confidence: 0.8875311

00:27:59.955 --> 00:28:01.999 at these patients overtime.
NOTE Confidence: 0.8875311

00:28:02.000 --> 00:28:04.429 And and at that time the only
NOTE Confidence: 0.8875311

00:28:04.429 --> 00:28:06.230 you know therapy was used.
NOTE Confidence: 0.865022101428571

00:28:08.530 --> 00:28:09.814 Azathioprine and so.
NOTE Confidence: 0.865022101428571

00:28:09.814 --> 00:28:11.954 All of these patients were
NOTE Confidence: 0.865022101428571

00:28:11.954 --> 00:28:14.437 treated in exactly the same way,
NOTE Confidence: 0.865022101428571

00:28:14.440 --> 00:28:17.608 and we could see what the outcome was.
NOTE Confidence: 0.865022101428571

00:28:17.610 --> 00:28:22.186 And we, with the aid of the epidemiologists,
NOTE Confidence: 0.865022101428571

00:28:22.190 --> 00:28:25.442 we wrote papers on on what
NOTE Confidence: 0.865022101428571

00:28:25.442 --> 00:28:29.362 was what were signs of and of
NOTE Confidence: 0.865022101428571

00:28:29.362 --> 00:28:32.400 of progression, and so on.
NOTE Confidence: 0.865022101428571

00:28:32.400 --> 00:28:33.690 And he did something really,
NOTE Confidence: 0.865022101428571

00:28:33.690 --> 00:28:34.600 really interesting.
NOTE Confidence: 0.8806410075

00:28:36.850 --> 00:28:40.560 He selected, I think it was about
NOTE Confidence: 0.8806410075

00:28:40.560 --> 00:28:44.378 20 nephrologists in in Canada.
NOTE Confidence: 0.8806410075

00:28:44.380 --> 00:28:47.782 And he gave them the history of

NOTE Confidence: 0.8806410075

00:28:47.782 --> 00:28:50.068 those patients. Without the biopsy.

NOTE Confidence: 0.902253918333333

00:28:53.240 --> 00:28:54.938 And he asked them to come.

NOTE Confidence: 0.902253918333333

00:28:54.940 --> 00:29:00.434 And and the. The agreement between

NOTE Confidence: 0.902253918333333

00:29:00.434 --> 00:29:03.150 them was not really great and there

NOTE Confidence: 0.902253918333333

00:29:03.227 --> 00:29:05.404 was a lot of questions about it.

NOTE Confidence: 0.902253918333333

00:29:05.410 --> 00:29:07.748 He then gave them the results of

NOTE Confidence: 0.902253918333333

00:29:07.748 --> 00:29:09.745 the biopsy and everything codified

NOTE Confidence: 0.902253918333333

00:29:09.745 --> 00:29:12.517 into the groups of patients that

NOTE Confidence: 0.902253918333333

00:29:12.517 --> 00:29:15.427 were existed and one and that the

NOTE Confidence: 0.902253918333333

00:29:15.427 --> 00:29:17.342 treatment actually was was useful

NOTE Confidence: 0.902253918333333

00:29:17.350 --> 00:29:19.665 in in diminishing the inflammatory

NOTE Confidence: 0.902253918333333

00:29:19.665 --> 00:29:23.186 process that was that with lupus and

NOTE Confidence: 0.902253918333333

00:29:23.186 --> 00:29:27.418 and so it became that the biopsy

NOTE Confidence: 0.902253918333333

00:29:27.418 --> 00:29:29.914 actually became a very useful tool.

NOTE Confidence: 0.902253918333333

00:29:29.920 --> 00:29:31.768 In in clinical nephrology.

NOTE Confidence: 0.06812766

00:29:33.790 --> 00:29:38.618 Umm? So, so the standard of care,
NOTE Confidence: 0.06812766

00:29:38.620 --> 00:29:40.776 and this is an expansion of that.
NOTE Confidence: 0.06812766

00:29:40.780 --> 00:29:43.444 Was that the medical renal biopsy
NOTE Confidence: 0.06812766

00:29:43.444 --> 00:29:48.650 had to be done on biopsy on serial
NOTE Confidence: 0.06812766

00:29:48.650 --> 00:29:51.050 thin section paraffin embedded
NOTE Confidence: 0.06812766

00:29:51.050 --> 00:29:53.600 slides so that they were we.
NOTE Confidence: 0.06812766

00:29:53.600 --> 00:29:57.544 We would have a a bunch of slides.
NOTE Confidence: 0.06812766

00:29:57.550 --> 00:30:01.382 At and looked at serially so we could
NOTE Confidence: 0.06812766

00:30:01.382 --> 00:30:05.630 see a a greater number of glomeruli
NOTE Confidence: 0.06812766

00:30:05.630 --> 00:30:10.440 and and variety of vessels. Umm?
NOTE Confidence: 0.06812766

00:30:10.440 --> 00:30:13.570 Uh, and and we we we we did as the
NOTE Confidence: 0.06812766

00:30:13.670 --> 00:30:17.430 immunologists were taught, told us to do.
NOTE Confidence: 0.06812766

00:30:17.430 --> 00:30:18.790 We look for immunoglobulins.
NOTE Confidence: 0.06812766

00:30:18.790 --> 00:30:21.430 And indeed we found them.
NOTE Confidence: 0.06812766

00:30:21.430 --> 00:30:24.502 And one other outcome of the
NOTE Confidence: 0.06812766

00:30:24.502 --> 00:30:27.355 treatment was that there was a

NOTE Confidence: 0.06812766

00:30:27.355 --> 00:30:31.698 shift from the acute inflammatory.

NOTE Confidence: 0.06812766

00:30:31.700 --> 00:30:34.544 Elephantitis of lupus to the membranous

NOTE Confidence: 0.06812766

00:30:34.544 --> 00:30:37.860 of form of lupus which was not

NOTE Confidence: 0.06812766

00:30:37.860 --> 00:30:40.512 which had no inflammation at all.

NOTE Confidence: 0.06812766

00:30:40.520 --> 00:30:44.444 But it had the deposits of

NOTE Confidence: 0.06812766

00:30:44.444 --> 00:30:46.969 immunoglobulin in the peripheral

NOTE Confidence: 0.06812766

00:30:46.969 --> 00:30:50.707 basement membrane and and and the

NOTE Confidence: 0.06812766

00:30:50.707 --> 00:30:53.509 patients all had an abnormal.

NOTE Confidence: 0.06812766

00:30:53.510 --> 00:30:58.110 Your ends with with a lot of protein in them.

NOTE Confidence: 0.06812766

00:30:58.110 --> 00:30:58.780 Umm?

NOTE Confidence: 0.62708574

00:31:02.980 --> 00:31:10.386 Now, so that a renal biopsy has with or

NOTE Confidence: 0.62708574

00:31:10.386 --> 00:31:14.238 with all of these different parameters.

NOTE Confidence: 0.62708574

00:31:14.240 --> 00:31:18.020 That you have is is not a

NOTE Confidence: 0.62708574

00:31:18.020 --> 00:31:21.100 simple means of diagnosis.

NOTE Confidence: 0.62708574

00:31:21.100 --> 00:31:22.756 You know you're a surgical pathologist.

NOTE Confidence: 0.62708574

00:31:22.760 --> 00:31:23.600 You look at the slide,
NOTE Confidence: 0.62708574

00:31:23.600 --> 00:31:24.528 you call it cancer.
NOTE Confidence: 0.62708574

00:31:24.528 --> 00:31:25.688 Tell the surgeon would take
NOTE Confidence: 0.62708574

00:31:25.688 --> 00:31:27.088 it out and that's about it.
NOTE Confidence: 0.799422660833333

00:31:29.630 --> 00:31:33.403 Here with the renal biopsy that the
NOTE Confidence: 0.799422660833333

00:31:33.403 --> 00:31:36.389 nephrologists were more interested in,
NOTE Confidence: 0.799422660833333

00:31:36.390 --> 00:31:40.790 the not only the the the disease process,
NOTE Confidence: 0.799422660833333

00:31:40.790 --> 00:31:44.145 but what what could be
NOTE Confidence: 0.799422660833333

00:31:44.145 --> 00:31:46.829 predicted about the possible.
NOTE Confidence: 0.799422660833333

00:31:46.830 --> 00:31:49.278 The possible response to therapy and
NOTE Confidence: 0.799422660833333

00:31:49.278 --> 00:31:52.213 those days it was immuno immunosuppressive
NOTE Confidence: 0.799422660833333

00:31:52.213 --> 00:31:55.273 therapy was just beginning and
NOTE Confidence: 0.799422660833333

00:31:55.273 --> 00:31:57.674 cyclophosphamide and some other
NOTE Confidence: 0.799422660833333

00:31:57.674 --> 00:32:00.094 immunosuppressants were were being used
NOTE Confidence: 0.799422660833333

00:32:00.094 --> 00:32:03.314 and so they wanted more information.
NOTE Confidence: 0.799422660833333

00:32:03.314 --> 00:32:09.340 And so it was necessary to do all three.

NOTE Confidence: 0.799422660833333

00:32:09.340 --> 00:32:12.182 Types of microscopy to come up with

NOTE Confidence: 0.799422660833333

00:32:12.182 --> 00:32:16.130 an come up with a diagnosis. Now.

NOTE Confidence: 0.791963712

00:32:18.390 --> 00:32:22.798 The approach for for diagnosing renal

NOTE Confidence: 0.791963712

00:32:22.798 --> 00:32:25.150 biopsy requires information from

NOTE Confidence: 0.791963712

00:32:25.150 --> 00:32:28.751 these several different sources to be

NOTE Confidence: 0.791963712

00:32:28.751 --> 00:32:31.636 integrated into a single interpretation.

NOTE Confidence: 0.791963712

00:32:31.640 --> 00:32:34.055 The sources included the clinical

NOTE Confidence: 0.791963712

00:32:34.055 --> 00:32:37.632 data examination by light microscopy,

NOTE Confidence: 0.791963712

00:32:37.632 --> 00:32:40.724 immunohistology and electron microscopy.

NOTE Confidence: 0.791963712

00:32:40.730 --> 00:32:43.778 Each of the sources.

NOTE Confidence: 0.791963712

00:32:43.778 --> 00:32:47.588 Has several individual variables in

NOTE Confidence: 0.791963712

00:32:47.588 --> 00:32:50.067 terms of which which immunoglobulins

NOTE Confidence: 0.791963712

00:32:50.067 --> 00:32:52.761 are involved with the local localization

NOTE Confidence: 0.791963712

00:32:52.761 --> 00:32:57.380 of the immune complex as well and and

NOTE Confidence: 0.791963712

00:32:57.380 --> 00:33:00.040 and they had to either be included

NOTE Confidence: 0.791963712

00:33:00.040 --> 00:33:02.655 or dismissed in in in order to
NOTE Confidence: 0.791963712

00:33:02.655 --> 00:33:04.079 make the final diagnosis.
NOTE Confidence: 0.791963712

00:33:04.080 --> 00:33:08.938 George boole who was a 19th century.
NOTE Confidence: 0.838353754285714

00:33:11.560 --> 00:33:13.940 Pastor, he was a he was at.
NOTE Confidence: 0.838353754285714

00:33:13.940 --> 00:33:18.980 He was a clergyman.
NOTE Confidence: 0.838353754285714

00:33:18.980 --> 00:33:23.200 And he developed. Umm?
NOTE Confidence: 0.838353754285714

00:33:23.200 --> 00:33:27.620 A A branch of algebra.
NOTE Confidence: 0.838353754285714

00:33:27.620 --> 00:33:30.580 Which which this this?
NOTE Confidence: 0.838353754285714

00:33:30.580 --> 00:33:33.540 Either that variables could
NOTE Confidence: 0.838353754285714

00:33:33.540 --> 00:33:37.858 either be included or dismissed.
NOTE Confidence: 0.838353754285714

00:33:37.860 --> 00:33:40.450 And that they were either
NOTE Confidence: 0.838353754285714

00:33:40.450 --> 00:33:42.004 positive or negative.
NOTE Confidence: 0.838353754285714

00:33:42.010 --> 00:33:46.290 And this branch of algebra,
NOTE Confidence: 0.838353754285714

00:33:46.290 --> 00:33:48.815 which the value variables or
NOTE Confidence: 0.838353754285714

00:33:48.815 --> 00:33:51.724 truths or or or or false.
NOTE Confidence: 0.838353754285714

00:33:51.724 --> 00:33:55.133 And then this expanded the range of

NOTE Confidence: 0.838353754285714

00:33:55.133 --> 00:33:58.278 applications that had to be handled

NOTE Confidence: 0.838353754285714

00:33:58.278 --> 00:34:00.330 from proportion propositions that

NOTE Confidence: 0.838353754285714

00:34:00.330 --> 00:34:02.760 only have two potential values

NOTE Confidence: 0.838353754285714

00:34:02.760 --> 00:34:05.586 to those that have many and.

NOTE Confidence: 0.838353754285714

00:34:05.586 --> 00:34:09.338 And really so that looking at the

NOTE Confidence: 0.838353754285714

00:34:09.338 --> 00:34:12.377 kidney biopsy is is is a method.

NOTE Confidence: 0.838353754285714

00:34:12.380 --> 00:34:14.740 We're all doing Boolean algebra.

NOTE Confidence: 0.7030705

00:34:17.130 --> 00:34:17.840 Now.

NOTE Confidence: 0.736048231933333

00:34:20.840 --> 00:34:25.392 He wasn't the only clergyman who was

NOTE Confidence: 0.736048231933333

00:34:25.392 --> 00:34:27.984 interested in looking at things in

NOTE Confidence: 0.736048231933333

00:34:27.984 --> 00:34:32.310 a different way, and Thomas Bayes.

NOTE Confidence: 0.736048231933333

00:34:32.310 --> 00:34:38.368 Uh. Decided that that his

NOTE Confidence: 0.736048231933333

00:34:38.368 --> 00:34:40.012 statistic using statistics.

NOTE Confidence: 0.736048231933333

00:34:40.012 --> 00:34:43.900 It was that one that Bayes theorem

NOTE Confidence: 0.736048231933333

00:34:43.900 --> 00:34:49.708 provides a way to revise the findings of.

NOTE Confidence: 0.736048231933333

00:34:49.710 --> 00:34:53.088 Of the findings of the biopsy,
NOTE Confidence: 0.736048231933333

00:34:53.090 --> 00:34:55.470 both light microscopy and whatnot,
NOTE Confidence: 0.736048231933333

00:34:55.470 --> 00:34:58.660 and put them into categories again.
NOTE Confidence: 0.88991594

00:35:01.440 --> 00:35:04.532 Again. Saying OK,
NOTE Confidence: 0.88991594

00:35:04.532 --> 00:35:07.864 This is the pattern that we would
NOTE Confidence: 0.88991594

00:35:07.864 --> 00:35:11.505 see and and then with with with
NOTE Confidence: 0.88991594

00:35:11.505 --> 00:35:13.700 Bayesian statistical methods.
NOTE Confidence: 0.88991594

00:35:13.700 --> 00:35:17.900 That's the way AI started.
NOTE Confidence: 0.88991594

00:35:17.900 --> 00:35:20.606 So AI actually is using Bayesian
NOTE Confidence: 0.88991594

00:35:20.606 --> 00:35:23.692 statistics to take a large number of
NOTE Confidence: 0.88991594

00:35:23.692 --> 00:35:27.115 of variables and look at the of the
NOTE Confidence: 0.88991594

00:35:27.115 --> 00:35:29.259 individual variables as variables
NOTE Confidence: 0.88991594

00:35:29.259 --> 00:35:33.116 as well as individuals as well as
NOTE Confidence: 0.88991594

00:35:33.116 --> 00:35:35.788 the variables of themselves and
NOTE Confidence: 0.88991594

00:35:35.788 --> 00:35:38.428 in the patterns there are, and.
NOTE Confidence: 0.88991594

00:35:38.428 --> 00:35:41.004 So what what happens is that you

NOTE Confidence: 0.88991594

00:35:41.004 --> 00:35:43.467 look at the light microscopy and

NOTE Confidence: 0.88991594

00:35:43.467 --> 00:35:46.390 you have one level of of. Of.

NOTE Confidence: 0.88991594

00:35:46.390 --> 00:35:50.070 Of information you add on to that a

NOTE Confidence: 0.88991594

00:35:50.070 --> 00:35:53.840 second level of the immunofluorescence.

NOTE Confidence: 0.88991594

00:35:53.840 --> 00:35:56.185 And then you add on the third

NOTE Confidence: 0.88991594

00:35:56.185 --> 00:35:57.190 level of immunofluorescence.

NOTE Confidence: 0.88991594

00:35:57.190 --> 00:36:00.446 And if you think about what I what

NOTE Confidence: 0.88991594

00:36:00.446 --> 00:36:03.312 AI does is it looks like it looks

NOTE Confidence: 0.88991594

00:36:03.312 --> 00:36:06.169 like it looks at the data and at

NOTE Confidence: 0.88991594

00:36:06.169 --> 00:36:08.768 one level and then looks at the

NOTE Confidence: 0.88991594

00:36:08.768 --> 00:36:11.216 second level and and decides whether

NOTE Confidence: 0.88991594

00:36:11.216 --> 00:36:14.484 or not it has a contributory way

NOTE Confidence: 0.88991594

00:36:14.484 --> 00:36:18.540 of looking at a final result.

NOTE Confidence: 0.88991594

00:36:18.540 --> 00:36:25.182 And and. AI does does this with with

NOTE Confidence: 0.88991594

00:36:25.182 --> 00:36:29.099 with large volumes of of of data,

NOTE Confidence: 0.88991594

00:36:29.100 --> 00:36:32.756 and so you really need to have the
NOTE Confidence: 0.88991594

00:36:32.756 --> 00:36:35.646 computer backing that to do this with.
NOTE Confidence: 0.88991594

00:36:35.650 --> 00:36:36.043 Umm?
NOTE Confidence: 0.88991594

00:36:36.043 --> 00:36:38.794 And so the data of the single
NOTE Confidence: 0.88991594

00:36:38.794 --> 00:36:41.087 biopsy went are analyzed further
NOTE Confidence: 0.88991594

00:36:41.087 --> 00:36:46.266 by using our AI and and and within
NOTE Confidence: 0.88991594

00:36:46.266 --> 00:36:48.476 the background of existing data.
NOTE Confidence: 0.88991594

00:36:48.480 --> 00:36:50.694 The predictive value of the biopsy
NOTE Confidence: 0.88991594

00:36:50.694 --> 00:36:53.626 in the sector in the selection of
NOTE Confidence: 0.88991594

00:36:53.626 --> 00:36:56.380 therapy and outcome is greatly enhanced.
NOTE Confidence: 0.88991594

00:36:56.380 --> 00:36:58.824 So. You know the.
NOTE Confidence: 0.88991594

00:36:58.824 --> 00:37:03.874 The application of AI to looking at the
NOTE Confidence: 0.88991594

00:37:03.874 --> 00:37:08.629 kidney biopsy has become at least somewhat.
NOTE Confidence: 0.690377344444444

00:37:10.670 --> 00:37:15.008 Of interest, there's a group in and in Paris,
NOTE Confidence: 0.690377344444444

00:37:15.010 --> 00:37:17.873 which is looking at patients with lupus
NOTE Confidence: 0.690377344444444

00:37:17.873 --> 00:37:21.146 and and looking at all the data and and

NOTE Confidence: 0.690377344444444

00:37:21.146 --> 00:37:23.998 that can be obtained by from the biopsy

NOTE Confidence: 0.690377344444444

00:37:23.998 --> 00:37:26.480 and lupus and and and predict. See.

NOTE Confidence: 0.5368486

00:37:28.710 --> 00:37:34.610 The. There's a group here at at Yale

NOTE Confidence: 0.5368486

00:37:34.610 --> 00:37:38.670 that is looking at donor donor biopsies.

NOTE Confidence: 0.5368486

00:37:38.670 --> 00:37:40.620 There's a, there's a problem,

NOTE Confidence: 0.5368486

00:37:40.620 --> 00:37:43.308 and that we don't have enough

NOTE Confidence: 0.5368486

00:37:43.308 --> 00:37:46.993 donors and a lot of donor kidneys

NOTE Confidence: 0.5368486

00:37:46.993 --> 00:37:49.978 that are dismissed without good.

NOTE Confidence: 0.5368486

00:37:49.980 --> 00:37:52.850 Reason and so they are.

NOTE Confidence: 0.5368486

00:37:52.850 --> 00:37:58.016 They're working on on and and actually

NOTE Confidence: 0.5368486

00:37:58.020 --> 00:38:00.108 those of you who have to do the the

NOTE Confidence: 0.5368486

00:38:00.108 --> 00:38:02.259 the county of the Gloria glomeruli.

NOTE Confidence: 0.5368486

00:38:02.260 --> 00:38:05.774 And looking at the vessels and donut

NOTE Confidence: 0.5368486

00:38:05.774 --> 00:38:08.376 donor biopsies should realize that they

NOTE Confidence: 0.5368486

00:38:08.376 --> 00:38:11.260 that there's a lot of information there.

NOTE Confidence: 0.5368486

00:38:11.260 --> 00:38:14.680 But you can't just look at it and say OK,
NOTE Confidence: 0.5368486

00:38:14.680 --> 00:38:16.936 no good because we have too many goals,
NOTE Confidence: 0.5368486

00:38:16.940 --> 00:38:17.418 sclerotic,
NOTE Confidence: 0.5368486

00:38:17.418 --> 00:38:20.286 Andreoli or the vessels show arterial.
NOTE Confidence: 0.5368486

00:38:20.290 --> 00:38:22.213 Sclerosis and so.
NOTE Confidence: 0.5368486

00:38:22.213 --> 00:38:26.059 The group here is is using
NOTE Confidence: 0.5368486

00:38:26.059 --> 00:38:28.802 artificial intelligence to look
NOTE Confidence: 0.5368486

00:38:28.802 --> 00:38:32.762 at the at at digitized images.
NOTE Confidence: 0.5368486

00:38:32.770 --> 00:38:37.034 Of the of the donor biopsies and coming
NOTE Confidence: 0.5368486

00:38:37.034 --> 00:38:40.947 up with algorithms to to separate out
NOTE Confidence: 0.5368486

00:38:40.947 --> 00:38:44.390 those which which is going to be useful
NOTE Confidence: 0.5368486

00:38:44.390 --> 00:38:47.490 and those that are not so I think.
NOTE Confidence: 0.6932256612

00:38:49.600 --> 00:38:53.984 The the renal biopsy now is is an
NOTE Confidence: 0.6932256612

00:38:53.984 --> 00:38:56.228 experiment in, in and of itself.
NOTE Confidence: 0.828919159166667

00:38:58.800 --> 00:39:02.760 You know, when and and and it requires a
NOTE Confidence: 0.828919159166667

00:39:02.760 --> 00:39:06.025 lot of data and it's sort of interesting

NOTE Confidence: 0.828919159166667
00:39:06.025 --> 00:39:09.300 that when I came back from Germany in
NOTE Confidence: 0.8797797
00:39:11.610 --> 00:39:15.560 1961, nineteen 62. The number
NOTE Confidence: 0.8797797
00:39:15.560 --> 00:39:17.285 of biopsies that would have
NOTE Confidence: 0.8797797
00:39:17.285 --> 00:39:19.368 been done here at Yale was 10.
NOTE Confidence: 0.755595161111111
00:39:22.350 --> 00:39:28.470 We we now have, what is it over 10,000?
NOTE Confidence: 0.755595161111111
00:39:28.470 --> 00:39:30.820 Yeah, but without that thousand
NOTE Confidence: 0.755595161111111
00:39:30.820 --> 00:39:33.830 a year so overall for overall,
NOTE Confidence: 0.755595161111111
00:39:33.830 --> 00:39:37.130 maybe even more than 10,000.
NOTE Confidence: 0.755595161111111
00:39:37.130 --> 00:39:42.810 So we so we have the the data
NOTE Confidence: 0.755595161111111
00:39:42.810 --> 00:39:47.166 bank which is necessary to use
NOTE Confidence: 0.755595161111111
00:39:47.166 --> 00:39:50.102 artificial intelligence and and
NOTE Confidence: 0.755595161111111
00:39:50.102 --> 00:39:56.090 and and come up with new ideas.
NOTE Confidence: 0.755595161111111
00:39:56.090 --> 00:39:58.323 And the The thing is that the
NOTE Confidence: 0.755595161111111
00:39:58.323 --> 00:40:00.736 what we get from our artificial
NOTE Confidence: 0.755595161111111
00:40:00.736 --> 00:40:03.949 intelligence is what the data tells us.
NOTE Confidence: 0.755595161111111

00:40:03.950 --> 00:40:06.239 But once put, when they're when they're
NOTE Confidence: 0.7555951611111111

00:40:06.239 --> 00:40:09.517 put in the context of the clinical situation.
NOTE Confidence: 0.7555951611111111

00:40:09.520 --> 00:40:13.444 Well, there there are some visual
NOTE Confidence: 0.7555951611111111

00:40:13.444 --> 00:40:16.812 findings that that that that can be
NOTE Confidence: 0.7555951611111111

00:40:16.812 --> 00:40:19.481 linked to disease outcomes and that
NOTE Confidence: 0.7555951611111111

00:40:19.481 --> 00:40:22.553 and that and can be mined to discern
NOTE Confidence: 0.7555951611111111

00:40:22.643 --> 00:40:26.059 previously unknown molecular mechanisms.
NOTE Confidence: 0.7555951611111111

00:40:26.060 --> 00:40:29.702 So my advice to all of you in surgical
NOTE Confidence: 0.7555951611111111

00:40:29.702 --> 00:40:33.300 pathology is when you look at a slide think.
NOTE Confidence: 0.8115150156

00:40:35.610 --> 00:40:39.992 You know when when, when desktop computers
NOTE Confidence: 0.8115150156

00:40:39.992 --> 00:40:44.132 first came out and you at a very high
NOTE Confidence: 0.8115150156

00:40:44.132 --> 00:40:47.637 price IBM would give you this then this
NOTE Confidence: 0.8115150156

00:40:47.637 --> 00:40:50.069 desktop computer at \$10,000 and not
NOTE Confidence: 0.8115150156

00:40:50.069 --> 00:40:52.670 very much information on how to use it.
NOTE Confidence: 0.8115150156

00:40:52.670 --> 00:40:55.617 But all also gave you a plaque.
NOTE Confidence: 0.8115150156

00:40:55.620 --> 00:40:59.522 Not the Plackett said think you had

NOTE Confidence: 0.8115150156

00:40:59.522 --> 00:41:01.944 to hang a plaque over the computer

NOTE Confidence: 0.8115150156

00:41:01.944 --> 00:41:07.325 so that it would work. So I think.

NOTE Confidence: 0.8115150156

00:41:07.325 --> 00:41:10.188 Umm? We're now we, we are now.

NOTE Confidence: 0.8115150156

00:41:10.190 --> 00:41:15.215 I guess we have a a something which would

NOTE Confidence: 0.8115150156

00:41:15.215 --> 00:41:19.958 where we can digitize our our our specimens.

NOTE Confidence: 0.8115150156

00:41:19.960 --> 00:41:24.670 And and if we digitize.

NOTE Confidence: 0.8115150156

00:41:24.670 --> 00:41:26.497 Do this over a period of time.

NOTE Confidence: 0.8115150156

00:41:26.500 --> 00:41:30.441 We will get sufficient data so that

NOTE Confidence: 0.8115150156

00:41:30.441 --> 00:41:35.076 we can can come up with new ideas.

NOTE Confidence: 0.8115150156

00:41:35.080 --> 00:41:39.070 Ideas that we didn't without premises.

NOTE Confidence: 0.8115150156

00:41:39.070 --> 00:41:43.996 And I think we're in a new new way,

NOTE Confidence: 0.8115150156

00:41:44.000 --> 00:41:50.096 so my advice to the residents and especially

NOTE Confidence: 0.8115150156

00:41:50.096 --> 00:41:54.776 residents who are in the front lines,

NOTE Confidence: 0.8115150156

00:41:54.780 --> 00:41:58.209 is think how you can use the multi source

NOTE Confidence: 0.8115150156

00:41:58.209 --> 00:42:01.237 data obtained from digital biopsies.

NOTE Confidence: 0.8115150156

00:42:01.240 --> 00:42:02.620 When we begin to apply.
NOTE Confidence: 0.963599222857143

00:42:05.360 --> 00:42:07.460 So I'm happy to answer any questions.
NOTE Confidence: 0.77513635

00:42:17.600 --> 00:42:18.210 Yes.
NOTE Confidence: 0.707427452

00:42:19.890 --> 00:42:21.260 I was a young president
NOTE Confidence: 0.729057369285714

00:42:21.270 --> 00:42:24.119 here. One of the things that impressed
NOTE Confidence: 0.729057369285714

00:42:24.120 --> 00:42:26.260 upon me was said, you know, I didn't
NOTE Confidence: 0.55205226

00:42:26.270 --> 00:42:27.380 know. The rest is true.
NOTE Confidence: 0.69110721

00:42:28.990 --> 00:42:32.730 Comment on what you say.
NOTE Confidence: 0.675447910426667

00:42:32.730 --> 00:42:36.993 Well, it says that in to the
NOTE Confidence: 0.675447910426667

00:42:36.993 --> 00:42:39.494 results from immunofluorescence or
NOTE Confidence: 0.675447910426667

00:42:39.494 --> 00:42:43.402 have several variables in that are
NOTE Confidence: 0.675447910426667

00:42:43.402 --> 00:42:48.660 intrinsic in the preparation so.
NOTE Confidence: 0.675447910426667

00:42:48.660 --> 00:42:51.408 The the, the nature and strength
NOTE Confidence: 0.675447910426667

00:42:51.408 --> 00:42:53.500 of the antibodies is 1.
NOTE Confidence: 0.675447910426667

00:42:53.500 --> 00:42:57.725 The preparation and of the
NOTE Confidence: 0.675447910426667

00:42:57.725 --> 00:43:00.260 specimen is another.

NOTE Confidence: 0.675447910426667

00:43:00.260 --> 00:43:03.275 The combination of of of

NOTE Confidence: 0.675447910426667

00:43:03.275 --> 00:43:06.290 the ability to have good.

NOTE Confidence: 0.9204278

00:43:09.680 --> 00:43:13.980 Good samples that you can compare,

NOTE Confidence: 0.9204278

00:43:13.980 --> 00:43:16.398 and so when you're looking at,

NOTE Confidence: 0.9204278

00:43:16.400 --> 00:43:19.358 you're looking at new antibody with.

NOTE Confidence: 0.9204278

00:43:19.360 --> 00:43:22.660 For IgG it's a common.

NOTE Confidence: 0.9204278

00:43:22.660 --> 00:43:27.455 Common antibody you have to look at.

NOTE Confidence: 0.9204278

00:43:27.460 --> 00:43:29.959 You can't just look at 1 biopsy

NOTE Confidence: 0.9204278

00:43:29.959 --> 00:43:33.302 and say oh the IGT is in in the

NOTE Confidence: 0.9204278

00:43:33.302 --> 00:43:35.522 mesangial We haven't know that

NOTE Confidence: 0.9204278

00:43:35.522 --> 00:43:38.300 when you look at it normal.

NOTE Confidence: 0.9204278

00:43:38.300 --> 00:43:41.144 Of kidney that with that same

NOTE Confidence: 0.9204278

00:43:41.144 --> 00:43:43.870 antibody that it shows nothing.

NOTE Confidence: 0.9204278

00:43:43.870 --> 00:43:47.814 We need the controls and so it's tricky.

NOTE Confidence: 0.9204278

00:43:47.820 --> 00:43:52.074 You have to really know what you're doing.

NOTE Confidence: 0.9204278

00:43:52.074 --> 00:43:55.627 You have your selection of bio of of
NOTE Confidence: 0.9204278

00:43:55.627 --> 00:43:58.490 your 8 reagents is important your your.
NOTE Confidence: 0.9204278

00:43:58.490 --> 00:43:58.984 Yeah.
NOTE Confidence: 0.9204278

00:43:58.984 --> 00:44:00.960 Your validation of those
NOTE Confidence: 0.9204278

00:44:00.960 --> 00:44:02.936 agents is very important.
NOTE Confidence: 0.681808636666667

00:44:05.000 --> 00:44:09.160 And I think, but on the other hand,
NOTE Confidence: 0.681808636666667

00:44:09.160 --> 00:44:14.419 you know with experience and.
NOTE Confidence: 0.681808636666667

00:44:14.420 --> 00:44:16.670 Of using fluorescence and I
NOTE Confidence: 0.681808636666667

00:44:16.670 --> 00:44:19.370 know that you've done a lot,
NOTE Confidence: 0.681808636666667

00:44:19.370 --> 00:44:21.610 particularly in terms of
NOTE Confidence: 0.681808636666667

00:44:21.610 --> 00:44:22.569 quantitative fluorescence,
NOTE Confidence: 0.681808636666667

00:44:22.569 --> 00:44:25.761 it all of these things take it are
NOTE Confidence: 0.681808636666667

00:44:25.761 --> 00:44:28.566 have to be taken into consideration,
NOTE Confidence: 0.681808636666667

00:44:28.570 --> 00:44:31.018 but it was tricky enough for you to do.
NOTE Confidence: 0.62325661

00:44:36.070 --> 00:44:39.430 What were you ever bored?
NOTE Confidence: 0.62325661

00:44:39.430 --> 00:44:41.498 Bored, bored? What's that?

NOTE Confidence: 0.56074846

00:44:44.750 --> 00:44:48.754 No, you know that's that's the thing

NOTE Confidence: 0.56074846

00:44:48.754 --> 00:44:51.250 that every time you do something,

NOTE Confidence: 0.56074846

00:44:51.250 --> 00:44:54.298 something else pops up.

NOTE Confidence: 0.56074846

00:44:54.298 --> 00:44:57.190 And you never sit there and and

NOTE Confidence: 0.56074846

00:44:57.190 --> 00:44:59.800 try and sit on your laurels.

NOTE Confidence: 0.56074846

00:44:59.800 --> 00:45:03.140 You have to look at it and and say OK,

NOTE Confidence: 0.56074846

00:45:03.140 --> 00:45:05.576 what, what, what, what does this mean

NOTE Confidence: 0.56074846

00:45:05.576 --> 00:45:08.088 and and does it really mean that?

NOTE Confidence: 0.56074846

00:45:08.090 --> 00:45:12.296 You you really and and the.

NOTE Confidence: 0.56074846

00:45:12.300 --> 00:45:15.492 The fact that I was constantly

NOTE Confidence: 0.56074846

00:45:15.492 --> 00:45:17.088 interacting with clinicians,

NOTE Confidence: 0.56074846

00:45:17.090 --> 00:45:20.210 they never let it be bored or boring.

NOTE Confidence: 0.56074846

00:45:20.210 --> 00:45:21.582 They never let it.

NOTE Confidence: 0.56074846

00:45:21.582 --> 00:45:24.402 They would never let me do things

NOTE Confidence: 0.56074846

00:45:24.402 --> 00:45:26.460 without complete explanation.

NOTE Confidence: 0.56074846

00:45:26.460 --> 00:45:28.512 I would have to go over
NOTE Confidence: 0.56074846

00:45:28.512 --> 00:45:30.350 every slide and with them,
NOTE Confidence: 0.56074846

00:45:30.350 --> 00:45:32.471 and they had to learn as much
NOTE Confidence: 0.56074846

00:45:32.471 --> 00:45:34.629 pathology as I could teach them.
NOTE Confidence: 0.6296396

00:45:36.930 --> 00:45:41.440 So I think. So much for
NOTE Confidence: 0.6296396

00:45:41.440 --> 00:45:43.450 this historical perspective
NOTE Confidence: 0.826450483333333

00:45:43.450 --> 00:45:44.110 that I think
NOTE Confidence: 0.6888987325

00:45:44.390 --> 00:45:46.418 you glossed over very
NOTE Confidence: 0.613184516

00:45:46.430 --> 00:45:50.310 modestly. Thank you, your contributions,
NOTE Confidence: 0.613184516

00:45:50.310 --> 00:45:53.163 but I'm just struck by a couple of things.
NOTE Confidence: 0.613184516

00:45:53.170 --> 00:45:55.264 That first of all,
NOTE Confidence: 0.613184516

00:45:55.264 --> 00:45:58.722 to share that it was also hepatologists
NOTE Confidence: 0.613184516

00:45:58.722 --> 00:46:00.561 and gastroenterologists who made
NOTE Confidence: 0.613184516

00:46:00.561 --> 00:46:04.278 ologists look at tiny liver dies and
NOTE Confidence: 0.613184516

00:46:04.278 --> 00:46:08.520 tiny and discovered the obtained Posa.
NOTE Confidence: 0.613184516

00:46:08.520 --> 00:46:11.540 Jerry Askin right here in the

NOTE Confidence: 0.613184516
00:46:11.540 --> 00:46:13.111 liver with Grandmaster and they
NOTE Confidence: 0.613184516
00:46:13.111 --> 00:46:14.996 sorted that out and sign.
NOTE Confidence: 0.613184516
00:46:15.000 --> 00:46:17.330 Ruben was one of the fathers of modern.
NOTE Confidence: 0.78711391
00:46:19.670 --> 00:46:23.724 So that's one comment, and so the
NOTE Confidence: 0.78711391
00:46:23.724 --> 00:46:26.650 analogy is that our pathologist
NOTE Confidence: 0.805968002
00:46:27.010 --> 00:46:28.860 had to be pulled along.
NOTE Confidence: 0.7382724175
00:46:29.760 --> 00:46:33.600 And I wonder the analogy being with today,
NOTE Confidence: 0.7382724175
00:46:33.600 --> 00:46:36.471 as you're making this comment that
NOTE Confidence: 0.7382724175
00:46:36.471 --> 00:46:39.740 we are also being asked today to
NOTE Confidence: 0.7382724175
00:46:39.740 --> 00:46:43.940 go along again with with digital
NOTE Confidence: 0.7382724175
00:46:43.940 --> 00:46:45.450 and AI and machine learning.
NOTE Confidence: 0.7382724175
00:46:45.450 --> 00:46:48.260 And so this is another in
NOTE Confidence: 0.7382724175
00:46:48.260 --> 00:46:49.580 the right direction.
NOTE Confidence: 0.7382724175
00:46:49.580 --> 00:46:51.860 So I have to see it instead of the treatment.
NOTE Confidence: 0.840844351666667
00:46:52.830 --> 00:46:56.364 Well, you know it always interested
NOTE Confidence: 0.840844351666667

00:46:56.364 --> 00:47:00.487 me that the two that two Protestant
NOTE Confidence: 0.840844351666667

00:47:00.487 --> 00:47:04.789 clerical clerical clerics in the 19th
NOTE Confidence: 0.840844351666667

00:47:04.789 --> 00:47:09.398 century came up with ideas about thought.
NOTE Confidence: 0.840844351666667

00:47:09.400 --> 00:47:12.172 And how thought and came out
NOTE Confidence: 0.840844351666667

00:47:12.172 --> 00:47:15.750 in terms of of giving answers.
NOTE Confidence: 0.840844351666667

00:47:15.750 --> 00:47:19.206 And I said, well, maybe look,
NOTE Confidence: 0.840844351666667

00:47:19.210 --> 00:47:23.730 maybe they're looking for a proof of God.
NOTE Confidence: 0.840844351666667

00:47:23.730 --> 00:47:25.138 They're looking at what's
NOTE Confidence: 0.840844351666667

00:47:25.138 --> 00:47:27.250 what's going on in the world,
NOTE Confidence: 0.840844351666667

00:47:27.250 --> 00:47:29.842 and they looking at the statistics
NOTE Confidence: 0.840844351666667

00:47:29.842 --> 00:47:32.249 of what they see and so.
NOTE Confidence: 0.840844351666667

00:47:32.250 --> 00:47:36.331 But the Boolean algebra and the Bayesian
NOTE Confidence: 0.840844351666667

00:47:36.331 --> 00:47:39.460 statistics are really interesting things
NOTE Confidence: 0.840844351666667

00:47:39.460 --> 00:47:42.994 that can't come come from clerics.
NOTE Confidence: 0.840844351666667

00:47:42.994 --> 00:47:45.684 Who you know you think?
NOTE Confidence: 0.840844351666667

00:47:45.690 --> 00:47:47.005 Well, the only thing they

NOTE Confidence: 0.840844351666667

00:47:47.005 --> 00:47:48.730 ever do is read the Bible.

NOTE Confidence: 0.840844351666667

00:47:48.730 --> 00:47:52.204 And read it over and over and over again.

NOTE Confidence: 0.840844351666667

00:47:52.210 --> 00:47:52.705 But you know,

NOTE Confidence: 0.840844351666667

00:47:52.705 --> 00:47:54.499 if you read it over and over and over again,

NOTE Confidence: 0.840844351666667

00:47:54.500 --> 00:47:56.400 you have a different interpretation

NOTE Confidence: 0.840844351666667

00:47:56.400 --> 00:47:59.308 of what you read from the last time.

NOTE Confidence: 0.840844351666667

00:47:59.310 --> 00:47:59.800 Yes,

NOTE Confidence: 0.374940856

00:47:59.870 --> 00:48:02.060 Mike, thanks for this greater lecture,

NOTE Confidence: 0.722869266666667

00:48:02.310 --> 00:48:04.510 so I don't know if we use you

NOTE Confidence: 0.722869266666667

00:48:04.510 --> 00:48:06.954 remember the first time you

NOTE Confidence: 0.722869266666667

00:48:06.954 --> 00:48:10.040 start doing the the real biopsy?

NOTE Confidence: 0.7837627

00:48:12.500 --> 00:48:15.328 So how do they transform the service?

NOTE Confidence: 0.827384944

00:48:17.770 --> 00:48:21.146 Well, the first time I had to do

NOTE Confidence: 0.827384944

00:48:21.146 --> 00:48:24.467 a biopsy on a kidney transplant.

NOTE Confidence: 0.827384944

00:48:24.470 --> 00:48:25.772 Well, I was my wife and I

NOTE Confidence: 0.827384944

00:48:25.772 --> 00:48:27.179 were at a cocktail party.
NOTE Confidence: 0.808720765

00:48:29.890 --> 00:48:33.136 Have you had a cocktail party?
NOTE Confidence: 0.808720765

00:48:33.140 --> 00:48:35.779 And I got a phone call saying
NOTE Confidence: 0.808720765

00:48:35.779 --> 00:48:38.049 that I had to come in.
NOTE Confidence: 0.808720765

00:48:38.050 --> 00:48:41.182 Because I had to look at
NOTE Confidence: 0.808720765

00:48:41.182 --> 00:48:44.590 some transplants. Now the.
NOTE Confidence: 0.808720765

00:48:44.590 --> 00:48:46.576 The the electrical surgeon who was
NOTE Confidence: 0.808720765

00:48:46.576 --> 00:48:49.010 who was also at the cocktail party
NOTE Confidence: 0.808720765

00:48:49.010 --> 00:48:52.968 so so we we the two of us went
NOTE Confidence: 0.808720765

00:48:52.970 --> 00:48:54.438 into totally unknown territory.
NOTE Confidence: 0.74594647

00:48:57.930 --> 00:49:02.280 And we had a we had.
NOTE Confidence: 0.74594647

00:49:02.280 --> 00:49:04.835 Basically what we were looking at was
NOTE Confidence: 0.74594647

00:49:04.835 --> 00:49:07.699 to see the viability of the tissues
NOTE Confidence: 0.74594647

00:49:07.699 --> 00:49:10.747 that we were getting because the our
NOTE Confidence: 0.74594647

00:49:10.747 --> 00:49:14.366 our patients were a group of Yale
NOTE Confidence: 0.74594647

00:49:14.366 --> 00:49:17.349 undergraduates who are coming back from

NOTE Confidence: 0.74594647

00:49:17.350 --> 00:49:21.865 chasing girls up in in in Massachusetts.

NOTE Confidence: 0.74594647

00:49:21.870 --> 00:49:24.355 Because that's where the girls all the

NOTE Confidence: 0.74594647

00:49:24.355 --> 00:49:27.326 troops were and they they ran into fog.

NOTE Confidence: 0.74594647

00:49:27.330 --> 00:49:33.070 Mine on I-91 and it was it terrible

NOTE Confidence: 0.74594647

00:49:33.070 --> 00:49:37.269 and six or eight of them were killed.

NOTE Confidence: 0.74594647

00:49:37.270 --> 00:49:40.120 And their parents actually were

NOTE Confidence: 0.74594647

00:49:40.120 --> 00:49:43.526 the ones who suggested that they

NOTE Confidence: 0.74594647

00:49:43.526 --> 00:49:46.614 that they that they be selected

NOTE Confidence: 0.74594647

00:49:46.614 --> 00:49:49.672 for transplant at the donors,

NOTE Confidence: 0.74594647

00:49:49.672 --> 00:49:53.345 and so that was those were the first ones,

NOTE Confidence: 0.74594647

00:49:53.350 --> 00:49:56.710 that that way I had to look at.

NOTE Confidence: 0.74594647

00:49:56.710 --> 00:49:59.440 And then The thing is that we

NOTE Confidence: 0.74594647

00:49:59.440 --> 00:50:01.589 hadn't got transplants here before.

NOTE Confidence: 0.74594647

00:50:01.590 --> 00:50:04.280 These were the first transplants.

NOTE Confidence: 0.74594647

00:50:04.280 --> 00:50:07.577 And it was important to know whether.

NOTE Confidence: 0.74594647

00:50:07.580 --> 00:50:10.408 That whether they were.
NOTE Confidence: 0.74594647

00:50:10.410 --> 00:50:12.030 Whether they would they would
NOTE Confidence: 0.74594647

00:50:12.030 --> 00:50:14.235 bear with rejection or not at all
NOTE Confidence: 0.74594647

00:50:14.235 --> 00:50:16.055 over the period of time that they
NOTE Confidence: 0.74594647

00:50:16.055 --> 00:50:17.888 were being observed clinically.
NOTE Confidence: 0.74594647

00:50:17.890 --> 00:50:21.110 And so again, we had to learn.
NOTE Confidence: 0.74594647

00:50:21.110 --> 00:50:23.520 Or I had to learn.
NOTE Confidence: 0.74594647

00:50:23.520 --> 00:50:25.604 And I, but again,
NOTE Confidence: 0.74594647

00:50:25.604 --> 00:50:28.209 I learned with the clinician.
NOTE Confidence: 0.74594647

00:50:28.210 --> 00:50:32.193 And and and we we came up
NOTE Confidence: 0.74594647

00:50:32.193 --> 00:50:34.570 with actually the 1st.
NOTE Confidence: 0.74594647

00:50:34.570 --> 00:50:37.730 Regret categorization of of of
NOTE Confidence: 0.74594647

00:50:37.730 --> 00:50:42.828 transplant rejection and it was because.
NOTE Confidence: 0.74594647

00:50:42.830 --> 00:50:45.707 I I if I did it alone,
NOTE Confidence: 0.74594647

00:50:45.710 --> 00:50:48.958 it would not have been as as important.
NOTE Confidence: 0.74594647

00:50:48.960 --> 00:50:52.720 The fact that the that I did it with a

NOTE Confidence: 0.74594647

00:50:52.822 --> 00:50:57.174 clinician at my side was was very important.

NOTE Confidence: 0.74594647

00:50:57.180 --> 00:50:58.286 And actually,

NOTE Confidence: 0.74594647

00:50:58.286 --> 00:51:02.710 when when you talked about that the klatskin,

NOTE Confidence: 0.74594647

00:51:02.710 --> 00:51:05.182 the first renal biopsies that were

NOTE Confidence: 0.74594647

00:51:05.182 --> 00:51:07.810 that were being done when I came

NOTE Confidence: 0.74594647

00:51:07.810 --> 00:51:09.806 back in Doctor Clasko's laboratory.

NOTE Confidence: 0.74594647

00:51:09.806 --> 00:51:11.078 Because he was.

NOTE Confidence: 0.74594647

00:51:11.080 --> 00:51:13.056 He's already experienced at

NOTE Confidence: 0.74594647

00:51:13.056 --> 00:51:14.538 doing liver biopsies,

NOTE Confidence: 0.74594647

00:51:14.540 --> 00:51:17.250 and his laboratory was experienced

NOTE Confidence: 0.74594647

00:51:17.250 --> 00:51:20.527 in making the thin sections and

NOTE Confidence: 0.74594647

00:51:20.527 --> 00:51:23.869 staining them well and limiting the

NOTE Confidence: 0.74594647

00:51:23.869 --> 00:51:27.667 variabilities and it it gave us.

NOTE Confidence: 0.74594647

00:51:27.670 --> 00:51:30.390 The opportunity to do it.

NOTE Confidence: 0.74594647

00:51:30.390 --> 00:51:32.889 The other thing that he did was.

NOTE Confidence: 0.74594647

00:51:32.890 --> 00:51:36.448 With every biopsy that he did.
NOTE Confidence: 0.74594647

00:51:36.450 --> 00:51:38.166 He he had,
NOTE Confidence: 0.74594647

00:51:38.166 --> 00:51:43.320 he created a card with punch holes in them.
NOTE Confidence: 0.74594647

00:51:43.320 --> 00:51:45.417 You had a card with punch holes in them,
NOTE Confidence: 0.74594647

00:51:45.420 --> 00:51:48.292 and each of the punch holes meant meant
NOTE Confidence: 0.74594647

00:51:48.292 --> 00:51:50.259 meant something about the the the.
NOTE Confidence: 0.74594647

00:51:50.260 --> 00:51:51.780 The laboratory findings that
NOTE Confidence: 0.74594647

00:51:51.780 --> 00:51:53.680 clinical findings and so on.
NOTE Confidence: 0.74594647

00:51:53.680 --> 00:51:56.376 So if you wanted to find out something
NOTE Confidence: 0.74594647

00:51:56.376 --> 00:51:58.860 would stick a needle into the into the
NOTE Confidence: 0.74594647

00:51:58.860 --> 00:52:01.439 bunch and then pull out the pull out
NOTE Confidence: 0.74594647

00:52:01.439 --> 00:52:08.648 the the group and and so that was when.
NOTE Confidence: 0.74594647

00:52:08.650 --> 00:52:11.692 Actually I was working with working
NOTE Confidence: 0.74594647

00:52:11.692 --> 00:52:15.080 with John Hazlett in the in in the.
NOTE Confidence: 0.74594647

00:52:15.080 --> 00:52:17.700 In these patients with lupus,
NOTE Confidence: 0.74594647

00:52:17.700 --> 00:52:19.835 and we essentially did the same thing,

NOTE Confidence: 0.74594647
00:52:19.840 --> 00:52:20.761 but I didn't.
NOTE Confidence: 0.74594647
00:52:20.761 --> 00:52:22.296 I didn't have punch cards,
NOTE Confidence: 0.74594647
00:52:22.300 --> 00:52:25.002 but but it was a matter of
NOTE Confidence: 0.74594647
00:52:25.002 --> 00:52:28.240 tabulating the data in such a way
NOTE Confidence: 0.74594647
00:52:28.240 --> 00:52:31.820 that the data was not static.
NOTE Confidence: 0.74594647
00:52:31.820 --> 00:52:35.110 The data was was was.
NOTE Confidence: 0.74594647
00:52:35.110 --> 00:52:38.260 Something which was was predictive
NOTE Confidence: 0.74594647
00:52:38.260 --> 00:52:42.060 and and was and and we didn't even
NOTE Confidence: 0.74594647
00:52:42.060 --> 00:52:45.220 know it was going to be predicted.
NOTE Confidence: 0.74594647
00:52:45.220 --> 00:52:47.698 And so without trying we could.
NOTE Confidence: 0.74594647
00:52:47.700 --> 00:52:49.544 We couldn't do anything.
NOTE Confidence: 0.74594647
00:52:49.544 --> 00:52:53.598 But but we try and we did.
NOTE Confidence: 0.74594647
00:52:53.600 --> 00:52:56.430 And and you know, that's.
NOTE Confidence: 0.833424834285714
00:52:56.430 --> 00:52:58.743 The opportunities here.
NOTE Confidence: 0.833424834285714
00:52:58.743 --> 00:53:01.827 In pathology are enormous.
NOTE Confidence: 0.833424834285714

00:53:01.830 --> 00:53:02.922 You just have to.
NOTE Confidence: 0.833424834285714

00:53:02.922 --> 00:53:05.221 You just have to decide to think for
NOTE Confidence: 0.833424834285714

00:53:05.221 --> 00:53:07.300 them and think about them and do.
NOTE Confidence: 0.697560493666667

00:53:10.540 --> 00:53:12.961 And I like doing it if the in in
NOTE Confidence: 0.697560493666667

00:53:12.961 --> 00:53:15.733 renal disease and and the fact
NOTE Confidence: 0.697560493666667

00:53:15.733 --> 00:53:18.916 that we now have over 10,000,
NOTE Confidence: 0.697560493666667

00:53:18.916 --> 00:53:24.260 maybe even more a year, years of experience.
NOTE Confidence: 0.697560493666667

00:53:24.260 --> 00:53:27.608 Well, I I produced in Atlas.
NOTE Confidence: 0.697560493666667

00:53:27.610 --> 00:53:29.650 Yes, it was actually.
NOTE Confidence: 0.697560493666667

00:53:29.650 --> 00:53:32.200 A clinician who wrote a
NOTE Confidence: 0.697560493666667

00:53:32.200 --> 00:53:34.800 big tone on nephrology.
NOTE Confidence: 0.697560493666667

00:53:34.800 --> 00:53:40.069 Came to me, I think maybe 20 years ago and
NOTE Confidence: 0.697560493666667

00:53:40.069 --> 00:53:44.040 said we need an Atlas of the pathology.
NOTE Confidence: 0.697560493666667

00:53:44.040 --> 00:53:48.508 To go along with this with this arbeitete,
NOTE Confidence: 0.697560493666667

00:53:48.508 --> 00:53:52.920 our big textbook of of of nephrology.
NOTE Confidence: 0.697560493666667

00:53:52.920 --> 00:53:59.424 And so I I got I got I.

NOTE Confidence: 0.697560493666667
00:53:59.430 --> 00:54:00.666 Wanted to do it by myself.
NOTE Confidence: 0.697560493666667
00:54:00.670 --> 00:54:02.418 I know I couldn't.
NOTE Confidence: 0.697560493666667
00:54:02.418 --> 00:54:03.729 And I didn't.
NOTE Confidence: 0.697560493666667
00:54:03.730 --> 00:54:05.660 I was unhappy about doing
NOTE Confidence: 0.697560493666667
00:54:05.660 --> 00:54:08.610 it with a with a committee.
NOTE Confidence: 0.697560493666667
00:54:08.610 --> 00:54:11.508 The committees don't get very much done.
NOTE Confidence: 0.875994792857143
00:54:13.680 --> 00:54:19.604 And so I was lucky to recruit Agnes Fogel.
NOTE Confidence: 0.875994792857143
00:54:19.604 --> 00:54:23.696 And so the two of us.
NOTE Confidence: 0.875994792857143
00:54:23.700 --> 00:54:26.864 Put everything that we knew and from
NOTE Confidence: 0.875994792857143
00:54:26.864 --> 00:54:29.558 our selections in into that book.
NOTE Confidence: 0.875994792857143
00:54:29.560 --> 00:54:31.870 And so the. The 4th edition
NOTE Confidence: 0.875994792857143
00:54:31.870 --> 00:54:34.250 just came out just came out.
NOTE Confidence: 0.920851472
00:54:42.440 --> 00:54:43.850 Well, thank you for listening.