WEBVTT

NOTE duration:"00:59:24"

NOTE recognizability:0.880

NOTE language:en-us

NOTE Confidence: 0.81106995

00:00:03.520 --> 00:00:04.609 Get started then.

NOTE Confidence: 0.622007845714286

00:00:39.510 --> 00:00:44.445 Hi everyone, welcome to today's grand round.

NOTE Confidence: 0.622007845714286

00:00:44.450 --> 00:00:49.920 Our speaker today is Dr. Ian Cray.

NOTE Confidence: 0.622007845714286

00:00:49.920 --> 00:00:54.066 Ian is a pathologist and an

NOTE Confidence: 0.622007845714286

00:00:54.066 --> 00:00:56.139 international civil servant.

NOTE Confidence: 0.622007845714286

00:00:56.140 --> 00:00:59.392 Is based at the International Agency

NOTE Confidence: 0.622007845714286

00:00:59.392 --> 00:01:02.764 for Research on Cancer in Lyon,

NOTE Confidence: 0.622007845714286

00:01:02.764 --> 00:01:06.978 where Ian is the head of humor

NOTE Confidence: 0.622007845714286

00:01:06.978 --> 00:01:09.245 classification responsible for all

NOTE Confidence: 0.622007845714286

00:01:09.245 --> 00:01:13.130 the blue books that we keep buying.

NOTE Confidence: 0.622007845714286

00:01:13.130 --> 00:01:15.426 And he is also head of evidence,

NOTE Confidence: 0.622007845714286

00:01:15.430 --> 00:01:19.930 synthesis and classification.

NOTE Confidence: 0.622007845714286

00:01:19.930 --> 00:01:25.124 He ended his undergraduate education at the

NOTE Confidence: 0.622007845714286

00:01:25.124 --> 00:01:29.667 University of Dundee and then his MBCHB,

NOTE Confidence: 0.622007845714286

00:01:29.670 --> 00:01:33.090 followed by a PhD in Immunology

NOTE Confidence: 0.622007845714286

00:01:33.090 --> 00:01:37.572 at the same place, and even then

NOTE Confidence: 0.622007845714286

00:01:37.572 --> 00:01:39.974 finished his pathology training.

NOTE Confidence: 0.622007845714286

00:01:39.974 --> 00:01:42.776 He was trained as a general

NOTE Confidence: 0.622007845714286

00:01:42.776 --> 00:01:44.920 pathologist at the same place,

NOTE Confidence: 0.622007845714286

00:01:44.920 --> 00:01:47.131 becoming a consultant

NOTE Confidence: 0.622007845714286

00:01:47.131 --> 00:01:50.816 pathologist in his alma mater.

NOTE Confidence: 0.622007845714286

00:01:50.820 --> 00:01:52.155 But since then,

NOTE Confidence: 0.622007845714286

00:01:52.155 --> 00:01:55.026 Ian has moved several times his

NOTE Confidence: 0.622007845714286

00:01:55.026 --> 00:01:58.256 previous positions held were senior

NOTE Confidence: 0.622007845714286

00:01:58.256 --> 00:02:02.859 lecturer and at the Institute of

NOTE Confidence: 0.622007845714286

00:02:02.859 --> 00:02:05.986 Ophthalmology and Ian mentioned that

NOTE Confidence: 0.622007845714286

00:02:05.986 --> 00:02:09.250 his major work was in ophthalmologic

NOTE Confidence: 0.622007845714286

00:02:09.342 --> 00:02:11.940 pathology and he got so excited

NOTE Confidence: 0.622007845714286

00:02:11.940 --> 00:02:15.058 with it that he was instrumentally

00:02:15.058 --> 00:02:18.666 involved with the first blue book

00:02:18.666 --> 00:02:21.744 on my pathology and his working.

00:02:21.750 --> 00:02:25.620 To bring out the second edition,

00:02:25.620 --> 00:02:27.470 or rather the 5th edition,

00:02:27.470 --> 00:02:31.134 what would be equivalent to the 5th edition?

00:02:31.140 --> 00:02:33.984 He went on to become consultant

00:02:33.984 --> 00:02:36.515 pathologist and a professor of

00:02:36.515 --> 00:02:38.703 histopathology at Queen Alexandra

00:02:38.703 --> 00:02:41.438 Hospital in Portsmouth and then

00:02:41.520 --> 00:02:44.055 Southampton in England and then

00:02:44.055 --> 00:02:47.185 became a professor of pathology at

00:02:47.185 --> 00:02:50.755 University of Warwick and a consultant

00:02:50.755 --> 00:02:53.520 pathologist at University Hospitals.

00:02:53.520 --> 00:02:55.560 In Coventry and Warwickshire,

00:02:55.560 --> 00:02:59.185 and just when he was getting ready

00:02:59.185 --> 00:03:02.047 to retire as the British system.

NOTE Confidence: 0.622007845714286

00:03:02.050 --> 00:03:05.865 And courageous their sin apologist to retire.

NOTE Confidence: 0.622007845714286

00:03:05.870 --> 00:03:09.474 He got an offer from Dublin to help

NOTE Confidence: 0.622007845714286

00:03:09.474 --> 00:03:13.163 them publish the new series of Blue

NOTE Confidence: 0.622007845714286

00:03:13.163 --> 00:03:17.081 books and become an international civil

NOTE Confidence: 0.622007845714286

00:03:17.081 --> 00:03:21.550 servant and of course moved to France.

NOTE Confidence: 0.622007845714286

00:03:21.550 --> 00:03:24.952 So just to give an idea that

NOTE Confidence: 0.622007845714286

00:03:24.952 --> 00:03:26.658 the series Blue Book,

NOTE Confidence: 0.622007845714286

00:03:26.658 --> 00:03:30.472 this is what they look like for those of

NOTE Confidence: 0.622007845714286

00:03:30.472 --> 00:03:33.566 us who are not in diagnostic pathology,

NOTE Confidence: 0.622007845714286

00:03:33.570 --> 00:03:37.050 and Ian has been involved with the 4th

NOTE Confidence: 0.622007845714286

00:03:37.050 --> 00:03:40.230 edition of the skin tumor Blue Book,

NOTE Confidence: 0.622007845714286

00:03:40.230 --> 00:03:43.822 the eye tumors and he is on the

NOTE Confidence: 0.622007845714286

00:03:43.822 --> 00:03:46.882 editorial board of the 5th editions

NOTE Confidence: 0.622007845714286

00:03:46.882 --> 00:03:49.978 of tumors of the digestive system.

NOTE Confidence: 0.622007845714286

00:03:49.980 --> 00:03:52.004 Breast humors soft tissue.

NOTE Confidence: 0.622007845714286

00:03:52.004 --> 00:03:53.016 In bone,

NOTE Confidence: 0.622007845714286

00:03:53.020 --> 00:03:55.800 female genital tract tumors

NOTE Confidence: 0.622007845714286

00:03:55.800 --> 00:03:57.885 and thoracic tumors,

NOTE Confidence: 0.622007845714286

00:03:57.890 --> 00:04:00.998 Ian's career has been built on

NOTE Confidence: 0.622007845714286

00:04:00.998 --> 00:04:02.552 translational path ologist,

NOTE Confidence: 0.622007845714286

00:04:02.560 --> 00:04:04.988 and on translational pathology,

NOTE Confidence: 0.622007845714286

00:04:04.988 --> 00:04:09.366 and he was involved in developing a

NOTE Confidence: 0.622007845714286

00:04:09.366 --> 00:04:12.556 number of molecular diagnostic methods,

NOTE Confidence: 0.622007845714286

00:04:12.560 --> 00:04:16.052 and he let you kiss early

NOTE Confidence: 0.622007845714286

00:04:16.052 --> 00:04:17.798 Cancer detection consortium.

NOTE Confidence: 0.622007845714286

00:04:17.800 --> 00:04:21.586 He has published more than 270.

NOTE Confidence: 0.622007845714286

00:04:21.586 --> 00:04:25.993 Papers and more than 150 of them

NOTE Confidence: 0.622007845714286

00:04:25.993 --> 00:04:28.759 were as first and last authors,

NOTE Confidence: 0.622007845714286

00:04:28.760 --> 00:04:31.976 and has been a coauthor in

NOTE Confidence: 0.622007845714286

00:04:31.976 --> 00:04:35.200 more than in about 8 books.

NOTE Confidence: 0.622007845714286

00:04:35.200 --> 00:04:38.324 So with that proof.

NOTE Confidence: 0.622007845714286

00:04:38.324 --> 00:04:39.886 Brief introduction.

NOTE Confidence: 0.622007845714286

00:04:39.890 --> 00:04:43.404 They will let Ian take the floor.

NOTE Confidence: 0.622007845714286

00:04:43.410 --> 00:04:43.690 Thank

NOTE Confidence: 0.85504359

00:04:43.700 --> 00:04:45.800 you very much. I'll start by saying

NOTE Confidence: 0.85504359

00:04:45.800 --> 00:04:48.209 thank you to to you for inviting me.

NOTE Confidence: 0.85504359

00:04:48.210 --> 00:04:50.128 It's a great pleasure to be here,

NOTE Confidence: 0.85504359

00:04:50.130 --> 00:04:51.156 at least virtually.

NOTE Confidence: 0.85504359

00:04:51.156 --> 00:04:53.550 I'm sorry I can't see the autumn

NOTE Confidence: 0.85504359

00:04:53.618 --> 00:04:55.903 colors around you and get to see

NOTE Confidence: 0.85504359

00:04:55.903 --> 00:04:57.709 and meet some of you properly,

NOTE Confidence: 0.85504359

00:04:57.710 --> 00:05:00.160 but maybe in the future. Who knows.

NOTE Confidence: 0.85504359

00:05:00.160 --> 00:05:02.295 I'm going to start by sharing my

NOTE Confidence: 0.85504359

00:05:02.295 --> 00:05:04.111 screen if I may, because I think

NOTE Confidence: 0.85504359

00:05:04.111 --> 00:05:05.893 that's the first order of business.

NOTE Confidence: 0.85504359

00:05:05.900 --> 00:05:09.057 Uhm, hopefully you can all see that.

NOTE Confidence: 0.85504359

00:05:09.060 --> 00:05:11.940 Uh, the.

NOTE Confidence: 0.85504359

00:05:11.940 --> 00:05:14.685 So this is the point where you have to

NOTE Confidence: 0.85504359

00:05:14.685 --> 00:05:17.533 shout if you can't because once I put

NOTE Confidence: 0.85504359

00:05:17.533 --> 00:05:19.778 the presentation on I can't see you.

NOTE Confidence: 0.85504359

00:05:19.780 --> 00:05:22.310 So I think

NOTE Confidence: 0.9236427575

00:05:22.310 --> 00:05:23.070 we can see it

NOTE Confidence: 0.845910708

00:05:23.480 --> 00:05:27.180 good. Alright, let's go so.

NOTE Confidence: 0.845910708

00:05:27.180 --> 00:05:30.400 I was asked to talk about the.

NOTE Confidence: 0.845910708

00:05:30.400 --> 00:05:31.375 Processes and challenges.

NOTE Confidence: 0.845910708

00:05:31.375 --> 00:05:33.325 And this is not yet coming.

NOTE Confidence: 0.845910708

00:05:33.330 --> 00:05:34.380 Sorry though,

NOTE Confidence: 0.845910708

00:05:34.380 --> 00:05:39.510 it is of The Who blue books and.

NOTE Confidence: 0.845910708

00:05:39.510 --> 00:05:42.378 It's it's certainly had its challenges,

NOTE Confidence: 0.845910708

00:05:42.380 --> 00:05:43.685 and one of the challenges

NOTE Confidence: 0.845910708

00:05:43.685 --> 00:05:44.729 has been the process,

NOTE Confidence: 0.845910708

00:05:44.730 --> 00:05:46.906 so I think it's a fairly good title,

NOTE Confidence: 0.845910708

00:05:46.910 --> 00:05:48.210 actually. First of all,

NOTE Confidence: 0.845910708

00:05:48.210 --> 00:05:49.510 the declaration of interests.

NOTE Confidence: 0.845910708

00:05:49.510 --> 00:05:51.351 I am a pathologist has been said

NOTE Confidence: 0.845910708

00:05:51.351 --> 00:05:53.003 and based at the International

NOTE Confidence: 0.845910708

00:05:53.003 --> 00:05:55.008 Agency for Research on Cancer,

NOTE Confidence: 0.845910708

00:05:55.010 --> 00:05:56.768 which is a part of the

NOTE Confidence: 0.845910708

00:05:56.768 --> 00:05:57.647 World Health Organization.

NOTE Confidence: 0.845910708

00:05:57.650 --> 00:05:59.910 But the opinions I'm expressing

NOTE Confidence: 0.845910708

00:05:59.910 --> 00:06:01.718 our of course personal.

NOTE Confidence: 0.845910708

00:06:01.720 --> 00:06:02.878 I'm going to start with this.

NOTE Confidence: 0.845910708

00:06:02.880 --> 00:06:05.435 This is one of my favorite slides.

NOTE Confidence: 0.845910708

00:06:05.440 --> 00:06:08.180 Now I have to say it's a picture of Carl,

NOTE Confidence: 0.845910708

00:06:08.180 --> 00:06:10.540 Aeneas and Linnaeus described the

NOTE Confidence: 0.845910708

00:06:10.540 --> 00:06:13.845 natural world around us and we still

NOTE Confidence: 0.845910708

00:06:13.845 --> 00:06:16.443 use the classification that he put

NOTE Confidence: 0.845910708

00:06:16.443 --> 00:06:18.563 together and published in 1758.

NOTE Confidence: 0.845910708

00:06:18.563 --> 00:06:20.750 And if any of the blue books are still

NOTE Confidence: 0.845910708

00:06:20.815 --> 00:06:22.699 knocking around in 300 years time,

NOTE Confidence: 0.845910708

00:06:22.700 --> 00:06:24.720 I should be extremely pleased.

NOTE Confidence: 0.845910708

00:06:24.720 --> 00:06:28.350 But I'm afraid I won't be here to see it.

NOTE Confidence: 0.845910708

00:06:28.350 --> 00:06:29.805 The natural progression,

NOTE Confidence: 0.845910708

00:06:29.805 --> 00:06:31.745 though of all taxonomies,

NOTE Confidence: 0.845910708

00:06:31.750 --> 00:06:34.038 is that they evolved.

NOTE Confidence: 0.845910708

00:06:34.040 --> 00:06:37.519 And the natural our taxonomy of the

NOTE Confidence: 0.845910708

00:06:37.519 --> 00:06:41.019 natural world is also still evolving.

NOTE Confidence: 0.845910708

00:06:41.020 --> 00:06:43.974 This was a story from last Christmas.

NOTE Confidence: 0.845910708

00:06:43.980 --> 00:06:45.900 Nice Christmas story.

NOTE Confidence: 0.845910708

00:06:45.900 --> 00:06:47.180 Gentoo Penguins,

NOTE Confidence: 0.845910708

00:06:47.180 --> 00:06:48.930 which all look rather similar.

NOTE Confidence: 0.845910708

00:06:48.930 --> 00:06:51.510 There were actually two species,

NOTE Confidence: 0.845910708

00:06:51.510 --> 00:06:52.920 but now there are four,

NOTE Confidence: 0.845910708

00:06:52.920 --> 00:06:55.160 and that's on the basis of genetics.

NOTE Confidence: 0.845910708

00:06:55.160 --> 00:06:56.468 And that's exactly the same thing

NOTE Confidence: 0.845910708

00:06:56.468 --> 00:06:57.939 that's happening to a lot of tumors.

NOTE Confidence: 0.845910708

00:06:57.940 --> 00:06:59.096 Of course,

NOTE Confidence: 0.845910708

00:06:59.096 --> 00:07:00.830 where genetic investigation

NOTE Confidence: 0.845910708

00:07:00.830 --> 00:07:03.142 is proving very helpful.

NOTE Confidence: 0.845910708

00:07:03.150 --> 00:07:05.484 So taxonomy is the science of

NOTE Confidence: 0.845910708

00:07:05.484 --> 00:07:07.598 defining and naming groups of

NOTE Confidence: 0.845910708

00:07:07.598 --> 00:07:09.542 biological organisms on the

NOTE Confidence: 0.845910708

00:07:09.542 --> 00:07:11.486 basis of shared characteristics.

NOTE Confidence: 0.845910708

00:07:11.490 --> 00:07:14.532 And cancer classification is also based

NOTE Confidence: 0.845910708

00:07:14.532 --> 00:07:17.449 on the shared characteristics of cancers.

NOTE Confidence: 0.845910708

00:07:17.450 --> 00:07:18.875 That's currently mainly

NOTE Confidence: 0.845910708

00:07:18.875 --> 00:07:20.300 Histology and genetics,

NOTE Confidence: 0.845910708

00:07:20.300 --> 00:07:22.687 but it also includes things like radiology,

NOTE Confidence: 0.845910708

00:07:22.690 --> 00:07:24.778 cytology and a host of others.

NOTE Confidence: 0.911003403846154

00:07:27.000 --> 00:07:29.135 We take our remit for doing this

NOTE Confidence: 0.911003403846154

00:07:29.135 --> 00:07:31.578 from the 10th World Health Assembly,

NOTE Confidence: 0.911003403846154

00:07:31.580 --> 00:07:34.592 which in 1957 resolved to continue

NOTE Confidence: 0.911003403846154

00:07:34.592 --> 00:07:36.600 work on formulating international

NOTE Confidence: 0.911003403846154

00:07:36.675 --> 00:07:39.247 definitions of normal stature

NOTE Confidence: 0.911003403846154

00:07:39.247 --> 00:07:41.176 and statistical classification.

NOTE Confidence: 0.911003403846154

00:07:41.180 --> 00:07:43.616 The World Health Assembly is the governing

NOTE Confidence: 0.911003403846154

00:07:43.616 --> 00:07:46.408 body of the World Health Organization.

NOTE Confidence: 0.911003403846154

00:07:46.410 --> 00:07:51.720 It comprises 194 countries at the moment.

NOTE Confidence: 0.911003403846154

00:07:51.720 --> 00:07:54.802 I should say that I arc is a

NOTE Confidence: 0.911003403846154

00:07:54.802 --> 00:07:57.058 specialized agency of the World Health

NOTE Confidence: 0.911003403846154

00:07:57.060 --> 00:07:59.070 Organization and therefore it doesn't

NOTE Confidence: 0.911003403846154

00:07:59.070 --> 00:08:01.704 have the whole 194 to deal with.

NOTE Confidence: 0.911003403846154

00:08:01.704 --> 00:08:04.255 We've only got 28 and I think some of

NOTE Confidence: 0.911003403846154

00:08:04.255 --> 00:08:06.069 us feel that it's probably quite enough,

NOTE Confidence: 0.911003403846154

00:08:06.070 --> 00:08:09.250 but we would always like more.

NOTE Confidence: 0.911003403846154

00:08:09.250 --> 00:08:12.218 In the 4th edition, the WTO Bluebooks,

NOTE Confidence: 0.911003403846154

00:08:12.220 --> 00:08:14.895 which started in the 1960s, UM,

NOTE Confidence: 0.911003403846154

00:08:14.895 --> 00:08:19.480 became a synthesis of scientific evidence of

NOTE Confidence: 0.911003403846154

00:08:19.480 --> 00:08:23.238 illustrative cases and diagnostic criteria.

NOTE Confidence: 0.911003403846154

00:08:23.240 --> 00:08:26.740 They became indispensable to many

NOTE Confidence: 0.911003403846154

00:08:26.740 --> 00:08:29.848 pathologists because they gave you

NOTE Confidence: 0.911003403846154

00:08:29.848 --> 00:08:32.256 the international standards that

NOTE Confidence: 0.911003403846154

00:08:32.256 --> 00:08:35.228 were required to diagnose tumors.

NOTE Confidence: 0.911003403846154

00:08:35.230 --> 00:08:37.687 And I think that's where we owe

NOTE Confidence: 0.911003403846154

00:08:37.687 --> 00:08:40.260 them a great debt of gratitude.

NOTE Confidence: 0.911003403846154

00:08:40.260 --> 00:08:42.216 However, it must be said that

NOTE Confidence: 0.911003403846154

00:08:42.216 --> 00:08:43.520 not everybody was pleased.

NOTE Confidence: 0.911003403846154

00:08:43.520 --> 00:08:45.860 And those of you that have seen this slide

NOTE Confidence: 0.911003403846154

00:08:45.860 --> 00:08:47.737 before, and it has been around a bit.

NOTE Confidence: 0.911003403846154

00:08:47.740 --> 00:08:50.960 I got mine from that at Jabot and I'm very

NOTE Confidence: 0.911003403846154

00:08:51.037 --> 00:08:54.930 pleased to give her the credit for that.

NOTE Confidence: 0.911003403846154

00:08:54.930 --> 00:08:56.995 But here you can see a dinosaur.

NOTE Confidence: 0.911003403846154

00:08:57.000 --> 00:08:59.170 It's obviously a gynecological dinosaur,

NOTE Confidence: 0.911003403846154

00:08:59.170 --> 00:09:01.578 and it's eating a CNS blue book.

NOTE Confidence: 0.911003403846154

00:09:01.580 --> 00:09:03.584 I'm not sure they're actually suggesting

NOTE Confidence: 0.911003403846154

00:09:03.584 --> 00:09:05.222 that that guy, any pathologist,

NOTE Confidence: 0.911003403846154

00:09:05.222 --> 00:09:07.118 start reporting all the CNS pathologies.

NOTE Confidence: 0.911003403846154

00:09:07.120 --> 00:09:08.720 So don't worry too much.

NOTE Confidence: 0.911003403846154

00:09:08.720 --> 00:09:11.378 But certainly there were suggesting that

NOTE Confidence: 0.911003403846154

00:09:11.378 --> 00:09:14.030 these books were somewhat out of date.

NOTE Confidence: 0.911003403846154

00:09:14.030 --> 00:09:16.302 By the time they were published and they

NOTE Confidence: 0.911003403846154

00:09:16.302 --> 00:09:18.766 took about three years to publish each book.

NOTE Confidence: 0.911003403846154

00:09:18.770 --> 00:09:22.001 So that was one of the challenges the entire

NOTE Confidence: 0.911003403846154

00:09:22.001 --> 00:09:25.284 4th edition took over 12 years to publish,

NOTE Confidence: 0.911003403846154

00:09:25.290 --> 00:09:27.306 so it was a mammoth task,

NOTE Confidence: 0.911003403846154

00:09:27.310 --> 00:09:29.332 and one that a smartly small

NOTE Confidence: 0.911003403846154

00:09:29.332 --> 00:09:31.489 number of people took on and did,

NOTE Confidence: 0.911003403846154

00:09:31.490 --> 00:09:33.596 and we owe them a great debt of gratitude,

NOTE Confidence: 0.911003403846154

00:09:33.600 --> 00:09:35.820 of course.

NOTE Confidence: 0.911003403846154

00:09:35.820 --> 00:09:37.640 However, we needed to innovate.

NOTE Confidence: 0.911003403846154

00:09:37.640 --> 00:09:39.420 We needed to change things,

NOTE Confidence: 0.911003403846154

00:09:39.420 --> 00:09:41.370 so there are a number of

NOTE Confidence: 0.911003403846154

00:09:41.370 --> 00:09:43.280 innovations for the 5th edition.

NOTE Confidence: 0.911003403846154

00:09:43.280 --> 00:09:45.660 And these really fall into three categories.

NOTE Confidence: 0.911003403846154

00:09:45.660 --> 00:09:48.170 The first was better governance.

NOTE Confidence: 0.911003403846154

00:09:48.170 --> 00:09:50.384 The entire 4th edition was actually

NOTE Confidence: 0.911003403846154

00:09:50.384 --> 00:09:52.840 led by just three pathologists,

NOTE Confidence: 0.911003403846154

00:09:52.840 --> 00:09:56.596 and that's probably nothing like enough.

NOTE Confidence: 0.911003403846154

00:09:56.600 --> 00:09:59.060 I certainly when I was appointed,

NOTE Confidence: 0.911003403846154

00:09:59.060 --> 00:10:01.540 didn't wish to try and lead it myself,

NOTE Confidence: 0.911003403846154

00:10:01.540 --> 00:10:03.716 and therefore I decided it would be a

NOTE Confidence: 0.911003403846154

00:10:03.716 --> 00:10:05.889 good idea to have an editorial board.

NOTE Confidence: 0.911003403846154

00:10:05.890 --> 00:10:08.851 And I borrowed from the National Institute

NOTE Confidence: 0.911003403846154

00:10:08.851 --> 00:10:10.830 for Clinical Excellence in the UK,

NOTE Confidence: 0.911003403846154

00:10:10.830 --> 00:10:13.861 which in its committees has both standing

NOTE Confidence: 0.911003403846154

00:10:13.861 --> 00:10:16.147 and expert members and the standing

NOTE Confidence: 0.911003403846154

00:10:16.147 --> 00:10:18.121 members are there to provide the

NOTE Confidence: 0.911003403846154

00:10:18.121 --> 00:10:19.928 continuity and the overall expertise,

NOTE Confidence: 0.911003403846154

00:10:19.930 --> 00:10:21.100 and they're usually

NOTE Confidence: 0.911003403846154

00:10:21.100 --> 00:10:22.270 fairly senior individuals.

NOTE Confidence: 0.911003403846154

00:10:22.270 --> 00:10:25.054 The experts are there to provide

NOTE Confidence: 0.911003403846154

00:10:25.054 --> 00:10:28.148 the hard experts opinion that's

NOTE Confidence: 0.911003403846154

00:10:28.148 --> 00:10:31.210 required to make decisions within

NOTE Confidence: 0.911003403846154

00:10:31.210 --> 00:10:32.500 health technology assessment.

NOTE Confidence: 0.911003403846154

00:10:32.500 --> 00:10:35.739 In the case of Nice or classification

NOTE Confidence: 0.911003403846154

00:10:35.739 --> 00:10:37.488 in this instance.

NOTE Confidence: 0.911003403846154

00:10:37.490 --> 00:10:39.303 And we try to do what we

NOTE Confidence: 0.911003403846154

00:10:39.303 --> 00:10:40.810 do based on evidence,

NOTE Confidence: 0.911003403846154

00:10:40.810 --> 00:10:42.695 and that now includes things

NOTE Confidence: 0.911003403846154

00:10:42.695 --> 00:10:43.826 like systematic reviews,

NOTE Confidence: 0.911003403846154

00:10:43.830 --> 00:10:45.118 which historically pathologists have

NOTE Confidence: 0.911003403846154

00:10:45.118 --> 00:10:47.340 not really been involved in very much.

NOTE Confidence: 0.911235597142857

00:10:49.390 --> 00:10:53.254 We are about evidence and not eminence.

NOTE Confidence: 0.911235597142857

00:10:53.260 --> 00:10:56.710 Expert opinion is still is still

NOTE Confidence: 0.911235597142857

00:10:56.710 --> 00:10:59.618 very relevant, but it's not.

NOTE Confidence: 0.911235597142857

00:10:59.618 --> 00:11:02.548 It's not of great significance.

NOTE Confidence: 0.911235597142857

00:11:02.550 --> 00:11:05.970 It's really important that we.

NOTE Confidence: 0.911235597142857

00:11:05.970 --> 00:11:09.350 Have also selection by informed

NOTE Confidence: 0.911235597142857

00:11:09.350 --> 00:11:13.740 Bibliometrics and we we we.

NOTE Confidence: 0.911235597142857

00:11:13.740 --> 00:11:16.806 We use both author and editor

NOTE Confidence: 0.911235597142857

00:11:16.806 --> 00:11:18.505 selection using this process,

16

NOTE Confidence: 0.911235597142857

00:11:18.505 --> 00:11:21.811 which allows us to look at what people

NOTE Confidence: 0.911235597142857

00:11:21.811 --> 00:11:24.535 have published and decide what is.

NOTE Confidence: 0.911235597142857

00:11:24.540 --> 00:11:27.067 What is is is most fair in

NOTE Confidence: 0.911235597142857

00:11:27.067 --> 00:11:29.680 in terms of who to appoint.

NOTE Confidence: 0.911235597142857

00:11:29.680 --> 00:11:31.650 It's not a simple process,

NOTE Confidence: 0.911235597142857

00:11:31.650 --> 00:11:34.098 it's something we have to do quite carefully,

NOTE Confidence: 0.911235597142857

00:11:34.100 --> 00:11:35.624 because clearly we don't want everybody

NOTE Confidence: 0.911235597142857

00:11:35.624 --> 00:11:37.559 to come from one country or another.

NOTE Confidence: 0.911235597142857

00:11:37.560 --> 00:11:39.808 We want to have a geographical spread as

NOTE Confidence: 0.911235597142857

00:11:39.808 --> 00:11:42.598 well as a spread of expertise and experience,

NOTE Confidence: 0.911235597142857

00:11:42.600 --> 00:11:45.183 and we try and do that using a system

NOTE Confidence: 0.911235597142857

00:11:45.183 --> 00:11:47.366 which we've actually developed called

NOTE Confidence: 0.911235597142857

00:11:47.366 --> 00:11:50.096 the Blue Book Expert Selection Tool,

NOTE Confidence: 0.911235597142857

00:11:50.100 --> 00:11:53.508 which is a form of cross.

NOTE Confidence: 0.911235597142857

00:11:53.510 --> 00:11:56.870 It uses cross referencing to identify

NOTE Confidence: 0.911235597142857

00:11:56.870 --> 00:11:59.647 papers published by authors and

NOTE Confidence: 0.911235597142857

00:11:59.647 --> 00:12:02.305 who they have Co published with,

NOTE Confidence: 0.911235597142857

00:12:02.310 --> 00:12:05.460 so it's a Co citation system.

NOTE Confidence: 0.911235597142857

00:12:05.460 --> 00:12:06.936 I'm not going to talk about that much more,

NOTE Confidence: 0.911235597142857

00:12:06.940 --> 00:12:07.413 actually,

NOTE Confidence: 0.911235597142857

00:12:07.413 --> 00:12:09.778 'cause it's it's quite complex.

NOTE Confidence: 0.911235597142857

00:12:09.780 --> 00:12:12.956 In terms of quality.

NOTE Confidence: 0.911235597142857

00:12:12.956 --> 00:12:13.750 Uhm?

NOTE Confidence: 0.911235597142857

00:12:13.750 --> 00:12:16.360 We've got a hierarchical classification

NOTE Confidence: 0.911235597142857

00:12:16.360 --> 00:12:17.926 using Linnane principles,

NOTE Confidence: 0.911235597142857

00:12:17.930 --> 00:12:21.689 and that gives us some tremendous scope

NOTE Confidence: 0.911235597142857

00:12:21.689 --> 00:12:25.550 to collapse and expand particular

NOTE Confidence: 0.911235597142857

00:12:25.550 --> 00:12:28.870 diagnostic categories quite easily.

NOTE Confidence: 0.911235597142857

00:12:28.870 --> 00:12:29.830 In terms of quality,

NOTE Confidence: 0.911235597142857

00:12:29.830 --> 00:12:32.050 I'll talk about that a little bit more later,

NOTE Confidence: 0.911235597142857

00:12:32.050 --> 00:12:34.486 and we've certainly upped the quality

00:12:34.486 --> 00:12:37.273 of images we tried to ensure that

00:12:37.273 --> 00:12:40.004 references are up to date and relevant,

00:12:40.004 --> 00:12:42.746 and there's quite a bit more.

00:12:42.750 --> 00:12:45.750 We get our epidemiology from epidemiologists,

00:12:45.750 --> 00:12:47.750 which is a bit of a novel turn,

00:12:47.750 --> 00:12:49.904 but the epidemiologists in arc and

00:12:49.904 --> 00:12:52.977 there are a lot of them were fairly

00:12:52.977 --> 00:12:54.440 scathing about the pathologist's

00:12:54.440 --> 00:12:56.275 ability to do this, so we said,

00:12:56.275 --> 00:12:57.625 well, why don't you do it?

00:12:57.630 --> 00:13:00.310 And luckily, they said yes.

00:13:00.310 --> 00:13:02.095 We try to incorporate new

00:13:02.095 --> 00:13:03.523 information whenever we can,

00:13:03.530 --> 00:13:06.368 and we harmonize topics across series,

00:13:06.370 --> 00:13:08.677 particularly neuroendocrine neoplasms,

00:13:08.677 --> 00:13:09.446 humita,

NOTE Confidence: 0.911235597142857

00:13:09.446 --> 00:13:14.060 lymphoid disease and soft tissue tumors.

NOTE Confidence: 0.926105628888889

00:13:16.120 --> 00:13:18.238 We've improved the speed with which

NOTE Confidence: 0.926105628888889

00:13:18.238 --> 00:13:20.972 we can produce the books by just

NOTE Confidence: 0.926105628888889

00:13:20.972 --> 00:13:23.057 taking a process management approach.

NOTE Confidence: 0.926105628888889

00:13:23.060 --> 00:13:26.048 It's lean management, really.

NOTE Confidence: 0.926105628888889

00:13:26.050 --> 00:13:28.528 So we've tried to improve things

NOTE Confidence: 0.926105628888889

00:13:28.528 --> 00:13:31.147 at every stage by setting deadlines

NOTE Confidence: 0.926105628888889

00:13:31.147 --> 00:13:34.651 and trying to meet them and also by

NOTE Confidence: 0.926105628888889

00:13:34.740 --> 00:13:37.715 improving the way in which we handle

NOTE Confidence: 0.926105628888889

00:13:37.720 --> 00:13:41.136 matters in an automated fashion as far

NOTE Confidence: 0.926105628888889

00:13:41.136 --> 00:13:43.635 as possible within the software that

NOTE Confidence: 0.926105628888889

00:13:43.635 --> 00:13:46.050 we used to produce the whole thing.

NOTE Confidence: 0.926105628888889

00:13:46.050 --> 00:13:48.675 We have a website that allows easier

NOTE Confidence: 0.926105628888889

00:13:48.675 --> 00:13:50.853 access to references to whole slide

NOTE Confidence: 0.926105628888889

00:13:50.853 --> 00:13:53.310 images and it now allows notes and

NOTE Confidence: 0.926105628888889

00:13:53.389 --> 00:13:55.711 it also allows feedback so that

NOTE Confidence: 0.926105628888889

00:13:55.711 --> 00:13:57.998 then allows those that are part

NOTE Confidence: 0.926105628888889

00:13:57.998 --> 00:14:00.308 of the community that use and buy

NOTE Confidence: 0.926105628888889

00:14:00.308 --> 00:14:05.140 the books and the website too.

NOTE Confidence: 0.926105628888889

00:14:05.140 --> 00:14:06.841 Come back to us in a much easier way

NOTE Confidence: 0.926105628888889

00:14:06.841 --> 00:14:08.496 and a much more organized way too,

NOTE Confidence: 0.926105628888889

00:14:08.500 --> 00:14:11.400 which is probably better.

NOTE Confidence: 0.926105628888889

00:14:11.400 --> 00:14:12.648 So the 5th edition books look

NOTE Confidence: 0.926105628888889

00:14:12.648 --> 00:14:13.480 a little bit different.

NOTE Confidence: 0.926105628888889

00:14:13.480 --> 00:14:14.566 The 4th edition,

NOTE Confidence: 0.926105628888889

00:14:14.566 --> 00:14:16.738 they've got a slightly modernized cover.

NOTE Confidence: 0.926105628888889

00:14:16.740 --> 00:14:18.240 There are slightly lighter blue,

NOTE Confidence: 0.926105628888889

00:14:18.240 --> 00:14:20.520 so you can tell which is which on the shelf,

NOTE Confidence: 0.926105628888889

00:14:20.520 --> 00:14:22.613 and there's quite a lot of thought

NOTE Confidence: 0.926105628888889

00:14:22.613 --> 00:14:24.489 gone into the design of both

NOTE Confidence: 0.926105628888889

21

00:14:24.489 --> 00:14:26.009 the cover and the spine.

NOTE Confidence: 0.926105628888889

00:14:26.010 --> 00:14:28.145 We've kept the nine photographs in the

NOTE Confidence: 0.926105628888889

00:14:28.145 --> 00:14:30.153 front 'cause that makes them instantly

NOTE Confidence: 0.926105628888889

00:14:30.153 --> 00:14:32.870 recognizable as a WHO blue book.

NOTE Confidence: 0.926105628888889

00:14:32.870 --> 00:14:35.089 And we've gone for a two column

NOTE Confidence: 0.926105628888889

00:14:35.089 --> 00:14:35.723 format inside.

NOTE Confidence: 0.926105628888889

00:14:35.730 --> 00:14:36.846 So the photographs,

NOTE Confidence: 0.926105628888889

00:14:36.846 --> 00:14:39.450 which were rather small in the previous

NOTE Confidence: 0.926105628888889

00:14:39.520 --> 00:14:41.302 edition in a three column format

NOTE Confidence: 0.926105628888889

00:14:41.302 --> 00:14:43.690 and now on the whole much larger,

NOTE Confidence: 0.926105628888889

00:14:43.690 --> 00:14:45.638 and that certainly helped.

NOTE Confidence: 0.926105628888889

00:14:45.638 --> 00:14:47.586 We've incorporated clinical photographs.

NOTE Confidence: 0.926105628888889

00:14:47.590 --> 00:14:49.849 We've incorporated epidemiological

NOTE Confidence: 0.926105628888889

00:14:49.849 --> 00:14:52.956 graphs as well. Uh, diagrams.

NOTE Confidence: 0.926105628888889

00:14:52.956 --> 00:14:56.340 So there's a wealth of information in these.

NOTE Confidence: 0.926105628888889

00:14:56.340 --> 00:14:56.658 Volumes,

NOTE Confidence: 0.926105628888889

00:14:56.658 --> 00:14:58.884 but I should say at the outset

NOTE Confidence: 0.926105628888889

00:14:58.884 --> 00:15:00.519 they are not textbooks.

NOTE Confidence: 0.926105628888889

00:15:00.520 --> 00:15:03.537 This is a taxonomy would be describing

NOTE Confidence: 0.926105628888889

00:15:03.537 --> 00:15:06.112 the criteria for each tumor type,

NOTE Confidence: 0.926105628888889

00:15:06.112 --> 00:15:08.252 which results in that classification.

NOTE Confidence: 0.926105628888889

00:15:08.260 --> 00:15:09.694 We're not trying to tell you

NOTE Confidence: 0.926105628888889

00:15:09.694 --> 00:15:10.650 how to diagnose them,

NOTE Confidence: 0.926105628888889

00:15:10.650 --> 00:15:14.150 that's something that a textbook would do.

NOTE Confidence: 0.926105628888889

00:15:14.150 --> 00:15:16.438 In terms of who?

NOTE Confidence: 0.926105628888889

00:15:16.438 --> 00:15:17.010 Therefore,

NOTE Confidence: 0.926105628888889

00:15:17.010 --> 00:15:18.720 the other thing is that they're

NOTE Confidence: 0.926105628888889

00:15:18.720 --> 00:15:19.860 not just for pathologists,

NOTE Confidence: 0.926105628888889

00:15:19.860 --> 00:15:22.068 this is the taxonomy of cancer,

NOTE Confidence: 0.926105628888889

00:15:22.070 --> 00:15:27.236 and just as a gardener or a.

NOTE Confidence: 0.926105628888889

00:15:27.240 --> 00:15:29.065 A farmer will be interested

NOTE Confidence: 0.926105628888889

00:15:29.065 --> 00:15:31.330 in the plants on their land.

NOTE Confidence: 0.926105628888889

00:15:31.330 --> 00:15:33.412 People with different ideas of of

NOTE Confidence: 0.926105628888889

00:15:33.412 --> 00:15:35.627 what they want are quite capable

NOTE Confidence: 0.926105628888889

00:15:35.627 --> 00:15:37.907 of looking at the same taxonomy

NOTE Confidence: 0.926105628888889

00:15:37.907 --> 00:15:39.939 and getting something from it.

NOTE Confidence: 0.926105628888889

00:15:39.940 --> 00:15:42.196 The doublet show blue books then

NOTE Confidence: 0.926105628888889

00:15:42.196 --> 00:15:44.155 provide a definitive evidence based

NOTE Confidence: 0.926105628888889

00:15:44.155 --> 00:15:46.483 classification of all cancer types to

NOTE Confidence: 0.926105628888889

00:15:46.483 --> 00:15:48.870 enable diagnosis and research worldwide.

NOTE Confidence: 0.868953798333333

00:15:51.120 --> 00:15:53.605 And our diagnosis of cancers

NOTE Confidence: 0.868953798333333

00:15:53.605 --> 00:15:55.593 and other tumors underpin

NOTE Confidence: 0.868953798333333

00:15:55.593 --> 00:15:57.629 individual patient treatments.

NOTE Confidence: 0.868953798333333

00:15:57.630 --> 00:15:59.660 Of course, that's why we do it,

NOTE Confidence: 0.868953798333333

00:15:59.660 --> 00:16:01.620 but they also underpin research

NOTE Confidence: 0.868953798333333

00:16:01.620 --> 00:16:03.580 into all aspects of cancer,

NOTE Confidence: 0.868953798333333

00:16:03.580 --> 00:16:05.604 causation, prevention and therapy.

NOTE Confidence: 0.868953798333333

00:16:05.604 --> 00:16:08.640 And then they also underpin education.

NOTE Confidence: 0.868953798333333

00:16:08.640 --> 00:16:10.187 So it really is the basis of

NOTE Confidence: 0.868953798333333

00:16:10.187 --> 00:16:11.668 an awful lot of what we do.

NOTE Confidence: 0.960833388333333

00:16:13.910 --> 00:16:16.400 In terms of the classification turns,

NOTE Confidence: 0.960833388333333

00:16:16.400 --> 00:16:19.780 we use usually A5 level

NOTE Confidence: 0.960833388333333

00:16:19.780 --> 00:16:21.808 classification with subtypes.

NOTE Confidence: 0.960833388333333

00:16:21.810 --> 00:16:23.530 As a further level.

NOTE Confidence: 0.960833388333333

00:16:23.530 --> 00:16:26.918 So we start off, usually with sites,

NOTE Confidence: 0.960833388333333

00:16:26.918 --> 00:16:28.586 for instance stomach.

NOTE Confidence: 0.960833388333333

00:16:28.590 --> 00:16:31.572 We then have a category which is

NOTE Confidence: 0.960833388333333

00:16:31.572 --> 00:16:33.978 often lineages based epithelial plasm,

NOTE Confidence: 0.960833388333333

00:16:33.978 --> 00:16:36.687 something like that and then a

NOTE Confidence: 0.960833388333333

00:16:36.687 --> 00:16:38.721 family or class which in this

NOTE Confidence: 0.960833388333333

00:16:38.721 --> 00:16:41.575 example I've given as abnormal other

NOTE Confidence: 0.960833388333333

00:16:41.575 --> 00:16:43.523 pre malignant neoplastic lesions.

NOTE Confidence: 0.960833388333333

00:16:43.530 --> 00:16:46.435 We might separate those and some other

NOTE Confidence: 0.960833388333333

00:16:46.435 --> 00:16:48.978 volumes and then a type would be adenoma.

NOTE Confidence: 0.960833388333333

00:16:48.980 --> 00:16:52.172 So you'd expect to see gastric

NOTE Confidence: 0.960833388333333

00:16:52.172 --> 00:16:55.170 adenoma in the diagnosis perhaps.

NOTE Confidence: 0.960833388333333

00:16:55.170 --> 00:16:57.590 And then the subtype, UM,

NOTE Confidence: 0.960833388333333

00:16:57.590 --> 00:17:01.258 would be public land in this example.

NOTE Confidence: 0.960833388333333

00:17:01.260 --> 00:17:02.800 Variant is not a word.

NOTE Confidence: 0.960833388333333

00:17:02.800 --> 00:17:07.129 We try to use anymore within the blue books.

NOTE Confidence: 0.960833388333333

00:17:07.130 --> 00:17:09.482 In terms of the Histology or

NOTE Confidence: 0.960833388333333

00:17:09.482 --> 00:17:12.140 what is now called the subtype.

NOTE Confidence: 0.960833388333333

00:17:12.140 --> 00:17:14.100 The reason for that is partly because

NOTE Confidence: 0.960833388333333

00:17:14.100 --> 00:17:15.938 it's been somewhat hijacked by others.

NOTE Confidence: 0.960833388333333

00:17:15.940 --> 00:17:18.796 It's used variably by geneticists and

NOTE Confidence: 0.960833388333333

00:17:18.796 --> 00:17:21.022 by others to describe variations that

NOTE Confidence: 0.960833388333333

00:17:21.022 --> 00:17:24.400 may or may not be part of the classification.

NOTE Confidence: 0.960833388333333

00:17:24.400 --> 00:17:27.888 So we've tried to avoid it where possible

NOTE Confidence: 0.960833388333333

00:17:27.888 --> 00:17:31.906 and deal with it when we absolutely have to.

NOTE Confidence: 0.960833388333333

00:17:31.910 --> 00:17:33.710 We haven't, though I should say,

NOTE Confidence: 0.960833388333333

00:17:33.710 --> 00:17:36.482 switched from calling mutations as you

NOTE Confidence: 0.960833388333333

00:17:36.482 --> 00:17:39.652 may very well know them sequence variants,

NOTE Confidence: 0.960833388333333

00:17:39.652 --> 00:17:43.300 which is what most geneticists would do now.

NOTE Confidence: 0.960833388333333

00:17:43.300 --> 00:17:45.400 In terms of staging grade,

NOTE Confidence: 0.960833388333333

00:17:45.400 --> 00:17:47.675 those are dealt with separately

NOTE Confidence: 0.960833388333333

00:17:47.675 --> 00:17:49.040 within the books.

NOTE Confidence: 0.960833388333333

00:17:49.040 --> 00:17:50.805 Honestly, the early sort of

NOTE Confidence: 0.960833388333333

00:17:50.805 --> 00:17:52.960 points that we realized was that.

NOTE Confidence: 0.960833388333333

00:17:52.960 --> 00:17:55.486 Your view of the classification really

NOTE Confidence: 0.960833388333333

00:17:55.486 --> 00:17:58.029 depended on what you were doing.

NOTE Confidence: 0.960833388333333

00:17:58.030 --> 00:17:59.983 So if you were a geneticist or a histo,

NOTE Confidence: 0.960833388333333

00:17:59.990 --> 00:18:03.548 pathologist or radiologist,

NOTE Confidence: 0.960833388333333

00:18:03.550 --> 00:18:05.668 you looked at things very differently.

NOTE Confidence: 0.960833388333333

00:18:05.670 --> 00:18:08.930 And that's a multidimensional problem

NOTE Confidence: 0.960833388333333

00:18:08.930 --> 00:18:11.118 and it's very hard to put multiple

NOTE Confidence: 0.960833388333333

00:18:11.118 --> 00:18:14.166 dimensions into a two dimensional book.

NOTE Confidence: 0.960833388333333

00:18:14.170 --> 00:18:17.138 So we decided to make it slightly easier

NOTE Confidence: 0.960833388333333

00:18:17.138 --> 00:18:19.418 on ourselves by having a database.

NOTE Confidence: 0.960833388333333

00:18:19.420 --> 00:18:21.667 So the classification is now a database.

NOTE Confidence: 0.960833388333333

00:18:21.670 --> 00:18:24.498 It's a relational database and it means

NOTE Confidence: 0.960833388333333

00:18:24.498 --> 00:18:27.678 that we can now use the headings for

NOTE Confidence: 0.960833388333333

00:18:27.678 --> 00:18:31.442 each of the tables to develop the two

NOTE Confidence: 0.960833388333333

00:18:31.442 --> 00:18:33.806 dimensional layout you see in the books,

NOTE Confidence: 0.960833388333333

00:18:33.810 --> 00:18:36.870 and that's why you will see

NOTE Confidence: 0.960833388333333

00:18:36.870 --> 00:18:40.234 things like etiology unknown.

NOTE Confidence: 0.960833388333333

00:18:40.234 --> 00:18:43.472 It's not because we didn't.

NOTE Confidence: 0.960833388333333

00:18:43.472 --> 00:18:43.828 Yeah,

NOTE Confidence: 0.960833388333333

00:18:43.828 --> 00:18:45.964 we didn't leave etiology Alex because

NOTE Confidence: 0.960833388333333

00:18:45.964 --> 00:18:48.048 there was nothing to put in there.

00:18:48.050 --> 00:18:50.612 We actually have to say something for

00:18:50.612 --> 00:18:53.298 each of these headings in the book.

00:18:53.300 --> 00:18:56.759 We don't, uh.

00:18:56.760 --> 00:18:59.330 Make any distinction underneath these

00:18:59.330 --> 00:19:03.448 headings so that the open bullet points are.

00:19:03.450 --> 00:19:05.448 You can be used or not used as as

00:19:05.448 --> 00:19:07.012 people wish and you'll see them

00:19:07.012 --> 00:19:08.850 in some of the larger sections,

00:19:08.850 --> 00:19:11.104 particularly where it breaks up the text,

00:19:11.110 --> 00:19:12.998 but you won't otherwise see them at all.

00:19:15.570 --> 00:19:17.005 So we start off with the definition.

00:19:17.010 --> 00:19:20.178 The definition now has to be less than

00:19:20.178 --> 00:19:22.986 100 words and it has to define what

00:19:22.986 --> 00:19:25.429 something is and not what it's not.

00:19:25.430 --> 00:19:28.370 And it has to be usable by

00:19:28.370 --> 00:19:29.630 people outside pathology.

NOTE Confidence: 0.913180511428571

00:19:29.630 --> 00:19:32.150 Uhm, because it is used on its own,

NOTE Confidence: 0.913180511428571

00:19:32.150 --> 00:19:33.694 it's used for instance,

NOTE Confidence: 0.913180511428571

00:19:33.694 --> 00:19:35.624 with the ICD 11 codes.

NOTE Confidence: 0.913180511428571

00:19:35.630 --> 00:19:37.442 I won't go into coding 'cause

NOTE Confidence: 0.913180511428571

00:19:37.442 --> 00:19:38.650 that is pretty specialist,

NOTE Confidence: 0.913180511428571

00:19:38.650 --> 00:19:40.546 but suffice it to say that

NOTE Confidence: 0.913180511428571

00:19:40.546 --> 00:19:42.518 that we have the International

NOTE Confidence: 0.913180511428571

00:19:42.518 --> 00:19:45.648 Classification of Diseases on koleji.

NOTE Confidence: 0.913180511428571

00:19:45.650 --> 00:19:47.550 Uhm, which is used largely

NOTE Confidence: 0.913180511428571

00:19:47.550 --> 00:19:48.690 by cancer registries,

NOTE Confidence: 0.913180511428571

00:19:48.690 --> 00:19:50.780 and we have the International

NOTE Confidence: 0.913180511428571

00:19:50.780 --> 00:19:52.870 Classification of Diseases Version 11,

NOTE Confidence: 0.913180511428571

00:19:52.870 --> 00:19:55.726 which is the new one that's taking

NOTE Confidence: 0.913180511428571

00:19:55.726 --> 00:19:58.479 over from ICD 10 at the moment.

NOTE Confidence: 0.913180511428571

00:19:58.480 --> 00:20:01.846 And it's still really under development.

NOTE Confidence: 0.913180511428571

00:20:01.850 --> 00:20:04.020 We give related terminology and

NOTE Confidence: 0.913180511428571

00:20:04.020 --> 00:20:06.750 we divide that into two types,

NOTE Confidence: 0.913180511428571

00:20:06.750 --> 00:20:08.626 acceptable and not recommended.

NOTE Confidence: 0.913180511428571

00:20:08.626 --> 00:20:11.440 And that's because we don't want

NOTE Confidence: 0.913180511428571

00:20:11.517 --> 00:20:13.567 to stop people doing things.

NOTE Confidence: 0.913180511428571

00:20:13.570 --> 00:20:15.378 It's not our role,

NOTE Confidence: 0.913180511428571

00:20:15.378 --> 00:20:17.352 but it's certainly necessary to

NOTE Confidence: 0.913180511428571

00:20:17.352 --> 00:20:19.800 say what is a good idea and what

NOTE Confidence: 0.913180511428571

00:20:19.870 --> 00:20:21.976 perhaps isn't such a good idea.

NOTE Confidence: 0.913180511428571

00:20:21.980 --> 00:20:24.332 We list subtypes and we described

NOTE Confidence: 0.913180511428571

00:20:24.332 --> 00:20:26.366 them under whichever category they

NOTE Confidence: 0.913180511428571

00:20:26.366 --> 00:20:28.506 all categorization they come into.

NOTE Confidence: 0.913180511428571

00:20:28.510 --> 00:20:30.100 So if it's a histological

NOTE Confidence: 0.913180511428571

00:20:30.100 --> 00:20:31.372 subtype comes under Histology.

NOTE Confidence: 0.913180511428571

00:20:31.380 --> 00:20:31.948 If not,

NOTE Confidence: 0.913180511428571

00:20:31.948 --> 00:20:33.936 it might be a genetic one described

NOTE Confidence: 0.913180511428571

00:20:33.936 --> 00:20:35.680 under the molecular pathology.

NOTE Confidence: 0.918235982380952

00:20:37.730 --> 00:20:39.620 The clinical features and radiology come

NOTE Confidence: 0.918235982380952

00:20:39.620 --> 00:20:41.875 next and we put them together because

NOTE Confidence: 0.918235982380952

00:20:41.875 --> 00:20:44.330 they seem to fit fairly well that way,

NOTE Confidence: 0.918235982380952

00:20:44.330 --> 00:20:46.526 at least in in the first book we did,

NOTE Confidence: 0.918235982380952

00:20:46.530 --> 00:20:49.238 which was in digester.

NOTE Confidence: 0.918235982380952

00:20:49.240 --> 00:20:50.276 Uhm, epidemiology.

NOTE Confidence: 0.918235982380952

00:20:50.276 --> 00:20:53.284 I've talked about already and etiology.

NOTE Confidence: 0.918235982380952

00:20:53.284 --> 00:20:56.086 We covered the causes and this

NOTE Confidence: 0.918235982380952

00:20:56.086 --> 00:20:58.065 predisposing factors going here so

NOTE Confidence: 0.918235982380952

00:20:58.065 --> 00:21:00.166 that the predispositions genetic

NOTE Confidence: 0.918235982380952

00:21:00.166 --> 00:21:03.126 predisposition would go in there.

NOTE Confidence: 0.918235982380952

00:21:03.130 --> 00:21:05.130 In terms of pathogenesis,

NOTE Confidence: 0.918235982380952

00:21:05.130 --> 00:21:08.130 that is largely these days molecular,

NOTE Confidence: 0.918235982380952

00:21:08.130 --> 00:21:10.880 but we do try to make sure that we cover

00:21:10.956 --> 00:21:13.294 other other parts of that as well.

00:21:13.300 --> 00:21:15.124 A macroscopic appearance in

00:21:15.124 --> 00:21:16.948 histopathology probably needs no

00:21:16.948 --> 00:21:18.770 introduction to this audience,

00:21:18.770 --> 00:21:20.660 but it has all the usual things

00:21:20.660 --> 00:21:21.850 you'd expect under there.

00:21:21.850 --> 00:21:23.565 We try to have differential

00:21:23.565 --> 00:21:24.937 diagnosis at the end,

00:21:24.940 --> 00:21:27.922 which is very helpful to to

00:21:27.922 --> 00:21:29.910 many pathologists I know.

00:21:29.910 --> 00:21:31.670 In terms of cytology,

00:21:31.670 --> 00:21:34.310 that is now being dealt with,

00:21:34.310 --> 00:21:36.158 in addition to the blue books as

00:21:36.158 --> 00:21:38.099 a series of reporting systems,

00:21:38.100 --> 00:21:39.768 foresighted pathologists and we've

00:21:39.768 --> 00:21:41.853 teamed up with the International

NOTE Confidence: 0.918235982380952

00:21:41.853 --> 00:21:43.949 Academy of Cytology to produce those,

NOTE Confidence: 0.918235982380952

00:21:43.950 --> 00:21:46.893 and I'll show you a mock up of the

NOTE Confidence: 0.918235982380952

00:21:46.893 --> 00:21:50.214 cover later in terms of diagnostic

NOTE Confidence: 0.918235982380952

00:21:50.214 --> 00:21:52.205 molecular pathology that is restricted

NOTE Confidence: 0.918235982380952

00:21:52.205 --> 00:21:54.430 to what you would do in a patient.

NOTE Confidence: 0.918235982380952

00:21:54.430 --> 00:21:55.886 So if you wouldn't do another patient,

NOTE Confidence: 0.918235982380952

00:21:55.890 --> 00:21:57.430 it won't appear there.

NOTE Confidence: 0.918235982380952

00:21:57.430 --> 00:21:59.355 It'll appear on the pathogenesis.

NOTE Confidence: 0.918235982380952

00:21:59.360 --> 00:22:02.734 One of the innovations that we have

NOTE Confidence: 0.918235982380952

00:22:02.734 --> 00:22:06.463 introduced is the addition of essential

NOTE Confidence: 0.918235982380952

00:22:06.463 --> 00:22:09.375 and desirable diagnostic criteria.

NOTE Confidence: 0.918235982380952

00:22:09.380 --> 00:22:11.732 And the reason we've done that is

NOTE Confidence: 0.918235982380952

00:22:11.732 --> 00:22:14.152 because in the previous 4th edition

NOTE Confidence: 0.918235982380952

00:22:14.152 --> 00:22:16.468 it was sometimes quite hard to

NOTE Confidence: 0.918235982380952

00:22:16.468 --> 00:22:18.608 find out which were the essential

NOTE Confidence: 0.918235982380952

00:22:18.608 --> 00:22:21.012 features that you needed to see in

NOTE Confidence: 0.918235982380952

00:22:21.012 --> 00:22:23.356 order to make a diagnosis or to

NOTE Confidence: 0.918235982380952

00:22:23.356 --> 00:22:26.104 classify tumor within a certain range.

NOTE Confidence: 0.918235982380952

00:22:26.110 --> 00:22:28.567 And that's something that we felt was.

NOTE Confidence: 0.918235982380952

00:22:28.570 --> 00:22:30.847 It was a good idea to actually write down,

NOTE Confidence: 0.918235982380952

00:22:30.850 --> 00:22:32.348 so that's what we've tried to do.

NOTE Confidence: 0.918235982380952

00:22:32.350 --> 00:22:33.980 It's quite a challenging experience,

NOTE Confidence: 0.918235982380952

00:22:33.980 --> 00:22:35.508 and some of you I know in this

NOTE Confidence: 0.918235982380952

00:22:35.508 --> 00:22:38.169 room have had it.

NOTE Confidence: 0.918235982380952

00:22:38.170 --> 00:22:40.678 We use the UICC staging system

NOTE Confidence: 0.918235982380952

00:22:40.678 --> 00:22:42.350 because we are international.

NOTE Confidence: 0.918235982380952

00:22:42.350 --> 00:22:45.116 This is the international staging system.

NOTE Confidence: 0.918235982380952

00:22:45.120 --> 00:22:47.496 But UICC and AJ CC work

NOTE Confidence: 0.918235982380952

00:22:47.496 --> 00:22:48.684 very closely together,

NOTE Confidence: 0.918235982380952

00:22:48.690 --> 00:22:50.646 so if you're using the AJC,

NOTE Confidence: 0.918235982380952

00:22:50.650 --> 00:22:52.778 it's the same thing.

NOTE Confidence: 0.918235982380952

00:22:52.780 --> 00:22:56.530 In terms of prognosis and prediction.

NOTE Confidence: 0.918235982380952

00:22:56.530 --> 00:22:58.615 We talk about prognostic factors

NOTE Confidence: 0.918235982380952

00:22:58.615 --> 00:23:00.700 and predictive biomarkers in some

NOTE Confidence: 0.918235982380952

00:23:00.771 --> 00:23:02.666 detail in certain tumor types,

NOTE Confidence: 0.918235982380952

00:23:02.670 --> 00:23:03.774 where that's really important,

NOTE Confidence: 0.918235982380952

00:23:03.774 --> 00:23:05.154 and that's an increasing number.

NOTE Confidence: 0.918235982380952

00:23:05.160 --> 00:23:05.924 Of course,

NOTE Confidence: 0.918235982380952

00:23:05.924 --> 00:23:07.834 and then we're developing links

NOTE Confidence: 0.918235982380952

00:23:07.834 --> 00:23:09.695 to other resources which will

NOTE Confidence: 0.918235982380952

00:23:09.695 --> 00:23:11.305 mainly go on the website,

NOTE Confidence: 0.918235982380952

00:23:11.310 --> 00:23:14.310 and that's particularly to the international

NOTE Confidence: 0.918235982380952

00:23:14.310 --> 00:23:16.310 collaboration for cancer reporting.

NOTE Confidence: 0.918235982380952

00:23:16.310 --> 00:23:18.314 CAP is one of the founding

NOTE Confidence: 0.918235982380952

00:23:18.314 --> 00:23:19.650 members of that organization,

NOTE Confidence: 0.918235982380952

00:23:19.650 --> 00:23:21.618 as is the Royal College of

NOTE Confidence: 0.918235982380952

00:23:21.618 --> 00:23:24.776 Pathologists and many others,

NOTE Confidence: 0.918235982380952

00:23:24.776 --> 00:23:25.718 and.

NOTE Confidence: 0.918235982380952

00:23:25.720 --> 00:23:29.062 It produces the structured reports which

NOTE Confidence: 0.918235982380952

00:23:29.062 --> 00:23:32.820 depend very heavily on the blue books

NOTE Confidence: 0.918235982380952

00:23:32.820 --> 00:23:36.610 and the staging resource is produced by UIC.

NOTE Confidence: 0.918235982380952

00:23:36.610 --> 00:23:38.334 In terms of numbers,

NOTE Confidence: 0.918235982380952

00:23:38.334 --> 00:23:40.489 we have roughly 200 people

NOTE Confidence: 0.918235982380952

00:23:40.489 --> 00:23:42.728 on the editorial board,

NOTE Confidence: 0.918235982380952

00:23:42.730 --> 00:23:44.718 between the standing and the expert members,

NOTE Confidence: 0.918235982380952

00:23:44.720 --> 00:23:48.005 or will have by the end of the series.

NOTE Confidence: 0.918235982380952

00:23:48.010 --> 00:23:49.606 The authors are really need to

NOTE Confidence: 0.918235982380952

00:23:49.606 --> 00:23:50.964 update that figure because we've

NOTE Confidence: 0.918235982380952

00:23:50.964 --> 00:23:52.679 already hit two and a half thousand.

NOTE Confidence: 0.918235982380952

00:23:52.680 --> 00:23:56.784 Uhm, so it's a it's a very big project,

NOTE Confidence: 0.9189758955

00:23:56.790 --> 00:23:58.702 this one and it has a lot of

NOTE Confidence: 0.9189758955

00:23:58.702 --> 00:24:00.332 people involved in it and we're

NOTE Confidence: 0.9189758955

00:24:00.332 --> 00:24:01.964 extremely grateful to all of them.

NOTE Confidence: 0.9189758955

00:24:01.970 --> 00:24:05.723 It's a it's a mammoth task and it has

NOTE Confidence: 0.9189758955

00:24:05.723 --> 00:24:09.948 enormous impact for patients particularly.

NOTE Confidence: 0.9189758955

00:24:09.950 --> 00:24:12.670 In terms of subscribers,

NOTE Confidence: 0.9189758955

00:24:12.670 --> 00:24:15.310 we think we have about 60,000.

NOTE Confidence: 0.9189758955

00:24:15.310 --> 00:24:17.282 They are mainly pathologists,

NOTE Confidence: 0.9189758955

00:24:17.282 --> 00:24:19.254 but not entirely probably

NOTE Confidence: 0.9189758955

00:24:19.254 --> 00:24:22.370 around 8590% pathologists.

NOTE Confidence: 0.9189758955

00:24:22.370 --> 00:24:23.588 And if you're anything like me

NOTE Confidence: 0.9189758955

00:24:23.588 --> 00:24:25.068 when you reach for your blue book,

NOTE Confidence: 0.9189758955

00:24:25.070 --> 00:24:27.884 it's not there because somebody borrowed it.

NOTE Confidence: 0.9189758955

00:24:27.890 --> 00:24:30.671 And therefore we think we've got a lot more

NOTE Confidence: 0.9189758955

00:24:30.671 --> 00:24:33.069 users than we have actual subscribers.

NOTE Confidence: 0.9189758955

00:24:33.070 --> 00:24:36.829 Uh, the whole team is the whole thing,

NOTE Confidence: 0.9189758955

00:24:36.829 --> 00:24:39.678 is run by a small team of people in

NOTE Confidence: 0.9189758955

00:24:39.678 --> 00:24:42.278 Leon and and there are twelve of us

NOTE Confidence: 0.9189758955

00:24:42.352 --> 00:24:45.030 and it's it's great to have them there.

NOTE Confidence: 0.9189758955

00:24:45.030 --> 00:24:46.686 It is possible to join us.

NOTE Confidence: 0.9189758955

00:24:46.690 --> 00:24:49.201 We have a number of fellows that joined us

NOTE Confidence: 0.9189758955

00:24:49.201 --> 00:24:51.738 from time to time and visiting scientists.

NOTE Confidence: 0.9189758955

00:24:51.740 --> 00:24:53.726 So if you've got the opportunity

NOTE Confidence: 0.9189758955

00:24:53.726 --> 00:24:55.520 and you'd like to do it,

NOTE Confidence: 0.9189758955

00:24:55.520 --> 00:24:57.256 we can fit a couple of people in,

NOTE Confidence: 0.9189758955

00:24:57.260 --> 00:25:01.558 usually into the office space we have.

NOTE Confidence: 0.9189758955

00:25:01.560 --> 00:25:03.702 And it would be lovely to welcome

NOTE Confidence: 0.9189758955

00:25:03.702 --> 00:25:05.420 people from Yale if we could.

NOTE Confidence: 0.9189758955

00:25:05.420 --> 00:25:08.450 In terms of what we've done already,

NOTE Confidence: 0.9189758955

00:25:08.450 --> 00:25:10.330 well, we've published digestive breast,

NOTE Confidence: 0.9189758955

00:25:10.330 --> 00:25:12.405 soft tissue and bone female

NOTE Confidence: 0.9189758955

00:25:12.405 --> 00:25:14.089 genital and thoracic tumors.

NOTE Confidence: 0.9189758955

00:25:14.090 --> 00:25:16.030 The central nervous system volume

NOTE Confidence: 0.9189758955

00:25:16.030 --> 00:25:18.826 is about to be stitched together in

NOTE Confidence: 0.9189758955

00:25:18.826 --> 00:25:20.796 from the individual chapter proofs

NOTE Confidence: 0.9189758955

00:25:20.796 --> 00:25:23.353 and it will go to the printers

NOTE Confidence: 0.9189758955

00:25:23.353 --> 00:25:24.978 on the 12th of November.

NOTE Confidence: 0.9189758955

00:25:24.980 --> 00:25:27.094 So it will appear on the website,

NOTE Confidence: 0.9189758955

00:25:27.100 --> 00:25:29.235 probably towards the end of

NOTE Confidence: 0.9189758955

00:25:29.235 --> 00:25:30.943 this month as well.

NOTE Confidence: 0.9189758955

00:25:30.950 --> 00:25:34.310 In terms of the pediatric tumors volume,

NOTE Confidence: 0.9189758955

00:25:34.310 --> 00:25:35.618 that is massive.

NOTE Confidence: 0.9189758955

00:25:35.618 --> 00:25:38.234 It's the equivalent of two books,

NOTE Confidence: 0.9189758955

00:25:38.240 --> 00:25:39.782 and it needs to be coordinated

NOTE Confidence: 0.9189758955

00:25:39.782 --> 00:25:41.640 with quite a lot of the others,

NOTE Confidence: 0.9189758955

00:25:41.640 --> 00:25:44.205 so it's proving quite a tough one to do.

NOTE Confidence: 0.9189758955

00:25:44.210 --> 00:25:46.388 And and we've got the draft,

NOTE Confidence: 0.9189758955

00:25:46.390 --> 00:25:47.950 but we haven't met yet.

NOTE Confidence: 0.9189758955

00:25:47.950 --> 00:25:50.894 Managed as yet to get it through technical

NOTE Confidence: 0.9189758955

00:25:50.894 --> 00:25:52.488 editing, so it is a bit delayed,

NOTE Confidence: 0.9189758955

00:25:52.490 --> 00:25:54.830 but it is on its way.

NOTE Confidence: 0.9189758955

00:25:54.830 --> 00:25:56.970 The urogenital male genital

NOTE Confidence: 0.9189758955

00:25:56.970 --> 00:25:59.110 tumors is also impressed.

NOTE Confidence: 0.9189758955

00:25:59.110 --> 00:26:00.814 That is with the technical editor

NOTE Confidence: 0.9189758955

00:26:00.814 --> 00:26:02.967 at the moment and it should come

NOTE Confidence: 0.9189758955

00:26:02.967 --> 00:26:04.567 out relatively early next year.

NOTE Confidence: 0.9189758955

00:26:04.570 --> 00:26:08.714 I hope within Q1 or possibly Q2.

NOTE Confidence: 0.9189758955

00:26:08.720 --> 00:26:11.141 In terms of the head and neck and the

NOTE Confidence: 0.9189758955

00:26:11.141 --> 00:26:13.139 endocrine near endocrine and endocrine,

NOTE Confidence: 0.9189758955

00:26:13.140 --> 00:26:16.950 they are being edited at the moment's ready

NOTE Confidence: 0.9189758955

00:26:16.950 --> 00:26:19.260 for technical editing early next year,

NOTE Confidence: 0.9189758955

00:26:19.260 --> 00:26:21.942 so they should be out sometime

NOTE Confidence: 0.9189758955

00:26:21.942 --> 00:26:23.283 over the summer.

NOTE Confidence: 0.9189758955

00:26:23.290 --> 00:26:24.928 And then the humours of lymphoid

NOTE Confidence: 0.9189758955

00:26:24.928 --> 00:26:26.470 tumors volume is being written.

NOTE Confidence: 0.9189758955

00:26:26.470 --> 00:26:26.783 Uh,

NOTE Confidence: 0.9189758955

00:26:26.783 --> 00:26:28.661 and then we're about to start

NOTE Confidence: 0.9189758955

00:26:28.661 --> 00:26:30.079 the skin and the I.

NOTE Confidence: 0.9189758955

00:26:30.080 --> 00:26:32.558 We set our timescale for doing things

NOTE Confidence: 0.9189758955

00:26:32.558 --> 00:26:34.840 at the beginning of the process so

NOTE Confidence: 0.9189758955

00:26:34.840 --> 00:26:36.990 that that we could get the whole

NOTE Confidence: 0.9189758955

00:26:36.990 --> 00:26:39.190 thing done within the five to six

NOTE Confidence: 0.9189758955

00:26:39.190 --> 00:26:41.230 years that we felt was optimal

NOTE Confidence: 0.9189758955

00:26:41.230 --> 00:26:43.566 and and that was backed up by the

NOTE Confidence: 0.9189758955

00:26:43.566 --> 00:26:45.942 findings of a large survey that I'm

NOTE Confidence: 0.9189758955

00:26:45.942 --> 00:26:47.930 sure some of you participated in.

NOTE Confidence: 0.9189758955

00:26:47.930 --> 00:26:50.156 And again, thank you for doing that.

NOTE Confidence: 0.9189758955

00:26:50.160 --> 00:26:52.064 And we're going to finish the whole

NOTE Confidence: 0.9189758955

00:26:52.064 --> 00:26:54.465 series of the 14th volume on genetic

NOTE Confidence: 0.9189758955

00:26:54.465 --> 00:26:55.993 tumor syndromes because that's

NOTE Confidence: 0.9189758955

00:26:55.993 --> 00:26:57.259 becoming increasingly important that

NOTE Confidence: 0.9189758955

00:26:57.259 --> 00:26:59.310 we felt we could not ignore that.

NOTE Confidence: 0.8963354

00:27:01.460 --> 00:27:05.030 The website now has a new look,

NOTE Confidence: 0.8963354

00:27:05.030 --> 00:27:06.086 and if you haven't seen it,

NOTE Confidence: 0.8963354

00:27:06.090 --> 00:27:07.940 I'd recommend getting onto it.

NOTE Confidence: 0.8963354

00:27:07.940 --> 00:27:10.428 If you can, you can preview it before

NOTE Confidence: 0.8963354

00:27:10.428 --> 00:27:13.075 you have to pay a subscription for it.

NOTE Confidence: 0.8963354

00:27:13.080 --> 00:27:15.299 It is a subscription website and we

NOTE Confidence: 0.8963354

00:27:15.299 --> 00:27:17.656 do sell the books and the reason for

NOTE Confidence: 0.8963354

00:27:17.656 --> 00:27:20.069 that is that this is a not for profit

NOTE Confidence: 0.8963354

00:27:20.070 --> 00:27:23.220 exercise that is completely funded by

NOTE Confidence: 0.8963354

00:27:23.220 --> 00:27:26.825 sales of the books and and the website.

NOTE Confidence: 0.8963354

00:27:26.825 --> 00:27:29.825 Now, yes, we could apply for grants and

NOTE Confidence: 0.8963354

00:27:29.825 --> 00:27:32.919 we could try and find external funding.

NOTE Confidence: 0.8963354

00:27:32.920 --> 00:27:34.828 But then that external funding would

NOTE Confidence: 0.8963354

00:27:34.828 --> 00:27:37.320 have a say in how we did things,

NOTE Confidence: 0.8963354

00:27:37.320 --> 00:27:39.276 and that's not something we want

NOTE Confidence: 0.8963354

00:27:39.280 --> 00:27:40.327 at the moment.

NOTE Confidence: 0.8963354

00:27:40.327 --> 00:27:42.072 This is essentially in the

NOTE Confidence: 0.8963354

00:27:42.072 --> 00:27:43.960 hands of its subscribers,

NOTE Confidence: 0.8963354

00:27:43.960 --> 00:27:47.512 so that's 60,000 people and it's

NOTE Confidence: 0.8963354

00:27:47.512 --> 00:27:50.278 very hard to make it anything other

NOTE Confidence: 0.8963354

00:27:50.278 --> 00:27:52.286 than what it is as a definitive

NOTE Confidence: 0.8963354

00:27:52.286 --> 00:27:54.130 classification on that basis.

NOTE Confidence: 0.836798882307692

00:27:56.690 --> 00:27:58.622 The actual write up for each tumor

NOTE Confidence: 0.836798882307692

00:27:58.622 --> 00:28:00.129 looks very similar to the book.

NOTE Confidence: 0.836798882307692

00:28:00.130 --> 00:28:01.906 It's just a single column across a text,

NOTE Confidence: 0.836798882307692

00:28:01.910 --> 00:28:04.690 but it's the same text, the blue numbers

NOTE Confidence: 0.836798882307692

00:28:04.690 --> 00:28:07.010 there are actually pub Med ID's,

NOTE Confidence: 0.836798882307692

00:28:07.010 --> 00:28:08.770 so when you click on one of those,

00:28:08.770 --> 00:28:10.938 a hyper link takes you straight to pub

00:28:10.938 --> 00:28:13.653 Med to the reference and to the evidence

00:28:13.653 --> 00:28:16.490 we've quoted for that particular statement.

00:28:16.490 --> 00:28:18.410 We also have whole slide images

00:28:18.410 --> 00:28:20.848 and in the breast, but we have

00:28:20.848 --> 00:28:23.164 whole slide images for every tumor.

00:28:23.170 --> 00:28:25.348 And when you click on it,

00:28:25.350 --> 00:28:26.918 you get a legend just as you

00:28:26.918 --> 00:28:27.880 would for anything else,

00:28:27.880 --> 00:28:30.796 and then you get into the slide and then

00:28:30.796 --> 00:28:33.478 you can go to very high power view.

00:28:33.480 --> 00:28:35.608 So I was asked to talk about

00:28:35.608 --> 00:28:38.160 the challenges and.

00:28:38.160 --> 00:28:40.740 I expected some of them and the

00:28:40.740 --> 00:28:42.570 expected ones included the fact that

00:28:42.570 --> 00:28:44.964 we needed to produce these volumes

NOTE Confidence: 0.836798882307692

00:28:44.964 --> 00:28:46.688 faster without compromising quality.

NOTE Confidence: 0.836798882307692

00:28:46.690 --> 00:28:48.692 We knew that was going to be

NOTE Confidence: 0.836798882307692

00:28:48.692 --> 00:28:50.220 something that was important.

NOTE Confidence: 0.836798882307692

00:28:50.220 --> 00:28:51.972 We also knew that whole genome

NOTE Confidence: 0.836798882307692

00:28:51.972 --> 00:28:53.599 sequencing was coming into mainstream

NOTE Confidence: 0.836798882307692

00:28:53.599 --> 00:28:55.609 diagnostic practice for some things,

NOTE Confidence: 0.836798882307692

00:28:55.610 --> 00:28:58.800 and XM sequencing for others.

NOTE Confidence: 0.836798882307692

00:28:58.800 --> 00:29:01.224 We knew that there was a lot of

NOTE Confidence: 0.836798882307692

00:29:01.224 --> 00:29:03.048 genetics that we had to get in.

NOTE Confidence: 0.836798882307692

00:29:03.050 --> 00:29:04.475 We kind of thought artificial

NOTE Confidence: 0.836798882307692

00:29:04.475 --> 00:29:05.900 intelligence probably a little bit

NOTE Confidence: 0.836798882307692

00:29:05.951 --> 00:29:07.289 too early for the 5th edition,

NOTE Confidence: 0.836798882307692

00:29:07.290 --> 00:29:09.012 but it has actually come into

NOTE Confidence: 0.836798882307692

00:29:09.012 --> 00:29:10.710 one or two points already.

NOTE Confidence: 0.836798882307692

00:29:10.710 --> 00:29:14.056 And it's certainly set to do more.

NOTE Confidence: 0.836798882307692

00:29:14.060 --> 00:29:15.980 We did think that perhaps radiologists

NOTE Confidence: 0.836798882307692

00:29:15.980 --> 00:29:17.989 were trying to take over from

NOTE Confidence: 0.836798882307692

00:29:17.989 --> 00:29:20.005 pathology in terms of some diagnostic

NOTE Confidence: 0.836798882307692

00:29:20.005 --> 00:29:22.009 entities that hasn't really happened,

NOTE Confidence: 0.836798882307692

00:29:22.010 --> 00:29:24.114 but we're very pleased to say that we

NOTE Confidence: 0.836798882307692

00:29:24.114 --> 00:29:26.082 do have a radiology Advisory Board

NOTE Confidence: 0.836798882307692

00:29:26.082 --> 00:29:28.540 that gives us an enormous amount of

NOTE Confidence: 0.836798882307692

00:29:28.540 --> 00:29:30.502 support in making sure the radiology

NOTE Confidence: 0.836798882307692

00:29:30.502 --> 00:29:33.625 within the books is as good as it can be.

NOTE Confidence: 0.836798882307692

00:29:33.630 --> 00:29:34.518 The radiologists actually

NOTE Confidence: 0.836798882307692

00:29:34.518 --> 00:29:35.998 don't have anything like it,

NOTE Confidence: 0.836798882307692

00:29:36.000 --> 00:29:36.930 so they're really quite interested

NOTE Confidence: 0.836798882307692

00:29:36.930 --> 00:29:37.674 in what we're doing.

NOTE Confidence: 0.908059678333333

00:29:39.710 --> 00:29:41.450 There was some unexpected stuff too,

NOTE Confidence: 0.908059678333333

00:29:41.450 --> 00:29:45.124 of course. Look, the confusing terminology

NOTE Confidence: 0.908059678333333

00:29:45.124 --> 00:29:47.004 within pathology is something that

NOTE Confidence: 0.908059678333333

00:29:47.004 --> 00:29:49.099 most of us have lived with and dealt

NOTE Confidence: 0.908059678333333

00:29:49.099 --> 00:29:51.488 with for most of our working lives,

NOTE Confidence: 0.908059678333333

00:29:51.490 --> 00:29:53.698 but we did have some really.

NOTE Confidence: 0.908059678333333

00:29:53.700 --> 00:29:55.476 We do have some really good ones and

NOTE Confidence: 0.908059678333333

00:29:55.476 --> 00:29:57.633 we are trying to reduce the confusion

NOTE Confidence: 0.908059678333333

00:29:57.633 --> 00:29:59.288 wherever possible because it does

NOTE Confidence: 0.908059678333333

00:29:59.343 --> 00:30:00.999 impact on patients occasionally.

NOTE Confidence: 0.908059678333333

00:30:01.000 --> 00:30:02.638 The best one we came across was,

NOTE Confidence: 0.908059678333333

00:30:02.640 --> 00:30:04.488 I think, in the digestive volume

NOTE Confidence: 0.908059678333333

00:30:04.488 --> 00:30:06.821 and it was this one inflammatory

NOTE Confidence: 0.908059678333333

00:30:06.821 --> 00:30:09.391 pseudo tumor like follicular stroke

NOTE Confidence: 0.908059678333333

00:30:09.391 --> 00:30:11.390 fibroblastic dendritic cell tumor.

NOTE Confidence: 0.908059678333333

00:30:11.390 --> 00:30:12.840 And all of us in the room kind of looked

NOTE Confidence: 0.908059678333333

00:30:12.885 --> 00:30:14.648 at one another and said, what is it?

NOTE Confidence: 0.908059678333333

00:30:14.648 --> 00:30:16.720 And and then looked at John Chan,

00:30:16.720 --> 00:30:18.160 'cause he's always got the answer.

00:30:18.160 --> 00:30:21.400 And and on very kindly turn around and say,

00:30:21.400 --> 00:30:23.435 well, it's an EBV positive

00:30:23.435 --> 00:30:25.062 inflammatory dendritic cell sarcoma.

00:30:25.062 --> 00:30:27.858 So we said, well, why did we call it that?

00:30:27.860 --> 00:30:30.317 And the answer was that we did,

00:30:30.320 --> 00:30:32.642 so it's one of the very few that we've

00:30:32.642 --> 00:30:35.720 actually taken essentially outside

00:30:35.720 --> 00:30:38.058 the system and made a change because

00:30:38.058 --> 00:30:40.798 we felt the name is just impossible.

00:30:40.800 --> 00:30:45.049 Uhm, we have a problem with Mitoses

00:30:45.050 --> 00:30:46.600 and the major problem there.

00:30:46.600 --> 00:30:47.716 I'll show you in a moment,

00:30:47.720 --> 00:30:51.260 but it's to do with standardized

00:30:51.260 --> 00:30:52.440 international units.

00:30:52.440 --> 00:30:55.056 We had committed very early on

NOTE Confidence: 0.908059678333333

00:30:55.056 --> 00:30:56.800 to use HGVs notation,

NOTE Confidence: 0.908059678333333

00:30:56.800 --> 00:30:59.728 so the huger notation for genes,

NOTE Confidence: 0.908059678333333

00:30:59.730 --> 00:31:02.043 mutations, fusions, rearrangements,

NOTE Confidence: 0.908059678333333

00:31:02.043 --> 00:31:05.127 alterations and sequence variants.

NOTE Confidence: 0.908059678333333

00:31:05.130 --> 00:31:07.954 And we said that we would do this.

NOTE Confidence: 0.908059678333333

00:31:07.960 --> 00:31:10.109 It proved to be quite a challenge,

NOTE Confidence: 0.908059678333333

00:31:10.110 --> 00:31:11.918 because although molecular pathology

NOTE Confidence: 0.908059678333333

00:31:11.918 --> 00:31:15.310 has become very common in some settings,

NOTE Confidence: 0.908059678333333

00:31:15.310 --> 00:31:19.936 in others, it is more challenging.

NOTE Confidence: 0.908059678333333

00:31:19.940 --> 00:31:22.476 It turns out that that we have some

NOTE Confidence: 0.908059678333333

00:31:22.476 --> 00:31:24.938 problems in terms of counting as well,

NOTE Confidence: 0.908059678333333

00:31:24.940 --> 00:31:26.816 particularly bases and histones,

NOTE Confidence: 0.908059678333333

00:31:26.816 --> 00:31:30.352 and we've had to publish a paper on

NOTE Confidence: 0.908059678333333

00:31:30.352 --> 00:31:34.170 that to produce a notation that works.

NOTE Confidence: 0.908059678333333

00:31:34.170 --> 00:31:34.434 Uhm,

NOTE Confidence: 0.908059678333333

00:31:34.434 --> 00:31:36.282 and then of course we have this

NOTE Confidence: 0.908059678333333

00:31:36.282 --> 00:31:38.251 problem of whether we call things

NOTE Confidence: 0.908059678333333

00:31:38.251 --> 00:31:40.014 variants or subtypes and what's

NOTE Confidence: 0.908059678333333

00:31:40.014 --> 00:31:42.186 histological pattern when it's at home.

NOTE Confidence: 0.908059678333333

00:31:42.190 --> 00:31:44.790 So there have been a few things and

NOTE Confidence: 0.908059678333333

00:31:44.790 --> 00:31:47.854 I'll go through a few of them just now.

NOTE Confidence: 0.908059678333333

00:31:47.860 --> 00:31:49.840 One of the first things though,

NOTE Confidence: 0.908059678333333

00:31:49.840 --> 00:31:52.885 was to think about evidence based pathology.

NOTE Confidence: 0.887166408

00:31:54.920 --> 00:31:57.744 When in the 4th edition, the books

NOTE Confidence: 0.887166408

00:31:57.744 --> 00:31:59.579 are essentially a consensus document,

NOTE Confidence: 0.887166408

00:31:59.580 --> 00:32:04.304 a consensus statement of experts and

NOTE Confidence: 0.887166408

00:32:04.304 --> 00:32:07.776 about 30 to 40 experts involved in the

NOTE Confidence: 0.887166408

00:32:07.776 --> 00:32:09.905 meeting that would produce the consensus

NOTE Confidence: 0.887166408

00:32:09.905 --> 00:32:12.130 based on what authors had written.

NOTE Confidence: 0.887166408

00:32:12.130 --> 00:32:14.394 And the question really in our minds was

NOTE Confidence: 0.887166408

00:32:14.394 --> 00:32:16.347 whether this was eminence or evidence.

NOTE Confidence: 0.887166408

00:32:16.350 --> 00:32:19.326 And the answer is it probably is evidence.

NOTE Confidence: 0.887166408

00:32:19.330 --> 00:32:21.305 It certainly is evidenced because

NOTE Confidence: 0.887166408

00:32:21.305 --> 00:32:23.790 those experts are expert for reason.

NOTE Confidence: 0.887166408

00:32:23.790 --> 00:32:26.256 Uhm, but here you've got someone

NOTE Confidence: 0.887166408

00:32:26.256 --> 00:32:27.900 who is extremely eminent.

NOTE Confidence: 0.887166408

00:32:27.900 --> 00:32:29.880 The future King of England.

NOTE Confidence: 0.887166408

00:32:29.880 --> 00:32:31.368 But I'm not convinced that you

NOTE Confidence: 0.887166408

00:32:31.368 --> 00:32:33.014 want him staring at a microscope

NOTE Confidence: 0.887166408

00:32:33.014 --> 00:32:34.206 looking at your biopsy.

NOTE Confidence: 0.887166408

00:32:34.210 --> 00:32:37.180 Or mine for that matter.

NOTE Confidence: 0.887166408

00:32:37.180 --> 00:32:40.306 In terms of of confusing terminology.

NOTE Confidence: 0.887166408

00:32:40.310 --> 00:32:41.594 I've already mentioned one.

NOTE Confidence: 0.887166408

00:32:41.594 --> 00:32:43.890 I'm going to just select one here

NOTE Confidence: 0.887166408

00:32:43.890 --> 00:32:45.126 and it's pseudo tumor.

NOTE Confidence: 0.887166408

00:32:45.130 --> 00:32:46.398 That's about halfway down.

00:32:46.398 --> 00:32:48.726 It's a term used to refer to

00:32:48.726 --> 00:32:50.186 any number of pathologists,

00:32:50.190 --> 00:32:51.738 both benign and malignant,

00:32:51.738 --> 00:32:53.673 that may produce a mass.

00:32:53.680 --> 00:32:54.504 It's imprecise,

00:32:54.504 --> 00:32:56.564 it's not a good term,

00:32:56.570 --> 00:32:58.733 and we've tried to extract it from

00:32:58.733 --> 00:33:01.140 the books and over nearly succeeded.

00:33:01.140 --> 00:33:02.636 There is one in one of the books.

00:33:02.640 --> 00:33:04.558 For those of you that want to

00:33:04.558 --> 00:33:05.630 go looking for it.

00:33:05.630 --> 00:33:07.268 But there are other things here

00:33:07.268 --> 00:33:09.049 that we've known for a long time.

00:33:09.050 --> 00:33:10.763 Things like carcinoid,

00:33:10.763 --> 00:33:14.189 which is potentially imprecise as well,

00:33:14.190 --> 00:33:16.798 but is still very much used clinically in

NOTE Confidence: 0.887166408

00:33:16.798 --> 00:33:19.549 the lung field and impossible to change.

NOTE Confidence: 0.887166408

00:33:19.550 --> 00:33:20.638 Certainly in this edition.

NOTE Confidence: 0.883036816666667

00:33:24.050 --> 00:33:25.868 In terms of assessment of mitoses,

NOTE Confidence: 0.883036816666667

00:33:25.870 --> 00:33:27.706 this was something that I first

NOTE Confidence: 0.883036816666667

00:33:27.706 --> 00:33:29.570 came across nearly 40 years ago.

NOTE Confidence: 0.883036816666667

00:33:29.570 --> 00:33:31.406 And I was really surprised to

NOTE Confidence: 0.883036816666667

00:33:31.406 --> 00:33:33.270 have to publish on it again.

NOTE Confidence: 0.883036816666667

00:33:33.270 --> 00:33:36.620 I have to say. Uhm?

NOTE Confidence: 0.883036816666667

00:33:36.620 --> 00:33:38.620 First of all, what do you call it?

NOTE Confidence: 0.883036816666667

00:33:38.620 --> 00:33:40.040 Well, it's a mitotic count.

NOTE Confidence: 0.883036816666667

00:33:40.040 --> 00:33:41.538 When you do it on a microscope,

NOTE Confidence: 0.883036816666667

00:33:41.540 --> 00:33:42.456 nearly always.

NOTE Confidence: 0.883036816666667

00:33:42.456 --> 00:33:45.204 And it's really a density measurement.

NOTE Confidence: 0.883036816666667

00:33:45.210 --> 00:33:47.920 So you are expressing the number term

NOTE Confidence: 0.883036816666667

00:33:47.920 --> 00:33:50.270 of mitoses per millimeter squared.

NOTE Confidence: 0.883036816666667

00:33:50.270 --> 00:33:52.110 Not pleased high power field

NOTE Confidence: 0.883036816666667

00:33:52.110 --> 00:33:54.719 as I'll show you in a moment.

NOTE Confidence: 0.883036816666667

00:33:54.720 --> 00:33:56.622 The mitotic index would be the

NOTE Confidence: 0.883036816666667

00:33:56.622 --> 00:33:58.319 number of mitosis is expressed

NOTE Confidence: 0.883036816666667

00:33:58.319 --> 00:34:00.515 as a percentage of the number

NOTE Confidence: 0.883036816666667

00:34:00.515 --> 00:34:02.180 of neoplastic cells present,

NOTE Confidence: 0.883036816666667

00:34:02.180 --> 00:34:03.890 and you'd have to count hundreds

NOTE Confidence: 0.883036816666667

00:34:03.890 --> 00:34:05.600 of cells in order to do it.

NOTE Confidence: 0.883036816666667

00:34:05.600 --> 00:34:08.042 It's definitely one for the artificial

NOTE Confidence: 0.883036816666667

00:34:08.042 --> 00:34:10.178 intelligence and and not for the human,

NOTE Confidence: 0.883036816666667

00:34:10.180 --> 00:34:12.109 I would suggest.

NOTE Confidence: 0.883036816666667

00:34:12.110 --> 00:34:13.905 Mitotic rate is actually the

NOTE Confidence: 0.883036816666667

00:34:13.905 --> 00:34:16.180 rate at which cells are entering

NOTE Confidence: 0.883036816666667

00:34:16.180 --> 00:34:18.610 mitotic phase of the cell cycle,

NOTE Confidence: 0.883036816666667

00:34:18.610 --> 00:34:19.934 expressed as a percentage

NOTE Confidence: 0.883036816666667

00:34:19.934 --> 00:34:21.589 of cells counted per hour.

NOTE Confidence: 0.883036816666667

00:34:21.590 --> 00:34:23.627 So it has a time in it.

NOTE Confidence: 0.883036816666667

00:34:23.630 --> 00:34:25.466 And that's not something you can

NOTE Confidence: 0.883036816666667

00:34:25.466 --> 00:34:27.739 really do in a form and fixed.

NOTE Confidence: 0.883036816666667

00:34:27.740 --> 00:34:28.291 Specimen.

NOTE Confidence: 0.883036816666667

00:34:28.291 --> 00:34:29.944 So in practice,

NOTE Confidence: 0.883036816666667

00:34:29.944 --> 00:34:32.948 pathologists use mitotic count but we

NOTE Confidence: 0.883036816666667

00:34:32.948 --> 00:34:36.140 often get the name and the numbers wrong.

NOTE Confidence: 0.883036816666667

00:34:36.140 --> 00:34:38.100 Why do we get the numbers wrong?

NOTE Confidence: 0.883036816666667

00:34:38.100 --> 00:34:38.536 Well,

NOTE Confidence: 0.883036816666667

00:34:38.536 --> 00:34:38.972 historically,

NOTE Confidence: 0.883036816666667

00:34:38.972 --> 00:34:42.024 we've tended to use high power fields,

NOTE Confidence: 0.883036816666667

00:34:42.030 --> 00:34:44.508 ignoring the fact that between microscopes,

NOTE Confidence: 0.883036816666667

00:34:44.510 --> 00:34:47.534 high power fields can differ by up to

NOTE Confidence: 0.883036816666667

00:34:47.534 --> 00:34:50.869 six times even at the same magnification.

NOTE Confidence: 0.883036816666667

00:34:50.870 --> 00:34:52.010 And the switch to digital

NOTE Confidence: 0.883036816666667

00:34:52.010 --> 00:34:53.150 pathology is actually not helped.

NOTE Confidence: 0.883036816666667

00:34:53.150 --> 00:34:55.205 It's paint things worse because

NOTE Confidence: 0.883036816666667

00:34:55.205 --> 00:34:57.775 the 400 times fields in digital

NOTE Confidence: 0.883036816666667

00:34:57.775 --> 00:34:59.511 systems are rectangular and

NOTE Confidence: 0.883036816666667

00:34:59.511 --> 00:35:02.388 they also vary in area and they

NOTE Confidence: 0.883036816666667

00:35:02.388 --> 00:35:04.600 can vary quite a lot in fact.

NOTE Confidence: 0.883036816666667

00:35:04.600 --> 00:35:06.903 So the potential for error is quite

NOTE Confidence: 0.883036816666667

00:35:06.903 --> 00:35:09.053 considerable and at times that could

NOTE Confidence: 0.883036816666667

00:35:09.053 --> 00:35:11.249 affect patient care or even diagnosis.

NOTE Confidence: 0.883036816666667

00:35:11.250 --> 00:35:14.547 It's solved really by the use of

NOTE Confidence: 0.883036816666667

00:35:14.547 --> 00:35:16.430 standardized international SI units,

NOTE Confidence: 0.883036816666667

00:35:16.430 --> 00:35:20.329 so size does matter and it's millimeters.

NOTE Confidence: 0.883036816666667

00:35:20.330 --> 00:35:22.405 So we recommend counting features

NOTE Confidence: 0.883036816666667

00:35:22.405 --> 00:35:24.065 like mitoses per millimeter

NOTE Confidence: 0.883036816666667

00:35:24.065 --> 00:35:25.820 squared with an indication of the

NOTE Confidence: 0.883036816666667

00:35:25.820 --> 00:35:27.760 area to be counted and the method

NOTE Confidence: 0.883036816666667

00:35:27.760 --> 00:35:29.636 used which can be hot spot or

NOTE Confidence: 0.883036816666667

00:35:29.636 --> 00:35:31.200 average to obtain the results.

NOTE Confidence: 0.874205849090909

00:35:33.430 --> 00:35:35.440 These kind of graticule's on slides

NOTE Confidence: 0.874205849090909

00:35:35.440 --> 00:35:37.210 are actually available very freely.

NOTE Confidence: 0.874205849090909

00:35:37.210 --> 00:35:38.572 You can get them from Amazon

NOTE Confidence: 0.874205849090909

00:35:38.572 --> 00:35:39.480 for about $13.00 each.

NOTE Confidence: 0.874205849090909

00:35:39.480 --> 00:35:41.696 If you haven't got one and like one

NOTE Confidence: 0.874205849090909

00:35:41.700 --> 00:35:43.272 there should be one knocking around

NOTE Confidence: 0.874205849090909

00:35:43.272 --> 00:35:44.570 the department somewhere I'm sure,

NOTE Confidence: 0.874205849090909

00:35:44.570 --> 00:35:48.378 or possibly several and.

NOTE Confidence: 0.874205849090909

00:35:48.380 --> 00:35:52.220 The Convention is to use a 40 times

NOTE Confidence: 0.874205849090909

00:35:52.220 --> 00:35:54.164 objective, but if you use a 10

NOTE Confidence: 0.874205849090909

00:35:54.164 --> 00:35:56.324 times IPS or a 12 1/2 times IPS,

NOTE Confidence: 0.874205849090909

00:35:56.324 --> 00:35:57.804 of course you'll get something

NOTE Confidence: 0.874205849090909

00:35:57.804 --> 00:35:59.796 different and it's pile squared.

NOTE Confidence: 0.874205849090909

00:35:59.796 --> 00:36:01.068 Calculate the area.

NOTE Confidence: 0.874205849090909

00:36:01.070 --> 00:36:02.771 You only have to do it once

NOTE Confidence: 0.874205849090909

00:36:02.771 --> 00:36:03.500 for your microscope.

NOTE Confidence: 0.874205849090909

00:36:03.500 --> 00:36:05.426 I always had it on a sticky label on

NOTE Confidence: 0.874205849090909

00:36:05.426 --> 00:36:07.397 my microscope when I was reporting

NOTE Confidence: 0.874205849090909

00:36:07.400 --> 00:36:10.160 and it was something that I

NOTE Confidence: 0.874205849090909

00:36:10.160 --> 00:36:12.869 referred to virtually all the time.

NOTE Confidence: 0.874205849090909

00:36:12.870 --> 00:36:16.377 In terms of counting mitoses as well,

NOTE Confidence: 0.874205849090909

00:36:16.380 --> 00:36:18.018 it's important to know whether you're

NOTE Confidence: 0.874205849090909

00:36:18.018 --> 00:36:19.779 doing an average or random count,

NOTE Confidence: 0.874205849090909

00:36:19.780 --> 00:36:21.824 which may not be all that random

NOTE Confidence: 0.874205849090909

00:36:21.824 --> 00:36:23.796 unless you use a random number

NOTE Confidence: 0.874205849090909

00:36:23.796 --> 00:36:25.506 generator to do it properly,

NOTE Confidence: 0.874205849090909

00:36:25.510 --> 00:36:28.681 or a hotspot method and the hotspot

NOTE Confidence: 0.874205849090909

00:36:28.681 --> 00:36:32.179 North method is what is generally used,

NOTE Confidence: 0.874205849090909

00:36:32.180 --> 00:36:33.628 so these are contiguous.

NOTE Confidence: 0.886820143571429

00:36:35.940 --> 00:36:39.090 If. Microscope fields around a hot

NOTE Confidence: 0.886820143571429

00:36:39.090 --> 00:36:42.907 spot where you found a lot of mitoses.

NOTE Confidence: 0.886820143571429

00:36:42.910 --> 00:36:45.129 It's a little bit hit and miss,

NOTE Confidence: 0.886820143571429

00:36:45.130 --> 00:36:47.206 but it's better than most other

NOTE Confidence: 0.886820143571429

00:36:47.206 --> 00:36:49.146 things and it's been shown to

NOTE Confidence: 0.886820143571429

00:36:49.146 --> 00:36:52.669 be in various publications.

NOTE Confidence: 0.886820143571429

00:36:52.670 --> 00:36:54.590 There are quite a few examples

NOTE Confidence: 0.886820143571429

00:36:54.590 --> 00:36:56.634 here of of tumors, and this is only

NOTE Confidence: 0.886820143571429

00:36:56.634 --> 00:36:57.780 looking at the first few books,

NOTE Confidence: 0.886820143571429

00:36:57.780 --> 00:36:59.316 so it's by no means comprehensive,

NOTE Confidence: 0.886820143571429

00:36:59.320 --> 00:37:01.360 but it's just a few examples of things

NOTE Confidence: 0.886820143571429

00:37:01.360 --> 00:37:04.050 where there is a problem and reassessment

NOTE Confidence: 0.886820143571429

00:37:04.050 --> 00:37:06.580 of mitoses is probably worth while.

NOTE Confidence: 0.886820143571429

00:37:06.580 --> 00:37:09.492 The other reason why it's worthwhile to

NOTE Confidence: 0.886820143571429

00:37:09.492 --> 00:37:12.344 reassess mitoses in in tumors is because

NOTE Confidence: 0.886820143571429

00:37:12.344 --> 00:37:15.026 it is very often used prognostically.

NOTE Confidence: 0.886820143571429

00:37:15.030 --> 00:37:16.956 And prognosis changes depending on what

NOTE Confidence: 0.886820143571429

00:37:16.956 --> 00:37:19.071 the treatment is and if the treatment

NOTE Confidence: 0.886820143571429

00:37:19.071 --> 00:37:21.308 of the tumor has changed overtime,

NOTE Confidence: 0.886820143571429

00:37:21.308 --> 00:37:24.710 then what was done previously in terms

NOTE Confidence: 0.886820143571429

00:37:24.797 --> 00:37:27.726 of prognosis is a bit of a problem.

NOTE Confidence: 0.886820143571429

00:37:27.730 --> 00:37:30.914 I used to teach a lot of ophthalmologists

NOTE Confidence: 0.886820143571429

00:37:30.914 --> 00:37:32.511 about retinoblastoma and I would

NOTE Confidence: 0.886820143571429

00:37:32.511 --> 00:37:34.113 start by telling them all the

NOTE Confidence: 0.886820143571429

00:37:34.113 --> 00:37:36.145 things that were bad prognostic

NOTE Confidence: 0.886820143571429

00:37:36.145 --> 00:37:37.845 factors for retinoblastoma patients,

NOTE Confidence: 0.886820143571429

00:37:37.850 --> 00:37:40.690 and then say at the end of the lecture right,

NOTE Confidence: 0.886820143571429

00:37:40.690 --> 00:37:42.202 you can ignore all that once

NOTE Confidence: 0.886820143571429

00:37:42.202 --> 00:37:43.210 you pass the exam,

NOTE Confidence: 0.886820143571429

00:37:43.210 --> 00:37:45.346 because actually all these

NOTE Confidence: 0.886820143571429

00:37:45.346 --> 00:37:47.321 patients get chemotherapy and

NOTE Confidence: 0.886820143571429

00:37:47.321 --> 00:37:49.547 they all virtually all get cured.

NOTE Confidence: 0.886820143571429

00:37:49.550 --> 00:37:50.012 In fact,

NOTE Confidence: 0.886820143571429

00:37:50.012 --> 00:37:51.629 we had one death in eight years

NOTE Confidence: 0.886820143571429

00:37:51.629 --> 00:37:52.890 when I was at Morefield,

NOTE Confidence: 0.886820143571429

00:37:52.890 --> 00:37:57.950 so it is something that has to be looked at.

NOTE Confidence: 0.886820143571429

00:37:57.950 --> 00:38:03.110 In terms of treatment as well as pathology.

NOTE Confidence: 0.886820143571429

00:38:03.110 --> 00:38:04.601 We have a little bit of a

NOTE Confidence: 0.886820143571429

00:38:04.601 --> 00:38:05.619 challenge with statistics as well,

NOTE Confidence: 0.886820143571429

00:38:05.620 --> 00:38:07.618 so most biological data is skewed

NOTE Confidence: 0.886820143571429

00:38:07.618 --> 00:38:10.691 and if you use a mean you've got an

NOTE Confidence: 0.886820143571429

00:38:10.691 --> 00:38:12.780 error there which you don't have.

NOTE Confidence: 0.886820143571429

00:38:12.780 --> 00:38:14.140 If you use a medium,

NOTE Confidence: 0.886820143571429

00:38:14.140 --> 00:38:16.552 so the median is preferred by

NOTE Confidence: 0.886820143571429

00:38:16.552 --> 00:38:18.655 statisticians with a range because

NOTE Confidence: 0.886820143571429

00:38:18.655 --> 00:38:21.175 it's not affected by skewed data.

NOTE Confidence: 0.886820143571429

00:38:21.180 --> 00:38:24.140 In terms of genomics and most of you,

NOTE Confidence: 0.886820143571429

00:38:24.140 --> 00:38:27.630 I'm sure we will know this, but.

NOTE Confidence: 0.886820143571429

00:38:27.630 --> 00:38:30.070 B RAF V 600 E UM is written

NOTE Confidence: 0.886820143571429

00:38:30.070 --> 00:38:32.030 in all sorts of ways.

NOTE Confidence: 0.886820143571429

00:38:32.030 --> 00:38:34.350 This is the correct way to write it,

NOTE Confidence: 0.886820143571429

00:38:34.350 --> 00:38:36.618 and it's really important that that's done.

NOTE Confidence: 0.886820143571429

00:38:36.620 --> 00:38:38.718 If it's done with sequencing and

NOTE Confidence: 0.886820143571429

00:38:38.718 --> 00:38:40.446 if it's done using an antibody,

NOTE Confidence: 0.886820143571429

00:38:40.450 --> 00:38:42.742 then it's still important to say

NOTE Confidence: 0.886820143571429

00:38:42.742 --> 00:38:46.442 B RAF P dot V600E if you can,

NOTE Confidence: 0.886820143571429

00:38:46.442 --> 00:38:49.066 simply because that then tells everyone

NOTE Confidence: 0.886820143571429

00:38:49.066 --> 00:38:51.370 that you're looking at the protein.

NOTE Confidence: 0.886820143571429

00:38:51.370 --> 00:38:54.674 And the beer after course of its

NOTE Confidence: 0.886820143571429

00:38:54.674 --> 00:38:57.378 approaching should not be in italics.

NOTE Confidence: 0.886820143571429

00:38:57.380 --> 00:38:58.850 We very often, though I don't know,

NOTE Confidence: 0.886820143571429

00:38:58.850 --> 00:39:01.273 and I'm sure some of you have you

NOTE Confidence: 0.886820143571429

00:39:01.273 --> 00:39:02.791 sit in the clinical meeting and

NOTE Confidence: 0.886820143571429

00:39:02.791 --> 00:39:04.622 someone asked the B raft positive or

NOTE Confidence: 0.886820143571429

00:39:04.622 --> 00:39:06.313 negative on the Melanoma completely

NOTE Confidence: 0.886820143571429

00:39:06.313 --> 00:39:09.628 missing the point about mutation.

NOTE Confidence: 0.886820143571429

00:39:09.630 --> 00:39:10.750 In terms of histones,

NOTE Confidence: 0.886820143571429

00:39:10.750 --> 00:39:12.430 the problem is that the methionine,

NOTE Confidence: 0.886820143571429

00:39:12.430 --> 00:39:16.150 the little green one here and gets chopped

NOTE Confidence: 0.886820143571429

00:39:16.150 --> 00:39:19.360 off during production of the protein.

NOTE Confidence: 0.886820143571429

00:39:19.360 --> 00:39:21.817 And what that means is that the

NOTE Confidence: 0.886820143571429

00:39:21.817 --> 00:39:23.787 antibodies are all named according

NOTE Confidence: 0.886820143571429

00:39:23.787 --> 00:39:26.313 to the numbering of the protein.

NOTE Confidence: 0.886820143571429

00:39:26.320 --> 00:39:29.246 Once the methionine has been taken out

NOTE Confidence: 0.886820143571429

00:39:29.250 --> 00:39:32.250 and not what you get on a sequencer,

NOTE Confidence: 0.886820143571429

00:39:32.250 --> 00:39:33.828 which will give you a 28,

NOTE Confidence: 0.886820143571429

00:39:33.830 --> 00:39:37.136 not a 27 or 35, not a 34.

NOTE Confidence: 0.886820143571429

00:39:37.136 --> 00:39:39.346 So we've suggested that instead,

NOTE Confidence: 0.886820143571429

00:39:39.350 --> 00:39:42.920 what one should do is put the

NOTE Confidence: 0.889643139090909

00:39:42.920 --> 00:39:45.596 histological number if you like in

NOTE Confidence: 0.889643139090909

00:39:45.596 --> 00:39:48.471 brackets and the genetics number in

NOTE Confidence: 0.889643139090909

00:39:48.471 --> 00:39:51.837 genetics derived number in as you

NOTE Confidence: 0.889643139090909

00:39:51.837 --> 00:39:55.270 would normally in a in the system,

NOTE Confidence: 0.889643139090909

00:39:55.270 --> 00:39:56.908 and for some reason I've got a

NOTE Confidence: 0.889643139090909

00:39:56.908 --> 00:39:57.920 little hyphen appeared there,

NOTE Confidence: 0.889643139090909

00:39:57.920 --> 00:39:59.186 which wasn't supposed to be there.

NOTE Confidence: 0.889643139090909

00:39:59.190 --> 00:40:01.856 Apologies for that. Uhm?

NOTE Confidence: 0.889643139090909

00:40:01.856 --> 00:40:03.044 The fusion genes.

NOTE Confidence: 0.889643139090909

00:40:03.044 --> 00:40:05.960 This is literally hot off the press.

NOTE Confidence: 0.889643139090909

00:40:05.960 --> 00:40:07.780 This hasn't even got a payment yet,

NOTE Confidence: 0.889643139090909

00:40:07.780 --> 00:40:09.978 but it's just come out in leukemia

NOTE Confidence: 0.889643139090909

00:40:09.978 --> 00:40:11.803 and it suggests that rather

NOTE Confidence: 0.889643139090909

00:40:11.803 --> 00:40:13.435 than the previous notation,

NOTE Confidence: 0.889643139090909

00:40:13.440 --> 00:40:16.905 which was very confusing for fusion genes,

NOTE Confidence: 0.889643139090909

00:40:16.910 --> 00:40:20.060 we should use a double colon instead

NOTE Confidence: 0.889643139090909

00:40:20.060 --> 00:40:24.804 as the current system of using a hyphen

NOTE Confidence: 0.889643139090909

00:40:24.804 --> 00:40:28.801 or a forward slash is actually used

NOTE Confidence: 0.889643139090909

00:40:28.801 --> 00:40:32.510 in lots of other settings as well, so.

NOTE Confidence: 0.889643139090909

00:40:32.510 --> 00:40:34.547 The clever people Hugo came up with,

NOTE Confidence: 0.889643139090909

00:40:34.550 --> 00:40:38.534 and Elizabeth Bruford is is one of them.

NOTE Confidence: 0.889643139090909

00:40:38.540 --> 00:40:40.799 Came up with this idea of using two colons,

NOTE Confidence: 0.889643139090909

00:40:40.800 --> 00:40:42.648 and I think it's going to take.

NOTE Confidence: 0.889643139090909

00:40:42.650 --> 00:40:46.794 We are implementing that within the blue box.

NOTE Confidence: 0.889643139090909

00:40:46.800 --> 00:40:48.886 If you're interested in genetics are awful,

NOTE Confidence: 0.889643139090909

00:40:48.890 --> 00:40:50.690 lot of resource is available.

NOTE Confidence: 0.889643139090909

00:40:50.690 --> 00:40:52.370 I would point out variant

NOTE Confidence: 0.889643139090909

00:40:52.370 --> 00:40:53.378 validated down here,

NOTE Confidence: 0.889643139090909

00:40:53.380 --> 00:40:54.765 which is actually quite a

NOTE Confidence: 0.889643139090909

00:40:54.765 --> 00:40:58.390 useful one and we do as well.

NOTE Confidence: 0.889643139090909

00:40:58.390 --> 00:41:01.278 Obviously use some of the other things here.

NOTE Confidence: 0.889643139090909

00:41:01.280 --> 00:41:03.602 Gene names and gene cards I

NOTE Confidence: 0.889643139090909

00:41:03.602 --> 00:41:05.970 use quite a lot as well.

NOTE Confidence: 0.889643139090909

00:41:05.970 --> 00:41:08.157 I want to spend the last sort of 10

NOTE Confidence: 0.889643139090909

00:41:08.157 --> 00:41:11.732 minutes or so talking about research needs.

NOTE Confidence: 0.889643139090909

00:41:11.732 --> 00:41:14.258 Uhm, because we have lots of evidence gaps,

NOTE Confidence: 0.889643139090909

00:41:14.260 --> 00:41:15.368 we know they're there.

NOTE Confidence: 0.889643139090909

00:41:15.368 --> 00:41:17.781 If you look for the word unknown within

NOTE Confidence: 0.889643139090909

00:41:17.781 --> 00:41:19.857 virtually any of the blue books,

NOTE Confidence: 0.889643139090909

00:41:19.860 --> 00:41:21.582 you'll find 150.

NOTE Confidence: 0.889643139090909

00:41:21.582 --> 00:41:23.878 Also instances of it.

NOTE Confidence: 0.889643139090909

00:41:23.880 --> 00:41:25.458 And those are the things we

NOTE Confidence: 0.889643139090909

00:41:25.458 --> 00:41:26.510 know we don't know.

NOTE Confidence: 0.972576982857143

00:41:28.700 --> 00:41:33.348 In terms of of evidence gaps then.

NOTE Confidence: 0.972576982857143

00:41:33.350 --> 00:41:34.855 We have all sorts of things that

NOTE Confidence: 0.972576982857143

00:41:34.855 --> 00:41:36.388 have come out of the blue books,

NOTE Confidence: 0.972576982857143

00:41:36.390 --> 00:41:38.106 so we can actually say right?

NOTE Confidence: 0.972576982857143

00:41:38.110 --> 00:41:40.078 There's a need for more genetic

NOTE Confidence: 0.972576982857143

00:41:40.078 --> 00:41:41.390 studies of neuroendocrine tumors.

NOTE Confidence: 0.972576982857143

00:41:41.390 --> 00:41:42.538 There's a need for

NOTE Confidence: 0.972576982857143

00:41:42.538 --> 00:41:43.686 computational studies of Chi,

NOTE Confidence: 0.972576982857143

00:41:43.690 --> 00:41:46.930 67 perhaps of mitotic count.

NOTE Confidence: 0.972576982857143

00:41:46.930 --> 00:41:50.290 And we need to know what there is.

NOTE Confidence: 0.972576982857143

00:41:50.290 --> 00:41:51.730 So this was a this.

NOTE Confidence: 0.972576982857143

00:41:51.730 --> 00:41:53.942 This little list came out of a

NOTE Confidence: 0.972576982857143

00:41:53.942 --> 00:41:55.350 meeting on neuroendocrine tumors,

NOTE Confidence: 0.972576982857143

00:41:55.350 --> 00:41:58.074 which led to the current classification

NOTE Confidence: 0.972576982857143

00:41:58.074 --> 00:41:59.890 of new endocrine tumors,

NOTE Confidence: 0.972576982857143

00:41:59.890 --> 00:42:02.578 which has been applied across the series.

NOTE Confidence: 0.85151757625

00:42:07.670 --> 00:42:09.126 I'm a Scotsman and I'm sorry I've got

NOTE Confidence: 0.85151757625

00:42:09.126 --> 00:42:10.586 to give you a little bit of burns,

NOTE Confidence: 0.85151757625

00:42:10.590 --> 00:42:12.174 but there is a translation at the bottom

NOTE Confidence: 0.85151757625

00:42:12.174 --> 00:42:13.927 for those of you that are having a problem.

NOTE Confidence: 0.85151757625

00:42:13.930 --> 00:42:16.270 UM, facts are chiels at winner

NOTE Confidence: 0.85151757625

00:42:16.270 --> 00:42:19.261 Ding a downer be disputed. Uhm?

NOTE Confidence: 0.85151757625

00:42:19.261 --> 00:42:23.380 It's essentially an older version of facts

NOTE Confidence: 0.85151757625

00:42:23.380 --> 00:42:28.640 that are things that you can't dispute.

NOTE Confidence: 0.85151757625

00:42:28.640 --> 00:42:32.300 And. As Donald Rumsfeld put it,

NOTE Confidence: 0.85151757625

00:42:32.300 --> 00:42:33.472 we have known knowns.

NOTE Confidence: 0.85151757625

00:42:33.472 --> 00:42:35.769 We have things that we know we know.

NOTE Confidence: 0.85151757625

00:42:35.770 --> 00:42:38.011 They are straightforward.

NOTE Confidence: 0.85151757625

00:42:38.011 --> 00:42:40.999 They're not under any.

NOTE Confidence: 0.85151757625

00:42:41.000 --> 00:42:44.304 Control the C in pathology or anywhere else.

NOTE Confidence: 0.85151757625

00:42:44.310 --> 00:42:45.474 And there are plenty of those

NOTE Confidence: 0.85151757625

00:42:45.474 --> 00:42:46.250 in the blue books,

NOTE Confidence: 0.85151757625

00:42:46.250 --> 00:42:47.540 and it's sometimes hard to

NOTE Confidence: 0.85151757625

00:42:47.540 --> 00:42:48.830 find a reference for them,

NOTE Confidence: 0.85151757625

00:42:48.830 --> 00:42:52.430 because actually we know that true.

NOTE Confidence: 0.85151757625

00:42:52.430 --> 00:42:54.680 Then there were the known unknowns.

NOTE Confidence: 0.85151757625

00:42:54.680 --> 00:42:58.470 There are things we know we don't know,

NOTE Confidence: 0.85151757625

00:42:58.470 --> 00:43:00.787 and those are the unknowns that I've

NOTE Confidence: 0.85151757625

00:43:00.787 --> 00:43:02.927 talked about in the books so far.

NOTE Confidence: 0.85151757625

00:43:02.930 --> 00:43:05.690 But there are also undoubtedly a lot of

NOTE Confidence: 0.85151757625

00:43:05.690 --> 00:43:08.237 unknown knowns things that we've forgotten,

NOTE Confidence: 0.85151757625

00:43:08.240 --> 00:43:10.040 and a lot of that these days has

NOTE Confidence: 0.85151757625

00:43:10.040 --> 00:43:11.911 come from things like electron

NOTE Confidence: 0.85151757625

00:43:11.911 --> 00:43:13.276 microscopy and ultrastructure,

NOTE Confidence: 0.85151757625

00:43:13.280 --> 00:43:15.404 which is not very fashionable and

NOTE Confidence: 0.85151757625

00:43:15.404 --> 00:43:17.412 and it's quite surprising how little

NOTE Confidence: 0.85151757625

00:43:17.412 --> 00:43:19.274 of it gets into the blue box,

NOTE Confidence: 0.85151757625

00:43:19.280 --> 00:43:22.056 but I have pleased to say that in

NOTE Confidence: 0.85151757625

00:43:22.056 --> 00:43:24.153 the endocrine volume you'll find

NOTE Confidence: 0.85151757625

00:43:24.153 --> 00:43:26.368 that does happen because it's

NOTE Confidence: 0.85151757625

00:43:26.368 --> 00:43:28.509 still there still important.

NOTE Confidence: 0.85151757625

00:43:28.510 --> 00:43:30.078 And then we have the unknown unknowns.

NOTE Confidence: 0.85151757625

00:43:30.080 --> 00:43:31.100 The things we don't know.

NOTE Confidence: 0.85151757625

00:43:31.100 --> 00:43:33.188 We don't know,

NOTE Confidence: 0.85151757625

00:43:33.188 --> 00:43:35.972 and that's something that

NOTE Confidence: 0.85151757625

00:43:35.972 --> 00:43:37.786 really underpins research,

NOTE Confidence: 0.85151757625

00:43:37.786 --> 00:43:41.134 so by looking at tumors carefully

NOTE Confidence: 0.85151757625

00:43:41.134 --> 00:43:44.285 by looking at good well call

NOTE Confidence: 0.85151757625

00:43:44.285 --> 00:43:46.870 it well put together series.

NOTE Confidence: 0.85151757625

00:43:46.870 --> 00:43:49.458 And doing properly constructed

NOTE Confidence: 0.85151757625

00:43:49.458 --> 00:43:51.399 cohort studies with.

NOTE Confidence: 0.85151757625

00:43:51.400 --> 00:43:53.908 Protocols before you start the study,

NOTE Confidence: 0.85151757625

00:43:53.910 --> 00:43:55.639 we can certainly get a lot further

NOTE Confidence: 0.85151757625

71

00:43:55.639 --> 00:43:57.210 than we do. I think at the moment.

NOTE Confidence: 0.931615305714286

00:43:59.810 --> 00:44:02.988 And in terms of improving research quality.

NOTE Confidence: 0.931615305714286

00:44:02.990 --> 00:44:04.760 Why should it have lower standards

NOTE Confidence: 0.931615305714286

00:44:04.760 --> 00:44:06.378 when it affects gonna potentially

NOTE Confidence: 0.931615305714286

00:44:06.378 --> 00:44:08.722 affect huge numbers of patients than

NOTE Confidence: 0.931615305714286

00:44:08.722 --> 00:44:11.434 we would accept in clinical practice?

NOTE Confidence: 0.931615305714286

00:44:11.440 --> 00:44:13.715 So in clinical practice you would not

NOTE Confidence: 0.931615305714286

00:44:13.715 --> 00:44:15.953 accept a sample into your laboratory

NOTE Confidence: 0.931615305714286

00:44:15.953 --> 00:44:17.948 that didn't have 4 identifiers.

NOTE Confidence: 0.931615305714286

00:44:17.950 --> 00:44:20.686 But you would quite happily accept that into

NOTE Confidence: 0.931615305714286

00:44:20.686 --> 00:44:24.948 a research lab with just one in many cases.

NOTE Confidence: 0.931615305714286

00:44:24.950 --> 00:44:27.575 Drug approvals require two independent

NOTE Confidence: 0.931615305714286

00:44:27.575 --> 00:44:30.200 confirmatory phase three clinical studies.

NOTE Confidence: 0.931615305714286

00:44:30.200 --> 00:44:32.290 And what does pathology need?

NOTE Confidence: 0.931615305714286

00:44:32.290 --> 00:44:34.866 Well. I think it needs levels of

NOTE Confidence: 0.931615305714286

00:44:34.866 --> 00:44:37.299 evidence the same as anything else.

00:44:37.300 --> 00:44:39.410 We struggle with systematic reviews

00:44:39.410 --> 00:44:41.930 and pathology because they have to

00:44:41.930 --> 00:44:43.970 be systematic reviews of high level

00:44:43.970 --> 00:44:46.523 evidence and we struggle with getting

00:44:46.523 --> 00:44:48.963 hold of independent prospective studies.

00:44:48.970 --> 00:44:50.650 Of independent cohort studies

00:44:50.650 --> 00:44:51.910 of sufficient size.

00:44:51.910 --> 00:44:54.086 Sample size calculations are

00:44:54.086 --> 00:44:56.230 rarely stated in pathology papers.

00:44:56.230 --> 00:44:57.830 They need to be.

00:44:57.830 --> 00:45:00.854 Uhm and withdrawn often to case reports,

00:45:00.860 --> 00:45:04.676 small cohort studies or expert opinion.

00:45:04.680 --> 00:45:06.292 And that's still evidence.

00:45:06.292 --> 00:45:09.450 But it's not very high level evidence.

00:45:11.790 --> 00:45:13.686 So to try and answer this,

00:45:13.690 --> 00:45:16.648 having put together a process for

NOTE Confidence: 0.917421788333333

00:45:16.648 --> 00:45:19.237 production of the classification of tumors,

NOTE Confidence: 0.917421788333333

00:45:19.237 --> 00:45:22.174 we thought it was important to try and

NOTE Confidence: 0.917421788333333

00:45:22.174 --> 00:45:24.768 support the other side of the coin through

NOTE Confidence: 0.917421788333333

00:45:24.768 --> 00:45:27.508 setting up the international collaboration

NOTE Confidence: 0.917421788333333

00:45:27.508 --> 00:45:29.700 for cancer classification research.

NOTE Confidence: 0.917421788333333

00:45:29.700 --> 00:45:32.280 Uh, what that's about is,

NOTE Confidence: 0.917421788333333

00:45:32.280 --> 00:45:34.383 UM, evidence based.

NOTE Confidence: 0.917421788333333

00:45:34.383 --> 00:45:37.187 Science about best practice,

NOTE Confidence: 0.917421788333333

00:45:37.190 --> 00:45:40.500 guidance about standards and accreditation,

NOTE Confidence: 0.917421788333333

00:45:40.500 --> 00:45:42.380 and about information systems as

NOTE Confidence: 0.917421788333333

00:45:42.380 --> 00:45:45.098 well to try and reduce the vast

NOTE Confidence: 0.917421788333333

00:45:45.098 --> 00:45:47.396 amount of data produced every year

NOTE Confidence: 0.917421788333333

00:45:47.396 --> 00:45:49.420 to something that's manageable enough

NOTE Confidence: 0.917421788333333

00:45:49.420 --> 00:45:52.192 to pull through into a blue book.

NOTE Confidence: 0.917421788333333

00:45:52.200 --> 00:45:55.064 And at the same time we can feedback

NOTE Confidence: 0.917421788333333

00:45:55.064 --> 00:45:57.510 the priorities and gaps that we

NOTE Confidence: 0.917421788333333

00:45:57.510 --> 00:45:59.580 identify during the bluebooks process

NOTE Confidence: 0.917421788333333

00:45:59.580 --> 00:46:02.530 into the sound of that community.

NOTE Confidence: 0.917421788333333

00:46:02.530 --> 00:46:04.114 And this seems to have hit a bit

NOTE Confidence: 0.917421788333333

00:46:04.114 --> 00:46:06.010 of a chord with a lot of people,

NOTE Confidence: 0.917421788333333

00:46:06.010 --> 00:46:08.229 and it is a collaboration of institutions,

NOTE Confidence: 0.917421788333333

00:46:08.230 --> 00:46:10.260 not individuals I should add.

NOTE Confidence: 0.917421788333333

00:46:10.260 --> 00:46:12.828 So if you would like to join us,

NOTE Confidence: 0.917421788333333

00:46:12.830 --> 00:46:15.378 I'm sure that would be a great,

NOTE Confidence: 0.917421788333333

00:46:15.380 --> 00:46:17.008 gratefully received a lot.

NOTE Confidence: 0.917421788333333

00:46:17.008 --> 00:46:19.884 R and we're very grateful to those

NOTE Confidence: 0.917421788333333

00:46:19.884 --> 00:46:22.348 that have helped to set this up.

NOTE Confidence: 0.917421788333333

00:46:22.350 --> 00:46:24.429 I'm just going to show you one project from

NOTE Confidence: 0.917421788333333

00:46:24.429 --> 00:46:29.235 it and this is called the WCT evidence map.

NOTE Confidence: 0.917421788333333

00:46:29.235 --> 00:46:34.310 And it's so WTTW classification of tumors,

NOTE Confidence: 0.917421788333333

00:46:34.310 --> 00:46:34.825 obviously,

NOTE Confidence: 0.917421788333333

00:46:34.825 --> 00:46:39.184 and what this allows us to do is to

NOTE Confidence: 0.917421788333333

00:46:39.184 --> 00:46:42.200 have a tool which allows us to examine

NOTE Confidence: 0.917421788333333

00:46:42.294 --> 00:46:45.353 the blue books to identify what the

NOTE Confidence: 0.917421788333333

00:46:45.353 --> 00:46:48.388 evidence is and where it's lacking.

NOTE Confidence: 0.917421788333333

00:46:48.390 --> 00:46:49.934 This is a stylistic

NOTE Confidence: 0.917421788333333

00:46:49.934 --> 00:46:51.864 interpretations of maps you get,

NOTE Confidence: 0.917421788333333

00:46:51.870 --> 00:46:53.350 and that's what a real one looks like,

NOTE Confidence: 0.917421788333333

00:46:53.350 --> 00:46:54.966 and I don't expect you to read it,

NOTE Confidence: 0.917421788333333

00:46:54.970 --> 00:46:57.247 but you can see the blobs that are red,

NOTE Confidence: 0.917421788333333

00:46:57.250 --> 00:46:58.965 that I'm afraid is the low level

NOTE Confidence: 0.917421788333333

00:46:58.965 --> 00:47:00.730 evidence and the little green ones are

NOTE Confidence: 0.917421788333333

00:47:00.730 --> 00:47:02.750 the ones you really want to see Blues.

NOTE Confidence: 0.917421788333333

00:47:02.750 --> 00:47:05.487 OK, but green is high level evidence,

NOTE Confidence: 0.917421788333333

00:47:05.490 --> 00:47:07.262 and in epidemiology there's

NOTE Confidence: 0.917421788333333

00:47:07.262 --> 00:47:09.477 remarkably little for some tumors,

NOTE Confidence: 0.917421788333333

00:47:09.480 --> 00:47:10.950 but of course it does depend

NOTE Confidence: 0.917421788333333

00:47:10.950 --> 00:47:12.469 on how common the tumor is.

NOTE Confidence: 0.917421788333333

00:47:12.470 --> 00:47:14.318 It depends on how much funding

NOTE Confidence: 0.917421788333333

00:47:14.318 --> 00:47:15.770 has gone into researching it,

NOTE Confidence: 0.917421788333333

00:47:15.770 --> 00:47:17.078 and all sorts of other things,

NOTE Confidence: 0.917421788333333

00:47:17.080 --> 00:47:18.344 so it's not surprising.

NOTE Confidence: 0.917421788333333

00:47:18.344 --> 00:47:19.608 But we got this,

NOTE Confidence: 0.917421788333333

00:47:19.610 --> 00:47:21.885 but I think it's important information to

NOTE Confidence: 0.917421788333333

00:47:21.885 --> 00:47:24.234 know so that we know what we don't know.

NOTE Confidence: 0.84574880125

00:47:28.100 --> 00:47:29.129 I'm nearly finished,

NOTE Confidence: 0.84574880125

00:47:29.129 --> 00:47:31.982 but to just break come back to the

NOTE Confidence: 0.84574880125

00:47:31.982 --> 00:47:33.897 site of pathology reporting system

NOTE Confidence: 0.84574880125

00:47:33.897 --> 00:47:37.194 and talk about the mock up for The Who

NOTE Confidence: 0.84574880125

00:47:37.194 --> 00:47:39.930 psychopathology reporting system volumes,

NOTE Confidence: 0.84574880125

00:47:39.930 --> 00:47:42.107 which will be coming out next year.

NOTE Confidence: 0.84574880125

00:47:42.110 --> 00:47:44.198 And as you can see on the front,

NOTE Confidence: 0.84574880125

00:47:44.200 --> 00:47:46.545 we've got the World Health Organization IIRC,

NOTE Confidence: 0.84574880125

00:47:46.550 --> 00:47:49.630 and we've also got the

NOTE Confidence: 0.84574880125

00:47:49.630 --> 00:47:52.094 International Academy of Cytology.

NOTE Confidence: 0.84574880125

00:47:52.100 --> 00:47:54.172 It will look a little bit different

NOTE Confidence: 0.84574880125

00:47:54.172 --> 00:47:56.290 and it will have this. Uh.

NOTE Confidence: 0.84574880125

00:47:56.290 --> 00:47:59.470 I think it's it's probably fuchsia,

NOTE Confidence: 0.84574880125

00:47:59.470 --> 00:48:02.374 but we have a layout editor who

NOTE Confidence: 0.84574880125

00:48:02.374 --> 00:48:04.646 is far better at color than I am.

NOTE Confidence: 0.84574880125

00:48:04.650 --> 00:48:06.848 And she thought that was probably quite

NOTE Confidence: 0.84574880125

00:48:06.848 --> 00:48:09.212 a good idea to have something that

NOTE Confidence: 0.84574880125

00:48:09.212 --> 00:48:11.750 defined it meant that you didn't confuse

NOTE Confidence: 0.84574880125

00:48:11.750 --> 00:48:14.979 it with a blue book on the bookshelf.

NOTE Confidence: 0.84574880125

00:48:14.980 --> 00:48:17.410 We are still very much interested

NOTE Confidence: 0.84574880125

00:48:17.410 --> 00:48:19.030 in working on AI,

NOTE Confidence: 0.84574880125

00:48:19.030 --> 00:48:21.790 and one of the things that is fascinating

NOTE Confidence: 0.84574880125

00:48:21.790 --> 00:48:24.589 to me and it's it's part of some

NOTE Confidence: 0.84574880125

00:48:24.589 --> 00:48:27.267 work I started when I was in Warwick.

NOTE Confidence: 0.84574880125

00:48:27.270 --> 00:48:29.246 Is that there is?

NOTE Confidence: 0.84574880125

00:48:29.246 --> 00:48:29.740 Clearly,

NOTE Confidence: 0.84574880125

00:48:29.740 --> 00:48:31.370 a relationship between the genetics

NOTE Confidence: 0.84574880125

00:48:31.370 --> 00:48:33.000 of tumors and their histopathology.

NOTE Confidence: 0.84574880125

00:48:33.000 --> 00:48:34.324 All there should be.

NOTE Confidence: 0.84574880125

00:48:34.324 --> 00:48:35.648 Because there's a relationship,

NOTE Confidence: 0.84574880125

00:48:35.650 --> 00:48:37.288 but doing the genetics of tumors

NOTE Confidence: 0.84574880125

00:48:37.288 --> 00:48:38.107 and their behavior,

NOTE Confidence: 0.84574880125

00:48:38.110 --> 00:48:40.102 so we should be able to see that

NOTE Confidence: 0.84574880125

00:48:40.102 --> 00:48:41.658 reflected in this to pathology.

NOTE Confidence: 0.84574880125

00:48:41.660 --> 00:48:43.298 It's actually been quite a hard

NOTE Confidence: 0.84574880125

00:48:43.298 --> 00:48:44.117 thing to demonstrate,

NOTE Confidence: 0.84574880125

00:48:44.120 --> 00:48:47.473 but here in colorectal cancer using TCGA

NOTE Confidence: 0.84574880125

00:48:47.473 --> 00:48:50.797 data we've been able to do just that,

NOTE Confidence: 0.84574880125

00:48:50.800 --> 00:48:53.236 and the rock the rock curves here.

NOTE Confidence: 0.84574880125

00:48:53.240 --> 00:48:55.096 The receiver operator characteristic

NOTE Confidence: 0.84574880125

00:48:55.096 --> 00:48:59.152 curves and not too bad the area

NOTE Confidence: 0.84574880125

00:48:59.152 --> 00:49:01.528 under them is about .89 best,

NOTE Confidence: 0.84574880125

00:49:01.528 --> 00:49:03.232 which is almost at the point

NOTE Confidence: 0.84574880125

00:49:03.232 --> 00:49:05.031 where you start thinking about

NOTE Confidence: 0.84574880125

00:49:05.031 --> 00:49:06.587 putting it into practice,

NOTE Confidence: 0.84574880125

00:49:06.590 --> 00:49:09.151 so it may be possible to

NOTE Confidence: 0.84574880125

00:49:09.151 --> 00:49:12.406 identify some of the genetics.

NOTE Confidence: 0.84574880125

00:49:12.410 --> 00:49:14.462 That we need to treat patients

NOTE Confidence: 0.84574880125

00:49:14.462 --> 00:49:16.853 with from artificial intelligence

NOTE Confidence: 0.84574880125

00:49:16.853 --> 00:49:19.577 based assessment of histopathology.

NOTE Confidence: 0.84574880125

00:49:19.580 --> 00:49:22.091 And the other thing it tells us is

NOTE Confidence: 0.84574880125

00:49:22.091 --> 00:49:23.946 which are actually the important

NOTE Confidence: 0.84574880125

00:49:23.946 --> 00:49:26.507 features that we talk about when we

NOTE Confidence: 0.84574880125

00:49:26.507 --> 00:49:29.299 look down a microscope for defining the

NOTE Confidence: 0.84574880125

00:49:29.299 --> 00:49:31.714 characteristics of the patients tumor.

NOTE Confidence: 0.89681032

00:49:34.060 --> 00:49:35.665 So I'll finish by talking

NOTE Confidence: 0.89681032

00:49:35.665 --> 00:49:37.690 about how how you can help.

NOTE Confidence: 0.89681032

00:49:37.690 --> 00:49:39.832 First of all, if you can provide

NOTE Confidence: 0.89681032

00:49:39.832 --> 00:49:41.821 the evidence by doing research,

NOTE Confidence: 0.89681032

00:49:41.821 --> 00:49:43.649 that's a big help.

NOTE Confidence: 0.89681032

00:49:43.650 --> 00:49:46.098 Uhm, and and don't think that when you

NOTE Confidence: 0.89681032

00:49:46.098 --> 00:49:48.360 published the paper that's the end of it.

NOTE Confidence: 0.89681032

00:49:48.360 --> 00:49:52.368 It's a question of taking that research and.

NOTE Confidence: 0.89681032

00:49:52.370 --> 00:49:54.770 Pushing it in the direction where it will

NOTE Confidence: 0.89681032

00:49:54.770 --> 00:49:57.116 get into practice if at all possible.

NOTE Confidence: 0.89681032

00:49:57.120 --> 00:49:58.590 And then evaluate the evidence.

NOTE Confidence: 0.89681032

00:49:58.590 --> 00:50:00.200 Systematic review learn how to

NOTE Confidence: 0.89681032

00:50:00.200 --> 00:50:01.488 do systematic review properly,

NOTE Confidence: 0.89681032

00:50:01.490 --> 00:50:02.946 and it's not simple.

NOTE Confidence: 0.89681032

00:50:02.946 --> 00:50:06.107 You have to learn how to write protocols

NOTE Confidence: 0.89681032

00:50:06.107 --> 00:50:10.620 for it and assess evidence for bias,

NOTE Confidence: 0.89681032

00:50:10.620 --> 00:50:11.530 particularly.

NOTE Confidence: 0.89681032

00:50:11.530 --> 00:50:13.722 And it is quite a challenge to look

NOTE Confidence: 0.89681032

00:50:13.722 --> 00:50:15.339 through large numbers of papers.

NOTE Confidence: 0.901708019375

00:50:17.350 --> 00:50:19.460 And then if you buy the books or the website

NOTE Confidence: 0.901708019375

00:50:19.513 --> 00:50:21.337 you are actually funding the evidence.

NOTE Confidence: 0.901708019375

00:50:21.340 --> 00:50:23.725 So thank you very much indeed for doing that,

NOTE Confidence: 0.901708019375

00:50:23.730 --> 00:50:26.348 because that keeps the whole thing going.

NOTE Confidence: 0.901708019375

00:50:26.350 --> 00:50:28.678 And finally, let us know what you think.

NOTE Confidence: 0.901708019375

00:50:28.680 --> 00:50:30.856 You can give us feedback on the website.

NOTE Confidence: 0.901708019375

00:50:30.860 --> 00:50:33.668 You can certainly email us a lot of people.

NOTE Confidence: 0.901708019375

00:50:33.670 --> 00:50:36.021 Do I get an awful lot of emails and

NOTE Confidence: 0.901708019375

00:50:36.021 --> 00:50:38.547 we're always open to receiving cases

NOTE Confidence: 0.901708019375

00:50:38.547 --> 00:50:40.366 which are better representative

NOTE Confidence: 0.901708019375

00:50:40.366 --> 00:50:43.216 cases than those in the books.

NOTE Confidence: 0.901708019375

00:50:43.220 --> 00:50:45.796 And if course, if you find any errors,

NOTE Confidence: 0.901708019375

00:50:45.800 --> 00:50:47.555 do tell us because that's

NOTE Confidence: 0.901708019375

00:50:47.555 --> 00:50:49.860 the way we get them fixed.

NOTE Confidence: 0.901708019375

00:50:49.860 --> 00:50:50.784 So in conclusion,

NOTE Confidence: 0.901708019375

00:50:50.784 --> 00:50:52.940 there is a need for all cancer

NOTE Confidence: 0.901708019375

00:50:53.012 --> 00:50:54.684 diagnosticians to contribute to

NOTE Confidence: 0.901708019375

00:50:54.684 --> 00:50:56.774 research to gather the evidence

NOTE Confidence: 0.901708019375

00:50:56.774 --> 00:50:58.992 a patient needs and to evaluate

NOTE Confidence: 0.901708019375

00:50:58.992 --> 00:51:02.370 that evidence for use in practice.

NOTE Confidence: 0.901708019375

00:51:02.370 --> 00:51:04.350 Our diagnosis underpinned the

NOTE Confidence: 0.901708019375

00:51:04.350 --> 00:51:06.330 management of individual patients

NOTE Confidence: 0.901708019375

00:51:06.330 --> 00:51:08.450 Cancer Research and epidemiology.

NOTE Confidence: 0.901708019375

00:51:08.450 --> 00:51:10.830 It's pretty important stuff.

NOTE Confidence: 0.901708019375

00:51:10.830 --> 00:51:12.862 In terms of implementation

NOTE Confidence: 0.901708019375

00:51:12.862 --> 00:51:14.386 of academic research,

NOTE Confidence: 0.901708019375

00:51:14.390 --> 00:51:17.878 pathology is almost unique.

NOTE Confidence: 0.901708019375

00:51:17.878 --> 00:51:20.820 In being able to do that itself

NOTE Confidence: 0.901708019375

00:51:20.820 --> 00:51:22.673 through the WTO classification of

NOTE Confidence: 0.901708019375

00:51:22.673 --> 00:51:24.748 tumors which provide the international

NOTE Confidence: 0.901708019375

00:51:24.748 --> 00:51:26.408 standards for knowing motors,

NOTE Confidence: 0.901708019375

00:51:26.410 --> 00:51:28.656 you can't do that with drugs and you

NOTE Confidence: 0.901708019375

00:51:28.656 --> 00:51:31.070 can't do it with a lot of other things.

NOTE Confidence: 0.901708019375

00:51:31.070 --> 00:51:33.742 Which gulf governments really

NOTE Confidence: 0.901708019375

00:51:33.742 --> 00:51:36.414 are the arbiters of?

NOTE Confidence: 0.901708019375

00:51:36.420 --> 00:51:38.604 So we have a joint responsibility

NOTE Confidence: 0.901708019375

00:51:38.604 --> 00:51:41.035 to ensure the accuracy of the

NOTE Confidence: 0.901708019375

00:51:41.035 --> 00:51:43.578 classification and to fill gaps

NOTE Confidence: 0.901708019375

00:51:43.578 --> 00:51:45.666 and knowledge wherever possible.

NOTE Confidence: 0.901708019375

00:51:45.670 --> 00:51:48.526 So thank you for your attention.

NOTE Confidence: 0.901708019375

00:51:48.530 --> 00:51:50.912 This is the tower which I

00:51:50.912 --> 00:51:52.103 are currently inhabits.

00:51:52.110 --> 00:51:55.197 It isn't in great condition and the

00:51:55.197 --> 00:51:57.818 French government is very kindly building

00:51:57.818 --> 00:52:00.700 us a new Center for the International

00:52:00.700 --> 00:52:02.800 Agency for Research on cancer,

00:52:02.800 --> 00:52:05.218 which will really be a focus

00:52:05.218 --> 00:52:06.427 for international Cancer

00:52:06.427 --> 00:52:07.999 Research around the world.

00:52:08.000 --> 00:52:11.660 And a nice view of of of Lyon in the summer.

00:52:11.660 --> 00:52:15.174 And thanks to my team in Leon,

00:52:15.174 --> 00:52:17.959 which has worked so hard,

00:52:17.960 --> 00:52:19.720 particularly on the 5th edition.

00:52:19.720 --> 00:52:22.216 And I'm also grateful to two

00:52:22.220 --> 00:52:24.420 distinguished visitors, Valerie White,

00:52:24.420 --> 00:52:27.720 from Vancouver and Delani Luca Hattie,

00:52:27.720 --> 00:52:30.868 from Colombo, Sri Lanka.

NOTE Confidence: 0.901708019375

00:52:30.870 --> 00:52:31.790 Thank you very much.

NOTE Confidence: 0.830564136

00:52:34.360 --> 00:52:36.990 Thank you so much Ian,

NOTE Confidence: 0.830564136

00:52:36.990 --> 00:52:39.726 that it was really a pleasure.

NOTE Confidence: 0.830564136

00:52:39.730 --> 00:52:42.772 To understand what goes behind the

NOTE Confidence: 0.830564136

00:52:42.772 --> 00:52:45.740 scenes in producing these beautiful,

NOTE Confidence: 0.830564136

00:52:45.740 --> 00:52:48.104 extremely affordable and

NOTE Confidence: 0.830564136

00:52:48.104 --> 00:52:50.468 extremely user-friendly books,

NOTE Confidence: 0.830564136

00:52:50.470 --> 00:52:52.090 I do have a question.

NOTE Confidence: 0.830564136

00:52:52.090 --> 00:52:55.495 Since you mentioned how difficult

NOTE Confidence: 0.830564136

00:52:55.495 --> 00:52:58.093 it is to gather evidence.

NOTE Confidence: 0.830564136

00:52:58.093 --> 00:52:59.326 So in pathology,

NOTE Confidence: 0.830564136

00:52:59.330 --> 00:53:03.838 most of the work we produce is

NOTE Confidence: 0.830564136

00:53:03.838 --> 00:53:05.770 retrospective and observational.

NOTE Confidence: 0.830564136

00:53:05.770 --> 00:53:10.590 And it's really getting harder to get.

NOTE Confidence: 0.830564136

00:53:10.590 --> 00:53:13.425 Follow up on many of these patients,

86

NOTE Confidence: 0.830564136

00:53:13.430 --> 00:53:16.808 so is there any future for

NOTE Confidence: 0.830564136

00:53:16.808 --> 00:53:19.060 retrospective and observational data?

NOTE Confidence: 0.895524865833333

00:53:20.230 --> 00:53:24.190 Yes, I think I think there is an I

NOTE Confidence: 0.895524865833333

00:53:24.190 --> 00:53:26.433 mean the the. The there's certainly,

NOTE Confidence: 0.895524865833333

00:53:26.433 --> 00:53:28.260 you know it's very easy when you

NOTE Confidence: 0.895524865833333

00:53:28.308 --> 00:53:29.834 look at levels of evidence and you

NOTE Confidence: 0.895524865833333

00:53:29.834 --> 00:53:31.630 say Oh dear opinions worth nothing.

NOTE Confidence: 0.895524865833333

00:53:31.630 --> 00:53:33.338 Therefore, the review I published last month,

NOTE Confidence: 0.895524865833333

00:53:33.340 --> 00:53:35.097 I might as well not have bothered.

NOTE Confidence: 0.895524865833333

00:53:35.100 --> 00:53:36.654 I did a case report last year

NOTE Confidence: 0.895524865833333

00:53:36.654 --> 00:53:37.980 with one of my juniors.

NOTE Confidence: 0.895524865833333

00:53:37.980 --> 00:53:39.390 I shouldn't bother doing that either.

NOTE Confidence: 0.895524865833333

00:53:39.390 --> 00:53:41.182 That's not the case.

NOTE Confidence: 0.895524865833333

00:53:41.182 --> 00:53:43.755 Actually, my sixth case report my

NOTE Confidence: 0.895524865833333

00:53:43.755 --> 00:53:47.420 6th postmortem autopsy when I was

NOTE Confidence: 0.895524865833333

00:53:47.420 --> 00:53:48.878 training led to the withdrawal

00:53:48.878 --> 00:53:50.090 of a drug from the market.

00:53:50.090 --> 00:53:52.199 It was dangerous.

00:53:52.200 --> 00:53:55.290 So Uhm, case reports matter.

00:53:55.290 --> 00:53:57.780 That was a case report.

00:53:57.780 --> 00:53:59.215 And you can learn an awful lot

00:53:59.215 --> 00:54:00.250 from some case reports.

00:54:00.250 --> 00:54:02.035 We talk about the end of one

00:54:02.035 --> 00:54:04.210 trial in in oncology quite often,

00:54:04.210 --> 00:54:06.746 so there are things that we can do

00:54:06.746 --> 00:54:09.408 with case reports with small studies.

00:54:09.410 --> 00:54:12.476 Even better if we can band together

00:54:12.476 --> 00:54:14.715 internationally and actually get bigger

00:54:14.715 --> 00:54:17.670 studies put together on samples that

00:54:17.670 --> 00:54:21.438 we collect prospectively with a protocol.

00:54:21.440 --> 00:54:23.920 And then we've got a chance of getting

00:54:23.920 --> 00:54:26.087 some proper funding into it as well.

00:54:26.090 --> 00:54:29.156 And and we probably find we can

00:54:29.156 --> 00:54:31.066 go beyond pathology and pathology

00:54:31.066 --> 00:54:32.854 is simply the study of disease.

00:54:32.860 --> 00:54:35.240 So how we do it?

00:54:35.240 --> 00:54:37.220 Doesn't really matter whether

00:54:37.220 --> 00:54:39.200 it's with a microscope.

00:54:39.200 --> 00:54:41.360 Or an MRI.

00:54:41.360 --> 00:54:46.370 Or sequencing device doesn't actually matter.

00:54:46.370 --> 00:54:48.290 What we what we need to do is

00:54:48.290 --> 00:54:49.890 know what our questions are

00:54:49.890 --> 00:54:51.710 and what we were trying to do.

00:54:51.710 --> 00:54:53.990 Classification in its own right

00:54:53.990 --> 00:54:56.270 taxonomy is actually something that

00:54:56.343 --> 00:54:59.140 I think matters and which we can.

00:54:59.140 --> 00:55:01.648 We can almost certainly do better

NOTE Confidence: 0.895524865833333

00:55:01.648 --> 00:55:04.563 with than we are at the moment

NOTE Confidence: 0.895524865833333

00:55:04.563 --> 00:55:06.493 and get people to fund.

NOTE Confidence: 0.895524865833333

00:55:06.500 --> 00:55:09.590 So I think the future is

NOTE Confidence: 0.895524865833333

00:55:09.590 --> 00:55:11.135 pretty bright actually.

NOTE Confidence: 0.895524865833333

00:55:11.140 --> 00:55:11.444 That said,

NOTE Confidence: 0.895524865833333

00:55:11.444 --> 00:55:12.660 you can still do an awful lot of

NOTE Confidence: 0.895524865833333

00:55:12.697 --> 00:55:13.930 the microscope there, graticule.

NOTE Confidence: 0.828753778181818

00:55:16.090 --> 00:55:19.252 Uhm? Thank you, there is a

NOTE Confidence: 0.828753778181818

00:55:19.252 --> 00:55:22.010 question posted in the chat.

NOTE Confidence: 0.828753778181818

00:55:22.010 --> 00:55:23.558 Is there an electronic

NOTE Confidence: 0.828753778181818

00:55:23.558 --> 00:55:25.106 version of these books?

NOTE Confidence: 0.828753778181818

00:55:25.110 --> 00:55:27.680 For example, is the database

NOTE Confidence: 0.828753778181818

00:55:27.680 --> 00:55:30.952 behind it is available for download

NOTE Confidence: 0.828753778181818

00:55:30.952 --> 00:55:33.987 and use in electronic systems?

NOTE Confidence: 0.828753778181818

00:55:33.990 --> 00:55:37.553 Is there an API for querying the

00:55:37.553 --> 00:55:40.911 latest version of the database via

00:55:40.911 --> 00:55:43.917 a public or paid Internet access?

00:55:45.040 --> 00:55:47.632 Right, so that that that's a

00:55:47.632 --> 00:55:49.360 that's a multiple question.

00:55:49.360 --> 00:55:50.940 It's a good one too.

00:55:50.940 --> 00:55:54.316 The answer is that it's not easily available,

00:55:54.320 --> 00:55:56.010 it is a SQL database.

00:55:56.010 --> 00:56:00.007 So theoretically, yes, you can do it.

00:56:00.010 --> 00:56:02.698 We've got the, uh, electronic system

00:56:02.698 --> 00:56:05.580 going in terms of the website,

00:56:05.580 --> 00:56:07.956 so the website is is searchable,

00:56:07.960 --> 00:56:09.952 so you can do searches on

00:56:09.952 --> 00:56:11.650 the website and it's not.

00:56:11.650 --> 00:56:13.346 A sophisticated, not sophisticated,

00:56:13.346 --> 00:56:15.466 perhaps as it might be.

00:56:15.470 --> 00:56:17.906 But it could become more sophisticated,

NOTE Confidence: 0.91996421

00:56:17.910 --> 00:56:20.290 and I think we'd be very open

NOTE Confidence: 0.91996421

00:56:20.290 --> 00:56:22.528 to working with people on that.

NOTE Confidence: 0.91996421

00:56:22.530 --> 00:56:24.626 In terms of what we have to safeguard,

NOTE Confidence: 0.91996421

00:56:24.630 --> 00:56:26.286 clearly we have to safeguard the

NOTE Confidence: 0.91996421

00:56:26.286 --> 00:56:28.129 income of the of the program.

NOTE Confidence: 0.91996421

00:56:28.130 --> 00:56:29.494 'cause if we don't,

NOTE Confidence: 0.91996421

00:56:29.494 --> 00:56:30.858 we've got a problem.

NOTE Confidence: 0.91996421

00:56:30.860 --> 00:56:33.800 But there are.

NOTE Confidence: 0.91996421

00:56:33.800 --> 00:56:35.564 You know there are examples of where

NOTE Confidence: 0.91996421

00:56:35.564 --> 00:56:37.230 that's been done very successfully,

NOTE Confidence: 0.91996421

00:56:37.230 --> 00:56:39.396 for instance Genomics England have done

NOTE Confidence: 0.91996421

00:56:39.396 --> 00:56:42.337 it with their data so you can access that.

NOTE Confidence: 0.91996421

00:56:42.340 --> 00:56:44.716 It's just been done as well for a

NOTE Confidence: 0.91996421

00:56:44.716 --> 00:56:47.163 very large pathology set up in the

NOTE Confidence: 0.91996421

00:56:47.163 --> 00:56:49.360 middle of England called Path Lake,

NOTE Confidence: 0.91996421

00:56:49.360 --> 00:56:51.988 which has half a million annotated

NOTE Confidence: 0.91996421

00:56:51.990 --> 00:56:56.556 whole slide images. So there are.

NOTE Confidence: 0.91996421

00:56:56.560 --> 00:56:58.156 There are ways of doing it.

NOTE Confidence: 0.91996421

00:56:58.160 --> 00:56:59.580 The short, the short question.

NOTE Confidence: 0.91996421

00:56:59.580 --> 00:57:01.340 The short answer though.

NOTE Confidence: 0.91996421

00:57:01.340 --> 00:57:01.780 Sure.

NOTE Confidence: 0.863075672142857

00:57:03.480 --> 00:57:06.420 So I say no more questions and

NOTE Confidence: 0.863075672142857

00:57:06.420 --> 00:57:09.450 it's time to wrap up and come.

NOTE Confidence: 0.863075672142857

00:57:09.450 --> 00:57:12.915 I would just remind the audience that

NOTE Confidence: 0.863075672142857

00:57:12.915 --> 00:57:17.272 you are welcome to volunteer contact Dr,

NOTE Confidence: 0.863075672142857

00:57:17.272 --> 00:57:19.978 Cree and volunteer.

NOTE Confidence: 0.863075672142857

00:57:19.980 --> 00:57:24.212 In data analysis, or in any way you

NOTE Confidence: 0.863075672142857

00:57:24.212 --> 00:57:27.689 think your talents can be used.

NOTE Confidence: 0.863075672142857

00:57:27.690 --> 00:57:31.658 I hand over to Doctor Lu our chair.

NOTE Confidence: 0.863075672142857

00:57:31.660 --> 00:57:34.495 Yeah, thank you and I will

NOTE Confidence: 0.863075672142857

00:57:34.495 --> 00:57:35.587 share my screen now.

NOTE Confidence: 0.863075672142857

00:57:35.587 --> 00:57:37.551 Thanks talk to create for your

NOTE Confidence: 0.863075672142857

00:57:37.551 --> 00:57:40.280 coming and I I think unfortunately

NOTE Confidence: 0.863075672142857

00:57:40.280 --> 00:57:42.930 we couldn't do it in person and

NOTE Confidence: 0.863075672142857

00:57:42.930 --> 00:57:45.145 couldn't present you some token

NOTE Confidence: 0.863075672142857

00:57:45.145 --> 00:57:47.234 to you know on behalf of the

NOTE Confidence: 0.863075672142857

00:57:47.234 --> 00:57:48.350 department and our faculty.

NOTE Confidence: 0.863075672142857

00:57:48.350 --> 00:57:53.338 So I think you know we come up with this.

NOTE Confidence: 0.863075672142857

00:57:53.340 --> 00:57:54.549 Play, you know

NOTE Confidence: 0.52324906

00:57:54.560 --> 00:57:56.828 it will mail it will. So this is,

NOTE Confidence: 0.52324906

00:57:56.828 --> 00:57:58.621 uh, we're not just giving you a

NOTE Confidence: 0.52324906

00:57:58.621 --> 00:58:00.547 virtual plug, it's real well alright

NOTE Confidence: 0.83883622625

00:58:01.020 --> 00:58:03.422 yeah it will be a real life this is a

NOTE Confidence: 0.83883622625

00:58:03.422 --> 00:58:05.330 picture of that and I hope you know this

NOTE Confidence: 0.812138748

00:58:05.340 --> 00:58:07.580 we just you know really you

NOTE Confidence: 0.812138748

00:58:07.580 --> 00:58:09.140 know express our gratitude

NOTE Confidence: 0.790118417142857

00:58:09.170 --> 00:58:10.969 and if we are leadership for this,

NOTE Confidence: 0.790118417142857

00:58:10.970 --> 00:58:12.530 you know you know great book

NOTE Confidence: 0.790118417142857

00:58:12.530 --> 00:58:15.248 which is making such immense

NOTE Confidence: 0.8420460125

00:58:15.280 --> 00:58:17.688 impact on pathology practice

NOTE Confidence: 0.821437057

00:58:18.040 --> 00:58:19.790 and I think it also this is

NOTE Confidence: 0.821437057

00:58:19.790 --> 00:58:20.790 just a reminder, you know

NOTE Confidence: 0.857323739166667

00:58:20.800 --> 00:58:23.230 we are ready to, you know to work with

NOTE Confidence: 0.857323739166667

00:58:23.230 --> 00:58:25.698 you to collaborate. And best wishes for

NOTE Confidence: 0.818790425

00:58:25.710 --> 00:58:27.456 the next. You know, the 5th

NOTE Confidence: 0.818790425

00:58:27.460 --> 00:58:29.630 edition of the Blue Book and

NOTE Confidence: 0.818790425

00:58:29.630 --> 00:58:30.998 thank you very much and saying,

NOTE Confidence: 0.863241586666667

00:58:31.010 --> 00:58:32.465 you know, hopefully we can

NOTE Confidence: 0.863241586666667

00:58:32.465 --> 00:58:33.904 see you in person sometime.

NOTE Confidence: 0.863241586666667

00:58:33.904 --> 00:58:35.576 You know either in your place

NOTE Confidence: 0.863241586666667

00:58:35.576 --> 00:58:37.574 or in our place in the future.

NOTE Confidence: 0.863241586666667

00:58:37.574 --> 00:58:40.226 Thank you, appreciate and I will say it.

NOTE Confidence: 0.863241586666667

00:58:40.226 --> 00:58:40.928 You thanks doctor.

NOTE Confidence: 0.863241586666667

00:58:40.930 --> 00:58:42.943 You know Manju Prasad,

NOTE Confidence: 0.863241586666667

00:58:42.943 --> 00:58:44.718 you know she this is her

NOTE Confidence: 0.756825729375

00:58:44.730 --> 00:58:46.935 idea. So I'm just kind of presented

NOTE Confidence: 0.756825729375

00:58:46.935 --> 00:58:49.164 her idea in this is great that

NOTE Confidence: 0.756825729375

00:58:49.164 --> 00:58:50.930 you know you know idea to get. You

NOTE Confidence: 0.706741445

00:58:50.940 --> 00:58:55.170 know they will this you know present.

NOTE Confidence: 0.706741445

00:58:55.170 --> 00:58:56.330 Thank you very much indeed.

NOTE Confidence: 0.706741445

00:58:56.330 --> 00:58:57.255 It's been a great honor

NOTE Confidence: 0.706741445

00:58:57.255 --> 00:58:58.430 and a privilege to be here,

NOTE Confidence: 0.706741445

00:58:58.430 --> 00:59:00.015 and I've enjoyed talking to

NOTE Confidence: 0.706741445

00:59:00.015 --> 00:59:02.120 some of you over the afternoon

NOTE Confidence: 0.706741445

00:59:02.120 --> 00:59:03.916 and my afternoon anyway.

NOTE Confidence: 0.706741445

00:59:03.920 --> 00:59:07.120 And I hope the rest of the day for you

NOTE Confidence: 0.706741445

00:59:07.205 --> 00:59:09.770 goes well and I'm sure we will be in touch.

NOTE Confidence: 0.706741445

00:59:09.770 --> 00:59:10.526 Thank you.

NOTE Confidence: 0.706741445

00:59:10.526 --> 00:59:12.416 OK, thank you very much.

NOTE Confidence: 0.706741445

00:59:12.420 --> 00:59:12.920 Thank you.